NEW YORK STATE | Department of Environmental Conservation

KATHY HOCHUL
Governor

AMANDA LEFTON
Commissioner

December 23, 2025

Shane Blauvelt, P.E.
Honeywell International, Inc.
301 Plainfield Road
Suite 330
Syracuse, NY 13212

Re: Onondaga Lake 2022 Monitoring and Maintenance Report (734030)

Dear Shane:

The New York State Department of Environmental Conservation (NYSDEC) has received and reviewed the "Onondaga Lake 2022 Monitoring and Maintenance Report" dated December 2025. Based on our review, the document is approved. Please see that this document, along with this approval letter, is sent to the document distribution list. If you have any questions, please contact me at 518-402-9796.

Sincerely,

Tracy A. Smith

Tracy A. Smith
Project Manager

ecc:
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December 23, 2025

Mr. Tracy Smith
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau D
625 Broadway – 12th Floor
Albany, New York 12233-7016

RE: Onondaga Lake 2022 Monitoring and Maintenance Report
Consent Order No: 89-CV-815; Site No 734030

Dear Mr. Smith:

In response to the December 23, 2025 NYSDEC comments, enclosed is the Final Onondaga Lake 2022 Monitoring and Maintenance Report for your review and approval.

In an ongoing effort to be eco-friendly, we are sending this document electronically only, unless we hear otherwise from you. Please feel free to contact Mark Arrigo at 315.552.9684 if you have any questions or require additional information.

Sincerely,

Shane R Blauvelt

Shane Blauvelt, PE
Senior Remediation Manager

Enclosure

ec: Mike Spera, AECOM
Mark Arrigo, Parsons

ONONDAGA LAKE
2022 MONITORING AND MAINTENANCE REPORT

ONONDAGA COUNTY, NEW YORK

Prepared For:

Honeywell

301 Plainfield Road
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Prepared By:

PARSONS

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DECEMBER 2025

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ATTACHMENT 2 DREDGE AND DEWATERING SYSTEM DECOMISSIONING - UPDATE

LIST OF ACRONYMS

Acronym	Definition
BSQV	bioaccumulation-based sediment quality value
CI	Chemical isolation (layer)
cm	centimeter(s)
CPOI	chemical parameter of interest
DDT	dichlorodiphenyltrichloroethane
DI	deionized
DUSR	Data Usability Summary Report
FYR	Five-Year Review
GAC	granular activated carbon
g/cm^2/year	gram(s) per square centimeter per year
H/EP	Habitat/Erosion Protection Layer
HPAH	halogenated polycyclic aromatic hydrocarbon
HSI	habitat suitability index
IQR	Interquartile range
IRM	Interim Remedial Measure
ISUS	*in situ* ultraviolet spectrophotometer
LPAH	low polycyclic aromatic hydrocarbon
MDL	method detection limit
MERC	modified erosion-resistant cap
Metro	Metropolitan Syracuse Wastewater Treatment Plant
µg/L	microgram(s) per liter
µg/kg	microgram(s) per kilogram
mg/kg	milligram(s) per kilogram
mg/L	milligram(s) per liter
mg/m^2/day	milligram(s) per square meter per day
mL	milliliter(s)
mm	millimeter
MPC	modified protective cap
MNR	monitored natural recovery
MT	metric ton(s)

Acronym	Definition
NAVD88	North American Vertical Datum of 1988
N_2	dinitrogen
ng/L	nanogram(s) per liter
NO_2-N	nitrite-nitrogen
NOAA	National Oceanic and Atmospheric Administration
NYDOT	New York State Department of Transportation
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OLMMP	Onondaga Lake Monitoring and Maintenance Plan
O&M	operations and monitoring
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyls
PDI	Pre-design Investigation
PEC	probable effects concentration
PECQ	PEC quotient
PRG	preliminary remediation goal
PSD	particle size distribution
Q1	25th percentile
Q3	75th percentile
QAPP	Quality Assurance Project Plan
QA/QC	quality assurance/quality control
RA	Remedial Area
RAO	remedial action objective
RI	Remedial Investigation
RL	Reporting limit
ROD	Record of Decision
SCA	Sediment Consolidation Area
SMU	Sediment Management Unit
SOP	standard operating procedures
SSC	(NYSDEC) sediment screening criteria
SRP	soluble reactive phosphorous
SU	Syracuse University
SUNA	submersible ultraviolet nitrate analyzer

Acronym	Definition
SUNY ESF	State University of New York College of Environmental Science and Forestry
SVOC	semi-volatile organic compounds
SWAC	surface weighted average concentrations
SWQS	surface water quality standards
TEQ	toxicity equivalent quotient
TLC	thin layer cap
TOC	total organic carbon
TOGS	Technical and Operational Guidance Series
UCL	Upper confidence limit
UFI	Upstate Freshwater Institute
USACE	U.S. Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound
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EXECUTIVE SUMMARY

Honeywell continues progress toward achieving the goals of the Onondaga Lake Record of Decision (ROD) and the community's vision for a restored Onondaga Lake with the implementation of the long-term lake monitoring program. The remediation plan was selected by the New York State Department of Environmental Conservation (NYSDEC) and the U.S. Environmental Protection Agency (USEPA). Under NYSDEC oversight, the Honeywell team developed and implemented a remedy design that was approved by both agencies and continues to demonstrate its effectiveness in meeting the objectives outlined in the ROD. The remedy included a combination of dredging, capping, and habitat restoration – standard environmental cleanup methods that addressed contamination in lake sediments and water. Lake dredging was completed in November 2014. Approximately 2.2 million cubic yards of material were removed from the bottom of the lake. Capping was completed in December 2016. More than 3 million cubic yards of material consisting primarily of sand, activated carbon, and gravel were used to cap 475 acres of the lake bottom. The cap also provided a new habitat layer. Habitat restoration, including shoreline wetland restoration and extensive planting of native vegetation, was completed in late fall 2017.

The Honeywell design team consisted of more than 100 local engineers and scientists working with nationally recognized experts from various universities, research institutions, and specialty engineering firms, with oversight by NYSDEC and USEPA. Separately Honeywell, in partnership with NYSDEC, created a Habitat Working Group consisting of local habitat enthusiasts and community organizations whereby community input was solicited and included early in the design process. Community stakeholders also provided input. Similarly, the Honeywell team developed the lake monitoring program with input from many of the same design team members, including Parsons, Anchor QEA, Upstate Freshwater Institute (UFI), the State University of New York College of Environmental Science and Forestry (SUNY ESF), NYSDEC, and USEPA.

The Onondaga Lake Monitoring and Maintenance Plan (OLMMP) (Parsons 2018b) presents the criteria, monitoring program, and decision-making framework for measuring progress toward, and attainment of, the remedial goals set forth in the ROD (NYSDEC and USEPA 2005). The monitoring program enables the team to track progress and ultimately verify remedy effectiveness in achieving the preliminary remedial goals (PRGs) and thereby the remedial action objectives (RAOs) specified in the ROD.

This report presents the comprehensive results from the 2022 lake monitoring program. The monitoring and maintenance program includes seven separate but related elements. Each of these elements and associated results and recommendations are summarized below.

As noted in the USEPA's Second Five-Year Review Report for Onondaga Lake (2020), a "*protectiveness determination of the remedy for the Lake Bottom Subsite cannot be made until additional post-construction fish tissue data are available to ascertain when the remedial goals identified in the ROD will be achieved. It is anticipated that at least four additional years of fish data will be needed to determine when the rates of decline can be estimated with statistical significance. Following the evaluation of the additional data, a protectiveness determination will be made. In the interim, remedial operation, maintenance and monitoring activities will continue to be implemented in accordance with*

existing plans and requirements. The construction components of the remedy, which includes in-lake dredging, capping, habitat restoration, capping/closure of the Sediment Consolidation area located on Wastebed 13, which contains sediment and debris removed from the lake, have been completed. Other components of the remedy, including nitrate addition in the hypolimnion and MNR are ongoing."

Sediment Management Unit 8 (SMU 8) Monitored Natural Recovery (MNR). The primary natural recovery mechanism in SMU 8 (deep water portions of the lake) is burial of sediment by incoming cleaner sediments that are continually being deposited from overlying water. MNR was projected to achieve the ROD-specified sediment remedial goals for the uncapped portions of SMU 8 within 10 years after the remediation of upland sources and littoral sediments and initial thin-layer capping in portions of SMU 8, that were completed in 2017. Based on monitoring results through 2019, it was recommended that surface sediment sampling for assessing achievement of MNR goals be performed in 2020, including assessment of compliance with mercury probable effects concentration (PEC) and bioaccumulation-based sediment quality value (BSQV) criteria. However, this monitoring was postponed until 2021 due to challenges associated with COVID-19. All MNR sediment goals were met in 2021, therefore the second of two compliance monitoring events, as required in the OLMMP, was completed in 2022. The 2021 and 2022 monitoring event results supported the conclusion that MNR in SMU 8 is progressing faster than was anticipated based on projections completed as part of the Final Design, and MNR sediment-based goals have been achieved faster than projected. SMU 8 sediments met the mercury PEC on a point-by-point basis and the mercury BSQV on a surface weighted average concentration basis during both the 2021 and 2022 compliance monitoring events, verifying that MNR sediment-based remedial goals have been achieved and further sampling for monitoring achievement of these goals in SMU 8 is no longer needed. Therefore, it is recommended that monitoring related to MNR end, and no further collection of SMU 8 sediment samples, collection of sediment trap data, or collection of frozen cores is necessary.

Biota Tissue. Three years (2018, 2021, and 2022) of fish tissue results are available from the last five years. Fish were collected in 2019 and 2020; however, the data was determined to not be usable for trend analysis or comparison to goals due to issues at the analytical laboratory. The results from the 2018, 2021, and 2022 monitoring indicate:

- In general, the 2021 and 2022 results were consistent with or lower than the results from 2018. Mean and 95% UCL concentrations in sport fish fillets have generally decreased since 2018 or were below goals, with the exception of mercury concentrations in Smallmouth Bass and Walleye. Mercury concentrations in Smallmouth Bass and Walleye in 2021 and 2022 were below pre-remediation concentrations, but have remained above goals since 2018. This is expected because these fish are longer-lived, higher tropic level species that take longer to respond to the effects of the remedy (USEPA 2020). In addition, mercury concentrations in large Smallmouth Bass and Walleye (like those sampled in this monitoring program) tend to be elevated throughout New York State, as shown by the New York State Department of Health (NYSDOH) statewide fish consumption advice (NYSDOH 2024).
- The mean mercury concentration and 95% UCL were below ROD remedial goals in 2018, 2021, and 2022 in Common Carp and Pumpkinseed.
- Post-remediation (2017-2022) total PCB mean and 95% UCL concentrations in sport fish are lower than the pre-remediation baseline (2008-2012) mean and 95% UCL concentrations.

Additional statistical evaluations will be included in future annual reports when additional years of data are available to supplement the graphical evaluations. Mean and 95% UCL total PCB concentrations in Smallmouth Bass were between the upper and lower human health targets in both 2021 and 2022. In Walleye, mean PCB concentrations fell between the upper and lower human health target in 2022, with the 95% UCL remaining above the upper target. In Common Carp, mean and 95% UCL total PCB concentrations have been consistently between the upper and lower targets, or just above the upper target, since 2018. In Pumpkinseed, mean and 95% UCL total PCB concentrations have been between the upper and lower targets throughout the monitoring period. In both 2021 and 2022, mean concentrations fell below the lowest human health target. Due to potential low bias observed in the 2021 and 2022 PCB data, these comparisons to the PCB target concentrations will be reassessed, as needed, following potential application of estimation factors on these data.

- Post-remediation (2017-2022) dioxin/furan mean and 95% UCL concentrations in sport fish are lower than the pre-remediation baseline (2008-2012) mean and 95% UCL concentrations. Additional statistical evaluations will be included in future annual reports when additional years of data are available to supplement the graphical evaluations. With the exception of Common Carp, mean and 95% UCL dioxin/furan concentrations in sport fish in 2021 and 2022 were all below the lowest human health targets.
- In small prey fish, the mean mercury concentration and 95% UCL were below ROD remedial goal in 2018, 2021, and 2022. In large prey fish, the mean mercury concentrations in 2021 and 2022 were below the goal and the 95% UCL was above the goal.
- The mean PCB concentration in small prey fish was below target concentrations in 2018, 2021, and 2022 while the 95% UCL was below the target in 2018 and 2022 and just slightly above the target in 2021. In large prey fish, both the mean and 95% UCL PCB concentrations were below the target concentration in 2018, and slightly above in 2021 and 2022. As mentioned above, due to a potential low bias observed in the 2021 and 2022 PCB data, these comparisons to the PCB target concentrations will be reassessed, as needed, following potential application of estimation factors on these data.
- The mean concentration and 95% UCL of DDT and metabolites in both small and large prey fish have been consistently below target concentrations in all monitoring events since baseline monitoring began in 2008.

Fish will once again be collected and analyzed in 2023 for the full set of parameters as per the OLMMP. As noted in the OLMMP, performance criteria for fish should be met at least three years in a row or four years out of five to verify achievement of goals.

Zooplankton tissue analysis for both total mercury and methylmercury was conducted in 2022 as per the OLMMP. Results are further discussed in Section 3 of this report. It is recommended that annual fish and zooplankton monitoring be completed in 2023 as described in the OLMMP.

Surface Water. In accordance with the OLMMP, surface water sampling and analysis was completed in 2017 and 2018 at numerous locations to assess compliance with goals. Surface water criteria for mercury, volatile organic compounds, and semi-volatile organic compounds have been achieved as criteria were met for two consecutive years. Additional monitoring to evaluate polychlorinated biphenyl (PCB) concentrations in surface waters of Onondaga Lake and its tributaries occurred in 2021, during

which an additional round of sampling for mercury was also conducted. Surface water mercury goals were met during pre- and post-turnover sampling events in 2017 and 2018. However, pre-turnover dissolved mercury results exceeded the 0.7 nanogram per liter (ng/L) goal in seven of 12 locations in 2021. It was believed that these exceedances were a result of laboratory contamination. Therefore, an additional round of pre-turnover in-lake sampling for mercury (total, dissolved, and methyl) was conducted during August of 2022. Due to discrepancies between 2022 pre-turnover results and associated NYSDEC split samples, a second pre-turnover sampling was conducted in October. All pre-turnover dissolved mercury results in 2022 were below the 0.7 ng/L goal in 2022.

Cap Maintenance and Monitoring. The 2022 cap monitoring results verify that the cap remains protective of human health and the environment. The sediment cap is designed to provide long-term chemical isolation of contaminants and maintain physical stability while providing a suitable habitat substrate. Performance criteria for the cap within Onondaga Lake were developed in the OLMMP based on the RAOs presented in the ROD. Long-term monitoring includes both physical and chemical monitoring.

Physical monitoring is conducted to verify that the cap is stable and remains in place. Results from the 2022 comprehensive cap physical monitoring event verified that the cap remains physically stable, and there has been no significant loss of cap material in any of the capped areas. Additional bathymetric survey of approximately one-third of the capped area will be performed in spring 2023 to fill in 2022 data gaps caused by shallow water and dense vegetation. No other physical investigation activities are proposed in 2023. Consistent with the OLMMP, it is recommended that comprehensive physical monitoring be implemented in 2024.

Chemical monitoring is conducted to verify that the cap is providing chemical isolation. During 2022, more than 12,000 chemical analyses were completed on samples collected from 167 sampling locations. Results verify that there is no evidence of significant chemical migration through any of the capped areas, and the cap remains protective of human health and the environment. Consistent with the OLMMP, it is recommended that focused chemical monitoring be implemented in 2024. In addition, chemical monitoring is recommended at select locations in 2023 based on the 2022 monitoring results.

Habitat Reestablishment and Biological Response. Vegetation and wildlife monitoring conducted in 2022 show that newly restored habitats are providing a diverse, functional habitat for a variety of species. Restoring diverse, functioning, and sustainable habitats to the remediated areas of Onondaga Lake was one of the top priorities of the remedial program. Therefore, habitat considerations are a significant component in the monitoring and maintenance plan for the lake.

The fifth year of monitoring at the Wastebed B/Harbor Brook Outboard Area was conducted in 2022. Monitoring of wetland and adjacent upland planted vegetation from 2017 through 2022 verified that year five goals at Wastebed B/Harbor Brook have been met. Additionally, although the fifth year of monitoring was completed at the Mouth of Ninemile Creek in 2021, supplemental quantitative vegetation monitoring conducted in 2022 verified that performance goals have been met. Maintenance activities in the form of supplemental plantings and invasive species control were completed in 2022.

Habitat monitoring verified the restored areas are attracting robust and diverse wildlife usage. Overall, approximately 147 wildlife species were observed across all remediation areas in 2022. As expected, most were found within the restored wetlands. These included 58 bird species, 39 fish species, 31 macroinvertebrate species, 11 amphibian or reptile species and eight mammal species. Common wildlife species included Herring Gull (*Larus argentatus*), Mallard (*Anas platyrhynchos*), and Double-crested Cormorant. Other notable species include Northern Leopard Frog (*Litobates pipiens*), DeKay's Brown Snake (*Storeria dekayi*), Least Bittern (*Ixobrychus exilis*), Common Gallinule (*Gallinula galeata*), Paper Pondshell (*Utterbackia imbecillis*), and Bald Eagle (*Haliaeetus leucocephalus*).

As detailed in the OLMMP, although there are no goals for the fish community, monitoring is conducted to document how fish are using the newly restored habitats in the lake. Over 20 years of research by SUNY ESF has shown that Onondaga Lake is home to a robust and diverse fish community. Data collected in 2022, by SUNY ESF for Honeywell, shows that this continues to be the case, both within and outside of remediation areas. Thirty-nine species were documented in Onondaga Lake in 2022, including numerous sport fish such as Largemouth Bass and Walleye. The fish community in Onondaga Lake continues to be composed of mostly warm-water species that are typically found in Central New York.

Institutional Controls. Institutional controls are actions such as administrative and legal controls that are implemented to help minimize the potential for human or ecological exposure to sediment contamination and ensure the long-term integrity of the remedy. As detailed in the OLMMP, institutional controls being implemented at Onondaga Lake include:

- Fish consumption advisories issued by New York State Department of Health and related public communication activities
- Recreational boating buoys, updated navigational charts, and related public communication activities to prevent recreational boaters from accidently hitting potential navigational hazards created by capping and restoration components of the remedy
- Regulatory permitting controls to prevent damage to the cap from activities such as navigational dredging

The specific institutional controls listed above remain in place. Honeywell is currently working with the NYSDEC to finalize the Onondaga Lake Site Management Plan, which will provide additional details regarding institutional controls that will be implemented to prevent actions that may disrupt the cap or SMU 8 sediment, including environmental easements and environmental notices to ensure the long-term integrity of the remedy.

Nitrate Addition. Addition of nitrate in Onondaga Lake during 2022 and prior years successfully met objectives and resulted in methylmercury concentrations in lake water remaining near background levels. Methylmercury can be released from Onondaga Lake bottom sediment in the lake's profundal zone (called SMU 8) when lower waters are depleted of oxygen and nitrate during summer stratification. If methylmercury is released to the water column, it eventually enters the food web where it can bioaccumulate in lake organisms. Addition of nitrate to the lower waters during the summer limits methylmercury release and thereby limits mercury bioaccumulation in aquatic life in Onondaga Lake. Monitoring results show that methylmercury was effectively controlled during summer lake

stratification in 2022 through addition of a diluted calcium nitrate solution. Addition of a diluted calcium nitrate solution will continue to be implemented in 2023 as needed.

SECTION 1 INTRODUCTION

1.1 Overview

This annual report presents the comprehensive results of the Onondaga Lake remediation monitoring and maintenance conducted by Honeywell in 2022. The Onondaga Lake Monitoring and Maintenance Plan (OLMMP) (Parsons 2018b) presents the criteria, monitoring program, and decision-making framework for measuring progress toward, and attainment of, the remedial goals set forth in the Record of Decision (ROD) (NYSDEC and USEPA 2005). The ROD remediation plan selected by the New York State Department of Environmental Conservation (NYSDEC) and United States Environmental Protection Agency (USEPA) included a combination of dredging and capping – standard environmental cleanup methods that addressed contamination in lake sediments and water. Lake dredging was completed in November 2014, a year ahead of schedule. About 2.2 million cubic yards of material were removed from the bottom of the lake. Capping was completed in December 2016. More than 3 million cubic yards of material consisting primarily of sand, activated carbon, and gravel were used to cap 475 acres of the lake bottom, providing a new habitat layer. Habitat restoration was completed in late fall 2017 and included shoreline wetland restoration and extensive planting of aquatic vegetation.

As detailed in the OLMMP, the lake monitoring program includes the following seven separate, but related, elements:

- Sediment Management Unit 8 (SMU 8) and Monitored Natural Recovery (MNR)
- Biota Tissue
- Surface Water
- Cap Maintenance and Monitoring
- Habitat Reestablishment and Biological Response
- Wastebeds 1-8 (WB 1-8) Shoreline Stabilization and Turbidity Monitoring[1]
- Institutional Controls

Monitoring associated with the above activities began in 2017 under the Draft OLMMP, with NYSDEC approval. In addition, monitoring associated with nitrate addition was conducted in 2022 in accordance with the operations and monitoring (O&M) plan for nitrate addition (Parsons and Upstate Freshwater Institute [UFI] 2014b). Additional documentation related to the 2022 monitoring scope and modifications is included in Appendix 1A. This report presents the comprehensive results from the 2022 monitoring program.

[1] The 2017 turbidity monitoring results adjacent to the shoreline of WB 1-8 verified a reduction wind-driven turbidity along the WB 1-8 shoreline after stabilization was implemented. Therefore, consistent with the OLMMP and as documented in the 2017 Annual Report, no further routine turbidity monitoring is being performed. Annual physical inspections of this area will be conducted as part of the long-term cap physical monitoring program. Additional turbidity monitoring, if required based on the annual inspections, would be developed in consultation with NYSDEC and subject to the agency's approval.

Overall, results indicate that the remedy is functioning consistent with the design. As noted in the ROD, it is estimated that concentrations of contaminants in fish will be reduced within 10 years following completion of remedial activities. As noted in USEPA's Second Five-Year Review Report for Onondaga Lake (2020), a "*protectiveness determination of the remedy for the Lake Bottom Subsite cannot be made until additional post-construction fish tissue data are available to ascertain when the remedial goals identified in the ROD will be achieved. It is anticipated that at least four additional years of fish data will be needed to determine when the rates of decline can be estimated with statistical significance. Following the evaluation of the additional data, a protectiveness determination will be made. In the interim, remedial operation, maintenance and monitoring activities will continue to be implemented in accordance with existing plans and requirements. The construction components of the remedy, which includes in-lake dredging, capping, habitat restoration, capping/closure of the Sediment Consolidation Area located on Wastebed 13, which contains sediment and debris removed from the lake, have been completed. Other components of the remedy, including nitrate addition in the hypolimnion and MNR are ongoing.*"

It is recommended that monitoring as per the OLMMP should continue in 2023. Recommendations for any changes are set forth in the individual sections below.

1.2 Document Organization

As per the OLMMP, annual reporting for the various monitoring components generally consists of presenting monitoring data and confirming that data are consistent with expectations. Recommendations are made for future monitoring for each respective component. In addition to the executive summary and this introduction, the report is organized into the following sections:

- Section 2 presents the results of habitat and biological response monitoring.
- Section 3 presents the results of biota tissue monitoring.
- Section 4 presents the results of the MNR monitoring.
- Section 5 presents the results of nitrate addition and associated monitoring in 2022.
- Section 6 presents the results cap monitoring activities and the status of institutional controls.
- Section 7 presents the results of in-lake surface water monitoring.
- Attachment 1 presents the Annual Post Closure Care Summary Report for the Onondaga Lake Sediment Consolidation Area (SCA)
- Attachment 2 presents a status update of the dredge and dewatering system decommissioning activities completed since the July 2018 status update.

Appendices associated with each section provide additional information such as detailed field data, associated data usability summary reports (DUSRs), and other information relevant to the various monitoring elements.

SECTION 2 HABITAT REESTABLISHMENT AND BIOLOGICAL RESPONSE

2.1 Introduction

Habitat-related monitoring was conducted in 2022 to document habitat reestablishment and biological response within remediated areas and lake-wide reference areas as described in the OLMMP (Parsons 2018b). Results show that restored habitats are providing a diverse, functional habitat for a variety of species.

At the Wastebed B/Harbor Brook Outboard Area, vegetation monitoring included qualitative and quantitative surveys to evaluate vegetative aerial percent cover, relative percent cover of each species, aerial percent cover of invasive species, and cover type. A year-five formal wetland delineation was conducted at the Wastebed B/Harbor Brook Outboard Area in 2022 as required by the OLMMP.

The fifth year of monitoring at the Mouth of Ninemile Creek was completed in 2021 and the recommendation was made in the 2021 Annual Report (Parsons 2025) that goals had been met and that habitat monitoring should end. However, as described further in Section 2.2.3 below, while the 2021 Annual Report was under review by NYSDEC, an additional quantitative vegetation survey was conducted in 2022 to further verify that year-five vegetation cover goals had been met.

Wildlife use was evaluated throughout 2022 during routine site visits and critical time periods, such as bird migration and amphibian reproduction windows.

Fish community surveys were also conducted in 2022. Gill, trap, and seine nets were used to conduct monthly fish community surveys from May through October, during which fish species composition, abundance, and species richness were evaluated.

Monitoring was completed in accordance with OLMMP (Parsons 2018b) and standard operating procedures (SOPs) detailed in the Quality Assurance Project Plan (QAPP) (Parsons 2023a). Monitoring results from 2022 are presented in the following sections.

2.2 Planted Vegetation

The Wastebed B/Harbor Brook Outboard and the Mouth of Ninemile Creek Areas are planted vegetation monitoring areas. The OLMMP specified that vegetation coverage would be compared to the success criteria for the wetland, upland, and in-lake planting areas following five years of monitoring. The fifth-year monitoring results for the Wastebed B/Harbor Brook Outboard Area are summarized in the sections below. In addition, a sixth-year of quantitative data was also collected at the Mouth of Ninemile Creek to verify that restoration has been successful, those result are also discussed below.

2.2.1 2022 Wastebed B/Harbor Brook Outboard Monitoring

The Wastebed B/Harbor Brook Outboard Area was planted in 2017 following completion of capping in this area, and 2022 was the fifth year of the five-year monitoring program for that area. The wetland and upland 2022 monitoring results are summarized below. A separate evaluation of performance goal achievement over the five-year monitoring program is provided as Section 2.2.2, as required by the OLMMP.

In addition, as directed by the OLMMP, a wetland delineation was carried out in 2022 per U.S. Army Corps of Engineers (USACE) (2012) and NYSDEC (NYSDEC 1995) methods to quantify wetland mitigation acreage and is summarized below. The complete wetland delineation report is provided in **Appendix 2C**.

2.2.1.1 Vegetation Monitoring

Vegetation was monitored in the Wastebed B/Harbor Brook Outboard Area using both qualitative and quantitative evaluation methods, as described in the OLMMP. Two qualitative reconnaissance surveys and one quantitative vegetation survey were conducted. The two qualitative surveys were conducted in late June and late August, and the one quantitative vegetation survey was conducted in September. Periodic site visits were also made throughout the growing season to document vegetation abundance and diversity. Data from these surveys and observations made during periodic site visits were used to compile a comprehensive list of plant species present at the Wastebed B/Harbor Brook Outboard Area.

Consistent with Appendix E of the OLMMP, quantitative vegetation monitoring at Wastebed B/Harbor Brook Outboard Area was conducted at 51 wetland plot locations, seven upland plot locations, and six plot locations located within the 25-foot, in-lake planted buffer (**Appendices 2A and 2B**). Plot surveys were conducted in September. Each 50-square-foot plot was assessed for cover type, total aerial cover, and relative cover for each species.

During the various monitoring efforts in 2022, a total of 165 plant species were documented. Vegetation cover types across the area were estimated from qualitative surveys and included extensive areas of emergent wetland and aquatic bed (**Figures 2.1 and 2.2**). The average vegetation coverage in Wastebed B/Harbor Brook Outboard Area upland plots was 100 percent. The average vegetation coverage in Wastebed B/Harbor Brook Outboard Area wetland plots was 91 percent. The average invasive species cover across upland plots was 0.6 percent, and the average invasive species cover across wetland plots was 0.7 percent (**Table 2B.4** in **Appendix 2B**). Across all 51 vegetation plots, broadleaf cattail (*Typha latifolia*), common waterweed (*Elodea canadensis*), and black willow (*Salix nigra*) were the most common species documented during the quantitative survey. Relative percent cover of the species documented in sampling plots is summarized in **Table 2.1**, and a photographic log of the area is provided in **Appendix 2A**.

In addition, large tree conditions were surveyed in the Wastebed B/Harbor Brook Outboard Area in September 2022 (**Figures 2B.4 and 2B.5** in **Appendix 2B**). Of the 103 large trees planted during restoration, 50 were planted in upland areas, and 53 were planted in wetland areas. In wetland areas, 52 trees of the 53 trees (98 percent) were documented alive and in good condition. The single tree that was noted as dead during the 2022 survey was replaced with three small black willows in November 2022. In upland areas, 49 out of 50 trees were documented as alive and in good condition.

A single large tree was documented in very poor condition and will be replaced in spring 2023, as discussed in Section 2.2.2.2. Tree condition survey results are summarized in Table 2.2.

2.2.1.2 Year Five Wetland Delineation Summary

A formal wetland delineation was conducted in the Wastebed B/Harbor Brook Outboard Area in 2022 as called for in the OLMMP. The full delineation report can be found in Appendix 2C. The delineation was completed within the 16.3 acres of the area outside of the barrier wall within the Outboard boundary as established prior to remediation, with the exception of areas where contiguous planted wetland vegetation extended past the Outboard boundary, in which case the certified Senior Professional Wetland Scientist followed the edge of vegetation, as shown on Figure 8 in Appendix 2C. Prior to remediation, the 16.3-acre area consisted of approximately 7.5 acres of wetlands, 8.1 acres of uplands, and 0.7 acres of open water (Parsons 2021a). The delineation completed in 2022, documented a total of 10.6 acres of wetland, 1.5 acres of upland, and 4.1 acres of open water. The delineation also assessed the extent and community composition of the wetland communities present, including persistent emergent wetlands, non-persistent emergent wetlands, and young forested/scrub shrub wetlands. Common species in the emergent wetland communities were broadleaf cattail, softstem bulrush (*Schoenoplectus tabernaemontani*) and bur-reed (*Sparganium* spp.). Common species in the young forested/scrub shrub wetland included silver maple (*Acer saccharinum*), black willow, and eastern sycamore (*Platanus occidentalis*).

2.2.2 Wastebed B/Harbor Brook Outboard Area Goal Attainment

Per the OLMMP, the planted wetlands and upland areas have been monitored annually for five years, to evaluate the success of the restoration and verify that success criteria were met. The fifth year of monitoring was completed in 2022. Per the OLMMP, the fifth-year goals following planting in the Wastebed B/Harbor Brook Outboard Area are:

- At least 85 percent vegetation cover in planted wetland areas
- At least 90 percent vegetation cover in planted upland areas
- Percent cover of invasive species less than or equal to five percent in all areas
- 90 percent of planted large trees present in wetland areas
- 100 percent of planted large trees present in upland areas

As specified in the Wastebed B/Harbor Brook Outboard Area Wetland Design Addendum (Parsons and Anchor QEA 2016), following successful completion of the multi-year wetland monitoring and maintenance program, a determination would be made, in conjunction with NYSDEC, regarding whether the wetlands would be self-sustaining in the absence of protective berms that were installed during construction. The evaluation of the long-term need for the protective berms was made at the end of year four monitoring (2021) and associated recommendations were discussed in the 2021 Annual Report (Parsons 2025). The evaluation is therefore not presented again in this report.

2.2.2.1 Planted Wetland Areas

The Wastebed B/Harbor Brook Outboard planted wetland areas were once dominated by a stand of invasive phragmites. Now, a robust assemblage of native plants has become established through restoration efforts. Data collected through 2022 show that the vegetation cover goals and tree survival

goals have been met. In addition to vegetation establishment, the overall habitat quality is demonstrated by the exceptional wildlife community that has been documented using these areas since restoration took place. This restored area now provides a much improved and vital habitat for a high diversity of wildlife, with 201 species observed since 2018 (**Table 2C.2** in **Appendix 2C**).

Throughout the five-year monitoring period, wetland coverage has been excellent, trending upward, and ranging from 77 percent to 91 percent. The lowest average cover, recorded in 2019, appears to have been due to high water levels in the early summer of that year. Invasive species cover was very low throughout the five-year monitoring period, ranging from only 0.5 to 1 percent.

At the end of the five-year monitoring period in 2022, vegetation cover in the planted wetland areas was 91 percent, exceeding the fifth-year goal of 85 percent cover. Invasive species cover was 0.7 percent in 2022, meeting the fifth-year goal of less than 5 percent invasive species cover. Vegetation cover trends in planted wetland areas are shown below and in **Figure 2.3** and the annual results are shown in the table below.

Vegetation Cover Trends in Planted Wetland Areas					
	2018	2019	2020	2021	2022
Average Vegetation Plot Cover	80.4%	77.1%	87.7%	84.7%	91%
Average Cover of Invasive Species	0.7%	1.0%	0.5%	1.0%	0.7%

Additionally, as discussed above, of the 103 large trees planted during restoration, 53 were planted in wetland areas. In 2022, 52 large trees (98 percent) were documented alive and present, exceeding the fifth-year goal of 90 percent. The single tree that was noted as dead during the 2022 survey was replaced with three small black willows in November 2022.

As demonstrated by the data presented above, the fifth-year goals set forth in the OLMMP have been met in the planted wetland areas, and it is recommended that monitoring be discontinued.

2.2.2.2 Planted Upland Areas

The Wastebed B/Harbor Brook Outboard planted upland areas were once a very poor-quality habitat dominated by non-native and invasive species. Now, because of restoration efforts, a robust assemblage of upland herbaceous plants, shrubs, and trees has become established. This restored area provides a much improved and vital habitat for a high diversity of wildlife. Data collected in 2022 show that the vegetation goals have been met.

Throughout the five-year monitoring period, upland vegetation cover has been high, ranging from 96.3 percent in 2019 to 100 percent in 2018, 2020, 2021, and 2022. Invasive species cover was very low throughout the monitoring period, ranging from 2.4 percent in 2019 to 0.6 percent in 2022.

At the end of the five-year monitoring period in 2022, vegetation cover in the planted upland areas was 100 percent, exceeding the fifth-year goal of 90 percent cover. Invasive species cover was 0.6 percent in 2022, meeting the fifth-year goal of less than 5 percent invasive species cover. Vegetation cover trends in planted upland areas are shown below and in **Figure 2.4**.

Vegetation Cover Trends in Planted Upland Areas					
	2018	2019	2020	2021	2022
Average Vegetation Plot Cover	100.0%	96.3%	100.0%	100.0%	100.0%
Average Cover of Invasive Species	0.9%	2.4%	1.0%	1.3%	0.6%

Additionally, of the 103 large trees planted during restoration, 50 were planted in upland areas. In 2022, 50 large trees (100 percent) were documented alive and present, meeting the fifth-year goal of 100 percent. However, one northern white-cedar (*Thuja occidentalis*) tree was documented in "very poor" condition during the 2022 survey (**Figure 2B.4** in **Appendix 2B**). Because of the uncertainty of that tree's survival, three native trees of equal or greater size (seven-gallon pot or greater) will be planted in spring 2023 with the intent that at least one will survive long-term.

As demonstrated by the data presented above, the fifth-year goals set forth in the OLMMP have been met in the planted upland areas, and it is recommended that monitoring be discontinued.

2.2.3 Mouth of Ninemile Creek Monitoring

The Mouth of Ninemile Creek was planted in 2016 following completion of capping in this area. The area is divided into two sub-areas, the Ninemile Creek Spits, which were wetlands prior to the remedy and restored as wetlands, and the in-lake planting area, which was lake prior to the remedy and restored with wetland and aquatic plantings. The five-year monitoring program at the Mouth of Ninemile Creek concluded in 2021, and the recommendation to cease monitoring was made in the 2021 Annual Report (Parsons 2025). However, a quantitative vegetation monitoring event was also conducted in 2022, while the 2021 Annual Report was under review by NYSDEC, to verify that the goals of the restoration had been met. The results from the 2022 quantitative vegetation monitoring are provided below. Per the OLMMP, the fifth-year goals following planting in the Mouth of Ninemile Creek are:

- At least 85 percent vegetation cover on the Mouth of Ninemile Creek spits
- At least 75 percent vegetation cover in the Mouth of Ninemile Creek in-lake planted areas
- Percent cover of invasive species less than or equal to five percent

The 2022 quantitative vegetation monitoring was conducted in mid-to-late August 2022 at 18 plots on the Mouth of Ninemile Creek spits and 41 plot locations within the Mouth of Ninemile Creek in-lake planting areas (**Appendix 2B**). Each 50-square-foot plot was assessed for cover type, total aerial cover, and relative cover for each species. During the quantitative survey, native sago pondweed (*Stuckenia pectinata*), broadleaf cattail, common waterweed, and coontail (*Ceratophyllum demersum*) were the most common species documented. Relative percent cover of the species documented in sampling plots is summarized in **Appendix 2B.7,** and a photographic log of the area is provided in **Appendix 2A**.

2.2.3.1 Mouth of Ninemile Creek Spits

During the five-year monitoring period, vegetation cover increased steadily from year one (2017) to year five (2021). In 2021, vegetation cover on the spits averaged 87 percent, exceeding the 85 percent goal. In 2022, the average cover of vegetation at the Mouth of Ninemile Creek spits had increased further to 97.1 percent. Because no maintenance plantings were performed at the Mouth of Ninemile Creek in 2022, the increase in vegetation cover since 2021 represents a natural expansion, showing that the spits support a thriving and self-sustaining community of native wetland plant species. Throughout the monitoring period, including in 2022, invasive species cover was under 1 percent, meeting the goal of less than 5 percent. Vegetation cover trends from 2017 to 2022 are shown in Figure 2.5.

2.2.3.2 Mouth of Ninemile Creek In-Lake Planting Areas

Vegetation cover results within the in-lake planting area is largely driven by the variability of submerged aquatic macrophyte cover that appears to be generally controlled by water levels fluctuations from year to year. Vegetation increased rapidly from approximately 55 percent in year one (2017) to approximately 84 percent in year two (2018) and reached a high of 88.5 percent in year three (2019). In 2020, vegetation cover decreased to approximately 71 percent, presumably due to higher water levels that year and then rebounded slightly in 2021 to 73.5 percent. In 2022, the overall cover of vegetation at the Mouth of Ninemile Creek in-lake planting areas increased to 91.3 percent, exceeding the goal of 75 percent, and reaching the highest vegetation cover recorded during the monitoring period. Additionally, invasive species cover remained below one percent in 2022. Vegetation cover trends from 2017 to 2022 are shown in Figure 2.6.

The abundance of the submerged aquatic macrophyte community will likely continue to naturally fluctuate within the range documented during the monitoring period based on lake conditions in any given year. Years with lower aquatic macrophyte abundance are part of the natural variability of these communities and do not detract from the diverse and high-quality habitat that has been created in an area of the lake that had little vegetation prior to the remedy. This is demonstrated by the diverse wildlife community that has been documented using this area since restoration took place. As such, the overarching goals of maintaining or improving the size, diversity and ecological function of habitat and discouraging the establishment of invasive species have been successfully met, verifying the 2021 recommendation that no future monitoring is necessary.

2.3 Overall Mitigation Wetland Acreage

As detailed in the OLMMP, the remedial activities along the shoreline of Onondaga Lake, including the construction of the Interim Remedial Measure (IRM) barrier wall along the lake shoreline near Wastebed B/Harbor Brook, had both temporary and permanent impacts to habitat at the site. The wall alignment bisected the site, creating two separate (inboard/outboard) areas. The inboard area is the portion on the landward side of the wall, and the outboard area lies between the wall and the lake. The wall and associated remedial activities altered some wetland and open water areas along the shoreline. To offset the impacts on wetlands and waters that were present prior to the remedy, minimum mitigation acreages for restored wetlands and open waters were required at the end of the restoration monitoring period, as shown in Table 7.5 of the OLMMP. To verify achievement of the

mitigation requirements, wetland delineations were required in year 5 of the habitat monitoring period for each restoration area. The restored wetlands include:

- Connected Wetland at Wastebeds 1-8[2]
- Spits (part of NYSDEC designated wetland SYW-10 prior to the remedy) and In-lake planting area at the mouth of Ninemile Creek
- Wastebed B/Harbor Brook Outboard Area (NYSDEC designated wetland SYW-19 prior to the remedy)

Year 5 wetland delineations were conducted at the Wastebeds 1-8 perched wetlands in 2019 and in 2020 at the Connected Wetland (Ramboll 2022, Ramboll 2023). The delineation at the Mouth of Ninemile Creek was conducted in 2021 (Parsons 2025). The wetland delineation at the Wastebed B/ Harbor Brook Outboard area took place in 2022 (Appendix 2C), marking the final required delineation needed to verify achievement of mitigation requirements holistically.

2.3.1 Wetland Mitigation Background

Per the OLMMP, approximately 12.2 acres of wetlands at Wastebed B/Harbor Brook were impacted as a result of the remedial activities. There were 7.5 acres of impacted wetlands outboard of the Wastebed B/Harbor Brook barrier wall, which were restored on site at a mitigation ratio of 1:1. There were also 4.7 acres of impacted wetlands inboard of the Wastebed B/Harbor Brook barrier wall that were mitigated at a 2:1 ratio, for a total required mitigation area of 9.4 acres associated with these areas. The inboard wetland acreage could not be completely restored on site (i.e., inboard of the barrier wall) and therefore was mitigated at both the Wastebed B/Harbor Brook Outboard Area and along the shoreline of Wastebeds 1-8 (perched wetlands). Additionally, prior to remediation, 1.9 acres of wetlands were present at the Mouth of Ninemile Creek Spits, and 0.7 acre of wetlands was present at Wastebeds 1-8, both of which was mitigated in place at a ratio of 1:1. The sum of these required mitigation acreages across all sites was 19.5 acres, as shown in Table 7.5 of the OLMMP.

Additionally, 4.6 acres of open water were impacted as a result of the remedy, and those losses also required mitigation. Half of this acreage, 2.3 acres, was to account for the loss of open water both inboard and outboard of the Wastebed B/Harbor Brook Outboard Area. The Wastebed B/Harbor Brook Outboard Area was designed with wetland plantings throughout (except for the Harbor Brook channel), with the intent that most areas would develop into wetland and others (likely deeper areas) would develop into open water. Therefore, open water in this area would include both the new Harbor Brook channel alignment and deeper areas of outboard that did not develop into wetlands. The remaining 2.3 acres of open water, which was lost due to the installation of the Willis Avenue barrier wall, were mitigated by the construction of 2.3 acres at Wastebeds 1-8. Instead of requiring a mitigation ratio greater than 1:1 to account for not being restored to open water on site, it was mutually decided that the acreage at Wastebeds 1-8 would be designed as a wetland connected to the lake. The habitat value of this connected wetland was deemed greater than open water alone and thus was mitigated

[2] The creation of the WB 1-8 Connected Wetlands (removals and capping) was included in the lake design. Details on the restoration (planting and structure) and Success Criteria of both the connected wetland and perched (inland) wetlands are addressed in the Integrated IRM, Mitigation Wetlands, and Remediation Area Hydraulic Control Systems 100% Design Report WB 1-8. (O'Brien and Gere Rev Ed. 2013).

at a 1:1 ratio such that the 2.3 acres of the connected wetland at Wastebeds 1-8 was to be counted towards the open water mitigation requirement.

The mitigation designs for each area included additional acreage, above and beyond what was required, to provide the best chance of achieving mitigation acreage requirements at the end of five-years.

2.3.2 Wetland Mitigation Results

Per the OLMMP, the final achievement of the total wetland and open water acreage requirements will be determined based on wetland delineations completed at the end of the five-year monitoring programs at each mitigation site. The Wastebed B/Harbor Brook Outboard Area was the last mitigation area to be restored. Therefore, the year 5 wetland delineation completed in 2022 (**Appendix 2C**) marked the final delineation needed to evaluate the overall achievement of wetland mitigation requirements for Onondaga Lake.

Six cobble berms were constructed along the Wastebed B/Harbor Brook Outboard shoreline to protect the shoreline wetlands from wind/wave energy. The approximate constructed area of the base of the berms within the Wastebed B/Harbor Brook Outboard Area and within the lake is 0.40 and 1.40 acres, respectively. Of this area, approximately 33% is above the average lake level of 362.5 ft. The area of these berms is not included in the overall acreage accounting, with the exception of 0.17 acres, where planted wetland vegetation extended onto the edges of the berms and was delineated by a certified Senior Professional Wetland Scientist, as shown on **Figure 8** in **Appendix 2C.**

Table 2.3 summarizes the final year 5 delineated wetland acreage for each area compared to the mitigation requirement of 19.5 acres. The delineated wetland acreage across the restoration areas following their respective year 5 delineations show that there are a total of 28.39 wetland acres created across all areas. The overall wetland mitigation acreage goal of 19.5 acres has therefore been met.

In addition, Table 2.3 summarizes the open water acreage for the Wastebed B/Harbor Brook Outboard and the Wastebeds 1-8 Connected Wetland Areas compared to the mitigation requirement of 4.6 acres. The overall open water acreage calculated following year 5 formal delineations at each respective area totaled 6.4 acres. Therefore, the overall open water mitigation acreage goal of 4.6 acres has been met.

2.4 Fish Community

Over 20 years of research by the State University of New York College of Environmental Science and Forestry (SUNY ESF) has shown that Onondaga Lake is home to a robust and diverse fish community. Data collected in 2022 show that this continues to be the case both within and outside of remediation areas. As detailed in the OLMMP, although there are no goals for the fish community, monitoring is conducted to document how fish are using the newly restored habitats in the lake (Parsons 2018b). Monthly assessments were conducted from May through October 2022 at 12 locations around Onondaga Lake (**Figure 2.7**). Fish were collected using gill nets, trap nets, and seine nets. The species were identified and recorded before the fish were released. Additionally, the lengths of the first 30

individuals of each species were measured at each collection event. The abundance of additional individuals was also recorded. Fish data are provided in **Appendix 2D** and discussed below.

2.4.1 Lake-wide Results

Lake-wide fish species richness in 2022 was 39 species. This is relatively consistent with the lake-wide average richness of 40 species observed during the baseline sampling period (2008 through 2011), the 38 species observed during the construction period (2012 through 2016), and the 40 species observed in 2021 (**Table 2.4**). The species richness in remediated areas (36) and reference areas (38) were comparable to average richness within these areas during the baseline and construction periods. Minor fluctuations in recorded annual species richness is expected due to variable catchability of less abundant species.

Overall, the lake continues to contain a predominantly warm water fish community with abundance proportions similar to those of the baseline sampling period prior to dredging and construction and also similar to warmwater fish communities typical of this region. The relative abundance of the most common species in 2022 are Banded Killifish (*Fundulus diaphanous*) (59 percent), Round Goby (*Neogobius melanostomus*) (13 percent), Largemouth Bass (*Micropterus salmoides*) (9 percent), Alewife (*Alosa pseudoharengus*) (4 percent), and Bluegill (*Lepomis macrochirus*) (3 percent). The overall relative abundance data for fish species in the lake in 2022 can be found in **Appendix 2D**.

Since habitat restoration in nearshore areas was completed in fall 2017, the first full year fish community monitoring in a fully restored lake was 2018, making 2022 the fifth full year of monitoring. As discussed in the OLMMP, post-construction monitoring of the fish community will be evaluated to qualitatively compare with the baseline community to gain a greater knowledge of community level changes, with the understanding that the lake is a dynamic system and variability in the presence and abundance of some species is natural. As shown in **Table 2.4**, species richness during the post-construction monitoring period is consistent with what was found during baseline monitoring. The overall relative abundance of all fish species in the lake during baseline, construction, and post-construction monitoring can be found in **Table 2D.19** in **Appendix 2D**. The relative abundance of the 10 most abundant species during lake-wide baseline (2008-2011), lake-wide construction (2012-2016), and lake-wide post-construction (2017-2022) is summarized below.

Top Ten Most Abundant Fish Species					
Lake-wide Baseline (2008-2011)		Lake-wide Construction (2012-2016)		Lake-wide Post-Construction (2017-2022)	
Common Name	Percentage	Common Name	Percentage	Common Name	Percentage
Banded Killifish	32%	Banded Killifish	44%	Banded Killifish	50%
Bluegill	14%	Largemouth Bass	14%	Largemouth Bass	11%
Largemouth Bass	13%	Bluegill	12%	Bluegill	10%
Pumpkinseed	9%	Round Goby	6%	Round Goby	9%
Alewife	5%	Alewife	5%	Gizzard Shad	7%
Round Goby	3%	Pumpkinseed	3%	Alewife	3%
Brown Bullhead	2%	Brown Bullhead	2%	Brown Bullhead	2%
Gizzard Shad	2%	Yellow Perch	1%	Rock Bass	2%
Golden Shiner	2%	Common Rudd	1%	Yellow Perch	1%
White Perch	2%	Rock Bass	1%	Green Sunfish	1%

While there has been some annual variation, the relative abundance of the most common species observed during the lake-wide post-construction monitoring period (2017 through 2022) has remained comparable to the relative abundance of the most common species during baseline monitoring (2008 through 2011) and construction (2012 through 2016). Throughout all monitoring, the lake has continued to be dominated by species such as Banded Killifish, Largemouth Bass, and Bluegill. Since there are no specific success criteria for fish community in the OLMMP, and there have been no discernable shifts at a community level, the lake continues to maintain a stable, robust warm water fish community in both remediated and reference areas, it is recommended that further fish community monitoring be discontinued.

2.4.2 Northern Pike Monitoring

The construction of the Wastebed B/Harbor Brook Outboard Area wetlands was completed in 2017. In 2022, the fifth year of monitoring for fish spawning was conducted in the Wastebed B/Harbor Brook Outboard Area wetlands in accordance with Section 7 and Appendix E of the OLMMP (Parsons 2018b). These events focused on monitoring for evidence of spawning/reproduction of Northern Pike (*Esox lucius*) and/or other wetland spawning species. Early season monitoring efforts were carried out from March 22 through May 5 during the Northern Pike spawning season to assess whether the area was being used by spawning adults. Further monitoring efforts occurred from July 14 through August 5 during the months when the young of the year would likely be present and catchable in the wetlands.

The timing of the spawning season monitoring was determined by surface water temperature in the wetland. Northern Pike generally spawn in temperatures from 40-52°F (Smith 1985), so monitoring was conducted while the surface water temperatures in the wetlands were within this range. Trap nets and visual surveys were used during the spawning period in an attempt to document use of the wetlands. Fourteen trap nets were set for 24-hour periods in the Wastebed B/Harbor Brook Outboard Area wetlands (**Figure 2.8**). Monitoring in July and August was focused on capturing the young of the year. Monitoring was conducted by placing twenty 24-hour minnow traps and making visual observations (e.g., looking for schools of juveniles, scouting for areas to target trapping) while walking the shoreline/berms. Seine nets were not used for this monitoring to minimize disturbance of establishing vegetation that was installed in 2017 or uprooting the new maintenance plantings that were installed from 2018 through 2022.

One adult Northern Pike was observed during the 2022 spring monitoring event. The 587 millimeter (mm) long individual was captured at monitoring location #2 (**Figure 2.8**) on April 13. The surface water temperature collected on April 13th was 48°F, which falls within the range of temperatures in which Norther Pike normally spawn. Additionally, 18 other species were observed in 2022 during the March through May monitoring event, including wetland spawning species such as Bowfin (*Amia calva*), Bluegill, Pumpkinseed (*Lepomis gibbosus*), and Brown Bullhead (*Ameiurus nebulosus*), as shown in **Appendix 2D.** Throughout all five years of monitoring, 23 different species were captured during spring monitoring events, including the aforementioned wetland spawning species. This indicates that the newly established habitat is functional and being used by fish that spawn in wetlands. Five species were observed during the July through August monitoring event in 2022, including Green Sunfish, young-of-the-year Largemouth Bass, and Round Goby, as well as large schools of both adult Banded Killifish and juvenile Brown Bullhead. Other species observed during the July through August

monitoring event in previous monitoring years included Longnose Gar (*Lepisosteus osseus*), Yellow Bullhead (*Ameiurus natalis*), and young-of-the-year Bluegill, indicating that newly established habitat is also providing functional nursery habitat for young-of-the-year fish.

Northern Pike are uncommon in Onondaga Lake, so it was not unexpected that only one individual adult was observed during the five-year monitoring period. As per the OLMMP, since adult spawning or juvenile Northern Pike had not been observed following four years of monitoring, the appropriate field data to calculate a habitat suitability index (HSI) for Northern Pike in the area was collected in 2022 to evaluate the suitability of the wetland for Northern Pike spawning. Further details on the Northern Pike HSI conducted in 2022 and the associated results and conclusions can be found in Appendix 2E. In summary, the overall HSI calculated in 2022, which produces an index between 0 (unsuitable habitat) and 1 (optimal habitat) was 0.37 out of 1.0. The overall HSI is determined by taking the lowest score of seven independent variables. The score calculated in 2022 was driven by the drop in water levels during the embryo and early fry stages. Water levels fluctuations in Onondaga Lake are a function of the hydroelectric dam operations on the Seneca River. Other variables calculated for the HSI yielded higher results (0.8 to 1.0). Due to the variability in water level fluctuations, the overall HSI likely fluctuates largely on an annual basis. This HSI, paired with the capture of an adult Northern Pike in 2022 during the spring spawning season, indicates that the Wastebed B/Harbor Brook outboard area is meeting the intended goal of providing suitable Northern Pike spawning habitat. Due to the limitations associated with fluctuations in water levels during a critical reproductive phase, successful pike spawning in this area is unlikely in most years. However, the habitat restoration in this area has resulted in many of the wetland functions having been returned or created, so additional action to achieve better pike spawning conditions is not needed.

2.5 Wildlife

Wildlife observations were recorded during approximately 43 site visits across Remediation Areas A through E during 2022. Remediation areas are providing high quality habitat for a diverse community of wildlife species. Although there are no specific success criteria for wildlife usage in remediated areas, monitoring is conducted to document functional wildlife use. Wildlife observations in 2022 were recorded during routine site visits throughout the year and during the two qualitative surveys described for vegetation, as indicated in the SOP included in Appendix A of the Draft QAPP (Parsons 2023a). Additional observations were made during several focused monitoring events conducted during key times of the year (e.g., spring and fall migrations for waterfowl, spring for amphibians). Because amphibians can be challenging to observe directly, call surveys were conducted during the breeding period in early May when minimum daily temperatures reached 42°F and 50°F.

The restored areas are attracting diverse wildlife, including large numbers of migrating waterfowl during spring and fall. Overall, approximately 147 species were observed across all remediation areas in 2022. As expected, most were found within the restored wetlands. This included 58 bird species, 39 fish species, 31 macroinvertebrate species, 11 amphibian or reptile species and eight mammal species. Common wildlife species included Herring Gull (*Larus argentatus*), Mallard, and Double-crested Cormorant. Other notable species include Northern Leopard Frog, DeKay's Brown Snake (*Storeria dekayi*), Least Bittern (*Ixobrychus exilis*), Common Gallinule (*Gallinula galeata*), Paper Pondshell (*Utterbackia imbecillis*), and Bald Eagle. The aforementioned Paper Pondshell, documented

in July in the Wastebed B/Harbor Brook Outboard wetlands, is particularly notable. The Paper Pondshell is an S1 (critically impaired) species of freshwater mussel in New York that had not previously been documented in Onondaga Lake. Wildlife observations are summarized in Appendix 2D.

Since habitat restoration in nearshore areas was completed in fall 2017, the first full year of comprehensive post-construction wildlife monitoring in a fully restored lake was conducted in 2018, making 2022 the fifth and final year of monitoring. In 2022, a total of 147 wildlife species were documented, which is an increase from the 92 total documented during the first full year of monitoring in 2018. In addition, since monitoring has begun, at least 234 wildlife species have been observed throughout all remediation areas. As discussed in the OLMMP, there are no specific success criteria for the wildlife community. Monitoring shows that remediated areas of the lake continue to attract diverse wildlife for general use, nesting, feeding, and reproduction. Therefore, it is recommended that wildlife monitoring should be discontinued.

2.6 Maintenance and Response Actions

Maintenance and response actions in 2022 consisted of invasive plant control, supplemental plantings and wild rice seeding. Invasive plant control focused on common reed (*Phragmites australis*), purple loosestrife (*Lythrum salicaria*), and water chestnut (*Trapa natans*). Two separate invasive species control efforts were conducted, one in July and the other in September. Supplemental plantings addressed areas with low percent cover and facilitated achievement of success criteria. To prevent herbivory of newly planted plugs, enclosures around critical planting areas were installed in May and removed once plants had established in October. Plantings in 2022 included plugs of primarily emergent wetland species. In the Wastebed B/Harbor Brook Outboard Area, 24,350 plugs were installed (Appendix 2B). As recommended in the 2021 report, one large tree was installed in 2022 as a replacement for a tree that was documented as dead in 2021, and 250 black willow live stakes were installed within the Harbor Brook Area in spring 2022 to supplement areas previously impacted by beavers. Additionally, three small black willows were installed in the wetland area to replace one large tree that was documented as dead in the 2022 survey. The invasive plant control and supplemental plantings conducted in 2022 were part of Honeywell's routine annual maintenance that was conducted in each of the five-years of monitoring and maintenance. These efforts were intended to exceed performance criteria and produce the highest quality habitat possible within the monitoring period. To prevent invasive species from gaining a foothold at the site, controls were conducted annually even if invasive species abundance was low, such as in 2022. Since planting can be damaged due to stochastic disturbances, unusual water depth, herbivory, etc., Honeywell was diligent throughout the maintenance period regarding procuring plant material each winter to ensure that more than sufficient plant stock was available each spring. Due to these uncertain conditions, targeted invasive species control and supplemental native plantings were a valuable tool in achieving the restoration goals. Table 2.5 contains a comprehensive list of the 2022 maintenance tasks.

2.7 Recommendations for 2023

Since year-five results for the Wastebed B/Harbor Brook Outboard Area show that habitat restoration has been successful and all goals have been met, it is recommended that monitoring and maintenance should end in that area. Although large tree goals have been met, the one large tree that was documented in "very poor" condition during the 2022 survey will be replaced with three additional large trees in 2023, with no further monitoring planned.

Results of the 2022 additional quantitative vegetation monitoring at the Mouth of Ninemile Creek verified that goals have been met and the habitat restoration continues to be successful. Therefore, no further monitoring is recommended for that area.

As required by the OLMMP, the appropriate field data to calculate an HSI for Northern Pike was collected in 2022 for the Wastebed B/Harbor Brook Outboard Area to evaluate the suitability of the area for Northern Pike spawning. Results of this HSI indicate that the area is suitable for Northern Pike spawning, but due to limitations associated with fluctuations in water levels during a critical reproductive phase, successful pike spawning in this area is unlikely in most years. However, all other variables scored high, indicating that near ideal habitat and water quality exists for Northern Pike in this area. This, paired with the capture of an adult Northern Pike in the spring of 2022 during temperatures known to be conducive to spawning, and the capture of numerous wetland spawning species in this area throughout the five-year monitoring period, indicates that the Wastebed B/Harbor Brook Outboard area of Onondaga Lake is meeting the intended goal of providing suitable Northern Pike spawning habitat. The habitat restoration in this area has resulted in many of the wetland functions having been returned or created, so additional action to achieve better spawning conditions is not needed.

Although there are no success criteria for the fish community, the fifth full year of post-construction monitoring shows that the lake continues to maintain a stable, robust warm water fish community in both remediated and reference areas. Since all monitoring requirements in the OLMMP have been met, no further fish community monitoring is recommended. Similarly, although there are no success criteria for wildlife monitoring, the fifth full year of post-construction wildlife monitoring shows that remediation areas of the lake continue to attract diverse wildlife for general use, nesting, feeding, and reproduction. Since all requirements in the OLMMP have been met, no further wildlife monitoring is recommended.

SECTION 3 BIOTA TISSUE

3.1 Introduction

Honeywell has monitored chemical concentrations in the tissue of biota in Onondaga Lake annually since 2008. Tissue monitoring is part of the basis for evaluating the effectiveness of the lake bottom remedy identified in the ROD. Tissue monitoring provides data to support decisions regarding the attainment of remedial goals and to assess remedy effectiveness by comparing post-remediation fish tissue data to the performance criteria. These include remedial goals for mercury and target concentrations for organics, which are discussed in Section 4 of the OLMMP.

This section discusses biota tissue sampling activities conducted during the 2022 monitoring period. Monitoring in 2022 included the following:

- Collection and analysis of sport fish, large prey fish, and small prey fish tissue
- Collection and analysis of zooplankton tissue

The following are the relevant performance criteria:

- Mercury concentrations in Onondaga Lake sport fish fillet samples that are protective of human health (0.3 and 0.2 milligrams per kilogram [mg/kg] wet weight)
- Mercury concentrations in Onondaga Lake prey fish whole body samples that are protective of wildlife (0.14 mg/kg wet weight)

As stated in the ROD, these criteria address the remedial action objective to be protective of fish, wildlife, and human health. The ROD states that: "A result of such a reduction could be that humans may consume fish in accordance with the state's general advisory for eating sport fish, which states that an individual eat no more than one meal (one-half pound) per week" (NYSDEC and USEPA 2005). The OLMMP notes, however, that mercury contamination occurs throughout the state of New York, and many health advisories are in place due to elevated mercury in some fish species. For example, the 2024 New York State Department of Health (NYSDOH) statewide fish advice for the sensitive population (i.e., people who can become pregnant under age 50 and children under age 15) is to eat no Smallmouth Bass greater than 15 inches or Walleye greater than 19 inches (NYSDOH 2024). For the general population (i.e., everyone else), the statewide fish advice is to eat no more than one meal per month of these species.

Additionally, organic compounds identified in Table 7 of the ROD (NYSDEC and USEPA 2005) are considered in the OLMMP (Parsons 2018b) as points of reference for future evaluations of risk reduction for human and wildlife consumers of fish. Target concentrations for the following organic compounds were presented in the 2018 Annual and Comprehensive Monitoring Report (Parsons 2020b):

- total polychlorinated biphenyls (PCBs) in sport fish and prey fish
- dioxins/furans in sport fish
- dichlorodiphenyltrichloroethane (DDT) and metabolites in prey fish

The ROD estimated that concentrations of contaminants in fish will be reduced within 10 years following completion of remedial activities (i.e., by 2026). The Ecological and Human Health Performance Criteria for mercury and the targets for organics are summarized in **Table 3.1**.

Sampling in 2022 was conducted in accordance with the Biota Tissue Sampling Work Plan, which was included in Appendix B of the OLMMP (Parsons 2018b), with the QAPP for Onondaga Lake, Geddes Brook, Ninemile Creek, and LCP OU-1 Media Monitoring (Parsons 2023a), and with the 2022 Onondaga Lake Scope Memorandum (Parsons 2022a).

The 2022 monitoring results for zooplankton are summarized in **Section 3.2.2**. Recommendations for monitoring in 2023 are included in **Section 3.3**.

3.2 2022 Monitoring Results

3.2.1 Fish

3.2.1.1 Sampling and Analysis Methodology

Sampling for tissue chemical analyses in 2022 was conducted at the same eight locations used from 2008 through 2021 (**Figure 3.1**), as follows:

- Adult sport fish were collected between April 22 and July 15, 2022.
- Large prey fish were collected between April 8 and September 22, 2022.
- Small prey fish were collected from August 1 through 10, 2022.

Twenty-five individuals were collected for tissue chemical analysis from each of the following four species of adult sport fish (100 total samples): Walleye (*Sander vitreus*), Smallmouth Bass (*Micropterus dolomieu*), Pumpkinseed (*Lepomis gibbosus*), and Common Carp (*Cyprinus carpio*). Samples were collected to target three to four individual fish of each species at each location, to the extent practicable. Fish were targeted based on the sizes specified in the OLMMP (Parsons 2018b).

Prey fish sampling included collection of both small and large prey fish. Twenty-four large prey fish were collected in 2022, including 14 White Sucker (*Catostomus commersonii*) and 10 Shorthead Redhorse (*Moxostoma macrolepidotum*). Small prey fish species were collected based on availability at the time of sampling and included 11 Banded Killifish composite samples and 13 Round Goby composites, for a total of 24 samples.

As documented in the approved 2020 Scope Memorandum (Parsons 2020a), 2020 was the first year in which Shorthead Redhorse, which occupies a similar trophic level as White Sucker, were collected. White Suckers had been collected in recent years, but their collection presented challenges due to fluctuations in relative abundance.

Samples were collected using the methods outlined in the OLMMP, dependent on the target species and size. Otoliths (small ear bones) from each Smallmouth Bass, Walleye, and Common Carp and scales from each Pumpkinseed were collected to estimate fish age. Total length (in millimeters) and mass (to the nearest gram) were recorded for each fish submitted for chemical analysis.

All sport fish samples were analyzed for mercury, PCBs, hexachlorobenzene, dioxins/furans (12 samples/species), lipids, and percent moisture. All prey fish samples were analyzed for mercury, PCBs, hexachlorobenzene, DDT and metabolites, lipids, and percent moisture. Fish processing was conducted by SGS Wilmington, an analytical laboratory located in Wilmington, North Carolina. Fish analysis was subsequently conducted at SGS Wilmington for dioxins/furans, lipids, and moisture and SGS Dayton (New Jersey) for mercury, pesticides, and PCBs.

Data validation was conducted in accordance with the Biota Tissue Sampling Plan (Appendix B of the OLMMP; Parsons 2018b) and QAPP (Parsons 2023a). Chemical analytical data generated by the laboratories were reviewed and validated by Parsons for usability in accordance with data validation procedures described in the Data Usability Summary Report (DUSR) provided in **Appendix 3A**. As presented in the DUSR, the fish data from 2022 for all analytes were determined to be usable. However, NYSDEC has indicated that results for PCBs and lipids are potentially biased low based on split samples analyzed at NYSDEC labs. Therefore, NYSDEC and Honeywell are evaluating potential modifications of laboratory extraction/analytical methods for future analysis. If modifications are determined to be necessary, updates to the QAPP will be prepared. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the relevant PCB and lipid results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

3.2.1.2 2022 Results

Chemical concentrations and lipid content in fish are summarized in **Table 3.2**. Dioxins and furans are provided as toxicity equivalent quotients (TEQs); calculated TEQ concentrations for each fish sample are provided in **Appendix 3B**. Figure nomenclature, data treatment, and analyte-specific details are defined in **Figure 3.2**. Chemical concentrations in fish from 2022 are summarized in **Figures 3.3** to **3.8**. The long-term temporal distribution of chemical concentrations in fish and additional reporting to assess potential sources of variability, discussed in **Section 3.2.1.3**, are shown in **Figures 3.9** to **3.58**. Scatterplots of weight versus length for fish collected in 2022 are provided in **Appendix 3B**.

3.2.1.2.1 Mercury

For mercury in 2022, mean and 95% upper confidence limit (UCL) concentrations in Common Carp and Pumpkinseed were below the Human Health Performance Criteria of 0.2 mg/kg and 0.3 mg/kg (**Figure 3.3, Table 3.2**). Mean and 95% UCL mercury concentrations in Smallmouth Bass and Walleye remained above the performance criteria.

Smallmouth Bass and Walleye are longer-lived, higher trophic level species that are expected to take longer to respond to the remedy (USEPA 2020). In addition, mercury concentrations in large Smallmouth Bass and Walleye (like those sampled in this monitoring program) tend to be elevated throughout New York State, as shown by the NYSDOH statewide fish consumption advice (NYSDOH 2024).

Mean and 95% UCL mercury concentrations in small prey fish were below the Ecological Performance Criterion of 0.14 mg/kg, while the mean in large prey fish was equal to the criterion but the 95% UCL was slightly above.

3.2.1.2.2 PCBs

For PCBs in 2022, mean concentrations were between the upper and lower human health targets[3] (0.3 and 0.04 mg/kg) in Smallmouth Bass and Walleye (**Figure 3.4**). In Smallmouth Bass, the 95% UCL concentration was also between the upper and lower targets[3]. In Walleye, the 95% UCL concentration was above the upper target. Mean and 95% UCL concentration in Common Carp were above the upper target of 0.3 mg/kg. In Pumpkinseed, mean PCB concentration was below the lower target of 0.04 mg/kg, with a 95% UCL concentration between the upper and lower targets[3].

In small prey fish, mean and 95% UCL PCB concentrations were below the ecological target of 0.19 mg/kg[3]. In large prey fish, both the mean and 95% UCL PCB concentrations were above the ecological target.

3.2.1.2.3 DDT and Metabolites, Hexachlorobenzene, and Dioxins/Furans

For DDT and metabolites in 2022, mean and 95% UCL concentrations were below the respective ecological targets of 0.049 and 0.14 mg/kg in small prey fish and large prey fish (**Figure 3.5**). DDT and metabolites are not analyzed in sport fish because they were not identified in the ROD as posing a human health risk.

Hexachlorobenzene was not identified as a risk concern in the ROD so there are no Human Health Performance Criteria or targets for hexachlorobenzene in fish tissue to compare against. Hexachlorobenzene results for sport fish and prey fish in 2022 are shown on **Figure 3.6**.

For dioxins/furans as total TEQ, mean and 95% UCL concentrations in Pumpkinseed, Smallmouth Bass, and Walleye were below the lower human health target (1.3 ng/kg) when calculated using both zero and one-half the detection limit for non-detects (**Figures 3.7 and 3.8**). For Common Carp, the mean was below the lower human health target and the 95% UCL was between the upper and lower targets (4.0 and 1.3 ng/kg) when calculated using zero for non-detects (**Figure 3.7**). When calculated using one-half the detection limit for non-detects, the mean concentration was between the upper and lower targets, with a 95% UCL slightly above the upper target (**Figure 3.8**). Dioxin/furans are not analyzed in prey fish because they were not identified in the ROD as posing a risk to ecological receptors.

3.2.1.3 Comprehensive Monitoring Results (2008 through 2022)

As discussed in the OLMMP, comprehensive reviews of monitoring results are to be provided every five years to support the USEPA Five-Year Reviews (FYR) with the intervening years consisting of annual summaries of that year's data.

The last comprehensive report was in 2018, so the next fish monitoring review is planned for the 2023 Comprehensive Annual Report. However, the 2023 results will likely not be ready for inclusion in the FYR due to delays in analyzing samples. These delays occurred while Honeywell and NYSDEC worked to resolve homogenization issues at the previous laboratory, which affected the 2019 and 2020 fish

[3] Due to potential low bias observed in the 2021 and 2022 data, these comparisons to the PCB target concentrations will be reassessed, as needed, following potential application of estimation factors on these data.

tissue samples. A different laboratory analyzed the 2021 and 2022 samples. Therefore, the 2022 results presented in this report will likely be the most recent data available for the FYR.

This section provides an additional summary discussion of long-term trends[4] through 2022 to support the FYR. A more detailed review and interpretation of trends evaluated over time is planned for the 2023 Comprehensive Annual Report.

3.2.1.3.1 Methodology

The results in this section were reviewed from the initial baseline monitoring event conducted in 2008 through the most recent data collected in 2022 and compared to performance criteria for mercury and target concentrations for organic analytes (i.e., PCBs, dioxin/furans, DDT and metabolites).

The fish tissue data are reviewed in the following order:

- Sport fish fillet concentrations for comparison to Human Health Performance Criteria and targets (**Figures 3.9 to 3.28**)
- Small and large prey fish whole body concentrations for comparison to Ecological Performance Criterion and targets (**Figures 3.29 to 3.36**)
- Additional reporting to assess potential sources of variability including:
    - lipid content for organic chemicals (**Figures 3.37 to 3.48**)
    - location for fish with small home ranges (i.e., small prey fish, **Figures 3.49 to 3.53**)
    - length for mercury concentrations (**Figures 3.54 to 3.58**)

For comparison to mercury performance criteria and organic chemical targets, data are presented as box and whisker plots (**Figures 3.9 through Figure 3.36**) that include:

- individual fish specimen results
- mean
- median
- 25th percentile (Q1)
- 75th percentile (Q3)
- whiskers as 1.5 times the interquartile range (IQR)[5]
- 95% UCLs

Figures associated with additional reporting discussed in Section 3.2.1.3.4 (**Figures 3.37 through 3.58**) are presented as mean plus and minus two standard errors, which provides an estimate of 95 percent upper and lower confidence limits.

Four years of data (2017, 2018, 2021, and 2022) are available since remediation activities were completed in 2016. It is important to note that variability in fish tissue concentrations are expected as there are numerous factors that may impact concentrations in individual fish, such as size variability, age, and population structure. As such, results need to be interpreted holistically over multiple years

[4] Statistical trends are not presented within this report. All references to trends presented within this section are observed trends based on the visual review of long-term data plots.
[5] The whiskers are consistent with the approach used in USEPA's ProUCL version 5.2 (USEPA 2022). The lower whisker extends to the minimum or smallest value within Q1 minus 1.5 times the IQR, whichever is higher. The upper whisker extends to the maximum or largest value within Q3 plus 1.5 times the IQR, whichever is lower.

to distinguish real patterns from typical year to year variability. Additional years of data will be needed to fully assess, statistically, the direction and rate of change in concentrations post-remedy (i.e., after 2016). Therefore, the discussion here focuses on a qualitative comparison of pre-remedy and post-remedy concentrations and comparisons to performance criteria and targets.

Tables 3.3a and 3.3b summarize the chemical concentrations in fish tissue from 2015 to 2022 for sport fish fillets and whole-body prey fish, respectively. Table 3.4 summarizes the estimated chemical concentrations in whole body sport fish, calculated from fish fillet data using the conversion factors developed for the Baseline Ecological Risk Assessment (TAMS Consultants, Inc. 2002) and included in the OLMMP (Parsons 2018b). The tables include, for each species and contaminant by year:

- sample size
- the number of detected concentrations
- mean
- 95% UCL

The means and 95% UCLs for 2021 and 2022 data were calculated using ProUCL Version 5.2 by the statistical method shown on the table unless there were three or fewer results with detected concentrations (USEPA 2022). Use of ProUCL to calculate both 95% UCLs and means (unless three or fewer results had detected concentrations) provides a consistent statistical method to calculate both metrics for comparison to performance criteria. If three or fewer results had detected concentrations, then 95% UCLs were not calculated and therefore not presented in tables or figures. However, for the figures, the mean was calculated arithmetically when one to three results had detected concentrations, by substituting either one-half the method detection limit (mercury) or one-half the reporting limit (organic analytes) for non-detected concentrations.

To calculate means and 95% UCLs, ProUCL Version 5.1 was used from 2015 through 2018, and Version 5.2 has been used since 2021. Data from 2019 and 2020 samples were not used due to homogenization issues (Section 3.2.1.3), so no calculations were made for those years. For the 2021 and 2022 data, ProUCL Version 5.2 suggested the use of the 95% Student's-t UCL for datasets that did not follow a discernible distribution when all samples were detected. Consistent with NYSDEC's request, these circumstances were reviewed, and the non-parametric 95% Standard Bootstrap UCL was determined to be a better fit for these datasets. These instances are reflected in Tables 3.3a and 3.3b accordingly.

3.2.1.3.2 Sport Fish Fillet Concentrations

Baseline monitoring began in 2008 for all species except Common Carp, for which monitoring began in 2014.

Mercury

Mean and 95% UCL mercury concentrations in all sport fish were lower in 2021 and 2022 than when Honeywell baseline monitoring began.

Mean and 95% UCL mercury concentrations in Smallmouth Bass and Walleye were generally consistent in 2017, 2018, 2021, and 2022 but lower than in 2016 and most previous years (Table 3.3a, Figures 3.9 and 3.10). Mean and 95% UCL mercury concentrations in Smallmouth Bass and Walleye remain above the upper (0.3 mg/kg) and lower (0.2 mg/kg) Human Health Performance

Criteria. This is expected because these fish are longer-lived, higher trophic level species that take longer to respond to the effects of the remedy (USEPA 2020). In addition, mercury concentrations in large Smallmouth Bass and Walleye (like those sampled in this monitoring program) tend to be elevated throughout New York State, as shown by the NYSDOH statewide fish consumption advice (NYSDOH 2024).

Mean and 95% UCL mercury concentrations in Pumpkinseed and Common Carp were between the upper and lower Human Health Performance Criteria immediately after completion of the remedy in 2016 and 2017, and have been below the lower criterion in the three monitoring events since then (i.e., 2018, 2021, and 2022) (**Figures 3.11 and 3.12**).

PCBs

Mean and 95% UCL total PCB concentrations in all sport fish species collected in 2021 and 2022 were lower than those collected when monitoring began and Smallmouth Bass, Walleye, and Pumpkinseed were less than any prior post-remediation concentration.

Mean and 95% UCL total PCB concentrations in Smallmouth Bass were between the upper (0.3 mg/kg) and lower (0.04 mg/kg) human health targets in 2021 and 2022[3], with minimal variability from 2021 to 2022 (**Figure 3.13**).

The mean total PCB concentrations in Walleye have been generally declining since 2015, with mean concentrations equal to the upper human health target in 2022 for the first time since monitoring began[3]. The 95% UCL total PCB concentrations in Walleye remained slightly above the upper target in 2022 (**Figure 3.14**).

Mean and 95% UCL total PCB concentrations in Common Carp have been consistently between the upper and lower targets[3] or slightly above the upper target since 2018 (**Figure 3.15**).

Mean and 95% UCL total PCB concentrations in Pumpkinseed have been between the upper and lower targets throughout the monitoring period, with mean concentrations in both 2021 and 2022 falling below the lowest target of 0.04 mg/kg[3] (**Figure 3.16**). The 95% UCL total PCB concentration was below the lowest target in 2021 and slightly above in 2022[3]. The slightly higher 95% UCL PCB concentration in Pumpkinseed in 2022 compared to 2021 can be attributed to a single outlier from the location adjacent to Ley Creek in SMU 6, which is an ongoing non-Honeywell source of PCBs to the lake.

Dioxin/Furan TEQs

Mean and 95% UCL dioxin/furan concentrations were evaluated as TEQs calculated in two ways:

- Non-detects were set to one-half the MDL (**Figures 3.17 to 3.20**)
- Non-detects were set to 0 (**Figures 3.21 to 3.24**)

Mean and 95% UCL dioxin/furan concentrations (evaluated as TEQs using non-detects at one-half the detection limit) in sport fish collected in 2021 and 2022 were lower than those collected when monitoring began (**Figures 3.17 to 3.20**). With the exception of Common Carp, mean and 95% UCL concentrations in all sport fish were below the lower human health target (1.3 ng/kg) in both 2021 and 2022.

In 2021 and 2022, the mean concentrations in Common Carp were below the lower target, with a 95% UCL concentration slightly above the lower target in 2021 and slightly above the upper target of 4.0

ng/kg in 2022 (**Figure 3.19**). As shown in **Figure 3.7**, the elevated 95% UCL concentrations in Common Carp in 2022 can be attributed to two individual outliers. Elevated dioxin/furan concentrations in Common Carp, compared to other species, are not unexpected, as this species tends to exhibit higher dioxin/furan TEQs throughout New York State relative to Smallmouth Bass and Walleye (Skinner and Richter 2020).

Hexachlorobenzene

Mean and 95% UCL hexachlorobenzene concentrations in all sport fish collected in 2021 and 2022 were less than those collected when monitoring began (**Figures 3.25 through 3.28**). Concentrations continue to be low for all species and lower than they were when monitoring began and have had a low frequency of detections in many samples analyzed since 2017. Additionally, the variability in 2021 and 2022 concentrations across the monitored sport and prey fish species is lower relative to previous years, suggesting that hexachlorobenzene concentrations in the Onondaga Lake fish population have been reduced.

It is worth noting that although hexachlorobenzene was detected at a higher frequency in 2021/2022 than in 2017/2018, this can be attributed to the change in analytical laboratory and variation in method detection limits. The method detection limits for hexachlorobenzene in 2021 and 2022 were, on average, an order of magnitude lower than those used in 2017 and 2018.

There are no Human Health Performance Criteria, Ecological Performance Criteria, or targets for hexachlorobenzene in fish tissue.

3.2.1.3.3 Small and Large Prey Fish Whole Body Concentrations

Mean and 95% UCL contaminant concentrations in prey fish generally decreased from 2017 to 2022 or were below goals and targets, with the exception of PCBs in small and large prey fish and mercury in large prey fish (**Figures 3.29 through 3.36**).

Small Prey Fish

For small prey fish collected in 2021 and 2022, mean and 95% UCL mercury and PCB concentrations were lower than when monitoring began. Both the mean and 95% UCL concentrations for mercury have been below the Ecological Performance Criterion of 0.14 mg/kg since 2016 (**Figure 3.29**). Mean total PCB concentrations in small prey fish have been below the ecological target (0.19 mg/kg) since 2012 with the 95% UCL slightly exceeding the target in most years[3] (**Figure 3.31**).

Although mean PCB concentrations in small prey fish have remained below the ecological target lake-wide since 2012[3], PCB concentrations have consistently been the highest in SMU 6 since 2015, as discussed in **Section 3.2.1.3.4**. These elevated PCB concentrations are attributed to ongoing contributions of PCBs from Ley Creek, which enters Onondaga Lake at the north end of SMU 6. As noted in **Section 7**, PCB concentrations in surface water are also elevated in the vicinity of Ley Creek. This ongoing source likely contributes to PCB accumulation in fish tissue in SMU 6. This source is unrelated to Honeywell and will be remediated by others in the future.

Mean and 95% UCL concentrations of DDT and metabolites in small prey fish in 2021 and 2022 remained well below the ecological target (0.049 mg/kg) and have remained relatively unchanged since collection began in 2008 (**Figure 3.33**). This is consistent with Appendix I of the Feasibility Study

(Parsons 2004), which noted that DDT and metabolites concentrations in fish were unlikely to change for two reasons. First, the fish tissue concentrations probably reflect background concentrations in Onondaga Lake. And second, the surface-weighted average concentrations of DDT in Onondaga Lake's sediments were lower than in nearby Otisco Lake.

Mean and 95% UCL hexachlorobenzene concentrations in small prey fish (**Figure 3.35**) show no discernible trends[4] over the collection period. There are no ecological goals or targets for hexachlorobenzene in fish tissue.

Large Prey Fish

For large prey fish, mean and 95% UCL concentrations of mercury were lower in 2021 and 2022 than when monitoring began in 2014 (**Figure 3.30**). Consistent with 2016 and 2017 results, mean mercury concentrations were below the Ecological Performance Criterion of 0.14 mg/kg in 2021 and 2022, with a 95% UCL concentration slightly above the criterion.

Mean and 95% UCL PCB concentrations in large prey fish were similar to those measured in 2014 when Honeywell baseline monitoring began, and less than concentrations measured during 2015 and 2016 (**Figure 3.32**).

As discussed in **Section 3.2.1.1**, large prey fish collection was limited exclusively to White Sucker prior to 2020. Due to fluctuations in relative abundance, large prey fish collection in 2021 and 2022 consisted of a combination of White Sucker and Shorthead Redhorse. These two species are members of the same family (Catastomidae), and occupy a similar ecological niche, as both are benthic insectivores. However, variation in diets between the two species has been documented. The diets of both species can be variable based on several factors, including but not limited to location, prey availability, and competition with other fish. In a system with both species present, White Sucker typically will adopt more of a generalist strategy, consuming a higher diversity of benthic macroinvertebrates compared to Shorthead Redhorse. Shorthead Redhorse tend to consume strictly benthic prey (Welker and Scarnecchia 2003) and predominantly caddisfly larvae, when available (Nelson 2005). In contrast, White Sucker, which is morphologically adapted for benthic feeding, will consume zooplankton if available (Saint-Jacques *et al*. 2000).

Evaluation of the 2021 and 2022 White Sucker and Shorthead Redhorse data found statistically significant differences (p-value < 0.05) between the two species in mercury concentrations (wet weight and length-normalized) and PCB concentrations (wet weight only) with Shorthead Redhorse having higher average concentrations than White Sucker. No significant differences were observed between the two species lipid-normalized PCB concentrations, weights, or lipid contents (**Appendix 3B, Table 3B.2**).

The addition of Shorthead Redhorse to the program may be resulting in a decrease in the rate of annual decline in mercury and PCBs. Evaluation of length found minor statistical differences (p=0.049) between the two species, with Shorthead Redhorse generally being slightly longer on average than White Sucker. Due to the relatively small sample size available for this evaluation, additional data are needed to determine if differences in length result in the differences observed in chemical concentrations between the two species. Differences in length between these two species will continue to be evaluated with additional data in future analysis.

Mean and 95% UCL concentrations of DDT and metabolites in large prey fish have remained well below the ecological target (0.14 mg/kg) since monitoring began in 2014 (**Figure 3.34**).

Mean and 95% UCL hexachlorobenzene concentrations in large prey fish (**Figure 3.36**) have remained low and show no discernible trends[4] over the collection period. As mentioned for small prey fish, there are no ecological goals or targets for hexachlorobenzene in fish tissue.

3.2.1.3.4 Additional Reporting to Assess Potential Sources of Variability

Fish lipid content, location (e.g., individual SMUs), and fish length can introduce variability in contaminant concentrations when comparing data among years. Figures referenced in this section are presented as mean plus and minus two standard errors, which provides an estimate of 95 percent upper and lower confidence limits. The arithmetic mean and standard errors were calculated with non-detects substituted at one-half the method detection limit (MDL) for mercury and one-half the reporting limit (RL) for most organic analytes. Note that these means using the substitution method for non-detects are not compared to performance criteria or targets. The potential biased low lipid results discussed in Section 3.2.1.1 may result in an artificial increase in lipid normalized results for all species in 2021 and 2022.

Lipid Content

To evaluate trends[4] in organic chemicals in fish tissue, data are presented on a lipid-normalized basis to reduce variability caused by lipid content of fish collected. Concentrations tend to be higher in fish with higher lipid content. Lipid-normalized plots were developed by dividing the chemical concentrations in individual fish by their respective lipid content.

As documented in the last USEPA Five Year Review (USEPA 2020), the previously reported 2017 and 2018 lipid results were artificially biased high due to a misinterpretation of the lipid analysis SOP by the laboratory. A detailed review of 2017 and 2018 lipid results concluded that a subset of the original results was invalid. Samples with sufficient remaining archive mass were reanalyzed. A detailed summary of the lipid reanalysis and evaluation can be found in the 2019 Annual Report (Parsons 2023b). Only valid lipid results from 2017 and 2018 were used for the lipid-normalized plots discussed below.

Mean lipid-normalized PCB concentrations in Smallmouth Bass and Walleye are similar to each other and have remained low since 2017 with minimal variability (**Figure 3.37**). Mean lipid-normalized PCB concentrations in Common Carp are similar to Pumpkinseed, with the lowest mean concentrations observed in 2021 for Common Carp and 2022 for Pumpkinseed (**Figure 3.38**). Mean lipid-normalized PCB concentrations in small prey fish were variable from 2012 to 2022, but all means were less than in 2008 (**Figure 3.39**). Mean lipid-normalized PCB concentrations in large prey fish have been variable since monitoring began (**Figure 3.40**). Mean-lipid normalized PCB concentrations increased from 2014 to 2015 and 2016, decreased in 2017 and 2018, and then increased in 2021 and 2022. This variability may be partially attributed to the change in analytical laboratories/methods, and will be investigated further by Honeywell and NYSDEC.

Mean lipid-normalized dioxin/furan concentrations in Smallmouth Bass and Walleye (**Figure 3.41**) and Pumpkinseed and Common Carp (**Figure 3.42**) were somewhat variable and low. Mean lipid-normalized DDT and metabolites concentrations in small prey fish are variable, with concentrations in

2021 and 2022 lower than what was observed in 2018 (**Figure 3.43**). Mean lipid-normalized DDT and metabolites concentrations in large prey fish are also variable with the highest value reported in 2018 (**Figure 3.44**), due to an unusually high DDT and metabolites concentration in one sample.

Mean lipid-normalized hexachlorobenzene concentrations in Smallmouth Bass and Walleye have declined since 2008, with concentrations in 2021 and 2022 lower than prior years (**Figure 3.45**). Mean lipid-normalized hexachlorobenzene concentrations in Pumpkinseed and Common Carp were variable but, similar to Smallmouth Bass and Walleye, concentrations in 2021 and 2022 were lower than prior years (**Figure 3.46**). Mean lipid-normalized hexachlorobenzene concentrations in small prey fish have steadily declined since 2008 (**Figure 3.47**). Mean lipid-normalized hexachlorobenzene concentrations in large prey fish were variable, with concentrations in 2021 and 2022 lower than prior years (**Figure 3.48**).

Location

Figures 3.49 through 3.53 present chemical concentrations by SMU over time for small prey fish and Pumpkinseed. These species have relatively small home ranges and tissue concentrations are expected to reflect their exposure to the conditions in the immediate area where they are collected. Concentrations are shown on a wet weight basis for all chemicals. Figures showing chemical concentrations by SMU have previously been provided for large prey fish and Pumpkinseed but are not included in this report except for PCBs in Pumpkinseed.[6]

On an individual SMU basis, mean mercury concentrations in small prey fish have declined since 2008, particularly in SMUs 2, 3, 4, and 7, which are within the remediated areas where concentrations were the highest prior to remediation (**Figure 3.49**). Average mercury concentrations in small prey fish have remained low and generally similar across all SMUs since 2018, with mean concentrations at or below the Ecological Performance Criterion of 0.14 mg/kg in all SMUs since 2016.

For PCBs in small prey fish on an individual SMU and wet weight basis, mean concentrations have remained generally low, below the ecological target[3] of 0.19 mg/kg, and similar across all SMUs since 2017, with the exception of SMU 6 (**Figure 3.50**). PCB concentrations in small prey fish have consistently been the highest in SMU 6 since 2015. The elevated PCB concentrations in SMU 6 are likely attributed to the ongoing PCB remedy in Ley Creek, which enters Onondaga Lake at the north end of SMU 6 (**Figure 3.1**). The average concentration at this location in 2021 (0.667 mg/kg) was four times higher than the highest concentration documented at the other sampling locations in 2021 (0.168 mg/kg) and twenty-one times higher than the lowest (0.0314 mg/kg). Similarly, the average concentration at this location in 2022 (0.256 mg/kg) was two times higher than the highest concentration documented at the other sampling locations (0.121 mg/kg) and over one hundred times higher than the lowest (0.0024 mg/kg).

[6] While Pumpkinseed do have a generally smaller home range, this can vary seasonally (Copp *et al*. 2010). Similarly, large prey fish home ranges can be variable throughout the year, particularly during spawning season (Doherty *et al*. 2010). Therefore, fish tissue results for Pumpkinseed, White Sucker, and Shorthead Redhorse are more appropriately interpreted on a lake-wide basis. Except for PCBs in Pumpkinseed, minimal spatial patterns have been observed in the data for these species. As such, figures showing chemical concentrations by SMU are not included for large prey fish (White Sucker and Shorthead Redhorse), and for Pumpkinseed are only included for PCBs.

PCBs in Pumpkinseed, which have a larger home range than small prey fish but generally smaller home range when compared to other sport fish (Copp *et al*. 2010), were also evaluated on an individual SMU basis. Mean PCB concentrations in Pumpkinseed were generally low, below the lower human health target[3] of 0.04 mg/kg, and similar across all SMUs in 2021 and 2022, with the exception of SMU 6 (**Figure 3.51**). Similar to small prey fish, the elevated PCB concentrations in Pumpkinseed in SMU 6 are likely attributed to the PCBs in Ley Creek.

On an individual SMU basis, mean DDT and metabolites concentrations in small prey fish on a wet weight basis have been similar and well below the ecological target of 0.049 mg/kg throughout the monitoring period (**Figure 3.52**). As discussed in **Section 3.2.1.3.3**, DDT and metabolites concentrations in fish were low prior to remediation and not expected to change because concentrations probably reflect background concentrations.

For hexachlorobenzene in small prey fish on an individual SMU basis, mean wet weight concentrations were similar among SMUs, and concentrations were low, with a high frequency of non-detects (**Figure 3.53**), except for SMU 7 in 2008 and 2014 where slightly higher wet weight values were observed.

Length

Potential variability attributable to length is sometimes evaluated using length-normalization whereby the mercury concentration in each individual fish is divided by the length of that fish, resulting in units of milligrams mercury per kilograms fish per millimeters fish (mg/kg-mm). For the small prey fish composites, the mercury concentration in the composite sample is divided by the average length of the individual fish that make up the composite.

Trends[4] in mean concentrations in sport fish and prey fish on a length-normalized basis are presented in **Figure 3.54** and **3.55**, respectively. In sport fish, length-normalized mercury concentrations have been variable, with declines most apparent in Smallmouth Bass and Walleye (**Figure 3.54**). In prey fish, average length-normalized mercury concentrations in large prey fish have remained generally low since 2014 with minimal variability, whereas in small prey fish, declines were evident after the dredging and capping began in 2012 through 2017 (**Figure 3.55**). Mean length-normalized mercury concentrations in small prey fish have remained generally consistent and low since 2017.

To evaluate mercury trends[4] in fish tissue and allow comparison to other lakes, mercury data are often presented on a length-standardized basis in the scientific literature to reduce variability in concentrations due to the fish size collected. Mercury concentrations tend to increase with age and therefore fish length, which is considered a surrogate for age. This general trend[4] is apparent in sport fish and large prey fish in Onondaga Lake, particularly within years (**Appendix 3B**).

Concentrations in standard-length fish were calculated by determining the relationship (i.e., linear regression) between mercury concentration and length for each species in each year (2008 through 2022). Using these relationships, mercury concentrations were estimated for standard lengths that varied by species. The standard length for each species was calculated as the mean length for all fish of that species in the 2008 through 2022 dataset (calculated by averaging the mean lengths for each respective year due to unequal sample size among years). This approach is consistent with how standard lengths were developed by NYSDEC when evaluating variability in mercury concentrations between different lakes in New York State (Simonin et al. 2008). Small prey fish samples were not

length-standardized because multiple individual small prey fish (with similar, but not identical lengths) make up a composite sample. The following lengths were used for length standardization:

- Smallmouth Bass: 422 mm
- Walleye: 537 mm
- Common Carp: 568 mm
- Pumpkinseed: 162 mm
- Large Prey fish: 441 mm

Mean concentrations in standard length Smallmouth Bass and Walleye in 2022 were, respectively, approximately one-quarter and one-third of the concentrations in 2008 (**Figure 3.56**). In Smallmouth Bass, length-standardized mercury concentrations were similar in 2021 and 2022. In Walleye, length-standardized mercury concentrations were less in 2022 than in 2021, and consistent with the concentrations in 2018.

Mean concentrations in Common Carp on a length-standardized basis show a general decline since initial sampling in 2014, with concentrations in 2022 lower than all prior years (**Figure 3.57**). Mean concentrations in Pumpkinseed on a length-standardized basis were variable between 2008 and 2015, with concentrations declining from 2015 to 2018 (**Figure 3.57**). The length-standardized mercury concentrations in 2021 and 2022 were higher than in 2018, but comparable to those reported in 2016 and 2017.

Mean concentrations in large prey fish on a length-standardized basis show a decline from 2014 to 2022 (**Figure 3.58**). Length-standardized concentrations in 2021 and 2022 were less than half that of 2014.

3.2.2 Zooplankton

Although there are no remedial performance criteria for zooplankton, analysis of mercury and methylmercury concentrations provides a measure of change in potential exposure to fish that eat zooplankton and aid in the understanding of mercury cycling.

3.2.2.1 Sampling and Analysis Methodology

Zooplankton samples were collected for mercury analysis at South Deep 17 times from May 24 to November 15, 2022, at a frequency that ranged from weekly to monthly (**Figure 3.1**). All 17 samples were analyzed for total mercury and methylmercury.

UFI also collected a sample of large (at least 1 mm long) *Daphnia spp*. zooplankton on July 19, which was analyzed for total and methylmercury. Although the number of larger *Daphnia* was sufficient for analysis on this date, the zooplankton community was generally dominated by smaller taxa, including *Bosmina*.

3.2.2.2 Results

Wet weight concentrations of total mercury and methylmercury in zooplankton samples collected at the South Deep location in 2022 are presented in **Table 3.5** and **Figure 3.59**. The DUSR for zooplankton results is included in **Appendix 3A**.

Wet weight total mercury concentrations measured in zooplankton during 2022 ranged from 0.0050 mg/kg (or parts per million) on August 16 to 0.033 mg/kg on August 2. Methylmercury concentrations observed in zooplankton during 2022 ranged from 0.0027 mg/kg on October 25 to 0.073 mg/kg on October 31. Total mercury and methylmercury concentrations in the July 19 *Daphnia* sample were roughly an order of magnitude lower than measured in the whole zooplankton sample.

Contribution of methylmercury to total mercury in 2022 ranged from 14 percent on September 20 to 72 percent on August 16 (**Figure 3.59**). The contribution of methylmercury was calculated as 521 percent on October 31; however, this value is clearly erroneous because the reported methylmercury concentration was five times greater than the total mercury concentration.

Except for the high value reported on October 31, 2022, and relative to pre-nitrate addition values, methylmercury concentrations in zooplankton have remained consistently low from the first year of nitrate addition through 2022 (**Figures 3.60 and 3.61**). The anomalously high methylmercury result observed on October 31 was determined to be an erroneous result as discussed above. As such, the next highest methylmercury concentration reported in 2022 is shown as the maximum concentration in **Figure 3.61**.

3.3 Recommendations for 2023

It is recommended that fish and zooplankton sampling continue in 2023 as specified in the OLMMP.

Fish monitoring will continue until NYSDEC/USEPA determine that the relevant remedial action objectives (RAOs) and preliminary remediation goals (PRGs) in the ROD have been achieved to the extent practicable. Fish tissue monitoring is expected to be an element of the long-term monitoring program for the foreseeable future and will be necessary to ensure the remedy remains effective. Modifications to the fish tissue program over time are expected and will be discussed with, and approved by, NYSDEC prior to implementation.

SECTION 4 MONITORED NATURAL RECOVERY

4.1 Introduction

Monitored Natural Recovery (MNR) is a significant component of the remedy for the sediment in Onondaga Lake's profundal zone, which is also referred to as SMU 8. Water depths in SMU 8 are greater than 30 feet. At this depth, waters typically stratify thermally from mid-May through mid-October. Natural recovery occurs gradually as older sediment is buried by new sediments with lower mercury concentrations that enter the lake through tributary inflows and direct runoff. Results from monitoring conducted in 2021, and prior years indicate that natural recovery of SMU 8 sediments is progressing faster than was expected based on projections made in the Final Design (Parsons and Anchor QEA 2012).

Sediment sampling in SMU 8 for mercury analysis was conducted to monitor ongoing natural recovery in accordance with the final design for the lake bottom remedy (Parsons and Anchor QEA 2012). The primary objective of sediment sampling is to provide a basis for determining achievement of the PRGs set forth in the ROD (NYSDEC and USEPA 2005). This includes achieving a mercury probable effects concentration (PEC) of 2.2 mg/kg or lower on a point-by-point basis in the profundal zone and a mercury bioaccumulation-based sediment quality value (BSQV) of 0.8 mg/kg or lower on an area-wide basis within 10 years following remediation of upland sources, littoral sediments, and thin-layer capping in portions of the profundal zone. Area-weighted average mercury concentrations must meet the mercury BSQV of 0.8 mg/kg within each of five subareas of the lake bottom that together cover the entire surface area of Onondaga Lake. The five lake subareas from north to south are designated the North Basin, Ninemile Creek Outlet Area, Saddle, South Basin, and South Corner (**Figures 4.1A** and **4.1B**).

The 2017 progress monitoring results indicated that the MNR goals were likely met, which triggered two consecutive years of compliance monitoring, which involved an expanded number of cores. The 2021 monitoring event was the first of two compliance monitoring events and included collection of an expanded number of cores from both the profundal and littoral zones for chemical analysis. Monitoring also included the collection of cores from microbead plots for visual inspection to assess the depth of mixing of surface sediments and sedimentation rates.

The second compliance monitoring event was conducted in 2022. Monitoring conducted in 2022 included collection and analysis of littoral and profundal zone surface sediments for total mercury, and sediment trap sampling and analysis for mercury and suspended solids analysis.

As detailed below, mercury sampling results from the 2021 and 2022 compliance monitoring events confirmed that MNR-related remedial goals have been achieved, Therefore, no further MNR-related monitoring is recommended.

4.2 2022 Monitoring

Results from SMU 8 sediment sampling conducted in 2022, which was the second of two compliance monitoring events, indicate that natural recovery in SMU 8 is progressing faster than model predictions, and that goals have been achieved.

Shallow sediment cores were collected at 49 locations from the profundal zone (**Figures 4.1A** and **4.1B**). Additionally, as documented in the NYSDEC-approved 2022 Onondaga Lake Scope Memorandum (**Appendix 1A**), two littoral locations (S112 and S373) were sampled in 2022. Sampling was conducted from May 24 through May 25, 2022, for profundal zone samples and August 11, 2022, for the littoral zone samples. Mercury data from the cores are presented in **Table 4.1**. These data, as they relate to compliance with the PEC and BSQV, are discussed below in Section 4.3. The DUSR for these data is included in **Appendix 4A**, which includes the chemical data reported by Eurofins TestAmerica that Parsons reviewed and validated for usability in accordance with data validation procedures presented in the QAPP (Parsons 2023a). Boring logs are presented in **Appendix 4B**.

Sediment traps are deployed annually to provide supplemental information on the mercury content of settling sediments and to aid in the assessment of sediment deposition rates. Sediment traps were deployed at the South Deep sampling location at a water depth of approximately 33 feet (or 10 meters), which is below the thermocline for most of the summer stratification period. Sampling was conducted from May 2 through November 15, 2022. Deployment periods ranged from 6 to 9 days. **Table 4.2** presents mercury and total suspended solids data from 2022. **Appendix 4A** contains the DUSR associated with MNR. Sediment trap samples were collected continuously over the deployment intervals, and the slurry from the sediment traps was analyzed by Eurofins for low-level total mercury and by UFI for total suspended solids and total fixed solids. The 2022 sampling and analyses were conducted in accordance with the MNR Sampling Work Plan included in Appendix A of the OLMMP (Parsons 2018b), the 2022 Onondaga Lake Scope Memorandum (Parsons 2022a) and the QAPP (Parsons 2023a). There were no deviations from the work plan in 2022. Results from sediment traps are discussed in Section 4.4.

4.3 Round 2 Compliance Monitoring Results

As discussed above, the MNR goal is to achieve a mercury PEC of 2.2 mg/kg or lower on a point-by-point basis in the profundal zone at 0-to-4-centimeter (cm) depth and a mercury BSQV of 0.8 mg/kg or lower on an area-wide basis in each of the five subareas. Data collected in 2021 met the PEC for both the 0 to 4 cm and 4 to 10 cm depth, although compliance is related to only the 0 to 4 cm depth. Additionally, the BSQV was met in all five subareas of the Lake. The lowest surface weighted average concentration (SWAC) was in the Mouth of Ninemile Creek subarea (0.32 mg/kg) and the highest was in the North Basin (0.66 mg/kg). Since goals were met in 2021, the second compliance event was conducted in 2022. The 2022 monitoring results relative to these goals are discussed below. Section 4.4 discusses the processes controlling natural recovery, specifically settling sediment rates and mercury concentrations and sediment mixing depth.

4.3.1 Mercury PEC Compliance

Mercury concentrations measured in 2022 in surface (0 to 4 cm) and subsurface (4 to 10 cm) sediments throughout SMU 8 are listed in **Table 4.1**. All mercury concentrations from SMU 8 are below the mercury PEC of 2.2 mg/kg on a point-by-point basis in the profundal zone for the 0 to 4 cm sampling interval, which is the compliance depth for the evaluation of goal attainment in SMU 8 as defined by the OLMMP. Additionally, no locations exceeded the PEC for the 4 to 10 cm interval, as shown in **Table 4.1**. Analysis of the 4 cm to 10 cm was completed consistent with the OLMMP to provide further data in the event of bioturbation/mixing deeper than the 4 cm compliance depth.

4.3.2 Mercury BSQV Compliance

Area-weighted average mercury concentrations were calculated for the five subareas of Onondaga Lake, which include both the profundal and littoral zones, for comparison to the BSQV. Area-weighted average concentrations in each subarea were calculated using the following datasets:

- 2022 SMU 8 surface sediment samples
- 2021/2022 uncapped littoral zone surface sediment samples
- 2022 cap monitoring data (including both solid phase and porewater converted to solid phase using equilibrium partitioning) within the 0 to 15 cm depth interval within the littoral zone (0- to 6-inch samples and 3- to 6- inch samples included) and 0- to 4- cm depth intervals for locations within the profundal zone
- 2019 surface sediment data collected from CSX area
- Pre-design investigation (PDI) and remedial investigation (RI) samples collected from littoral zone surface sediment samples for those locations not resampled in 2021 and 2022 that are outside of capped areas

Locations of the samples used and the resulting Thiessen polygons used for calculation of SWACs in each subarea are shown in **Figure 4.2**. The analysis indicates that the sediment mercury SWACs are less than the mercury BSQV of 0.8 mg/kg in all five subareas of Onondaga Lake. The lowest SWAC was in the South Corner subarea (0.39 mg/kg), and the highest was in the North Basin (0.67 mg/kg). SWACs for all five subareas are presented in **Table 4.2**. Detailed calculations are presented in **Appendix 4C**. Mercury SWACs in 2022 are less than expected by this time based on predictions presented in Appendix N of the Final Design (Parsons and Anchor QEA 2012), confirming that recovery is occurring at a faster rate than predicted, and goals have been achieved.

4.3.3 Littoral Zone Sampling

A subset of littoral zone sample locations that were used to calculate the SWACs in the Final Design were sampled in 2021 to verify that conditions have not changed significantly since the locations were previously sampled (during RI and PDI). Except for two locations, mercury concentrations measured in 2021 were consistent with or lower than previously measured concentrations. The two locations for which there were observed differences between the historical and 2021 data were S112 and S373, both of which are in the North Basin. These two locations were resampled in 2022, and the 2022 data were used for the SWAC calculations. Measured mercury concentrations at S112 were 1.1 mg/kg in

1992, 1.9 mg/kg in 2021, and 2.6 mg/kg in 2022. The measured mercury concentration at S112 exceeded the PEC in 2022. The resultant polygon for that station is only approximately 3% of the North Basin area, which has a calculated SWAC of 0.67 mg/kg, which is less than the BSQV. Measured mercury concentrations at S373 were 0.56 mg/kg in 2000, 0.83 mg/kg in 2021, and 0.43 mg/kg in 2022.

4.4 Assessing Processes Controlling Natural Recovery

Natural recovery in SMU 8 sediments is controlled by mixing depth and sedimentation rates (i.e., burial) and mercury concentrations on settling sediment particles. During the compliance events, sampling was conducted to evaluate the mechanisms that control natural recovery, including core collection in microbead plots to evaluate mixing and sedimentation rates (2021) and sediment traps to evaluate sedimentation rates and mercury concentrations in settling particles (2021 and 2022).

In June and July 2009, microbead markers were deposited on top of profundal zone sediments at nine 1,400-square-foot plots located in the deep-water zone of Onondaga Lake to assess sedimentation rates in SMU 8. Sedimentation rates were estimated from cores collected in the microbead plots by measuring the thickness of sediment that accumulated on top of the microbead marker.

Sedimentation rates were estimated using the thickness of sediment accumulation since 2009, when the microbeads were placed, and are reported in Table 4.5 of the 2021 report. The thickness of sediment accumulation is based on observation of depth to microbead markers from the cores collected from the microbead plots (see 2021 report). The results indicate that sedimentation rates range from 0.03 to 0.27 grams per square centimeters per year (g/cm^2/year), with an average of 0.17 g/cm^2/year. The sedimentation rate of 0.25 g/cm^2/year used in the final design natural recovery modeling is within the range measured in 2021.

The cores collected from the microbead plots were also used to assess mixing depths. The presence of layers or laminations in the SMU 8 sediment is primary evidence that SMU 8 sediment is relatively undisturbed and not affected by bioturbation to depths greater than 4 cm or resuspension of lakebed sediment. Consistent with examinations completed in previous years, visual inspection of the cores collected in 2021 focused on the upper portion of the core where observations are representative of more recent lake mixing conditions. Based on the visual observations of laminations from the cores, mixing depths range from <0.1 cm to 3 cm in 17 of the 18 cores. There was one outlier with a mixing depth of 9.5 cm[7]. The average mixing depth was 1.67 cm (**Appendix 4D** of the 2021 report). This is less than the mixing depth (4 cm) assumed in the MNR modeling conducted as part of the Final Design (Parsons and Anchor QEA 2012).

Sediment traps are another method used to assess sedimentation rates and mercury concentrations in settling sediments. Depositing sediment collected from sediment traps deployed each year in the south basin is analyzed for mercury. These data provide estimates of mercury sediment concentrations

[7] The core with a mixing depth of 9.5 cm was collected from the North Basin in 37 feet of water. Mercury concentrations measured below 4 cm sediment depth (4 – 10 cm) in the North Basin samples were less than the mercury PEC of 2.2 mg/kg. Therefore, if mixing did extend beyond 4 cm in the North Basin, mercury concentrations would not exceed 2.2 mg/kg.

depositing on the lake bottom. Results from sediment trap monitoring conducted in 2022 (**Table 4.3**) indicate that sedimentation rates are higher than those assumed during the final design, and mercury concentrations on depositing particles are lower than the assumed value in the MNR modeling conducted during the final design, as detailed below. These results support the conclusion that MNR is occurring faster than predicted. The deposition rate of suspended solids in 2022 ranged from 2,653 to 20,728 milligrams per square meter per day (mg/m^2/day), with an average of 7,810 mg/m^2/day, which is higher than the 6,850 mg/m^2/day assumed in the Final Design (Parsons and Anchor QEA 2012). Mercury concentrations in sediment trap solids collected in 2022 ranged from 0.06 to 0.44 mg/kg, with a mean of 0.16 mg/kg, which is lower than the mercury concentration of 0.4 mg/kg used in the natural recovery modeling conducted during the Final Design. From 2011 through the end of construction in 2016, average mercury concentrations in settling sediment ranged from 0.43 mg/kg (2016) to 1.1 mg/kg (2012). Average mercury concentrations in settling sediment since the completion of the remedy have been lower, ranging from 0.16 mg/kg (2022) to 0.28 mg/kg (2020).

4.5 Summary of Results and Recommendations

Based on SMU 8 sediment sampling results from the 2021 and 2022 compliance monitoring events and an evaluation of the comprehensive data set, natural recovery of SMU 8 sediments is progressing faster than anticipated based on projections completed as part of the Final Design. SMU 8 sediments met the mercury PEC on a point-by-point basis and the mercury BSQV on a SWAC basis during both the 2021 and 2022 compliance monitoring events, verifying that MNR sediment-based remedial goals have been achieved and further sampling in SMU 8 is no longer needed. Therefore, it is recommended that monitoring related to MNR end, and no further collection of SMU 8 sediment samples, collection of sediment trap data, or collection of frozen cores is necessary at this time. In the event that increased sediment mixing is observed in the future, consideration of additional data collection and/or analyses to confirm MNR goals continue to be met would be evaluated with NYSDEC. Additionally, periodic sampling may be needed in support of the Five-Year Review process.

SECTION 5 2022 NITRATE ADDITION

5.1 Introduction

5.1.1 Purpose and Background

Detailed below are the activities and results from the ninth year of full-scale nitrate addition conducted on behalf of Honeywell. Nitrate is being added to maintain nitrate concentrations in the hypolimnion of Onondaga Lake sufficient to mitigate the release and/or production of methylmercury from low levels of mercury in the lake's profundal zone (i.e., deep water) sediment (Parsons and UFI 2014b). Methylmercury is a substance that bioaccumulates in aquatic organisms and can make fish unsuitable for human consumption. Methylmercury was not significantly released from underlying sediment to lower hypolimnion waters during the summer of 2022 when deep lake waters would be prone to methylmercury release in the absence of nitrate addition. This lack of methylmercury release from SMU 8 sediment demonstrates that nitrate addition was again effective in 2022 as it has been since the nitrate addition program began in 2011.

The remedy for the Onondaga Lake bottom is described in the ROD prepared by the NYSDEC and the USEPA in 2005. In 2014, following completion of the three-year nitrate addition pilot test, NYSDEC and USEPA issued an Explanation of Significant Differences that specified continuation of nitrate addition to the hypolimnion of Onondaga Lake as warranted during summer and early fall (NYSDEC and USEPA 2014).

As Onondaga Lake surface water temperatures increase during spring and early summer months, the water column thermally stratifies so the warmer, less dense waters of the epilimnion overlie the colder, denser waters of the hypolimnion. The epilimnion and hypolimnion are separated at a water depth of approximately 30 feet (9 meters) by the thermocline, which greatly limits transport between these layers. The hypolimnion is subject to depletion of dissolved oxygen followed by depletion of dissolved nitrate during the stratification period, which typically extends from mid-May through mid to late October. When concentrations of oxygen and nitrate are low, profundal sediments may release methylmercury to the water column. Methylmercury, if present in the profundal zone of the lake, can be transported to the upper waters primarily when lake waters mix in the fall at a time known as fall turnover. During summer periods in years prior to the nitrate addition pilot test, depletion of nitrate in lower waters resulted in higher methylmercury concentrations in those waters.

During 2007 and 2008, releases of methylmercury to the hypolimnion were found to be substantially lower than in prior years due primarily to elevated nitrate concentrations in the lake. The increase in nitrate was a consequence of wastewater treatment upgrades implemented at the Onondaga County Metropolitan Syracuse Wastewater Treatment Plant (Metro) located along the southern (upstream) shore of Onondaga Lake. Wastewater treated at Metro is discharged into the nearshore waters of the lake. In 2004, Onondaga County began operating a biologically-active filter system at Metro that converts ammonia in wastewater to nitrate. As a result, the available pool of nitrate in the hypolimnion at the start of summer stratification almost doubled. In 2005, Onondaga County implemented an advanced phosphorous-removal system that resulted in decreased algal growth in the upper waters

of the lake and reduced demand for oxygen and nitrate in the hypolimnion. Because of Metro's additional wastewater treatment efforts, nitrate persisted in the Onondaga Lake hypolimnion for a significantly greater time during summer months of 2007 and 2008, which inhibited the release of methylmercury from SMU 8 sediments (UFI and Syracuse University [SU] 2007; Todorova et al. 2009). The nitrate addition pilot test was conducted successfully for three years from 2011 through 2013, and the full-scale nitrate addition has been conducted from 2014 through 2022, which has further inhibited the release of methylmercury from profundal zone sediments. The full-scale application program in 2022 is summarized below.

5.1.2 Operation and Monitoring

Nitrate addition O&M was performed in 2022 in accordance with the approved O&M Plan (Parsons and UFI 2014b). During 2022, as during previous years, liquid calcium nitrate solution was diluted with upper lake waters and added directly to the lower waters in the profundal zone at three locations in the lake. One application location was in the northern basin of Onondaga Lake, and the other two were in the southern basin (**Figure 5.1**). The three application locations used in 2022 were the same locations at used from 2011 through 2021.

In 2022, nitrate was added to the lower, stratified waters of Onondaga Lake in 44 nonconsecutive applications from July 6 through October 11 (see **Table 5.1**). A target one-day dose of liquid calcium nitrate solution[8] was applied at one of the three application locations during each application day. Two of the 44 applications were partial doses due to unsafe weather conditions or the approach of sunset.

Monitoring of lake conditions during 2022 provided the basis for assessing lake conditions directly and indirectly associated with nitrate addition. Three-dimensional monitoring of nitrate concentrations in the lake's profundal zone was completed once to twice per week during the nitrate addition period. Thirty-four locations were monitored each week, and a subset of 11 of those locations was monitored later in the week as needed. Further details on the 2022 gridding schedule can be found in **Appendix 1A.** In addition, surface water samples were collected at the South Deep location (**Figure 5.2**) on 22 different dates from May 24 through November 15, 2022, and analyzed for methylmercury and other parameters to confirm the effectiveness of adding nitrate.

Fall turnover, which marks the end of summer stratification, typically takes place between mid-October and early November in Onondaga Lake, depending on complex lake mixing and meteorological factors. In 2022, fall turnover of Onondaga Lake occurred on October 27th.

5.1.3 Reporting

Section 5.2 describes the 2022 field activities and identifies any deviations from the work plan. Section 5.2 also presents monitoring data and discusses the results. Section 5.3 summarizes results and provides recommendations for revisions to the monitoring program. **Appendix 5A** provides 2022 operational information, including application location, target dilution factor, lake water temperature and specific conductivity data, nitrate and dilution water flow rates, application durations, and the total

[8] The liquid calcium nitrate used was labeled CN-8 by the supplier, Univar of Bedford, Illinois.

amount of nitrate applied during each application. **Appendix 5B** is an example of daily monitoring information provided on the same day field data were collected. **Appendix 5C** summarizes nitrate concentrations observed one meter above the lake bottom. **Appendix 5D** is the DUSR for relevant laboratory water quality data compiled in 2022. **Appendix 5E** presents depth profile plots of dissolved oxygen, nitrate-nitrogen (NO_3-N), total mercury, and methylmercury water concentrations.

5.2 Presentation of Monitoring Data and Discussion of Results

5.2.1 Mobilization, Monitoring and Observations

Nitrate is added to maintain summertime nitrate-nitrogen levels in the lower hypolimnion (below the 14-meter water depth) at or above 1.0 milligrams per liter (mg/L), thereby limiting accumulations of methylmercury in hypolimnion waters. This section describes:

- Natural development of thermal stratification
- In-lake monitoring program
- Dissolved oxygen and nitrate resources of the hypolimnion
- Effect of nitrate applications on nitrate levels
- Nitrite concentrations in lake water
- Mercury concentrations in lake water
- Other related monitoring from July through October 2022 when nitrate was being applied

The 2022 lake water quality monitoring for mercury at the South Deep location began on May 24 and continued through November 15 (**Table 5.2**). Measurements of dissolved oxygen, nitrate, and other water quality parameters in the deep portion of Onondaga Lake prior to the first application provided the information needed to determine when to start adding nitrate to the lake. Water quality measurements during the nitrate application period helped to guide how much nitrate to apply at each location. Water quality monitoring was also conducted October 18, October 25, October 31, and November 15, following the last application of nitrate on October 11, 2022.

The 2022 barge equipment, piping, and instrumentation, onshore support area for storage of nitrate, and instrumentation on the UFI monitoring boats included the same elements as in previous years (see Figures 2 through 4 in Parsons and UFI 2014a). Delivery equipment used in 2022 was similar to that used in previous years and was once again set up to maintain a contained, continuous flow from the on-barge equipment to the target application depth.

5.2.2 Application Summary

Nitrate additions were completed in 2022 at the three predetermined locations in the lake used since 2011 (**Figure 5.1**). These locations where nitrate was applied are referred to as the North Location, South Location #1 (hereafter called South1), and South Location #2 (hereafter called South2). The desired minimum concentration of nitrate-nitrogen to be maintained in the lake (1.0 mg/L) was identified based on frequent water quality monitoring of methylmercury and nitrate in the profundal zone of Onondaga Lake since 2006 and a historical review of methylmercury releases from Onondaga

Lake profundal zone sediments. These releases were described in the approved O&M Plan for adding nitrate (Parsons and UFI 2014b).

Thermal stratification became strongly established by mid-May 2022, limiting further significant inputs of oxygen and nitrate from the epilimnion downward to the hypolimnion (below the 30-foot water depth in Onondaga Lake). Stratification initiates an annual period of oxygen and nitrate depletion and locks in place the "ambient" oxygen and nitrate pools or supplies. Therefore, nitrate addition was initiated on July 6, 2022, before hypolimnetic nitrate-nitrogen concentrations could fall below 1.0 mg/L at the 18-meter water depth and continued until 16 days prior to the fall turnover. The depth of the thermocline between the epilimnion and hypolimnion was relatively stable through July and August and then descended through September and more rapidly during October and November until the water column became effectively mixed in the vertical dimension. In 2022, this occurred on October 27.

As in prior years, each application of nitrate in 2022 involved moving and anchoring the barge at the designated application location. A concrete block anchoring system at each application location held the barge stationary for the duration of an application. Inflow and outflow piping with end-of-pipe diffusers were positioned within the lake water column at their target depths. The barge pumps provided water from the epilimnion that was mixed on the barge with full-strength liquid calcium nitrate. The liquid calcium nitrate has a density of approximately 1.47 times the density of lake water. The extent of diluting nitrate with water from the epilimnion was guided during each application by in-lake monitoring. The resulting neutrally buoyant nitrate-water mixture was directed to the lower waters in the lake hypolimnion via hoses and diffusers.

In 2022, nitrate was applied continuously at one of the three pre-determined locations for approximately three to eight hours during each application day. The duration of each application depended on how much nitrate was to be added that day to meet the anticipated nitrate demand in that portion of the lake and the extent of dilution needed to keep the nitrate near but above the lake bottom (i.e., increased dilution meant longer pumping times to apply the same volume of nitrate). Forty-four applications of nitrate were completed during 2022, including 14 applications at the North location, 18 applications at South1, and 12 applications at South2. The volume of calcium nitrate applied per application varied, ranging from 313 to 4825 gallons and averaging 4082 gallons. Two of the 44 applications were partial doses due to unsafe weather conditions or the approach of sunset.

Table 5.1 and Appendix 5A summarize work completed as part of each 2022 nitrate application. Applications were generally conducted two to three days each week, moving from location to location as directed by results from in-lake monitoring. For the months of July, August, September and October, the pace of applications was similar to that of previous years. A total of 85.72 metric tons (MT) of nitrate-nitrogen were added to the lower waters of Onondaga Lake during 2022.

5.2.3 In-Lake Monitoring

Table 5.2 summarizes the in-lake monitoring completed by UFI in 2022, including both field measurements and sample collection. Figure 5.2 illustrates the 2022 lake monitoring locations. The primary objective was to observe and characterize the vertical and horizontal distribution of nitrate in the lake. Using a submersible ultraviolet nitrate analyzer (SUNA) deployed from a boat, UFI provided near real-time feedback on nitrate conditions. The SUNA was used to take measurements of water depth, nitrate-nitrogen, sulfide, temperature, specific conductivity, turbidity and parameters associated with light penetration and primary productivity. Measurements were collected every 0.25 meter vertically throughout the water column at 34 locations. These data were downloaded and processed, and a summary of the lake nitrate concentrations was provided the same day. Each data summary included nitrate-nitrogen profiles at each monitoring location and bubble plots illustrating nitrate-nitrogen concentrations at particular depths within the hypolimnion. These included one plot of all measurements taken one meter above the lake bottom across the footprint of the hypolimnion. The SUNA was also used to identify the effective water depth where the nitrate was applied. This information was communicated to barge operation in real-time to facilitate adjustments to the density of the nitrate solution.

The performance of SUNA and an equivalent instrument (*in situ* ultraviolet spectrophotometer [ISUS]) have been compared with laboratory measurements of nitrate since 2006. Results from 2022 continue to demonstrate that the SUNA nitrate measurements are comparable to laboratory measurements. The nitrate sensor was checked in distilled water routinely and was recalibrated or replaced when measurements fell outside acceptable limits (±0.028 mg/L of nitrate).

In addition to monitoring during each nitrate application, surface water samples were collected at South Deep, which is in the vicinity of the South1 application location, on 22 days from May 24 to November 15, 2022 (Table 5.2). These samples were analyzed for various water quality parameters including total mercury and methylmercury. This was consistent with lake water monitoring efforts completed since 2008. Selected surface water samples from the 2-meter and 16-meter water depths were also analyzed for filtered (i.e., dissolved) total mercury. Surface water samples were collected weekly at South Deep from June 28 through October 31, 2022. Collected surface water samples were analyzed for total mercury, methylmercury, and forms of nitrogen (i.e., nitrate, nitrite and ammonia). Samples collected from July 5 to October 25 in waters at or below 14 meters deep were also analyzed for soluble reactive phosphorus. Fixed-frequency monitoring focused on sample collection at the South Deep location because water quality at that location has been determined to be generally representative of water quality conditions throughout Onondaga Lake.

5.2.4 Dissolved Oxygen and Nitrate Observations

Figures 5.3 and 5.4, respectively, present dissolved oxygen and nitrate-nitrogen concentrations at the South Deep location for four different water depths from May through November 2022. Figure 5.5 illustrates the depletion of the dissolved oxygen pool during May, June, and early July 2022, based on measurements from the UFI robotic buoy at the South Deep location. Most of the oxygen available in the hypolimnion during 2022 prior to lake stratification was consumed by early July.

In 2022, nitrate applications were again successful in keeping the nitrate-nitrogen levels in the hypolimnion above 1.0 mg/L throughout the summer months in deeper portions of Onondaga Lake (**Figure 5.4**). The cumulative mass of nitrate-nitrogen applied in 2022 to the lower hypolimnion was 85.72 MT. The mass of nitrate-nitrogen in the hypolimnion prior to the start of stratification in early May 2022 was approximately 80 MT, which was lower than in 2021 due to a wet spring and normal nitrification performance at Metro. Treated municipal wastewater from Metro is the primary input of nitrate-nitrogen to the lake. When the treatment process is functioning, Metro effluent contains an average of approximately 12.0 mg/L of nitrate nitrogen.

Figure 5.6 presents volume-weighted average nitrate concentrations and mass in the hypolimnion before, during, and following nitrate addition in 2022. The blue line in **Figure 5.6** is the volume-weighted nitrate concentration in the hypolimnion, while the purple line represents the mass of nitrogen. The average rate of nitrate addition in 2022 was 0.88 MT of nitrate-nitrogen per day (6.2 MT per week) throughout the application season. **Figure 5.6** also illustrates the hypolimnion's response to applications of nitrate, with the rate of nitrate depletion slowing when applications of nitrate were ongoing. Nitrate applications began on July 6 and continued at a fairly steady pace until October 11 when applications were stopped for the year in anticipation of fall turnover.

Figure 5.7 illustrates apparent 2022 nitrate depletion rates in the Onondaga Lake hypolimnion represented by measurements made in the South and North Basins prior to the initiation of nitrate addition on July 6. Nitrate depletion in the South Basin and North Basin, respectively, averaged 0.0020 mg/L and 0.0022 mg/L of nitrate-nitrogen per day. Depletion of nitrate concentrations in the hypolimnion decreased during late August and September because of increased nitrate applications. Nitrate depletion rates vary between the South and North Basins from year to year.

Table 5.3 presents annual lake conditions and observations for 2011 through 2022 that are important factors associated with adding nitrate. Spring turnover nitrate is the concentration of nitrate in lake waters as the waters begin to stratify, which typically takes place during April-May each year. The 2022 spring turnover nitrate concentration was 2.2 mg/L, one of the lower concentrations measured since nitrate addition began in 2011.

Figure 5.8 presents the spatiotemporal distribution of nitrate concentrations in the hypolimnion at site 12 near South Deep from April through late November 2022. Areas of the lake with water depths between 14 and 16 meters (46 to 52 feet) were generally exposed to nitrate-nitrogen concentrations between 1.5 and 2.0 mg/L for most of the late July to early October period when nitrate was being applied. Sediments below the 16-meter (52-foot) water depth were generally exposed to nitrate concentrations greater than 2.0 mg/L during the nitrate application period. Nitrate concentrations higher than 3 mg/L were measured immediately following nitrate applications.

Figure 5.9 illustrates the spatial and temporal extent of the measured nitrate-nitrogen concentrations in 2022 at water depths one meter (3 feet) above profundal zone sediments. Concentrations of nitrate-nitrogen above the lake bottom generally ranged from 1.25 to 3.0 mg/L throughout the 2022 nitrate application period, meeting the program goal. The lowest measured concentration of nitrate-nitrogen was 0.71 mg/L on September 22 at a water depth of 12.0 meters (measured by SUNA), which is above the 0.70 mg/L threshold that would trigger supplemental sampling of low-level mercury and methylmercury, and therefore, no supplemental sampling was needed in 2022

5.2.5 Dilution and Dispersion of Applied Nitrate

The specific gravity of the liquid calcium nitrate was 1.47 in 2022. Therefore, significant dilution was required to produce a neutrally-buoyant water-nitrate mixture to take advantage of natural hydrodynamic forces that spread the nitrate around the lower depths of the lake. Once lake monitoring efforts identified an appropriate dilution factor for an application of nitrate, the same dilution factor was used as a starting point for the next application. Further minor adjustments to dilution and pump rates were made based on real-time lake monitoring to achieve a neutrally buoyant plume at the target depth. **Figure 5.10** illustrates epilimnion (dilution water) and hypolimnion water temperatures and dilution factors for the 2022 application period.

During summer 2022, dispersion by natural hydrodynamic forces was again enough to distribute nitrate horizontally across the hypolimnion from the three application locations. **Appendix 5B** provides an example of the daily SUNA data reports that UFI produced and issued to verify the application and distribution of the applied nitrate. **Appendix 5C** presents bubble plots prepared by UFI illustrating conditions across the hypolimnion at one meter (3 feet) above the lake bottom. The target nitrate-nitrogen concentration of 1.0 mg/L continued to be met in lower hypolimnion waters throughout the 2022 season, and minimal concentrations of methylmercury were observed in the lower waters during the stratified period.

The 2022 applications of nitrate were terminated after October 11 based on an assessment of the size of the remaining nitrate pool in the hypolimnion and anticipated uptake of nitrate in lower waters of the lake through an estimated late turnover timeframe of early November. Approximately 77 MT of nitrate-nitrogen was present in the lake's hypolimnion on October 11, 2022 (**Figure 5.6**).

5.2.6 Significance of 2022 Nitrite Water Concentrations

Nitrite-nitrogen (NO_2-N) concentrations measured in Onondaga Lake from 2006 through 2022 have been compared to the New York State surface water quality standards (SWQS) established to protect warm water fish from effects of nitrite (**Figure 5.11**). The SWQS for nitrite (100 micrograms per liter [µg/L] as nitrogen) was exceeded at the 12-meter depth on July 26 (127 µg/L) and August 2 (103 µg/L) of 2022. Exceedances of the SWQS for nitrite have occurred historically in the lower waters of the lake during early summer. However, low dissolved oxygen concentrations in the lower waters limit the exposure of fish to elevated nitrate concentrations. Elevated nitrite concentrations during these periods were caused by incomplete nitrification of ammonia. Nitrate added to the hypolimnion is denitrified to dinitrogen gas (N_2). Sampling results from 2022 are included in the DUSR in **Appendix 5D**.

5.2.7 2022 Lake Water Mercury Concentrations

Table 5.4 summarizes total mercury and methylmercury concentrations in water samples collected in 2022 near the lake bottom at South Deep. Methylmercury was not significantly released from underlying sediment to lower hypolimnion waters during the summer of 2022 when deep lake waters would be prone to methylmercury release in the absence of nitrate addition. This demonstrates that nitrate addition was again effective in 2022 as it has been since the nitrate addition program began

in 2011. From the beginning of the 2022 nitrate applications on July 6 through turnover of the lake on October 27, the maximum concentration of methylmercury observed in the lower waters of the lake was 0.18 nanogram per liter (ng/L) (where 1 ng/L is 0.000001 mg/L) at the 18-meter water depth on August 30 (**Figures 5.12** and **5.13**). There are no New York State SWQS for methylmercury. **Figure 5.13** presents methylmercury and unfiltered total mercury results measured at South Deep over time at water depths of 2 meters (epilimnion), 12 meters (near the top of the hypolimnion), 16 meters (mid-to-lower hypolimnion), and 18 meters (bottom of the hypolimnion).

Figure 5.13 shows that the highest total mercury concentration (5.20 ng/L) was measured in the sample collected from the 18-meter water depth on September 7. There are no New York State SWQS for total mercury. Relative to past years, total mercury concentrations were not elevated late in the season (e.g., peaks of 11.4 ng/L in 2014, 5.9 ng/L in 2015, 5.09 ng/L in 2016, 3.34 ng/L in 2017, 3.58 in 2018, 5.11 in 2019, 10.8 ng/L in 2020, and 3.08 in 2021). Higher mercury concentrations during fall may be caused by wind driven resuspension of mercury contaminated sediments from uncapped areas. Methylmercury concentrations remained low in 2022.

Concentrations of methylmercury at the 18-meter water depth at South Deep for the April-November period from 2007 through 2022 are presented in **Figure 5.14**. Methylmercury concentrations were considerably lower in the lake's hypolimnion from 2011 through 2022 compared to prior years (**Figures 5.14** and **5.15**). Note that a single high concentration from September 2020 is a conspicuous outlier. Low methylmercury concentrations in Onondaga Lake since 2011 are consistent with the higher nitrate concentrations (because of nitrate additions) compared to prior years. Methylmercury concentrations in Onondaga Lake hypolimnion water have declined dramatically aided by the addition of nitrate. With the noted single exception, methylmercury in the lower hypolimnion has been barely detectable (e.g., 95% of methylmercury concentrations at 18 meters have been less than 0.2 ng/L) since 2011 when nitrate additions began.

Table 5.5 summarizes dissolved mercury concentrations in water samples collected in 2022 at the 2-meter water depth at South Deep. Of the 13 dissolved mercury results for water samples collected at this depth in 2022, 11 are considered estimated concentrations, one is below the reporting limit, and none exceeded the New York State SWQS for dissolved mercury (0.7 ng/L). None of the six results from the water samples collected during August, September, and October at the 16-meter depth in the lake's hypolimnion exceeded the New York State SWQS for dissolved mercury. The highest dissolved mercury concentration measured in 2022 was 0.65 ng/L from a sample collected on August 23 at the 2-meter water depth. The relative percent difference between regular samples and field duplicates varied from 0 percent to 87 percent and averaged 38 percent.

5.2.8 Other Related 2022 Lake Monitoring

Additional monitoring completed in 2022 included laboratory analyses for soluble reactive phosphorus in deep waters that are anoxic during the summer period. An additional benefit to maintaining nitrate levels in the hypolimnion during periods of anoxia is that release of phosphorus from deep lake sediments has been reduced (**Figure 5.16**). The presence of nitrate in waters near the lake bottom prevents the reduction of iron oxyhydroxides that is typical in anaerobic surface sediments. This, in turn, reduces the release of phosphorus bound to those compounds. The same mechanism preventing

release of phosphorus from anaerobic lake sediment is thought to control the release of methylmercury from sediments (Matthews et al. 2013).

All ammonia-nitrogen concentrations measured in 2022 were below 2 mg/L. Two samples, both collected from the 18-meter water depth, had concentrations greater than 1 mg/L. The highest ammonia-nitrate concentration measured in 2022 was 1.35 mg/L.

The full data set for total mercury and methylmercury analysis in zooplankton, which are collected as part of the tissue monitoring program to assess ongoing recovery, is presented in Section 3.

5.3 Summary of 2022 Nitrate Addition Results and Recommendations

5.3.1 2022 Results Summary

Results from the ninth year of full-scale nitrate addition (2022) showed successful delivery of sufficient quantities of nitrate to the lower hypolimnion of Onondaga Lake during summer stratification to meet the objective and thereby minimize methylmercury concentrations in deep waters of the lake. Nitrate-nitrogen concentrations were maintained at levels sufficient to inhibit the release of methylmercury from profundal zone sediments. Methylmercury release into the water column from profundal zone sediment continues to be effectively controlled. None of the 13 dissolved mercury results for water samples collected at the 2-meter water depth in 2022 exceeded the New York State SWQS for dissolved mercury (0.7 ng/L). Note that nitrate addition is intended to control methylmercury concentrations in the hypolimnion but not dissolved mercury concentrations in the epilimnion.

A total of 85.72 MT of nitrate-nitrogen were added to the hypolimnion of Onondaga Lake between July 6 and October 11, 2022. Sediment nitrate demand in the summer 2022 was approximately 0.88 MT per day, somewhat higher than the nitrate demand of 0.8 MT per day included in the earlier nitrate addition design report, which was the basis for applications of nitrate, which began in 2011. During the 97-day nitrate application interval, the pace of applications averaged 3.2 per week.

5.3.2 Recommendations and 2023 Nitrate Addition

Part of the ongoing assessment of the nitrate addition program is to make it more effective and efficient. With this aim, a fixed application station was piloted at the South1 application station in 2018. The pilot station successfully delivered nitrate to the deep-water areas in the vicinity of the Lake. In 2019, fixed application stations were added at the South2 and North locations. It is recommended that this method be used in 2023. The traditional application method (through 2018) used a manifold of flexible hosing that was assembled and disassembled daily. This application method will be maintained as a backup.

Monitoring in 2023 should commence as usual in April and May to inform the start of injections. It is recommended that nitrate addition continue in 2023, with the goal of maintaining nitrate above 1.0 mg/L in the lower hypolimnion consistent with prior years.

SECTION 6 CAP MONITORING

Cap physical and chemical monitoring was conducted in 2022 to verify that the cap remains protective. Provided below are the detailed activities and results from the 2022 physical and chemical monitoring. Detailed discussion of activities and results from previous monitoring events are provided in prior annual reports.

Results from the 2022 comprehensive physical monitoring programs verify that there has been no significant loss of cap material in any of the capped areas, and the cap remains stable. Consistent with the OLMMP, it is recommended that comprehensive physical monitoring be implemented in 2024. Although the monitoring scope will be consistent with that specified in the OLMMP, minor modifications have been made to the monitoring program subsequent to the OLMMP. These will be detailed in the 2024 Onondaga Lake Scope Memorandum. In addition, supplemental physical monitoring is recommended at select locations in 2023 based on the 2022 monitoring results, as detailed in Section 6.1.

Results from the 2022 chemical monitoring programs verify that there is no evidence of significant chemical migration through any of the capped areas, and the cap remains protective of human health and the environment. Consistent with the OLMMP, it is recommended that focused chemical monitoring be implemented in 2024. The monitoring scope will be consistent with the scope specified in the OLMMP, with minor modifications to the monitoring program that have been developed subsequent to the OLMMP and will be detailed in the 2024 Onondaga Lake Scope Memorandum. In addition, chemical monitoring is recommended at select locations in 2023 based on the 2022 monitoring results, as detailed in Section 6.2.

6.1 Physical Monitoring

Comprehensive physical monitoring of the cap and visual inspection of the WB 1-8 shoreline stabilization area was implemented in 2022 consistent with the scope and schedule detailed in the OLMMP and the 2022 Onondaga Lake Scope Memorandum (**Appendix 1A**). Results of the 2022 physical monitoring verify that there has been no significant loss of cap material in any of the capped areas, and the cap remains physically stable. The 2022 bathymetric survey has significant data gaps because shallow water and heavy vegetation prevented collection of high-quality data in some areas. As a result, approximately one-third of the cap (approximately 150 acres) was resurveyed in spring of 2023, prior to the seasonal water level drop and vegetation growth. The results of this resurvey will be included in the 2023 annual report. Areas resurveyed include portions of RA-A, RA-B, RA-C, RA-D, and RA-E, with most of resurvey needed in RA-E.

Specific monitoring activities that were conducted in 2022 include:

- Shoreline inspections and photographic documentation on foot, by boat, and by aerial drone
- Physical probing in a limited area
- Bathymetric surveys
- Measurement of cap thickness based on collected cores

Results of these routine physical monitoring activities are discussed in detail in Sections 6.1.2 through 6.1.4. **Figures 6.1 through 6.12** show the bathymetric survey areas, physical probing locations, and cap thickness measurement locations for monitoring completed in 2022, including additional activities beyond those specified in the OLMMP, as discussed in Section 6.1.1.

The monitoring program also includes event-based monitoring if any of three extreme events occur:

- A 50-year or greater wind-generated wave event
- A 50-year or greater tributary flow event
- A seismic event measuring 5.5 or higher within 30 miles of Onondaga Lake

As detailed in **Appendix 6A**, none of these conditions have been exceeded since cap construction was completed. The Honeywell team is also not aware of any human activities during the reporting period that may have impacted the cap and/or other components of the remedy. Therefore, no event-based cap monitoring has been required.

6.1.1 Modifications from Planned Work Scope

Modifications to the OLMMP physical monitoring work scope documented in the NYSDEC-approved 2022 Onondaga Lake Scope Memorandum (**Appendix 1A**) consisted of the following:

- A shoreline walk and visual inspection were completed as described in the OLMMP, despite not being required in 2022 in the OLMMP schedule. Any signs of potential erosion along capped areas and WB 1-8 stabilized shoreline were noted and photographed during the shoreline inspection. Representatives from the NYSDEC were present for the shoreline inspection.
- Elevation measurements were collected in the area of additional material placement completed in 2019 along RA-D shoreline for comparison to elevations measured shortly after material placement.
- The OLMMP anticipated that bathymetric surveys would be completed using the Z-boat 1800, which was the remotely operated hydrographic survey boat used by the quality assurance/quality control (QA/QC) team during capping operations. However, the Z-boat is no longer in service, so the bathymetric survey was completed using a manned boat operated by a bathymetric survey contractor. The manned boat satisfied the requirements of the work plan, including accuracy, water depths, and spacing of transect lines.

Additional revisions to the 2022 physical monitoring scope consisted of:

- A new location, D-57, was added and cores collected from it. This location was added because water depth at location D-2 was too deep for peeper installation. As a result, D-57 was added approximately 260 feet south-southwest of D-2 for physical coring and chemical sampling in accordance with the planned scope for D-2.
- Additional cores were collected in the vicinity of D-57 to delineate a small area where no cap material was identified in the initial 2022 D-57 cores, as described in Section 6.1.4.
- Additional cores were collected at E-39 because the initial 2022 cores showed thicknesses less than target thicknesses, as described in Section 6.1.4.

- Additional cores were collected at SMU8-5 due to highly variable cap thicknesses observed in initial 2022 cores, as described in Section 6.1.4.
- Cores were collected from a new location in RA-C, designated C-58, to investigate an area where preliminary 2022 bathymetric survey data indicated a decline in elevation compared to previous years.
- Based on NYSDEC's Comment 26 on the 2020 Onondaga Lake Maintenance and Monitoring report, cap probing was completed along a transect in the RA-D Outboard Area West to confirm the presence of the habitat erosion protection layer in an area observed to have topsoil erosion during the 2019 shoreline inspection.

6.1.2 Shoreline Inspection Result

Inspections were performed in 2022 to document the integrity of the shoreline areas where remedial activities were implemented. Inspections were completed by boat and by foot from the shoreline when water levels were at elevation 363.5 feet or less (North American Vertical Datum of 1988 [NAVD88]). The areas inspected included shoreline capping areas in RAs A, B, C, D, and E, the Outboard Area (including the berms), the WB 1-8 connected wetland (including the berms), the Ninemile Creek spits, the WB 1-8 shoreline stabilization area, cap areas adjacent to tributary and shoreline utility discharges, and the capped cultural resources located in the shallow areas of RA-E. Areas that could not be adequately inspected from the shoreline were inspected from a boat. Photographs taken in 2022 were limited to identification/photograph documentation of any noted anomalies, consistent with the OLMMP and with NYSDEC concurrence. Ground-level photographs from 2022 are included in **Appendix 6B**.

No signs of significant erosion or other potential significant issues were noted based on the comprehensive shoreline inspections. Loss of vegetation and potential topsoil erosion were observed along a small portion of the Wastebed B wetland shoreline. However, some loss of topsoil in this area that is not protected by the berms is expected and does not impact the effectiveness of the cap. The area of vegetation loss appeared to be consistent with that observed in 2021. Supplemental probing in this area in 2022 verified the presence of the erosion protection layer in this area.

6.1.3 Bathymetric Survey and Coring Results

Comprehensive bathymetric surveys were conducted for capped areas in 2022 consistent with methods and coverage areas specified in the OLMMP, aside from the modification from the Z-boat to the manned boat, as described in Section 6.1.1. The surveys were conducted on transect lines running perpendicular to the slope and spaced 30 feet apart (**Figures 6.1 through 6.6**), repeating every other survey line that was established during the collection of as-built data during construction. In areas that were too shallow for boat-based surveying (e.g., where the cap meets the shore), elevations were manually surveyed by wading and using conventional survey techniques.

Within topsoil areas in RA-A, the Ninemile Creek spits, Outboard Area wetlands (including lower Harbor Brook), and the WB 1-8 connected wetlands, the survey lines were modified as necessary to collect as much data as possible in and around wetland vegetation. However, portions of these areas are too shallow and/or vegetated for a boat-based survey, and a comprehensive survey using manual

methods could damage the wetland vegetation. Vegetation in these areas was inspected on a regular basis in 2022 as part of the habitat restoration monitoring. This, combined with cores collected in these areas and observations from the shoreline visual inspection, provided verification that there has not been significant erosion of material in these areas. As noted in Section 6.1.2, a small area (approximately 50 square feet) of vegetation and topsoil loss was noted in the Outboard Area wetlands. However, given the high energy nature of this shoreline, some loss of topsoil is expected and will not impact the overall restoration goals or cap protectiveness in this area.

Cores were collected for chemical and physical characterization in 2022 consistent with the OLMMP and the 2022 Onondaga Lake Scope Memorandum as shown in **Figures 6.7 through 6.12**. Based on preliminary bathymetry and core thickness results, supplemental cores were collected for physical characterization in select areas as detailed below. In 2022, 344 cores were collected in multi-layer cap areas, and 161 cores were collected in mono-layer cap areas.

The 2022 bathymetries were compared to as-built, 2019, and 2020 bathymetries for all RAs are shown in **Figures 6.13 through 6.28**. The 2022 cap thickness measurements based on the cap coring for multi-layer and mono-layer caps, respectively, are provided in **Tables 6.1 and 6.2**. Based on a comprehensive review of the bathymetric survey and coring results, there has been no significant loss of cap material in any capped area, and the cap remains physically stable. Bathymetry changes greater than 0.5 foot shown on **Figures 6.13 through 6.28** are generally attributable to settlement of the underlying sediment as a result of the weight of the cap, loss of finer-grained habitat material overlying the coarser erosion protection layer, and/or loss of overlying sediment that had accumulated on top of the cap in prior years. Such changes were anticipated in the final design and do not affect cap effectiveness.

The 2022 bathymetric survey has significant data gaps because shallow water and heavy vegetation prevented collection of high-quality data in some areas, as shown in **Figures 6.13 through 6.26**. Additional data collection will be completed in 2023 in these areas to supplement the 2022 bathymetric survey data. The exact survey areas will be provided in the 2023 Onondaga Lake Scope Memorandum.

Physical monitoring results and recommended supplemental investigation activities based on the physical monitoring results for each RA are discussed below.

Remediation Area A

As shown in **Figures 6.13 and 6.14,** bathymetry changes greater than 0.5 foot in RA-A are generally attributable to settlement of the underlying sediment as a result of the weight of the cap. There was minimal change in bathymetry between 2019 and 2022.

As shown in **Table 6.1**, all multi-layer cap thickness measurements in RA-A met or exceeded the minimum cap thickness expectations specified in the OLMMP. There are no mono-layer caps in RA-A.

No supplemental investigation activities other than the supplemental bathymetric survey discussed above are proposed for RA-A based on the physical monitoring results from 2022.

Remediation Area B

As shown in **Figures 6.15 through 6.17**, bathymetry changes greater than 0.5 foot in RA-B are generally attributable to settlement of the underlying sediment as a result of the weight of the cap or loss of

overlying sediment that had accumulated on top of the cap in prior years. There was minimal change in bathymetry between 2019 and 2022.

As shown in **Table 6.1**, all but one multi-layer cap thickness measurements in RA-B met or exceeded the minimum cap thickness expectations specified in the OLMMP. The exception was location B-16 in Zone 2. This area was previously investigated in 2019, based on the 2018 coring results, including collection of additional cores and video probing, as described in the Onondaga Lake 2019 Maintenance and Monitoring Report (Parsons 2023b). The video probe results demonstrated cap thicknesses meeting total thickness targets in all locations, despite some 2019 cores not meeting target thicknesses. These results indicate that cores containing fine gravel are biased low, either from compaction of material under the weight of the vibracore and/or fine gravel being pushed to the side during core collection.

Mono-layer cap design thicknesses were specified as average thicknesses, with no minimum specified. As shown in **Table 6.2**, mono-layer cap thicknesses in RA-B were generally consistent with expectations considering construction variability and the average thickness-based goal. Two cores from location B-5 did not contain a measurable cap thickness, although native sediment contained cap material mixed in. The cap in this location is a modified protective cap (MPC) with a specified average thickness of 2 inches. Given the bioturbation depth of 6 inches, it is expected that there would be mixing of cap material and underlying sediment. The lack of a definable cap thickness in the two cores may also have been due to the vibracore barrel reoccupying a previously cored hole, given that these were cores four and six at the same location. Offsets were performed and sufficient cap thicknesses were observed in those cores.

No supplemental investigation activities other than the supplemental bathymetric survey discussed above are proposed for RA-B based on the physical monitoring results from 2022.

Remediation Area C

As shown in **Figures 6.18 through 6.20**, bathymetry changes greater than 0.5 foot in RA-C are generally attributable to settlement of the underlying sediment as a result of the weight of the cap. There was minimal change in bathymetry between 2019 and 2022.

As shown in **Table 6.1**, all but one multi-layer cap thickness measurements in RA-C met or exceeded the minimum cap thickness expectations specified in the OLMMP. The exception was location C-7 in Model Area RA-C-2A (4 to 10 feet). Although the habitat/erosion protection layer thickness in this core is less than the target, the total thickness meets the target thickness. Based on the 2018 coring results, this area was investigated in 2019, including collection of additional cores and video probing, as described in the Onondaga Lake 2019 Maintenance and Monitoring Report (Parsons 2023b). These results indicated that cores containing fine gravel are biased low, either from compaction of material under the weight of the vibracore and/or fine gravel being pushed to the side during core collection. However, 2019 monitoring results indicated that there were very small areas where the fine gravel was not placed as intended during construction, likely due to caution related to over-placement of materials in this area that could have impacted the underlying sediment stability. Therefore, additional cap material was placed in a portion of this area in 2019, including the area of location C-7, per the NYSDEC-approved work plan. Extensive post-placement coring verified achievement of target cap thicknesses.

An additional multi-layer physical monitoring location, C-58, was added in Model Area C1 after review of preliminary bathymetric survey results indicated a potential decrease in cap elevation compared to as-built and 2019 bathymetric survey data. Three cores were collected from the area of bathymetry decrease and processed for physical observations. All cores were collected using a steel core barrel due to the coarse-grained nature of cap in this area. All cores contained gravel habitat/erosion protection layer thicknesses greater than the target thickness. None of the cores contained underlying chemical isolation (medium sand) or native sediment due to difficulty of the steel core barrel capturing finer grained material. However, based on the fact that overlying gravel thicknesses exceed the target, cap material does not appear to be eroding at this location, and lower than expected cap elevations are likely due to a gap in bathymetric survey data quality in this area, as described in Section 6.1.

Mono-layer cap design thicknesses were specified as average thicknesses, with no minimum specified. As shown in **Table 6.2**, mono-layer cap thicknesses in RA-C were generally consistent with expectations considering construction variability and the average thickness-based goal. One of the six cores from location C-14 did not contain a measurable cap thickness, although native sediment contained cap material mixed in. The cap in this location is an MPC consisting of direct application of granular activated carbon (GAC). The GAC was applied mixed with sand. Given the bioturbation depth of 6 inches, it is expected that there would be mixing of cap material and underlying sediment. The lack of a definable cap thickness in this core may also have been due to the vibracore barrel reoccupying a previously cored hole, given that this was core four at the same location. Offsets were performed, and measurable cap thicknesses were observed in those cores.

No supplemental investigation activities other than the supplemental bathymetric survey discussed above are proposed for RA-C based on the physical monitoring results from 2022.

Remediation Area D

As shown in **Figures 6.21 through 6.23**, bathymetry changes greater than 0.5 foot in RA-D are generally attributable to settlement of the underlying sediment as a result of the weight of the cap or loss of finer-grained habitat material that overlies the erosion protection layer in some areas, which was expected in the design. There was minimal change in bathymetry between 2019 and 2022.

With minor exceptions as described in the following paragraphs and shown in **Table 6.1**, multi-layer cap thickness measurements in RA-D met or exceeded the minimum cap thickness targets specified in the OLMMP at the vast majority of locations.

A subset of the cores at D-17, D-24 and D-26 had recorded thicknesses less than target thicknesses. At all of these locations, a mixture of sand and cap material was recorded below the reported thickness measurements. Highly mixed layers were excluded from cap thicknesses on **Table 6.1.** This mixing is likely due to the process used to remove the cores from the steel core barrel that was used to collect cores in this area due to the coarse-grained nature of the cap material. The core removal process involves tipping the core barrel, which would allow for soft, wet native sediment to infiltrate into and mix with the cap material. It is likely that the observed mixing was a result of this collection procedure rather than representative of cap conditions at these locations.

Initial cores collected from D-57, located in Model Area RA-D-1A, did not identify any cap material. Additional cores were collected to better define cap conditions in this area. Step-out coring continued outwards from the original location until at least one core from each step-out location met target

thicknesses. Cap material was present in all subsequent cores but was less than the target thickness at some locations. Based on the coring results, the area where the cap is less than the target thickness is approximately 40 ft x 50 ft (0.05 acre). D-57 is in a water depth greater 9 meters in an area that is net depositional with no erosional forces present. Since there has been no significant change in elevation in this area since construction, the cap in this area is stable. Therefore, the reduced cap thickness in this small area is likely due to insufficient material placement during construction. Given the very small size of this area and the fact that it is in water depths greater than 9 meters where there is minimal benthic activity due to stratification and deoxygenation during the summer, no significant risk is present in this area.

Topsoil thicknesses from two topsoil hand-core locations (D-41 and D-45) were less than the target thickness. Additional hand coring was performed at these locations to evaluate the nature of these thickness observations by recording core barrel penetration depth and comparing penetration depth to thickness observations. In these areas, penetration depth is indicative of topsoil thickness because the sampler hits refusal on the underlying gravel. Penetration depth is recorded by measuring the length of core barrel above the sediment interface at refusal, and then taking the difference between that measurement and the total length of the core barrel. For all measured locations, penetration depths exceeded the target thickness, indicating that reduced topsoil thickness measurements via coring are due to compression of topsoil during core collection rather than topsoil loss.

Mono-layer cap design thicknesses were specified as average thicknesses, with no minimum specified. As shown in **Table 6.2**, mono-layer cap thicknesses in RA-D were consistent with expectations considering construction variability and the average thickness-based goal.

No supplemental investigation activities other than the supplemental bathymetry survey discussed above are proposed for RA-D based on the physical monitoring results from 2022.

Remediation Area E

As shown in **Figures 6.24 through 6.26**, bathymetry changes greater than 0.5 foot in RA-E are generally attributable to settlement of the underlying sediment. These are a result of the weight of the cap or loss of finer-grained habitat that overlies the erosion protection layer in some areas and were expected in the design. There was minimal change in bathymetry between 2019 and 2022.

In the northern and southern portions of Zone 2 (fine gravel habitat layer), cores from three locations (E-20, E-35, and E-39) showed erosion protection layer and/or total thicknesses that were less than the target thicknesses specified in the OLMMP, as shown in **Table 6.1** and **Figure 6.11**. Given that erosion protection substrate was present in all the cores, it is unlikely that there has been significant erosion of cap material in this area. Additionally, core thickness measurements are likely biased low in areas where the habitat layer consists of fine gravel. This may be due to compaction of the sand and gravel as a result of vibracoring and/or pushing aside of the fine gravel as the core is advanced. Video probing was performed in RA-E Zone 2 in 2021 to investigate the less than expected cap thicknesses observed in 2019. Though core thicknesses generally did not meet targets, co-located video probe cap thickness measurements met or exceeded minimum thicknesses for all locations, as detailed in the Onondaga Lake 2021 Monitoring and Maintenance Report (Parsons 2023). This indicates that cap thickness results from coring are biased low. In addition, probing throughout RA-E

Zone 2 performed in 2021 consistently verified the presence of coarse substrate along the entire probing transect.

The only mono-layer cap in RA-E is the modified erosion-resistant cap (MERC) adjacent to the Metro deep-water outfall. As shown **Table 6.2** and **Figure 6.32**, cap thickness measurements varied considerably over short distances in this area. In two cores from one location (E-38), no cap material was observed. In the top several inches of cores from E-42, cap material consisted of a mixture of sand, black new sediments, and organics. These results are similar to the results from prior monitoring in this area. Ongoing movement of gravely-sand cap material in this area is likely, as is movement of sediment in the uncapped adjacent area directly overlying the Metro outfall caused by wind/wave erosive forces. Although this is a high energy area of the lake, due to thickness limitations, the cap in this area could not be designed with large erosion protection substrate such as was placed in adjacent cap areas. These limitations were associated with minimizing the potential for settlement of the underlying sediment due to cap placement and avoiding impact to the Metro outfall. These limitations remain, and additional capping activities in this area are not recommended. Although there is evidence of cap movement, the remaining sand and GAC provide some level of environmental benefit through dilution and sorption of contamination in native sediments in this area.

No supplemental investigation activities other than the supplemental bathymetry survey discussed above are proposed for RA-E based on the physical monitoring results from 2022.

Remediation Area F

As shown in **Figures 6.27 and 6.28**, bathymetry changes greater than 0.5 foot in RA-F are generally attributable to settlement of the underlying sediment as a result of the weight of the cap, which was expected in the design. There was minimal change in bathymetry between 2019 and 2022.

As shown in **Table 6.1**, all multi-layer cap thickness measurements in RA-F met or exceeded the minimum cap thickness expectations specified in the OLMMP. There are no mono-layer caps in RA-F.

No supplemental investigation activities are proposed for RA-F based on the physical monitoring results from 2022.

6.1.4 Outboard Area Berm Elevation Measurements

As shown in **Figure 6.4**, berms were installed along the Wastebed B/Harbor Brook Outboard area shoreline that extend into open water areas off the Wastebed B/Harbor Brook Outboard area to protect the shoreline wetlands. The berms were constructed from June through October 2016. Physical inspection and elevation measurements of the berms in 2022 verified that the berms remain intact and have not been significantly degraded due to wind/wave action or ice. The berm design heights were developed to achieve an approximate top elevation of 365 feet (NAVD88) following approximately three years of settlement of the underlying sediment that would result from the weight of the berm and underlying cap material. As shown in the cross-sections included in **Appendix 6C**, 2022 measured elevations of the tops of the berms were consistent with the 2018 and 2019 elevation measurements and consistently at or slightly below the projected three-year elevation of 365 feet.

6.1.5 Wave Damper Elevation Measurements

As shown in Figure 6.5, wave dampers were constructed along portions of the edge of the dredging and capping area to reduce the potential for wind/wave action to transport contaminated sediments from the shoreline area onto the capped area and to promote recovery of aquatic plants and enhance natural recovery in this area. Construction was in accordance with the Remediation Area E Shoreline Design Addendum (Parsons and Anchor QEA 2014). The wave dampers were constructed of cobble, consistent with the habitat/erosion protection substrate in this area. The design elevation for the top of the wave damper was 361.5 feet NAVD88, which was selected to provide significant wave energy reduction while still allowing free exchange of water and preventing stagnation of the area on the shoreward side of the wave damper. The tops of the wave dampers are potentially subject to movement due to ice scour or other extreme events, which may reduce their height or change their shape slightly over time. However, it is anticipated that even with a reduction in height, they will continue to provide long-term reduction in shoreline wind/wave energy.

The 2022 bathymetric survey indicates the wave dampers are still present as distinctive features and continue to reduce wave energy along the shoreline in this area, however their elevation has decreased due to settlement of the underlying sediment consistent with the decrease in elevation in the adjacent cap. Results of the 2022 bathymetric survey in this area are included in Appendix 6C. As discussed in Section 6.1.3, the 2022 bathymetric survey has significant data gaps because shallow water and heavy vegetation prevented collection of high-quality data in some areas, including portions of the area of the wave dampers, as shown in Figure 6.26. Additional data collection will be completed in 2023 in these areas to supplement the 2022 bathymetric survey data.

6.1.6 Summary of 2022 Physical Monitoring Results and Recommendations for 2023 Monitoring

Results of the 2022 physical monitoring verify that there has been no significant loss of cap material in any of the capped areas, and the cap remains physically stable. The 2022 monitoring program also verified that the Wastebed B/Harbor Brook Outboard area berms are stable and functioning as designed.

Since shallow water and dense vegetation interfered with data collection in 2022, an additional bathymetric survey of approximately one-third of the capped area will be performed in spring 2023 to fill in 2022 data gaps. The exact survey areas will be provided in the 2023 Onondaga Lake Scope Memorandum.

No other physical investigation activities are proposed in 2023. Consistent with the OLMMP, it is recommended that comprehensive physical monitoring be implemented in 2024.

6.2 Chemical Monitoring

Consistent with the schedule in the OLMMP, comprehensive chemical monitoring of the cap was implemented in 2022. The monitoring methodology was consistent with the Cap Monitoring Work Plan included as Appendix D of the OLMMP dated June 2018, as approved by NYSDEC. Specific activities that were conducted in 2022 include:

- Collection of samples from multi-layer, mono-layer, and thin-layer caps throughout the capped areas of the lake to document post-construction conditions
- Collection and analysis of 530 porewater and solid-phase samples from 167 cap sampling locations
- Completion of over 12,000 chemical analyses[9]

Sampling locations are shown in **Figures 6.7 through 6.12**. Results from these chemical monitoring activities, discussed in detail below, verify that the caps remain protective. **Appendices 6D and 6E**, respectively, present the DUSRs and detailed analytical data tables for all 2022 chemical data collected. Chemical data were reviewed and validated by Parsons for usability in accordance with NYSDEC-approved data validation procedures.

6.2.1 Modifications from Planned Work Scope

The 2022 modifications from the planned work scope as detailed in the OLMMP enhanced the ability to assess the chemical performance of the cap. Modifications to the OLMMP chemical monitoring work scope documented in the NYSDEC-approved 2022 Onondaga Lake Scope Memorandum (**Appendix 1A**) consisted of the following:

- Porewater samples were collected at new peeper locations A-30 and A-31, as shown on **Figure 6.7**. These peeper locations were added per NYSDEC's request to enhance the cap monitoring adjacent to the WB 1-8 north shore hydraulic containment system. These samples were collected consistent with the sampling completed in 2019.
- Porewater from peeper locations A-8 and A-10 were sampled from revised depth intervals, corrected from Figure D.19 in Appendix D of the OLMMP to accurately reflect that the habitat layer at these locations is a minimum of 18 inches rather than 12 inches thick. These samples were collected consistent with the sampling completed in 2019.
- Peeper sampling was added to Zone 1 locations to accomplish two goals. First, it would allow for collection of porewater samples from the habitat layer for analysis of benzene, toluene, and phenol. This would eliminate uncertainty associated with converting solid phase results to an aqueous basis for comparison to aqueous-based cap performance criteria for these parameters. Second, it would allow for collection of porewater samples from the chemical isolation (CI) layer using peepers rather than direct extraction, eliminating concerns regarding impacts of suspended solids on results from samples collected using direct extraction methods. Zone 1 peeper sampling was performed as follows:
    - Multi-layer caps:
        - Habitat/Erosion Protection (H/EP) layer: Peeper porewater samples were collected for benzene, toluene, and phenol analysis. Solid phase samples were collected for all other required parameters.
        - Amended CI layer: Peeper porewater samples were collected for analysis of volatile organic compounds (VOCs), low polycyclic aromatic hydrocarbons (LPAHs), phenol, mercury, and pH.

[9] Excludes pH, total organic carbon (TOC), and total solids.

    - Unamended CI layer: Peeper porewater samples were collected for benzene, toluene, and phenol analysis. Solid phase samples were collected for all other required parameters.
  - Mono-layer caps:
    - Design average thickness of less than 7.5 inches: No change from the OLMMP sampling plan.
    - Design average thickness of greater than 7.5 inches (B-10, B-11, B-13, C-11, C-13, and C-19): Peeper porewater samples were collected for analysis of VOCs, LPAHs, phenol, and pH. Solid phase samples were collected for halogenated polycyclic aromatic hydrocarbons (HPAHs) and PCBs at select locations, as specified in the OLMMP.
    - Mercury was analyzed in solid phase samples at all locations

- An evaluation of the impacts of filtered and suspended solids on direct extraction porewater analytical results was completed, as described in the Direct Extraction Porewater Filter Testing scope document, approved by NYSDEC in June 2022 (**Appendix 1A**). The evaluation consisted of the following:

  - Collection of cores from five locations: A-1, A-4, D-4, D-21, and D-31. Locations were selected based on consideration of constituent concentrations during the 2019 sampling event, cap material, and previously observed cap thicknesses.
  - Cores were processed using direct extraction sampling methods, and the following samples were collected from each location:
    - Unfiltered: analyzed for VOCs, phenol, and particle size distribution (PSD)
    - Filtered once through a 0.45-micron filter: analyzed for VOCs, phenol, and PSD
    - Filtered twice through a 0.45-micron filter: analyzed for VOCs
    - Filtered once through a 0.1-micron filter: analyzed for VOCs, phenol, and PSD
    - Filtered twice through a 0.1-micron filter: analyzed for VOCs

Additional revisions to the 2022 chemical monitoring scope were implemented based on field conditions and the results from the originally-planned 2022 chemical monitoring. These consisted of:

- Equipment blanks were collected from filters, as described in the Filter Cartridge Blank Collection scope document, approved by NYSDEC in August 2022 (**Appendix 1A**). Filter equipment blanks were collected to determine the appropriate filters to use for planned direct extraction sampling. This was based on the results of the direct extraction filter testing indicating that the filters may be a source of phenol. Filter equipment blanks were collected as follows:

  - Samples were collected from the following in-line cartridge-style groundwater filter brands: Voss, Aqua Bailer, and ProActive. The equipment provider used for the project confirmed that Voss filters were provided for the 2022 direct extraction filter testing. Because in-line cartridge-style filters look relatively similar among different brands, and the equipment provider fulfills cartridge orders with the brand that they currently have on-hand, it was not possible to determine which brand of filters were used during previous years' monitoring events. However, the equipment provider confirmed that the three brands from which blanks were collected are the only brands that they typically carry. Therefore, one or a combination of these brands were likely used during previous monitoring events.

  - Samples were collected from the following syringe-attached filters to test different filter materials for potential future use in direct extraction sample collection: Foxx Life Sciences nylon, Foxx glass fiber, and Tisch Scientific cellulose acetate.
  - The following samples were collected from each filter type:
    - Laboratory-provided deionized (DI) water filtered one time
    - Laboratory-provided DI water filtered five times
    - Duplicates of each sample
    - Control samples of unfiltered laboratory-provided DI water were also collected
- Qualitative tests were performed on syringe-attached filters to determine which filters would be appropriate for sampling turbid, sediment-laden water, as is often the nature of direct extraction porewater. Cellulose acetate and glass fiber filters were tested by filtering a turbid mixture of sediment and water, determining the number of filters needed to filter 40 milliliters (mL) of water, and characterizing the nature of filtered water (e.g., turbid, slightly turbid, clear). Nylon filters were not tested because of difficulties encountered in pushing water through this filter type during collection of equipment blanks.

- Based on the results of direct extraction filter testing and filter equipment blank testing, the following NYSDEC-approved modifications were made to the direct extraction porewater sampling methods. All porewater samples collected via direct extraction in 2022 followed these revised methods.
  - Glass fiber syringe-attached filters were used for all phenol and VOC sampling due to the lack of detections in equipment blanks from this filter type, as well as the effectiveness of filtration.
  - Filtered samples were collected for LPAH analysis, including phenol, from all direct extraction sample locations. Additionally, unfiltered samples were collected for LPAH analysis, including phenol, from 50% of direct extraction sample locations. Locations with unfiltered LPAH sampling include B-05, B-07, C-10, C-10, C-15, D-11, and E-38.
    - In order to meet volume requirements and allow for direct comparison of filtered and unfiltered results, porewater from multiple cores at a given location was composited prior to collecting filtered and unfiltered samples.
  - Both filtered and unfiltered samples were collected for VOC analysis from all direct extraction sample locations.
    - To minimize volatilization of VOCs from the sample, porewater from multiple cores at a given location was not composited prior to filtered and unfiltered sample collection.
- Solid phase samples rather than peeper porewater were collected from location E-17 for benzene, toluene, and phenol analysis due to a shortage of peepers, as approved by NYSDEC. Field conditions necessitated reinstallation and resampling of some peeper locations earlier in the season, which decreased the number of peepers available for the final round of peeper sampling. Solid phase samples for mercury, VOC, LPAH, HPAH, PCB, and TOC analysis were collected from this location earlier in the season, in accordance with the OLMMP and 2022 Onondaga Lake Scope Memorandum.
- Addition of new peeper and coring location D-57 due to water depth at D-2 being too deep for peeper installation, as approved by NYSDEC.

- D-57 was added approximately 260 feet south-southwest of D-2 and was sampled consistent with the sampling plan for D-2 described in the 2022 Onondaga Lake Scope Memo. D-57 sampling consisted of:
  - H/EP layer: Peeper porewater was collected for benzene, toluene, and phenol analysis. Solid phase samples were collected for analysis of mercury, VOCs (minus benzene and toluene), LPAHs (minus phenol), HPAHs, pH, PCBs, and TOC.
- CI layer: Peeper porewater was collected for analyses of VOCs, LPAHs (including phenol), mercury, and pH.
- Solid phase samples were collected from the H/EP layer at the original D-2 location and analyzed for mercury, VOCs, LPAHs, HPAHs, pH, PCBs, and TOC. A solid phase sample was not collected from the CI layer because it is an amended CI.

- Sample port conditions prevented sampling of solid phase samples from within some sample ports, as described below (peepers were successfully deployed and sampled outside each of the six sample ports):
  - A survey rod was used to locate sample port walls so that a sample could be collected from within the walls. However, the sample port walls could not be located at D-18. Two cores were collected at this location and measured for their physical properties, however a chemical sample was not collected because there was a very low degree of certainty that it would be collected from within the sample port, as is specified in the OLMMP.
  - Samples were not collected from within the D-29 sample port because insufficient thicknesses of sand (>15 inches) were measured in both cores.
  - Samples were not collected from within the D-17 sample port because GAC was present within the sample interval in both cores.
  - A sample was not collected from within the D-24 sample port because native sediment was observed in layers interspersed with cap material within the sample interval.
- Upon peeper retrieval, a limited sample volume was encountered in some depth intervals in peepers from locations D-25, D-33, and E-32. As a result, analyses associated with sample depths were modified as follows, in order to maximize available sample volume and prioritize more critical analyses:
  - D-25:
    - The 12- to 15-inch chemical isolation layer sample interval did not have sufficient volume for mercury analysis. As a result, the 15- to 18-inch sample was analyzed for mercury.
  - D-33:
    - The 3- to 6-inch upper compliance sample interval did not have sufficient volume to fill the VOC vial with no headspace. The necessary additional volume was collected from the 6- to 9-inch interval, creating a composite 3- to 9-inch VOC sample for the upper compliance sample.
  - E-32:
    - The 15- to 18-inch lower compliance sample interval did not have sufficient volume for collection of all required analytes.
      - For VOCs, the necessary additional volume was drawn from the 12- to 15-inch sample interval and added to the 15- to 18-inch sample interval for a composite 12- to 18-inch lower compliance VOC sample.

- Additional volume not needed for VOC analysis was drawn from the VOC vial at the laboratory and combined with volume from the 12- to 15-inch lower compliance sample interval to generate a composite 12- to 18-inch lower compliance LPAH sample.
- Mercury for the lower compliance sample was analyzed from the 12- to 15-inch sample instead.

- The 18- to 21-inch and 21- to 24-inch sample chemical isolation layer intervals did not have sufficient volume separately for collection of all required analytes.
  - For VOCs, the volume was composited between the two sample intervals to generate a composite 18- to 24-inch chemical isolation layer VOC sample.
  - Volume from the 21- to 24-inch chemical isolation layer sample interval alone was analyzed for mercury and pH.
  - Additional volume from the 21– to 24-inch chemical isolation layer sample jar not needed for the mercury and pH analysis was composited at the laboratory with the remaining 18- to 21-inch sample for a composite 18- to 24-inch chemical isolation layer LPAH sample.

NYSDEC was notified of and concurred with this additional sampling, as documented in correspondence in **Appendix 1A**.

6.2.2 Littoral Zone Direct Extraction Filter Sampling Results

Prior to initiating direct extraction porewater sampling from specified sampling locations, direct extraction filtering and filter blank studies were completed to determine if modifications to the field procedures were warranted. These are detailed below.

6.2.2.1 Direct Extraction Filtering Analysis

As detailed in Section 6.2.1, testing was done in 2022 to evaluate the effects of filtering of direct extraction porewater samples on VOC and phenol results.

Phenol concentrations in peeper porewater samples collected during the 2019 cap monitoring were frequently lower than phenol concentrations in direct extraction porewater samples collected during the same monitoring event. This difference in phenol concentrations is potentially due to fine (i.e., small enough to pass through a 0.45-micron filter) particulate matter with sorbed phenol being present in the porewater sample after filtering. During direct extraction sampling, the sample medium was observed to be highly turbid prior to filtering and remained slightly cloudy and discolored after filtering.

VOC concentrations in porewater samples collected from peepers were also sometimes lower than concentrations in porewater samples collected using the direct extraction method. Samples collected for VOC analysis are not filtered to prevent potential loss of VOCs associated with the filtering process. Similar to the concerns above related to the effect of sediment load on phenol concentration, VOC results from unfiltered samples are likely biased high due to the presence of VOCs sorbed to suspended particulates. The magnitude of potential VOC loss due to the field filtering process is not known and was also evaluated during this process.

To further evaluate the impacts of filtering and particulate matter on phenol and VOC direct extraction porewater analytical results, the following cases were analyzed for direct extraction porewater samples collected from five sample locations (A-1, A-4, D-4, D-21, and D-31):

- Case 1: unfiltered, analyze for VOCs and phenol
- Case 2: filtered through a 0.45-micron filter, analyze for VOCs and phenol
  - Case 2a: analyze for VOCs only, filtered twice through a 0.45-micron filter
- Case 3: filtered through a 0.1-micron filter, analyze for VOCs and phenol
  - Case 3a: analyze for VOCs only filtered twice through a 0.1-micron filter

Analytical results from the filter testing are provided in **Appendix 6I**. Total VOC concentrations decreased in two of the samples and increased in three of the samples (potentially due to impacts from the filter) after the first filtering. However, the concentrations remained relatively constant between the first and second filtering. These results indicate that suspended particles may be impacting measured VOC concentrations, and that VOC losses during filtering may be minor. However, measured VOC concentrations were relatively low in all samples, and there were potential contributions from the filters to VOC concentrations, complicating definitive conclusions. Therefore, consistent with the OLMMP, it is recommended that VOC samples not be filtered prior to analysis.

For phenol, the filtered samples consistently showed higher concentrations than the unfiltered samples, indicating that the filters themselves may be a source of phenol. Therefore, a series of tests was completed to evaluate potential impacts from the filters, as detailed in Section 6.2.2.2. This interference prevented development of conclusions regarding the impacts of suspended particles on measured phenol concentrations.

Based on the results from the filter and filter blank testing, the following additions were made to the 2022 direct extraction analysis:

- Addition of unfiltered sample analysis for LPAHs and phenol at 50% of the direct extraction locations (B-5, B-7, C-6, C-10, C-15, D-11, and E-38)
- Addition of filtered sample analysis for VOCs from all direct extraction locations

Results from the VOC and LPAH analysis were all very low or non-detect. Therefore, no conclusions can be drawn regarding the impacts of filtering and particulate matter on VOC and LPAH analytical results.

Unexpectedly, measured concentrations of phenol in filtered samples were higher than in the unfiltered samples for six of the seven sets of paired results. The range and mean concentrations were:

	Range (µg/L)	Mean (µg/L)
Unfiltered	0.18 (ND) – 48	15.1
Filtered	0.31 – 78	24.4

As discussed in 6.2.2.2 below, these samples were filtered using glass fiber filters which did not indicate any contribution of phenol during the filtrate blank testing. The reason for the higher phenol concentrations in filtered samples is uncertain.

Consistent with the OLMMP, unfiltered VOC results and filtered phenol and LPAH were used for evaluation of cap performance, and all results are included in **Appendix 6E**. Filtered VOC and unfiltered phenol and LPAH results are included in **Appendix 6H**.

6.2.2.2 Direct Extraction Filtrate Blank Analysis

As detailed in Sections 6.2.1, testing was done in 2022 to evaluate the effects of filtering direct extraction porewater samples on VOC and phenol results. Unexpectedly, the filtered samples had higher concentrations of phenol and, in some cases, VOCs than the unfiltered samples, indicating that the filters themselves may be a source of phenol and VOCs. Therefore, a series of tests was completed to evaluate this, per the procedure approved by NYSDEC and included in **Appendix 1A**. Equipment blanks were collected from different types of filters to determine if filters could have potentially contributed to observed phenol concentrations in previous monitoring years and phenol and VOC concentrations observed in results from direct extraction filter testing in June 2022. They were also collected to determine the ideal filter type for future direct extraction sampling. Equipment blank methods and results are detailed below.

During previous monitoring, 0.45-micron, in-line, cartridge style groundwater filters were purchased from Pine Environmental. Pine carries three different brands of filters: Voss, AquaBailer, and ProActive. Voss filters were used during direct extraction filter testing in June 2022, but it was uncertain which specific brand(s) were used during previous monitoring events. Equipment blanks were collected from all three brands of cartridge-style filters. All three brands use a polyethersulfone membrane as the filter.

Three new filters were also evaluated as part of this testing. All three filters are 0.45-micron, syringe-attached filters. The following new filters were tested: nylon membrane by Foxx Life Sciences, glass fiber membrane by Foxx Life Sciences, and cellulose acetate membrane by Tisch.

Equipment blanks were collected from all filters (Voss, AquaBailer, and ProActive cartridge filters and nylon Foxx, glass fiber Foxx, and cellulose acetate Tisch syringe-attached filters). Control samples of unfiltered DI water were also collected. For collection of each equipment blank, lab-provided DI water was run through the filter once and deposited into sample jars. DI water was then run through the filter five times and deposited into sample jars. Each process (one time filtered and five times filtered) were repeated for each filter type, except for the nylon filter, to create a duplicate set of samples for each filter type. Only one sample (one time filtered) was collected from the nylon filter because it was extremely difficult to push water through the filter, making it impractical for use during sampling.

Data from filter equipment blank testing indicated the following results:

- All samples collected from cartridge style filters had detections for VOCs, most consistently toluene, 1,4-dichlorobenzene, and m,p-xylenes.
- Phenol was detected in one once-filtered sample and one five-times-filtered sample from the Voss cartridge style filter. Phenol was not detected in samples from any other filters.
- VOCs and phenol were not detected in filtrate samples from any of the nylon membrane, glass fiber membrane, or cellulose acetate membrane syringe-attached filters.

Because syringe-attached filters had not been used previously, qualitative testing of the usability of the glass fiber and cellulose acetate filters was also completed. Filtration effectiveness testing of the

nylon filter was not performed because of the difficulty of using this filter type observed during collection of equipment blanks. To test filtration effectiveness, a turbid mixture of water and soil was created and passed through both filter types. Both filters clogged up relatively quickly, but it was relatively easy to swap them out with new filters and continue filtration. Water filtered with the glass fiber filter was clear after filtration, and each filter could process approximately 20 mL of turbid water before clogging. Water filtered with the cellulose acetate filter was slightly cloudy after filtration, and each filter could pass approximately 10 mL of turbid water before clogging.

Based on the results of the filter blank testing, it is recommended that glass fiber syringe-attached filters be used for all future filtering of direct extraction porewater samples. These filters were used for all 2022 direct extraction porewater samples used to evaluate cap performance.

Analytical results from the filter blank testing are provided in **Appendix 6I**.

6.2.3 Littoral Zone Chemical Monitoring Results

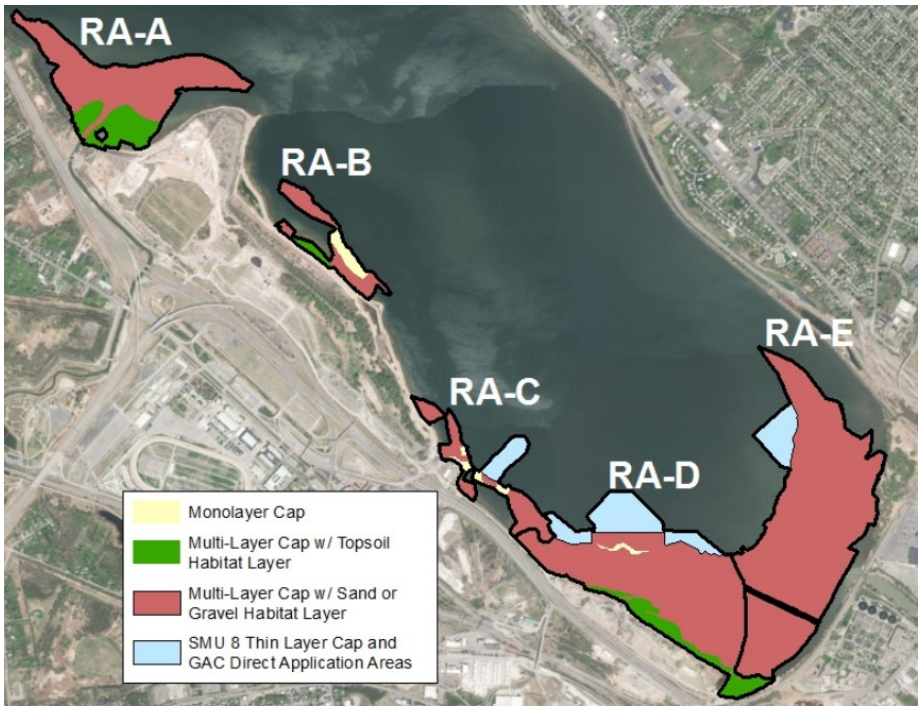
The habitat layer chemical-specific performance criteria for the lake, Outboard Area, and WB 1-8 connected wetlands are the PEC for each of the 23 chemicals that have been shown to exhibit acute toxicity on a lake-wide basis and the NYSDEC sediment screening criteria (SSC) for benzene, toluene, and phenol. The habitat layer chemical-specific performance criteria for the Ninemile Creek spits is consistent with the criteria set forth in the Ninemile Creek OU-2 ROD (NYSDEC and USEPA 2015). There is no evidence of significant chemical migration in any capped areas based on the results of the 2022 sampling program, which included sampling solid phase and porewater from cap material in both the habitat layer and chemical isolation layer. Because of the differing cap designs and/or resultant monitoring strategy, the chemical monitoring results are discussed separately for the following categories:

Chemical concentrations are discussed in the following subsections:

- Multi-layer caps with sand or gravel habitat layer (i.e., non-topsoil) (Section 6.2.3.1)
- Mono-layer caps, including direct GAC application areas (Section 6.2.3.2)
- Multi-layer caps with topsoil habitat layer (Section 6.2.3.3)
- 2022 chemical concentrations compared to prior years monitoring results (Section 6.2.3.4)

Conventional parameters are discussed in the following subsections:

- TOC monitoring results (Section 6.2.3.5)
- pH monitoring results from caps constructed with a sand/siderite layer (Section 6.2.3.6)



6.2.3.1 Multi-layer Caps with Sand or Gravel Habitat Layer

The 2022 sampling program results do not indicate significant chemical migration in multi-layer caps with a sand or gravel habitat. The program included over 8,800 chemical analyses[10] from 95 sampling locations for multi-layer caps with sand or gravel habitat layer, including both habitat layer (compliance) and chemical isolation layer (additional) sampling. Over 97 percent of the analytical results were non-detects or very low concentrations (less than five percent of the performance criteria). Detected concentrations in the habitat layer are primarily attributable to factors other than chemical migration from the underlying sediment.

The 2022 sampling locations are shown on **Figures 6.7 through 6.12**. 2022 concentrations measured in the habitat layer of multi-layer caps in non-topsoil cap areas are summarized in **Tables 6.3A through 6.3F**. The figures included in **Appendix 6F** show 2022 concentrations as bars relative to the performance criteria (indicated by horizontal blue lines).

The cap chemical isolation layer was designed to minimize the migration of chemicals from the sediment beneath the cap to the surface of the cap where benthic organism exposure may occur and maintain concentrations within the habitat layer below the performance criteria. To evaluate whether caps are functioning as intended, it is important to understand the vertical pattern of chemical concentrations within the cap that may be indicative of chemical transport versus other sources of chemicals. The three primary distributions and their implications are detailed below.

- Highest concentration in the shallowest sample interval. This sample interval is typically from near the top of the habitat layer from 3 to 6 inches below the cap surface. This is within the bioturbation zone. This pattern indicates the measured chemicals are likely due to background

[10] Excludes total organic carbon, total solids, and pH.

influences and deposition on the cap surface subsequent to cap placement. Examples of this chemical distribution pattern from the 2022 sampling results include PAHs at locations A-5 and D-46, as shown in **Appendix 6F**.

- Highest concentration in the middle sample interval. This sample interval is typically from the bottom of the habitat layer and is below the bioturbation zone. This pattern indicates the measured chemicals are likely due to ambient sediment influences during cap construction[11]. Examples of this chemical distribution pattern from the 2022 sampling results include phenol and toluene at location B-15 and phenol at location C-5, as shown in **Appendix 6F**.
- Highest concentration in the deepest sample interval. This sample interval is typically from the top of the chemical isolation layer. This pattern indicates the measured chemicals may be due to migration from the underlying sediment. Examples of this chemical distribution pattern from the 2022 sampling results include phenol and toluene at locations D-13 and D-21, as shown in **Appendix 6F**. However, the concentrations also may be a result of ambient sediment influences during cap placement as discussed above.

There was only one 2022 location (D-21) where chemical samples collected from within the habitat layer exceeded cap performance criteria and where phenol and toluene concentrations exceeded criteria in the deep habitat layer sample below the bioturbation zone (**Table 6.4**). Phenol and toluene concentrations at D-21 were significantly higher in the deep habitat layer than the shallow habitat layer and slightly higher than concentrations observed in the chemical isolation layer. Phenol and toluene were also detected at this location during the 2017/2018 and 2019 sampling events but did not exceed the cap performance criteria. Distribution patterns during these sampling events varied. In 2017/2018, the highest phenol concentration was in the middle sample interval, while the lowest concentration was in the bottom (chemical isolation layer) sample. In 2019, the highest phenol concentration was in the shallowest sample interval. The source of these impacts is uncertain.

It is unlikely that the exceedances of the cap phenol or toluene criteria would indicate toxicity or risk since neither phenol nor toluene were shown to exhibit acute toxicity on a lake-wide basis, as documented in the ROD. In addition, the cap criterion for phenol is based on the NYSDEC SSC which are in turn derived from surface water criteria based on taste and odor in fish tissue rather than aquatic toxicity. Further, potential impacts to benthic organisms are unlikely, considering that all criteria exceedances at this location are observed below the bioturbation zone. The mean PEC quotient (PECQ) of 1 was not exceeded. This value was used in the ROD to define areas of the lake that pose potential unacceptable risks to benthic organisms based on toxicity considerations.

Location D-21 will be resampled during the 2023 field season to provide additional information regarding the nature of the observed criteria exceedances. Although there were no other exceedances of the cap performance criteria in the habitat layer of multi-layer caps with sand or gravel habitat layer in 2022, the locations listed below are also recommended for resampling in 2023 based on

[11] Ambient sediment influences on material placed during cap construction include potential impacts due to deposition of suspended sediments from adjacent unremediated areas (beyond lake remedy footprint; including contributions from tributaries), areas pending remediation (within the lake remedy footprint), or partially remediated areas (within the lake remedy footprint where remedial action was in progress). These impacts are likely the result of resuspension of sediments due to wind and wave action and/or dredging and capping activities.

concentrations of toluene and/or phenol that were higher than expected, or mercury method detection limits (MDLs) in the habitat layer that were higher than the cap performance criteria.

Sample Location	Sample Medium (Method)	Analytical Parameters	Reason for Resampling
B-14	Porewater (Peeper)	phenol, VOCs	phenol and toluene EF > 1 (CI layer)
B-15	Porewater (Peeper)	phenol, VOCs	phenol and toluene EF > 0.5 (H layer)
D-13	Porewater (Peeper)	phenol, VOCs	phenol and toluene EF > 1 (CI layer)
D-15	Porewater (Peeper)	phenol	phenol EF > 1 (CI layer)
D-21	Porewater (Peeper)	phenol, VOCs	phenol and toluene EF > 1 (deep H & CI layers)
E-41	Porewater (Peeper)	mercury	MDL > criteria in H layer
E-43	Porewater (Peeper)	mercury	mercury MDL > criteria in H and CI layer

Notes:
EF = exceedance factor (concentration/cap habitat layer criteria)

The 2022 comprehensive monitoring results indicate that overall, these multi-layer caps are performing as intended. Criteria exceedances at D-21 appear to be localized in terms of both lateral extent and vertical profile and will be reevaluated following 2023 resampling efforts. Based on observed patterns in remaining chemical concentrations measured in 2022, and consideration of factors that may explain these patterns, other detected concentrations are attributable primarily to impacts from ambient sediment influences as defined above.

6.2.3.2 Littoral Zone Mono-layer Caps, Including GAC Direct Application Areas

The 2022 sampling program results do not indicate evidence of significant chemical migration in any mono-layer capped area. No exceedances of the cap performance criteria were noted in any sample from mono-layer cap areas. Mono-layer caps include the GAC direct application areas. The program included 783 chemical analyses[12] from 20 sampling locations. Over 95 percent of the analytical results were non-detects or very low concentrations (less than five percent of the performance criteria). All detected concentrations are attributable to factors other than chemical migration from the underlying sediment. The 2022 sampling locations are shown in **Figures 6.7 through 6.12**. **Tables 6.5 and 6.6** summarize the 2022 concentrations measured in monolayer caps. The figures included in **Appendix 6F** show 2022 concentrations as bars relative to the performance criteria (indicated by horizontal blue lines). Similar to the results for multi-layer caps, detected concentrations were primarily attributable to impacts from background unremediated areas, including tributaries, and impacts from adjacent areas during cap construction.

Appendix D of the OLMMP discusses the procedures (and thicknesses/depths) for collecting samples in the mono-layer (including direct application) cap areas that have varying thicknesses. Sampling of the mono-layer caps was completed consistent with these procedures. Appendix D of the OLMMP also specifies that no sample will be collected if the thickness of the mono-layer cap and any overlying accumulated sediment is less than 3 inches. Since the thickness of the mono-layer cap material and

[11] Excludes pH, TOC, and total solids.

overlying sediment exceeded three inches in at least one core at all sample locations, all 20 specified locations were sampled and analyzed. Samples for chemical analyses in these mono-layer caps were only collected at core locations where at least 3 inches of sand (cap) and overlying sediment were measured. At five locations (B-5, B-7, C-14, D-57, E-38), some of the initial cores collected had less than 3 inches of mono-layer cap and overlying sediment. Core thicknesses for these locations are shown in **Table 6.2**. In the instances in which less than 3 inches of mono-layer cap and overlying sediment were measured, additional cores were collected in step outs. Core locations and thicknesses of cores collected at these locations are shown on **Figures 6.29 through 6.32**.

One of these step-out locations was C-14B. As shown in **Figure 6.31**, the 2022 chemical monitoring samples collected from C-14B may have been retrieved from the incorrect cap type. As-built coordinates indicate that the 2022 C-14B samples were collected from an adjacent cap area where the multilayer cap transitions into SMU-8 direct GAC application. The scope of work planned for 2023 includes resampling C-14 at the correct location and collection of the specified chemical samples.

Although there were no exceedances of the cap performance criteria in monolayer caps in 2022, the phenol concentration at location B-11 was higher than expected and is therefore recommended for resampling in 2023.

6.2.3.3 Multi-layer Caps with Topsoil Habitat Layer

The 2022 sampling program results do not indicate evidence of significant chemical migration in any multi-layer capped areas with a topsoil habitat layer. The 2022 program included over 2,300[13] chemical analyses from 27 sampling locations. All detects are attributable to causes other than chemical migration from the underlying sediment, including background levels of PAHs present in the topsoil used for construction of the cap and impacts from tributaries. The 2022 sampling locations are shown in **Figures 6.7 through 6.12**. **Tables 6.8A and 6.8B** summarize the 2022 concentrations measured in multi-layer caps with a topsoil habitat layer. The figures included in **Appendix 6F** show 2022 concentrations as bars relative to the performance criteria (indicated by horizontal blue lines).

PAHs are ubiquitous in the environment. **Table 6.7** shows maximum detected concentrations for PAHs in topsoil stockpile samples, collected prior to cap placement, and topsoil habitat layer samples, collected following cap placement. Maximum PAH concentrations in topsoil stockpile samples were below the NYSDEC-defined rural background criteria, except for acenaphthylene and dibenzo(a,h)anthracene. Maximum PAH concentrations in topsoil habitat layer samples were below rural background criteria for all parameters. PAH concentrations were also below the NYSDEC Unrestricted Soil Criteria, which were the basis for acceptability of the topsoil for use as capping material based on the final design. As shown in **Table 6.7**, PAH concentrations measured in topsoil habitat layer samples were compositionally similar to, but consistently lower than, PAH concentrations measured in topsoil pre-construction. This demonstrates that PAH concentrations measured in cap topsoil habitat layer samples are primarily a result of background influences on the topsoil sourced for construction, not a result of migration from underlying sediment. This is consistent with the conclusions from the 2017 and 2019 cap monitoring programs. With the exception of the 2022 topsoil PAH exceedances discussed in the paragraph below, the PAH topsoil analytical results were similar

[13] Excludes pH, TOC, and total solids.

between 2017, 2019, and 2022, and appear to be decreasing. The mean topsoil PAH concentrations for 2017, 2019, and 2022 are shown below:

Mean Total PAH Concentrations in All Topsoil

Monitoring Year	Mean Total PAHs in Topsoil (µg/kg)
2017	329
2019	284
2022	211

µg/kg – microgram(s) per kilogram

Multiple topsoil sources were used throughout cap construction. Since topsoil from various sources was comingled and used in multiple areas, it is not possible to determine which topsoil was placed in which areas.

As shown in **Tables 6.4 and 6.8B**, there were exceedances of cap performance criteria for multiple PAHs. All of these exceedances are attributable to the five sample locations in the WB-B Outboard Area East at the mouth of Harbor Brook, as shown in **Table 6.4**. PAH concentrations were consistently lower in the deepest habitat layer samples at four of the five locations, indicating the exceedances are not a result of chemical migration from underlying sediments. The other sample location exhibited comparable concentrations of PAHs in shallow and deep habitat layer samples. The mean PECQ of 1, which was used in the ROD to define areas of the lake that pose potential unacceptable risks to benthic organisms based on toxicity considerations, was exceeded in the 3- to 6-inch interval at location D-45. Chemical isolation layer samples were not collected at these locations.,

The potential sources of the PAH exceedances in this area are under review, however it is suspected that they are primarily a result of PAHs migrating from portions of Harbor Brook and its tributaries (ditches) upstream of the areas Honeywell was responsible for remediating. In a 2022, total PAHs exceeded 77,000 µg/kg in a sample collected from the remediated area just upstream of I-690 as part of the annual monitoring completed by Honeywell. In this same sample, benzo(a)pyrene was detected at a maximum concentration of 4,910 µg/kg which is greater than 30 times the cap habitat layer performance criteria. Elevated PAH concentrations were also detected in drainage ditches in the Honeywell Upper Harbor Brook area, as well in upgradient samples collected upstream of remediated areas, which indicates that impacts may be due to offsite sources. A more detailed evaluation of Outboard Area East, Upper Harbor Brook, and offsite impacts will be provided in the 2023 Onondaga Lake Annual Monitoring Report.

Monitored topsoil areas in 2022 include the Ninemile Creek spits, which are part of the Ninemile Creek site. The chemical-specific cap performance criteria for the Ninemile Creek spits consist of criteria for mercury of 0.15 mg/kg, total PAHs of 4 mg/kg, total PCBs of 19.3 µg/g organic carbon, and phenol of 25 µg/g organic carbon. Two sample locations within the spits (A-17 and A-18) each included two sample intervals. There were no exceedances of the Ninemile Creek criteria in any of these samples.

6.2.3.4 Comparison of 2022 Results to Prior Monitoring Results

Prior chemical monitoring included comprehensive events in 2017/2018 and 2019. During all three monitoring events, over 95 percent of the analytical results were non-detects or very low concentrations (less than five percent of the performance criteria). During all three monitoring events,

there were sporadic sample results with higher concentrations. These were primarily attributable to ambient sediment influences as defined above. The table below compares the 2022 comprehensive chemical monitoring with the prior monitoring results focused on sample results with concentrations greater than 50 percent (exceedance factor greater than 0.5) of the habitat layer performance criteria.

	Total Number of Sample Locations	Locations With H Layer Exceedances	Additional Locations With Habitat Criteria Exceeded in CI Layer	Additional Locations With Exceedance Factor Between 0.5 and 1 in H or CI Layers
2017/2018	140	6	0	9
2019	142	3	4	6
2022	142	1	5	3

Notes: 1. EF = exceedance factor (concentration/cap habitat layer criteria)
2. Excludes PAHs in topsoil
3. 2017/2018 counts based on using 2019 revised phenol Koc developed based on the 2019 monitoring results
4. H = Habitat
5. CI = Chemical Isolation

The number of locations with habitat layer exceedances and the number of locations with an exceedance factor greater than 0.5 in the habitat or chemical isolation layer was less in 2022 than during prior monitoring events. With the exception of PAHs in topsoil in the Outboard Area East likely resulting from impacts from Harbor Brook, there were no locations where the cap criteria was exceeded in the habitat layer in more than one year.

The table below compares the 2022 comprehensive chemical monitoring with the prior monitoring results focused on sample results with concentrations greater than 10% (exceedance factor greater than 0.1) of the habitat layer performance criteria on a chemical-specific basis.

Chemical	2017/2018 EF > 0.1	2019 EF > 0.1	2022 EF > 0.1
Phenol	13	42	35
Toluene	23	14	11
Benzene	3	2	0
Ethylbenzene	2	1	0
Xylenes	0	1	0
Chlorobenzene	0	1	0
Dichlorobenzenes	0	2	0
Trichlorobenzenes	0	1	0
Naphthalene	10	11	2
Mercury	8	6	8
Benzo(a)pyrene	10	10	7
PCBs	2	2	1

Notes:
1. EF = exceedance factor (concentration/cap habitat layer criteria)
2. Excludes PAHs in topsoil
3. Based on detected concentrations only, non-detects excluded
4. Excludes 2019 resamples to avoid double counting and samples in the unremediated CSX area
5. Benzo(a)pyrene was used as the representative PAH because it was the most commonly detected PAH.

There is some variability between the sampling events, but overall, the results are relatively consistent, and no significant temporal trends were identified.

6.2.3.5 Total Organic Carbon

Consistent with the work plan, solid-phase samples collected in 2022 that did not contain GAC were analyzed for TOC. The performance criteria for chemicals that are included in the calculation of the mean PECQ are based on cap solid phase concentrations, whereas the performance criteria for chemicals based on the NYSDEC SSCs (i.e., benzene, toluene, and phenol) are based on cap porewater concentrations. TOC values are needed to convert solid phase benzene, toluene, and phenol sample concentrations to porewater concentrations for comparison to the cap criteria in cases where solid phase (as opposed to porewater) cap samples were collected. For chemicals that are included in the calculation of the mean PECQ, porewater concentrations must be converted to solid phase concentrations for comparison to the cap criteria. For samples in which TOC was measured, the sample-specific TOC was used for the conversion. For samples in which TOC was not measured (i.e., where the cap material consisted of gravel or cobble, or sand mixed with GAC), the TOC from an adjacent sample within the same core within a similar depth interval (both samples within the bioturbation zone or both below the bioturbation zone) were used for conversion. If these adjacent samples were not available, the average TOC concentrations measured from a similar depth interval within the cap from samples collected throughout the RA were used. The 2022 measured TOC values are included in Table 6.9.

6.2.3.6 pH

The caps in areas that include siderite as an amendment were designed to maintain a pH less than 8 within the chemical isolation and habitat/erosion protection layers for 1,000 years to promote biodegradation of organic chemicals. The 2022 pH monitoring results are shown in Table 6.10 and on bar charts included in Appendix 6G. The pH was below 8 or just marginally above 8 (up to 8.5) for over 70 percent of the samples collected in 2022. Short-term exceedances of the pH goal were expected as a result of porewater expression due to consolidation of underlying sediments (as described in Appendix I of the final design). Observed impacts are expected to be relatively minor and or short duration. Further, there does not appear to be a consistent vertical trend in pH that would indicate upward migration of porewater through the cap.

Elevated pH in near-surface samples, including values greater than 8, may be a result of interactions with lake surface water, which is naturally alkaline and often has a pH above 8. Based on UFI's 2022 monitoring of lake water at the south buoy (April 6 through November 21), the pH ranged from 7.5 to 8.4 and averaged 8.0 in water depths from 1 to 6 meters and ranged from 7.0 to 8.4 and averaged 7.6 in water depths greater than 6 meters.

Review of pH data from 2017, 2019, and 2022 indicates that there may be a method-based difference in pH results between sampling methods (solid phase, direct extraction porewater, and peeper porewater) as shown in the table below.

Average pH by Sampling Method (All Years/Areas)

Sampling Method	Average pH
Peeper	7.9
Direct Extraction	7.3
Core	7.9

The planned scope of work for 2023 includes a bench study designed to investigate potential variability in pH results by sampling method through collection of co-located replicate samples at target locations with siderite-amended caps followed by field and laboratory pH analysis. Collection of solid phase, direct extraction porewater, and peeper porewater samples from the same area at multiple locations will allow for direct comparison of measured pH between sampling methodologies. The 2023 pH bench study will also evaluate potential effects of surface water on pH measured in cap samples by sampling the standing water above the sediment interface inside each core tube. Details will be provided in the 2023 Onondaga Lake Scope Memorandum.

6.2.4 SMU 8 Thin-Layer Caps and Direct GAC Application Areas

Thirty-nine samples were collected and more than 1,500 analyses were performed from 25 SMU 8 thin-layer cap and direct GAC application area locations in 2022. The long-term performance criteria for amended and unamended thin layer cap (TLC) and direct GAC application areas in SMU 8 is to meet the mean PECQ criterion of 1 and mercury PEC criterion of 2.2 mg/kg within the top 4 cm (approximately two inches), which is the compliance depth for SMU 8. Samples were collected from the top 4 cm of the sediment at each of the 25 sample locations to assess cap performance. A sample was also collected from the depth interval of 4 to 10 cm in unamended TLCs for potential future consideration if it is determined that the compliance depth should extend deeper than 4 cm. As shown in **Table 6.11**, all samples collected from the SMU 8 TLC and direct GAC application areas in 2022 were significantly below the performance criteria. Concentrations are anticipated to decrease to even lower levels over time as clean sediments continue to accumulate in SMU 8.

PCB results for sample locations SMU8-6, SMU8-8, SMU8-9, SMU8-14, SMU8-17, SMU8-19, SMU8-21, SMU8-23, SMU8-24, and SMU8-25 were all non-detects, however the detection limit for these locations was higher than the PCBs cap criteria of 295 µg/kg. PCB detection limits higher than anticipated in the QAPP were also noted in other samples. Based on discussions with the laboratory, elevated detection limits are thought to be the result of mass reduction in samples with high moisture content as a consequence of laboratory preparation (drying), resulting in insufficient sample volume to meet desired detection limits. The SMU 8 thin-layer cap samples, such as those listed above, often include overlying deposited sediments which lead to higher moisture content than is present in typical cap samples. PCB analysis in 2024 will include a soxtherm extraction preparation method on all solid phase PCB samples to improve the PCB detection limits, as recommended by the analytical laboratory.

6.2.5 Summary of 2022 Cap Chemical Monitoring Results and Recommendations for 2023 Monitoring

The 2022 chemical monitoring programs included over 9,200 chemical analyses from 167 cap sampling locations, including multi-layer and mono-layer isolation caps in the littoral zone and thin

layer capping and direct application areas in SMU 8. Over 90 percent of the analytical results were non-detects or very low concentrations (less than five percent of the performance criteria). Detected concentrations were primarily attributable to background influences, as detailed in the sections above. The chemical monitoring results and recommendations for future monitoring scope detailed in the preceding sections are summarized below.

Cap Type	Number of Sample Locations	Number of Samples	Number of Analyses	Number of Habitat Samples with Criteria Exceedances	Number of Sample Exceedances due to Chemical Migration
Multi-layer (Non-topsoil)	95	507	8,801	1	0
Multi-layer (Topsoil)	27	66	2,342	5	0
Mono-layer	20	42	783	0	0
SMU 8 TLC	25	38	1,599	0	0
Total	**167**	**653**	**13,525**	**6**	**0**

Note: TOC, total solids and pH are not included in counts.

Although there were no 2022 exceedances of cap criteria known to be attributable to chemical migration from the underlying chemical isolation layer, there were six locations where the cap habitat layer criteria were exceeded. There was only one 2022 non-topsoil location (D-21) where a habitat layer sample exceeded cap performance criteria, where phenol and toluene concentrations exceeded criteria in the deep habitat layer sample below the bioturbation zone. The mean PECQ of 1, which was used in the ROD to define areas of the lake that pose potential unacceptable risks to benthic organisms based on toxicity considerations, was not exceeded. The source of these impacts is uncertain. The habitat layer impacts at D-21 will be further evaluated through resampling in 2023.

Five habitat layer samples collected in cap areas with a topsoil habitat layer exceeded cap criteria for PAHs. All of these locations are at the mouth of Harbor Brook. PAH concentrations were typically lower in the deepest habitat layer samples, indicating the exceedances are not a result of chemical migration from underlying sediments. The mean PECQ exceeded 1 at one of these locations (D-45). It is likely the PAH exceedances are a result of PAHs migrating from portions of Harbor Brook and its tributaries (ditches) upstream of the areas remediated by Honeywell, however a more detailed evaluation of this area will be provided in a future report.

Results from the 2022 chemical monitoring programs verify that there is no evidence of significant chemical migration through any of the multi-layer or mono-layer capped areas, and the cap remains protective of human health and the environment. The infrequent exceedances of the cap criteria do not present an unacceptable risk to benthic organisms or other potential receptors given their infrequent and sporadic occurrence. There is some variability between the results from the 2022 sampling event and the prior sampling events, but overall, the results are relatively consistent and no significant temporal trends were identified. Therefore, consistent with the OLMMP, it is recommended that focused chemical monitoring be implemented in 2024. The monitoring scope will be consistent with the scope specified in the OLMMP, with minor modifications based on revisions to the monitoring program developed subsequent to the OLMMP, to be detailed in the 2024 Onondaga Lake Scope

Memorandum. In addition, chemical monitoring is recommended at select locations in 2023 based on the 2022 monitoring results, as detailed in the table below.

Chemical Monitoring Sample Locations and Analytical Parameters for 2023

Sample Location	Sample Medium (Method)	Analytical Parameters	Reason for Resampling
B-11	Porewater (Peeper)	phenol	phenol EF > 0.5 (mono-layer)
B-14	Porewater (Peeper)	phenol, VOCs	phenol and toluene EF > 1 (Cl layer)
B-15	Porewater (Peeper)	phenol, VOCs	phenol and toluene EF > 0.5 (H layer)
C-14	Porewater (Direct Extraction)	VOCs, LPAHs, pH	porewater sample cores were retrieved from incorrect cap area. (Note: mercury was analyzed in solid phase sample, not porewater, the sediment sample was collected in the correct location and thus resampling for mercury is not needed)
D-13	Porewater (Peeper)	phenol, VOCs	phenol and toluene EF > 1 (Cl layer)
D-15	Porewater (Peeper)	phenol	phenol EF > 1 (Cl layer)
D-21	Porewater (Peeper)	phenol, VOCs	phenol and toluene EF > 1 (deep H & Cl layers)
E-41	Porewater (Peeper)	mercury	MDL > criteria in H layer
E-43	Porewater (Peeper)	mercury	mercury MDL > criteria in H and Cl layer

Notes:
1. EF = exceedance factor (concentration/cap habitat layer criteria)

6.3 Shoreline Hydraulic Control System Operation

As part of the IRMs associated with adjacent contaminated sites, shoreline subsurface barrier walls and/or groundwater collection systems have been installed directly adjacent to several capped areas within the lake and adjacent wetlands. Successful hydraulic containment by these systems limits groundwater upwelling in adjacent lake and wetland areas. It is therefore an important factor in ensuring the caps achieve their established performance criteria. Groundwater flows through three zones in the aquifer: shallow, intermediate, and deep. A clay layer separates the intermediate and deep zones. Operational and monitoring data from the hydraulic containment systems are used to demonstrate that groundwater from the shallow and intermediate zones is being successfully captured. Thus, the only potential source of groundwater upwelling through the cap is from the deep zone through the underlying clay layer. This was the design basis used to generate the groundwater upwelling rates for cap modeling for the final design. Hydraulic containment systems include:

- A shoreline groundwater collection system that has been implemented as part of the WBs 1-8 IRM
- Shoreline barrier walls and groundwater collection systems that have been implemented as part of the Willis/Semet and WB B IRMs (Parsons 2018a)

Infiltration of impacted groundwater to Onondaga Lake along the southeastern shoreline has been mitigated as part of the Willis/Semet and WB-B IRMs through construction of a control system that includes a sheet pile barrier wall and a groundwater collection system. The hydraulic barrier wall is the primary groundwater control mechanism and extends a minimum of 3 feet into the clay layer present at depths ranging from 35 to 70 feet below grade. As documented in Honeywell Lakeshore Upland Sites Performance Verification Annual Reports, the ability to contain groundwater and in general

maintain an inward hydraulic gradient has been demonstrated for these systems and is expected to continue in perpetuity. Successful operation of the system is ongoing.

The WB 1-8 IRM includes the Eastern and Remediation Area A shoreline groundwater collection systems to control shallow and intermediate groundwater discharges to Onondaga Lake. As documented in the bi-weekly Groundwater Elevation Summary reports provided to NYSDEC, ongoing data indicates general achievement of hydraulic control for these systems in the shallow groundwater, with periodic exceptions during scheduled maintenance, extreme weather conditions, and elevated lake levels. However, the majority of the intermediate groundwater monitoring locations do not consistently meet performance levels, therefore continued evaluations of the systems are ongoing. Numerous system upgrades and optimization activities have been implemented which have resulted in improved system performance, such as installation of a new redundant forcemain from the system pump station to the Willis Avenue Water Treatment Plant at the end of 2021 and installation of an acid adjustment system in 2022. NYSDEC has been updated regularly on the performance of and upgrades to these systems. Demonstration of consistent performance has been challenging along a portion of the system that is directly adjacent to the capped area in RA-A. Therefore, peeper locations A-30 and A-31 (**Figure 6.7**) were added to the 2019 cap monitoring program to verify that the cap adjacent to this portion of the hydraulic containment system remains protective. With the exception of minor detections of benzene, toluene, and phenol (at less than 2 percent of the cap performance criteria) in 2022, all analytes were non-detect for these two peepers.

6.4 Institutional Controls

As specified in the OLMMP, institutional controls are included as part of the long-term monitoring and maintenance program for the lake to protect the integrity of the cap and ensure long-term protectiveness of human health and the environment. Specifically, institutional controls have been implemented to:

- Prevent unacceptable exposure to residual contamination within the lake
- Prevent recreational boaters from accidently hitting any navigational hazards created by capping and restoration components of the remedy
- Prevent damage to the cap from activities such as navigational dredging

The specific institutional controls detailed in the OLMMP and the status of these institutional controls are detailed below.

- New York State Department of Health (NYSDOH) fish consumption advisories. NYSDOH reviews fish consumption advisories and updates them on a regular basis. These advisories remain in place and are consistent with those listed in the OLMMP. In 2017, the City of Syracuse and Onondaga County posted signs in numerous locations along the shore of Onondaga Lake regarding the presence of consumption advisories and where to find additional information. Honeywell is not aware of any public outreach activities relating to fish consumption advisories since the finalization of the OLMMP.
- NYSDEC and USACE permitting process to restrict actions that may disrupt the cap or SMU 8 sediment. This permitting process remains in place, and there have been no activities that Honeywell is aware of that have disrupted the cap or SMU 8 sediment, with the minor exception

noted below. Honeywell is currently working with the NYSDEC to finalize the Onondaga Lake Site Management Plan, which will provide additional details regarding institutional controls that will be implemented to prevent actions that may disrupt the cap or SMU 8 sediment.

- Recreational boating buoys. The New York State Office of Parks, Recreation and Historic Preservation maintains navigational buoys in Onondaga Lake to warn boaters of hazards in water less than 4 feet deep and beyond 100 feet from shore. This includes buoys associated with shallow water resulting from capping activities in a small portion of RA-A, which have been deployed annually since 2016. Deployment has been verified annually during cap monitoring activities.
- Navigational charts. Updated (post-capping) bathymetric survey results were provided in May 2017 to the National Oceanic and Atmospheric Administration (NOAA) to allow them to update the Navigational Chart for Onondaga Lake (currently included as Chart Number 14786 page 33 for the Small-Craft Book Chart for the New York State Canal System). NOAA updated the charts accordingly on February 11, 2020.

In April 2022, the New York Department of Transportation (NYDOT) repair of the Trib 5A pipeline along the shoreline resulted in minor disturbance of cap material within the lake adjacent to the shoreline east of Trib 5A. A discharge hose displaced a small amount of cap erosion protection layer material, which consists of a minimum of 18 inches of coarse gravel in this area. The disturbed area was approximately 10 square feet. The maximum scour depth was approximately 12 to 18 inches. The total volume of material displaced was approximately 1 cubic yard. Upon notification by NYSDEC, NYDOT filled in the scour area using material with the same specifications used for the coarse gravel cap material in this area. Relevant correspondence is included in **Appendix 1A**.

SECTION 7 IN-LAKE SURFACE WATER MONITORING

7.1 Introduction

The primary objective for monitoring Onondaga Lake surface water is to provide a basis for determining achievement of the surface water performance criteria. These criteria are based on PRG #3 of the ROD (NYSDEC and USEPA 2005), which is to "achieve surface water quality standards, to the extent practicable, associated with chemical parameters of interest (CPOIs)." The performance criteria for surface water are the NYSDEC SWQS (Part 703) and Division of Water Technical and Operational Guidance Series (TOGS) Ambient Water Quality Standards and Guidance Values (TOGS 1.1.1) for mercury, select VOCs, semi-volatile organic compounds (SVOCs), and PCBs. The performance criteria goals are to achieve:

- Total dissolved mercury concentrations in Onondaga Lake surface water samples that are protective of wildlife (2.6 ng/L or less) and of human health via fish consumption (0.7 ng/L or less)
- VOC and SVOC concentrations in Onondaga Lake water samples that are protective of aquatic life (concentrations are chemical specific)
- PCB concentrations in Onondaga Lake surface water samples that are protective of wildlife (0.12 ng/L or less) and of human health via fish consumption (0.001 ng/L or less)

As per the OLMMP, the surface water monitoring program includes collection of samples from 10 littoral and two mid-lake locations once prior to and once after fall turnover (**Figures 7.1A** and **7.1B**). Attainment of unfiltered and filtered (dissolved) total mercury, VOCs, SVOCs and PCB criteria will be achieved when measured values are below SWQSs in both pre- and post-turnover sampling events for two consecutive years.

Surface water sampling to assess compliance with the above goals was initiated in 2017 and was conducted again in 2018 to assess compliance with the above goals. During the pre-turnover events for both 2017 and 2018, samples were analyzed for unfiltered and filtered (dissolved) total mercury, unfiltered methylmercury, select VOCs and SVOCs[14], and total PCBs[15]. During the post-turnover event, samples were analyzed for unfiltered and filtered (dissolved) total mercury, unfiltered methylmercury, and PCB congeners. In accordance with the OLMMP, VOCs and SVOCs were not analyzed for during the post-turnover event for either year because all results from the pre-turnover event were below the criteria.

As discussed in the Onondaga Lake 2018 Annual and Comprehensive Monitoring Report (Parsons 2020b), surface water criteria for mercury, VOCs, and SVOCs were achieved for two consecutive years. Therefore, monitoring for these parameters was terminated subsequent to 2018.

[14] Select VOCs and SVOCs were analyzed as per Table 5.1 of the OLMMP.
[15] PCBs were analyzed for full set of 209 congeners using USEPA Method 1668A.

Total PCB concentrations in surface water were consistently above ecological and human health criteria in both 2017 and 2018. Based on regional background PCB concentrations, the OLMMP concluded that achievement of the PCB goals of 0.12 and 0.001 ng/L is likely not practicable. As agreed upon in the 2021 Onondaga Lake and Tributary Surface Water Monitoring PCBs Memorandum (Parsons 2021b), additional monitoring for PCBs and total suspended solids, including sampling for PCBs in tributaries, was conducted in 2021. Results of this sampling are discussed further in the 2021 Onondaga Lake Annual Monitoring and Maintenance Report (Parsons 2025). PCBs were not monitored for in 2022.

Although the mercury surface water goals were met in both 2017 and 2018, at the request of NYSDEC, an additional round of pre- and post- turnover near shore data was collected from lake surface waters in 2021 as part of the tributary assessment that occurred that year to further assess mercury (total, dissolved, and methyl) concentrations at the 10 in-lake nearshore and North and South Deep locations. Based on the sampling results in 2021, there were exceedances of the performance criteria for dissolved mercury for the protection of human health via fish consumption of 0.7 ng/L at multiple locations from the pre-turnover event (8/12 locations) based on validated data. Laboratory contamination issues documented during the analysis of the 2021 pre-turnover samples led to questionability of the quality of the dissolved mercury data from this sampling round. Additional details on this contamination can be found in the 2022 Scope Memorandum included in **Appendix 1A**. As such, it was recommended that an additional round of sampling for pre-turnover in-lake nearshore sampling at the 10 littoral zone locations and two mid-lake locations outlined in the OLMMP (**Figures 7.1A** and **7.1B**) be conducted for mercury (total, dissolved, and methyl) during summer or early fall 2022. The results of this sampling are discussed below.

7.2 Monitoring Results

Results for dissolved mercury for nearshore in-lake sampling are summarized in **Table 7.1** and **Figure 7.2**. The DUSR for this data is presented in **Appendix 7A**, which includes chemical data reported by Eurofins TestAmerica which were reviewed and validated by Parsons for usability in accordance with data validation procedures presented in the QAPP (Parsons 2023a). Pre-turnover sampling was initially conducted on August 2, 2022. All dissolved mercury results from this sampling event were non-detects, with method detection limits ranging from 0.5 to 0.59 ng/L. Although these results were all below the goal of 0.7 ng/L for human health via fish consumption, due to discrepancies between these results and results from NYSDEC split samples collected during the event, an additional round of pre-turnover sampling was conducted on October 20, 2022, to verify results. Dissolved mercury results from this sampling event were all below the 0.7 ng/L goal, with results ranging from 0.15 to 0.53 ng/L.

Based on results of both pre-turnover sampling events, it was agreed that further post-turnover sampling not be conducted in 2022. Additionally, post-turnover sampling was conducted twice (October 31 and November 15) at South Deep as part of the Nitrate Addition Project, the results of which were discussed in Section 5. Dissolved mercury results for both of these events were below 0.7 ng/L, with results of 0.3 ng/L and 0.43 ng/L, respectively.

7.3 Conclusions and Recommendations

As detailed above, surface water mercury goals were met during pre- and post-turnover sampling events in 2017 and 2018. While pre-turnover dissolved mercury results exceeded the 0.7 ng/L goal in seven of 10 locations in 2021, those exceedances were believed to be a result of laboratory contamination, and all post-turnover results in 2021 were below the 0.7 ng/L goal. Both rounds of pre-turnover sampling for mercury concentrations conducted in 2022 consistently met goals at all locations. As such, it is recommended that the surface water quality standard for mercury has been met and no additional monitoring for mercury is recommended at this time. Surface water will continue to be completed as part of the Nitrate Addition Program, as documented in the O&M Plan for Nitrate Addition (Parsons and UFI 2014b). Samples will be collected as per UFI SOP 303 utilizing a Kemmerer sampler. Monitoring of surface water will be conducted in 2023 as specified in the O&M Plan, except for the elimination of monitoring for manganese, total dissolved gas, and ferrous iron. The elimination of these three parameters from the monitoring program was documented in the 2017 Annual Report for Nitrate Addition, which has been approved by the NYSDEC.

Additionally, as discussed in the 2021 Annual Report, the evaluation of PCB concentrations in surface waters of Onondaga Lake and its tributaries conducted in 2021 found that, in general, in-lake average PCB concentrations were lower than averages documented in background tributaries. Total PCB concentrations measured in tributaries – except for Ley Creek – can be considered representative of background concentrations. Therefore, no additional lake, tributary, or rainwater monitoring for PCBs is planned at this time under the Onondaga Lake monitoring program. However, additional monitoring may be considered in the future following remediation by others of Ley Creek, which is an ongoing source of PCBs to Onondaga Lake. The determination of achievement of the ROD goal would be reassessed at that time.

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TABLES

TABLE 2.1 2022 VEGETATION DATA SUMMARY, WASTEBED B/HARBOR BROOK OUTBOARD AREA

Scientific Name[1]	Common Name	Wetland Indicator Status[2,3]	Relative Cover
Typha latifolia [4]	Broadleaf cattail	OBL	30.8%
Elodea canadensis	Canada waterweed	OBL	7.0%
Salix nigra	Black willow	OBL	4.5%
Ceratophyllum demersum	Coontail	OBL	4.2%
Heteranthera dubia	Water stargrass	OBL	3.9%
Stuckenia pectinata	Sago pondweed	OBL	3.8%
Myriophyllum spicatum	Eurasian water milfoil	OBL	3.1%
Cornus amomum	Silky dogwood	FACW	2.9%
Solidago altissima	Tall goldenrod	FACU	2.8%
Typha x glauca	Hybrid cattail	OBL	2.7%
Nuphar lutea	Yellow pond-lily	OBL	2.6%
Pontederia cordata	Pickerelweed	OBL	2.5%
Schoenoplectus tabernaemontani	Softstem bulrush	OBL	2.3%
Panicum virgatum	Switchgrass	FAC	1.6%
Lemna minor	Common duckweed	OBL	1.4%
Poaceae sp.	Grass		1.3%
Spartina pectinata	Prairie cordgrass	FACW	1.1%
Leersia oryzoides	Rice cutgrass	OBL	1.0%
other species (<1% rel. cover, 86 species)			20.4%
		Total	100%

[1] Botanical nomenclature follows New York Flora Atlas (Weldy et al. 2022).

[2] Wetland Indicator Status nomenclature:

Obligate Wetland (OBL): occurs almost always (estimated probability >99%) in wetlands.

Facultative Wetland (FACW): usually occurs in wetlands (estimated probability 67%-99%), but is occasionally found in non-wetlands.

Facultative (FAC): equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).

Facultative Upland (FACU): usually occurs in non-wetlands (estimated probability 67%-99%), but is occasionally found in wetlands (estimated probability 1%-33%).

Obligate Upland (UPL): occurs almost always (estimated probability >99%) in non-wetlands.

[3] References for Wetland Statuses throughout document from the following:

https://newyork.plantatlas.usf.edu/

http://plants.usda.gov

https://gobotany.newenglandwild.org

[4] Broadleaf cattail hybridizes readily with narrowleaf cattail and the hybrid can be challenging to distinguish from broadleaf cattail. Narrowleaf cattail has been documented in the qualitative surveys and there are also nearby populations outside the restoration area. Therefore, it is likely that some degree of hybridization is occurring.

TABLE 2.2 2022 TREE CONDITION SURVEY, WASTEBED B/HARBOR BROOK OUTBOARD AREA

Number of Trees	Species[1]	Condition					
		Overall Condition					
		Excellent	Very Good	Good	Poor	Very Poor	Dead/Removed
Planted Upland Areas							
10	American sycamore (*Platanus occidentalis*)	9	0	1	0	0	0
9	Black willow (*Salix nigra*)[2,3,4,5]	8	1	0	0	0	0
5	Northern white cedar (*Thuja occidentalis*)[4]	0	2	2	0	1	0
7	Quaking aspen (*Populus tremuloides*)	4	3	0	0	0	0
10	Red maple (*Acer rubrum*)[2,4]	2	4	4	0	0	0
9	Swamp white oak (*Quercus bicolor*)	0	4	5	0	0	0
50	**Total trees & observed condition**	**23**	**14**	**12**	**0**	**1**	**0**
Planted Wetland Areas							
7	American sycamore (*Platanus occidentalis*)	7	0	0	0	0	0
14	Black willow (*Salix nigra*)[2,3,4,5]	11	1	1	0	0	1
1	Northern white cedar (*Thuja occidentalis*)[4]	1	0	0	0	0	0
14	Red maple (*Acer rubrum*)[2,4]	5	6	3	0	0	0
1	River birch (*Betula nigra*)[3]	1	0	0	0	0	0
2	Silver maple (*Acer saccharinum*)	1	1	0	0	0	0
14	Swamp white oak (*Quercus bicolor*)	11	1	2	0	0	0
53	**Total trees & observed condition**	**37**	**9**	**6**	**0**	**0**	**1**

[1] Scientific names follow the New York Flora Atlas (Weldy et al. 2022).

[2] Installed in 2018 at a higher than 1:1 ratio with smaller sized potted trees. Trees were planted in close proximity to each other. The tree with the best overall condition is recorded in the table.

[3] Installed in 2020 at a higher than 1:1 ratio with smaller sized potted trees. Trees were planted in close proximity to each other. The tree with the best overall condition is recorded in the table.

[4] Installed in 2021 at a higher than 1:1 ratio with smaller sized potted trees. Trees were planted in close proximity to each other. The tree with the best overall condition is recorded in the table.

[5] Installed in 2022 at a higher than 1:1 ratio with smaller sized potted trees. Trees were planted in close proximity to each other. The tree with the best overall condition is recorded in the table.

TABLE 2.3 2022 FINAL WETLAND MITIGATION ACCOUNTING

MITIGATION AREA		MONITORING YEAR	CURRENT ACREAGE
Wetland Acreage			
Ninemile Creek Spits		5	2.47[1]
Mouth of Ninemile Creek In-Lake Wetlands		5	7.84[2]
Wastebeds 1- 8	Perched wetland A	5	2.87[3,4]
	Perched wetland B		3.79[3,4]
	Perched wetland C		0.53[3,4]
	Wastebeds 1-8 Connected Wetlands	5	0.29[4,5,6]
Wastebed B/Harbor Brook Outboard Wetland		5	10.6[7]
Overall Mitigation Acreage Required			19.5[8]
2022 Wetland Acreage			28.39
Open Water Acreages			
Wastebeds 1-8 Connected Wetlands		5	2.3[4,5]
Wastebed B/Harbor Brook Outboard		5	4.1[7]
Overall Open Water Required			4.6[9]
2022 Open Water Acreage			6.4
Additional Wetland Area[10]			
Mouth of Ninemile Creek Shoreline Enhancement Area		5	0.57

[1] Calculated during a formal wetland delineation in 2021 (Parsons, 2025). Represents contiguous wetland acreage in the area of the original spits connected to the shoreline

[2] Calculated during a formal wetland delineation in 2021. Represents the in-lake persistent emergent (5.18 ac.), the floating aquatic (2.53 ac.), and 0.13 acers of the shoreline persistent emergent strip (Appendix 2C, Table 1 and Figure 5 of the 2021 Annual Report)(Parsons, 2025).

[3] Calculated during a formal wetland delineation in 2019 (Ramboll, 2023).

[4] Wastebeds 1-8 Mitigation Wetland Delineation Report (Ramboll, 2023).

[5] Calculated during a formal wetland delineation in 2020 (Ramboll, 2023).

[6] Additional delineated acreage in excess of the designed 2.3 acres required to account for open water loss within the Wastebeds 1-8 Connected Wetlands.

[7] Calculated during a formal wetland delineation in 2022 (Appendix 2C).

[8] Mitigation areas taken from Table 7.5A of the Onondaga Lake Monitoring and Maintenance Plan (Parsons, 2018).

[9] Mitigation areas taken from Table 7.5B of the Onondaga Lake Monitoring and Maintenance Plan (Parsons, 2018).

[10] Delineated wetland areas that are a result of restoration efforts but not included in the overall mitigation accounting

TABLE 2.4 SPECIES RICHNESS OF THE FISH COMMUNITY FROM 2008-2022

	Lake-wide Total	Remediated Areas	Reference Areas
Baseline (2008-2011)[1]	40 (37-43)	37 (33-40)	36 (33-40)
Construction (2012-2016)[1]	38 (35-41)	33 (31-35)	36 (33-39)
2017	41	39	34
2018	42	37	40
2019	45	40	39
2020	36	33	33
2021	40	36	38
2022	39	36	38
Post-construction (2017-2022)[1]	41 (36-45)	37 (33-40)	37 (33-40)

[1] For Baseline, Construction, and Post-construction monitoring periods, numbers presented include an average, followed by a range for the respective monitoring period (minimum-maximum).

TABLE 2.5 2022 MAINTENANCE SUMMARY MOUTH OF NINEMILE CREEK AND WASTEBED B/HARBOR BROOK OUTBOARD RESTORATION AREAS

MONTH	TASK	SITE	DESCRIPTION
Action Items and Maintenance Efforts			
May	Live stake plantings[1]	Wastebed B/Harbor Brook Outboard Area	250 live stakes were planted to supplement trees damaged by beaver activity
July and September	Invasive Species Control	Mouth of Ninemile Creek, Wastebed B/Harbor Brook Outboard Area	Applications of the herbicide Rodeo® to control invasive species were carried out
July	Mechanical Removal of Water Chestnut	Restoration Area A	Hand pulled water chestnut out of lake
November	Large Tree Replacement[1]	Wastebed B/Harbor Brook Outboard Area	Replaced 1 dead tree noted in the 2021 survey. Replaced 1 dead tree noted in the 2022 survey
Supplemental Plantings			
April	Wild Rice Seeding[1]	Mouth of Ninemile Creek, Wastebed B/Harbor Brook Outboard Area	Installed 125lbs in each of the Mouth of Ninemile Creek, Wastebed B/Harbor Brook Outboard Areaa
May-July	Enhancement Plantings[1]	Wastebed B/Harbor Brook Outboard Area	Planted herbaceous plugs in sparsely vegetated areas

[1] Quantities and species can be found in Table 2B.6.

TABLE 3.1 REMEDIAL GOALS (MERCURY) AND TARGET CONCENTRATIONS (ORGANIC CHEMICALS) FOR FISH TISSUE

	Human Health	Ecological[a]
Remedial Goals		
Mercury (mg/kg)	0.2 to 0.3[b]	0.14[c] for small and large prey fish
Target Concentrations		
PCBs (mg/kg)	0.04 to 0.3[d]	0.19[c] for small and large prey fish
Dioxin/furan TEQ (ng/kg)	1.3 to 4[e]	NA
DDT and Metabolites (mg/kg)	NA	0.049[f] for small prey fish 0.14[g] for large prey fish

Notes:

- Contaminant concentrations in fillet samples of sportfish (i.e., identified as Smallmouth Bass, Walleye, Pumpkinseed, and Common Carp in the OLMMP) are compared to performance criteria and target concentration ranges for protection of human health.
- Contaminant concentrations in 1) whole body samples of large prey fish, 2) composite whole-body samples of small prey fish are compared to performance criteria and target concentrations for protection of ecological receptors, and 3) whole-body concentrations in sportfish of appropriate sizes calculated from fillet concentrations. The OLMMP identifies White Sucker and Banded Killifish for large and small prey fish, but states that other comparable species may be substituted if these species are difficult to obtain.
- Concentrations are on a wet-weight basis.
- While not collected as prey fish, remedial goals and target concentrations may be compared to contaminant concentrations in whole body sportfish (i.e., specifically Smallmouth Bass, Walleye, Pumpkinseed, and Common Carp in the OLMMP) where fillet data is converted to whole body data using "conversion factors developed in the Onondaga Lake Baseline Ecological Risk Assessment (BERA) (i.e., 0.7 for mercury, 2.5 for PCBs, and 2.3 for DDTs and hexachlorobenzene) (TAMS, 2002b)," For these calculations, fish with lengths 180-600 mm and 30-180 mm are compared to goal and target concentrations for large and small prey fish, respectively.

NA – not applicable. Dioxin/furans and DDT were not identified as posing risk to ecological receptors and human health, respectively.

a – Protection of ecological receptors (wildlife) based on the exposure assumptions from the Onondaga Lake Baseline Ecological Risk Assessment (BERA) (TAMS, 2002b). Ecological performance criteria and targets based on lowest observed adverse effect levels presented in Appendix G of the FS (Parsons et al. 2004).

b – Lower end of the mercury range is based on reasonable maximum exposure (RME), non-carcinogenic risk. The higher end of the range is EPA's methylmercury National Recommended Water Quality criterion for the protection of human health for the consumption of organisms and is expressed as mg/kg in fish tissue.

c – Protection of river otter.

d – Lower end of PCB range represents the RME non-carcinogenic target for high molecular weight PCBs and is approximately equal to the target for $1x10^{-5}$ carcinogenic risk (0.03 mg/kg). Upper end of range is the RME target for 1×10^{-4} carcinogenic risk.

e – Although non-carcinogenic targets were not developed for dioxin/furans at the time of the ROD (2005), using the parameters presented in Appendix G of the FS (Parsons et al. 2005) for a target concentration for the non-cancer endpoint, and using the USEPA 2012 reference dose of 7E-10 mg/kg-day, the non-cancer target at a hazard quotient of 1 was determined by USEPA to be 1.3E-06 mg/kg (or 1.3 ng/kg) and is the lower end of the range. The upper end of the range is for protection of carcinogenic risk of $1x10^{-4}$, reasonable maximum exposure (RME).

f – Protection of belted kingfisher

g – Protection of osprey

Honeywell

PARSONS

Table 3.2
Summary of 2022 Fish Tissue Chemical Concentrations
(wet-weight basis)

Parameter	Prep	Species	Sample Size	Number of Detections	Mean[1]	Median[2]	Min[2,3]	Max[2,3]	Standard Deviation[2,4]	Standard Error[2,5]	95% UCL[1,6]
Mercury (mg/kg)	whole body	Small Preyfish	24	24	0.063	0.067	0.028	0.092	0.020	0.0040	0.070
	whole body	Large Preyfish	24	24	0.14	0.13	0.037	0.38	0.086	0.018	0.17
	fillet	Smallmouth bass	25	25	0.79	0.80	0.37	1.3	0.29	0.058	0.89
	fillet	Walleye	25	25	0.83	0.71	0.43	2.1	0.38	0.076	0.96
	fillet	Pumpkinseed	25	24	0.13	0.11	*0.010 U*	0.42	0.10	0.019	0.16
	fillet	Common carp	25	19	0.14	0.12	*0.010 U*	0.37	0.11	0.022	0.17
Total PCBs (mg/kg)[7,8]	whole body	Small Preyfish	24	21	0.051	0.015	0.0024	0.32	0.085	0.017	0.13
	whole body	Large Preyfish	24	24	0.24	0.25	0.026	0.53	0.14	0.029	0.29
	fillet	Smallmouth bass	25	25	0.20	0.21	0.035	0.38	0.10	0.021	0.23
	fillet	Walleye	25	25	0.30	0.19	0.049	1.3	0.27	0.054	0.41
	fillet	Pumpkinseed	25	15	0.024	0.0050	0.0034	0.26	0.051	0.010	0.061
	fillet	Common carp	25	25	0.31	0.18	0.013	1.4	0.36	0.071	0.46
Sum of DDT and Metabolites (mg/kg)[9]	whole body	Small Preyfish	24	24	0.0016	0.0014	0.00050	0.0055	0.0011	0.00021	0.0020
	whole body	Large Preyfish	24	24	0.022	0.021	0.0017	0.044	0.013	0.0026	0.026
Hexachlorobenzene (mg/kg)	whole body	Small Preyfish	24	8	0.00050	0.00010	0.000056	0.0043	0.0012	0.00024	0.00093
	whole body	Large Preyfish	24	24	0.00033	0.00027	0.000066	0.0010	0.00024	0.000049	0.00042
	fillet	Smallmouth bass	25	24	0.00019	0.00018	0.000052	0.00034	0.000073	0.000015	0.00021
	fillet	Walleye	25	25	0.00042	0.00029	0.00015	0.0010	0.00027	0.000054	0.00052
	fillet	Pumpkinseed	25	14	0.00010	0.00010	0.000056	0.00027	0.000055	0.000011	0.00012
	fillet	Common carp	25	24	0.00064	0.00054	0.00010	0.0022	0.00053	0.00011	0.00082
Dioxin/Furan Total TEQ (ng/kg)[10, 11, 12]	fillet	Smallmouth bass	12	11 (74/199)	0.81	0.81	*0.38 U*	1.7	0.36	0.11	1.0
	fillet	Walleye	12	12 (86/204)	0.64	0.68	0.30	0.92	0.20	0.057	0.74
	fillet	Pumpkinseed	12	7 (24/194)	0.36	0.41	0.19	1.2	0.26	0.076	0.60
	fillet	Common carp	12	10 (61/204)	1.5	0.69	*0.28 U*	7.1	2.0	0.58	5.3
Percent Lipid[8] (% by weight)	whole body	Small Preyfish	24	24	1.4	1.3	0.89	2.5	0.38	0.077	1.6
	whole body	Large Preyfish	24	24	2.9	2.5	0.47	7.7	2.2	0.46	3.7
	fillet	Smallmouth bass	25	25	1.5	1.4	0.21	2.9	0.67	0.13	1.7
	fillet	Walleye	25	25	2.9	2.7	0.95	5.5	1.23	0.25	3.3
	fillet	Pumpkinseed	25	25	0.52	0.47	0.13	1.1	0.27	0.054	0.62
	fillet	Common carp	25	25	5.6	5.3	0.40	12	3.2	0.65	6.7

1. Mean and 95% UCL were calculated using ProUCL version 5.2 and were not calculated when 3 or fewer results were detects (USEPA,2015). For data sets with non-detects, ProUCL selected the statistical method and did not use substitution method (i.e., one-half of the method detection or reporting limit). For % lipids, mean was calculated arithmetically; all results were detected.

2. Non detects were set to half the method detection limit for mercury and dioxin/furan TEQ; non-detects included at half the reporting limit for other analytes.

3. U = not detected. Some detected concentrations were found to be less than the reporting limit or method detection limit of some non-detect results.

4. Standard deviation of the artithmetric mean is an estimate of the variability of the data points used to calculate the mean. For data sets with non-detects, one half of the reporting limit or method detection limit was used, depending on the analyte.

5. Standard error of the artithmetric mean is an estimate of how close the calculated mean is likely to be to the true population mean. For data sets with non-detects, one half of the reporting limit or method detection limit was used, depending on the analyte.

6. 95% UCL is an estimate of the upper bound for the true population mean.

7. Total PCB was calculated by the lab as sum of Aroclors, using detected values only, unless all non-detect then the maximum detection limit was reported.

8. Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

9. DDT and Metabolites was calculated as sum of DDT, DDE, and DDD; 1/2 the reporting limit was used for non-detects.

10. Dioxin/Furan Total TEQ was calculated as sum of congeners; 1/2 the method detection limit was used for non-detects.

11. Number of detections refers to the total TEQ detections; numbers in parentheses are number of congeners detected/congeners analyzed (i.e., 17 congeners times 12 samples).

12. There were 7 fish samples where 1,2,3,7,8,9-HxCDD results were rejected (5 smallmouth bass and 2 pumpkinseed). There were 5 fish samples where OCDD and OCDF results were rejected (4 pumpkinseed and 1 carp). These rejected samples are not included in the total congeners analyzed.

Acronyms:

DDT = dichlorodiphenyltrichloroethane
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
PCB = polychlorinated biphenyl
TEQ = toxicity equivalent quotient
UCL = upper confidence limit

Reference:

USEPA, 2022. ProUCL Version 5.2 User Guide. https://www.epa.gov/land-research/proucl-software Accessed October 1, 2024.

TABLE 3.3a SUMMARY OF FISH TISSUE CHEMICAL CONCENTRATIONS: SPORT FISH FILLET (2015-2022)

Taxon	Chemical Name	Year	Sample Size (detects)	Mean[1]	95% UCL Value[1]	95% UCL Calculation Type
Smallmouth Bass	Mercury (mg/kg)	2015	25 (25)	1.1	1.2	95% Student's-t UCL
		2016	25 (25)	0.92	1.0	95% Student's-t UCL
		2017	25 (25)	0.71	0.82	95% Student's-t UCL
		2018	25 (25)	0.79	0.91	95% Student's-t UCL
		2021	25 (25)	0.68	0.78	95% Student's-t UCL
		2022	25 (25)	0.79	0.89	95% Student's-t UCL
	Total PCBs[2] (mg/kg)	2015	25 (25)	1.9	2.2	95% Student's-t UCL
		2016	25 (25)	1.2	1.5	95% Adjusted Gamma UCL
		2017	25 (25)	0.50	0.61	95% Student's-t UCL
		2018	25 (25)	0.47	0.57	95% Student's-t UCL
		2021	25 (25)	0.23	0.30	95% Student's-t UCL
		2022	25 (25)	0.20	0.23	95% Student's-t UCL
	Dioxin/Furan Total TEQ (ng/kg)	2015	12 (12)	1.9	2.4	95% Student's-t UCL
		2017	12 (12)	1.5	1.9	95% Student's-t UCL
		2018	13 (13)	1.0	1.3	95% Student's-t UCL
		2021	12 (12)	0.75	0.86	95% Student's-t UCL
		2022	12 (11)	0.81	1.0	95% KM (t) UCL
	Hexachlorobenzene (mg/kg)	2015	25 (23)	0.0056	0.0072	95% KM Adjusted Gamma UCL
		2017	25 (6)	0.0021	0.0029	95% KM (t) UCL
		2018	25 (0)	--	--	--
		2021	25 (22)	0.000018	0.00022	95% KM (t) UCL
		2022	25 (24)	0.00019	0.00021	95% KM (t) UCL
Walleye	Mercury (mg/kg)	2015	25 (25)	1.4	1.6	95% Student's-t UCL
		2016	25 (25)	1.1	1.3	95% Student's-t UCL
		2017	25 (25)	0.77	0.91	95% Adjusted Gamma UCL
		2018	25 (25)	0.71	0.81	95% Student's-t UCL
		2021	25 (24)	0.80	0.92	95% KM (t) UCL
		2022	25 (25)	0.83	0.96	95% Student's-t UCL
	Total PCBs[2] (mg/kg)	2015	25 (25)	3.8	5.3	95% Adjusted Gamma UCL
		2016	25 (25)	2.5	3.3	95% Student's-t UCL
		2017	25 (25)	0.74	1.4	95% Chebyshev (Mean, Sd) UCL
		2018	25 (25)	0.96	1.2	95% Student's-t UCL
		2021	25 (25)	0.35	0.42	95% Student's-t UCL
		2022	25 (25)	0.30	0.41	95% H-UCL
	Dioxin/Furan Total TEQ (ng/kg)	2015	12 (12)	2.1	2.6	95% Student's-t UCL
		2017	12 (12)	1.6	2.4	95% Student's-t UCL
		2018	13 (13)	1.8	2.5	95% Student's-t UCL
		2021	12 (12)	0.73	0.83	95% Student's-t UCL
		2022	12 (12)	0.64	0.74	95% Student's-t UCL
	Hexachlorobenzene (mg/kg)	2015	25 (25)	0.027	0.032	95% Student's-t UCL
		2017	25 (17)	0.0044	0.0065	95% KM Adjusted Gamma UCL
		2018	25 (3)	--	--	--
		2021	25 (25)	0.00041	0.00046	95% Student's-t UCL
		2022	25 (25)	0.00042	0.00052	95% Standard Bootstrap UCL[3]

Notes:

1. For 2015 - 2018, mean and 95% UCL were calculated using ProUCL version 5.1. For 2021 and 2022, mean and 95% UCL were calculated using ProUCL version 5.2. UCLs were not calculated when 3 or fewer results were detects (USEPA,2015). 95% UCL is an estimate of the upper bound for the true population mean. For data sets with NDs, the stated statistical method was used for handling NDs rather than the substitution method (i.e., one-half of the detection/reporting limit).
2. Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.
3. For 2021-2022, ProUCL version 5.2 suggested the 95% Student's-t UCL for datasets that did not follow a discernible distribution when all samples were detected. These circumstances were reviewed, and the non-parametric 95% Standard Bootstrap UCL was determined to be a better fit for these datasets.
4. ProUCL also recommended 95% Hall's Bootstrap UCL, however this value was not reported in the raw ProUCL output for this population. The Hall's Bootstrap method was consistently only reported for populations without non-detects in the dataset. Since this population contained non-detects, and ProUCL suggested a Kaplan-Meier UCL method for all other populations containing non-detects, the KM Bootstrap t UCL was selected for consistency.

Abbreviations:
-- Insufficient data to calculate Mean or 95% UCL; 3 or fewer results were detects
DDT: dichlorodiphenyltrichloroethane
KM: Kaplan-Meier
mg/kg: milligrams per kilogram
ng/kg: nanograms per kilogram
ND: non-detect
PCB: polychlorinated biphenyl
TEQ: toxicity equivalent quotient
UCL: upper confidence limit

References:
USEPA, 2015. ProUCL Version 5.1 User Guide. EPA/600/R-07/041 https://www.epa.gov/sites/production/files/2016-05/documents/proucl_5.1_user-guide.pdf Accessed May 22, 2020.
USEPA, 2022. ProUCL Version 5.2 User Guide. https://nepis.epa.gov/Exe/ZyPDF.cgi/P10157JD.PDF?Dockey=P10157JD.PDF Accessed November 21, 2024.

TABLE 3.3a SUMMARY OF FISH TISSUE CHEMICAL CONCENTRATIONS: SPORT FISH FILLET (2015-2022)

Taxon	Chemical Name	Year	Sample Size (detects)	Mean[1]	95% UCL Value[1]	95% UCL Calculation Type
Common Carp	Mercury (mg/kg)	2015	25 (25)	0.20	0.31	95% H-UCL
		2016	25 (25)	0.20	0.24	95% Adjusted Gamma UCL
		2017	25 (25)	0.19	0.24	95% Student's-t UCL
		2018	25 (20)	0.097	0.14	95% KM Adjusted Gamma UCL
		2021	25 (25)	0.14	0.18	95% Standard Bootstrap UCL[3]
		2022	25 (19)	0.14	0.17	95% KM (t) UCL
	Total PCBs[2] (mg/kg)	2015	25 (25)	2.0	2.9	95% Adjusted Gamma UCL
		2016	25 (25)	1.8	2.7	95% Adjusted Gamma UCL
		2017	25 (25)	0.50	0.74	95% Adjusted Gamma UCL
		2018	25 (25)	0.27	0.44	95% Adjusted Gamma UCL
		2021	25 (25)	0.19	0.26	95% Student's-t UCL
		2022	25 (25)	0.31	0.46	95% Adjusted Gamma UCL
	Dioxin/Furan Total TEQ (ng/kg)	2015	12 (12)	5.9	15	95% Adjusted Gamma UCL
		2017	12 (12)	4.2	9.2	95% Adjusted Gamma UCL
		2018	14 (14)	1.1	3.2	95% H-UCL
		2021	12 (12)	1.0	1.4	95% Student's-t UCL
		2022	12 (10)	1.5	5.3	95% KM Bootstrap t UCL[4]
	Hexachlorobenzene (mg/kg)	2015	25 (23)	0.038	0.081	Gamma Adjusted KM-UCL (use when k<=1 and 15 < n < 50 but k<=1)
		2017	25 (13)	0.0040	0.0056	95% KM (t) UCL
		2018	25 (2)	--	--	--
		2021	25 (22)	0.00043	0.00065	95% KM Adjusted Gamma UCL
		2022	25 (24)	0.00064	0.00082	95% KM (t) UCL
Pumpkinseed	Mercury (mg/kg)	2015	25 (25)	0.28	0.32	95% Student's-t UCL
		2016	25 (25)	0.19	0.24	95% Adjusted Gamma UCL
		2017	25 (25)	0.17	0.20	95% Student's-t UCL
		2018	25 (16)	0.088	0.11	95% KM (t) UCL
		2021	25 (24)	0.13	0.16	95% KM (t) UCL
		2022	25 (24)	0.13	0.16	95% KM (t) UCL
	Total PCBs[2] (mg/kg)	2015	25 (25)	0.14	0.18	95% Adjusted Gamma UCL
		2016	25 (17)	0.045	0.21	KM H-UCL
		2017	25 (25)	0.096	0.13	95% Adjusted Gamma UCL
		2018	25 (23)	0.090	0.12	95% KM Adjusted Gamma UCL
		2021	25 (22)	0.017	0.021	95% KM (t) UCL
		2022	25 (15)	0.024	0.061	95% KM Adjusted Gamma UCL
	Dioxin/Furan Total TEQ (ng/kg)	2015	12 (9)	0.38	0.53	95% KM (t) UCL
		2017	12 (12)	0.27	0.33	95% Student's-t UCL
		2018	12 (12)	0.54	0.73	95% Student's-t UCL
		2021	12 (1)	--	--	--
		2022	12 (7)	0.36	0.60	95% KM Adjusted Gamma UCL
	Hexachlorobenzene (mg/kg)	2015	25 (1)	--	--	--
		2017	20 (0)	--	--	--
		2018	23 (0)	--	--	--
		2021	25 (11)	0.000083	0.000099	95% KM (t) UCL
		2022	25 (14)	0.00010	0.00012	95% KM (t) UCL

Notes:

1. For 2015 - 2018, mean and 95% UCL were calculated using ProUCL version 5.1. For 2021 and 2022, mean and 95% UCL were calculated using ProUCL version 5.2. UCLs were not calculated when 3 or fewer results were detects (USEPA,2015). 95% UCL is an estimate of the upper bound for the true population mean. For data sets with NDs, the stated statistical method was used for handling NDs rather than the substitution method (i.e., one-half of the detection/reporting limit).
2. Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.
3. For 2021-2022, ProUCL version 5.2 suggested the 95% Student's-t UCL for datasets that did not follow a discernible distribution when all samples were detected. These circumstances were reviewed, and the non-parametric 95% Standard Bootstrap UCL was determined to be a better fit for these datasets.
4. ProUCL also recommended 95% Hall's Bootstrap UCL, however this value was not reported in the raw ProUCL output for this population. The Hall's Bootstrap method was consistently only reported for populations without non-detects in the dataset. Since this population contained non-detects, and ProUCL suggested a Kaplan-Meier UCL method for all other populations containing non-detects, the KM Bootstrap t UCL was selected for consistency.

Abbreviations:
-- Insufficient data to calculate Mean or 95% UCL; 3 or fewer results were detects
DDT: dichlorodiphenyltrichloroethane
KM: Kaplan-Meier
mg/kg: milligrams per kilogram
ng/kg: nanograms per kilogram
ND: non-detect
PCB: polychlorinated biphenyl
TEQ: toxicity equivalent quotient
UCL: upper confidence limit

References:
USEPA, 2015. ProUCL Version 5.1 User Guide. EPA/600/R-07/041 https://www.epa.gov/sites/production/files/2016-05/documents/proucl_5.1_user-guide.pdf Accessed May 22, 2020.
USEPA, 2022. ProUCL Version 5.2 User Guide. https://nepis.epa.gov/Exe/ZyPDF.cgi/P10157JD.PDF?Dockey=P10157JD.PDF Accessed November 21, 2024.

TABLE 3.3b SUMMARY OF FISH TISSUE CHEMICAL CONCENTRATIONS: PREY FISH WHOLE BODY (2015-2022)

Taxon	Chemical Name	Year	Sample Size (detects)	Mean[1]	95% UCL Value[1]	95% UCL Calculation Type
Large Prey Fish	Mercury (mg/kg)	2015	24 (23)	0.19	0.24	95% KM (t) UCL
		2016	24 (23)	0.13	0.16	95% KM (t) UCL
		2017	24 (24)	0.093	0.14	95% Adjusted Gamma UCL
		2018	24 (14)	0.17	0.21	95% KM (t) UCL
		2021	24 (24)	0.12	0.16	95% Adjusted Gamma UCL
		2022	24 (24)	0.14	0.17	95% Student's-t UCL
	Total PCBs[3] (mg/kg)	2015	24 (24)	1.6	2.0	95% Student's-t UCL
		2016	24 (24)	0.73	1.0	95% Adjusted Gamma UCL
		2017	24 (24)	0.36	0.50	95% Adjusted Gamma UCL
		2018	24 (23)	0.10	0.13	95% KM (t) UCL
		2021	24 (24)	0.33	0.51	95% Adjusted Gamma UCL
		2022	24 (24)	0.24	0.29	95% Student's-t UCL
	Sum of DDT and Metabolites (mg/kg)	2015	24 (24)	0.020	0.026	95% Adjusted Gamma UCL
		2017	24 (24)	0.016	0.021	95% Adjusted Gamma UCL
		2018	24 (20)	0.025	0.098	95% KM (Chebyshev) UCL
		2021	24 (24)	0.024	0.039	95% Adjusted Gamma UCL
		2022	24 (24)	0.022	0.026	95% Student's-t UCL
	Hexachlorobenzene (mg/kg)	2015	24 (13)	0.0095	0.018	95% KM Adjusted Gamma UCL
		2017	24 (10)	0.0019	0.0023	95% KM (t) UCL
		2018	24 (1)	--	--	--
		2021	24 (22)	0.00040	0.00053	95% KM (t) UCL
		2022	24 (24)	0.00033	0.00042	95% Student's-t UCL
Small Prey Fish	Mercury (mg/kg)	2015	24 (24)	0.14	0.16	95% Student's-t UCL
		2016	24 (24)	0.087	0.099	95% Student's-t UCL
		2017	24 (21)	0.057	0.074	95% KM (t) UCL
		2018	24 (11)	0.072	0.087	95% KM (t) UCL
		2021	24 (24)	0.071	0.079	95% Student's-t UCL
		2022	24 (24)	0.063	0.070	95% Student's-t UCL
	Total PCBs[3] (mg/kg)	2015	24 (23)	0.16	0.39	KM H-UCL
		2016	24 (24)	0.17	0.23	95% Adjusted Gamma UCL
		2017	24 (24)	0.11	0.25	95% Chebyshev (Mean, Sd) UCL
		2018	24 (24)	0.049	0.13	95% H-UCL
		2021	24 (24)	0.13	0.20	95% Standard Bootstrap UCL[2]
		2022	24 (21)	0.051	0.13	95% H-UCL
	Sum of DDT and Metabolites (mg/kg)	2015	24 (13)	0.0021	0.0029	95% KM Adjusted Gamma UCL
		2017	24 (23)	0.0052	0.0093	KM H-UCL
		2018	24 (24)	0.0061	0.0076	95% Student's-t UCL
		2021	24 (24)	0.0028	0.0036	95% Standard Bootstrap UCL[2]
		2022	24 (24)	0.0016	0.0020	95% Student's-t UCL
	Hexachlorobenzene (mg/kg)	2015	24 (3)	--	--	--
		2017	24 (3)	--	--	--
		2018	24 (0)	--	--	--
		2021	24 (8)	0.000087	0.00011	95% KM (t) UCL
		2022	24 (8)	0.00050	0.00093	95% KM (t) UCL

Notes:

1. For 2015 - 2018, mean and 95% UCL were calculated using ProUCL version 5.1. For 2021 and 2022, mean and 95% UCL were calculated using ProUCL version 5.2. UCLs were not calculated when 3 or fewer results were detects (USEPA,2015). 95% UCL is an estimate of the upper bound for the true population mean. For data sets with NDs, the stated statistical method was used for handling NDs rather than the substitution method (i.e., one-half of the detection/reporting limit).
2. In 2021, ProUCL version 5.2 suggested the 95% Student's-t UCL for datasets that did not follow a discernible distribution when all samples were detected. These circumstances were reviewed, and the non-parametric 95% Standard Bootstrap UCL was determined to be a better fit for these datasets.
3. Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

Abbreviations:
-- Insufficient data to calculate Mean or 95% UCL; 3 or fewer results were detects
DDT: dichlorodiphenyltrichloroethane
KM: Kaplan-Meier
mg/kg: milligrams per kilogram
ND: non-detect
PCB: polychlorinated biphenyl
UCL: upper confidence limit

References:
USEPA, 2015. ProUCL Version 5.1 User Guide. EPA/600/R-07/041 https://www.epa.gov/sites/production/files/2016-05/documents/proucl_5.1_user-guide.pdf Accessed May 22, 2020.

USEPA, 2022. ProUCL Version 5.2 User Guide. https://nepis.epa.gov/Exe/ZyPDF.cgi/P10157JD.PDF?Dockey=P10157JD.PDF Accessed November 21, 2024.

TABLE 3.4 SUMMARY OF FISH TISSUE CHEMICAL CONCENTRATIONS: SPORT FISH CALCULATED WHOLE BODY (2015-2022)

Taxon	Size[2]	Chemical Name	Year	Sample Size *(detects)*		Mean[3]	95% UCL Value[3]	95% UCL Calculation Type
Smallmouth Bass	Large	Mercury (mg/kg)	2015	25	*(25)*	0.75	0.82	95% Student's-t UCL
			2016	25	*(25)*	0.65	0.71	95% Student's-t UCL
			2017	25	*(25)*	0.50	0.58	95% Student's-t UCL
			2018	25	*(25)*	0.55	0.64	95% Student's-t UCL
			2021	25	*(25)*	0.48	0.54	95% Student's-t UCL
			2022	25	*(25)*	0.55	0.62	95% Student's-t UCL
		Total PCBs[4] (mg/kg)	2015	25	*(25)*	4.8	5.5	95% Student's-t UCL
			2016	25	*(25)*	3.0	3.7	95% Adjusted Gamma UCL
			2017	25	*(25)*	1.3	1.5	95% Student's-t UCL
			2018	25	*(25)*	1.2	1.4	95% Student's-t UCL
			2021	25	*(25)*	0.56	0.74	95% Student's-t UCL
			2022	25	*(25)*	0.50	0.59	95% Student's-t UCL
		Hexachlorobenzene (mg/kg)	2015	25	*(23)*	0.013	0.017	95% KM Adjusted Gamma UCL
			2017	25	*(6)*	0.0048	0.0066	95% KM (t) UCL
			2018	25	*(0)*	--	--	--
			2021	25	*(22)*	0.00042	0.00051	95% KM (t) UCL
			2022	25	*(24)*	0.00040	0.00049	95% KM (t) UCL
Walleye	Large	Mercury (mg/kg)	2015	25	*(25)*	0.96	1.1	95% Student's-t UCL
			2016	24	*(24)*	0.77	0.90	95% Student's-t UCL
			2017	25	*(25)*	0.54	0.64	95% Adjusted Gamma UCL
			2018	25	*(25)*	0.50	0.57	95% Student's-t UCL
			2021	24	*(24)*	0.56	0.65	95% KM (t) UCL
			2022	25	*(25)*	0.58	0.67	95% Student's-t UCL
		Total PCBs[4] (mg/kg)	2015	25	*(25)*	9.6	13	95% Adjusted Gamma UCL
			2016	24	*(24)*	6.0	7.9	95% Student's-t UCL
			2017	25	*(25)*	1.8	3.5	95% Chebyshev (Mean, Sd) UCL
			2018	25	*(25)*	2.4	3.0	95% Student's-t UCL
			2021	25	*(25)*	0.88	1.0	95% Student's-t UCL
			2022	25	*(25)*	0.74	1.0	95% H-UCL
		Hexachlorobenzene (mg/kg)	2015	25	*(25)*	0.062	0.073	95% Student's-t UCL
			2017	25	*(17)*	0.010	0.015	95% KM Adjusted Gamma UCL
			2018	25	*(3)*	--	--	--
			2021	25	*(25)*	0.00094	0.0011	95% Student's-t UCL
			2022	25	*(25)*	0.00097	0.0012	95% Standard Bootstrap UCL[5]
Common Carp	Large	Mercury (mg/kg)	2015	13	*(13)*	0.11	0.14	95% Adjusted Gamma UCL
			2016	9	*(9)*	0.10	0.12	95% Student's-t UCL
			2017	10	*(10)*	0.10	0.14	95% Student's-t UCL
			2018	18	*(13)*	0.036	0.048	95% KM (t) UCL
			2021	18	*(18)*	0.059	0.068	95% Student's-t UCL
			2022	9	*(4)*	0.071	0.14	95% KM (t) UCL
		Total PCBs[4] (mg/kg)	2015	13	*(13)*	1.5	4.6	95% H-UCL
			2016	9	*(9)*	1.6	2.2	95% Student's-t UCL
			2017	10	*(10)*	0.64	1.9	95% Chebyshev (Mean, Sd) UCL
			2018	18	*(18)*	0.26	0.41	95% Adjusted Gamma UCL
			2021	18	*(18)*	0.26	0.35	95% Student's-t UCL
			2022	9	*(9)*	0.68		Recommendation cannot be provided[6]
		Hexachlorobenzene (mg/kg)	2015	13	*(11)*	0.067	0.30	95% KM (Chebyshev) UCL
			2017	10	*(3)*	--	--	--
			2018	18	*(2)*	--	--	--
			2021	18	*(16)*	0.0008	0.0011	95% KM (t) UCL
			2022	9	*(9)*	0.00065	0.00092	95% Student's-t UCL

Notes:

1. Although not collected as prey fish, remedial goals and target concentrations may be compared to contaminant concentrations in whole body sportfish (i.e., specifically Smallmouth Bass, Walleye, Pumpkinseed, and Common Carp in the OLMMP) where fillet data are converted to whole body data using "conversion factors developed in the Onondaga Lake Baseline Ecological Risk Assessment (BERA) (i.e., 0.7 for mercury, 2.5 for PCBs, and 2.3 for DDTs and hexachlorobenzene) (TAMS 2002b)" (Parsons 2018). For these calculations, fish with lengths 180–600 mm and 30–180 mm are compared to goal and target concentrations for large and small prey fish, respectively.
2. Small fish defined as 30 - 180 mm. Large fish defined as 180 - 600 mm.
3. For 2015 through 2018, mean and 95% UCL were calculated using ProUCL version 5.1. For 2021 and 2022, mean and 95% UCL were calculated using ProUCL version 5.2. UCLS were not calculated when 3 or fewer results were detects (USEPA,2015). 95% UCL is an estimate of the upper bound for the true population mean. For data sets with NDs, the stated statistical method was used for handling NDs rather than the substitution method (i.e., one-half of the reported concentration).
4. Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these
5. For 2022, ProUCL version 5.2 suggested the 95% Student's-t UCL for datasets that did not follow a discernible distribution when all samples were detected. These circumstances were reviewed, and the non-parametric 95% Standard Bootstrap UCL was determined to be a better fit for these datasets.
6. ProUCL did not recommend a suggested UCL for this population, likely due to the small samples size along with the distribution of the data.

Abbreviations:

DDT: dichlorodiphenyltrichloroethane
MDL: method detection limit
mg/kg: milligrams per
mm: millimeter
OLMMP: Onondaga Lake Monitoring and Maintenance Plan
PCB: polychlorinated biphenyl
RL: reporting limit
UCL: upper confidence limit
-- Insufficient data to calculate Mean or 95% UCL; 3 or fewer results were detects

References:

Parsons, 2018. *Onondaga Lake Monitoring and Maintenance Plan* . Prepared for Honeywell. June 2018.
USEPA, 2015. ProUCL Version 5.1 User Guide. EPA/600/R-07/041 https://www.epa.gov/sites/production/files/2016-05/documents/proucl_5.1_user-guide.pdf Accessed May 22, 2020.
USEPA, 2022. ProUCL Version 5.2 User Guide. https://nepis.epa.gov/Exe/ZyPDF.cgi/P10157JD.PDF?Dockey=P10157JD.PDF Accessed November 21, 2024.

TABLE 3.4 SUMMARY OF FISH TISSUE CHEMICAL CONCENTRATIONS: SPORT FISH CALCULATED WHOLE BODY (2015-2022)

Taxon	Size[2]	Chemical Name	Year	Sample Size *(detects)*		Mean[3]	95% UCL Value[3]	95% UCL Calculation Type
Pumpkinseed	Large	Mercury (mg/kg)	2015	2	*(2)*	--	--	--
			2016	8	*(8)*	0.21	0.27	95% Student's-t UCL
			2017	5	*(5)*	0.17	0.23	95% Student's-t UCL
			2018	5	*(4)*	0.10	0.15	95% KM (t) UCL
			2021	3	*(3)*	--	--	--
			2022	6	*(6)*	0.12	0.20	95% Student's-t UCL
		Total PCBs[4] (mg/kg)	2015	2	*(2)*	--	--	--
			2016	8	*(6)*	0.14	0.22	95% KM (t) UCL
			2017	5	*(5)*	0.22	0.27	95% Student's-t UCL
			2018	5	*(5)*	0.28	0.42	95% Student's-t UCL
			2021	3	*(3)*	--	--	--
			2022	6	*(0)*	--	--	--
		Hexachlorobenzene (mg/kg)	2015	2	*(0)*	--	--	--
			2017	5	*(0)*	--	--	--
			2018	5	*(0)*	--	--	--
			2021	3	*(0)*	--	--	--
			2022	6	*(0)*	--	--	--
	Small	Mercury (mg/kg)	2015	23	*(23)*	0.19	0.22	95% Student's-t UCL
			2016	17	*(17)*	0.097	0.13	95% Adjusted Gamma UCL
			2017	20	*(20)*	0.11	0.13	95% Student's-t UCL
			2018	20	*(12)*	0.052	0.063	95% KM (t) UCL
			2021	22	*(21)*	0.085	0.10	95% KM (t) UCL
			2022	19	*(18)*	0.083	0.11	95% KM Adjusted Gamma UCL
		Total PCBs[4] (mg/kg)	2015	23	*(23)*	0.36	0.46	95% Adjusted Gamma UCL
			2016	17	*(11)*	0.31	0.91	95% KM (Chebyshev) UCL
			2017	20	*(20)*	0.25	0.35	95% Adjusted Gamma UCL
			2018	20	*(18)*	0.21	0.29	95% KM Adjusted Gamma UCL
			2021	22	*(19)*	0.045	0.057	95% KM (t) UCL
			2022	19	*(15)*	0.076	0.20	95% Adjusted Gamma UCL
		Hexachlorobenzene (mg/kg)	2015	23	*(1)*	--	--	--
			2017	15	*(0)*	--	--	--
			2018	18	*(0)*	--	--	--
			2021	22	*(11)*	0.00020	0.00024	95% KM (t) UCL
			2022	19	*(14)*	0.00025	0.00032	95% KM (t) UCL

Notes:

1. Although not collected as prey fish, remedial goals and target concentrations may be compared to contaminant concentrations in whole body sportfish (i.e., specifically Smallmouth Bass, Walleye, Pumpkinseed, and Common Carp in the OLMMP) where fillet data are converted to whole body data using "conversion factors developed in the Onondaga Lake Baseline Ecological Risk Assessment (BERA) (i.e., 0.7 for mercury, 2.5 for PCBs, and 2.3 for DDTs and hexachlorobenzene) (TAMS 2002b)" (Parsons 2018). For these calculations, fish with lengths 180–600 mm and 30–180 mm are compared to goal and target concentrations for large and small prey fish, respectively.
2. Small fish defined as 30 - 180 mm. Large fish defined as 180 - 600 mm.
3. For 2015 through 2018, mean and 95% UCL were calculated using ProUCL version 5.1. For 2021 and 2022, mean and 95% UCL were calculated using ProUCL version 5.2. UCLS were not calculated when 3 or fewer results were detects (USEPA,2015). 95% UCL is an estimate of the upper bound for the true population mean. For data sets with NDs, the stated statistical method was used for handling NDs rather than the substitution method (i.e., one-half of the reported concentration).
4. Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.
5. For 2022, ProUCL version 5.2 suggested the 95% Student's-t UCL for datasets that did not follow a discernible distribution when all samples were detected. These circumstances were reviewed, and the non-parametric 95% Standard Bootstrap UCL was determined to be a better fit for these datasets.
6. ProUCL did not recommend a suggested UCL for this population, likely due to the small samples size along with the distribution of the data.

Abbreviations:

DDT: dichlorodiphenyltrichloroethane
MDL: method detection limit
mg/kg: milligrams per kilogram
mm: millimeter
OLMMP: Onondaga Lake Monitoring and Maintenance Plan
PCB: polychlorinated biphenyl
RL: reporting limit
UCL: upper confidence limit
-- Insufficient data to calculate Mean or 95% UCL; 3 or fewer results were detects

References:

Parsons, 2018. *Onondaga Lake Monitoring and Maintenance Plan* . Prepared for Honeywell. June 2018.
USEPA, 2015. ProUCL Version 5.1 User Guide. EPA/600/R-07/041 https://www.epa.gov/sites/production/files/2016-05/documents/proucl_5.1_user-guide.pdf Accessed May 22, 2020.
USEPA, 2022. ProUCL Version 5.2 User Guide. https://nepis.epa.gov/Exe/ZyPDF.cgi/P10157JD.PDF?Dockey=P10157JD.PDF Accessed November 21, 2024.

TABLE 3.5 MERCURY CONCENTRATIONS (MG/KG WET WEIGHT) IN ONONDAGA LAKE ZOOPLANKTON COLLECTED AT SOUTH DEEP IN 2022

2022 Sampling Date	Total Mercury (mg/kg wet weight)	Validation Qualifier	Methyl Mercury (mg/kg wet weight)	Validation Qualifier	Methylmercury (as Percent of Total Mercury)
May 24	0.016		0.0028	J-	18%
June 13	0.013		0.0042		32%
July 5	0.0092		0.003		33%
July 19	0.0085		0.0028		33%
July 19 (*Daphnia*)	0.00078	U	0.00046	U	59%
August 2	0.033		0.0074		22%
August 16	0.0050		0.0036		72%
August 30	0.019		0.0029		15%
September 7	0.024		0.0041	J-	17%
September 13	0.022		0.0043		20%
September 20	0.030		0.0043		14%
September 27	0.018		0.0032		18%
October 4	0.018		0.0041		23%
October 11	0.032		0.0051		16%
October 18	0.0097		0.0046		47%
October 25	0.017		0.0027	J-	16%
October 31*	0.014		0.073	J-	521%
November 15	0.013		0.0014		32%

Notes:

U: not detected at reporting limit specified
J: estimated concentration
J+: estimated concentration biased high
J-: estimated concentration biased low
* : Erroneous results reported on October 31; methylmercury concentration was five times higher than the total mercury concentration.

Honeywell

PARSONS

TABLE 4.1 SUMMARY OF MERCURY MEASURED DURING 2022 COMPLIANCE EVENT SEDIMENT SAMPLES

Location ID	Field Sample ID	Depth (ft)	Date	Mercury (mg/kg dry)		Solids (%)
Littoral Zone						
S112	OL-3743-01	0 - 0.5	08/11/2022	2.6		57.4
S373	OL-3743-02	0 - 0.5	08/11/2022	0.43		56.1
North Basin						
OL-STA-80069	OL-3741-01	0 - 0.13	05/25/2022	0.48	J	25.7
OL-STA-80069	OL-3741-02	0.13 - 0.33	05/25/2022	1.2	J	27.1
OL-STA-80072	OL-3740-10	0 - 0.13	05/25/2022	0.46	J	25.1
OL-STA-80072	OL-3740-11	0.13 - 0.33	05/25/2022	1.2	J	22.6
OL-STA-80225	OL-3740-14	0 - 0.13	05/25/2022	0.45	J	20.9
OL-STA-80225	OL-3740-15	0.13 - 0.33	05/25/2022	1.1	J	25.6
OL-VC-80157	OL-3740-01	0 - 0.13	05/25/2022	0.53	J	22.6
OL-VC-80157	OL-3740-02	0.13 - 0.33	05/25/2022	1.2	J	24.5
OL-STA-80067	OL-3741-16	0 - 0.13	05/25/2022	0.79	J	27.8
OL-STA-80067	OL-3741-17	0.13 - 0.33	05/25/2022	1.3	J	33.1
OL-STA-80068	OL-3741-06	0 - 0.13	05/25/2022	0.46	J	22.4
OL-STA-80068	OL-3741-07	0.13 - 0.33	05/25/2022	1.1	J	25.8
OL-STA-80070	OL-3739-05	0 - 0.13	05/24/2022	0.57	J	22.8
OL-STA-80070	OL-3739-06	0.13 - 0.33	05/24/2022	0.82	J	25.1
OL-SS-80002-SS	OL-3740-07	0 - 0.13	05/25/2022	1.1	J	23
OL-SS-80002-SS	OL-3740-09	0.13 - 0.33	05/25/2022	2	J	28.5
OL-STA-80071	OL-3739-03	0 - 0.13	05/24/2022	0.47	J	25.5
OL-STA-80071	OL-3739-04	0.13 - 0.33	05/24/2022	1	J	26.3
Ninemile Creek Outlet Area						
OL-STA-80073	OL-3740-05	0 - 0.13	05/25/2022	0.41	J	25.4
OL-STA-80073	OL-3740-06	0.13 - 0.33	05/25/2022	1	J	29.6
OL-STA-80074	OL-3742-01	0 - 0.13	05/25/2022	0.55	J	36.2
OL-STA-80074	OL-3742-02	0.13 - 0.33	05/25/2022	1.1	J	35.5
OL-STA-80091	OL-3740-16	0 - 0.13	05/25/2022	0.57	J	34.7
OL-STA-80091	OL-3740-17	0.13 - 0.33	05/25/2022	1.1	J	33.5
OL-STA-80227	OL-3739-01	0 - 0.13	05/24/2022	0.8	J	27.9
OL-STA-80227	OL-3739-02	0.13 - 0.33	05/24/2022	1.3	J	31.3
OL-VC-80046	OL-3740-18	0 - 0.13	05/25/2022	0.31	J	41.9
OL-VC-80046	OL-3740-19	0.13 - 0.33	05/25/2022	0.88	J	46.4
OL-VC-80047	OL-3741-03	0 - 0.13	05/25/2022	0.32	J	36.8
OL-VC-80047	OL-3741-05	0.13 - 0.33	05/25/2022	0.63	J	49.5
OL-VC-80048	OL-3740-12	0 - 0.13	05/25/2022	0.16	J	44.9
OL-VC-80048	OL-3740-13	0.13 - 0.33	05/25/2022	0.059	J	80.2
OL-STA-80226	OL-3740-03	0 - 0.13	05/25/2022	0.68	J	26.3
OL-STA-80226	OL-3740-04	0.13 - 0.33	05/25/2022	1.3	J	29.4

TABLE 4.1 SUMMARY OF MERCURY MEASURED DURING 2022 COMPLIANCE EVENT SEDIMENT SAMPLES

Location ID	Field Sample ID	Depth (ft)	Date	Mercury (mg/kg dry)		Solids (%)
Saddle						
OL-STA-80075	OL-3738-16	0 - 0.13	05/24/2022	0.33	J	26.1
OL-STA-80075	OL-3738-17	0.13 - 0.33	05/24/2022	0.81	J	29.4
OL-STA-80103	OL-3741-14	0 - 0.13	05/25/2022	0.34	J	28.1
OL-STA-80103	OL-3741-15	0.13 - 0.33	05/25/2022	1.1	J	27.4
OL-STA-80234	OL-3741-18	0 - 0.13	05/25/2022	0.55	J	23.6
OL-STA-80234	OL-3741-19	0.13 - 0.33	05/25/2022	1.3	J	25.8
South Basin						
OL-STA-80077	OL-3738-14	0 - 0.13	05/24/2022	0.6	J	27.8
OL-STA-80077	OL-3738-15	0.13 - 0.33	05/24/2022	1.3	J	29.5
OL-VC-80044	OL-3738-10	0 - 0.13	05/24/2022	0.42	J	32.7
OL-VC-80044	OL-3738-11	0.13 - 0.33	05/24/2022	1.1	J	34.8
OL-STA-80229	OL-3741-08	0 - 0.13	05/25/2022	0.41	J	30.1
OL-STA-80229	OL-3741-09	0.13 - 0.33	05/25/2022	1.1	J	25.1
OL-VC-80045	OL-3738-12	0 - 0.13	05/24/2022	0.23	J	47.6
OL-VC-80045	OL-3738-13	0.13 - 0.33	05/24/2022	1.3	J	36.1
OL-STA-80076	OL-3741-12	0 - 0.13	05/25/2022	0.4	J	23.8
OL-STA-80076	OL-3741-13	0.13 - 0.33	05/25/2022	1.8	J	25.4
OL-STA-80078	OL-3738-18	0 - 0.13	05/24/2022	0.46	J	28.8
OL-STA-80078	OL-3738-19	0.13 - 0.33	05/24/2022	1.3	J	26.6
OL-STA-80080	OL-3738-07	0 - 0.13	05/24/2022	0.75	J	26.8
OL-STA-80080	OL-3738-09	0.13 - 0.33	05/24/2022	1.8	J	27
OL-VC-80024	OL-3741-10	0 - 0.13	05/25/2022	0.53	J	30.8
OL-VC-80024	OL-3741-11	0.13 - 0.33	05/25/2022	1.1	J	26.1
OL-VC-80079	OL-3738-05	0 - 0.13	05/24/2022	0.33	J	28.8
OL-VC-80079	OL-3738-06	0.13 - 0.33	05/24/2022	0.82	J	27.7
OL-STA-80081	OL-3737-09	0 - 0.13	05/24/2022	0.6	J	28.2
OL-STA-80081	OL-3737-10	0.13 - 0.33	05/24/2022	1.2	J	26.7
OL-STA-80084	OL-3736-11	0 - 0.13	05/24/2022	0.4	J	29.9
OL-STA-80084	OL-3736-12	0.13 - 0.33	05/24/2022	1	J	30.4
OL-STA-80082	OL-3736-03	0 - 0.13	05/24/2022	0.58	J	25.8
OL-STA-80082	OL-3736-04	0.13 - 0.33	05/24/2022	1.1	J	26.3
OL-STA-80083	OL-3736-05	0 - 0.13	05/24/2022	0.31	J	28.5
OL-STA-80083	OL-3736-06	0.13 - 0.33	05/24/2022	0.98	J	27.8
ST51	OL-3738-03	0 - 0.13	05/24/2022	0.47	J	27.8
ST51	OL-3738-04	0.13 - 0.33	05/24/2022	1.1	J	24.7

TABLE 4.1 SUMMARY OF MERCURY MEASURED DURING 2022 COMPLIANCE EVENT SEDIMENT SAMPLES

Location ID	Field Sample ID	Depth (ft)	Date	Mercury (mg/kg dry)		Solids (%)
South Corner						
OL-STA-80085	OL-3737-13	0 - 0.13	05/24/2022	0.28	J	31.3
OL-STA-80085	OL-3737-14	0.13 - 0.33	05/24/2022	0.97	J	33.4
OL-STA-80237	OL-3736-15	0 - 0.13	05/24/2022	0.22	J	47.1
OL-STA-80237	OL-3736-16	0.13 - 0.33	05/24/2022	2	J	33.5
OL-VC-80068	OL-3737-11	0 - 0.13	05/24/2022	0.24	J	32.1
OL-VC-80068	OL-3737-12	0.13 - 0.33	05/24/2022	1.3	J	27.6
OL-VC-80070	OL-3736-13	0 - 0.13	05/24/2022	0.51	J	33.1
OL-VC-80070	OL-3736-14	0.13 - 0.33	05/24/2022	1.9	J	34.9
OL-VC-80172	OL-3737-01	0 - 0.13	05/24/2022	0.42	J	33.3
OL-VC-80172	OL-3737-02	0.13 - 0.33	05/24/2022	1.2	J	32.4
OL-STA-80236	OL-3737-07	0 - 0.13	05/24/2022	0.63	J	31.6
OL-STA-80236	OL-3737-08	0.13 - 0.33	05/24/2022	1.8	J	27.9
OL-STA-80239	OL-3737-03	0 - 0.13	05/24/2022	0.26	J	35
OL-STA-80239	OL-3737-04	0.13 - 0.33	05/24/2022	0.97	J	38.2
OL-VC-80039	OL-3736-09	0 - 0.13	05/24/2022	0.14	J	35.8
OL-VC-80039	OL-3736-10	0.13 - 0.33	05/24/2022	0.3	J	49.1
OL-VC-80040	OL-3737-17	0 - 0.13	05/24/2022	0.14	J	36.2
OL-VC-80040	OL-3737-18	0.13 - 0.33	05/24/2022	0.2	J	36.6
OL-VC-80071	OL-3738-01	0 - 0.13	05/24/2022	0.26	J	33.6
OL-VC-80071	OL-3738-02	0.13 - 0.33	05/24/2022	0.55	J	47.3
OL-VC-80051	OL-3736-07	0 - 0.13	05/24/2022	0.46	J	34.5
OL-VC-80051	OL-3736-08	0.13 - 0.33	05/24/2022	1.7	J	35.9
OL-VC-80062	OL-3736-17	0 - 0.13	05/24/2022	0.44	J	33.3
OL-VC-80062	OL-3736-18	0.13 - 0.33	05/24/2022	1.9	J	34.1
OL-VC-80177	OL-3736-01	0 - 0.13	05/24/2022	0.43	J	35
OL-VC-80177	OL-3736-02	0.13 - 0.33	05/24/2022	1.4	J	33.3
OL-STA-80238	OL-3737-15	0 - 0.13	05/24/2022	0.32	J	34.9
OL-STA-80238	OL-3737-16	0.13 - 0.33	05/24/2022	1.2	J	45.4
OL-VC-80064	OL-3737-05	0 - 0.13	05/24/2022	0.22	J	32.6
OL-VC-80064	OL-3737-06	0.13 - 0.33	05/24/2022	1	J	38.6

TABLE 4.2 SURFACE SEDIMENT AREA-WEIGHTED AVERAGE MERCURY CONCENTRATION WITH 2022 COMPLIANCE DATA

Sub-Basin	Final Design Model-Predicted Surface Sediment Area-Weighted Average Mercury Concentration (mg/kg)[1]	Calculated Surface Sediment Area-Weighted Average Mercury Concentration (mg/kg)[2,3]
North Basin	0.67	0.67
Ninemile Creek Outlet Area	0.47	0.47
Saddle	0.58	0.39
South Basin	0.61	0.42
South Corner	0.45	0.39

Notes:

1. Model-predicted surface sediment area-weighted average mercury concentrations are reported for the end of 2022.
2. Surface sediment area-weighted concentrations calculated utilizing 2022 monitoring data, 2019 surface sediment data from the CSX area, 2022 cap data, and 2021/2022 littoral zone data supplemented with PDI/RI data for locations not sampled in 2021/2022.
3. Appendix 4C shows details of calculations .

TABLE 4.3 2022 SEDIMENT TRAP SLURRY MERCURY AND SOLIDS CONTENT RESULTS

Site	Trap Deploy Date	Trap Recover Date	Deployment Duration (Days)	Sample Volume (mL)	Slurry Mercury Results (µg/L)	TSS (mg/L)	TSS FD (mg/L)	TSS FD2 (mg/L)	TSS Average (mg/L)	TSS Deposition (mg per m² per day)	Mercury Concentration (mg/kg)	Mercury Deposition (µg per m² per day)
SD	5/2/2022	5/9/2022	7	122	0.19	716	688	668	691	2653	0.28	0.73
SD	5/9/2022	5/17/2022	8	137		1084	1060	1028	1057	3982	-	-
SD	5/17/2022	5/24/2022	7	129	0.27	2404	2536	2756	2565	10421	0.11	1.10
SD	5/24/2022	5/31/2022	7	132		2380	2004	2148	2177	9028	-	-
SD	5/31/2022	6/6/2022	6	112	0.5	1876	2608	2656	2380	9793	0.21	2.06
SD	6/6/2022	6/13/2022	7	126		924	1228	1592	1248	4939	-	-
SD	6/13/2022	6/21/2022	8	125	0.18	1384	2076	1704	1721	5929	0.10	0.62
SD	6/21/2022	6/28/2022	7	128		3768	2800	2568	3045	12244	-	-
SD	6/28/2022	7/5/2022	7	135	0.12	1636	1420	1588	1548	6581	0.08	0.51
SD	7/5/2022	7/12/2022	7	133		4848	5348	4688	4961	20728	-	-
SD	7/12/2022	7/19/2022	7	129	0.12	2300	2020	2104	2141	8699	0.06	0.49
SD	7/19/2022	7/26/2022	7	131		1372	1364	1568	1435	5904	-	-
SD	7/26/2022	8/2/2022	7	139	0.5	1104	1228	1056	1129	4932	0.44	2.18
SD	8/2/2022	8/9/2022	7	146		2656	2076	2200	2311	10600	-	-
SD	8/9/2022	8/16/2022	7	138	0.17	2140	2172	1956	2089	9080	0.08	0.74
SD	8/16/2022	8/23/2022	7	129	0.19	1484	1832	1348	1555	6316	0.12	0.77
SD	8/23/2022	8/30/2022	7	132	0.36	2396	3020	2560	2659	11024	0.14	1.49
SD	8/30/2022	9/7/2022	8	117	0.39	2400	2068	2208	2225	7154	0.18	1.25
SD	9/7/2022	9/13/2022	6	140	0.11	800	712	800	771	3973	0.14	0.57

Legend: SD - South Deep, TSS - total suspended solids.

Notes:

(1) Mercury concentration = slurry mercury average divided by TSS average times a units conversion of 1,000. Concentrations are based on dry weight. Calculations of TSS and mercury deposition include the surface area of the sediment traps (45 square centimeters).

(2) Solids and mercury deposition from June through September averaged 8,090 mg per square meter per day and 0.96 micrograms per square meter per day, respectively. June through September is when the sediment traps are below the thermocline and not subject to mixing within upper waters.

TABLE 4.2 2022 SEDIMENT TRAP SLURRY MERCURY AND SOLIDS CONTENT RESULTS (CONTINUED)

Site	Trap Deploy Date	Trap Recover Date	Deployment Duration (Days)	Sample Volume (mL)	Slurry Mercury Results (µg/L)	TSS (mg/L)	TSS FD (mg/L)	TSS FD2 (mg/L)	TSS Average (mg/L)	TSS Deposition (mg per m² per day)	Mercury Concentration (mg/kg)	Mercury Deposition (µg per m² per day)
SD	9/13/2022	9/20/2022	7	131	0.17	1160	1160	1436	1252	5152	0.14	0.70
SD	9/20/2022	9/27/2022	7	136	0.28	1404	1468	1476	1449	6192	0.19	1.20
SD	9/27/2022	10/4/2022	7	129	0.16	1116	1224	1392	1244	5054	0.13	0.65
SD	10/4/2022	10/11/2022	7	138	0.2	1448	1596	1244	1429	6212	0.14	0.87
SD	10/11/2022	10/18/2022	7	130	0.2	1160	888	1016	1021	4181	0.20	0.82
SD	10/18/2022	10/25/2022	7	141	0.19	1504	1428	1416	1449	6420	0.13	0.84
SD	10/25/2022	10/31/2022	6	134	0.33	1788	1532	1516	1612	7936	0.20	1.62
SD	10/31/2022	11/9/2022	9	138		2160	2436	2288	2295	7756	-	-
SD	11/9/2022	11/15/2022	6	128	0.66	3396	3800	2876	3357	15788	0.20	3.10
South Deep Arithmetic Mean			-	-	-	-	-	-	-	7810	0.16	1.12

Legend: SD - South Deep, TSS - total suspended solids.

Notes:

(1) Mercury concentration = slurry mercury average divided by TSS average times a units conversion of 1,000. Concentrations are based on dry weight. Calculations of TSS and mercury deposition include the surface area of the sediment traps (45 square centimeters).

(2) Solids and mercury deposition from June through September averaged 8,090 mg per square meter per day and 0.96 micrograms per square meter per day, respectively. June through September is when the sediment traps are below the thermocline and not subject to mixing within upper waters.

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TABLE 5.1 2022 NITRATE ADDITION SUMMARY

Date/Location[1]	Metric Tons (as N) of CN-8 Applied[2]	Application Water Depth[3] (feet)	Dilution Water to CN-8 Volume Ratio[4]
July 6 / S1	2.09	60	189
July 12 / S1	2.09	60	365
July 13/ S2	2.09	60	355
July 19 / S1	2.12	60	293
July 20 / N	2.30	55	302
July 26 / S1	2.09	60	273
July 27 / S1	2.09	60	277
August 1 / S1	2.09	60	254
August 3 / N	2.09	55	297
August 4 / S2	2.09	60	286
August 8 / S1	2.09	60	267
August 10 / N	2.13	55	267
August 11 / S2	2.09	60	270
August 15 / S1	2.09	60	275
August 17 / N	2.09	55	278
August 18 / S2	2.09	60	291
August 22 / S1	2.25	60	296
August 23 / S1	0.30	60	308
August 24 / N	2.09	55	318
August 25 / N	2.10	55	331
August 26 / S2	2.09	60	322
August 29 / S1	2.09	60	309
August 31 / N	2.09	55	340
September 1 / S2	2.09	60	340
September 2 / S1	2.09	60	356
September 6 / S1	2.09	60	354
September 8 / N	2.13	55	379
September 9 / S2	2.09	60	388
September 12 / S1	2.09	60	393
September 14 / N	2.11	55	388
September 15 / N	2.09	55	386
September 16 / S2	2.09	60	431
September 19 / S1	2.07	60	419
September 21 / N	2.09	55	419
September 22 / N	2.09	55	434
September 23 / S2	0.15	60	323
September 26 / S2	1.75	60	581
September 28 / N	2.12	55	750

[1] S1 is the South Location 1, S2 is the South Location 2, and N is the North Location (Figure 5.1)

[2] 1 metric ton = 2,204.6 lbs

[3] Same as target depth presented in Appendix 5A

[4] Same as dilution factor presented in Appendix 5A

TABLE 5.1 2022 NITRATE ADDITION SUMMARY (CONTINUED)

Date/Location[1]	Metric Tons (as N) of CN-8 Applied[2]	Application Water Depth[3] (feet)	Dilution Water to CN-8 Volume Ratio[4]
September 29 / S1	1.79	60	735
October 3 / S2	1.64	60	750
October 5 / N	2.09	55	737
October 6 / S1	1.76	60	614
October 10 / S2	1.31	60	702
October 11 / S1	1.09	60	927

[1] S1 is the South Location 1, S2 is the South Location 2, and N is the North Location (Figure 5.1)

[2] 1 metric ton = 2,204.6 lbs

[3] Same as target depth presented in Appendix 5A

[4] Same as dilution factor presented in Appendix 5A

TABLE 5.2 ONONDAGA LAKE MONITORING SCOPE FOR 2022 NITRATE ADDITION

Date (Week of:)	South Deep # of Depths Sampled	Analysis Suite	Field Nitrate Profiling Locations	Zooplankton	Sediment Trap Mercury (10 m water depth)
4/4/2022			3		
4/11/2022			3		
4/18/2022			3		
4/25/2022			3		
5/2/2022			8		
5/9/2022			3		x
5/16/2022			3		x
5/23/2022	3	2,3	3	x	x
5/30/2022			3		x
6/6/2022			3		x
6/13/2022	3	2,3	3	x	x
6/20/2022			3		x
6/27/2022	3	2,3	3		x
7/4/2022	5	1,3,4	3	x	x
7/11/2022	4	2,3	34		x
7/18/2022	5	1,3,4	34	x*	x
7/25/2022	4	2,3	34		x
8/1/2022	5	1,3,4	34	x	x
8/8/2022	4	2,3	34, 11		x
8/15/2022	5	1,3,4	34	x	x
8/22/2022	4	2,3	34		x
8/29/2022	5	1,3,4	34	x	x
9/5/2022	4	2,3	34, 11	x	x
9/12/2022	5	1,3,4	34, 11	x	x
9/19/2022	4	2,3	34, 11	x	x
9/26/2022	5	1,3,4	34	x	x
10/3/2022	4	2,3	34	x	x
10/10/2022	5	1,3,4	34	x	x
10/17/2022	4	2,3	34	x	x
10/24/2022	5	1,3,4	34	x	x
10/31/2022	3	2,3	3	x	x
11/07/2022			3		x
11/14/2022	3	2,3	3	x	x

1: LLHg/meHg; 2: LLHg/meHg/diss-Hg; 3: NOx/NO_2/ t-NH_3, 4: SRP

* Large-bodied *Daphnia* species were found and a sub-sample was sent to Eurofins for mercury analysis on 7/19/2022.

Additional Notes:
1. Sediment traps were deployed typically for seven days.
2. Sediment trap results for 2022 are reported in Section 4 of this report.
3. Summer thermal stratification ended on October 27, 2022.

TABLE 5.3 KEY NITRATE ADDITION INTER-ANNUAL VARIATIONS IN ONONDAGA LAKE

Year	Spring Turnover Nitrate-N, mg/L	Metric Tons of Calcium-Nitrate Applied	Duration of Summer Stratification, days*
2011	2.0	88	184
2012	2.6	72	163
2013	2.9	63	178
2014	2.3	57	167
2015	2.5	56	180
2016	2.5	67	191
2017	2.2	88	203
2018	1.6	105	172
2019	1.7	118	168
2020	2.3	78	176
2021	3.1	46	188
2022	2.2	86	178

* The duration of stratification is calculated from South Deep buoy profiles as the number of consecutive days with a temperature difference of at least 1°C between the surface and bottom waters. The lake was temperature stratified from May 2 to October 27, 2022.

TABLE 5.4 2022 MERCURY CONCENTRATIONS (NG/L) IN SURFACE WATER NEAR THE LAKE BOTTOM AT THE 18-METER WATER DEPTH AT SOUTH DEEP, ONONDAGA LAKE

2022 Sampling Collection Date	Total Mercury	Validation Qualifier	Methyl Mercury	Validation Qualifier
05/24/2022	0.63		0.026	U
06/13/2022	4.1		0.026	U
06/28/2022	0.89		0.026	U
07/05/2022	0.85		0.026	U
07/12/2022	1.6		0.026	U
07/19/2022	0.88		0.066	
07/26/2022	0.73		0.05	U
08/02/2022	0.84		0.054	
08/09/2022	0.65		0.12	
08/16/2022	0.82		0.11	
08/23/2022	1.2		0.14	
08/30/2022	0.68		0.18	
09/07/2022	5.2		0.1	
09/13/2022	0.89		0.1	
09/20/2022	1.2		0.093	
09/27/2022	1		0.1	
10/04/2022	1.4		0.081	
10/11/2022	1.9		0.11	J
10/18/2022	2.5		0.051	
10/25/2022	1.5		0.026	U
10/31/2022	0.57		0.022	U
11/15/2022	1.2		0.041	J

U – not detected at reporting limit specified
J – estimated concentration

TABLE 5.5 2022 DISSOLVED MERCURY CONCENTRATIONS (NG/L) IN SURFACE WATER AT THE 2-METER WATER DEPTH AT SOUTH DEEP, ONONDAGA LAKE

2022 Sampling Collection Date	Total Dissolved Mercury (ng/L)	Validation Qualifier
05/24/2022	0.5	U
06/13/2022	0.44	J
06/28/2022	0.25	J
07/12/2022	0.42	J
07/26/2022	0.45	J
08/09/2022	0.33	J
08/23/2022	0.65	
09/07/2022	0.26	J
09/20/2022	0.16	J
10/04/2022	0.12	J
10/18/2022	0.17	J
10/31/2022	0.3	J
11/15/2022	0.43	J

U – not detected at reporting limit specified
J – estimated concentration

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TABLE 6.1 2022 ONONDAGA CAP MONITORING MULTI-LAYER CAP THICKNESS MEASUREMENT

Rem. Area	Model Area	Zone[1]	Location ID	Design[3]/Target[4] Thickness (inches)				Measured Thickness (inches)													Comment
								Core 1 Thickness					Core 2 Thickness					Core 3 Thickness					
				Habitat Layer	Erosion Protection Layer[2]	Chemical Isolation Layer	Total	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	
Remediation Area A	A1	1	OL-RAA-CAP-0001	12 / 9		6	**18 / 15**	NM	NM	**21**	**1**	**Y**	NM	NM	**24**	**1**	**Y**	NM	NM	**22**	**1**	**Y**	Several cores collected because location was used for direct extraction filter testing. Core 4: 22" total, native plug present, 1" new sediment; Core 5: 23" total, native plug present, 1" new sediment; Core 6: 21" total, native plug present, 1" new sediment; Core 7: 21" total, native plug present, 1.5" new sediment; Core 8: 18" total, native plug present, 1" new sediment
	A1	1	OL-RAA-CAP-0002	12 / 9		6	**18 / 15**	NM	NM	**23**	**3**	**Y**	NM	NM	**22**	**4**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	A1	1	OL-RAA-CAP-0003	12 / 9		6	**18 / 15**	NM	NM	**24**	**5**	**Y**	NM	NM	**22**	**3**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	A1	1	OL-RAA-CAP-0004	12 / 9		6	**18 / 15**	NM	NM	**23**	**3**	**Y**	NM	NM	**28.5**	**2.5**	**Y**	NM	NM	**26**	**4**	**Y**	Several cores collected because location was used for direct extraction filter testing. Core 4: 26" total, native plug present, 3.5" new sediment; Core 5: 27" total, native plug present, 1.25" new sediment; Core 6: 23" total, native plug present, 1" new sediment; Core 7: 27" total, native plug present, 4" new sediment; Core 8: 26" total, native plug present, 4" new sediment
	A1	1	OL-RAA-CAP-0005	12 / 9		12	**24 / 21**	NM	NM	**24+**	**4**	**N**	NM	NM	**26**	**5**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	A2	1	OL-RAA-CAP-0006	12 / 9		12	**24 / 21**	NM	NM	**32**	**4**	**Y**	NM	NM	**31**	**1.5**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	A1	1	OL-RAA-CAP-0007	12 / 9		12	**24 / 21**	NM	NM	**27.5+**	**3**	**N**	NM	NM	**29**	**1**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	A2	2	OL-RAA-CAP-0008	18 / 9		12	**30 / 21**	12	20	**32**	**12**	**Y**	11	16+	**27+**	**5**	**N**	NA	NA	**NA**	**NA**	**NA**	
	A1	2	OL-RAA-CAP-0009	18 / 9		12	**30 / 21**	10	18	**28**	**7**	**Y**	10	12	**22**	**6**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	A2	2	OL-RAA-CAP-0010	18 / 9		12	**30 / 21**	23	6+	**29+**	**14**	**N**	26	2+	**28+**	**12**	**N**	NA	NA	**NA**	**NA**	**NA**	
	RAA	3	OL-RAA-CAP-0011	12 / 9	12	12	**36 / 21**	17	NM	**NM**	NM	**N**	17	NM	**NM**	NM	**N**	NA	NA	**NA**	**NA**	**NA**	
	RAA	3	OL-RAA-CAP-0012	12 / 9	12	12	**36 / 21**	15.5	NM	**NM**	**NM**	**N**	10.5	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	
	RA-A40197	3	OL-RAA-CAP-0013	12 / 9	12	12	**36 / 21**	12	NM	**NM**	NM	**N**	12	NM	**NM**	NM	**N**	NA	NA	**NA**	**NA**	**NA**	
	RA-A40197	3	OL-RAA-CAP-0014	12 / 9	12	12	**36 / 21**	13	NM	**NM**	NM	**N**	15	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	
	RAA	3	OL-RAA-CAP-0015	12 / 9	12	12	**36 / 21**	16	NM	**NM**	**NM**	**N**	12	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	
	RAA	3	OL-RAA-CAP-0016	12 / 9	12	12	**36 / 21**	10.5	NM	**NM**	**NM**	**N**	15	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	Thicknesses are topsoil habitat layer only
	RAA	3	OL-RAA-CAP-0017	19.5 / 9	4.5	12	**36 / 21**	17	NM	**NM**	NM	**N**	16	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	
	RAA	3	OL-RAA-CAP-0018	19.5 / 9	4.5	12	**36 / 21**	17	NM	**NM**	NM	**N**	19.5	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	
	RAA	3	OL-RAA-CAP-0019	12 / 9	12	12	**36 / 21**	18	NM	**NM**	**NM**	**N**	14	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	
	RAA	3	OL-RAA-CAP-0020	12 / 9	12	12	**36 / 21**	15.5	NM	**NM**	**NM**	**N**	16	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	
	RAA	3	OL-RAA-CAP-0021	12 / 9	12	12	**36 / 21**	12.5	NM	**NM**	**NM**	**N**	19	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	
Remediation Area B	B2	1	OL-RAB-CAP-0002	12 / 9		12	**24 / 21**	NM	NM	**31**	**3.5**	**Y**	NM	NM	**29**	**3**	**Y**	NM	NM	**30**	**4**	**Y**	Core 4: 34" total, native plug present, 3" new sediment. GAC observed shallower than expected in Cores 1 thru 3 (11-19", 8-19", and 9-18", respectively). Sample collected from Core 3 and bottom of H/EP sample interval shifted to 6-9"for the lower compliance sample in the habitat layer.
	B1/C1	1	OL-RAB-CAP-0015	12 / 9		12	**24 / 21**	NM	NM	**26**	**0.25**	**Y**	NM	NM	**25.5**	**0.5**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	RA-B-1C (4-10)	2	OL-RAB-CAP-0008	12 / 9		9	**21 / 18**	9	13	**22**	**0**	**Y**	11	10	**21**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	RA-B-1E (4-10)	2	OL-RAB-CAP-0016	12 / 9		12	**24 / 21**	6	14.5	**20.5**	**0**	**Y**	8.5	7.5	**16**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	RA-B-1A	1	OL-RAB-CAP-0001	12 / 9		7.5	**19.5 / 16.5**	NM	NM	**28**	**2.5**	**Y**	NM	NM	**26**	**3**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	RA-B-1A	1	OL-RAB-CAP-0003	12 / 9		7.5	**19.5 / 16.5**	NM	NM	**20**	**0.125**	**Y**	NM	NM	**21**	**2**	**Y**	NM	NM	**21**	**4.5**	**Y**	Core 4: 25" total, native plug present, 2" new sediment. GAC observed shallower than expected in all cores (9-17", 6-15", 11-19", and 10-22", respectively). Sample collected from Core 4 and sample interval shifted to lower compliance sample of the habitay layer: 7-10".
	RA-B-1B	1	OL-RAB-CAP-0004	6 / 3		3	**9 / 6**	NM	NM	**16**	**0.5**	**Y**	NM	NM	**15**	**1**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	RA-B-1E (10-30)	1	OL-RAB-CAP-0014	12 / 9		6	**18 / 15**	NM	NM	**32**	**1**	**Y**	NM	NM	**30**	**2**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	WB 1-8 Wetland	3	OL-RAB-CAP-0006	19.5 / 9	4.5	12	**36 / 21**	12.5	NM	**NM**	**NM**	**N**	14	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	
	WB 1-8 Wetland	3	OL-RAB-CAP-0009	19.5 / 9	4.5	12	**36 / 21**	12	NM	**NM**	**NM**	**N**	17	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	Thicknesses are topsoil habitat layer only
	WB 1-8 Wetland	3	OL-RAB-CAP-0019	19.5 / 9	4.5	12	**36 / 21**	15.5	NM	**NM**	**NM**	**N**	21	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	

TABLE 6.1 2022 ONONDAGA CAP MONITORING MULTI-LAYER CAP THICKNESS MEASUREMENT

Rem. Area	Model Area	Zone[1]	Location ID	Design[3]/Target[4] Thickness (inches)				Measured Thickness (inches)													Comment
								Core 1 Thickness					Core 2 Thickness					Core 3 Thickness					
				Habitat Layer	Erosion Protection Layer[2]	Chemical Isolation Layer	Total	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	
Remediation Area C	B1/C1	1	OL-RAC-CAP-0002	12 / 9		12	**24 / 21**	NM	NM	**26**	**1**	Y	NM	NM	**30**	**0.5**	Y	NA	NA	**NA**	**NA**	**NA**	
	C2	1	OL-RAC-CAP-0003	12 / 9		12	**24 / 21**	NM	NM	**29**	**0.25**	Y	NM	NM	**37**	**1**	Y	NA	NA	**NA**	**NA**	**NA**	
	C2	1	OL-RAC-CAP-0004	12 / 9		12	**24 / 21**	NM	NM	**32**	**0.25**	Y	NM	NM	**26.5**	**0.25**	Y	NA	NA	**NA**	**NA**	**NA**	
	C3	1	OL-RAC-CAP-0020	12 / 9		12	**24 / 21**	NM	NM	**36**	**2**	Y	NM	NM	**30**	**1**	Y	NA	NA	**NA**	**NA**	**NA**	
	C3	1	OL-RAC-CAP-0021	12 / 9		12	**24 / 21**	NM	NM	**43**	**1**	Y	NM	NM	**34**	**1**	Y	NA	NA	**NA**	**NA**	**NA**	
	C3	1	OL-RAC-CAP-0023	13 / 9		13	**25 / 21**	NM	NM	**23+**	**1.5**	N	NM	NM	**32**	**0.5**	Y	NA	NA	**NA**	**NA**	**NA**	
	B1/C1	2	OL-RAC-CAP-0001	18 / 9		12	**30 / 21**	16	17	**33**	**0**	Y	12	18.5	**30.5**	**0**	Y	NA	NA	**NA**	**NA**	**NA**	
	B1/C1	2	OL-RAC-CAP-0058	18 / 9		12	**30 / 21**	12+	NM	**12+**	**0**	N	15+	NM	**15+**	**12**	N	15+	NM	**15+**	**0**	N	Gravel cap material necessitated use of steel core barrel, but steel barrel did not effectively capture new sediment or sand. New sediment mixed with water and fell out of core barrel as turbid mixture. Gravel thicknesses all meet targets.
	C3	2	OL-RAC-CAP-0022	18 / 9		12	**30 / 21**	10.5	24.5+	**35+**	**0.5**	N	10	19+	**29+**	**0.5**	N	NA	NA	**NA**	**NA**	**NA**	
	RA-C-2A (10-30)	1	OL-RAC-CAP-0005	12 / 9		4.5	**16.5 / 13.5**	NM	NM	**19**	**0.5**	Y	NM	NM	**20**	**1**	Y	NA	NA	**NA**	**NA**	**NA**	
	RA-C-2A (10-30)	1	OL-RAC-CAP-0009	12 / 9		4.5	**16.5 / 13.5**	NM	NM	**14**	**0.25**	Y	NM	NM	**18.5**	**1**	Y	NA	NA	**NA**	**NA**	**NA**	
	RA-C-1A	1	OL-RAC-CAP-0016	9 / 6		4.5	**13.5 / 10.5**	NM	NM	**15**	**0.25**	Y	NM	NM	**12**	**0.25**	Y	NA	NA	**NA**	**NA**	**NA**	13-15" in Core 1 and 8-12" in Core 2 are potentially mixed with underlying native sediment.
		2	OL-RAC-CAP-0007	10 / 7		4.5	**14.5 / 11.5**	7	8	**15**	**0**	Y	5.5	8.5	**14**	**0**	Y	NA	NA	**NA**	**NA**	**NA**	
	RA-C-1A	1	OL-RAC-CAP-0017	9 / 6		4.5	**13.5 / 10.5**	NM	NM	**17**	**0.5**	Y	NM	NM	**16**	**1**	Y	NA	NA	**NA**	**NA**	**NA**	9-17" in Core 1 is black, potentially mixed with underlying sediment
	D-SMU-2	1	OL-RAD-CAP-0001	12 / 9		12	**24 / 21**	NM	NM	**40**	**3**	Y	NM	NM	**39**	**4**	Y	NA	NA	**NA**	**NA**	**NA**	
	D-SMU-2	1	OL-RAD-CAP-0006	12 / 9		12	**24 / 21**	NM	NM	**38**	**3**	Y	NM	NM	**37**	**2**	Y	NA	NA	**NA**	**NA**	**NA**	
	D-Addendum East	1	OL-RAD-CAP-0007	12 / 9		12	**24 / 21**	NM	NM	**30+**	**2**	N	NM	NM	**37**	**2**	Y	NA	NA	**NA**	**NA**	**NA**	
	D-SMU-2	1	OL-RAD-CAP-0009	12 / 9		12	**24 / 21**	NM	NM	**34.5**	**3**	Y	NM	NM	**26.5+**	**3**	N	NA	NA	**NA**	**NA**	**NA**	
	D-West	1	OL-RAD-CAP-0010	12 / 9		12	**24 / 21**	NM	NM	**29.5**	**1**	Y	NM	NM	**27**	**2**	Y	NA	NA	**NA**	**NA**	**NA**	Slight mixing of native sediment and sand in bottom 3" of Core 2
	D-Center	1	OL-RAD-CAP-0012	12 / 9		12	**24 / 21**	NM	NM	**31**	**0.5**	Y	NM	NM	**30**	**0**	Y	NA	NA	**NA**	**NA**	**NA**	
	D-Center	1	OL-RAD-CAP-0013	12 / 9		12	**24 / 21**	NM	NM	**35**	**1**	Y	NM	NM	**31**	**0.25**	Y	NA	NA	**NA**	**NA**	**NA**	
	D-East	1	OL-RAD-CAP-0014	12 / 9		12	**24 / 21**	NM	NM	**32**	**3**	Y	NM	NM	**36**	**2**	Y	NM	NM	**30**	**1**	Y	Core 4: 26" total, native plug present, 0.5" new sediment.
	D-West	1	OL-RAD-CAP-0015	12 / 9		12	**24 / 21**	NM	NM	**37**	**0.5**	Y	NM	NM	**34**	**1**	Y	NA	NA	**NA**	**NA**	**NA**	
	D-SMU-2	1	OL-RAD-CAP-0016	12 / 9		12	**24 / 21**	NM	NM	**30**	**0.125**	Y	NM	NM	**28**	**0**	Y	NA	NA	**NA**	**NA**	**NA**	In Core 1: Layer of native material 30-32". In core 2: Layer of native material 25-27".
	D-West	1	OL-RAD-CAP-0020	12 / 9		12	**24 / 21**	NM	NM	**32**	**0**	Y	NM	NM	**33**	**0.25**	Y	NA	NA	**NA**	**NA**	**NA**	
	D-East	1	OL-RAD-CAP-0021	12 / 9		12	**24 / 21**	NM	NM	**29+**	**0**	N	NM	NM	**35.5**	**1**	Y	NM	NM	**29+**	**0.5**	N	Several cores collected because location was used for direct extraction filter testing. Core 4: 27+" total, no native plug, 0.5" new sediment; Core 5: 32+" total, no native plug, 0.25" new sediment; Core 6: 13+" total, no native plug, 0" new sediment; Core 7: 27.5+" total, no native plug, 1" new sediment; Core 8: 26+" total, no native plug, 1" new sediment. Core 9: 30+" total, no native plug, 4" new sediment; Core 10: 28" total, native plug present, 2" new sediment.
	D-East	1	OL-RAD-CAP-0025	12 / 9		12	**24 / 21**	NM	NM	**30**	**0.5**	Y	NM	NM	**25**	**0.5**	Y	NA	NA	**NA**	**NA**	**NA**	
	D-East	1	OL-RAD-CAP-0028	9-Dec		12	**24 / 21**	NM	NM	**27.5**	**0.5**	Y	NM	NM	**27**	**0.25**	Y	NA	NA	**NA**	**NA**	**NA**	
	D-East	1	OL-RAD-CAP-0031	12 / 9		12	**24 / 21**	NM	NM	**29+**	**1**	N	NM	NM	**32**	**0.5**	Y	NM	NM	**25**	**0.5**	Y	Core 4: 33" total, native plug present, 0.127" new sediment; Core 5: 24+" total, no native plug, 0.5" new sediment; Core 6: 35" total, native plug present, 0" new sediment; Core 7: 32+" total, no native plug, 1.5" new sediment; Core 8: 39" total, native plug present, 1" new sediment.
	D-East	1	OL-RAD-CAP-0032	12 / 9		12	**24 / 21**	NM	NM	**28+**	**0.25**	N	NM	NM	**37.5+**	**0.25**	N	NA	NA	**NA**	**NA**	**NA**	
	D-East	1	OL-RAD-CAP-0033	12 / 9		12	**24 / 21**	NM	NM	**25**	**3**	Y	NM	NM	**17+**	**3.5**	N	NM	NM	**26**	**3**	Y	In Core 1, interspersed layers of native plug and medium sand cap as follows: native plug: 25-27", med. sand: 27-29", native plug: 29-34", med. sand: 34-35", native plug: 35-38", med. sand: 38-40", native plug 40" to bottom; In Core 3, Interspersed native plug and medium sand cap as follows: native plug: 26-34", med. sand: 34-40", native plug: 40" to bottom.
	D-East	1	OL-RAD-CAP-0038	12 / 9		12	**24 / 21**	NM	NM	**30**	**1**	Y	NM	NM	**35**	**2**	Y	NA	NA	**NA**	**NA**	**NA**	
	D-East	1	OL-RAD-CAP-0040	12 / 9		12	**24 / 21**	NM	NM	**32**	**1**	Y	NM	NM	**33**	**2**	Y	NA	NA	**NA**	**NA**	**NA**	
	D-Center	2	OL-RAD-CAP-0017	12 / 9		12	**24 / 21**	8	3	**11**	**0**	Y	19	11	**28**	**0**	Y	NA	NA	**NA**	**NA**	**NA**	Co-located with peeper adjacent to sample port. In Core 1, native sediment/cap mixture 11-25" In Core 2, native sediment/cap mixture 28-30" Mixing likely due to disturbance during removal process of core from steel core barrel.
	D-Center	2	OL-RAD-CAP-0018	12 / 9		12	**24 / 21**	17	5+	**23+**	**1**	N	10	8+	**18+**	**0.5**	N	NA	NA	**NA**	**NA**	**NA**	Co-located with peeper adjacent to sample port.
	D-West	2	OL-RAD-CAP-0022	18 / 9		12	**30 / 21**	22	6+	**28+**	**5**	N	25	3.5+	**28.5+**	**5**	Y	NA	NA	**NA**	**NA**	**NA**	Co-located with peeper adjacent to sample port.
	D-Center	2	OL-RAD-CAP-0023	18 / 9		12	**30 / 21**	16	15+	**31+**	**12**	N	13	5+	**18+**	**0**	N	NA	NA	**NA**	**NA**	**NA**	

TABLE 6.1 2022 ONONDAGA CAP MONITORING MULTI-LAYER CAP THICKNESS MEASUREMENT

Rem. Area	Model Area	Zone[1]	Location ID	Design[3]/Target[4] Thickness (inches)				Measured Thickness (inches)													Comment
								Core 1 Thickness					Core 2 Thickness					Core 3 Thickness					
				Habitat Layer	Erosion Protection Layer[2]	Chemical Isolation Layer	Total	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	
Remediation Area D	D-Center	2	OL-RAD-CAP-0024	12 / 9		12	**24 / 21**	13	5	**18**	**3**	**Y**	9	8	**17**	**0.25**	**Y**	NA	NA	**NA**	**NA**	**NA**	Co-located with peeper adjacent to sample port. In Core 1, native sediment/cap mixture 18-20" In Core 2, native sediment/cap mixture 17-20" Mixing likely due to disturbance during removal process of core from steel core barrel.
	D-Center	2	OL-RAD-CAP-0026	12 / 9		12	**24 / 21**	13	9+	**22+**	**0**	**N**	8	0	**8**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	Co-located with peeper adjacent to sample port. In Core 2, native sediment/cap mixture 8-22". Mixing likely due to disturbance during removal process of core from steel core barrel.
	D-Center	2	OL-RAD-CAP-0029	18 / 9		12	**30 / 21**	18	5	**23**	**2**	**Y**	14	0+	**14+**	**1**	**N**	NA	NA	**NA**	**NA**	**NA**	Co-located with peeper adjacent to sample port. In Core 1, some native sediment mixed in with sand and gravel cap, likely due to disturbance during removal process of core from steel core barrel. In Core 2, sand was observed falling out of the bottom of the core during retrieval.
	D-Center	2	OL-RAD-CAP-0034	18 / 9		12	**30 / 21**	16	18+	**34+**	**8**	**N**	13	2+	**15+**	**0**	**N**	NA	NA	**NA**	**NA**	**NA**	
	D-East	2	OL-RAD-CAP-0036	12 / 9		12	**24 / 21**	11	19+	**30+**	**0**	**N**	10	18+	**28+**	**0**	**N**	NA	NA	**NA**	**NA**	**NA**	
	D-Center	SP[6]	OL-RAD-CAP-0017	12 / 9		12	**24 / 21**	12	20	**32**	**0**	**Y**	17	15	**32**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	Collected from within sample port
	D-Center	SP[6]	OL-RAD-CAP-0018	18 / 9		12	**30 / 21**	8	22	**30**	**0**	**Y**	8	18	**26**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	While cores were collected within an acceptable margin of their target coordinates, the field team was unable to verify the location of the sample port at the time of collection.
	D-West	SP[6]	OL-RAD-CAP-0022	12 / 9		12	**24 / 21**	11	17	**28**	**0**	**Y**	14	3+	**17+**	**0**	**N**	NA	NA	**NA**	**NA**	**NA**	Collected from within sample port
	D-Center	SP[6]	OL-RAD-CAP-0024	18 / 9		12	**30 / 21**	8	27	**35**	**0.25**	**Y**	4	21	**25**	**0.5**	**Y**	NA	NA	**NA**	**NA**	**NA**	Collected from within sample port. In Core 1, interspersed native sediment and fine gravel/medium sand cap as follows: fine gravel 0-8", native sediment 8-12", medium sand 12-39", native sediment 39-45". In Core 2, interspersed native sediment and fine gravel/medium sand cap as follows: fine gravel 0-4", native sediment 4-9", medium sand 9-30", native sediment 30-35", medium sand 35-37", native sediment 37-45".
	D-Center	SP[6]	OL-RAD-CAP-0026	12 / 9		12	**24 / 21**	3	17	**20**	**17**	**Y**	3	17	**20**	**12**	**Y**	NA	NA	**NA**	**NA**	**NA**	Collected from within sample port
	D-Center	SP[6]	OL-RAD-CAP-0029	12 / 9		12	**24 / 21**	8	14	**22**	**0**	**Y**	11.5	9.5	**21**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	Collected from within sample port
	RA-D-1A	1	OL-RAD-CAP-0002	12 / 9		6	**18 / 15**	NM	NM	**25+**	**3.5**	**N**	NM	NM	**32**	**2.5**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	RA-D-1A	1	OL-RAD-CAP-0003	12 / 9		6	**18 / 15**	NM	NM	**30**	**2**	**Y**	NM	NM	**19+**	**0.25**	**N**	NA	NA	**NA**	**NA**	**NA**	
	RA-D-1A	1	OL-RAD-CAP-0004	12 / 9		6	**18 / 15**	NM	NM	**30+**	**0.5**	**N**	NM	NM	**31.5**	**1.25**	**Y**	NM	NM	**33**	**1**	**Y**	Several cores collected because location was used for direct extraction filter testing. Core 4: 23" total, native plug present, 0.5" new sediment; Core 5: 35: total, no native plug, 1" new sediment; Core 6: 33" total, native plug present, 3" new sediment; Core 7: 14.5" total, native plug present, 0" new sediment Core 8: 22.75" total, native plug present, 1" new sediment
	RA-D-1A	1	OL-RAD-CAP-0057	12 / 9		6	**18 / 15**	NM	NM	**0**	**0**	**Y**	NM	NM	**0**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	RA-D-1A		OL-RAD-CAP-0057A	12 / 9		6	**18 / 15**	NM	NM	**40**	**1**	**Y**	NM	NM	**40+**	**6**	**N**	NM	NM	**14.5**	**0.25**	**Y**	In Core 3, layers of native sediment and medium sand cap as follows: native sediment 14.4-20", med. sand 20-45"
	RA-D-1A		OL-RAD-CAP-0057B	12 / 9		6	**18 / 15**	NM	NM	**32**	**1**	**Y**	NM	NM	**33**	**0.25**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	RA-D-1A		OL-RAD-CAP-0057C	12 / 9		6	**18 / 15**	NM	NM	**44+**	**11**	**N**	NM	NM	**37**	**0.5**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	RA-D-1A		OL-RAD-CAP-0057D	12 / 9		6	**18 / 15**	NM	NM	**1**	**0.25**	**Y**	NA	NA	**NA**	**NA**	**NA**	NA	NA	**NA**	**NA**	**NA**	Native sediment/cap mixture in top 1"; layers of native sediment and medium sand cap as follows: native sediment 1-15", native sediment/med. sand mix 15-20.5", med. sand 20.5-27.5", native sediment 27.5-59"
	RA-D-1A		OL-RAD-CAP-0057E	12 / 9		6	**18 / 15**	NM	NM	**40.5**	**0.25**	**Y**	NM	NM	**37**	**0.75**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	RA-D-1A		OL-RAD-CAP-0057F	12 / 9		6	**18 / 15**	NM	NM	**8**	**0**	**Y**	NM	NM	**7**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	In Core 1, native sediment/cap mixture 8-26" In Core 2, native sediment/cap mixture 0-7"
	RA-D-1A		OL-RAD-CAP-0057G	12 / 9		6	**18 / 15**	NM	NM	**4**	**0**	**Y**	NM	NM	**6**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	In Core 1, native sediment/cap mixiture 0-4" In Core 2, native sediment/cap mixture 6-7"
	RA-D-1A		OL-RAD-CAP-0057H	12 / 9		6	**18 / 15**	NM	NM	**17**	**0**	**Y**	NM	NM	**8**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	In Core 1, native sediment/cap mixture 17-21" In Core 2, native sediment/cap mixture 8-21"
	RA-D-1A		OL-RAD-CAP-0057I	12 / 9		6	**18 / 15**	NM	NM	**9**	**0.25**	**Y**	NM	NM	**2**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	In Core 1, native sediment/cap mixture 9-15" In Core 2, native sediment/cap mixture 0-2"
	RA-D-1A		OL-RAD-CAP-0057J	12 / 9		6	**18 / 15**	NM	NM	**6**	**0**	**Y**	NM	NM	**5**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	RA-D-1A		OL-RAD-CAP-0057K	12 / 9		6	**18 / 15**	NM	NM	**36**	**0.5**	**Y**	NM	NM	**28**	**0.25**	**Y**	NA	NA	**NA**	**NA**	**NA**	In Core 2, native sediment/cap mixture 28-29"
	RA-D-1A		OL-RAD-CAP-0057L	12 / 9		6	**18 / 15**	NM	NM	**33**	**0.5**	**Y**	NM	NM	**28**	**0.25**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	RA-D-1A		OL-RAD-CAP-0057M	12 / 9		6	**18 / 15**	NM	NM	**26**	**1.5**	**Y**	NM	NM	**13**	**0.25**	**Y**	NA	NA	**NA**	**NA**	**NA**	In Core 1, native sediment/cap mixture 26-29"
	RA-D-1A		OL-RAD-CAP-0057N	12 / 9		6	**18 / 15**	NM	NM	**16**	**0.25**	**Y**	NM	NM	**11**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	In Core 1, layers of native sediment and cap as follows: native sediment 16-21", native sediment/cap mixture 21-30", native sediment 30-58" In Core 2, layers of native sediment and cap as follows: native sediment 11-23", native sediment/cap mixture 23-37", native sediment 37-56"

TABLE 6.1 2022 ONONDAGA CAP MONITORING MULTI-LAYER CAP THICKNESS MEASUREMENT

Rem. Area	Model Area	Zone[1]	Location ID	Design[3]/Target[4] Thickness (inches)				Measured Thickness (inches)													Comment
								Core 1 Thickness					Core 2 Thickness					Core 3 Thickness					
				Habitat Layer	Erosion Protection Layer[2]	Chemical Isolation Layer	Total	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	
	RA-D-1A		OL-RAD-CAP-00570	12 / 9		6	**18 / 15**	NM	NM	**11**	**4**	**Y**	NM	NM	**15**	**0.125**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	RA-D-1A		OL-RAD-CAP-0057P	12 / 9		6	**18 / 15**	NM	NM	**13.5**	**0.25**	**Y**	NM	NM	**16**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	RA-D-2	1	OL-RAD-CAP-0008	10.5 / 7.5		7.5	**18 / 15**	NM	NM	**20.5**	**2**	**Y**	NM	NM	**20**	**2**	**Y**	NA	NA	**NA**	**NA**	**NA**	In core 1, GAC 8-11", smear of GAC to 6 but does not continue through width of core. GAC not observed in core 2
	RA-D-2	1	OL-RAD-CAP-0019	10.5 / 7.5		7.5	**18 / 15**	NM	NM	**21**	**0.5**	**Y**	NM	NM	**21**	**0.5**	**Y**	NA	NA	**NA**	**NA**	**NA**	In core 1, GAC 7-9" and 13-15". In core 2, GAC 8-11". Sampling from Core 2 and adjusting bottom of H/EP sample interval to 5-8" to reflect shallow GAC.
	Outboard West	3	OL-RAD-CAP-0027	19.5 / 9	4.5	12	**36 / 21**	12	NM	**NM**	**NM**	**N**	18	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	
	Outboard West	3	OL-RAD-CAP-0030	19.5 / 9	4.5	12	**36/21**	15	NM	**NM**	**NM**	**N**	18	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	Thicknesses are topsoil habitat layer only
	Outboard West	3	OL-RAD-CAP-0035	19.5 / 9	4.5	12	**36/21**	19	NM	**NM**	**NM**	**N**	16	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	
	Outboard Center	3	OL-RAD-CAP-0037	19.5 / 9	4.5	12	**36/21**	20	NM	**NM**	**NM**	**N**	12	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	
	Outboard Center	3	OL-RAD-CAP-0039	19.5 / 9	4.5	12	**36/21**	11	NM	**NM**	**NM**	**N**	12.5	NM	**NM**	**NM**	**N**	15	NM	**NM**	**NM**	**N**	Core 4: 12.5" topsoil. Thicknesses are topsoil habitat layer only. Respective penetrations in cores 3 and 4: 24" and 24", indicating that significant consolidation of cap material occurred during coring.
	Outboard Center	3	OL-RAD-CAP-0041	19.5 / 9	4.5	12	**36/21**	9	NM	**NM**	**NM**	**N**	8	NM	**NM**	**NM**	**N**	15	NM	**NM**	**NM**	**N**	Core 4: 14" topsoil. Thicknesses are topsoil habitat layer only. Respective penetrations in cores 3 and 4: 28" and 26", indicating that significant consolidation of cap material occurred during coring.
	Outboard East	3	OL-RAD-CAP-0042	19.5 / 9	4.5	12	**36/21**	13	NM	**NM**	**NM**	**N**	14.5	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	
	Outboard East	3	OL-RAD-CAP-0043	19.5 / 9	4.5	12	**36/21**	13	NM	**NM**	**NM**	**N**	12.5	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	Thicknesses are topsoil habitat layer only
	Outboard East	3	OL-RAD-CAP-0044	19.5 / 9	4.5	12	**36/21**	11	NM	**NM**	**NM**	**N**	15	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	
	Outboard East	3	OL-RAD-CAP-0045	19.5 / 9	4.5	12	**36/21**	7	NM	**NM**	**NM**	**N**	10	NM	**NM**	**NM**	**N**	8	NM	**NM**	**NM**	**N**	Core 4: 15" topsoil. Thicknesses are topsoil habitat layer only. Respective penetrations in cores 3 and 4: 17" and 18", indicating that significant consolidation of cap material occurred during coring.
	Outboard East	3	OL-RAD-CAP-0046	19.5 / 9	4.5	12	**36 / 21**	18.75	NM	**NM**	**NM**	**N**	25.5	NM	**NM**	**NM**	**N**	NA	NA	**NA**	**NA**	**NA**	Thicknesses are topsoil habitat layer only

TABLE 6.1 2022 ONONDAGA CAP MONITORING MULTI-LAYER CAP THICKNESS MEASUREMENT

Rem. Area	Model Area	Zone[1]	Location ID	Design[3]/Target[4] Thickness (inches)				Measured Thickness (inches)													Comment
								Core 1 Thickness					Core 2 Thickness					Core 3 Thickness					
				Habitat Layer	Erosion Protection Layer[2]	Chemical Isolation Layer	Total	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	Habitat Layer	Chemical Isolation Layer	Total	Overlying Sediment	Native Plug (y/n)[5]	
Remediation Area E	E-1 (B)	1	OL-RAE-CAP-0017	12 / 9		6	**18 / 15**	NM	NM	**25**	**4**	**Y**	NM	NM	**24**	**7**	**Y**	NM	NM	**29+**	**1**	**N**	
	E-1 (B)	1	OL-RAE-CAP-0018	12 / 9		6	**18 / 15**	NM	NM	**24.5**	**3**	**Y**	NM	NM	**19**	**4**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	E-1 (B)	1	OL-RAE-CAP-0021	12 / 9		6	**18 / 15**	NM	NM	**19**	**0.5**	**Y**	NM	NM	**19.5**	**1**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	E-3	1	OL-RAE-CAP-0025	12 / 9		6	**18 / 15**	NM	NM	**23**	**0**	**Y**	NM	NM	**21.5**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	E-3	1	OL-RAE-CAP-0027	12 / 9		6	**18 / 15**	NM	NM	**21**	**3**	**Y**	NM	NM	**22**	**3**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	E-3	1	OL-RAE-CAP-0030	12 / 9		6	**18 / 15**	NM	NM	**36**	**0.25**	**N**	NM	NM	**34**	**2.5**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	E-2	1	OL-RAE-CAP-0031	12 / 9		12	**24 / 21**	NM	NM	**18+**	**1**	**Y**	NM	NM	**31**	**0.5**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	E-2	3	OL-RAE-CAP-0033	12 / 9		12	**24 / 21**	NM	NM	**28**	**2.5**	**Y**	NM	NM	**31**	**2**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	E-1 (B)	2	OL-RAE-CAP-0019	12 / 9		12	**24 / 21**	12	26	**38**	**0**	**Y**	10	10+	**20+**	**0**	**N**	NA	NA	**NA**	**NA**	**NA**	
	E-1 (B)	2	OL-RAE-CAP-0020	12 / 9		12	**24 / 21**	13	14	**27**	**4**	**Y**	9	11	**20**	**2**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	E-1 (B)	2	OL-RAE-CAP-0022	12 / 9		12	**24 / 21**	13	10	**23**	**0**	**Y**	17	14	**31**	**1**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	E-3	2	OL-RAE-CAP-0023	12 / 9		12	**24 / 21**	32	20	**52**	**0**	**Y**	19	19	**38**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	E-3	2	OL-RAE-CAP-0029	12 / 9		12	**24 / 21**	39	13	**52**		**Y**	31	12	**43**		**Y**	NA	NA	**NA**	**NA**	**NA**	
	E-3	2	OL-RAE-CAP-0035	12 / 9		12	**24 / 21**	16	20	**36**	**3**	**Y**	6	21.5	**27.5**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	
	E-2	2	OL-RAE-CAP-0039	12 / 9		12	**24 / 21**	7	18	**25**	**0**	**Y**	11	15	**26**	**0**	**Y**	17	12	**29**	**0**	**Y**	
	E-2	2	OL-RAE-CAP-0040	12 / 9		12	**24 / 21**	10	22	**32**	**0**	**Y**	10	18+	**28+**	**0**	**N**	NA	NA	**NA**	**NA**	**NA**	
	E-3	2	OL-RAE-CAP-0026	12 / 9		12	**24 / 21**	37	1+	**38+**	**0.5**	**N**	48	10	**58**	**0**	**Y**	NA	NA	**NA**	**NA**	**NA**	
RA-F	RAF	1	OL-RAF-CAP-0001	12 / 9		12	**24 / 21**	NM	NM	**22**	**4**	**Y**	NM	NM	**24+**	**3**	**N**	NA	NA	**NA**	**NA**	**NA**	
	RAF	1	OL-RAF-CAP-0002	12 / 9		12	**24 / 21**	NM	NM	**26**	**0.25**	**Y**	NM	NM	**29**	**2**	**Y**	NA	NA	**NA**	**NA**	**NA**	

Measured thickness is less than the minimum target thickness specified in the OLMMP.

[1] The coarsest substrates in Zones 1, 2, and 3 are sand, fine gravel and coarse gravel/cobble, respectively.

[2] When the habitat and erosion protection layer are the same substrate, the total thickness of the habitat/erosion protection layer is listed under the habitat layer.

[3] Design thickness specified as a minimum.

[4] Listed thickness is the target minimum thickness specified in the OLMMP.

[5] The presence of a plug of native sediment in the bottom of the core indicates the core fully penetrated the cap material, allowing measurement of the total cap thickness.

[6] SP - Sample Ports. There are no thickness goals for material within the sample ports. At sample port locations D-22 and D-26, gravel was present and there was at least 15" of sand in one of the cores, therefore samples were collected from the top 3" of sand as specified in the OLMMP.

NA - Not applicable, core was not required or collected.

NM - Not measured. When the entire cap consists of sand, it is not possible to differentiate the different layers, therefore only the total thickness is provided. When the cap design consists of topsoil overlying coarse gravel, the core can be advanced through the topsoil but not the coarse gravel, therefore only the topsoil thickness is provided.

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TABLE 6.2 2022 MONO-LAYER CAP THICKNESS MEASUREMENTS

Rem. Area	Model Area	Zone	Location ID	Cap Type	Design Thickness (inches)[1]	Measured Thickness (inches)												Comment
						Core 1 Thickness			Core 2 Thickness			Core 3 Thickness			Core 4 Thickness			
						Cap	Overlying Sediment	Native Plug (y/n)[2]	Cap	Overlying Sediment	Native Plug (y/n)[2]	Cap	Overlying Sediment	Native Plug (y/n)[2]	Cap	Overlying Sediment	Native Plug (y/n)[2]	
RA-B	RA-B-1C (10-20)	1	OL-RAB-CAP-0010	MPC Monolayer	8	6	0	Y	7.5	0	Y	NA	NA	NA	NA	NA	NA	
	RA-B-1D (20-30)	1	OL-RAB-CAP-0011	MPC Monolayer	7.5	5	2	Y	5	0.25	Y	NA	NA	NA	NA	NA	NA	In Core 1: 5-12" interval was slightly discolored and potentially mixed with native material and in 12-15.5" interval, cap was highly mixed with native material. In Core 2: 5-7" interval contains cap and native material mixture.
	RA-B-1D (10-20)	1	OL-RAB-CAP-0013	MPC Monolayer	12	6	0.5	Y	7	2	Y	NA	NA	NA	NA	NA	NA	In Core 2, 7-14" interval had black staining and appeared to be mixed with native material.
	RA-B-1C	1	OL-RAB-CAP-0005	MPC Monolayer	2	2	2	Y	4	3	Y	3.25	0.75	Y	0	4	Y	Core 5: 0.5" cap, 4" new sediment, native plug present. Core 6: 0" cap, 12" new sediment, native plug present. 0-12" interval contained cap and native material mixture. In Cores 1, 2, and 5: cap contained new sediment mixed in.
	RA-B-1C	1	OL-RAB-CAP-005A	MPC Monolayer	2	2.75	0.25	Y	3.5	0.5	Y	6.5	0.5	Y	8	12	Y	Cores collected at C-5A and C-5B as offsets from location C-5 to allow for sufficient sample volume collection. In Cores 1, 2, and 3: cap contained new sediment mixed in.
	RA-B-1C	1	OL-RAB-CAP-005B	MPC Monolayer	2	2	1	Y	2	1	Y	NA	NA	NA	NA	NA	NA	Cores collected at C-5A and C-5B as offsets from location C-5 to allow for sufficient sample volume collection.
	RA-B-1C	1	OL-RAB-CAP-005C	MPC Monolayer	2	3	8	Y	5	2	Y	NA	NA	NA	NA	NA	NA	In both cores: cap contained new sediment mixed in.
	RA-B-1C	1	OL-RAB-CAP-0007	MPC Monolayer	2	6.5	1.5	Y	3.5	0.5	Y	6	2	Y	4.5	0.5	Y	In Cores 1 and 3: cap contained new sediment mixed in. In Core 3: 6-9" interval contained cap and native material mixture.
	RA-B-1C	1	OL-RAB-CAP-0007A	MPC Monolayer	2	4.75	0.25	Y	4.25	0.25	Y	5	0	Y	4.75	0.25	Y	Core 5: 4.75" cap, 0.25" new sediment, native plug present.

TABLE 6.2 2022 MONO-LAYER CAP THICKNESS MEASUREMENTS

Rem. Area	Model Area	Zone	Location ID	Cap Type	Design Thickness (inches)[1]	Measured Thickness (inches)												Comment
						Core 1 Thickness			Core 2 Thickness			Core 3 Thickness			Core 4 Thickness			
						Cap	Overlying Sediment	Native Plug (y/n)[2]	Cap	Overlying Sediment	Native Plug (y/n)[2]	Cap	Overlying Sediment	Native Plug (y/n)[2]	Cap	Overlying Sediment	Native Plug (y/n)[2]	
RA-C	RA-C-1B	1	OL-RAC-CAP-0014	GAC Direct App.	0	2.75	0.25	Y	2.5	0.5	Y	5	1	Y	0	1	Y	Core 5: 3" cap, 3" new sediment, native plug present. Core 6: 6" cap, 2" new sediment, native plug present. In Core 2: cap contains new sediment mixed in. In Core 4: 0-1" interval contains cap and native material mixture.
	RA-C-1B	1	OL-RAC-CAP-0014A	GAC Direct App.	0	7	2	Y	2	6	Y	10	7	N	13	5	Y	Cores collected at C-14A and C-14B as offsets from location C-14 to allow for sufficient sample volume collection. Core 5: 4" cap, 3" new sediment, native plug present.
	RA-C-1B	1	OL-RAC-CAP-0014B	GAC Direct App.	0	8	2	Y	6.5	2	Y	4	2	Y	4	2	Y	Cores collected at C-14A and C-14B as offsets from location C-14 to allow for sufficient sample volume collection. Core 5: 4.5" cap, 0.5" new sediment, native plug present.
	RA-C-1B	1	OL-RAC-CAP-0018	GAC Direct App.	0	1.5	0.5	Y	9.75	0.25	Y	1.75	0.25	Y	7.25	0.75	Y	Core 5: 8.5" cap, 0.5" new sediment, native plug present. Core 6: 5.75" cap, 0.25" new sediment, native plug present. 5.75-7.75" interval contains cap and native material mixture. In Core 1: 2-4" interval contains cap and native material mixture. In Core 3: new sediment, mussels, and native sediment mixed in with cap. In Core 4: 7.25-11.25" interval contains cap and native material mixture.
	RA-C-1C	1	OL-RAC-CAP-0015	GAC Direct App.	0	7.5	0.5	Y	7.5	1	Y	8.5	0.5	Y	7	1	Y	Core 5: 6.5" cap, 0.5" new sediment, native plug present; Core 6: 6.5" cap, 0.5" new sediment, native plug present.
	RA-C-1D	1	OL-RAC-CAP-0019	MPC Monolayer	9	14	0.5	Y	12	0	Y	NA	NA	NA	NA	NA	NA	In Core 1: 14-16" interval has black staining, potentially mixed with native sediment. In Core 2: 12-14" interval has black staining, potentially mixed with native sediment.
	RA-C-2B	1	OL-RAC-CAP-0006	MPC Monolayer	2	4.75	0.25	Y	3.75	0.25	Y	4.75	0.25	Y	5.25	0.25	Y	Core 5: 4.75" cap, 0.25" new sediment, native plug present; Core 6: 2.5" cap, 0.5" new sediment, native plug present; Core 7: 2.75" cap, 0.25" new sediment, native plug present; Core 8: 3.5" cap, 0.125" new sediment, native plug present.

TABLE 6.2 2022 MONO-LAYER CAP THICKNESS MEASUREMENTS

Rem. Area	Model Area	Zone	Location ID	Cap Type	Design Thickness (inches)[1]	Measured Thickness (inches)												Comment
						Core 1 Thickness			Core 2 Thickness			Core 3 Thickness			Core 4 Thickness			
						Cap	Overlying Sediment	Native Plug (y/n)[2]	Cap	Overlying Sediment	Native Plug (y/n)[2]	Cap	Overlying Sediment	Native Plug (y/n)[2]	Cap	Overlying Sediment	Native Plug (y/n)[2]	
	RA-C-2B	1	OL-RAC-CAP-0008	MPC Monolayer	2	3.5	0.5	Y	3.5	0.125	Y	4.5	0.125	Y	3.75	0.25	Y	Core 5: 2" cap, 2" new sediment, native plug present. Core 6: 2.5" cap, 0.5" new sediment, native plug present. In Cores 5 and 6: cap contains new sediment mixed in.
	RA-C-2C	1	OL-RAC-CAP-0011	MPC Monolayer	13.5	15	2	Y	11.5	2	Y	NA	NA	NA	NA	NA	NA	
	RA-C-2C	1	OL-RAC-CAP-0013	MPC Monolayer	13.5	10	0	Y	12	0.25	Y	NA	NA	NA	NA	NA	NA	In Core 2: 12-13" interval contains cap and native material mixture.
	RA-C-2D	1	OL-RAC-CAP-0010	GAC Direct App.	0	9.5	1	Y	8	0.125	Y	5.75	0.25	N	6.75	0.125	NA	Core 5: 5.25" cap, 0.25" new sediment, no native plug. Core 6: 6.5" cap, 0.125" new sediment, no native plug. Core 7: 5.75" cap, 0.25" new sediment, no native plug. Core 8: 6.5" cap, 0.5" new sediment, no native plug. In Core 2: 8-9" interval contains slight mixing of cap and native material.
	RA-C-2D	1	OL-RAC-CAP-0012	GAC Direct App.	0	10.75	0.25	N	9	1	Y	5.75	0.25	Y	8.25	0.25	Y	Core 5: 9.5" cap, 0.5" new sediment, native plug present. Core 6: 10.75" cap, 0.25" new sediment, native plug present. Core 7: 7.75" cap, 0.25" new sediment, native plug present. Core 8: 8.75" cap, 0.25" new sediment, native plug present.
RA-D	RA-D-1B	1	OL-RAD-CAP-0005	MPC Monolayer	4.5	9.5	1	Y	10	4	Y	11.5	1.5	Y	9	4	N	Core 5: 6.5" cap, 2.5" new sediment, no native plug; Core 6: 10" cap, 1" new sediment, no native plug.
	RA-D-1B	1	OL-RAD-CAP-0011	MPC Monolayer	4.5	8	1	Y	1.5	0.5	Y	7.5	4.5	N	NA	NA	NA	In Core 2, cap contained new sediment mixed in and slight mixing of cap and native material in the 1.5-2.5" interval.
	RA-D-1B	1	OL-RAD-CAP-0011A	MPC Monolayer	4.5	8	3	Y	7	3	Y	5	0.5	Y	5	3	Y	Core 5: 7" cap, 3" new sediment, native plug present.
	MERC E2	1	OL-RAE-CAP-0036	MERC	6	6	0	Y	6	0	Y	7	0.75	Y	7	0	Y	Core 5: 7" cap, no new sediment, native plug present; Core 6: 6" cap, no new sediment, native plug present In Core 3: cap and native sediment mixture 7-20".
	MERC E3	1	OL-RAE-CAP-0038	MERC	6	7	0.25	Y	0	2	Y	5	0.5	Y	2	0.5	Y	Core 5: 2" cap, no new sediment, native plug present. Core 6: 0" cap, no new sediment, native plug present.
RA-E	MERC E3	1	OL-RAE-CAP-0038A	MERC	6	5	1	Y	6	0.5	Y	1	0.5	Y	NA	NA	NA	
	MERC E3	1	OL-RAE-CAP-0038B	MERC	6	6	0.5	Y	5.5	1.5	Y	NA	NA	NA	NA	NA	NA	
	MERC E3	1	OL-RAE-CAP-0038C	MERC	6	3	0.25	Y	5	0.25	Y	NA	NA	NA	NA	NA	NA	

TABLE 6.2 2022 MONO-LAYER CAP THICKNESS MEASUREMENTS

Rem. Area	Model Area	Zone	Location ID	Cap Type	Design Thickness (inches)[1]	Measured Thickness (inches)												Comment
						Core 1 Thickness			Core 2 Thickness			Core 3 Thickness			Core 4 Thickness			
						Cap	Overlying Sediment	Native Plug (y/n)[2]	Cap	Overlying Sediment	Native Plug (y/n)[2]	Cap	Overlying Sediment	Native Plug (y/n)[2]	Cap	Overlying Sediment	Native Plug (y/n)[2]	
	MERC E1	1	OL-RAE-CAP-0042	MERC	6	6	0.5	Y	8	0.5	Y	6	0.5	Y	11	0.5	Y	Core 5: 6" cap, 0.5" new sediment, native plug present. Core 6: 6" cap, 0.25" new sediment, native plug present. In all cores: top several inches of cap consisted of a mixture of sand, black new sediment, and organics.
SMU 8	TLC	SMU 8	OL-SMU 8-CAP-0014	TLC	2	11	2	Y	8	1	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0017	TLC	2	6+	1	N	11	4	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0018	TLC	2	7	2.5	Y	8+	2	N	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0019	TLC	2	7	3.5	Y	8	5	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0020	TLC	2	6	3	Y	6	2	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0008	Amended TLC	4.5	2	0.5	Y	7	2	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0009	Amended TLC	4.5	10+	3	N	0+	4.5	N	8	2	Y	9	4.5	Y	Adjacent to RA-D
	TLC	SMU 8	OL-SMU 8-CAP-0010	Amended TLC	4.5	8	1	Y	8	3	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0011	Amended TLC	4.5	8	1	Y	7.5	3	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0012	Amended TLC	4.5	9	3	Y	6.5	0.5	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0013	Amended TLC	4.5	11	4	Y	9.5	3.5	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0015	Amended TLC	4.5	14	0.5	Y	12	4.5	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0016	Amended TLC	4.5	18	2	Y	17	0.5	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0001	TLC	4.5	8	2	Y	5	1	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0002	TLC	4.5	7.5	1	Y	6.5	1	Y	NA	NA	NA	NA	NA	NA	Adjacent to RA-C
	TLC	SMU 8	OL-SMU 8-CAP-0003	TLC	4.5	5.5	1	Y	7	1.5	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0004	GAC Direct App.	0	4	1.5	Y	9	8	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0005	GAC Direct App.	0	0	2	Y	13	2	Y	NA	NA	NA	NA	NA	NA	In Core 1: No cap observed, but new sediment felt gritty, potentially indicating cap material mixed in.
	TLC	SMU 8	OL-SMU 8-CAP-0005A	GAC Direct App.	0	2	0.5	Y	2	0.25	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0006	Transition Zone	4.5	7	2.5	Y	9.5	1.5	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0007	Transition Zone	4.5	9.5	0.5	Y	7	1	Y	NA	NA	NA	NA	NA	NA	Adjacent to RA-C
	TLC	SMU 8	OL-SMU 8-CAP-0021	TLC	2	8	2	Y	11	2	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0022	TLC	2	11	4	Y	10	2.5	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0023	TLC	2	7.5	3	Y	10	3.5	Y	NA	NA	NA	NA	NA	NA	Adjacent to RA-E
	TLC	SMU 8	OL-SMU 8-CAP-0024	TLC	2	8	4	Y	8.5	3	Y	NA	NA	NA	NA	NA	NA	
	TLC	SMU 8	OL-SMU 8-CAP-0025	TLC	2	9	4	Y	7.5	2	Y	NA	NA	NA	NA	NA	NA	

[1] The design thickness is specified as an average thickness over the model area, except for the unamended SMU 8 TLCs adjacent to remediation areas D and E, which are specificed as a minimum thickness.

[2] The presence of a plug of native sediment in the bottom of the core indicates the core fully penetrated the cap material, allowing measurement of the total cap thickness.

NA - Not applicable, core not required or collected.

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TABLE 6.3A RA-A MULTI-LAYER CAPS (NON-TOPSOIL) HABITAT LAYER CHEMICAL MONITORING RESULTS

Model Area			Cap Model Area A1			Cap Model Area A2		
Parameter Name	Units	Cap Criteria	# Samples/ # Detects	# Exceedances	Mean[1]	# Samples/ # Detects	# Exceedances	Mean[1]
PAHS								
ACENAPHTHENE	ug/kg	861	14/1	0	0.22	6/0	0	0
ACENAPHTHYLENE	ug/kg	1301	14/2	0	0.71	6/0	0	0
ANTHRACENE	ug/kg	207	14/1	0	0.79	6/0	0	0
BENZO(A)ANTHRACENE	ug/kg	192	12/2	0	5.8	2/0	0	0
BENZO(A)PYRENE	ug/kg	146	12/5	0	10	2/0	0	0
BENZO(B)FLUORANTHENE	ug/kg	908	12/4	0	12	2/0	0	0
BENZO(G,H,I)PERYLENE	ug/kg	780	12/3	0	7.5	2/0	0	0
BENZO(K)FLUORANTHENE	ug/kg	203	12/2	0	3.8	2/0	0	0
CHRYSENE	ug/kg	253	12/3	0	8.6	2/0	0	0
DIBENZO(A,H)ANTHRACENE	ug/kg	157	12/2	0	1.7	2/0	0	0
FLUORANTHENE	ug/kg	1436	12/2	0	16	2/0	0	0
FLUORENE	ug/kg	264	14/1	0	0.31	6/0	0	0
INDENO(1,2,3-CD)PYRENE	ug/kg	183	12/3	0	7.4	2/0	0	0
NAPHTHALENE	ug/kg	917	14/0	0	0	6/0	0	0
PHENANTHRENE	ug/kg	543	14/2	0	4.9	6/0	0	0
PYRENE	ug/kg	344	12/5	0	15	2/0	0	0
VOCS								
BENZENE	ug/L	760	14/0	0	0	6/0	0	0
TOLUENE	ug/L	480	14/8	0	1.9	6/4	0	12
ETHYLBENZENE	ug/kg	176	14/0	0	0	6/0	0	0
XYLENES, TOTAL	ug/kg	560.8	14/0	0	0	6/0	0	0
CHLOROBENZENE	ug/kg	428	14/0	0	0	6/0	0	0
DICHLOROBENZENES	ug/kg	239	14/1	0	0.028	6/0	0	0
TRICHLOROBENZENES	ug/kg	347	14/0	0	0	6/0	0	0
Other								
MERCURY	mg/kg	2.2	14/8	0	0.014	6/0	0	0
PCBS, N.O.S.	ug/kg	295	12/0	0	0	2/0	0	0
PHENOL	ug/L	250	14/8	0	16	6/3	0	1.00

Notes:

Compound that dictated the GAC application rate during the design (not applicable for A-1, no GAC required)

[1]Non detects set to zero

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TABLE 6.3B RA-B MULTI-LAYER CAPS (NON-TOPSOIL) HABITAT LAYER CHEMICAL MONITORING RESULTS

Model Area			Cap Model Area B2			Cap Model Area B1/C1		
Parameter Name	Units	Cap Criteria	# Samples/ # Detects	# Exceedances	Mean[1]	# Samples/ # Detects	# Exceedances	Mean[1]
PAHS								
ACENAPHTHENE	ug/kg	861	7/0	0	0	17/0	0	0
ACENAPHTHYLENE	ug/kg	1301	7/0	0	0	17/0	0	0
ANTHRACENE	ug/kg	207	7/0	0	0	17/0	0	0
BENZO(A)ANTHRACENE	ug/kg	192	7/0	0	0	6/0	0	0
BENZO(A)PYRENE	ug/kg	146	7/0	0	0	6/0	0	0
BENZO(B)FLUORANTHENE	ug/kg	908	7/0	0	0	6/0	0	0
BENZO(G,H,I)PERYLENE	ug/kg	780	7/0	0	0	6/0	0	0
BENZO(K)FLUORANTHENE	ug/kg	203	7/0	0	0	6/0	0	0
CHRYSENE	ug/kg	253	7/0	0	0	6/0	0	0
DIBENZO(A,H)ANTHRACENE	ug/kg	157	7/0	0	0	6/0	0	0
FLUORANTHENE	ug/kg	1436	7/0	0	0	6/0	0	0
FLUORENE	ug/kg	264	7/0	0	0	17/0	0	0
INDENO(1,2,3-CD)PYRENE	ug/kg	183	7/0	0	0	6/0	0	0
NAPHTHALENE	ug/kg	917	7/0	0	0	18/2	0	2.3
PHENANTHRENE	ug/kg	543	7/0	0	0	17/0	0	0
PYRENE	ug/kg	344	7/0	0	0	6/0	0	0
VOCS								
BENZENE	ug/L	760	7/0	0	0	18/1	0	0.019
TOLUENE	ug/L	480	7/5	0	0.41	18/16	0	31
ETHYLBENZENE	ug/kg	176	7/0	0	0	18/0	0	0
XYLENES, TOTAL	ug/kg	560.8	7/0	0	0	18/0	0	0
CHLOROBENZENE	ug/kg	428	7/0	0	0	18/0	0	0
DICHLOROBENZENES	ug/kg	239	7/0	0	0	18/2	0	0.061
TRICHLOROBENZENES	ug/kg	347	7/0	0	0	18/2	0	0.15
Other								
MERCURY	mg/kg	2.2	7/1	0	0.0014	18/4	0	0.0032
PCBS, N.O.S.	ug/kg	295	7/0	0	0	6/0	0	0
PHENOL	ug/L	250	7/3	0	7.5	17/6	0.00	16

Notes:

Compound that dictated the GAC application rate during the design

[1]Non detects set to zero

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TABLE 6.3C RA-C MULTI-LAYER CAPS (NON-TOPSOIL) HABITAT LAYER CHEMICAL MONITORING RESULTS

Model Area			Cap Model Area C2			Cap Model Area C3		
Parameter Name	Units	Cap Criteria	# Samples/ # Detects	# Exceedances	Mean[1]	# Samples/ # Detects	# Exceedances	Mean[1]
PAHS								
ACENAPHTHENE	ug/kg	861	9/0	0	0	12/0	0	0
ACENAPHTHYLENE	ug/kg	1301	9/0	0	0	12/0	0	0
ANTHRACENE	ug/kg	207	9/0	0	0	12/0	0	0
BENZO(A)ANTHRACENE	ug/kg	192	8/0	0	0	10/0	0	0
BENZO(A)PYRENE	ug/kg	146	8/0	0	0	10/2	0	1.1
BENZO(B)FLUORANTHENE	ug/kg	908	8/0	0	0	10/3	0	2.1
BENZO(G,H,I)PERYLENE	ug/kg	780	8/0	0	0	10/1	0	0.63
BENZO(K)FLUORANTHENE	ug/kg	203	8/0	0	0	10/0	0	0
CHRYSENE	ug/kg	253	8/0	0	0	10/2	0	1.4
DIBENZO(A,H)ANTHRACENE	ug/kg	157	8/0	0	0	10/0	0	0
FLUORANTHENE	ug/kg	1436	8/0	0	0	10/3	0	3.5
FLUORENE	ug/kg	264	9/0	0	0	12/0	0	0
INDENO(1,2,3-CD)PYRENE	ug/kg	183	8/0	0	0	10/1	0	0.57
NAPHTHALENE	ug/kg	917	9/2	0	0.90	12/5	0	1.7
PHENANTHRENE	ug/kg	543	9/0	0	0	12/2	0	1.1
PYRENE	ug/kg	344	8/0	0	0	10/4	0	3.4
VOCS								
BENZENE	ug/L	760	9/0	0	0	12/0	0	0
TOLUENE	ug/L	480	9/8	0	2.0	12/11	0	1.2
ETHYLBENZENE	ug/kg	176	9/0	0	0	12/0	0	0
XYLENES, TOTAL	ug/kg	560.8	9/0	0	0	12/0	0	0
CHLOROBENZENE	ug/kg	428	9/0	0	0	12/0	0	0
DICHLOROBENZENES	ug/kg	239	9/0	0	0	12/1	0	0.022
TRICHLOROBENZENES	ug/kg	347	9/0	0	0	12/0	0	0
Other								
MERCURY	mg/kg	2.2	9/2	0	0.0022	12/5	0	0.0051
PCBS, N.O.S.	ug/kg	295	8/0	0	0	10/0	0	0
PHENOL	ug/L	250	9/3	0	6.6	12/3	0	4.3

Notes:

Compound that didtated the GAC application rate during the design

[1]Non detects set to zero

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TABLE 6.3D RA-D MULTI-LAYER CAPS(NON-TOPSOIL) HABITAT LAYER CHEMICAL MONITORING RESULTS

Model Area			Cap Model Area D-SMU-2			Cap Model Area D-West			Cap Model Area D-Center[1]			Cap Model Area D-East		
Parameter Name	Units	Cap Criteria	# Samples/ # Detects	# Exceedances	Mean[1]	# Samples/ # Detects	# Exceedances	Mean[1]	# Samples/ # Detects	# Exceedances	Mean[1]	# Samples/ # Detects	# Exceedances	Mean[1]
PAHS														
ACENAPHTHENE	ug/kg	861	8/0	0	0	12/1	0	0.21	28/1	0	0.093	22/1	0	0.19
ACENAPHTHYLENE	ug/kg	1301	8/0	0	0	12/1	0	0.17	28/0	0	0	22/1	0	0.20
ANTHRACENE	ug/kg	207	8/0	0	0	12/0	0	0	28/0	0	0	22/1	0	0.24
BENZO(A)ANTHRACENE	ug/kg	192	8/0	0	0	11/3	0	1.9	15/4	0	2.4	20/4	0	0.86
BENZO(A)PYRENE	ug/kg	146	8/2	0	1.2	11/3	0	1.8	15/4	0	3.0	20/2	0	0.51
BENZO(B)FLUORANTHENE	ug/kg	908	8/3	0	2.0	11/4	0	2.8	15/6	0	5.7	20/2	0	0.78
BENZO(G,H,I)PERYLENE	ug/kg	780	8/2	0	0.97	11/3	0	2.1	15/4	0	3.6	20/1	0	0.28
BENZO(K)FLUORANTHENE	ug/kg	203	8/0	0	0	11/2	0	0.96	15/3	0	1.4	20/0	0	0
CHRYSENE	ug/kg	253	8/2	0	1.0	11/3	0	1.9	15/5	0	3.2	20/2	0	0.80
DIBENZO(A,H)ANTHRACENE	ug/kg	157	8/0	0	0	11/1	0	0.48	15/1	0	0.39	20/0	0	0
FLUORANTHENE	ug/kg	1436	8/3	0	3.2	11/3	0	3.8	15/6	0	7.0	20/5	0	3.1
FLUORENE	ug/kg	264	8/0	0	0	12/1	0	5.2	28/2	0	0.17	22/4	0	0.88
INDENO(1,2,3-CD)PYRENE	ug/kg	183	8/2	0	0.84	11/3	0	1.6	15/2	0	1.6	20/0	0	0
NAPHTHALENE	ug/kg	917	8/4	0	1.8	13/4	0	18	29/7	0	6.8	22/13	0	17
PHENANTHRENE	ug/kg	543	8/2	0	1.3	12/3	0	2.3	28/5	0	1.8	22/5	0	2.1
PYRENE	ug/kg	344	8/3	0	2.6	11/4	0	3.8	15/7	0	6.2	20/5	0	2.6
VOCS														
BENZENE	ug/L	760	8/0	0	0	12/0	0	0	26/0	0	0	22/1	0	0.024
TOLUENE	ug/L	480	8/4	0	0.14	12/7	0	2.8	26/4	0	3.9	22/8	1	27
ETHYLBENZENE	ug/kg	176	8/0	0	0	12/0	0	0	28/0	0	0	22/0	0	0
XYLENES, TOTAL	ug/kg	560.8	8/0	0	0	12/1	0	0.65	28/0	0	0	22/2	0	0.53
CHLOROBENZENE	ug/kg	428	8/3	0	0.13	12/5	0	0.47	28/2	0	0.034	22/5	0	2.1
DICHLOROBENZENES	ug/kg	239	8/0	0	0	12/4	0	0.24	28/1	0	0.028	22/3	0	1.4
TRICHLOROBENZENES	ug/kg	347	8/0	0	0	12/0	0	0	28/0	0	0	22/2	0	0.048
Other														
MERCURY	mg/kg	2.2	8/8	0	0.015	12/4	0	0.0068	28/5	0	0.0048	22/5	0	0.011
PCBS, N.O.S.	ug/kg	295	8/0	0	0	11/0	0	0	15/0	0	0	20/0	0	0
PHENOL	ug/L	250	6/0	0	0	12/1	0	0.78	26/8	0	12	22/12	1	23

Notes:

Compound that dictated the GAC application rate during the design

Includes results from model area OL-VC-10138/40

[1]Non detects set to zero

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TABLE 6.3E RA-E MULTI-LAYER CAPS (NON-TOPSOIL) HABITAT LAYER CHEMICAL MONITORING RESULTS

Model Area			Cap Model Area E-1			Cap Model Area E-2			Cap Model Area E-3		
Parameter Name PAHS	Units	Cap Criteria	# Samples/ # Detects	# Exceedances	Mean[1]	# Samples/ # Detects	# Exceedances	Mean[1]	# Samples/ # Detects	# Exceedances	Mean[1]
ACENAPHTHENE	ug/kg	861	18/0	0	0	14/0	0	0	18/0	0	0
ACENAPHTHYLENE	ug/kg	1301	18/0	0	0	14/0	0	0	18/2	0	0.33
ANTHRACENE	ug/kg	207	18/0	0	0	14/0	0	0	18/0	0	0
BENZO(A)ANTHRACENE	ug/kg	192	6/0	0	0	4/2	0	3.4	6/3	0	4.6
BENZO(A)PYRENE	ug/kg	146	6/4	0	4.0	4/2	0	2.7	6/4	0	7.3
BENZO(B)FLUORANTHENE	ug/kg	908	6/4	0	5.7	4/2	0	3.5	6/4	0	8.3
BENZO(G,H,I)PERYLENE	ug/kg	780	6/4	0	3.6	4/2	0	2.3	6/4	0	5.4
BENZO(K)FLUORANTHENE	ug/kg	203	6/0	0	0	4/1	0	1.2	6/1	0	1.3
CHRYSENE	ug/kg	253	6/3	0	3.2	4/2	0	3.3	6/4	0	6.5
DIBENZO(A,H)ANTHRACENE	ug/kg	157	6/0	0	0	4/1	0	0.88	6/1	0	0.57
FLUORANTHENE	ug/kg	1436	6/4	0	7.2	4/2	0	5.3	6/4	0	11
FLUORENE	ug/kg	264	18/0	0	0	14/0	0	0	18/0	0	0
INDENO(1,2,3-CD)PYRENE	ug/kg	183	6/3	0	2.8	4/1	0	1.2	6/4	0	5.1
NAPHTHALENE	ug/kg	917	18/3	0	0.64	14/1	0	0.4	18/3	0	1.5
PHENANTHRENE	ug/kg	543	18/3	0	0.96	14/1	0	0.61	18/4	0	1.7
PYRENE	ug/kg	344	6/4	0	6.3	4/2	0	5.2	6/4	0	11
VOCS											
BENZENE	ug/L	760	18/0	0	0	14/1	0	0.018	18/0	0	0
TOLUENE	ug/L	480	18/11	0	0.74	14/8	0	1.8	18/15	0	1.3
ETHYLBENZENE	ug/kg	176	18/0	0	0	14/0	0	0	18/0	0	0
XYLENES, TOTAL	ug/kg	560.8	18/0	0	0	14/0	0	0	18/0	0	0
CHLOROBENZENE	ug/kg	428	18/0	0	0	14/0	0	0	18/2	0	0.092
DICHLOROBENZENES	ug/kg	239	18/2	0	0.033	14/0	0	0	18/1	0	0.19
TRICHLOROBENZENES	ug/kg	347	18/0	0	0	14/0	0	0	18/0	0	0
Other											
MERCURY	mg/kg	2.2	18/5	0	0.0029	14/3	0	0.0042	18/5	0	0.011
PCBS, N.O.S.	ug/kg	295	6/0	0	0	4/0	0	0	6/0	0	0
PHENOL	ug/L	250	18/3	0	0.28	14/3	0	1.0	18/2	0	0.93

Notes:

Compound that dictated the GAC application rate during the design (Not applicable for E-1, no GAC required)

[1]Non detects set to zero

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TABLE 6.3F RA-F MULTI-LAYER CAPS (NON-TOPSOIL) HABITAT LAYER CHEMICAL MONITORING RESULTS

Model Area			Cap Model Area F		
Parameter Name	Units	Cap Criteria	# Samples/ # Detects	# Exceedances	Mean[1]
PAHS					
ACENAPHTHENE	ug/kg	861	4/0	0	0
ACENAPHTHYLENE	ug/kg	1301	4/0	0	0
ANTHRACENE	ug/kg	207	4/0	0	0
BENZO(A)ANTHRACENE	ug/kg	192	4/2	0	3.2
BENZO(A)PYRENE	ug/kg	146	4/2	0	3.6
BENZO(B)FLUORANTHENE	ug/kg	908	4/2	0	4.2
BENZO(G,H,I)PERYLENE	ug/kg	780	4/1	0	1.7
BENZO(K)FLUORANTHENE	ug/kg	203	4/2	0	1.5
CHRYSENE	ug/kg	253	4/1	0	1.9
DIBENZO(A,H)ANTHRACENE	ug/kg	157	4/0	0	0
FLUORANTHENE	ug/kg	1436	4/2	0	3.5
FLUORENE	ug/kg	264	4/0	0	0
INDENO(1,2,3-CD)PYRENE	ug/kg	183	4/1	0	1.4
NAPHTHALENE	ug/kg	917	4/0	0	0
PHENANTHRENE	ug/kg	543	4/0	0	0
PYRENE	ug/kg	344	4/2	0	3.4
VOCS					
BENZENE	ug/L	760	4/0	0	0
TOLUENE	ug/L	480	4/0	0	0
ETHYLBENZENE	ug/kg	176	4/0	0	0
XYLENES, TOTAL	ug/kg	560.8	4/0	0	0
CHLOROBENZENE	ug/kg	428	4/0	0	0
DICHLOROBENZENES	ug/kg	239	4/0	0	0
TRICHLOROBENZENES	ug/kg	347	4/0	0	0
Other					
MERCURY	mg/kg	2.2	4/2	0	0.079
PCBS, N.O.S.	ug/kg	295	4/0	0	0
PHENOL	ug/L	250	4/0	0	0

Notes:

[1]Non detects set to zero

TABLE 6.4 EXCEEDANCES OF CAP HABITAT LAYER PERFORMANCE CRITERIA

Station	Cap Type	Contaminant	Depth (in)	Cap Layer	Sample Type	Measured Result		Units	Criteria	Units	Notes
D-21	Multi-layer	Phenol	3-9	H	Peeper	24.2		ug/L	250	ug/L	Recommend resampling in 2023 to validate
D-21	Multi-layer	Phenol	9-12	H	Peeper	264		ug/L	250	ug/L	
D-21	Multi-layer	Phenol	12-15	CI	Peeper	231		ug/L	250	ug/L	
D-21	Multi-layer	Toluene	3-6	H	Peeper	0.22	U	ug/L	480	ug/L	
D-21	Multi-layer	Toluene	9-12	H	Peeper	594		ug/L	480	ug/L	
D-21	Multi-layer	Toluene	12-15	CI	Peeper	583		ug/L	480	ug/L	
D-42	Topsoil	Benzo(a)pyrene (and other PAHs)	3-6	H	Solid Phase	440		ug/kg	146	ug/kg	All 5 locations are wetland topsoil near the mouth of Harbor Brook. Multiple PAHs exceeded the cap habitat layer criteria in the 3 to 6 inch interval at all 5 locations. Concentrations for Benzo(a)pyrene are listed because its criteria exceedance factor was the greatest at 8 samples at all 5 locations. PAH concentrations were typically lower in the deepest habitat layer sample, indicating the exceedances are not a result of chemical migration from underlying sediments. It is suspected that the PAH exceedances in this area are primarily a result of PAHs migrating from portions of Harbor Brook and its tributaries (ditches), as well as reaches upstream of the areas Honeywell was responsible for remediating. However, a more detailed evaluation of this area will be provided in the 2023 Onondaga Lake Annual Monitoring Report.
D-42	Topsoil		11-15	H	Solid Phase	190		ug/kg	146	ug/kg	
D-43	Topsoil		3-6	H	Solid Phase	190		ug/kg	146	ug/kg	
D-43	Topsoil		10-13	H	Solid Phase	100		ug/kg	146	ug/kg	
D-44	Topsoil		3-6	H	Solid Phase	330		ug/kg	146	ug/kg	
D-44	Topsoil		12-15	H	Solid Phase	350		ug/kg	146	ug/kg	
D-45	Topsoil		3-6	H	Solid Phase	1200		ug/kg	146	ug/kg	
D-45	Topsoil		7-10	H	Solid Phase	690		ug/kg	146	ug/kg	
D-46	Topsoil		3-6	H	Solid Phase	570		ug/kg	146	ug/kg	
D-46	Topsoil		20-23	H	Solid Phase	95		ug/kg	146	ug/kg	

Note: The listed results for peeper porewater incorporate a correction factor of 1.1, consistent with the PDI and remedial design

H - Habitat

CI - Chemical Isolation

U - Undetected at the listed detection limit

Measured concentration exceeds cap habitat layer criteria within the habitat layer

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TABLE 6.5 MONO-LAYER CAPS (MPCs) CHEMICAL MONITORING RESULTS

Parameter Name	Units	Cap Criteria	# Samples/ # Detects	# Exceedances	Mean[1]
PAHS					
ACENAPHTHENE	ug/kg	861	19/0	0	0
ACENAPHTHYLENE	ug/kg	1301	19/0	0	0
ANTHRACENE	ug/kg	207	19/0	0	0
BENZO(A)ANTHRACENE	ug/kg	192	4/0	0	0
BENZO(A)PYRENE	ug/kg	146	4/1	0	1.5
BENZO(B)FLUORANTHENE	ug/kg	908	4/1	0	1.8
BENZO(G,H,I)PERYLENE	ug/kg	780	4/1	0	1.1
BENZO(K)FLUORANTHENE	ug/kg	203	4/0	0	0
CHRYSENE	ug/kg	253	4/1	0	1.1
DIBENZO(A,H)ANTHRACENE	ug/kg	157	4/0	0	0
FLUORANTHENE	ug/kg	1436	4/1	0	2.3
FLUORENE	ug/kg	264	19/0	0	0
INDENO(1,2,3-CD)PYRENE	ug/kg	183	4/1	0	1.2
NAPHTHALENE	ug/kg	917	23/2	0	0.62
PHENANTHRENE	ug/kg	543	19/0	0	0
PYRENE	ug/kg	344	4/1	0	1.9
VOCS					
BENZENE	ug/L	760	19/2	0	0.14
TOLUENE	ug/L	480	19/7	0	0.42
ETHYLBENZENE	ug/kg	176	19/0	0	0
XYLENES, TOTAL	ug/kg	560.8	19/1	0	0.010
CHLOROBENZENE	ug/kg	428	19/1	0	0.0028
DICHLOROBENZENES	ug/kg	239	19/0	0	0
TRICHLOROBENZENES	ug/kg	347	19/0	0	0
Other					
MERCURY	mg/kg	2.2	17/12	0	0.038
PCBS, N.O.S.	ug/kg	295	4/0	0	0
PHENOL	ug/L	250	19/15	0	24

Notes:

[1]Non detects set to zero

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TABLE 6.6 MONO-LAYER CAPS (MERCs) CHEMICAL MONITORING RESULTS

Parameter Name	Units	Cap Criteria	# Samples/ # Detects	# Exceedances	Mean[1]
PAHS					
ACENAPHTHENE	ug/kg	861	3/2	0	92
ACENAPHTHYLENE	ug/kg	1301	3/1	0	0.79
ANTHRACENE	ug/kg	207	3/1	0	4.6
FLUORENE	ug/kg	264	3/1	0	13
NAPHTHALENE	ug/kg	917	3/2	0	23
PHENANTHRENE	ug/kg	543	3/1	0	19
VOCS					
BENZENE	ug/L	760	3/1	0	0.27
TOLUENE	ug/L	480	3/1	0	1.7
ETHYLBENZENE	ug/kg	176	3/1	0	0.94
XYLENES, TOTAL	ug/kg	560.8	3/1	0	0.85
CHLOROBENZENE	ug/kg	428	3/2	0	0.048
DICHLOROBENZENES	ug/kg	239	3/1	0	0.038
TRICHLOROBENZENES	ug/kg	347	3/0	0	0
Other					
MERCURY	mg/kg	2.2	3/3	0	0.64
PHENOL	ug/L	250	3/3	0	39

Notes:

[1]Non detects set to zero

TABLE 6.7 TOPSOIL STOCKPILE VERSUS CAP CHEMICAL CONCENTRATIONS

Parameter Name	Report Units	PEC	NYSDEC Soil Criteria[1]	NY Rural BG[2]	Topsoil Stockpile				Cap Topsoil[3]			
					No. of Samples	No. of Detects	Max Detection	Mean (NDs =0)	No. of Samples	No. of Detects	Max Detection	Mean (NDs =0)
PAHs												
ACENAPHTHENE	ug/kg	861	20,000	100	53	22	22.0	1.8	50	6	18	0.84
ACENAPHTHYLENE	ug/kg	1,301	100,000	120	53	33	170.0	10	50	10	10	1.1
ANTHRACENE	ug/kg	207	100,000	180	53	45	160	11	50	8	19	1.7
BENZO(A)ANTHRACENE	ug/kg	192	1,000	1,200	53	48	600	40	40	36	87	16
BENZO(A)PYRENE	ug/kg	146	1,000	1,100	53	47	600	42	40	40	140	24
BENZO(B)FLUORANTHENE	ug/kg	908	1,000	1,200	53	49	730	54	40	40	140	27
BENZO(G,H,I)PERYLENE	ug/kg	780	100,000	550	53	46	390	32	40	38	57	14
BENZO(K)FLUORANTHENE	ug/kg	203	800	740	53	47	320	21	40	23	56	8.0
CHRYSENE	ug/kg	253	1,000	850	53	49	640	46	40	38	99	18
DIBENZO(A,H)ANTHRACENE	ug/kg	157	330	47	53	12	120	7.2	40	12	18	2.4
FLUORANTHENE	ug/kg	1,436	100,000	2,000	53	52	1100	82	40	39	150	35
FLUORENE	ug/kg	264	30,000	130	53	17	39	2.8	50	8	10	0.83
INDENO(1,2,3-CD)PYRENE	ug/kg	183	500	620	53	46	370	29	40	36	69	15
NAPHTHALENE	ug/kg	917	12,000	24	53	15	21.0	2.2	50	7	19	1.2
PHENANTHRENE	ug/kg	543	100,000	1,100	53	51	390	37	50	39	99	16
PYRENE	ug/kg	344	10,000	2,800	53	51	940	68	40	40	120	29
VOCs												
Benzene	ug/kg	NA	60	<0.92	53	ND	ND	0	50	11	1.6	0.12
Toluene	ug/kg	NA	700	<1.2	53	2	17.0	0.44	50	17	35	1.8
Ethylbenzene	ug/kg	176	1,000	<1.1	53	ND	ND	0	50	6	10	0.48
Xylenes	ug/kg	561	260	3	53	ND	ND	0	50	ND	ND	0
Chlorobenzene	ug/kg	428	1,100	<1.6	53	ND	ND	0	50	2	0.29	0.010
Dichlorobenzenes	ug/kg	239	1,100	<1.9	53	ND	ND	0	50	5	0.78	0.052
Trichlorobenzenes	ug/kg	347	NS	<1.9	4	ND	ND	0	50	ND	ND	0
Other												
Mercury	ug/kg	2200	180	280	53	53	140.0	64	50	40	211	52
PCBs	ug/kg	295	100	NR	53	21	16.0	1.3	40	1	31	0.78
Phenol	ug/kg	NA	330	100	53	6	19	1.2	50	3	20	0.82

Exceeds PEC

[1]Unrestricted Criteria, which were the cap material acceptance criteria per the design

[2]Based on 98th percentile (New York State Brownfield Cleanup Program Development of Soil Cleanup Objectives Technical Support Document, 9/2006)

[3] Excludes results from locations D-42, D-43, D-44, D-45 and D-46, which have been impacted by background impacts from upstream Harbor Brook sediments – see Table 6.4

NR - Not reported

NA - Criteria is porewater-based NYSDEC sediment screening criteria

NS - No standard

ND - Not detected

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TABLE 6.8A RA-A, NINEMILE SPITS AND WB 1-8 WETLANDS TOPSOIL HABITAT LAYER CHEMICAL MONITORING RESULTS

			Cap Model Area A1			Cap Model Area A2[1]			Cap Model Area WB 1-8			Cap Model Area NM Spits				
Parameter Name	Units	Cap Criteria	# Samples/ # Detects	# Exceedances	Mean[2]	# Samples/ # Detects	# Exceedances	Mean[2]	# Samples/ # Detects	# Exceedances	Mean[2]	Cap Criteria	Units	# Samples/ # Detects	# Exceedances[3]	Mean[2]
PAHS																
ACENAPHTHENE	ug/kg	861	16/0	0	0	14/1	0	1.3	6/4	0	3.3	--	ug/kg	4/1	NA	4.5
ACENAPHTHYLENE	ug/kg	1,301	16/1	0	0.14	14/2	0	0.87	6/5	0	5.5	--	ug/kg	4/2	NA	3.1
ANTHRACENE	ug/kg	207	16/0	0	0	14/2	0	2.0	6/5	0	8.8	--	ug/kg	4/2	NA	7.1
BENZO(A)ANTHRACENE	ug/kg	192	8/7	0	10	14/13	0	16	6/5	0	29	--	ug/kg	4/3	NA	35
BENZO(A)PYRENE	ug/kg	146	8/8	0	14	14/14	0	24	6/6	0	45	--	ug/kg	4/4	NA	57
BENZO(B)FLUORANTHENE	ug/kg	908	8/8	0	17	14/14	0	27	6/6	0	51	--	ug/kg	4/4	NA	60
BENZO(G,H,I)PERYLENE	ug/kg	780	8/8	0	9.9	14/14	0	12	6/5	0	28	--	ug/kg	4/4	NA	27
BENZO(K)FLUORANTHENE	ug/kg	203	8/4	0	5.1	14/6	0	7.6	6/5	0	19	--	ug/kg	4/3	NA	23
CHRYSENE	ug/kg	253	8/8	0	12	14/14	0	19	6/5	0	34	--	ug/kg	4/4	NA	43
DIBENZO(A,H)ANTHRACENE	ug/kg	157	8/3	0	2.2	14/3	0	2.1	6/5	0	7.7	--	ug/kg	4/3	NA	7.5
FLUORANTHENE	ug/kg	1,436	8/8	0	20	14/14	0	36	6/5	0	62	--	ug/kg	4/4	NA	79
FLUORENE	ug/kg	264	16/0	0	0	14/3	0	1.3	6/4	0	3.6	--	ug/kg	4/3	NA	4.4
INDENO(1,2,3-CD)PYRENE	ug/kg	183	8/8	0	9.8	14/13	0	13	6/5	0	30	--	ug/kg	4/4	NA	32
NAPHTHALENE	ug/kg	917	16/0	0	0	14/1	0	0.71	6/5	0	8.0	--	ug/kg	4/1	NA	2.5
PHENANTHRENE	ug/kg	543	16/8	0	4.3	14/14	0	21	6/5	0	40	--	ug/kg	4/4	NA	47
PYRENE	ug/kg	344	8/8	0	17	14/14	0	28	6/6	0	57	--	ug/kg	4/4	NA	62
TOTAL PAHS	mg/kg		22/8	0	0.046	14/14	0	0.21	6/6	0	0.43	4	mg/kg	4/4	0	0.49
VOCS																
BENZENE	ug/L	760	16/8	0	0.47	14/1	0	0.015	6/0	0	0	--	ug/L	4/0	NA	0
TOLUENE	ug/L	480	16/9	0	0.74	14/5	0	0.61	6/1	0	1.7	--	ug/L	4/3	NA	1.1
ETHYLBENZENE	ug/kg	176	16/0	0	0	14/6	0	1.7	6/0	0	0	--	ug/kg	4/1	NA	0.35
XYLENES, TOTAL	ug/kg	560.8	16/0	0	0	14/0	0	0	6/0	0	0	--	ug/kg	4/0	NA	0
CHLOROBENZENE	ug/kg	428	16/0	0	0	14/1	0	0.021	6/0	0	0	--	ug/kg	4/1	NA	0.073
DICHLOROBENZENES	ug/kg	239	16/1	0	0.049	14/3	0	0.086	6/0	0	0	--	ug/kg	4/1	NA	0.085
TRICHLOROBENZENES	ug/kg	347	16/0	0	0	14/0	0	0	6/0	0	0	--	ug/kg	4/0	NA	0
Other																
MERCURY	mg/kg	2.2	16/8	0	0.046	14/14	0	0.057	6/6	0	0.057	0.15	mg/kg	4/4	0	0.061
PCBS, N.O.S.	ug/kg	295	8/0	0	0	14/0	0	0	6/0	0	0	19.3	µg/g OC	4/0	0	0
PHENOL	ug/L	250	16/1	0	0.17	14/2	0	0.36	6/0	0	0	25	µg/g OC	4/0	0	0

Notes:

Compound that dictated the GAC application rate during the design (not applicable for A-1, no GAC required)

[1]Includes results from model area RA-A40197

[2]Non detects set to zero

[3]Not applicable

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TABLE 6.8B OUTBOARD AREA TOPSOIL HABITAT LAYER CHEMICAL MONITORING RESULTS

Model Area			Cap Model Area OB West			Cap Model Area OB Center			Cap Model Area OB East		
Parameter Name	Units	Cap Criteria	# Samples/ # Detects	# Exceedances	Mean[1]	# Samples/ # Detects	# Exceedances	Mean[1]	# Samples/ # Detects	# Exceedances	Mean[1]
PAHS											
ACENAPHTHENE	ug/kg	861	6/0	0	0	6/1	0	0.70	10/10	0	18
ACENAPHTHYLENE	ug/kg	1301	6/0	0	0	6/2	0	1.2	10/10	0	28
ANTHRACENE	ug/kg	207	6/0	0	0	6/1	0	0.83	10/10	0	65
BENZO(A)ANTHRACENE	ug/kg	192	6/5	0	12	6/6	0	13	10/10	6	277
BENZO(A)PYRENE	ug/kg	146	6/6	0	23	6/6	0	17	10/10	8	416
BENZO(B)FLUORANTHENE	ug/kg	908	6/6	0	26	6/6	0	20	10/10	1	481
BENZO(G,H,I)PERYLENE	ug/kg	780	6/5	0	12	6/6	0	13	10/10	0	244
BENZO(K)FLUORANTHENE	ug/kg	203	6/3	0	3.0	6/5	0	6.5	10/10	3	163
CHRYSENE	ug/kg	253	6/5	0	12	6/6	0	14	10/10	6	376
DIBENZO(A,H)ANTHRACENE	ug/kg	157	6/0	0	0	6/1	0	0.65	10/10	1	65
FLUORANTHENE	ug/kg	1436	6/6	0	35	6/6	0	26.5	10/10	1	702
FLUORENE	ug/kg	264	6/0	0	0	6/1	0	0.38	10/10	0	24
INDENO(1,2,3-CD)PYRENE	ug/kg	183	6/5	0	12	6/5	0	11	10/10	6	280
NAPHTHALENE	ug/kg	917	6/0	0	0	6/1	0	0.5	10/6	0	8.7
PHENANTHRENE	ug/kg	543	6/6	0	19	6/6	0	15	10/10	2	285
PYRENE	ug/kg	344	6/6	0	29	6/6	0	21	10/10	6	562
VOCS											
BENZENE	ug/L	760	6/0	0	0	6/0	0	0	10/3	0	0.074
TOLUENE	ug/L	480	6/0	0	0	6/0	0	0	10/0	0	0
ETHYLBENZENE	ug/kg	176	6/0	0	0	6/0	0	0	10/0	0	0
XYLENES, TOTAL	ug/kg	560.8	6/0	0	0	6/0	0	0	10/0	0	0
CHLOROBENZENE	ug/kg	428	6/1	0	0.038	6/0	0	0	10/2	0	0.14
DICHLOROBENZENES	ug/kg	239	6/1	0	0.10	6/0	0	0	10/2	0	0.12
TRICHLOROBENZENES	ug/kg	347	6/0	0	0	6/0	0	0	10/0	0	0
Other											
MERCURY	mg/kg	2.2	6/6	0	0.053	6/6	0	0.065	10/10	0	0.070
PCBS, N.O.S.	ug/kg	295	6/0	0	0	6/1	0	5.2	10/0	0	0
PHENOL	ug/L	250	6/0	0	0	6/0	0	0	10/0	0	0

Notes:

Compound that dictated the GAC application rate during the design

[1] Non detects set to zero

TABLE 6.9 SUMMARY OF MEASURE TOC VALUES WITHIN THE LITTORAL ZONE (NON-TOPSOIL SAMPLES)

Remediation Area	Bioturbation Zone Average % TOC	Below Bioturbation Zone Average % TOC	Zone/Locations	Bioturbation Zone Average % TOC	Below Bioturbation Zone Average % TOC
RAA	0.26 (7)	0.083 (7)	0-6 m Zone	0.40 (3)	0.063 (3)
			OL-RAA-CAP-0005-H		
			OL-RAA-CAP-0006-H		
			OL-RAA-CAP-0007-H		
			6-9 m Zone	0.15 (4)	0.097 (4)
			OL-RAA-CAP-0001-H		
			OL-RAA-CAP-0002-H		
			OL-RAA-CAP-0003-H		
			OL-RAA-CAP-0004-H		
RAB	0.12 (6)	0.068 (5)	0-6 m Zone	0.15 (1)	0.087 (1)
			OL-RAB-CAP-0014-H		
			6-9 m Zone	0.12 (5)	0.063 (4)
			OL-RAB-CAP-0001-H		
			OL-RAB-CAP-0002-H		
			OL-RAB-CAP-0003-H		
			OL-RAB-CAP-0004-H[1]		
			OL-RAB-CAP-0015-H		
RAC	0.12 (10)	0.18 (10)	0-6 m Zone	0.092 (3)	0.21 (3)
			OL-RAC-CAP-0002-H		
			OL-RAC-CAP-0005-H		
			OL-RAC-CAP-0021-H		
			6-9 m Zone	0.13 (7)	0.16 (7)
			OL-RAC-CAP-0003-H		
			OL-RAC-CAP-0004-H		
			OL-RAC-CAP-0009-H		
			OL-RAC-CAP-0016-H		
			OL-RAC-CAP-0017-H		
			OL-RAC-CAP-0020-H		
			OL-RAC-CAP-0023-H		
RAD	0.25 (28)	0.19 (26)	0-6 m Zone	0.26 (14)	0.17 (12)
			OL-RAD-CAP-0012-H		
			OL-RAD-CAP-0013-H		
			OL-RAD-CAP-0015-H		
			OL-RAD-CAP-0016-H		
			OL-RAD-CAP-0019-H[1]		
			OL-RAD-CAP-0020-H		
			OL-RAD-CAP-0026-H		
			OL-RAD-CAP-0028-H		
			OL-RAD-CAP-0031-H		
			OL-RAD-CAP-0032-H		
			OL-RAD-CAP-0033-H		
			OL-RAD-CAP-0038-H		
			OL-RAD-CAP-0040-H		
			6-9 m Zone	0.25 (14)	0.20 (14)
			OL-RAD-CAP-0001-H		
			OL-RAD-CAP-0002-H		
			OL-RAD-CAP-0003-H		
			OL-RAD-CAP-0004-H		
			OL-RAD-CAP-0006-H		
			OL-RAD-CAP-0007-H		
			OL-RAD-CAP-0008-H		
			OL-RAD-CAP-0009-H		
			OL-RAD-CAP-0010-H		
			OL-RAD-CAP-0014-H		
			OL-RAD-CAP-0021-H		
			OL-RAD-CAP-0025-H		
			OL-RAD-CAP-0057-H		

TABLE 6.9 SUMMARY OF MEASURE TOC VALUES WITHIN THE LITTORAL ZONE (NON-TOPSOIL SAMPLES) (CONTINUED)

Remediation Area	Bioturbation Zone Average % TOC	Below Bioturbation Zone Average % TOC	Zone/Locations	Bioturbation Zone Average % TOC	Below Bioturbation Zone Average % TOC
RAE	0.097 (9)	0.16 (9)	0-6 m Zone		
			6-9 m Zone	0.097 (9)	0.16 (9)
			OL-RAE-CAP-0017-H		
			OL-RAE-CAP-0018-H		
			OL-RAE-CAP-0021-H		
			OL-RAE-CAP-0025-H		
			OL-RAE-CAP-0027-H		
			OL-RAE-CAP-0030-H		
			OL-RAE-CAP-0031-H		
			OL-RAE-CAP-0033-H		
RAF	0.25 (2)	0.28 (2)	0-6 m Zone	0.25 (2)	0.28 (2)
			OL-RAF-CAP-0001-H		
			OL-RAF-CAP-0002-H		

Notes:

[1]Bioturbation zone sample only at this location

Sample count in parenthesis

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TABLE 6.10 SUMMARY OF pH IN MODEL AREAS WHERE SIDERITE WAS PLACED

Model Area	Isolation Layer			Habitat Layer[1]		
	# Samples	# Samples With pH > 8	Mean	# Samples	# Samples With pH > 8	Mean
A2[2]	3	1	7.9	18	2	7.3
B1/C1	9	6	8.3	11	6	8.3
B2	4	4	8.8	7	5	8.2
WB 1-8	--	--	--	6	0	7.2
C2	5	2	8.1	16	12	8.2
C3	6	3	8.0	13	10	8.2
D-SMU-2	4	1	7.8	8	5	8.3
D-West	6	4	8.1	11	10	8.4
D-Center[3]	12	4	8.1	19	14	8.4
D-East	11	9	8.9	20	16	8.5
Outboard Center	--	--	--	6	0	7.2
Outboard West	--	--	--	6	0	7.0

[1]pH measurements from both Mono-layer and Multi-layer caps

[2]Includes results from model area RA-A-40197

[3]Includes results from model area OL-VC-10138/40

-- pH was not measured in the isolation layer of the topsoil areas

TABLE 6.11 SMU 8 THIN-LAYER CAP AND GAC DIRECT APPLICATION AREAS RESULTS

Location ID	0 to 4 cm			4 to 10 cm		
	Mean PECQ	Mercury Conc. (mg/Kg)		Mean PECQ	Mercury Conc. (mg/Kg)	
OL-SMU8-CAP-0001-C	0	0.014	U	0.0374	0.051	
OL-SMU8-CAP-0002-C	0.0404	0.029		0.0243	0.034	
OL-SMU8-CAP-0003-C	0.0380	0.088	J	0	0.013	U
OL-SMU8-CAP-0004-C	0.0676	0.193	J	NA	NA	
OL-SMU8-CAP-0005-C	0.0534	0.182		NA	NA	
OL-SMU8-CAP-0006-C	0.0319	0.06		NA	NA	
OL-SMU8-CAP-0007-C	0.0485	0.093		NA	NA	
OL-SMU8-CAP-0008-D	0.0859	0.215	J	NA	NA	
OL-SMU8-CAP-0009-D	0.1015	0.152	J	NA	NA	
OL-SMU8-CAP-0010-D	0.0479	0.128	J	NA	NA	
OL-SMU8-CAP-0011-D	0.0339	0.04		NA	NA	
OL-SMU8-CAP-0012-D	0.0481	0.063		NA	NA	
OL-SMU8-CAP-0013-D	0.0293	0.069		NA	NA	
OL-SMU8-CAP-0014-D	0.0394	0.107	J	0.0107	0.033	
OL-SMU8-CAP-0015-D	0.0221	0.025		NA	NA	
OL-SMU8-CAP-0016-D	0.0149	0.033	J	NA	NA	
OL-SMU8-CAP-0017-D	0.0581	0.153	J	0.0345	0.092	
OL-SMU8-CAP-0018-D	0.0598	0.035		0.0096	0.015	U
OL-SMU8-CAP-0019-D	0.0809	0.274	J	0.0821	0.417	
OL-SMU8-CAP-0020-D	0.1621	0.742		0.1555	0.648	
OL-SMU8-CAP-0021-E	0.1123	0.134	J	0.0829	0.062	
OL-SMU8-CAP-0022-E	0.1148	0.178	J	0.0948	0.211	
OL-SMU8-CAP-0023-E	0.1085	0.179	J	0.0940	0.193	
OL-SMU8-CAP-0024-E	0.0556	0.192	J	0.0621	0.141	
OL-SMU8-CAP-0024-E Duplicate	NA	NA		0.0615	0.234	
OL-SMU8-CAP-0025-E	0.0565	0.153	J	0.0970	0.187	

NA - Not analyzed

J - Estimated value

U - Undetected at the specified detection limit

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TABLE 7.1 MERCURY RESULTS FOR 2022 IN-LAKE SURFACE WATER SAMPLING

Period	Location ID	Sample Date	Sample Depth (ft)	Units	Dissolved Mercury[1,2]		Mercury		Methyl Mercury	
Pre-Turnover 1	North Deep	08/02/2022	6.6	ng/L	0.50	U	0.52		0.026	U
	South Deep	08/02/2022	6.6	ng/L	0.50	U	0.44	J	0.053	J
	OL-RAA-SW-01	08/02/2022	1.7	ng/L	0.50	U	3.3		0.11	
	OL-RAB-SW-01	08/02/2022	1.7	ng/L	0.50	U	0.61		0.026	U
	OL-RAB-SW-02	08/02/2022	2.5	ng/L	0.59	U	0.77		0.10	
	OL-RAC-SW-01	08/02/2022	9.9	ng/L	0.50	U	1.0		0.026	U
	OL-RAC-SW-02	08/02/2022	1.7	ng/L	0.50	U	0.72		0.026	U
	OL-RAD-SW-01	08/02/2022	5.0	ng/L	0.50	U	0.81		0.026	U
	OL-RAD-SW-02	08/02/2022	2.5	ng/L	0.50	U	0.75		0.059	
	OL-RAE-SW-01	08/02/2022	0.8	ng/L	0.52	U	0.78		0.064	
	OL-RAE-SW-02	08/02/2022	6.6	ng/L	0.50	U	0.82		0.026	U
	OL-RAE-SW-03	08/02/2022	1.7	ng/L	0.50	U	0.57		0.068	
Pre-Turnover 2	North Deep	10/20/2022	6.6	ng/L	0.16	J	0.62		0.048	J
	South Deep	10/20/2022	6.6	ng/L	0.24	J	0.70		0.038	J
	OL-RAA-SW-01	10/20/2022	0.8	ng/L	0.15	J	0.54		0.071	
	OL-RAB-SW-01	10/20/2022	1.7	ng/L	0.22	J	0.66		0.037	J
	OL-RAB-SW-02	10/20/2022	1.7	ng/L	0.16	J	0.61		0.040	J
	OL-RAC-SW-01	10/20/2022	9.9	ng/L	0.22	J	3.4		0.070	
	OL-RAC-SW-02	10/20/2022	2.5	ng/L	0.22	J	0.65		0.042	J
	OL-RAD-SW-01	10/20/2022	5.0	ng/L	0.53		0.73		0.031	J
	OL-RAD-SW-02	10/20/2022	3.3	ng/L	0.20	J	0.71		0.026	U
	OL-RAE-SW-01	10/20/2022	0.8	ng/L	0.53		1.2		0.039	J
	OL-RAE-SW-02	10/20/2022	7.4	ng/L	0.27	J	0.75		0.057	
	OL-RAE-SW-03	10/20/2022	0.8	ng/L	0.31	J	0.83		0.074	

Notes:

1. Goal for dissolved mercury concentrations for the protection of wildlife is 2.6 ng/L or lower.
2. Goal for dissolved mercury concentrations for human health via fish consumption is 0.7 ng/L or lower.

J: estimated concentration

U: not detected at specified reporting limit

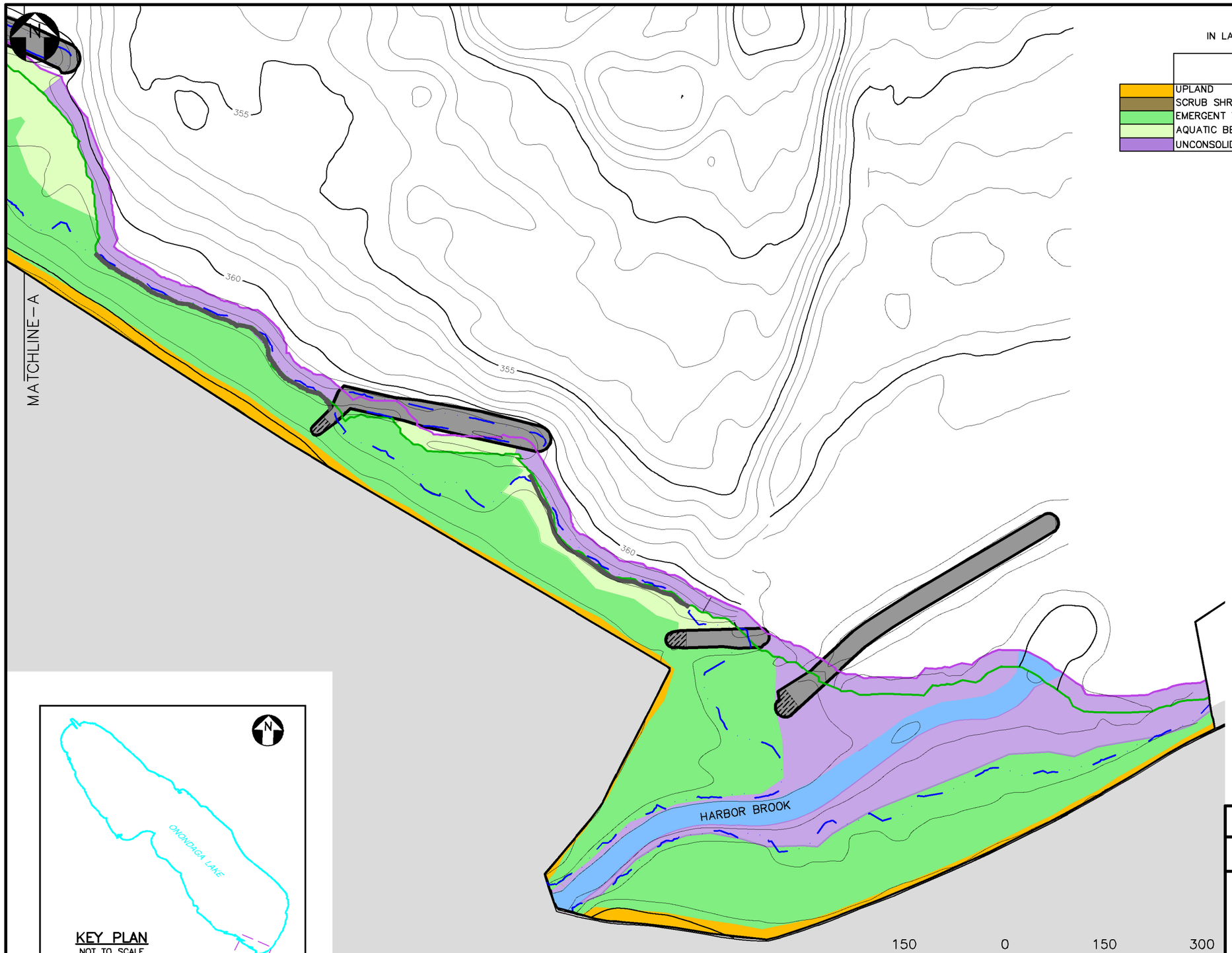
FIGURES

IN LAKE AND WETLAND PLANTED AREAS

COVER TYPE	2022 ACREAGES OUTBOARD	2022 ACREAGES 25' BUFFER
UPLAND	1.54	–
SCRUB SHRUB WETLAND	1.45	–
EMERGENT WETLAND	8.04	0.10
AQUATIC BED/FLOATING AQUATICS	1.52	0.27
UNCONSOLIDATED BED/OPEN WATER	1.90	1.90
TOTAL	14.45	2.27

NOTE:

1. COVER TYPE ACREAGES ARE CALCULATED FOR BOTH EASTERN AND WESTERN WASTEBED B/HARBOR BROOK OUTBOARD AREAS.
2. ACREAGES SHOWN ARE ESTIMATES BASED ON FIELD OBSERVATIONS AND ARE NOT USED FOR MITIGATION ACREAGE ASSESSMENT.



KEY PLAN
NOT TO SCALE

LEGEND:

- LAKE CONTOURS–1' INTERVAL (POST REMEDY CONTOURS SHOWN)
- SHORELINE
- OUTBOARD BOUNDARY
- 25' PLANTED BUFFER LIMIT
- REMEDIATION AREA CAP BOUNDARY
- PROTECTIVE EDGE
- PROTECTIVE BERMS

FIGURE 2.1

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ONONDAGA LAKE
SYRACUSE, NEW YORK

EASTERN WASTEBED B/HARBOR BROOK OUTBOARD AREA COVER TYPES 2022

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL –SYR\450704 2017–2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\VEG COVER\450704_VEG_2022–002.DWG
PLOT DATE: 6/27/2023 12:17 PM PLOTTED BY: RUSSO, JILL [US–US]



LEGEND:

- LAKE CONTOURS–1' INTERVAL (POST REMEDY CONTOURS SHOWN)
- SHORELINE
- OUTBOARD BOUNDARY
- 25' PLANTED BUFFER LIMIT
- REMEDIATION AREA CAP BOUNDARY
- PROTECTIVE EDGE
- PROTECTIVE BERMS

NOTE:

1. COVER TYPE ACREAGES ARE CALCULATED FOR BOTH EASTERN AND WESTERN WASTEBED B/HARBOR BROOK OUTBOARD AREAS.
2. ACREAGES SHOWN ARE ESTIMATES BASED ON FIELD OBSERVATIONS AND ARE NOT USED FOR MITIGATION ACREAGE ASSESSMENT.



KEY PLAN
NOT TO SCALE

IN LAKE AND WETLAND PLANTED AREAS

COVER TYPE	2022 ACREAGES OUTBOARD	25' BUFFER
UPLAND	1.54	–
SCRUB SHRUB WETLAND	1.45	–
EMERGENT WETLAND	8.04	0.10
AQUATIC BED/FLOATING AQUATICS	1.52	0.27
UNCONSOLIDATED BED/OPEN WATER	1.90	1.90
TOTAL	14.45	2.27

150 0 150 300

SCALE: 1"=150'

FIGURE 2.2

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ONONDAGA LAKE
SYRACUSE, NEW YORK

WESTERN WASTEBED B/HARBOR BROOK OUTBOARD AREA COVER TYPES 2022

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\450704 2017-2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\VEG COVER\450704_VEG_2022-002.DWG
PLOT DATE: 6/27/2023 12:38 PM PLOTTED BY: RUSSO, JILL [US-US]

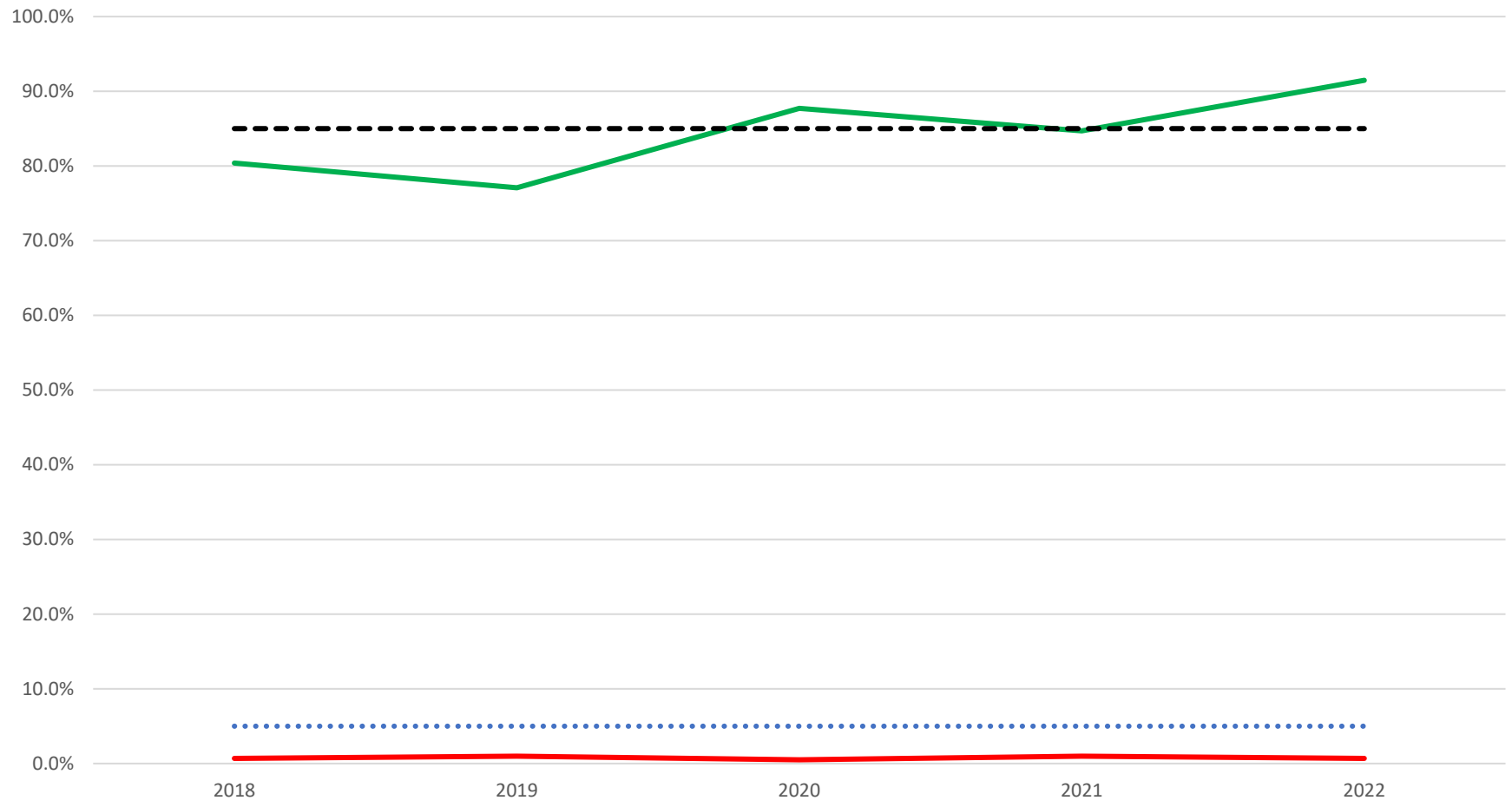


FIGURE 2.3

Honeywell

2022 Annual OM&M Report

Wastebed B/Harbor Brook Outboard Area
Wetland Areas Vegetation Cover (2018-2022)

PARSONS

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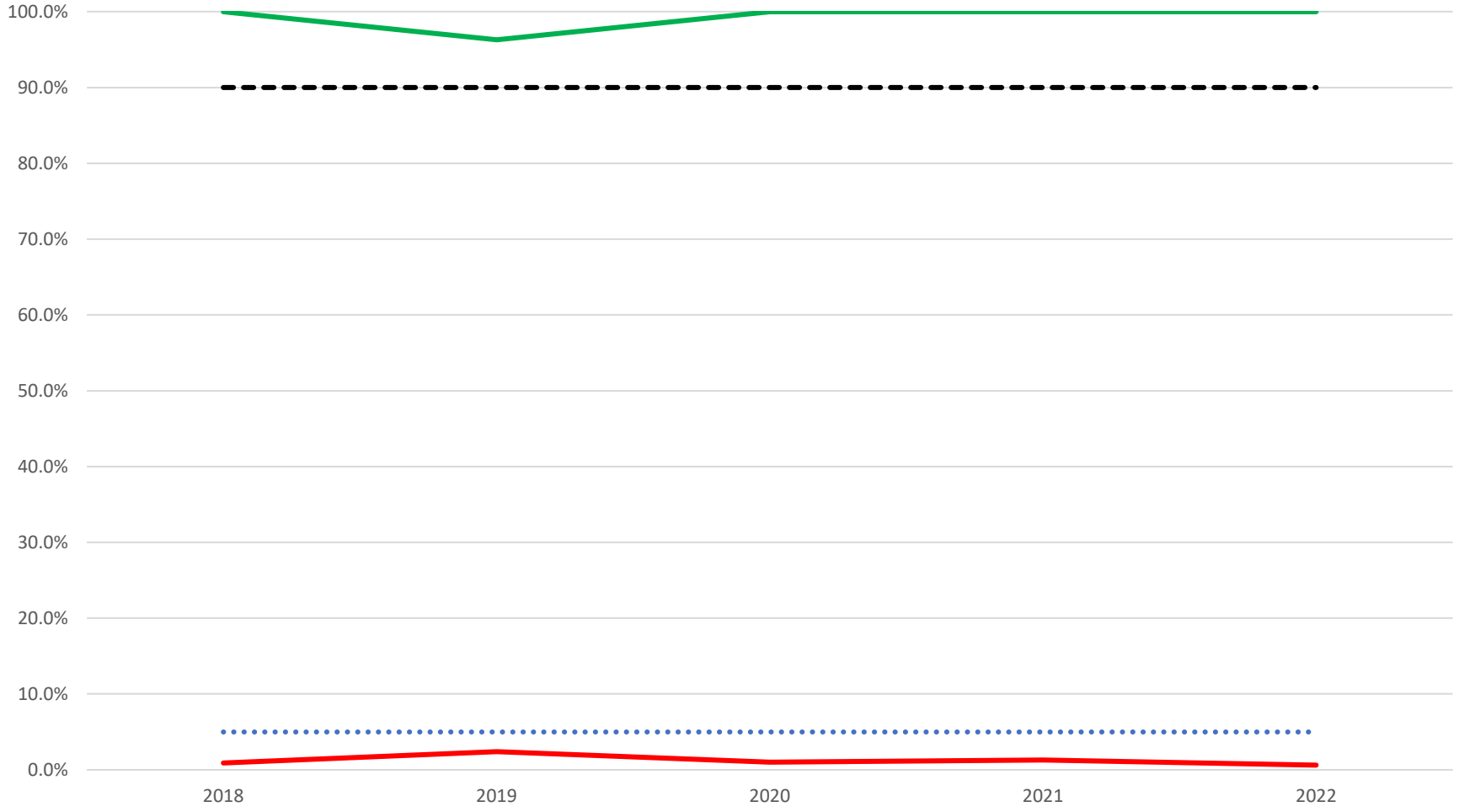


FIGURE 2.4

Honeywell

2022 Annual OM&M Report

Wastebed B/Harbor Brook Outboard Areas
Upland Areas Vegetation Cover (2018-2022)

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 PHONE: (315) 451-9560

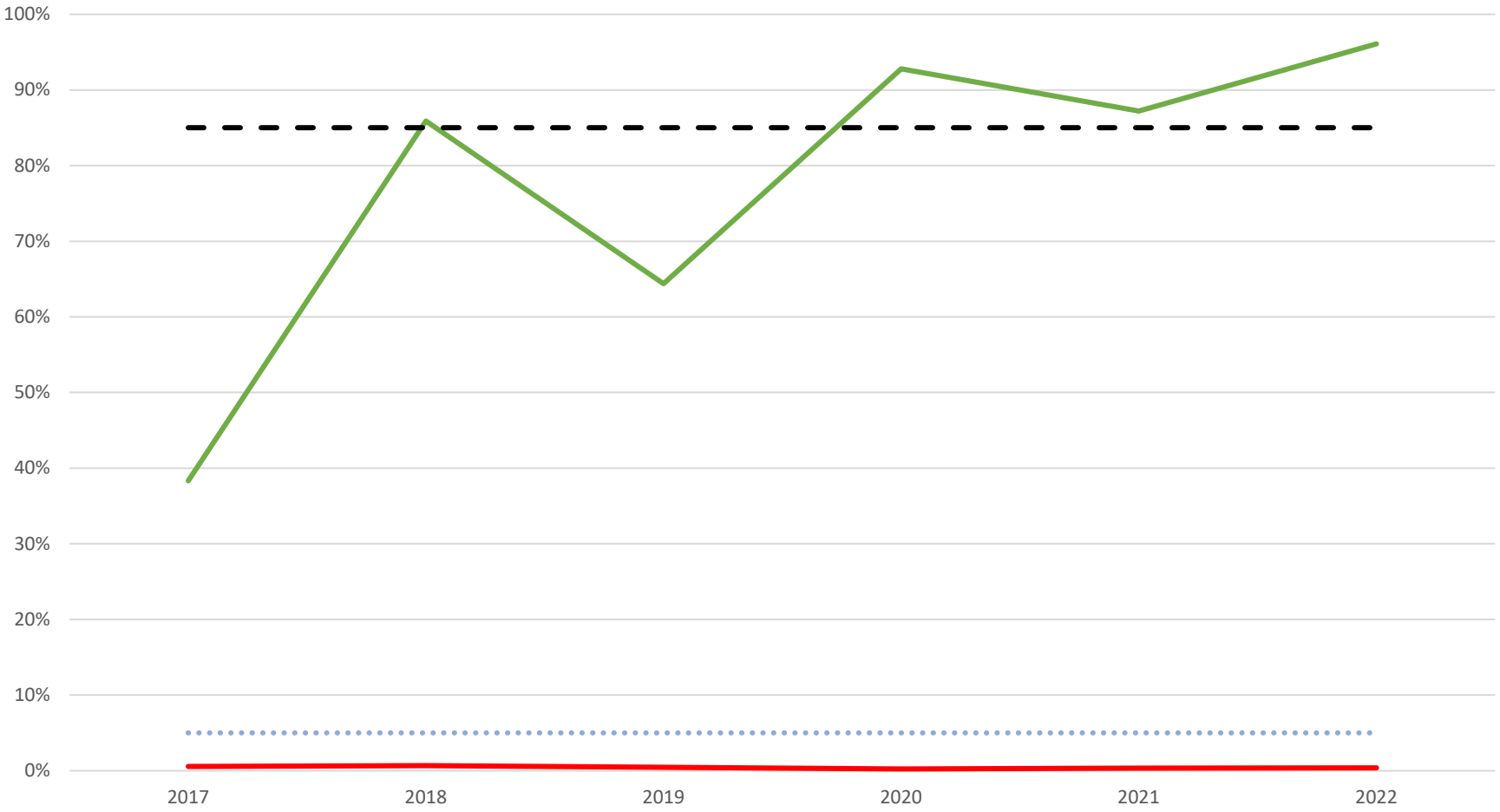


FIGURE 2.5

Honeywell

2022 Annual OM&M Report

Mouth of Ninemile Creek Spits
Vegetation Cover (2017- 2022)

PARSONS

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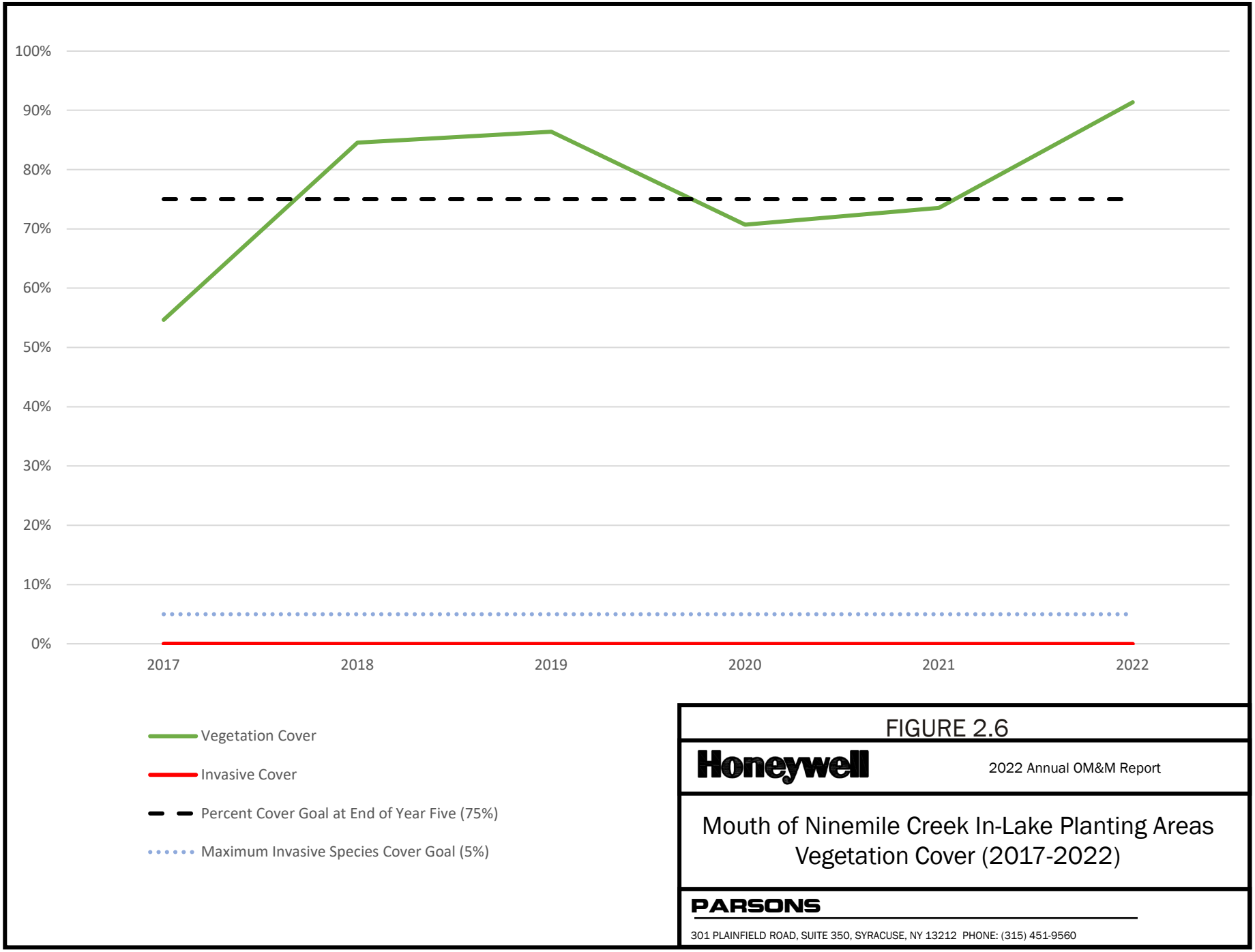


FIGURE 2.6

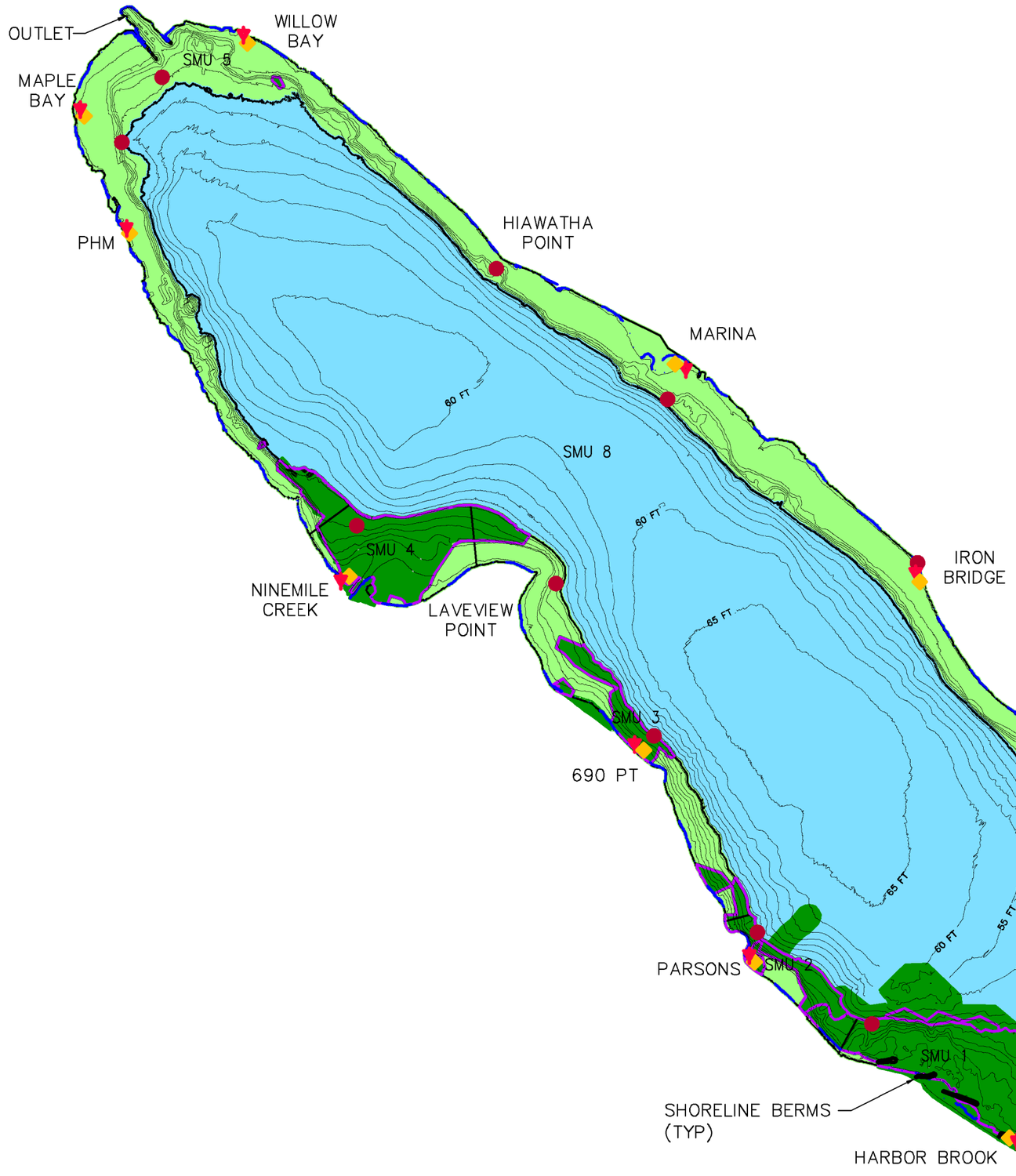
Honeywell

2022 Annual OM&M Report

Mouth of Ninemile Creek In-Lake Planting Areas
Vegetation Cover (2017-2022)

PARSONS

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TRAP NET

GILL NET

SEINE

REMEDIATION AREA BOUNDARY

SMU BOUNDARY

PROFUNDAL ZONE (SMU 8)

LITTORAL ZONE

CAPPED AREAS (INCLUDES ALL ISOLATION, THIN LAYER, AND MODIFIED PROTECTIVE CAPS)

CSX SHORELINE

NOTES:

1. WATER DEPTH CONTOUR INTERVAL IS 5 FT. (POST–REMEDY CONTOURS SHOWN)
2. SEINE SITES CO–LOCATED WITH SMALL PREY FISH TISSUE COLLECTION LOCATIONS (DETAILED IN SECTION 3 OF THIS REPORT).
3. EXACT LOCATIONS WERE ADJUSTED SLIGHTLY IN THE FIELD BASED ON WATER DEPTH AND WITH THE INTENT OF BEING PROTECTIVE OF NEWLY INSTALLED VEGETATION (WHERE APPLICABLE).

2000 1000 0 2000 4000

SCALE: 1"=2000'

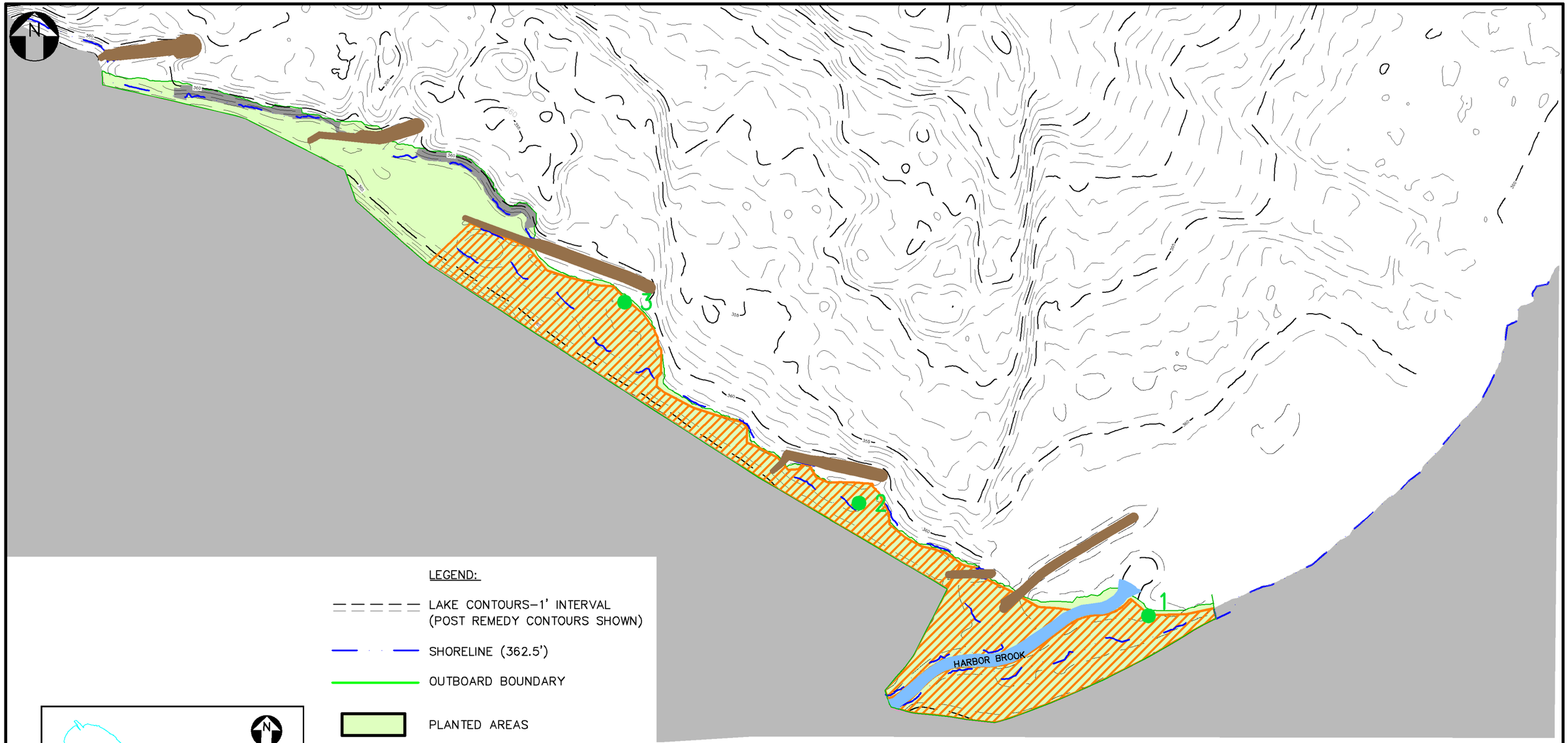
FIGURE 2.7

Honeywell ONONDAGA LAKE SYRACUSE, NEW YORK

2022 FISH COMMUNITY SAMPLING LOCATIONS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315–451–9560

FILE NAME: P:\HONEYWELL –SYR\450704 2017–2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\2022 ANNUAL REPORT\450704–MNR–FISH–2022A.DWG
PLOT DATE: 5/22/2023 10:54 AM PLOTTED BY: RUSSO, JILL [US–US]



LEGEND:

- LAKE CONTOURS–1' INTERVAL (POST REMEDY CONTOURS SHOWN)
- SHORELINE (362.5')
- OUTBOARD BOUNDARY
- PLANTED AREAS
- PROTECTIVE BERMS
- DIPNET, MINNOW, TRAPS, AND VISUAL INSPECTIONS
- TRAPNET LOCATIONS (ADULT SPAWNING)



KEY PLAN
NOT TO SCALE

300 150 0 300 600

SCALE: 1"=300'

FIGURE 2.8

Honeywell ONONDAGA LAKE SYRACUSE, NEW YORK

2022 WETLAND SPAWNING ADULT AND JUVENILE MONITORING LOCATIONS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\450704 2017-2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\2022 ANNUAL REPORT\450704-ANNUALRPT-SPAWN-FIG 2.6-2022.DWG
PLOT DATE: 7/29/2024 3:47 PM PLOTTED BY: RUSSO, JILL [US-US]



LEGEND:

- ZOOPLANKTON SAMPLE LOCATION
- SMALL PREY FISH LOCATIONS
- ADULT SPORT FISH AND LARGE PREY FISH LOCATIONS
- REMEDIATION AREA BOUNDARY
- SMU BOUNDARY
- SMU 8
- LITTORAL ZONE
- CAPPED AREAS (INCLUDES ALL ISOLATION, THIN LAYER, AND MODIFIED PROTECTIVE CAPS)

2000 1000 0 2000 4000

SCALE: 1"=2000'

FIGURE 3.1

Honeywell

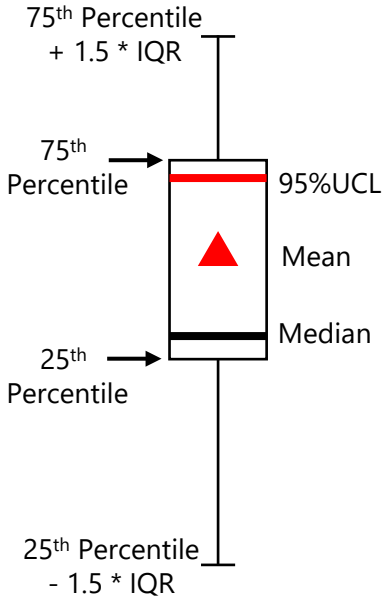
ONONDAGA LAKE
SYRACUSE, NEW YORK

SAMPLING LOCATIONS FOR ZOOPLANKTON AND FISH TISSUE AND CHEMICAL ANALYSIS

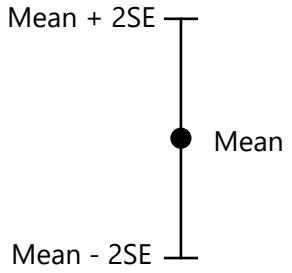
PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\450704 2017-2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\2019 ANNUAL REPORT\450704-2019-ZOO-FISH.DWG
PLOT DATE: 6/18/2021 2:55 PM PLOTTED BY: RUSSO, JILL

Box and Whisker Plot



Mean and Standard Error (SE) Plot



Plot Notes

- 95%UCL: estimate of the upper bound for the true population mean; calculated using ProUCL Version 5.1 for years prior to 2021 and using ProUCL Version 5.2 for 2021 and 2022; not calculated when 3 or fewer results were detects. For data sets with NDs, ProUCL selected the statistical method. The substitution method (i.e., one-half of the MDL or RL) was not used.
- Mean: mean or average concentration; calculated by ProUCL using the same statistical method used for 95%UCL unless 3 or fewer results were detects. In that case, for plots showing the 95%UCL, the arithmetic mean was calculated with non-detects substituted at 1/2 MDL for mercury and 1/2 RL for most organic analytes (substitution method). The arithmetic mean was also calculated using the substitution method for all standard error plots.
- Median: median or midpoint concentration.
- 25th and 75th Percentiles: concentrations below which 25% and 75% of concentrations are found. The lower whisker extends to the minimum or smallest value within Q1 minus 1.5 times the IQR, whichever is higher. The upper whisker extends to the maximum or largest value within Q3 plus 1.5 times the IQR, whichever is lower.
- IQR: Interquartile Range – the range between the 25th and 75th percentiles.
- **Δ** Open symbol indicates 3 or fewer results were detects in box and whisker plots, and ND in standard error plots.
- 2SE: two times the standard error of the mean.
- "^" indicates mean value is above axis range in standard error plots; 2SE values above the axis range are not annotated.
- "ND" indicates all results were non-detects and no statistics are shown.

Analyte-Specific Details

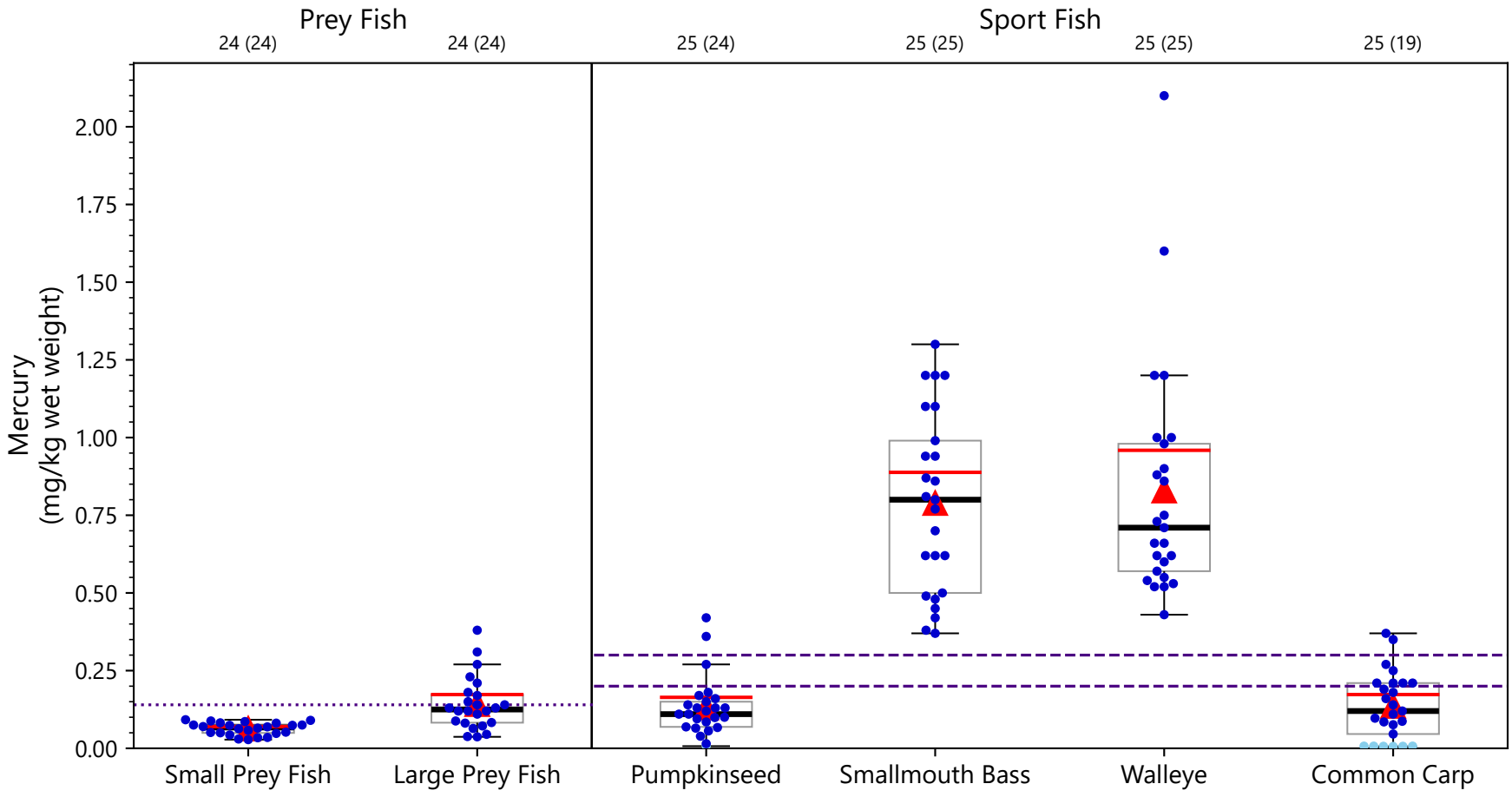
- Total PCB is the sum of detected Aroclors. If all Aroclors are non-detects, 1/2 the maximum RL is used.
- For Dioxin/Furan Total TEQ, non-detects summed at 1/2 MDL, except for 2014 and 2015, which used 1/2 RDL; plots for 2021 and 2022 data show non-detects at 0 and 1/2 MDL. TEQs calculated using the World Health Organization 2005 human and mammalian toxic equivalency factors (TEFs) from Van den Berg et al. 2006).
- 2010 organic analyte data are excluded from temporal plots due to analytical issues.
- 2019 and 2020 data are excluded due to incomplete homogenization.
- Dioxin/furans, DDT and metabolites, and hexachlorobenzene were not analyzed on an annual basis.
- Nitrate addition began in 2011.

Fish Details

- Sport fish for comparison to human health criteria and targets
  - Smallmouth Bass, Walleye, Pumpkinseed, and Common Carp (collection of Common Carp began in 2014)
  - NYSDEC standard fillets
- Small prey fish for comparison to ecological criteria and targets
  - Primarily Banded Killifish but Golden Shiner, Brook Silverside, Minnow, Bluntnose Minnow, and Round Goby were collected if Banded Killifish are unavailable (Alewife excluded).
  - Whole body composite samples
- Large prey fish for comparison to ecological criteria and targets
  - White Sucker and Shorthead Redhorse
  - Collection began in 2014
  - Individual whole-body samples
- All ages and both sexes were combined.
- In 2012, in-lake remediation began in late July; small prey fish were sampled in early August, and remaining species were sampled in mid-June to early-July.

Filepath: \\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Plots\PLOTS_PPT\Figure_3.2_2022Report.pdf.pptx

Figure 3.2
Nomenclature, Data Treatment, and Analyte-Specific Details



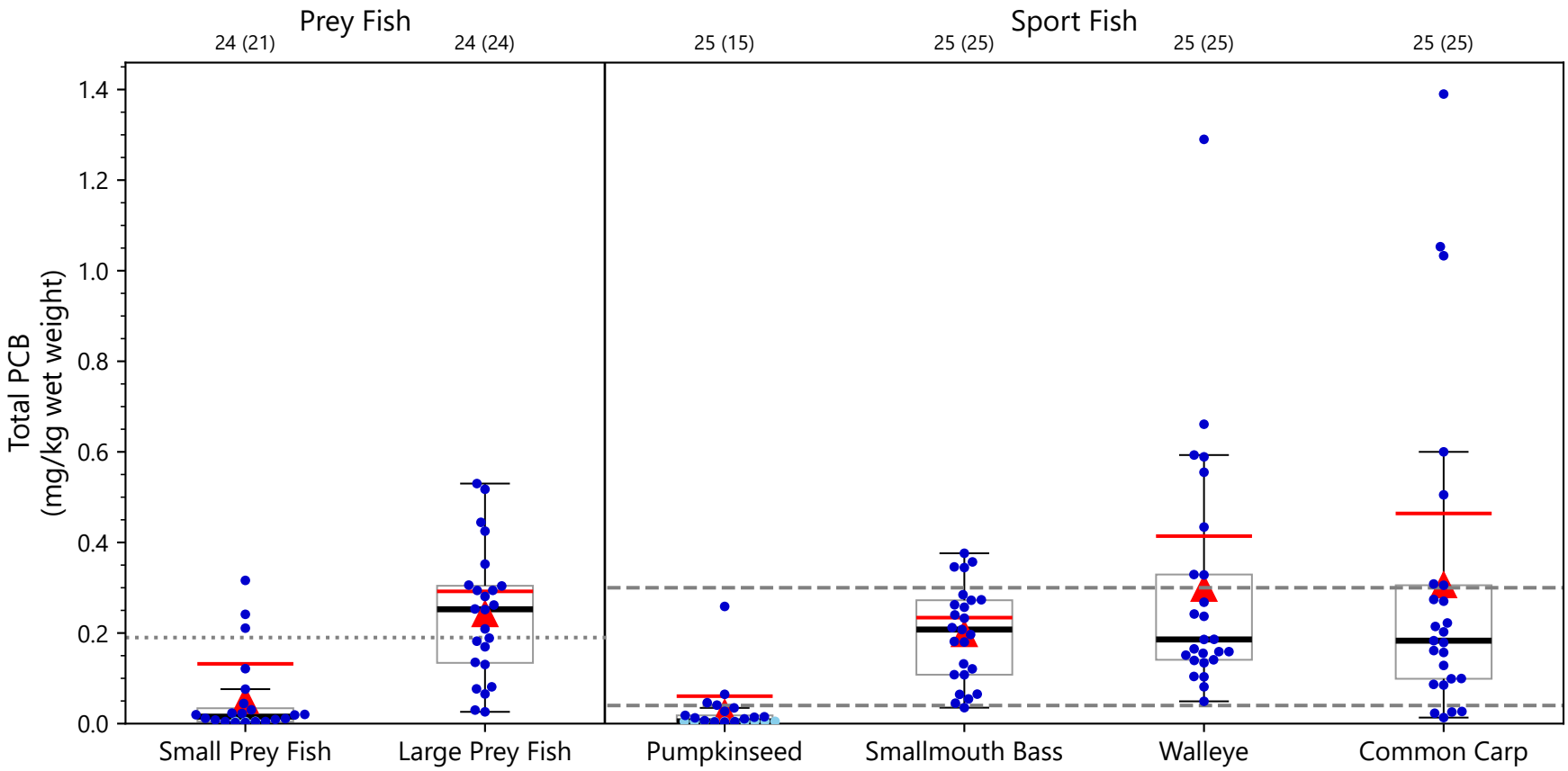
Number of samples provided above the plot with number of detected results in parentheses.
Non-detect results are set to 1/2 MDL.

Ecological Performance Criterion (0.14 mg/kg)
Human Health Performance Criteria (0.2 to 0.3 mg/kg)
Non-detect
Detect

Publish Date: 09/18/2025 11:18 AM | User: AME-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\Species_boxplots_w_AllPoint.py

ANCHOR QEA

Figure 3.3
Box and Whisker Plots of Mercury Concentrations in Onondaga Lake Fish (2022)



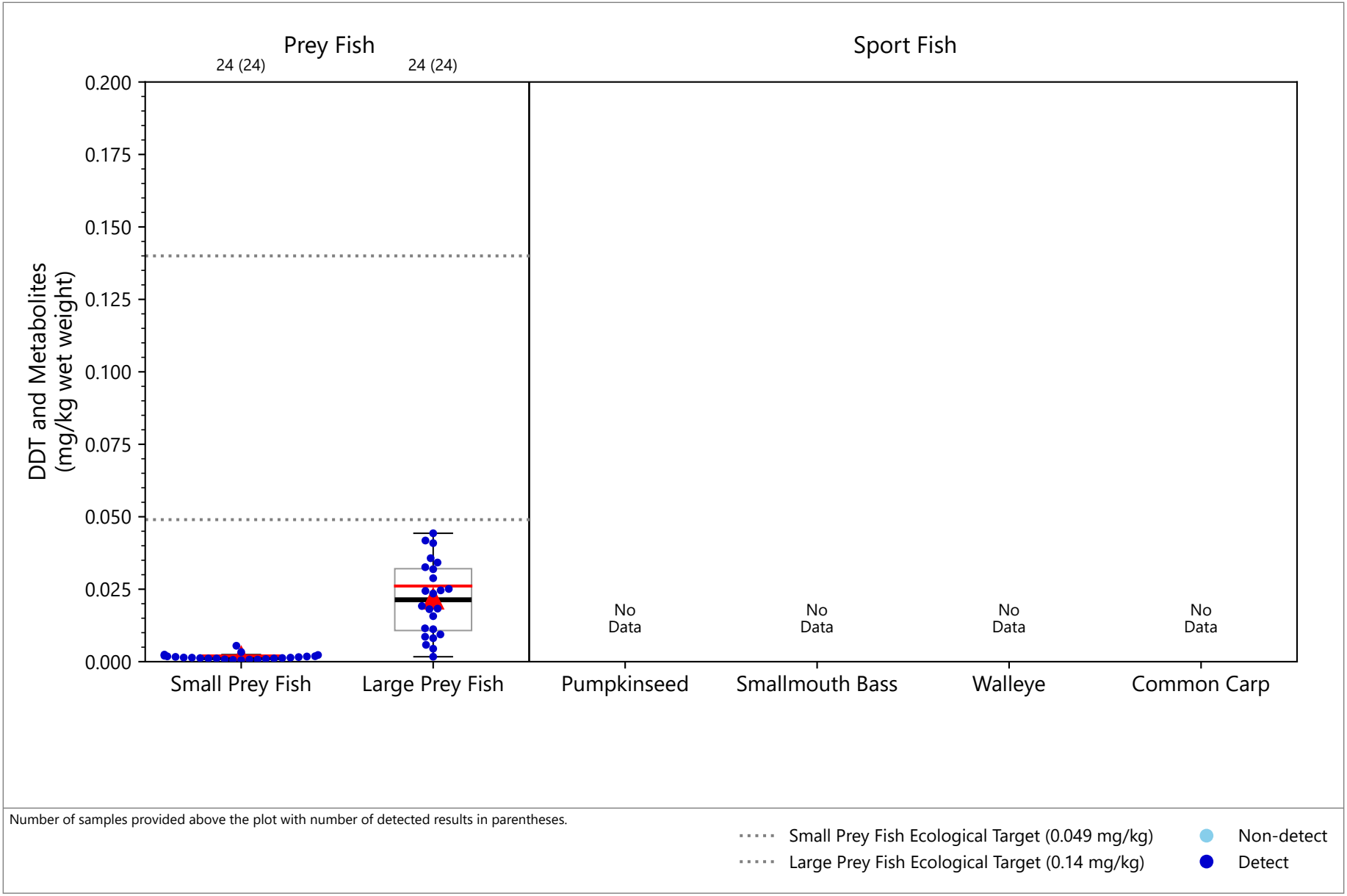
Number of samples provided above the plot with number of detected results in parentheses.
TPCB is the sum of detected Aroclors. If all Aroclors are non-detect, the result value is set to 1/2 the maximum RL for all Aroclors.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

Ecological Target (0.19 mg/kg)
Human Health Target (0.04 to 0.3 mg/kg)
Non-detect
Detect

Publish Date: 12/22/2025 09:20 AM | User: AME-CMES
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\Species_boxplots_w_AllPoint.py

ANCHOR QEA

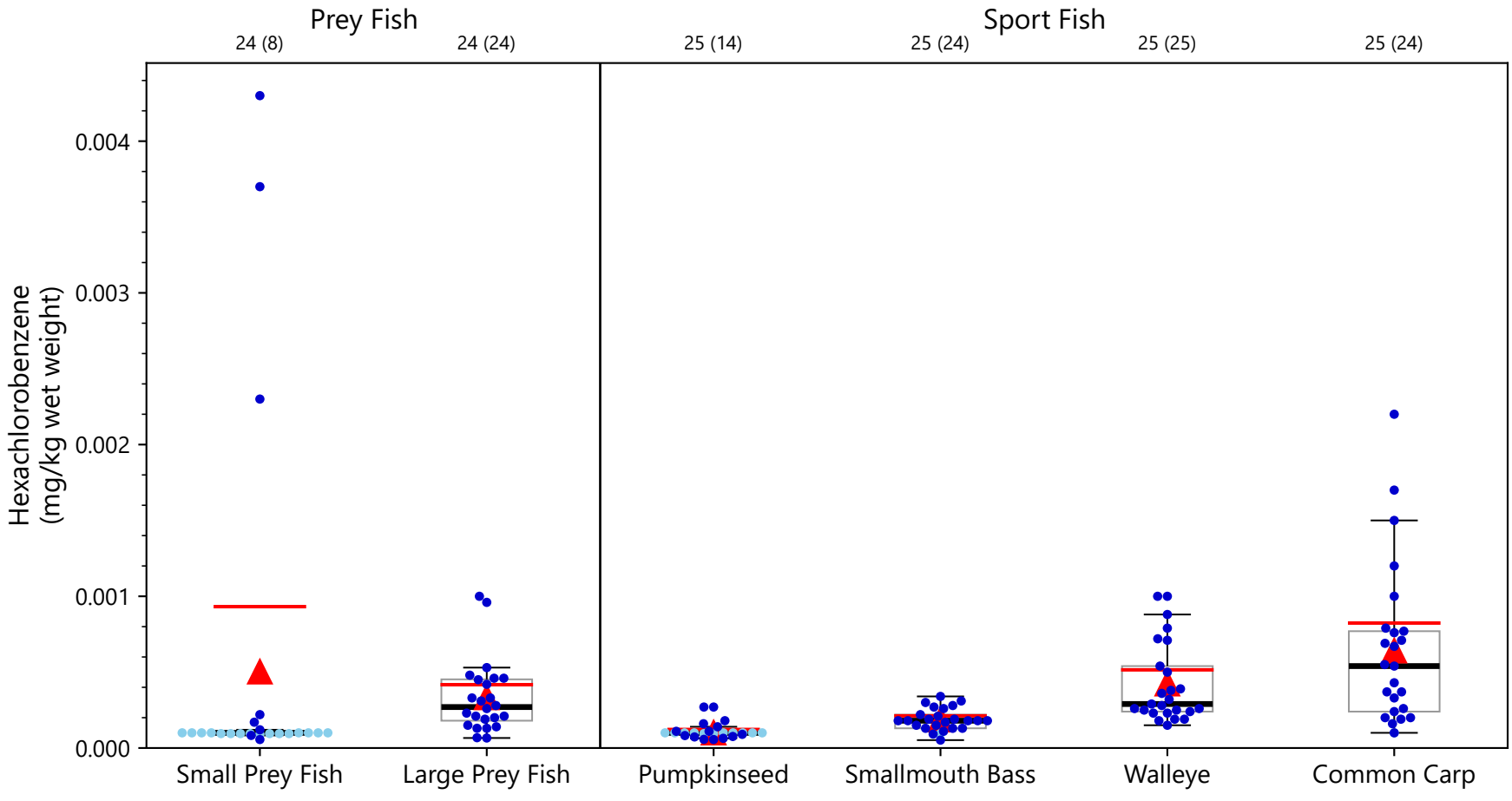
Figure 3.4
Box and Whisker Plots of Total PCB Concentrations in Onondaga Lake Fish (2022)



Publish Date: 09/18/2025 11:19 AM | User: AME-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\Species_boxplots_w_AllPoint.py

ANCHOR QEA

Figure 3.5
Box and Whisker Plots of DDT and Metabolites Concentrations in Onondaga Lake Fish (2022)



Number of samples provided above the plot with number of detected results in parentheses.
Non-detect results are set to 1/2 RL.

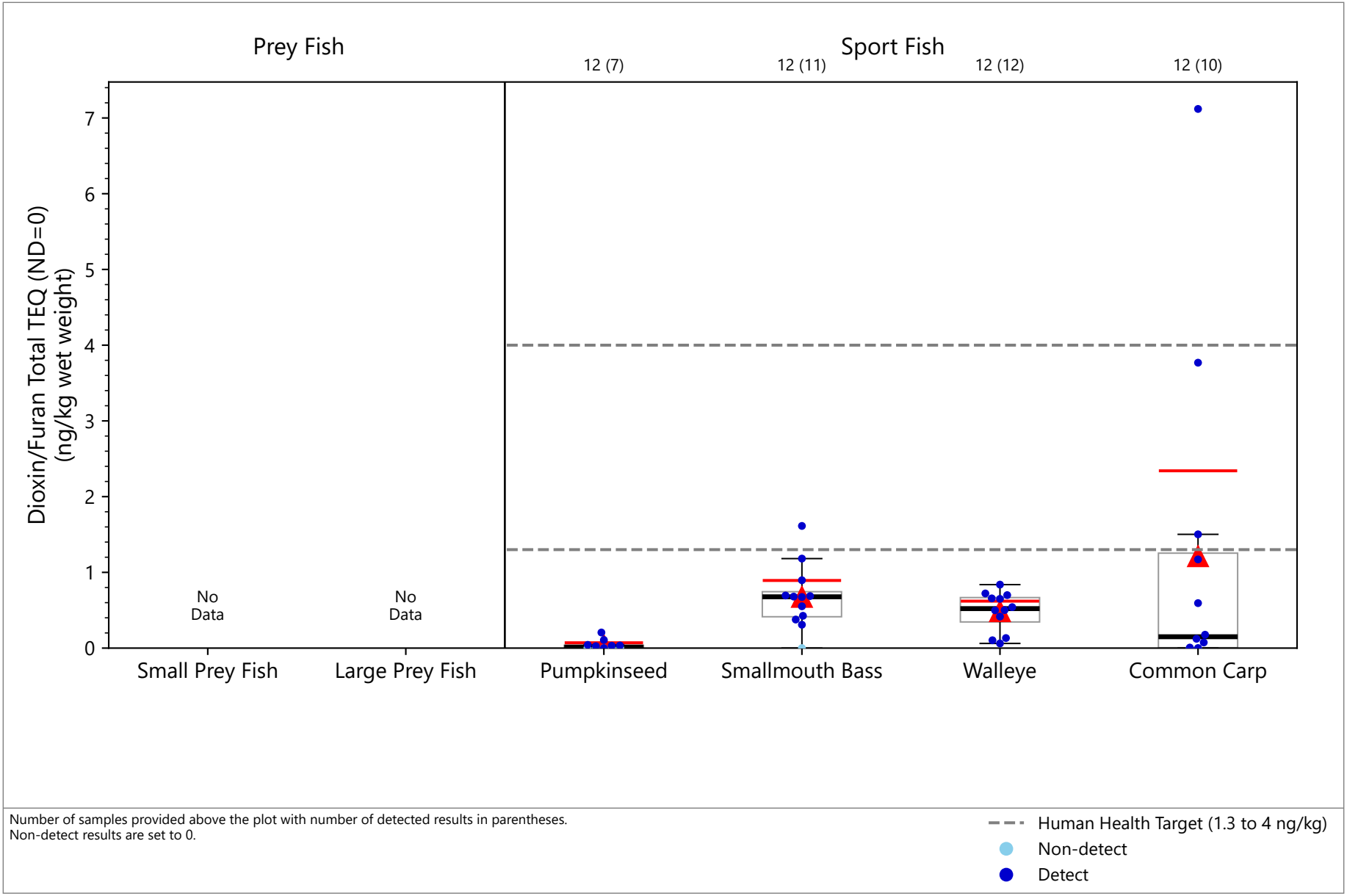
No Target

Non-detect
Detect

Publish Date: 09/18/2025 11:19 AM | User: AME-CWRI2
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ANCHOR QEA

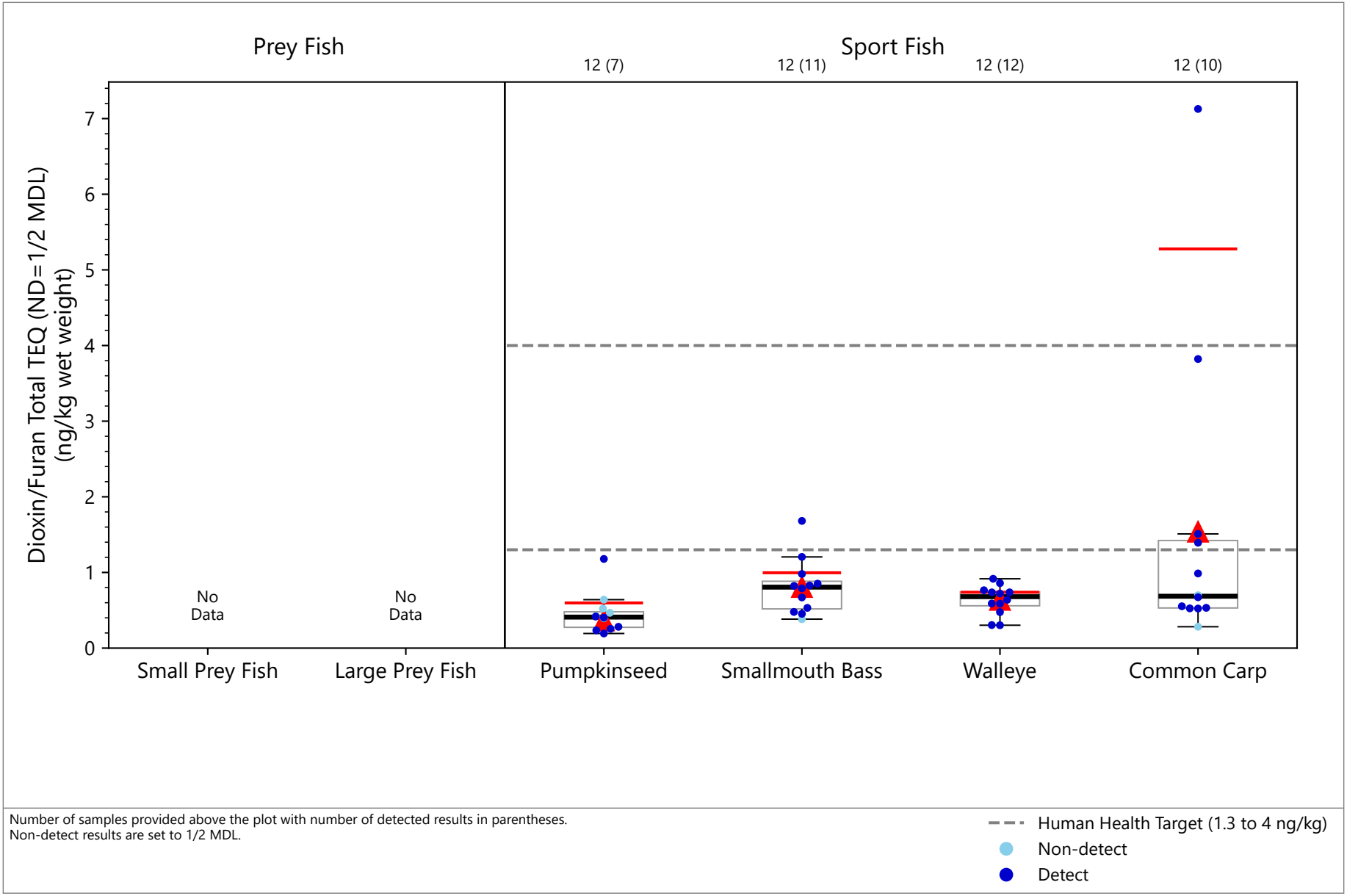
Figure 3.6
Box and Whisker Plots of Hexachlorobenzene Concentrations in Onondaga Lake Fish (2022)



Publish Date: 09/18/2025 11:19 AM | User: AME-CWRI2
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ANCHOR QEA

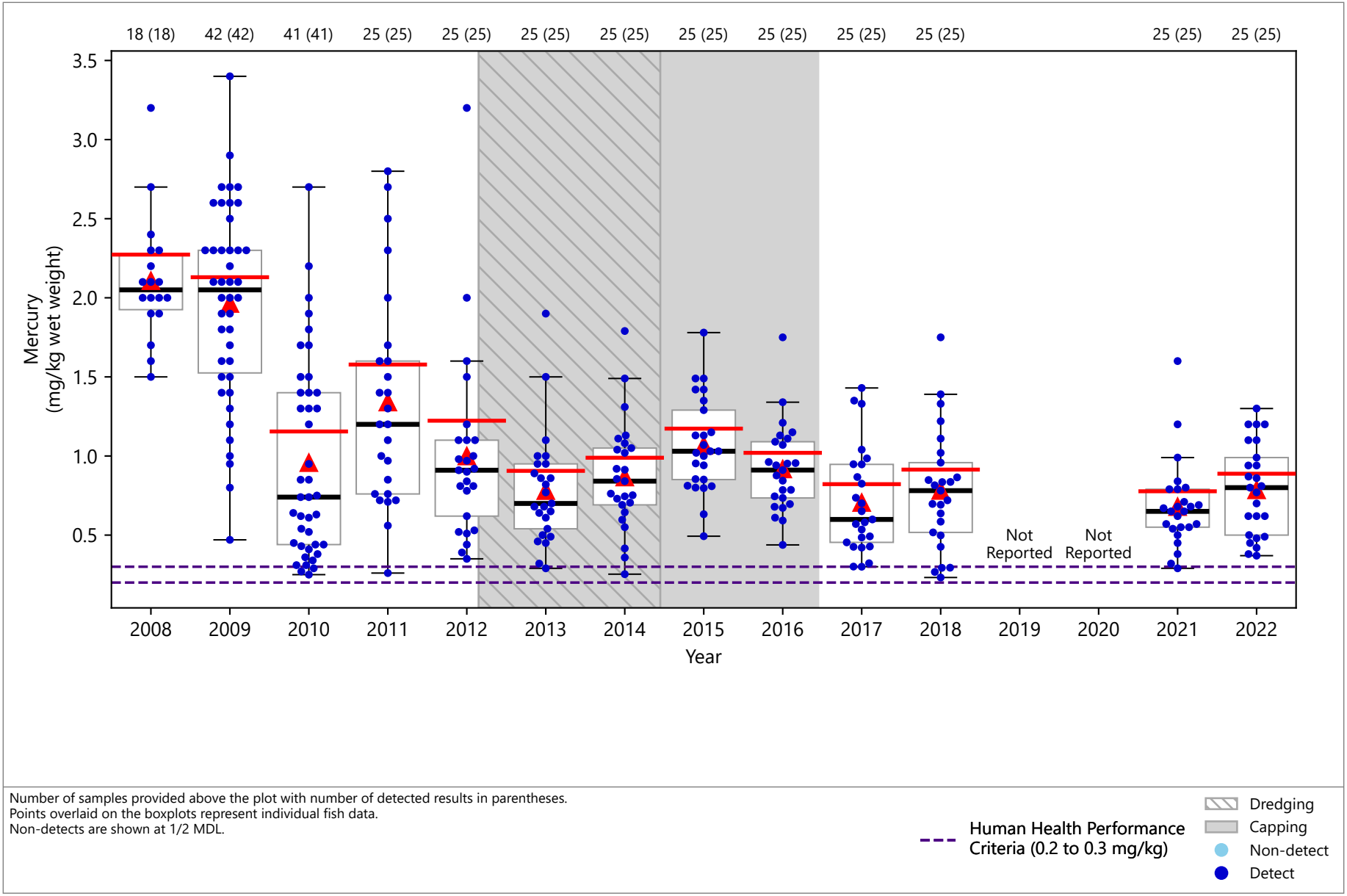
Figure 3.7
Box and Whisker Plots of Dioxin/Furan Total TEQ (ND=0) Concentrations in Onondaga Lake Fish (2022)



Publish Date: 09/18/2025 11:19 AM | User: AME-CWRI2
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ANCHOR QEA

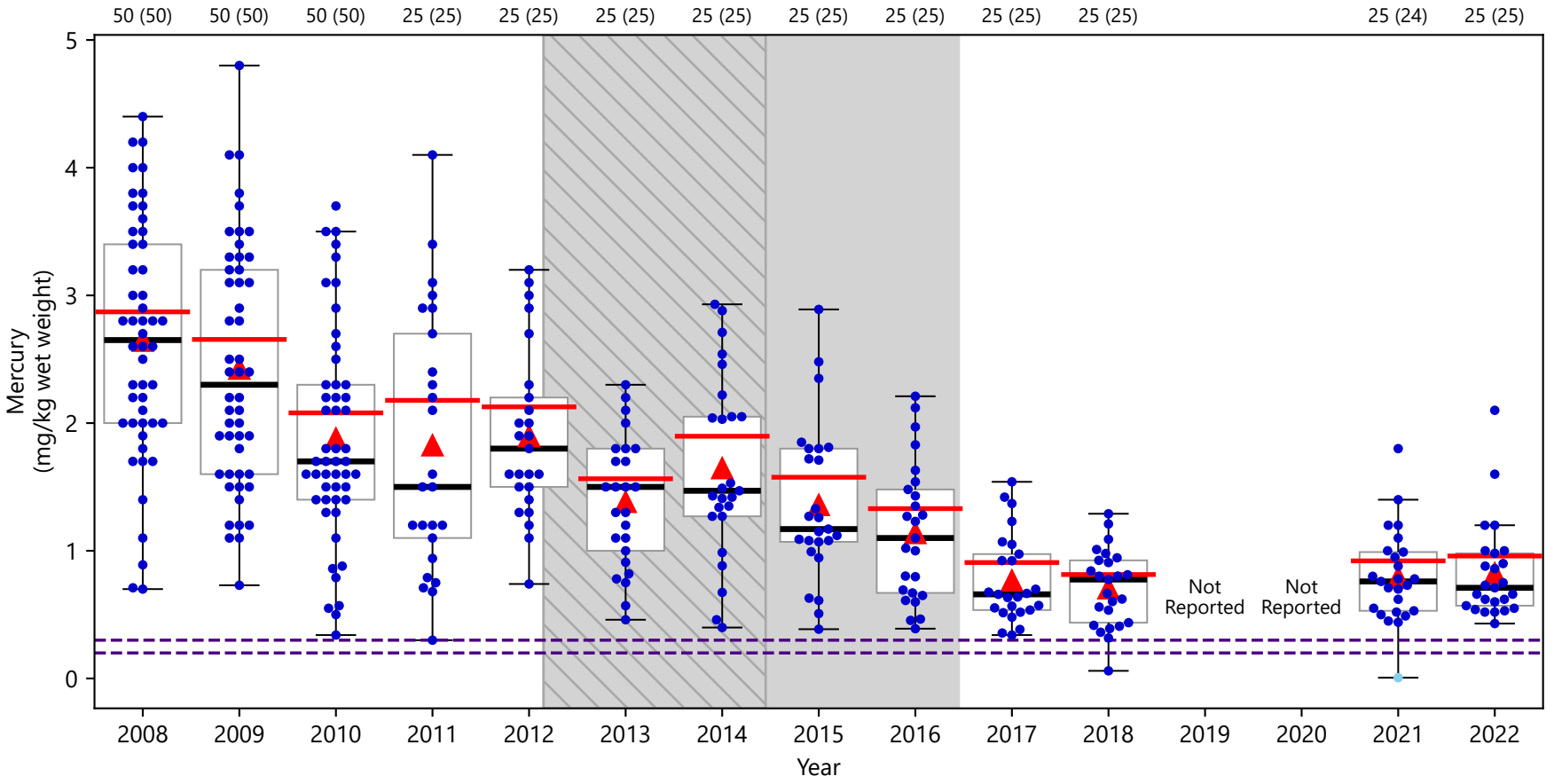
Figure 3.8
Box and Whisker Plots of Dioxin/Furan Total TEQ (ND=1/2 MDL) Concentrations in Onondaga Lake Fish (2022)



Publish Date: 05/05/2025 12:16 PM | User: BAL-CWRI2
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Figure 3.9
Mercury Concentrations in Smallmouth Bass (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are shown at 1/2 MDL.

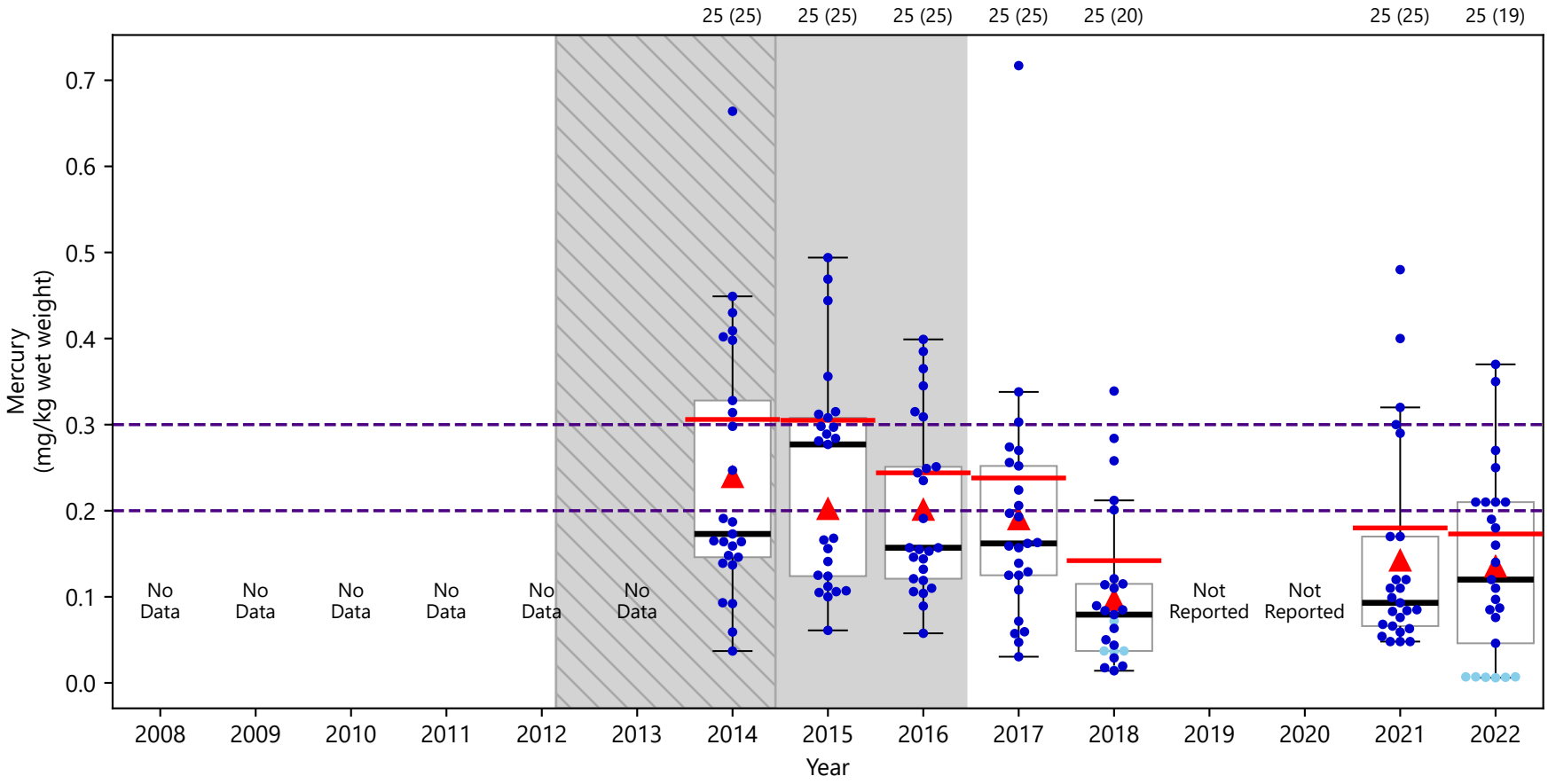
Human Health Performance Criteria (0.2 to 0.3 mg/kg)

Dredging
Capping
Non-detect
Detect

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\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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Figure 3.10
Mercury Concentrations in Walleye (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are shown at 1/2 MDL.

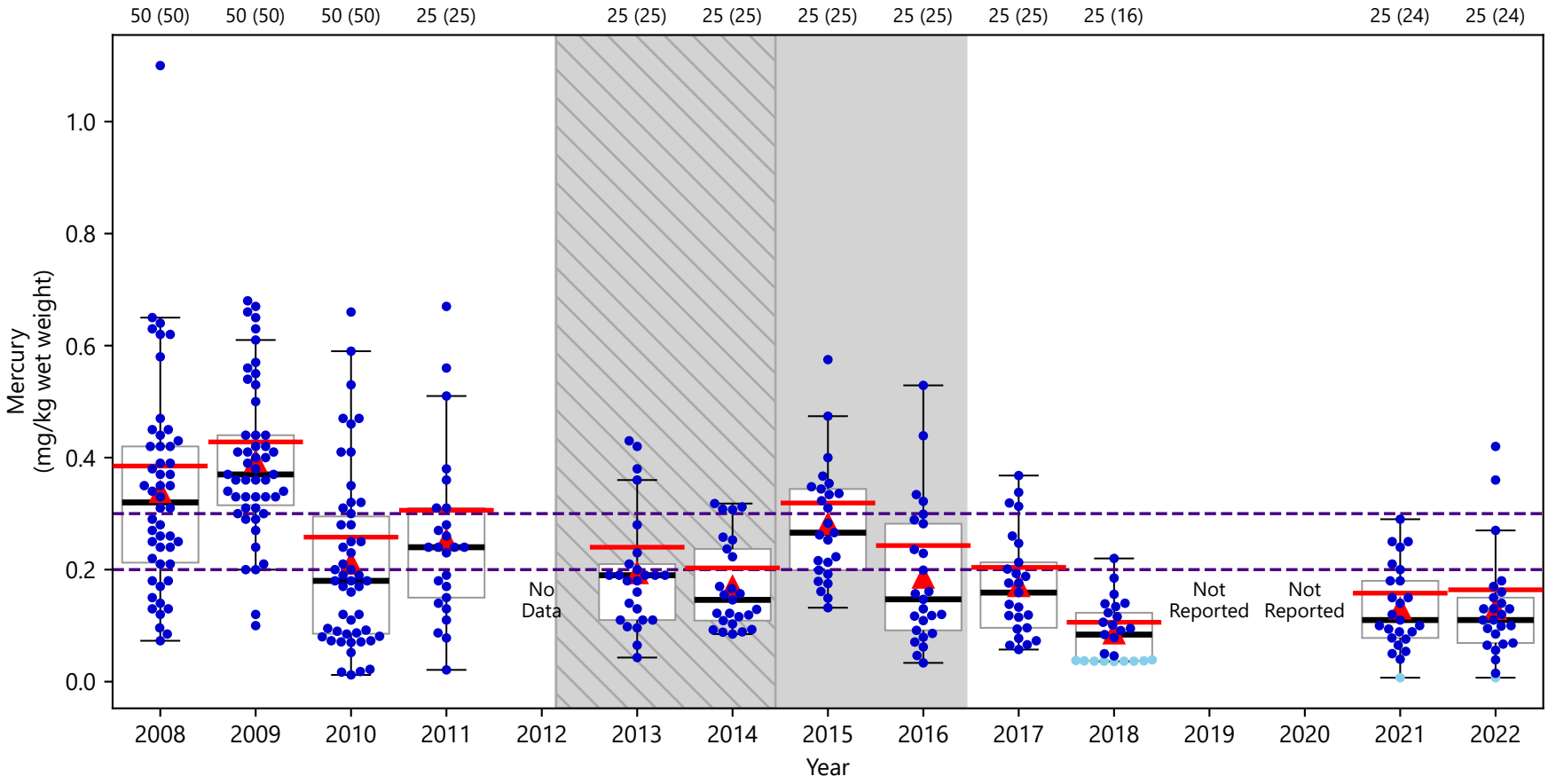
Human Health Performance Criteria (0.2 to 0.3 mg/kg)

Dredging
Capping
Non-detect
Detect

Publish Date: 05/05/2025 12:16 PM | User: BAL-CWRI2
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Figure 3.11
Mercury Concentrations in Common Carp (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are shown at 1/2 MDL.

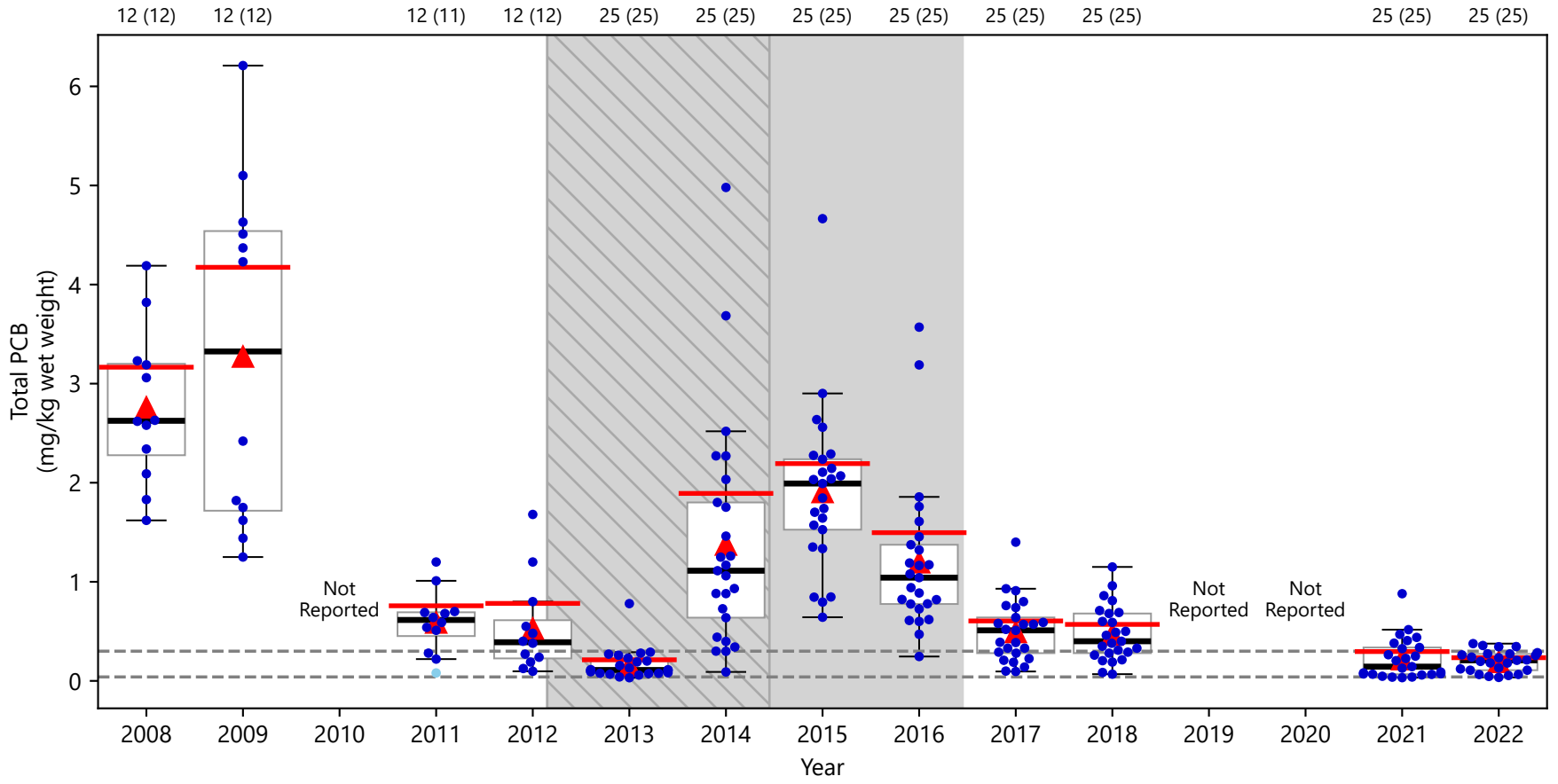
Human Health Performance Criteria (0.2 to 0.3 mg/kg)

Dredging
Capping
Non-detect
Detect

Publish Date: 05/05/2025 12:16 PM | User: BAL-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

ANCHOR QEA

Figure 3.12
Mercury Concentrations in Pumpkinseed (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
TPCB is the sum of detected Aroclors. If all Aroclors are non-detect, the result value is set to 1/2 the maximum RL for all Aroclors.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

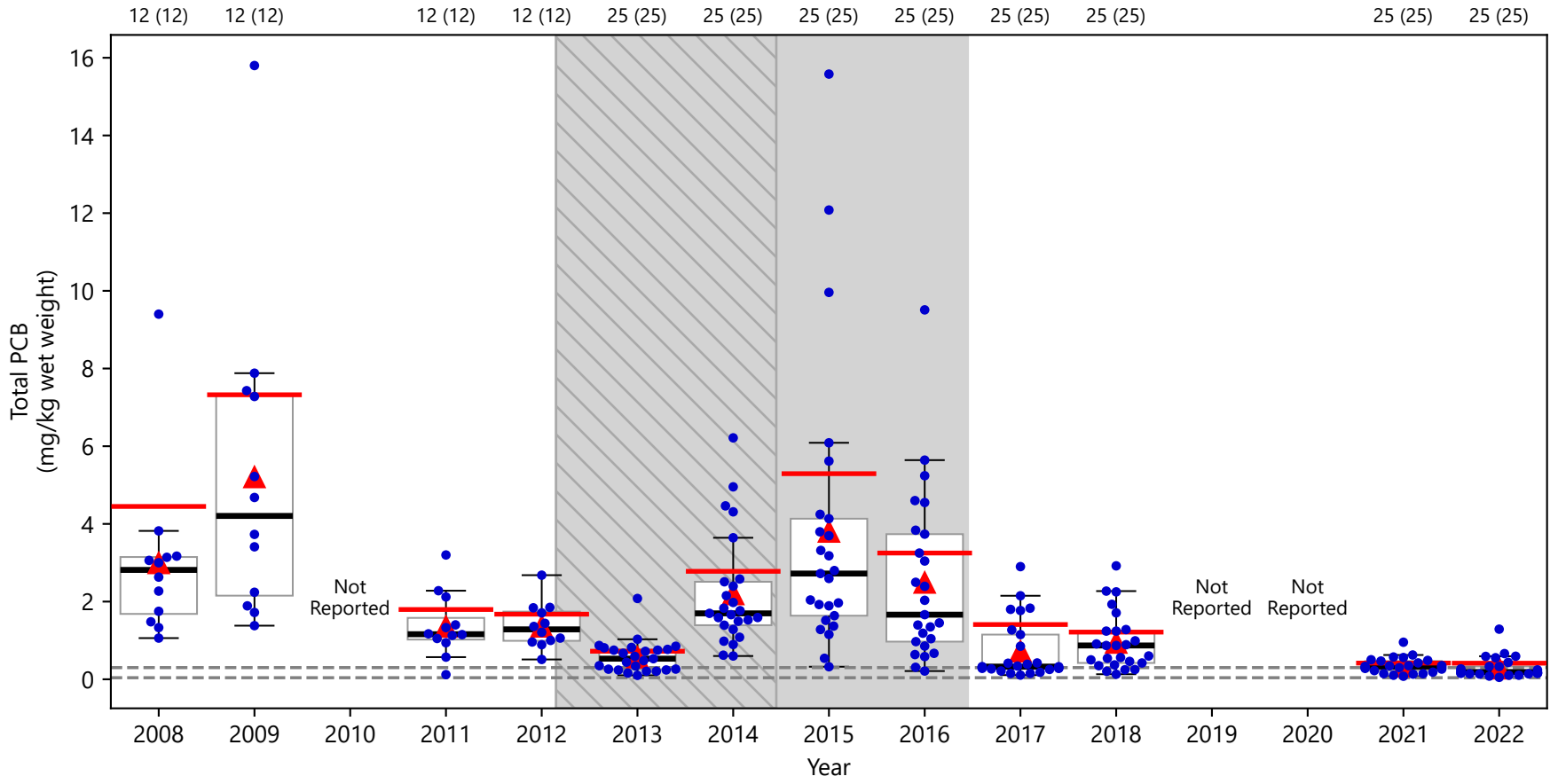
Human Health Target
(0.04 to 0.3 mg/kg)

Dredging
Capping
Non-detect
Detect

Publish Date: 12/22/2025 10:18 AM | User: AME-CMES
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

ANCHOR QEA

Figure 3.13
Total PCB Concentrations in Smallmouth Bass (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
TPCB is the sum of detected Aroclors. If all Aroclors are non-detect, the result value is set to 1/2 the maximum RL for all Aroclors.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

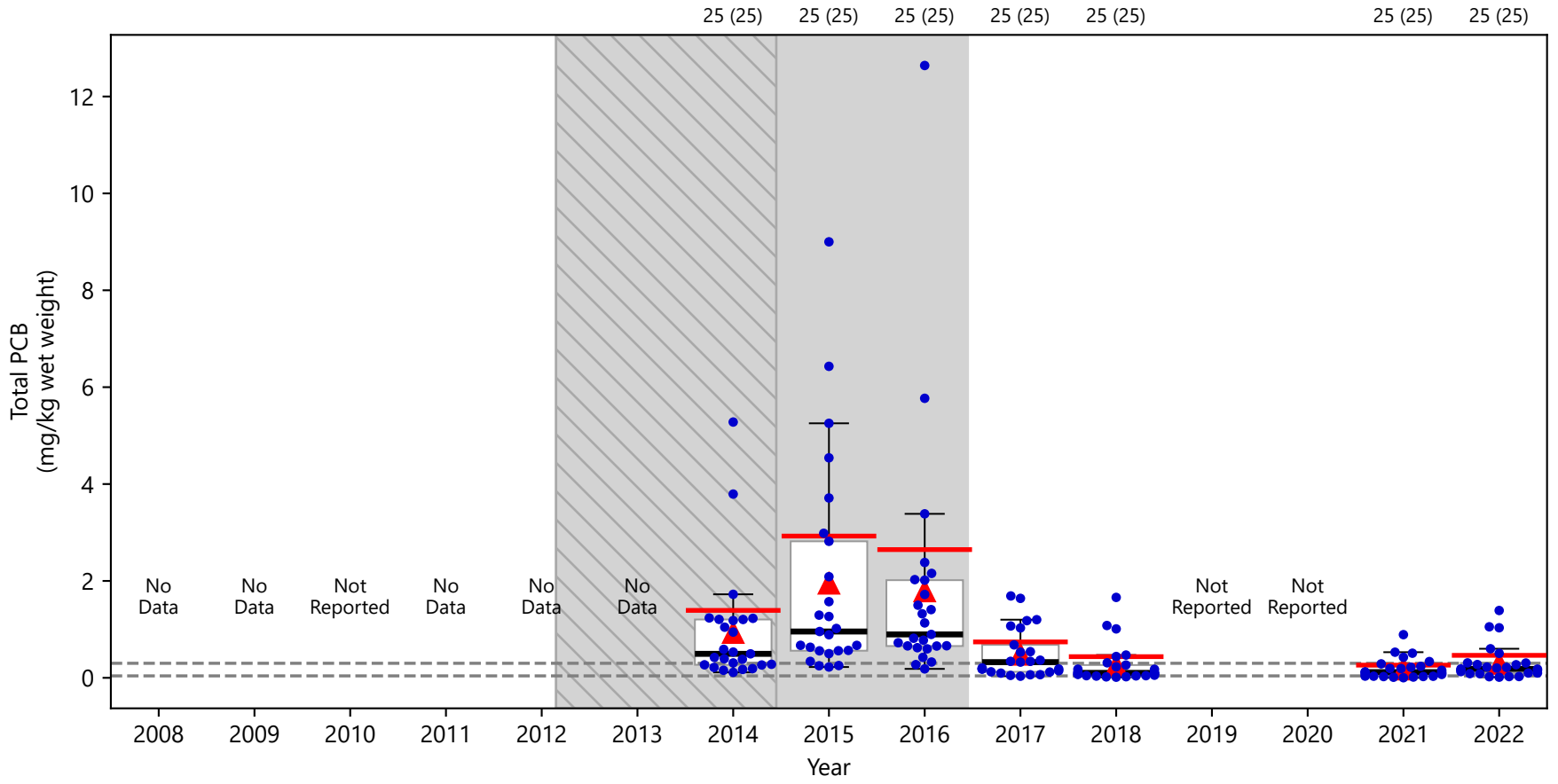
Human Health Target
(0.04 to 0.3 mg/kg)

Dredging
Capping
Non-detect
Detect

Publish Date: 12/22/2025 10:18 AM | User: AME-CMES
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

ANCHOR QEA

Figure 3.14
Total PCB Concentrations in Walleye (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
TPCB is the sum of detected Aroclors. If all Aroclors are non-detect, the result value is set to 1/2 the maximum RL for all Aroclors.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

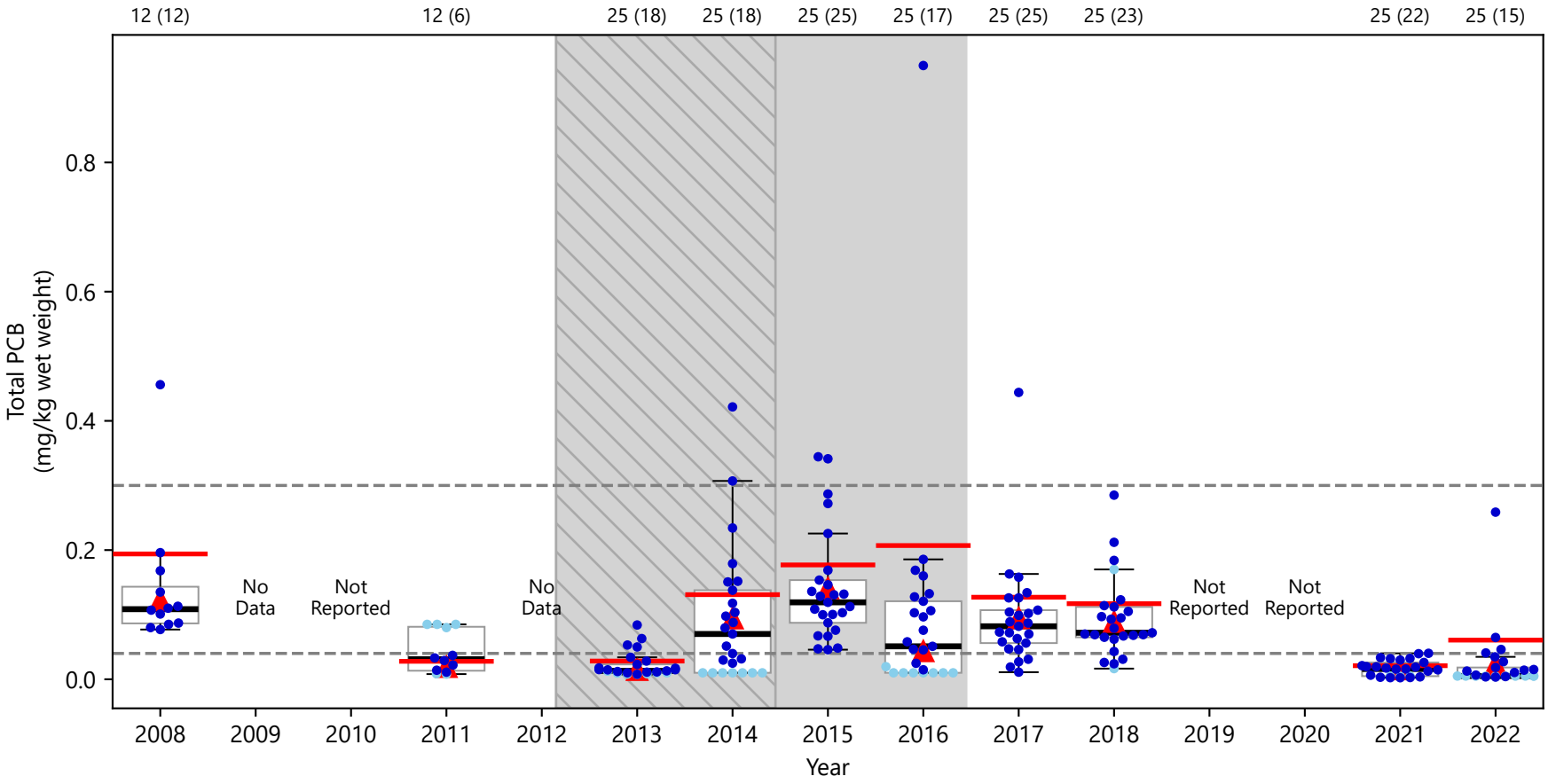
Human Health Target (0.04 to 0.3 mg/kg)

Dredging
Capping
Non-detect
Detect

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\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

ANCHOR QEA

Figure 3.15
Total PCB Concentrations in Common Carp (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
TPCB is the sum of detected Aroclors. If all Aroclors are non-detect, the result value is set to 1/2 the maximum RL for all Aroclors.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

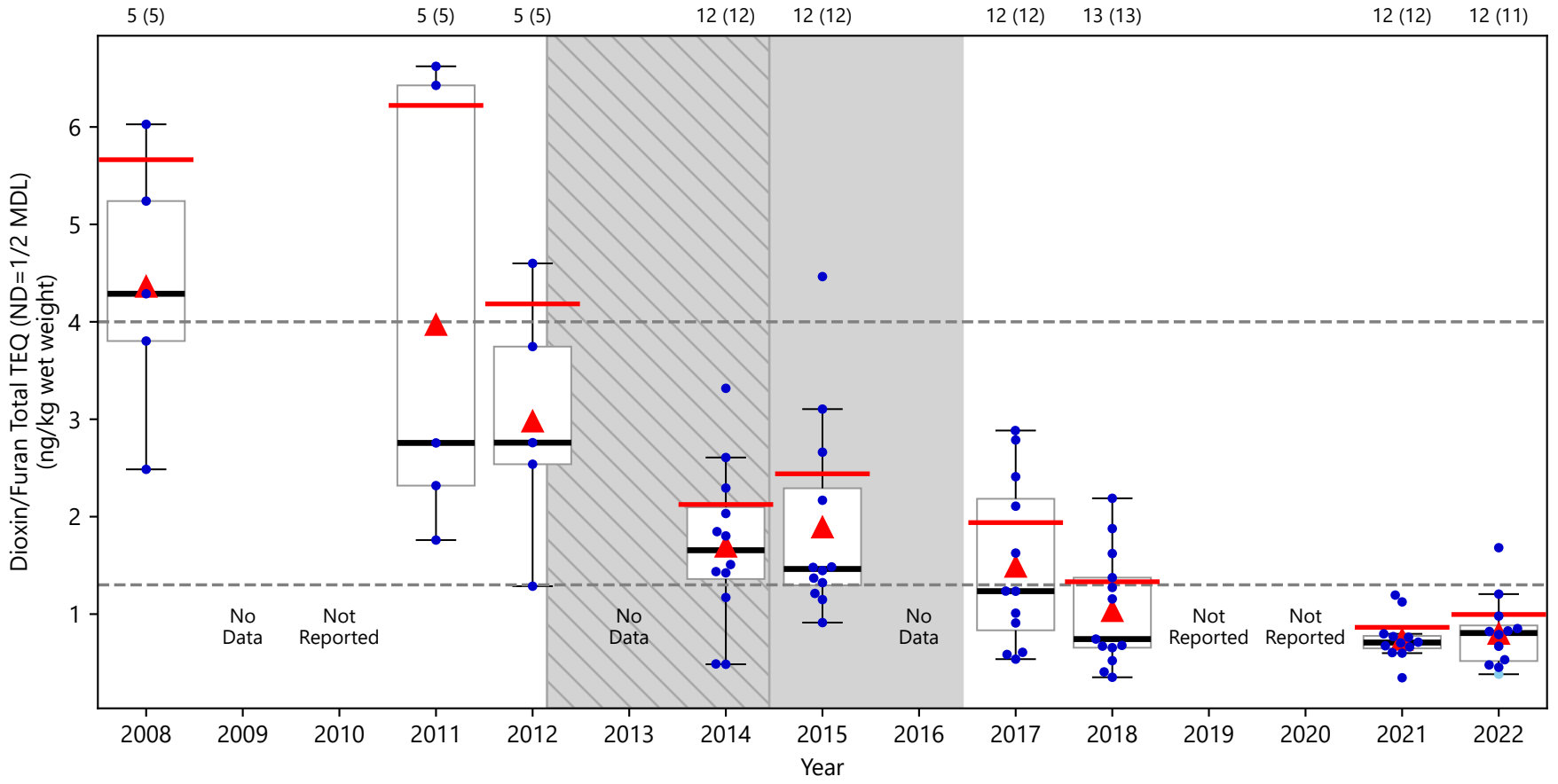
Human Health Target (0.04 to 0.3 mg/kg)

Dredging
Capping
Non-detect
Detect

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ANCHOR QEA

Figure 3.16
Total PCB Concentrations in Pumpkinseed (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are set to 1/2 MDL in TEQ calculation.

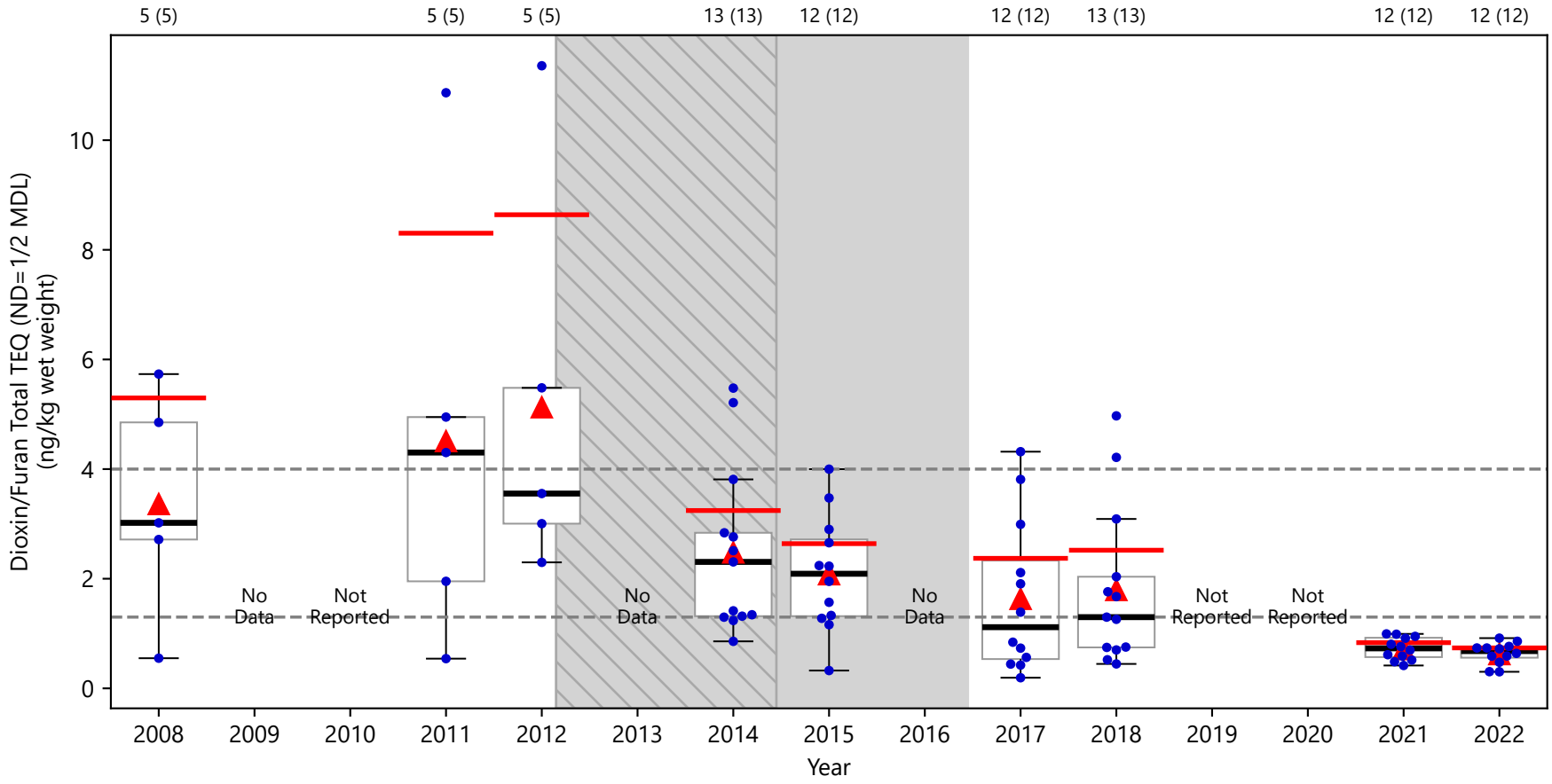
Human Health Target (1.3 to 4.0 ng/kg)

Dredging
Capping
Non-detect
Detect

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\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

ANCHOR QEA

Figure 3.17
Dioxin/Furan Total TEQ (ND = 0.5 MDL) Concentrations in Smallmouth Bass (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are set to 1/2 MDL in TEQ calculation.

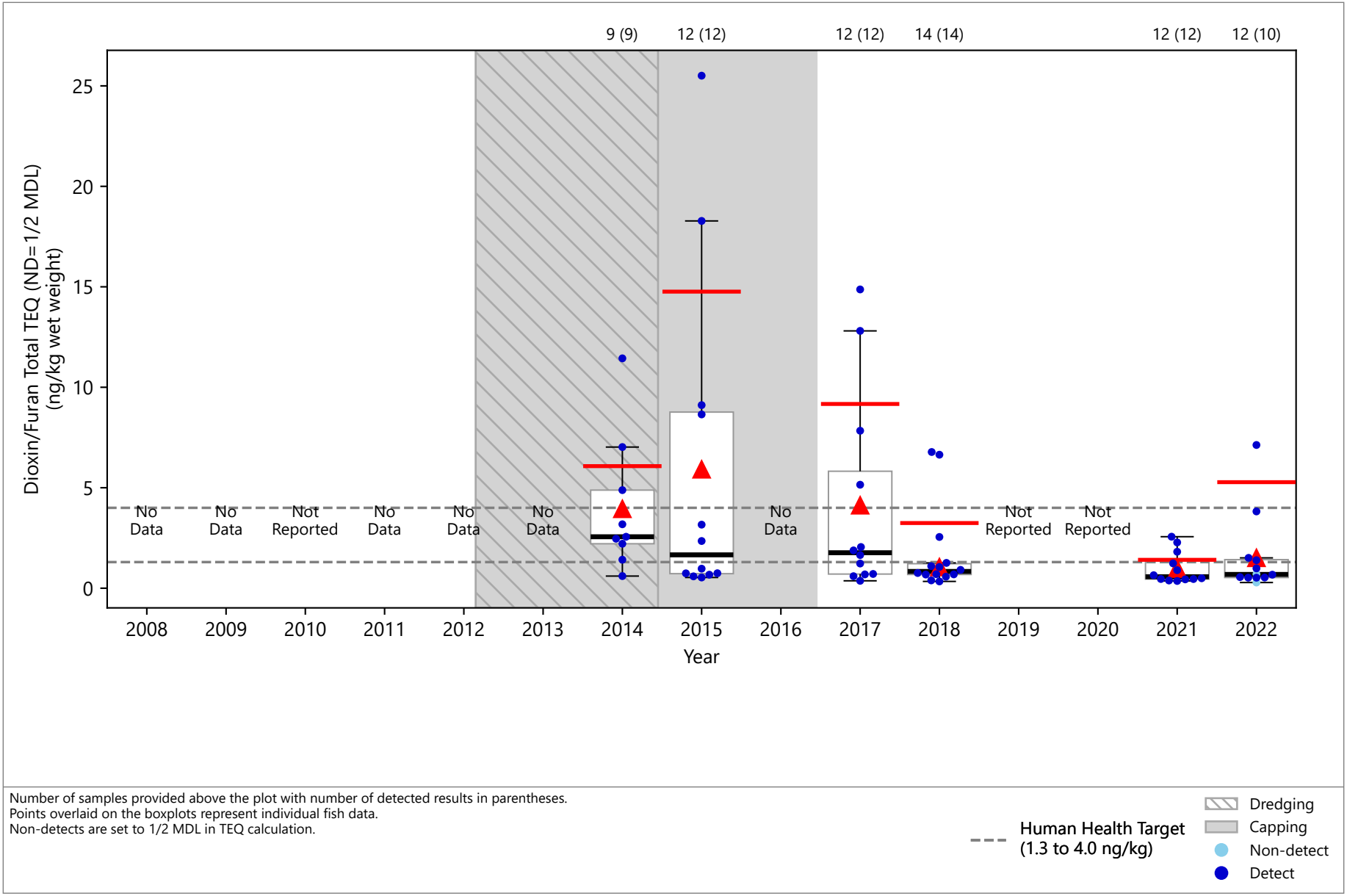
Human Health Target (1.3 to 4.0 ng/kg)

Dredging
Capping
Non-detect
Detect

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\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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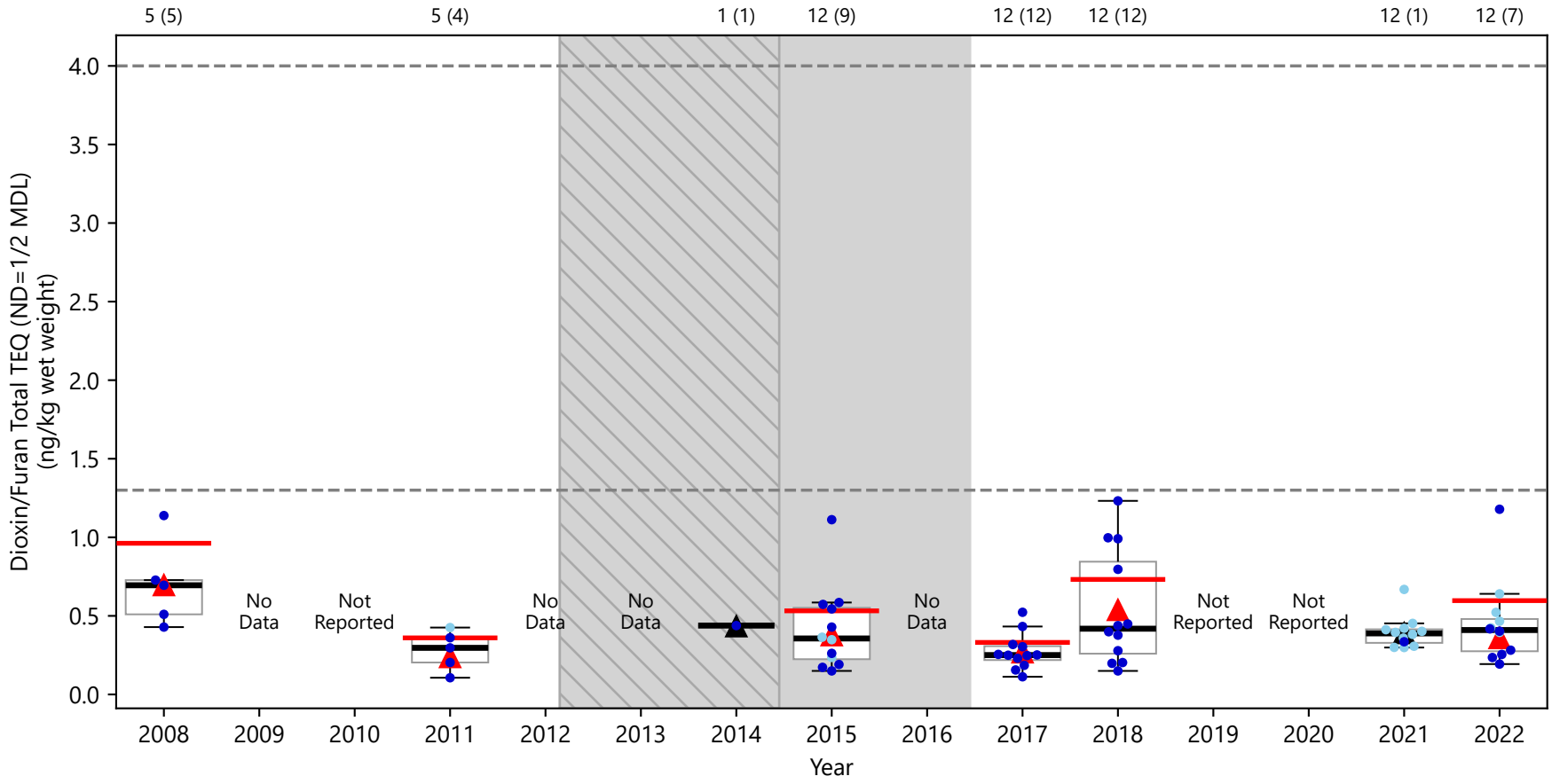
Figure 3.18
Dioxin/Furan Total TEQ (ND = 0.5 MDL) Concentrations in Walleye (2008 - 2022)



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Figure 3.19
Dioxin/Furan Total TEQ (ND = 0.5 MDL) Concentrations in Common Carp (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are set to 1/2 MDL in TEQ calculation.

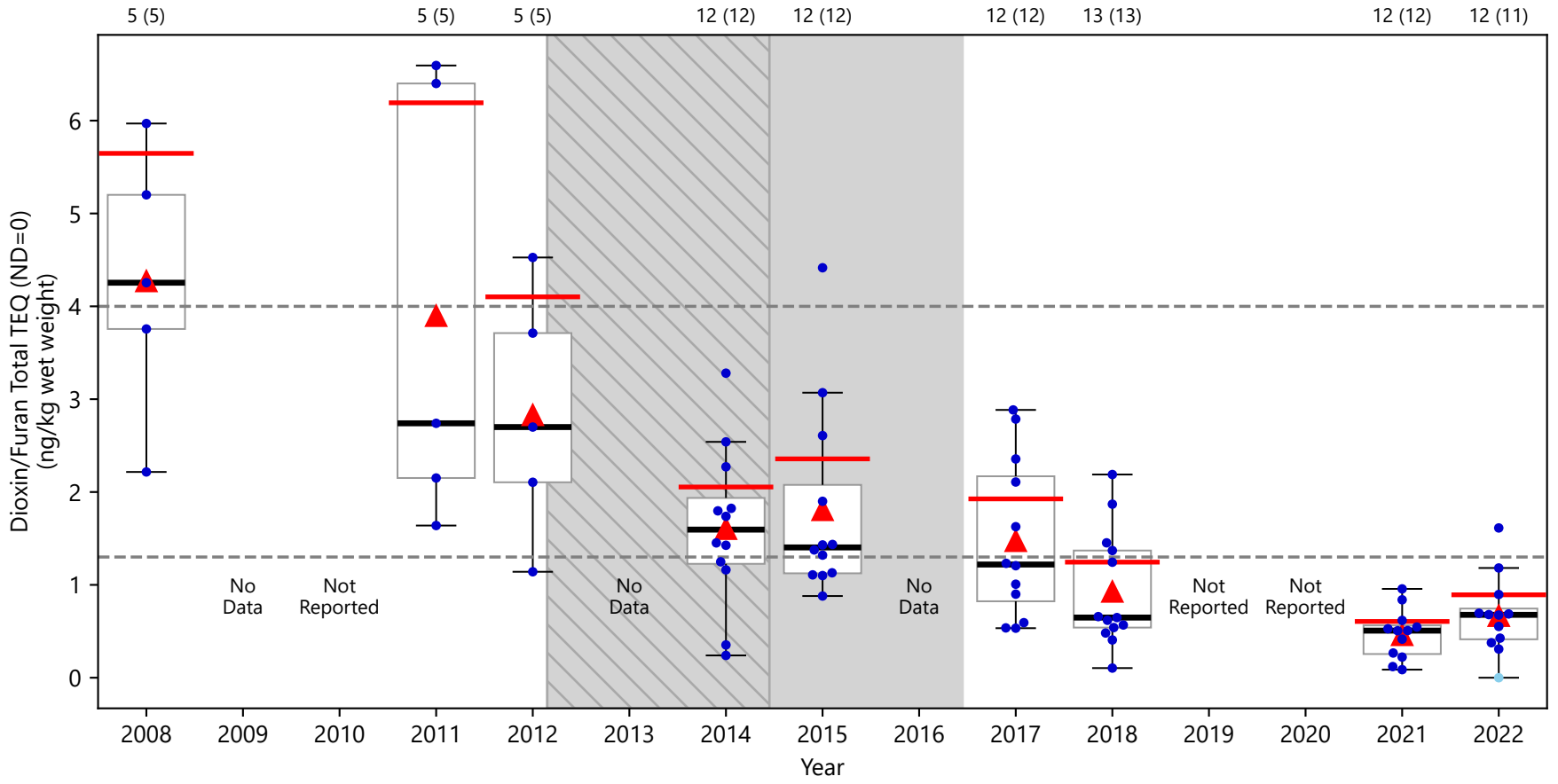
Human Health Target (1.3 to 4.0 ng/kg)

Dredging
Capping
Non-detect
Detect

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\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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Figure 3.20
Dioxin/Furan Total TEQ (ND = 0.5 MDL) Concentrations in Pumpkinseed (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are set to 0 in TEQ calculation.

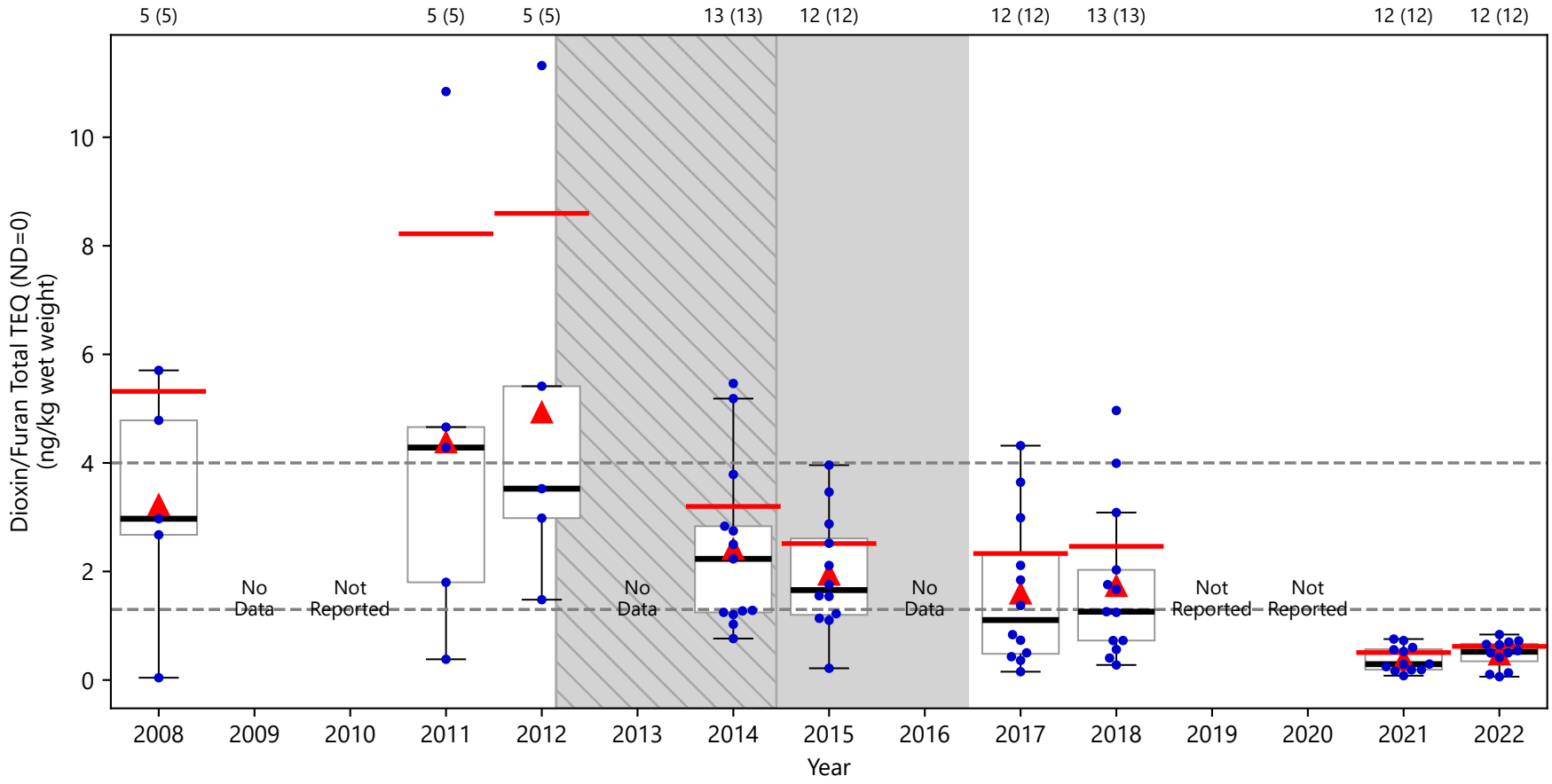
Human Health Target (1.3 to 4.0 ng/kg)

Dredging
Capping
Non-detect
Detect

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\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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Figure 3.21
Dioxin/Furan Total TEQ (ND = 0) Concentrations in Smallmouth Bass (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are set to 0 in TEQ calculation.

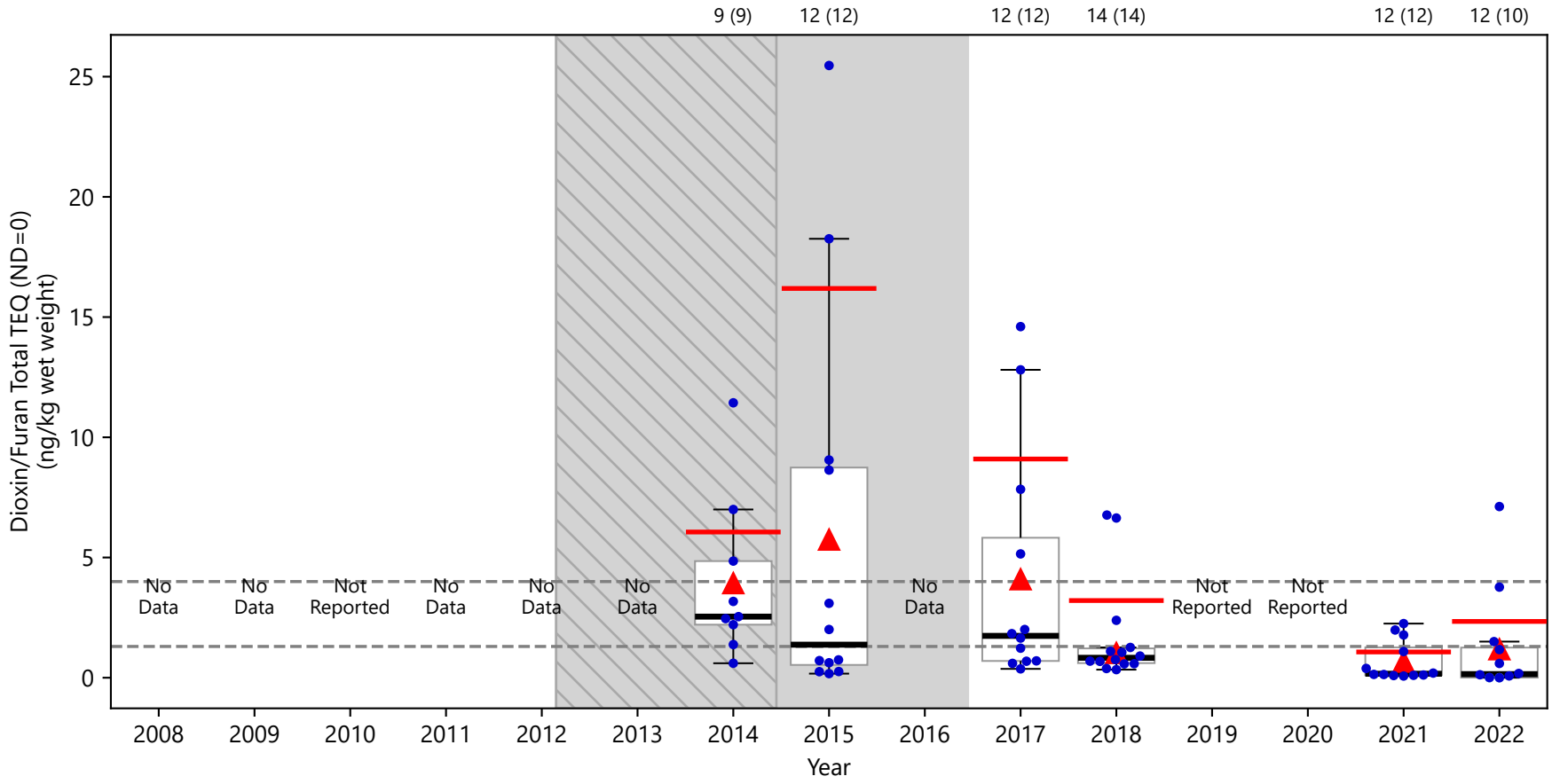
Human Health Target (1.3 to 4.0 ng/kg)

Dredging
Capping
Non-detect
Detect

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\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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Figure 3.22
Dioxin/Furan Total TEQ (ND = 0) Concentrations in Walleye (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are set to 0 in TEQ calculation.

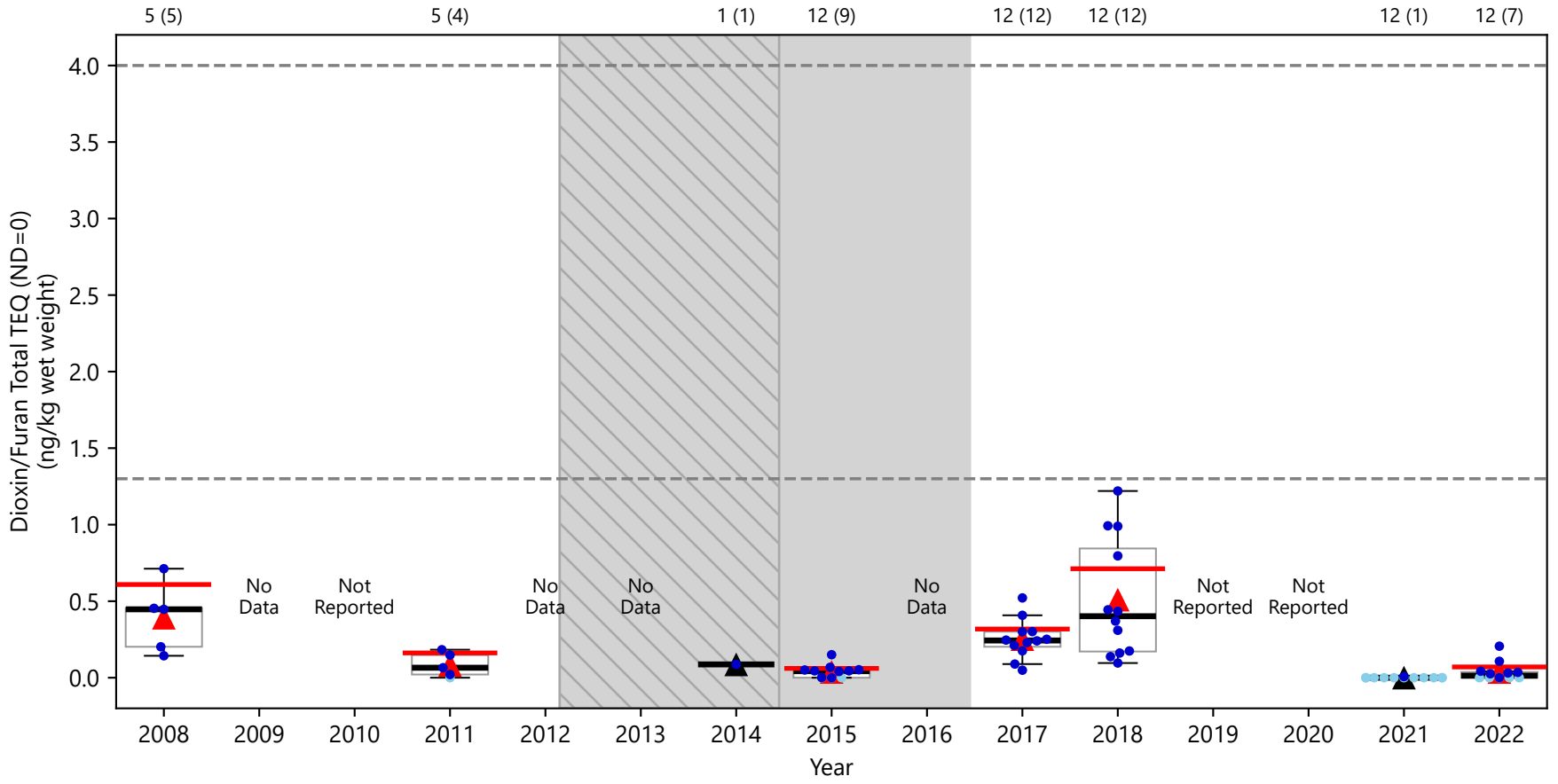
Human Health Target (1.3 to 4.0 ng/kg)

Dredging
Capping
Non-detect
Detect

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ANCHOR QEA

Figure 3.23
Dioxin/Furan Total TEQ (ND = 0) Concentrations in Common Carp (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are set to 0 in TEQ calculation.

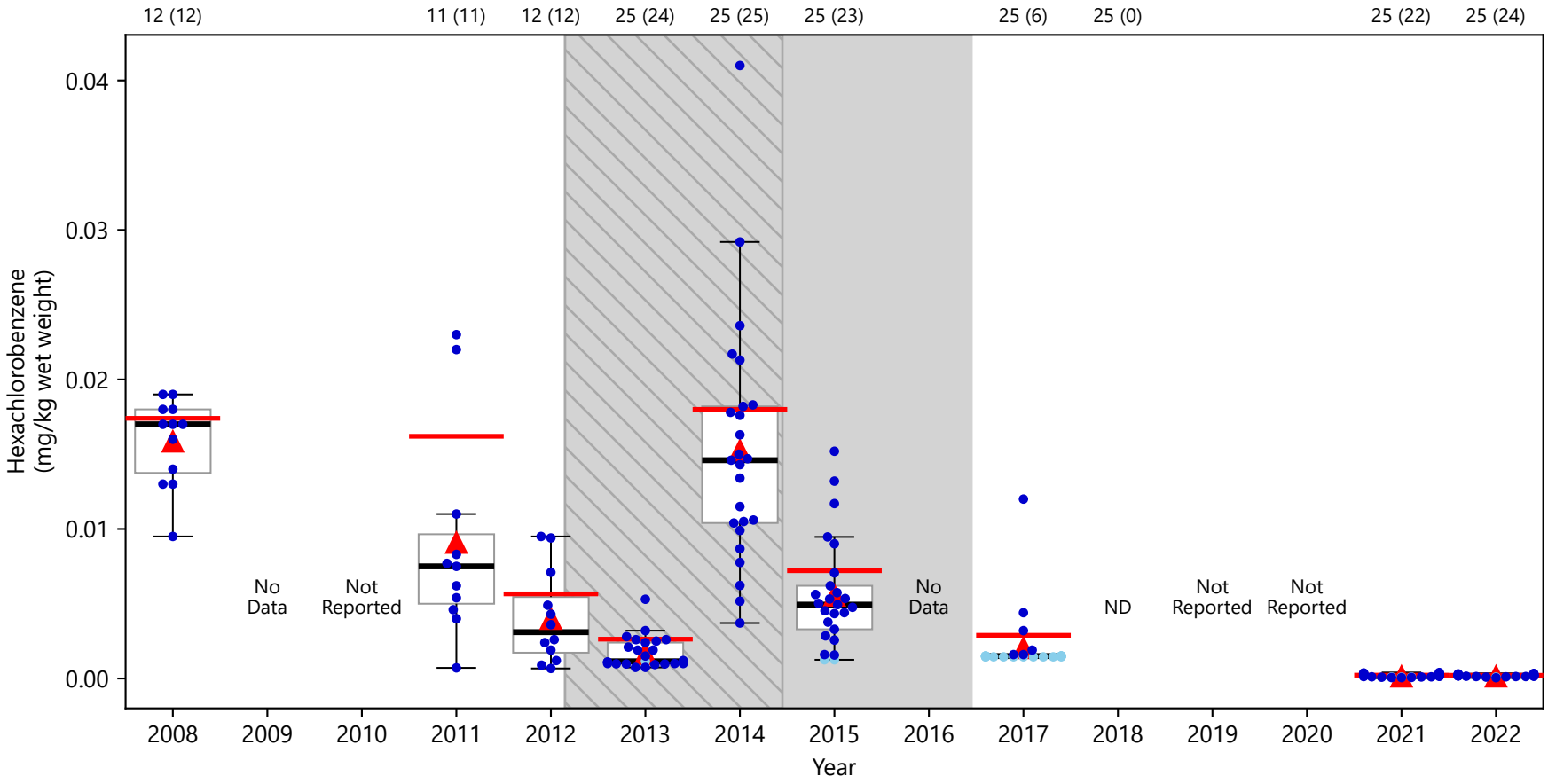
Human Health Target (1.3 to 4.0 ng/kg)

Dredging
Capping
Non-detect
Detect

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\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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Figure 3.24
Dioxin/Furan Total TEQ (ND = 0) Concentrations in Pumpkinseed (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are shown at 1/2 RL.

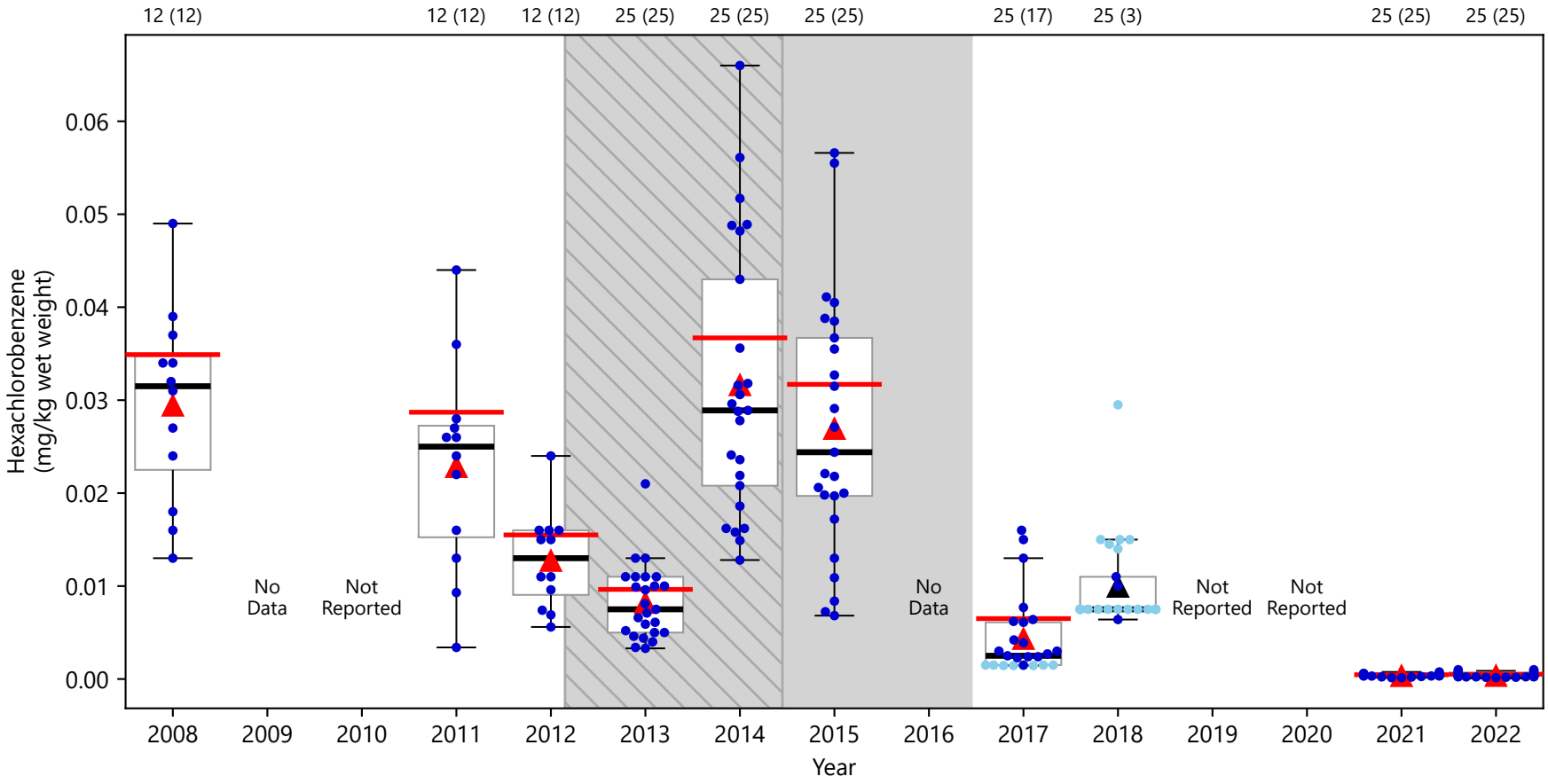
No Target

Dredging
Capping
Non-detect
Detect

Publish Date: 05/05/2025 12:17 PM | User: BAL-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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Figure 3.25
Hexachlorobenzene Concentrations in Smallmouth Bass (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are shown at 1/2 RL.

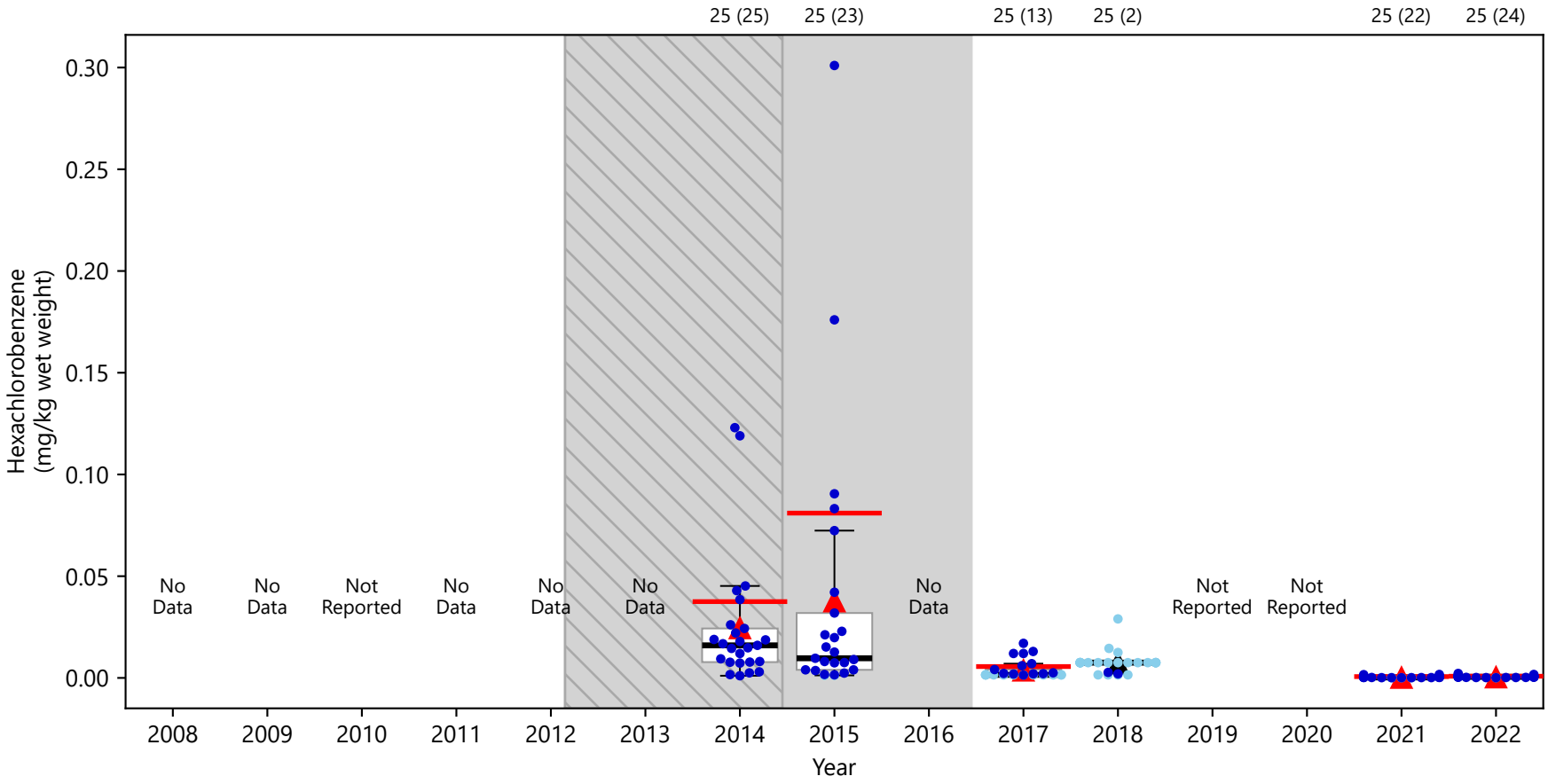
No Target

Dredging
Capping
Non-detect
Detect

Publish Date: 05/05/2025 12:17 PM | User: BAL-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

ANCHOR QEA

Figure 3.26
Hexachlorobenzene Concentrations in Walleye (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are shown at 1/2 RL.

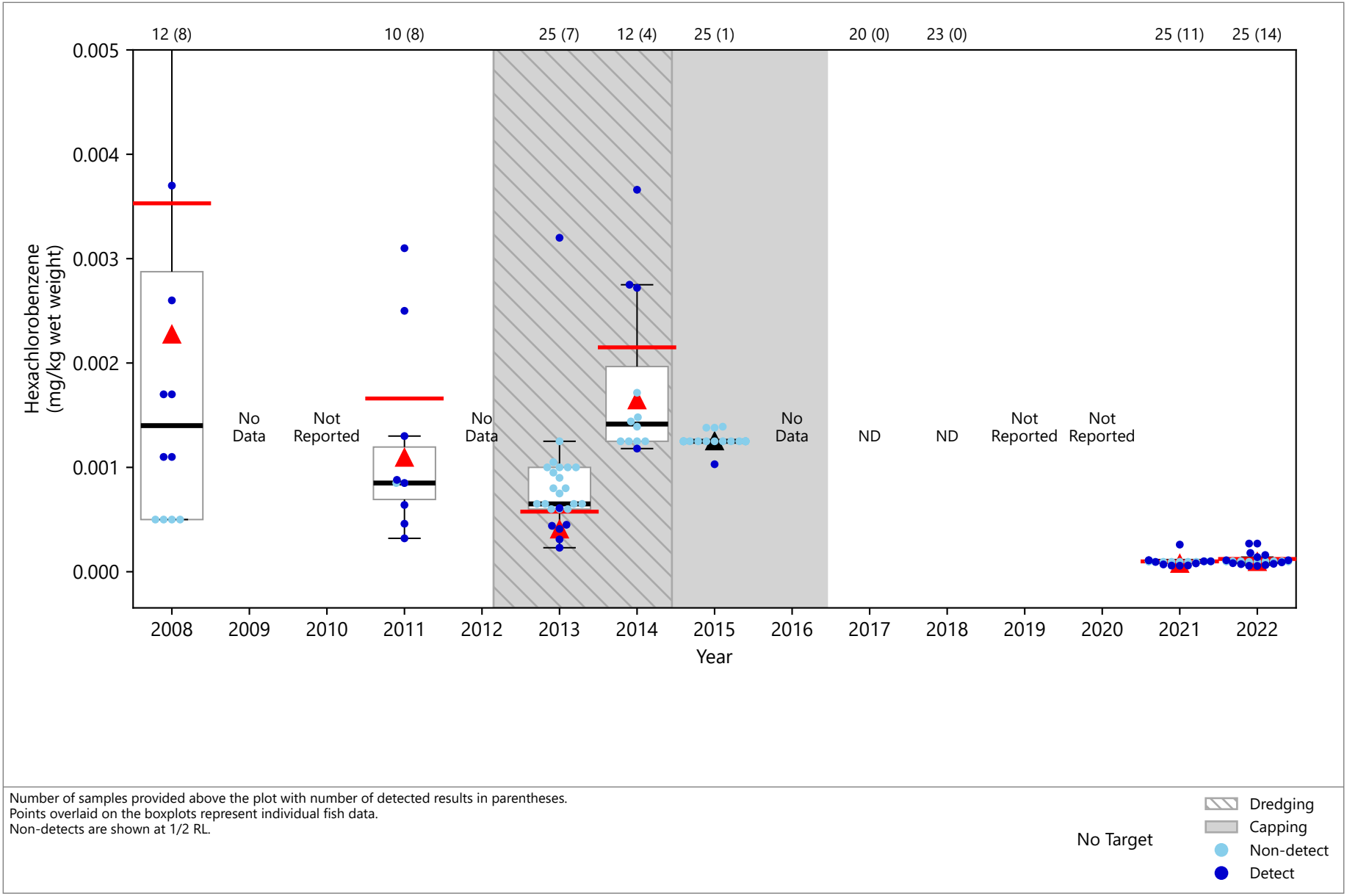
No Target

Dredging
Capping
Non-detect
Detect

Publish Date: 05/05/2025 12:17 PM | User: BAL-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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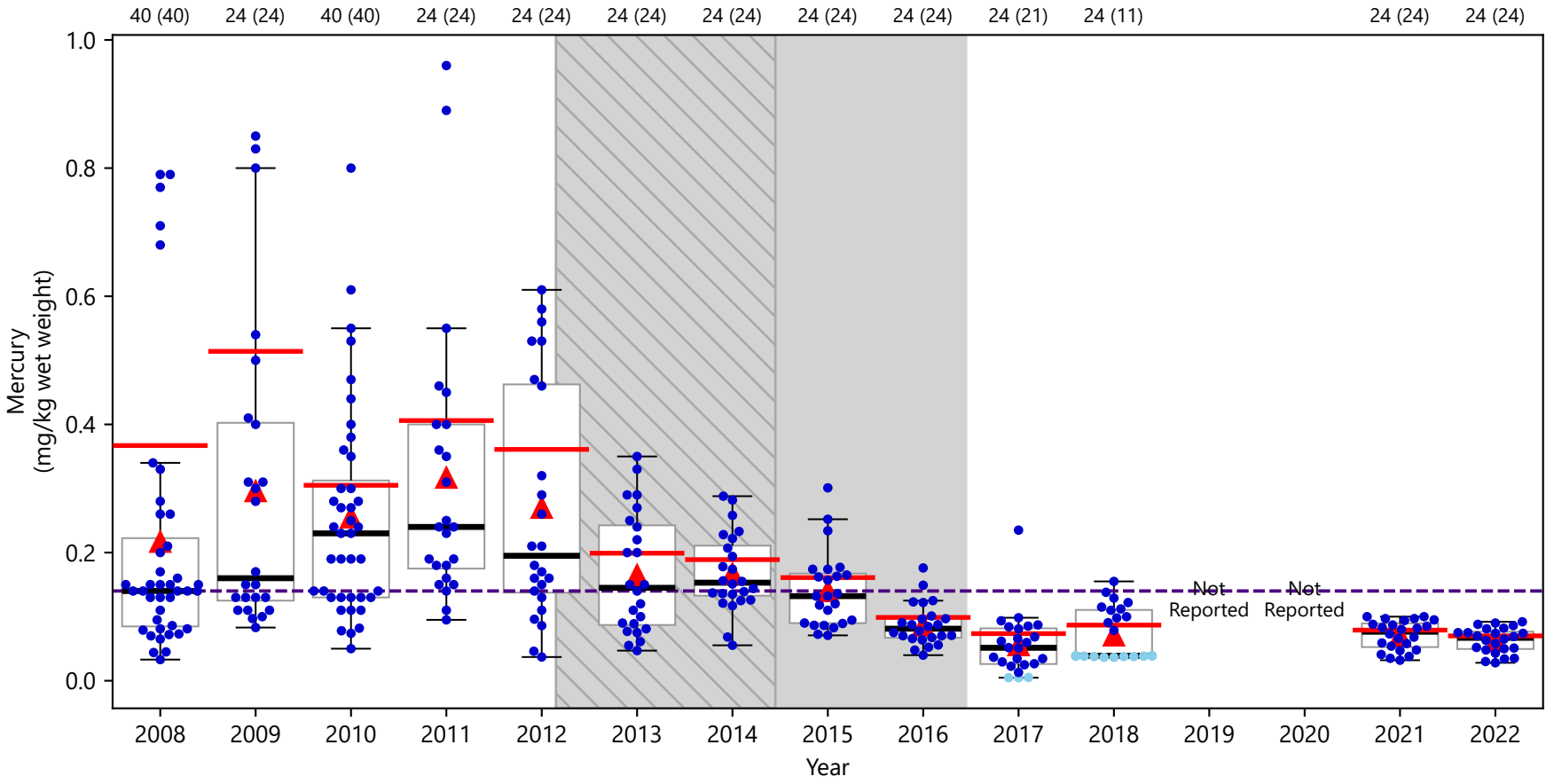
Figure 3.27
Hexachlorobenzene Concentrations in Common Carp (2008 - 2022)



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\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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Figure 3.28
Hexachlorobenzene Concentrations in Pumpkinseed (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are shown at 1/2 MDL.

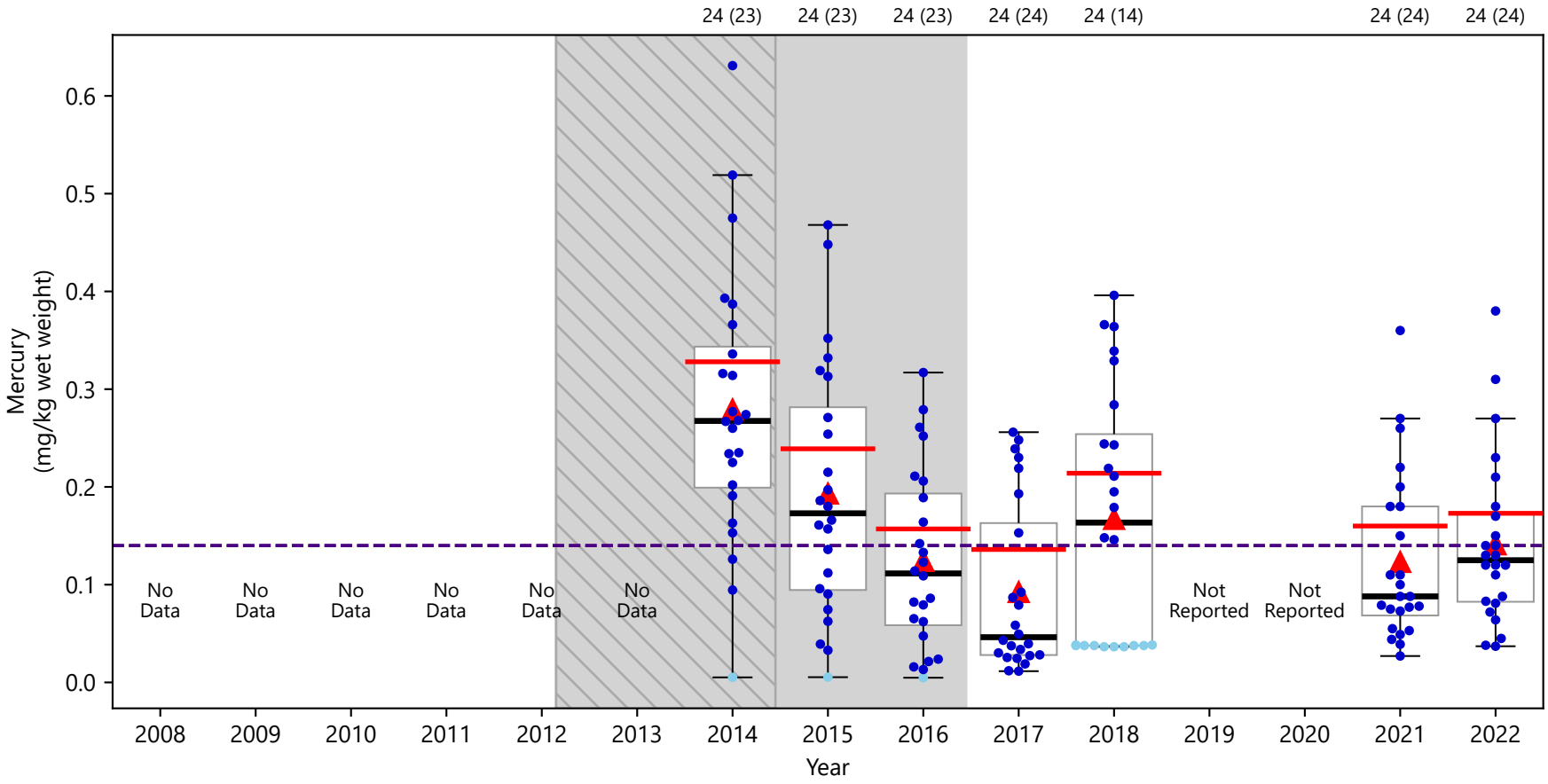
Ecological Performance Criterion (0.14 mg/kg)

Dredging
Capping
Non-detect
Detect

Publish Date: 05/05/2025 12:17 PM | User: BAL-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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Figure 3.29
Mercury Concentrations in Small Prey Fish (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are shown at 1/2 MDL.

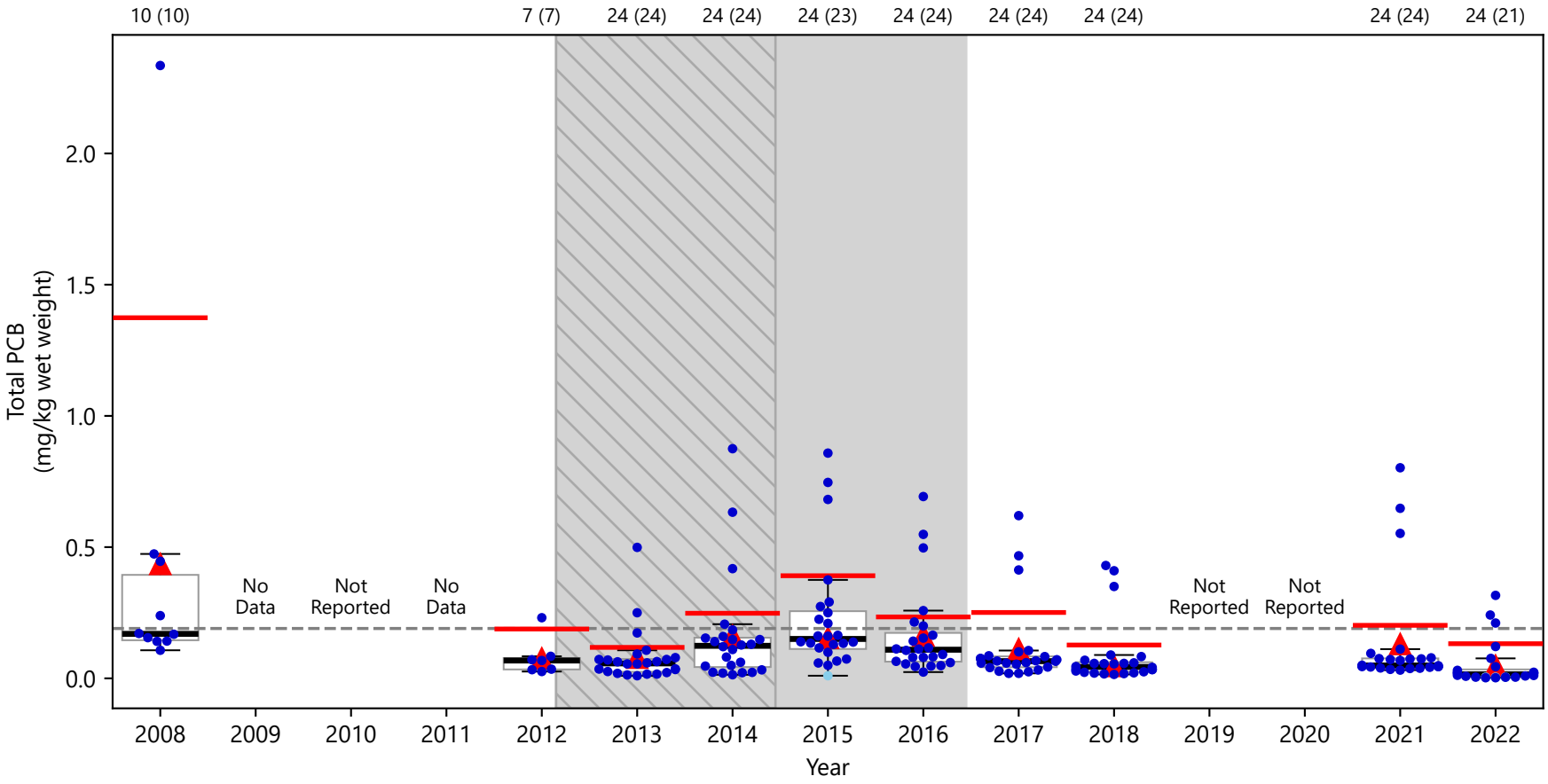
Ecological Performance Criterion (0.14 mg/kg)

Dredging
Capping
Non-detect
Detect

Publish Date: 05/05/2025 12:17 PM | User: BAL-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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Figure 3.30
Mercury Concentrations in Large Prey Fish (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
TPCB is the sum of detected Aroclors. If all Aroclors are non-detect, the result value is set to 1/2 the maximum RL for all Aroclors.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

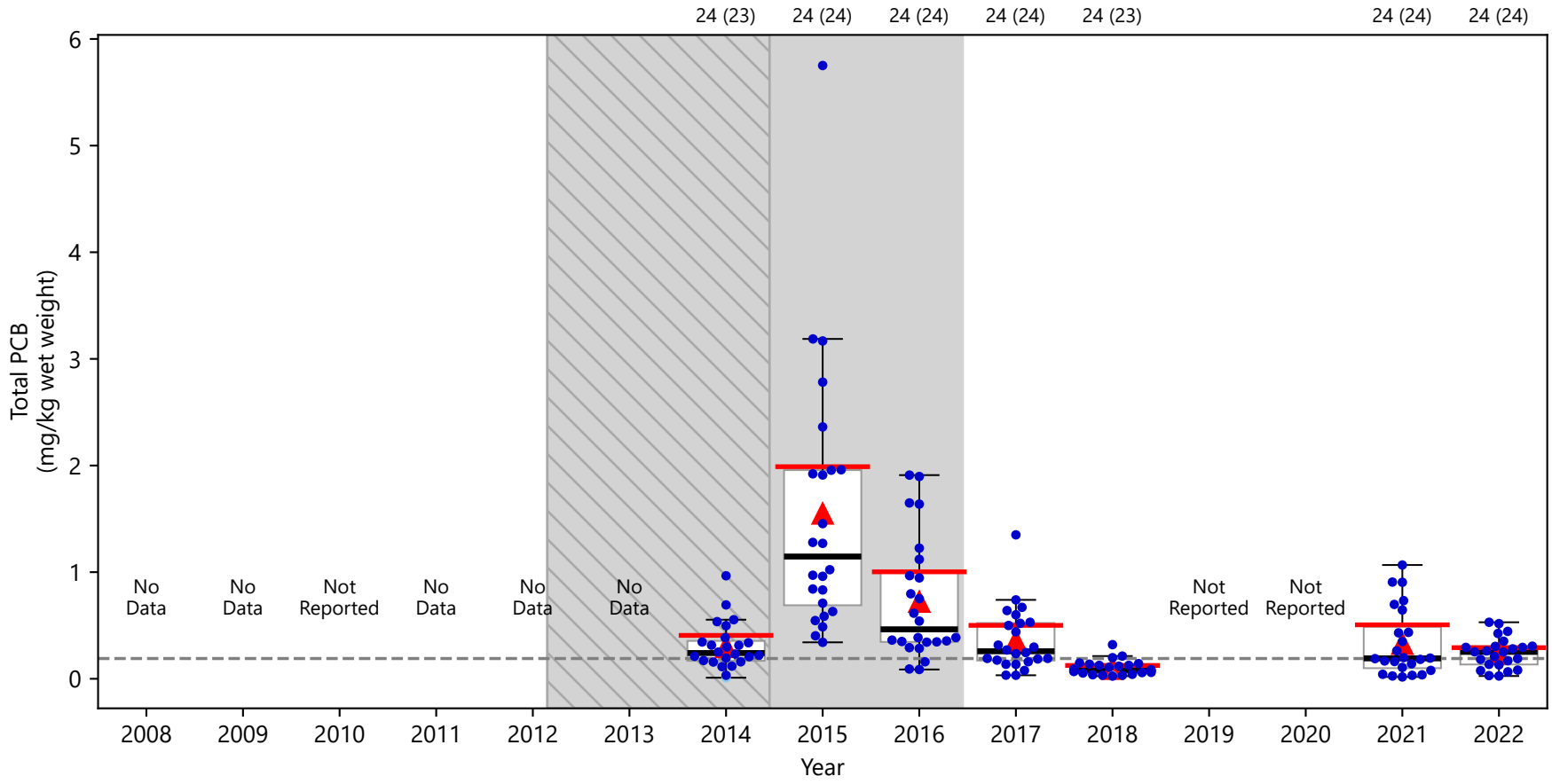
Ecological Target (0.19 mg/kg)

Dredging
Capping
Non-detect
Detect

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\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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Figure 3.31
Total PCB Concentrations in Small Prey Fish (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
TPCB is the sum of detected Aroclors. If all Aroclors are non-detect, the result value is set to 1/2 the maximum RL for all Aroclors.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

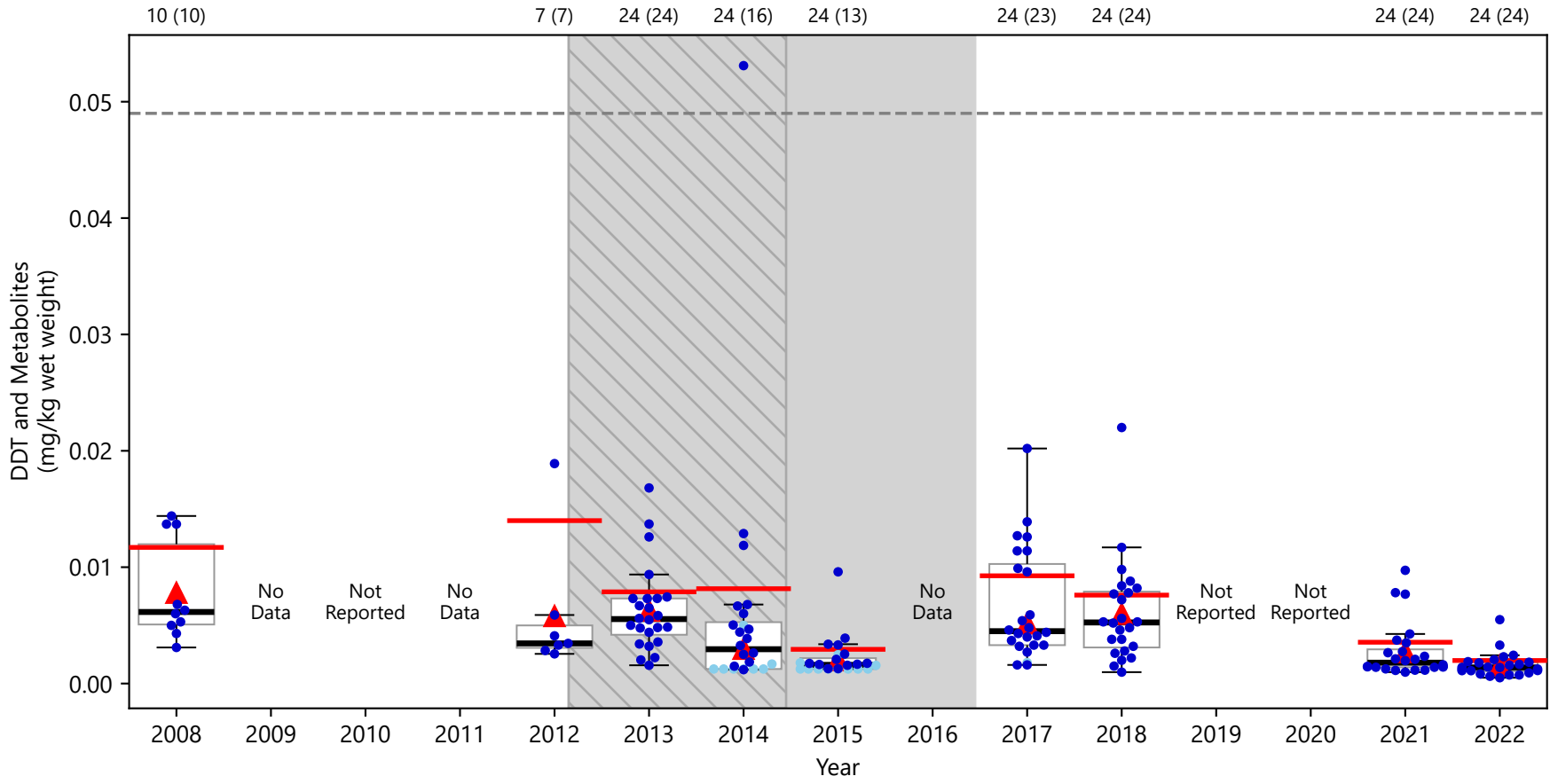
Ecological Target (0.19 mg/kg)

Dredging
Capping
Non-detect
Detect

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\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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Figure 3.32
Total PCB Concentrations in Large Prey Fish (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are shown at 1/2 RL.

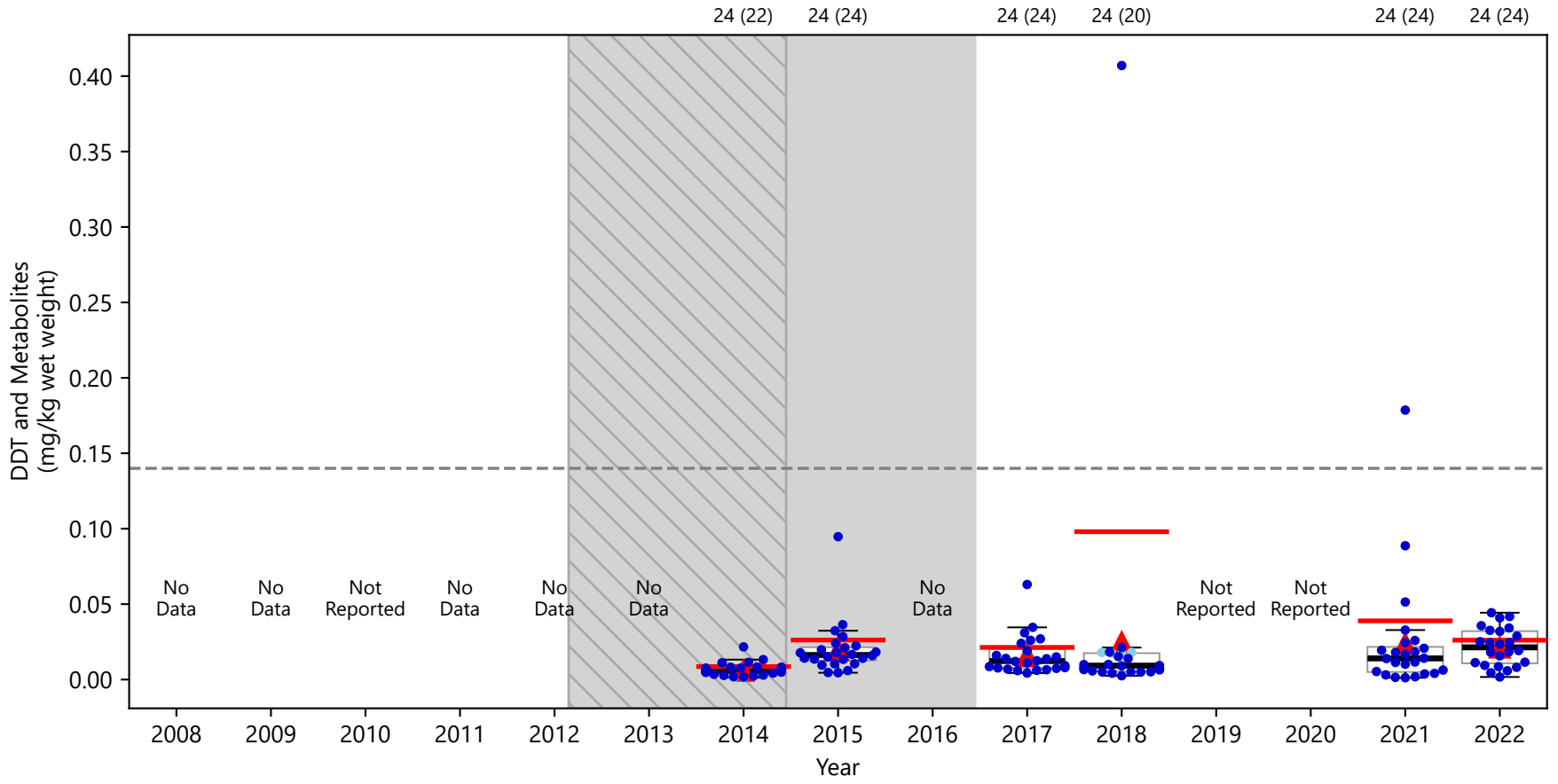
Ecological Target (0.049 mg/kg)

Dredging
Capping
Non-detect
Detect

Publish Date: 05/05/2025 12:18 PM | User: BAL-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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Figure 3.33
DDT and Metabolites Concentrations in Small Prey Fish (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are shown at 1/2 RL.

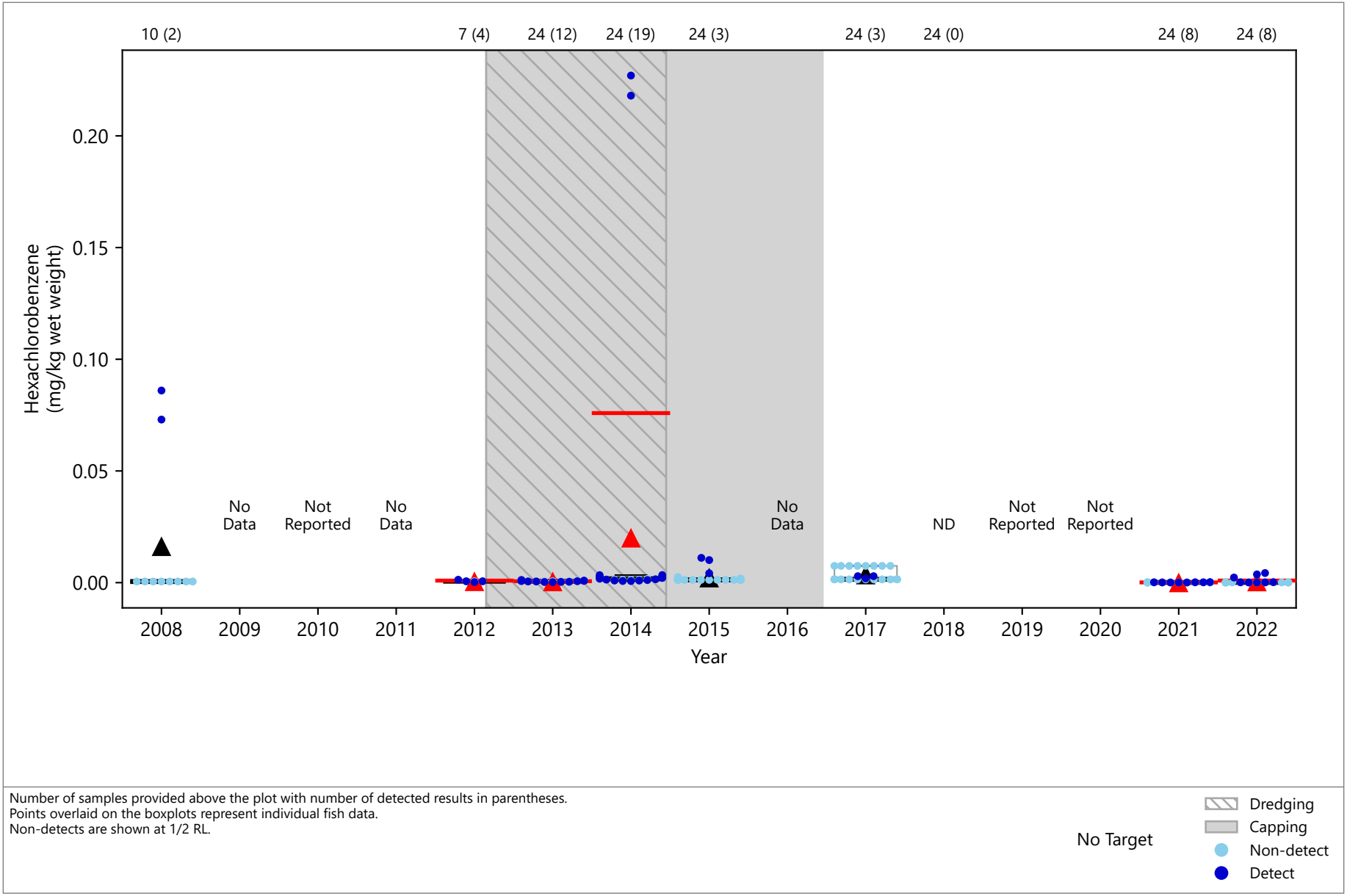
Ecological Target (0.14 mg/kg)

Dredging
Capping
Non-detect
Detect

Publish Date: 05/05/2025 12:18 PM | User: BAL-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

ANCHOR QEA

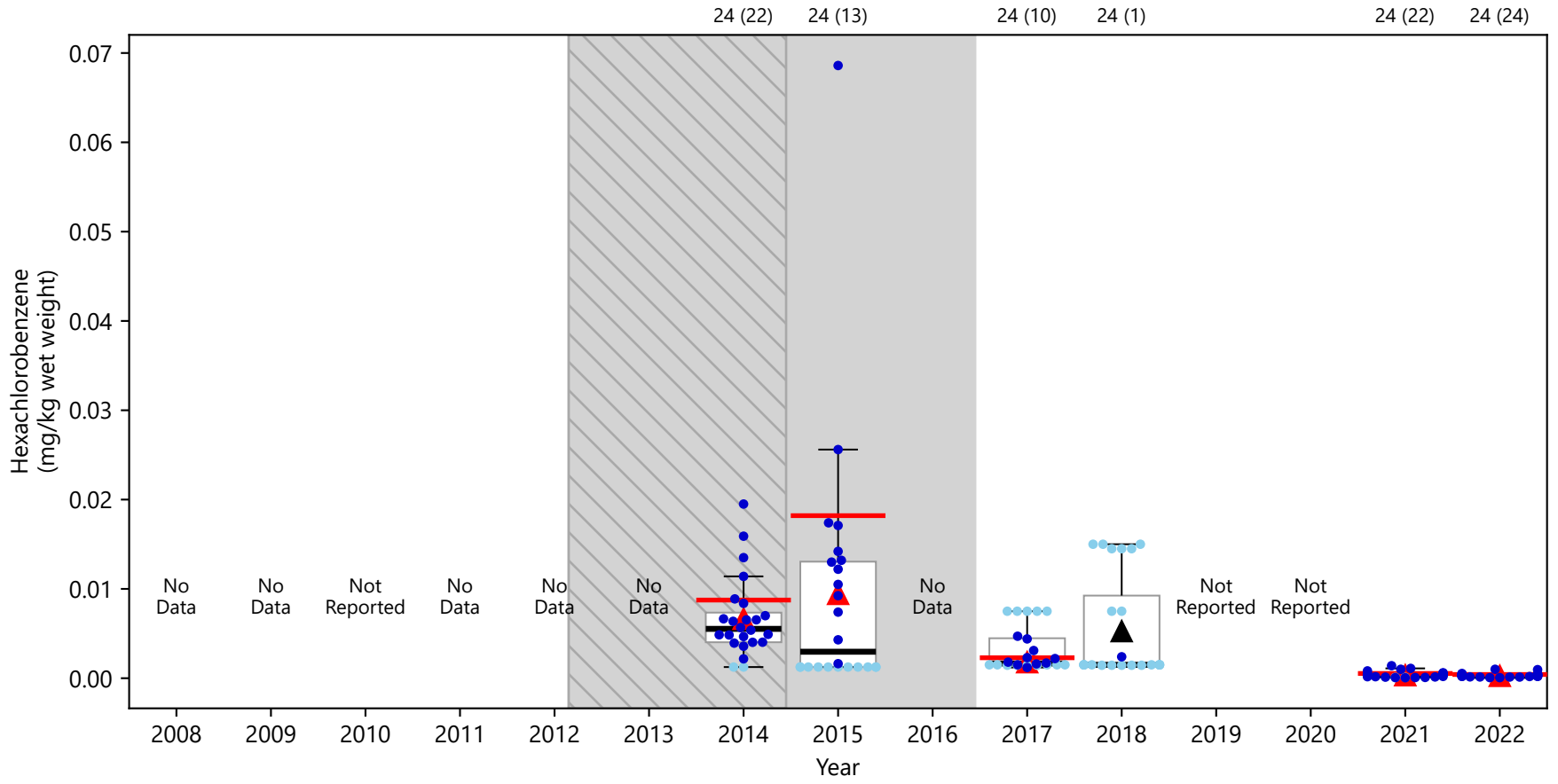
Figure 3.34
DDT and Metabolites Concentrations in Large Prey Fish (2008 - 2022)



Publish Date: 05/05/2025 12:18 PM | User: BAL-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

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Figure 3.35
Hexachlorobenzene Concentrations in Small Prey Fish (2008 - 2022)



Number of samples provided above the plot with number of detected results in parentheses.
Points overlaid on the boxplots represent individual fish data.
Non-detects are shown at 1/2 RL.

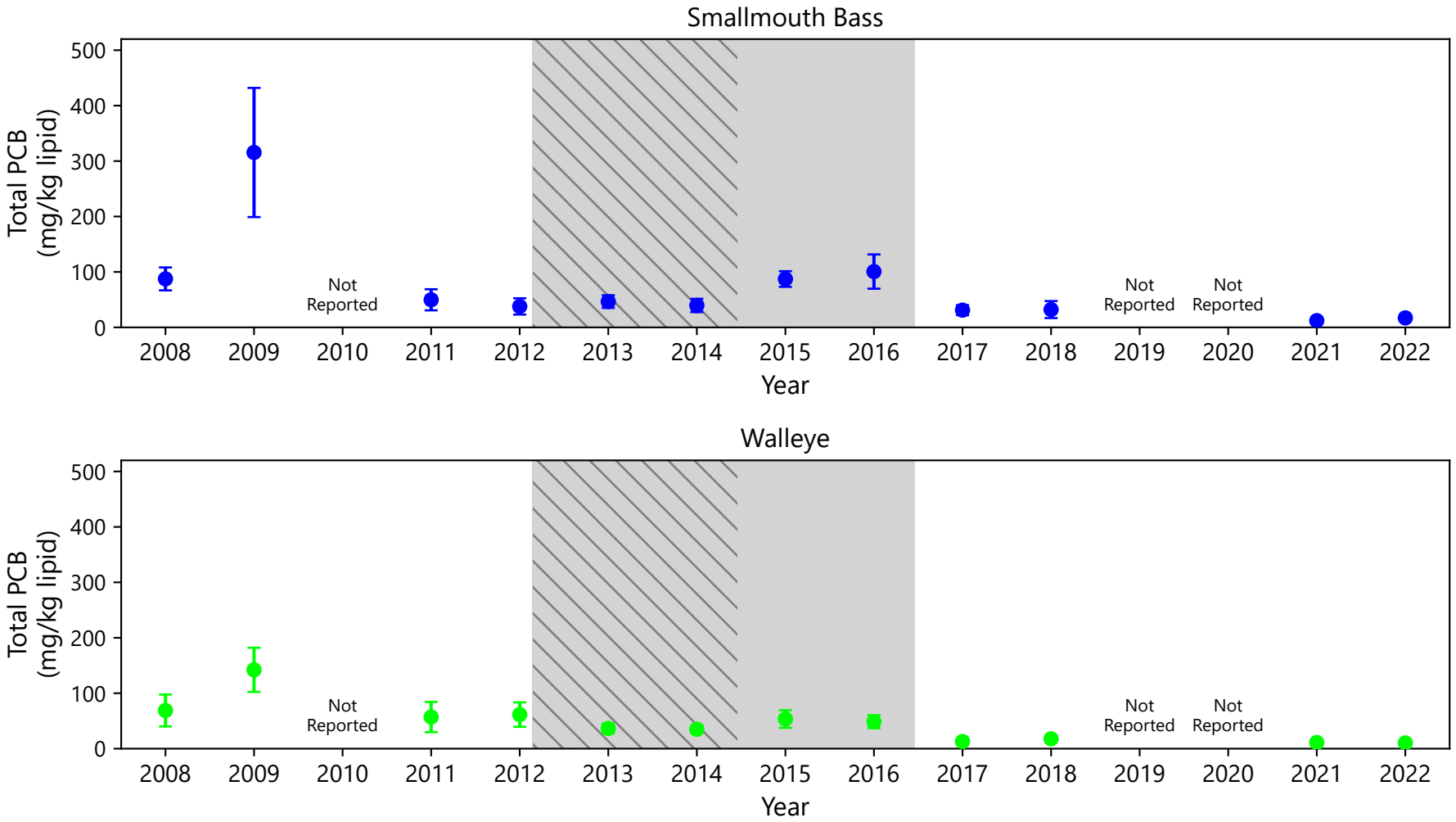
No Target

Dredging
Capping
Non-detect
Detect

Publish Date: 05/05/2025 12:18 PM | User: BAL-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_box_and_scatter_whole_fillet_preyfish.py

ANCHOR QEA

Figure 3.36
Hexachlorobenzene Concentrations in Large Prey Fish (2008 - 2022)



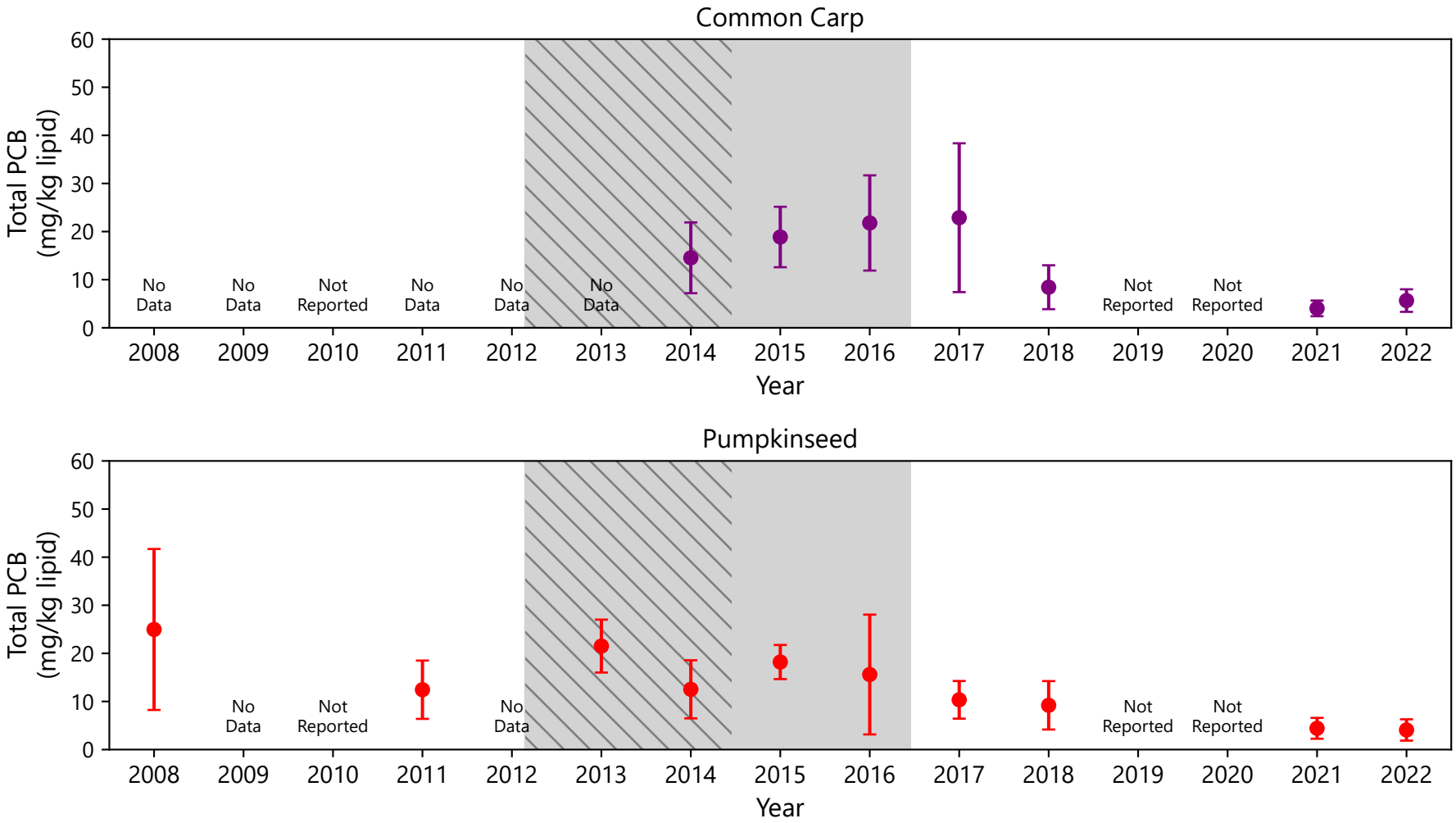
Notes: All fish are NYSDEC standard fillets. TPCB is the sum of detected Aroclors. 2010 organics data are excluded from long-term trends.
Non-detects included at 1/2 RL. Data presented are means +/- 2 SE; all ages and both sexes combined.
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring.
In 2012, in-lake remediation began in late July and fish were sampled mid-June through early-July 2012.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

Dredging
Capping

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ANCHOR QEA

Figure 3.37
Lipid-Normalized Total PCB Concentrations in Smallmouth Bass and Walleye



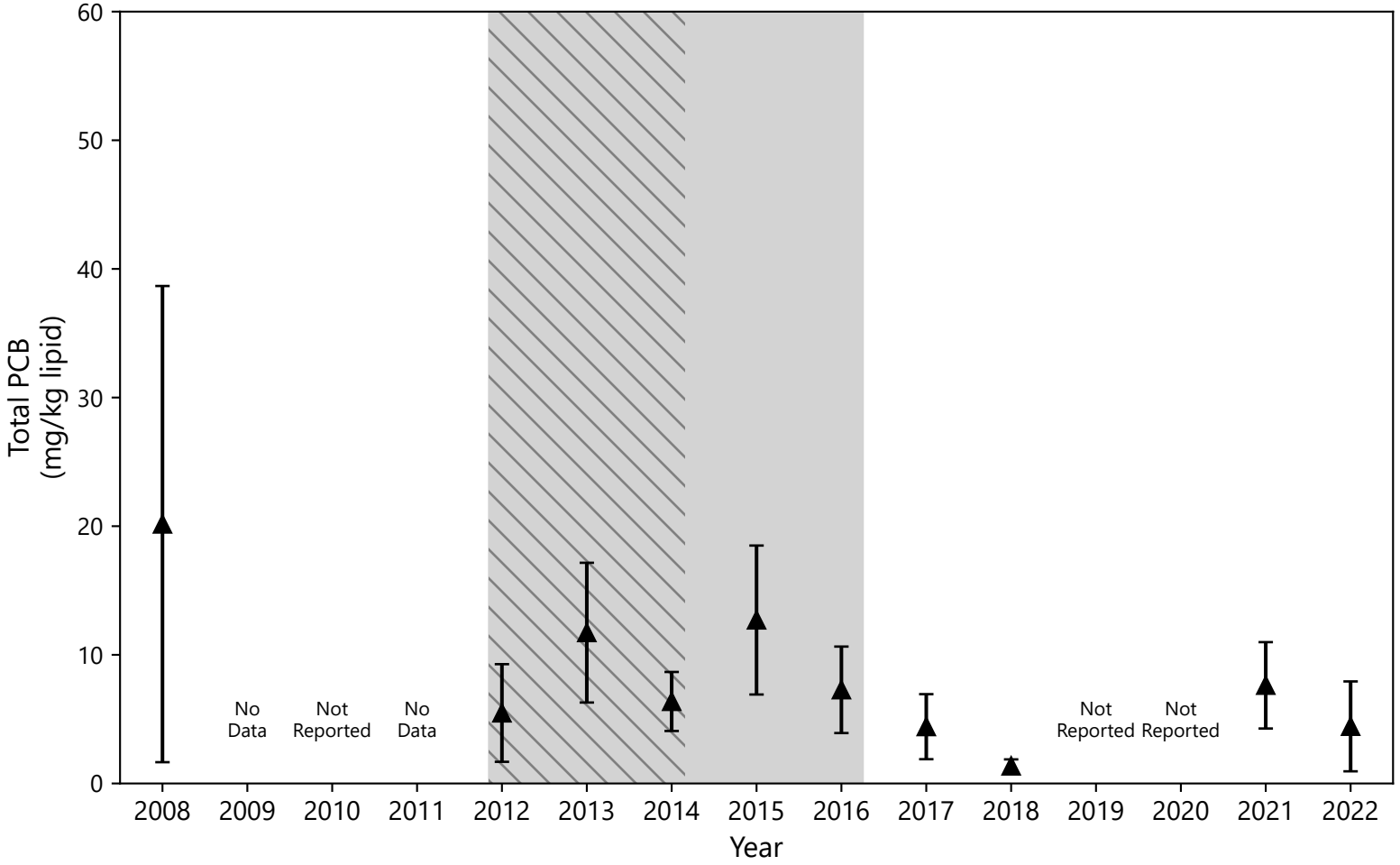
Notes: All fish are NYSDEC standard fillets. TPCB is the sum of detected Aroclors. 2010 organics data are excluded from long-term trends.
Non-detects included at 1/2 RL. Data presented are means +/- 2 SE; all ages and both sexes combined.
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring.
In 2012, in-lake remediation began in late July and fish were sampled mid-June through early-July 2012. Collection of Common Carp began in 2014.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

Dredging
Capping

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Figure 3.38
Lipid-Normalized Total PCB Concentrations in Common Carp and Pumpkinseed

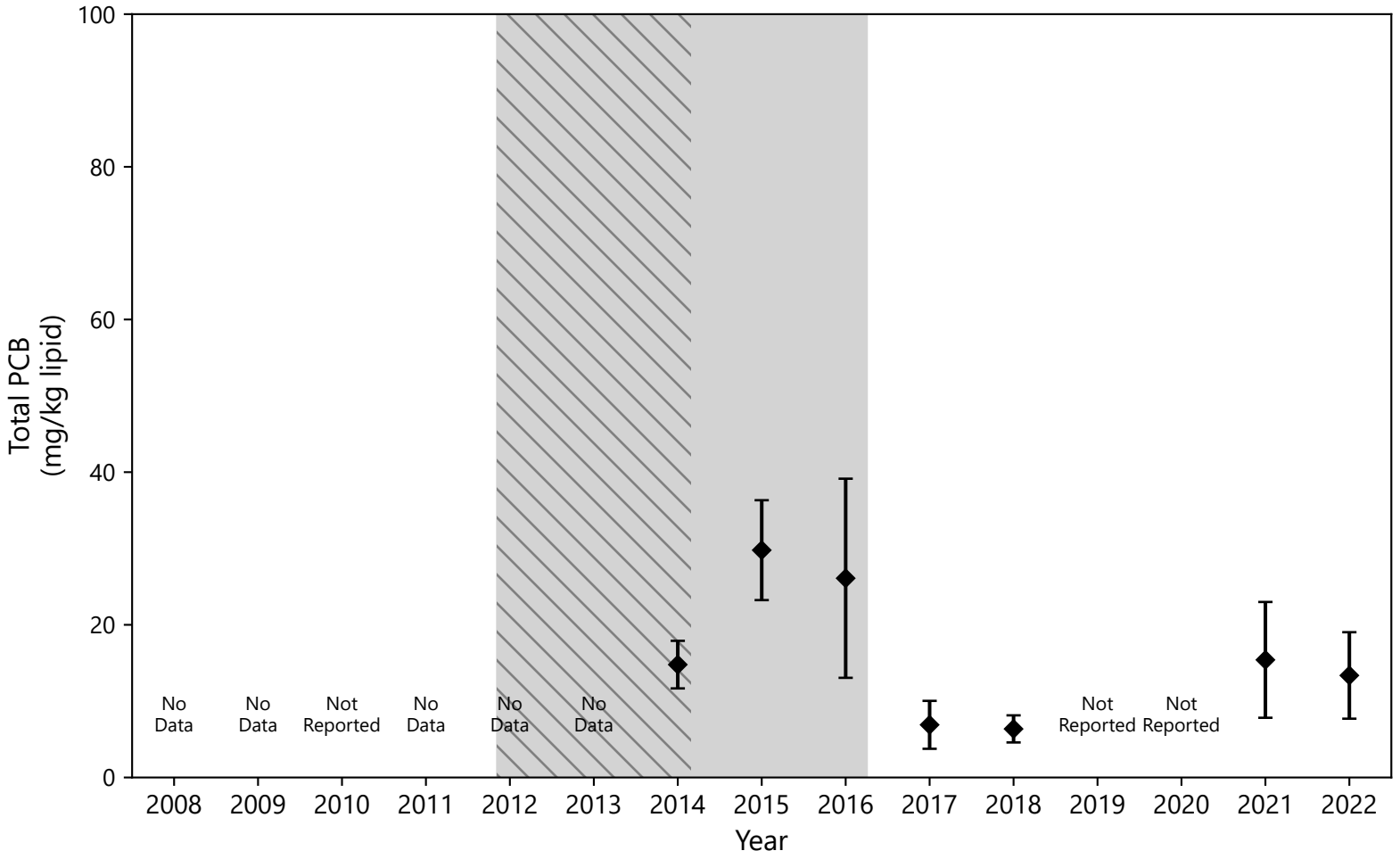


Small prey fish = Golden Shiner, Brook Silverside, Minnow, Bluntnose Minnow, Banded Killifish, and Round Goby (Alewife excluded).
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring.
TPCB is the sum of detected Aroclors. Non-detects included at 1/2 RL.Prey fish had whole body preparation; all ages and sexes combined; mean +/- 2 SE.
In 2012, in-lake remediation began in late July and fish were sampled in early August 2012. 2010 organics data are excluded from long-term trends.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

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ANCHOR QEA

Figure 3.39
Lipid-Normalized Total PCB Concentrations in Small Prey Fish (All SMUs)

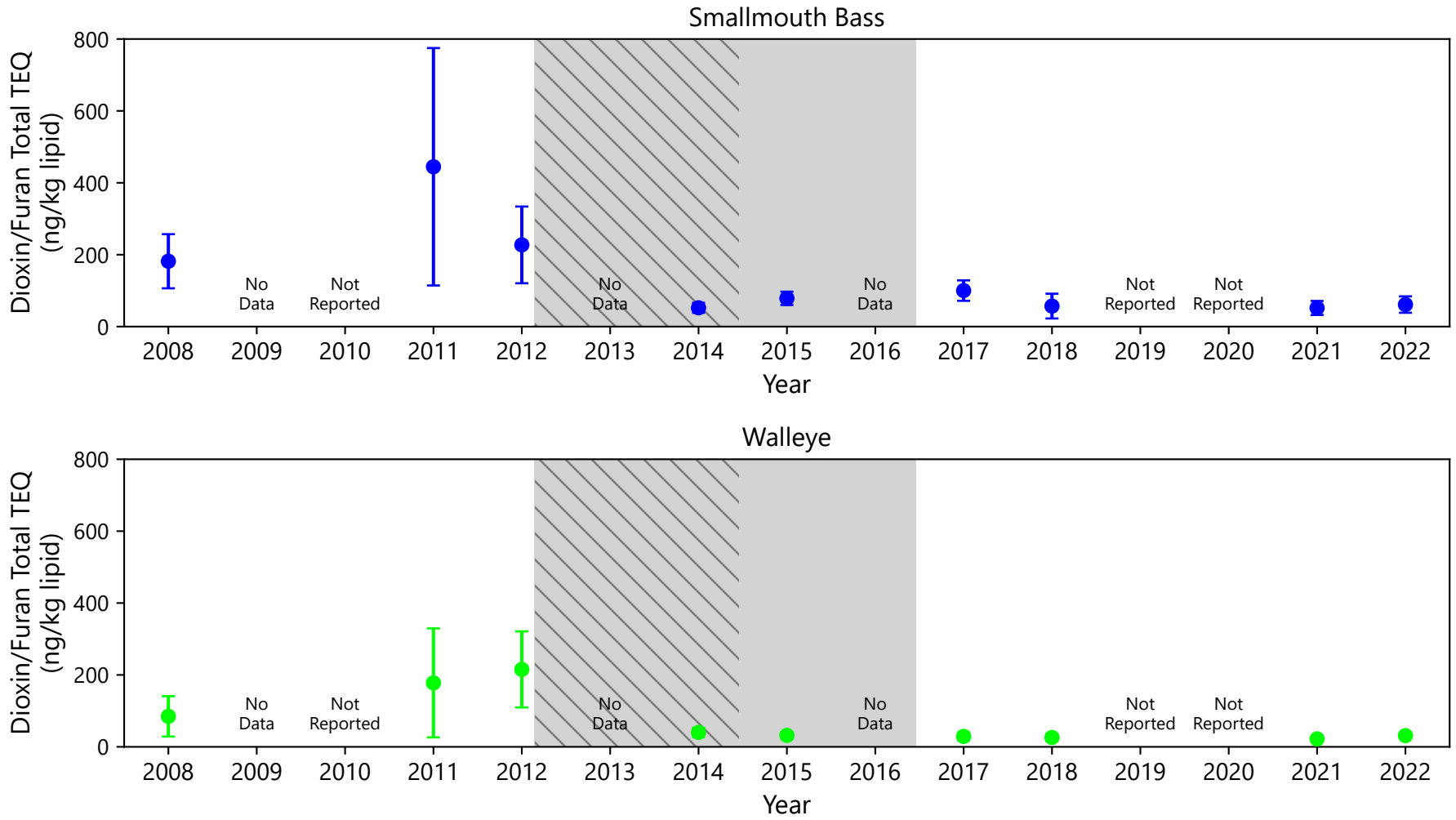


Large prey fish = White Sucker and Shorthead Redhorse.
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring.
TPCB is the sum of detected Aroclors. Non-detects included at 1/2 RL.Prey fish had whole body preparation; all ages and sexes combined; mean +/- 2 SE.
In-lake remediation began in late July 2012. Large prey fish sampling began in 2014.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

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ANCHOR QEA

Figure 3.40
Lipid-Normalized Total PCB Concentrations in Large Prey Fish (All SMUs)



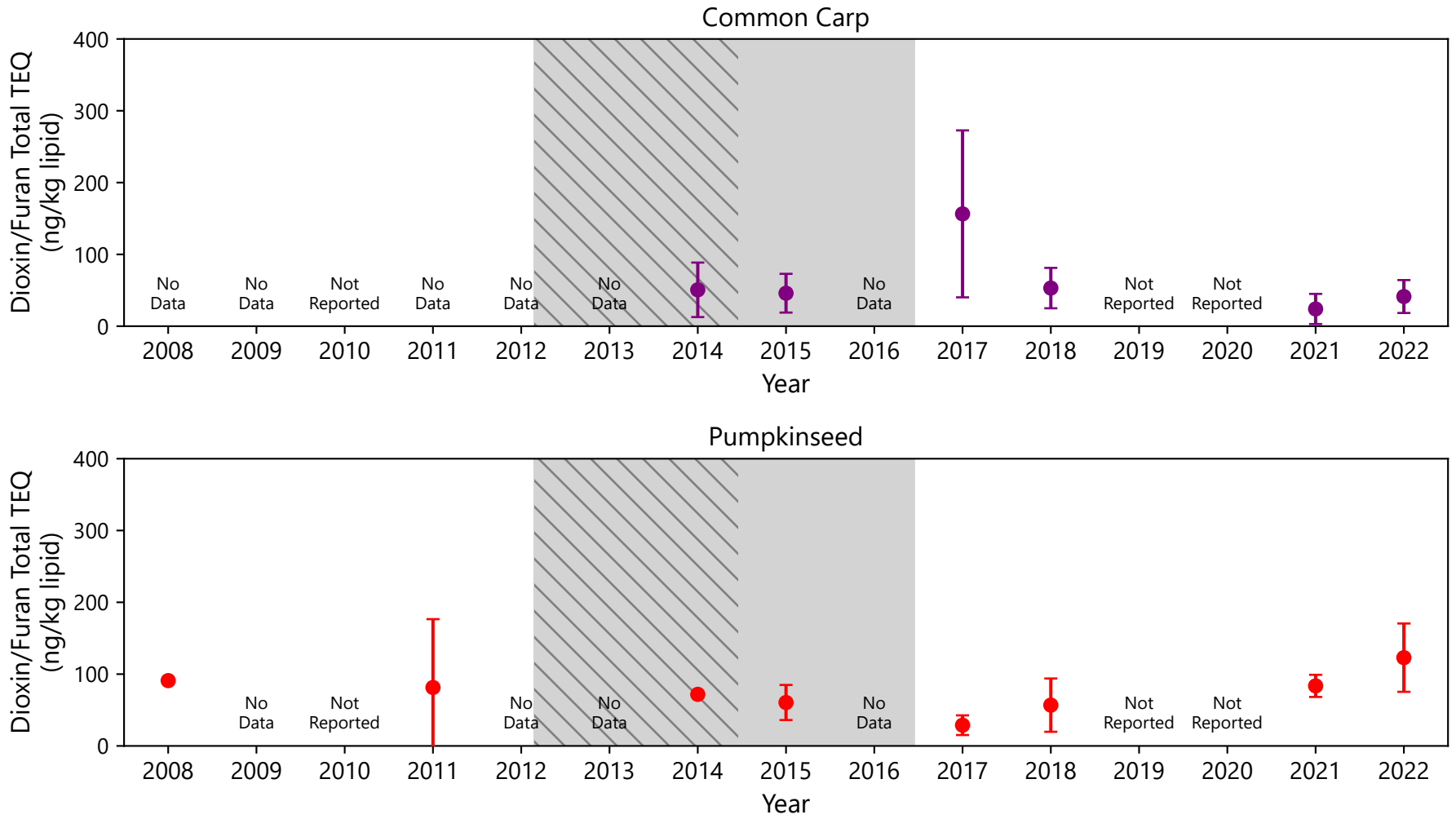
Notes: All fish are NYSDEC standard fillets. 2010 organics data are excluded from long-term trends.
Non-detects summed at 1/2 MDL, except 2014 and 2015, which used 1/2 RL. Data presented are means +/- 2 SE; all ages and both sexes combined.
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring.
In 2012, in-lake remediation began in late July and fish were sampled mid-June through early-July 2012.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

Dredging
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Figure 3.41
Lipid-Normalized Dioxin/Furan Total TEQ Concentrations in Smallmouth Bass and Walleye



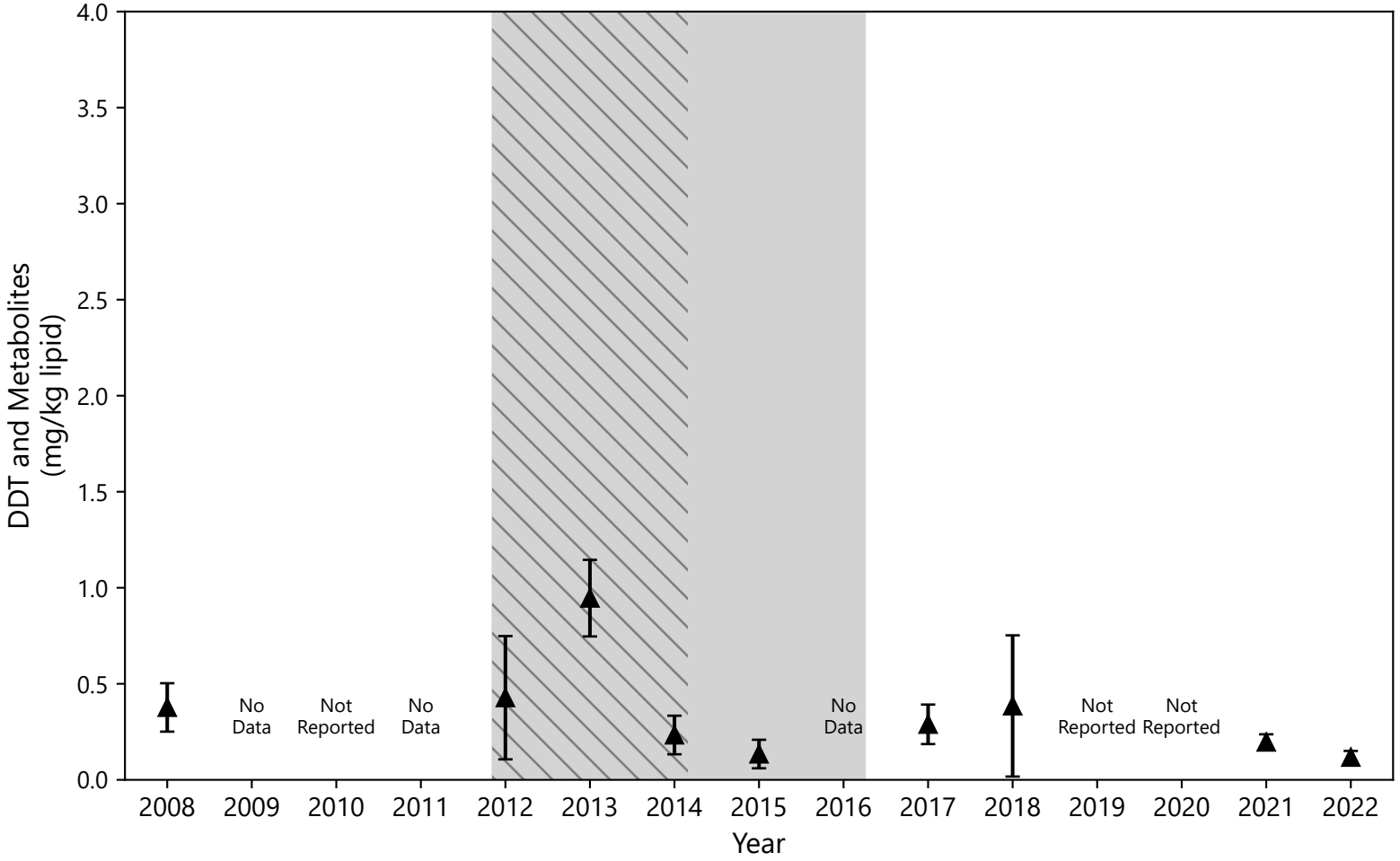
Notes: All fish are NYSDEC standard fillets. 2010 organics data are excluded from long-term trends.
Non-detects summed at 1/2 MDL, except 2014 and 2015, which used 1/2 RL. Data presented are means +/- 2 SE; all ages and both sexes combined.
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring.
In 2012, in-lake remediation began in late July and fish were sampled mid-June through early-July 2012. Collection of Common Carp began in 2014.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

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ANCHOR QEA

Figure 3.42
Lipid-Normalized Dioxin/Furan Total TEQ Concentrations in Common Carp and Pumpkinseed

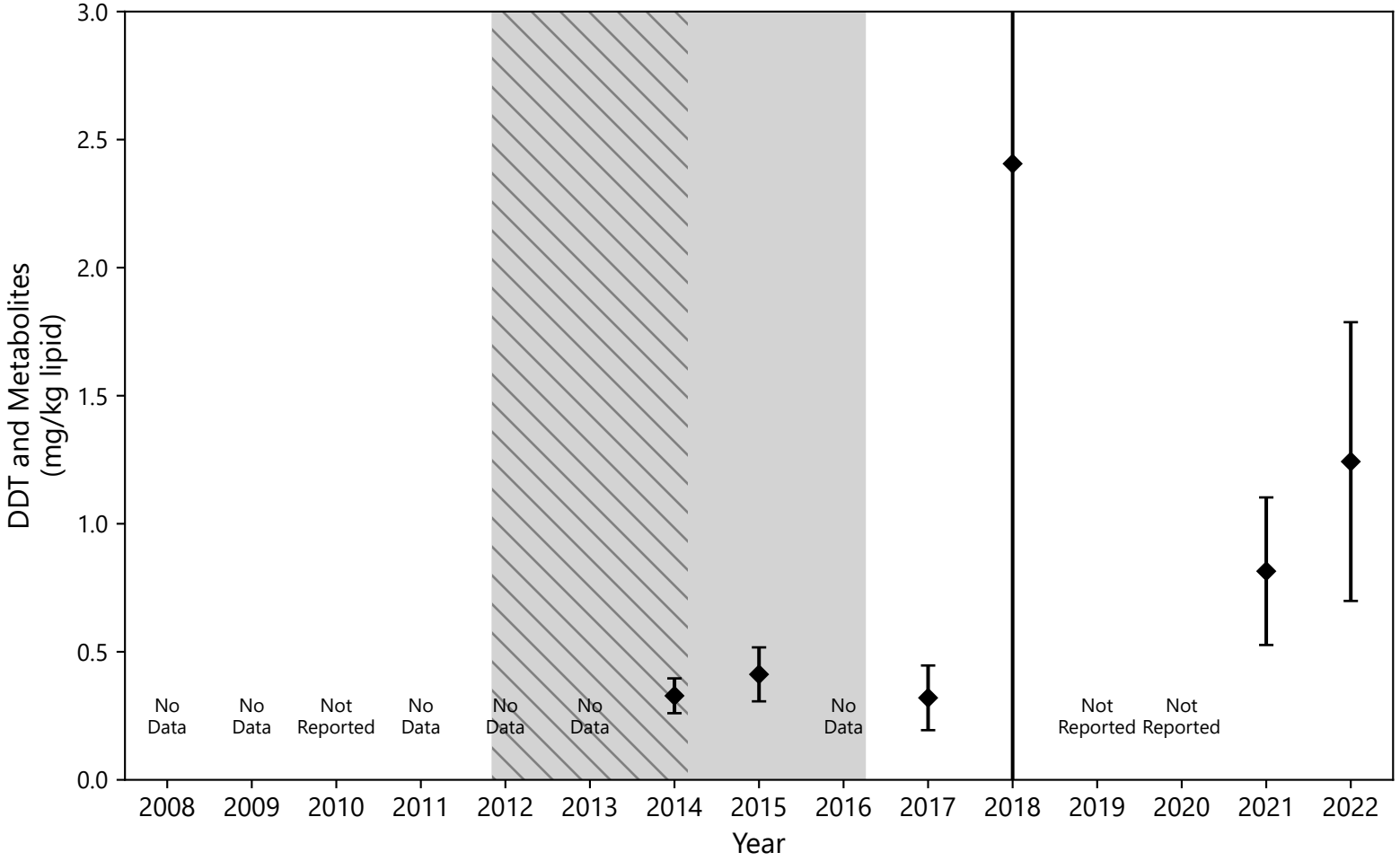


Small prey fish = Golden Shiner, Brook Silverside, Minnow, Bluntnose Minnow, Banded Killifish, and Round Goby (Alewife excluded).
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring.
Non-detects included at 1/2 RL.Prey fish had whole body preparation; all ages and sexes combined; mean +/- 2 SE.
In 2012, in-lake remediation began in late July and fish were sampled in early August 2012. 2010 organics data are excluded from long-term trends.
DDT and Metabolites are not analyzed in fish tissue on an annual basis, and was not analyzed in 2016.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

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Figure 3.43
Lipid-Normalized DDT and Metabolites Concentrations in Small Prey Fish (All SMUs)

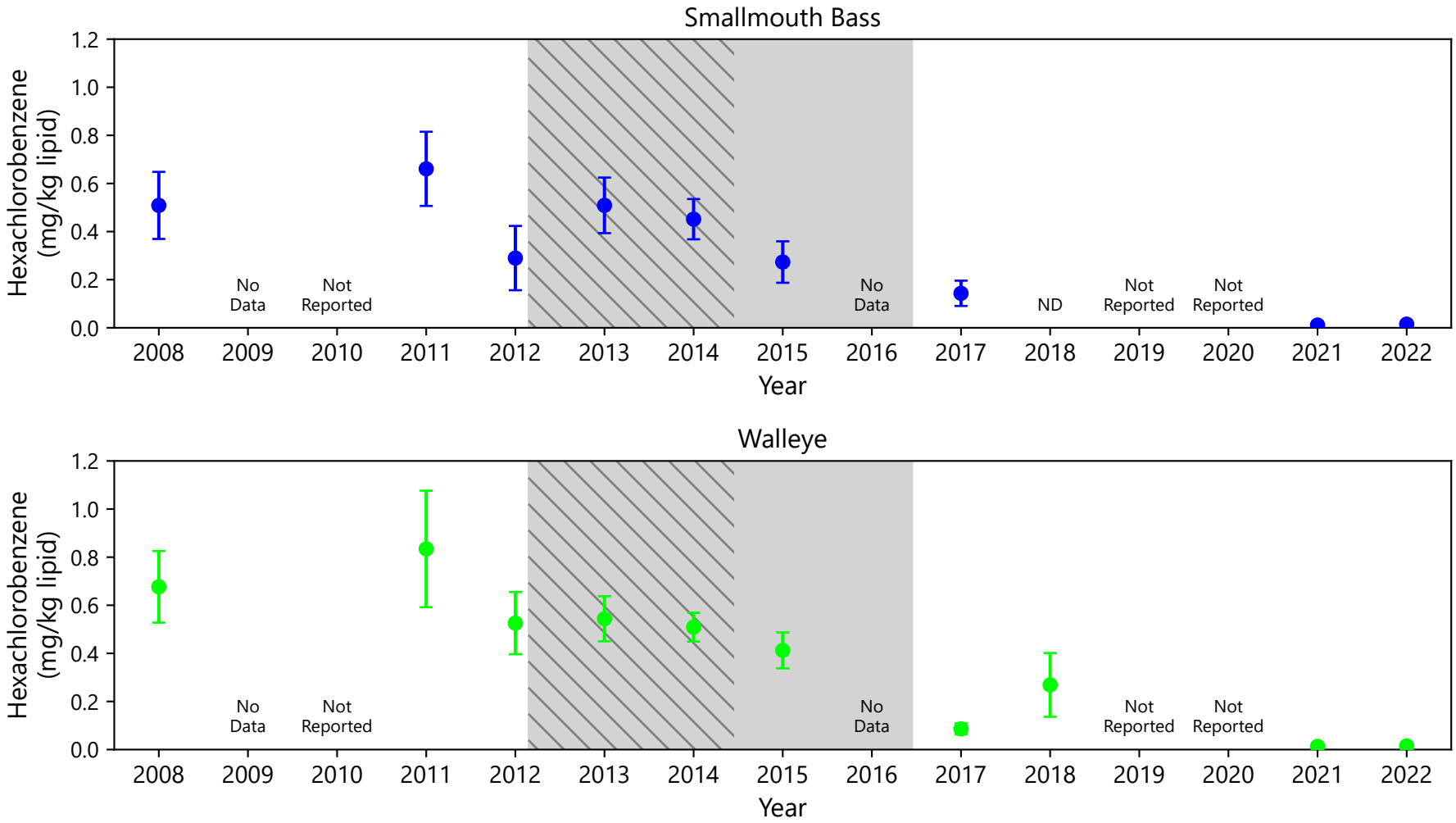


Large prey fish = White Sucker and Shorthead Redhorse.
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring.
Non-detects included at 1/2 RL.Prey fish had whole body preparation; all ages and sexes combined; mean +/- 2 SE.
In-lake remediation began in late July 2012. Large prey fish sampling began in 2014.
DDT and Metabolites are not analyzed in fish tissue on an annual basis, and was not analyzed in 2016.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

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ANCHOR QEA

Figure 3.44
Lipid-Normalized DDT and Metabolites Concentrations in Large Prey Fish (All SMUs)



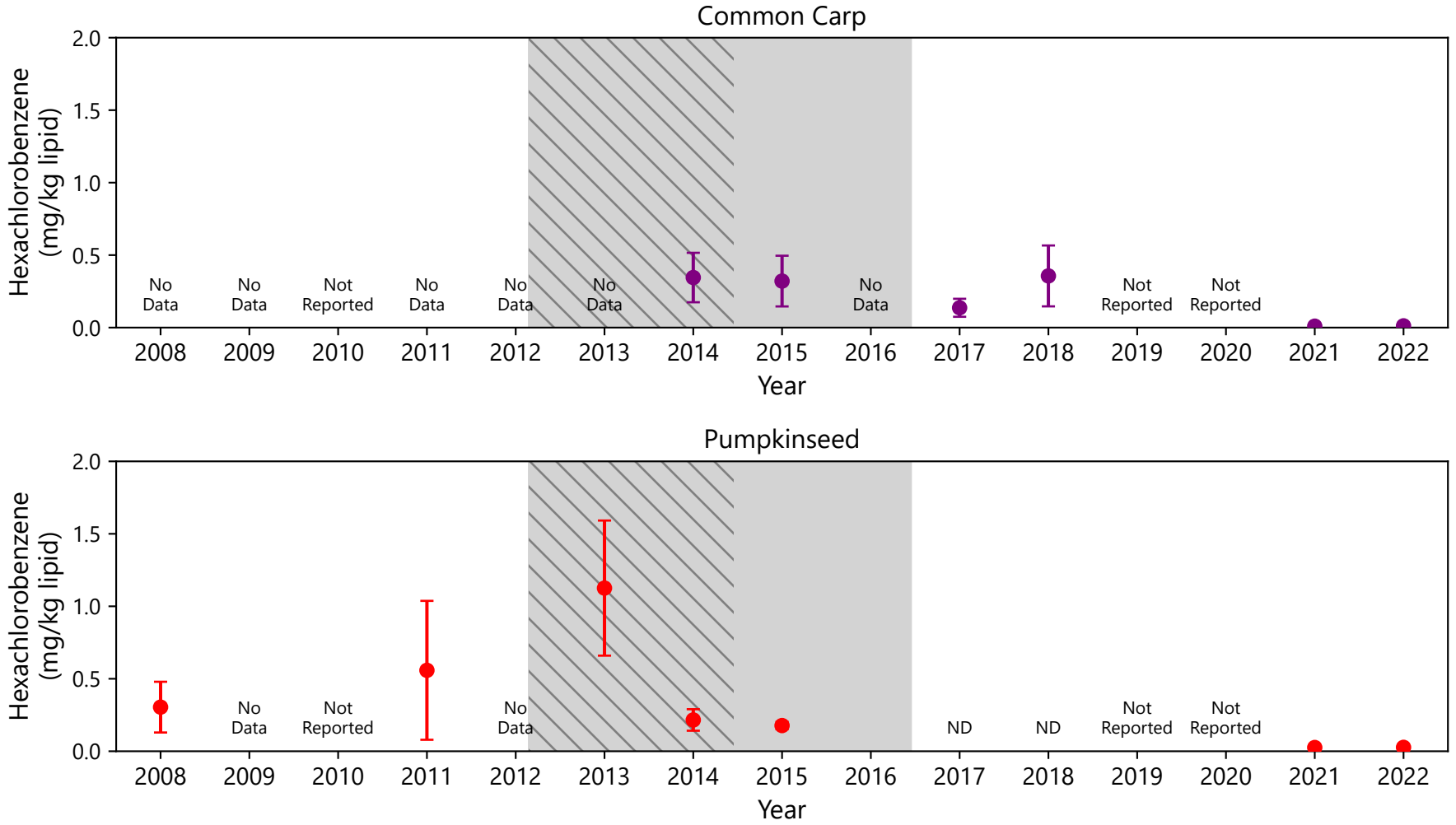
Notes: All fish are NYSDEC standard fillets. 2010 organics data are excluded from long-term trends.
Non-detects included at 1/2 RL. Open symbols indicate all results were non-detect. Data presented are means +/- 2 SE; all ages and both sexes combined.
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring.
In 2012, in-lake remediation began in late July and fish were sampled mid-June through early-July 2012.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

Dredging
Capping

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Figure 3.45
Lipid-Normalized Hexachlorobenzene Concentrations in Smallmouth Bass and Walleye



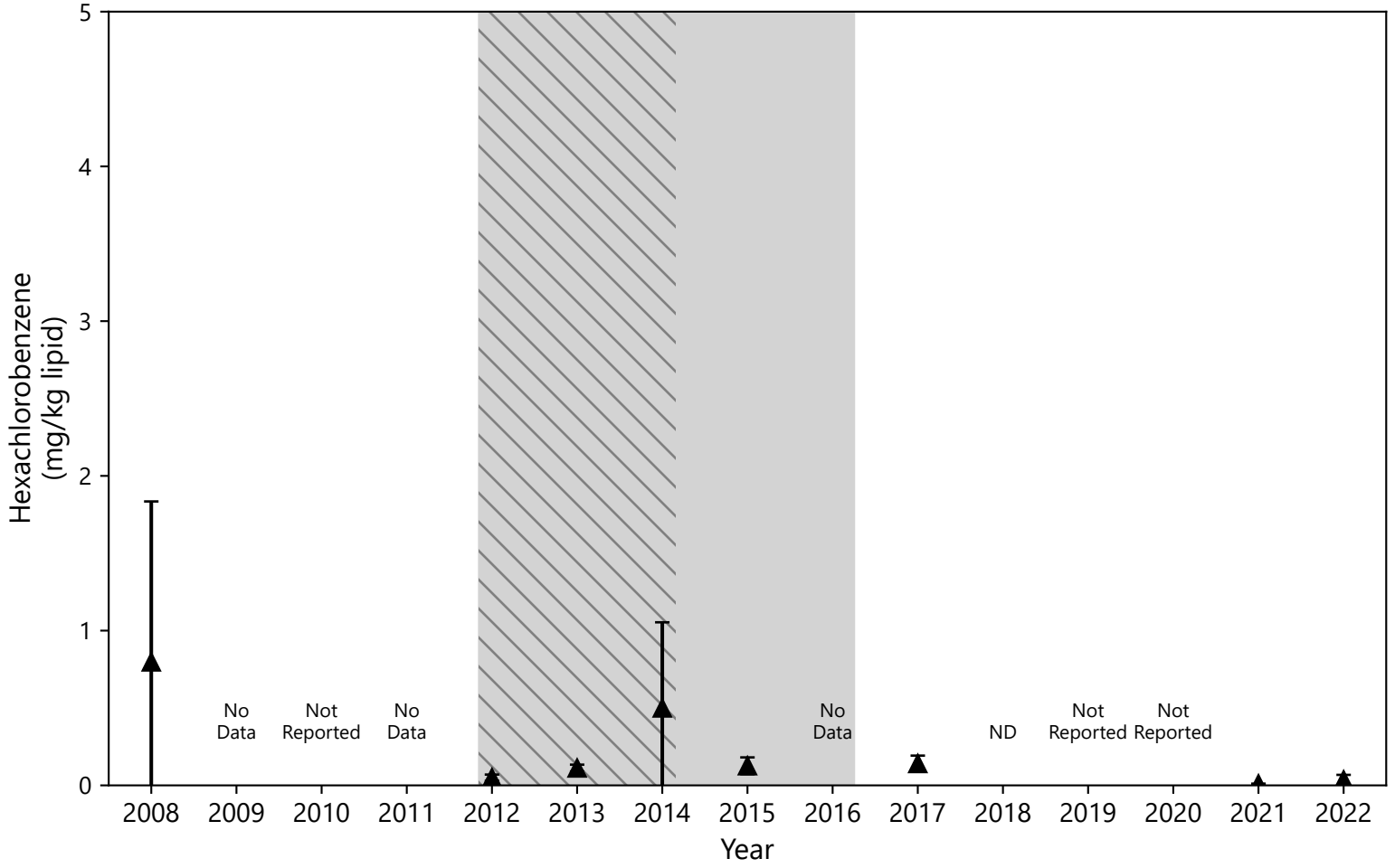
Notes: All fish are NYSDEC standard fillets. 2010 organics data are excluded from long-term trends.
Non-detects included at 1/2 RL. Open symbols indicate all results were non-detect. Data presented are means +/- 2 SE; all ages and both sexes combined.
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring.
In 2012, in-lake remediation began in late July and fish were sampled mid-June through early-July 2012. Collection of Common Carp began in 2014.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

Dredging
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Figure 3.46
Lipid-Normalized Hexachlorobenzene Concentrations in Common Carp and Pumpkinseed

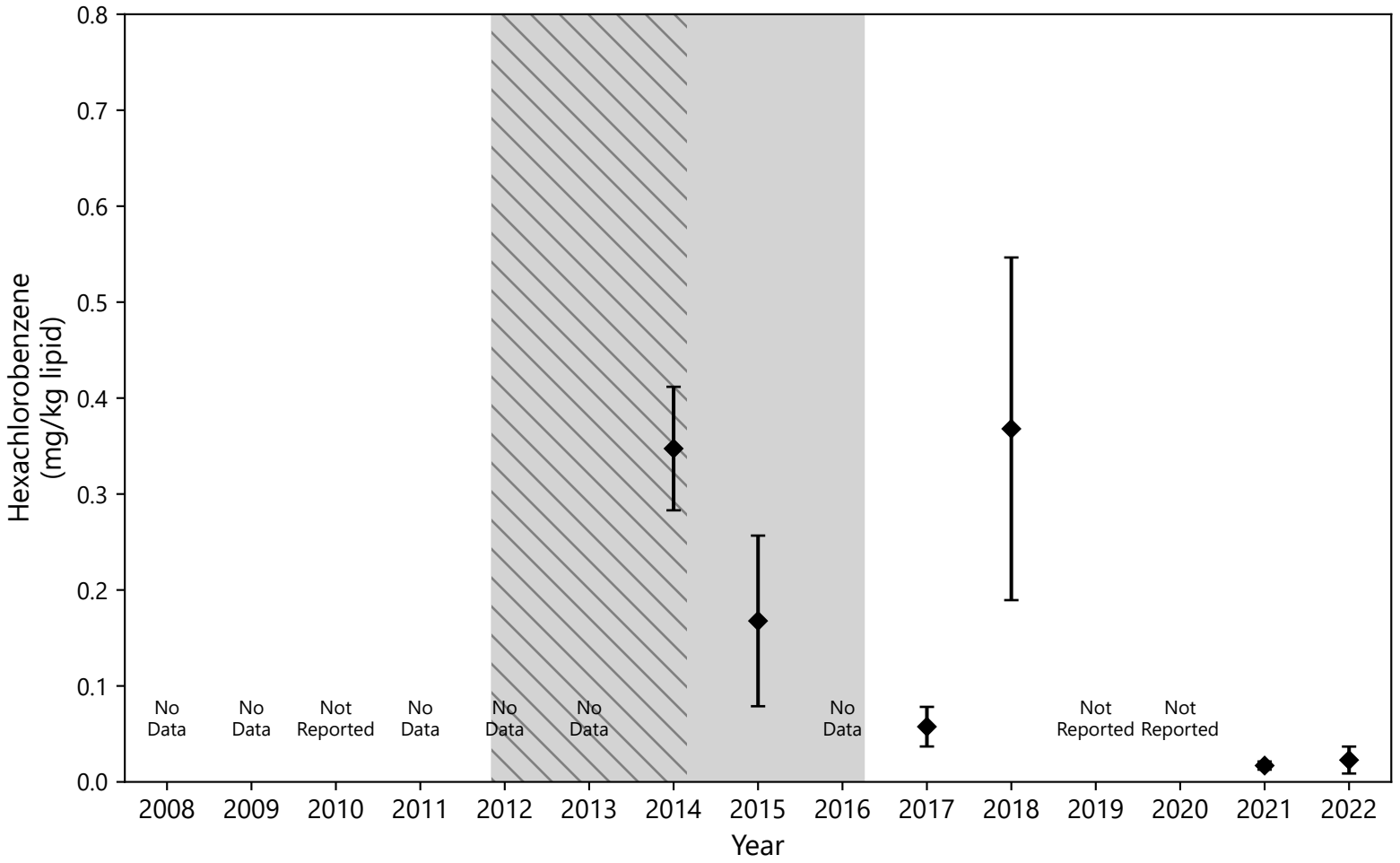


Small prey fish = Golden Shiner, Brook Silverside, Minnow, Bluntnose Minnow, Banded Killifish, and Round Goby (Alewife excluded).
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring. Non-detects included at 1/2 RL.
Open symbols indicate all results were non-detect.Prey fish had whole body preparation; all ages and sexes combined; mean +/- 2 SE.
In 2012, in-lake remediation began in late July and fish were sampled in early August 2012. 2010 organics data are excluded from long-term trends.
Hexachlorobenzene is not analyzed in fish tissue on an annual basis, and was not analyzed in 2016.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

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ANCHOR QEA

Figure 3.47
Lipid-Normalized Hexachlorobenzene Concentrations in Small Prey Fish (All SMUs)

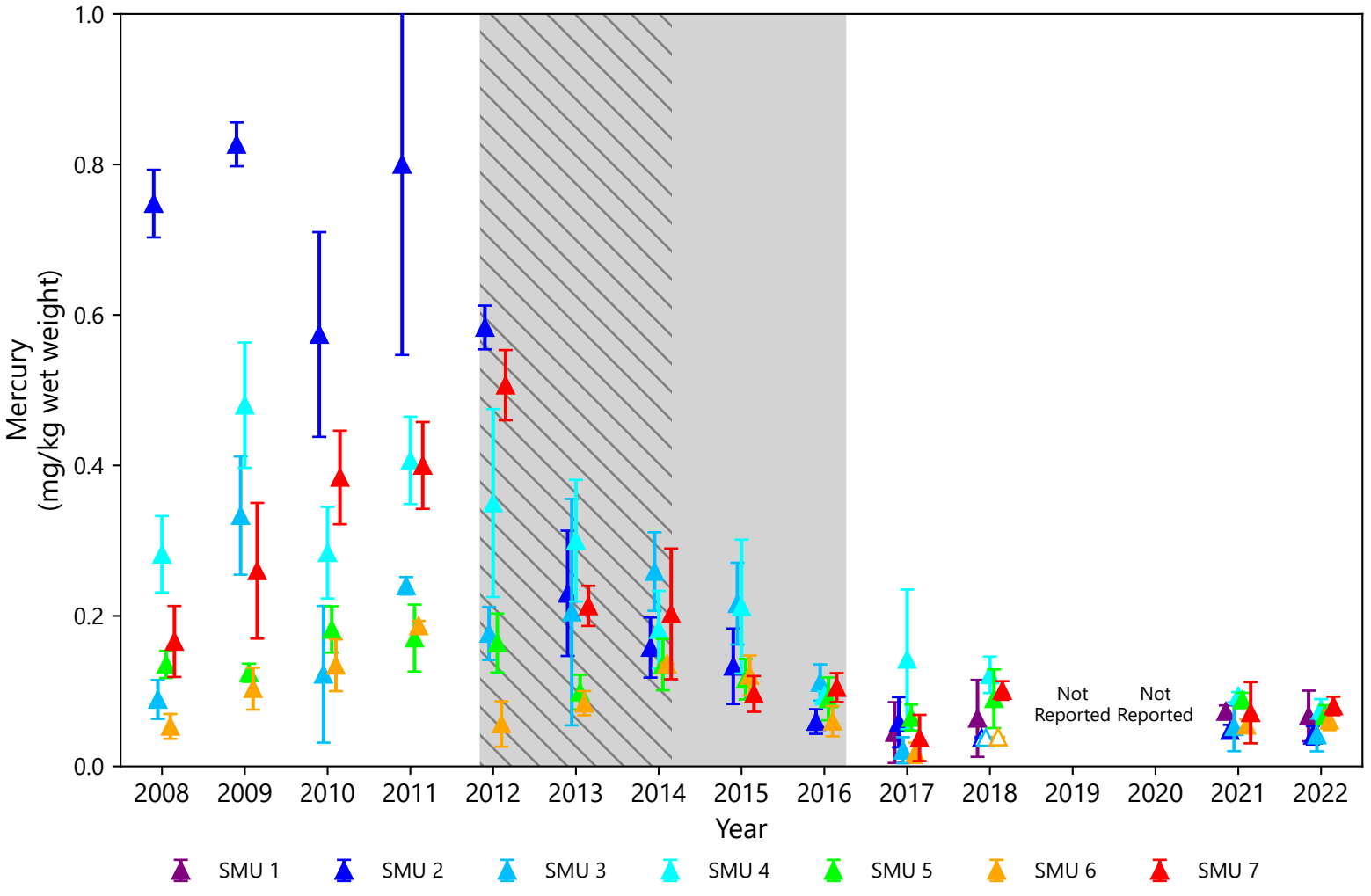


Large prey fish = White Sucker and Shorthead Redhorse.
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring. Non-detects included at 1/2 RL.
Open symbols indicate all results were non-detect.Prey fish had whole body preparation; all ages and sexes combined; mean +/- 2 SE.
In-lake remediation began in late July 2012. Large prey fish sampling began in 2014.
Hexachlorobenzene is not analyzed in fish tissue on an annual basis, and was not analyzed in 2016.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

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Figure 3.48
Lipid-Normalized Hexachlorobenzene Concentrations in Large Prey Fish (All SMUs)



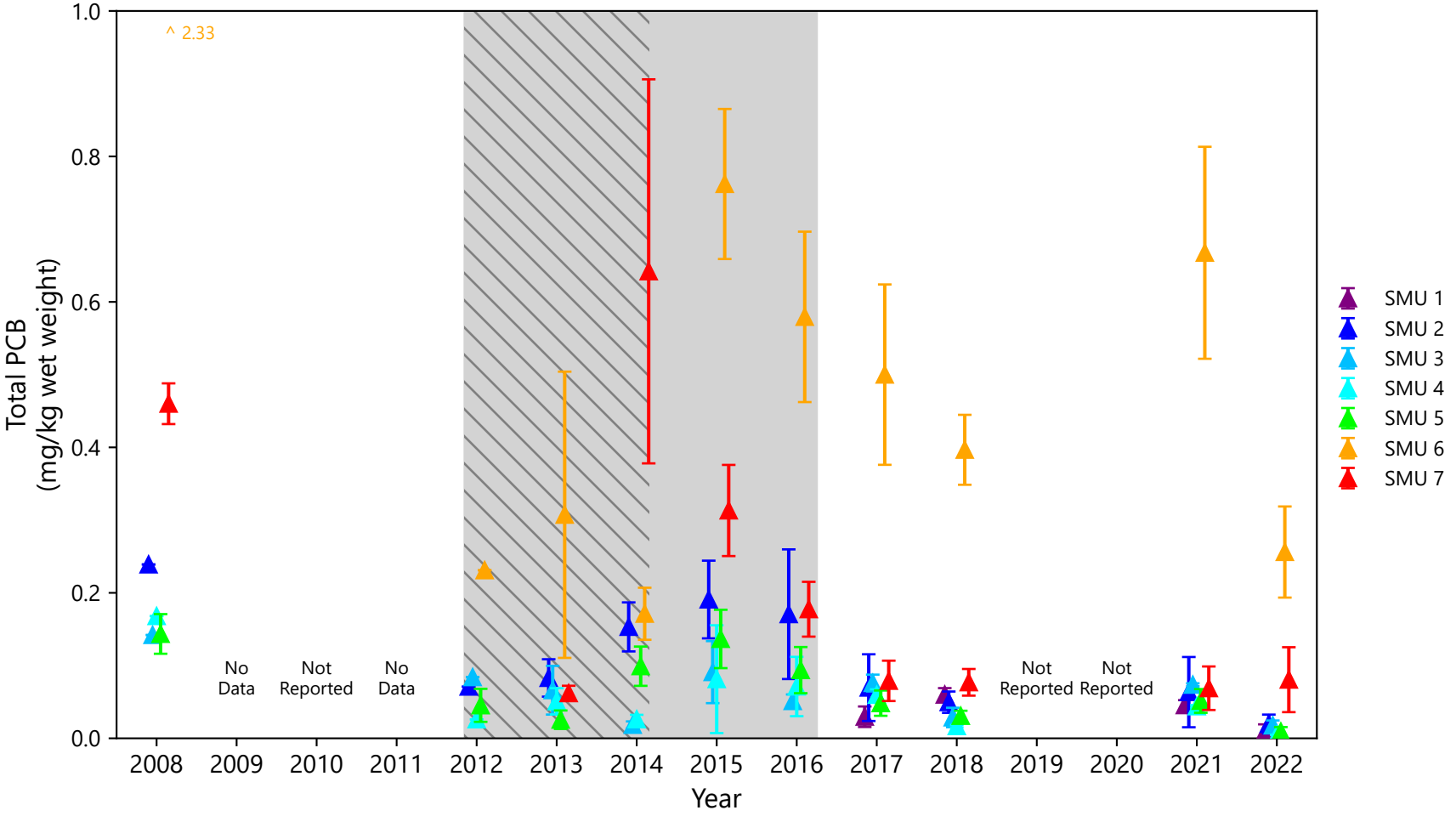
Small prey fish = Golden Shiner, Brook Silverside, Minnow, Bluntnose Minnow, Banded Killifish, and Round Goby (Alewife excluded).
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring.
Prey fish had whole body preparation; all ages and sexes combined; mean +/- 2 SE.
In 2012, in-lake remediation began in late July and fish were sampled in early August 2012. 2010 organics data are excluded from long-term trends.
Nitrate addition began in 2011.

Dredging
Capping

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ANCHOR QEA

Figure 3.49
Mercury Concentrations in Small Prey Fish By SMU



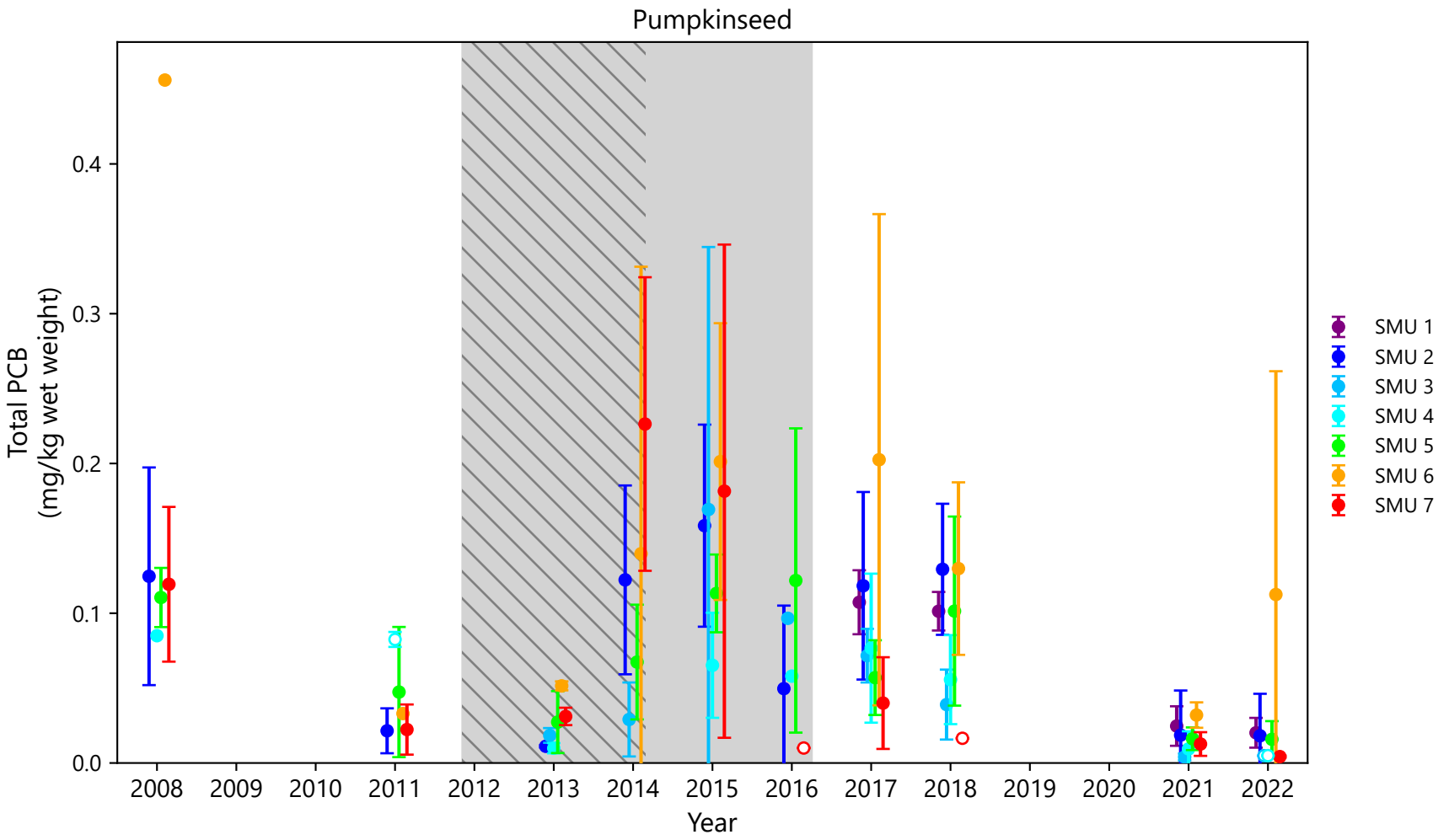
Small prey fish = Golden Shiner, Brook Silverside, Minnow, Bluntnose Minnow, Banded Killifish, and Round Goby (Alewife excluded).
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring.
TPCB is the sum of detected Aroclors. Non-detects included at 1/2 RL.Prey fish had whole body preparation; all ages and sexes combined; mean +/- 2 SE.
In 2012, in-lake remediation began in late July and fish were sampled in early August 2012. 2010 organics data are excluded from long-term trends.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

Dredging
Capping

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Figure 3.50
Total PCB Concentrations in Small Prey Fish By SMU

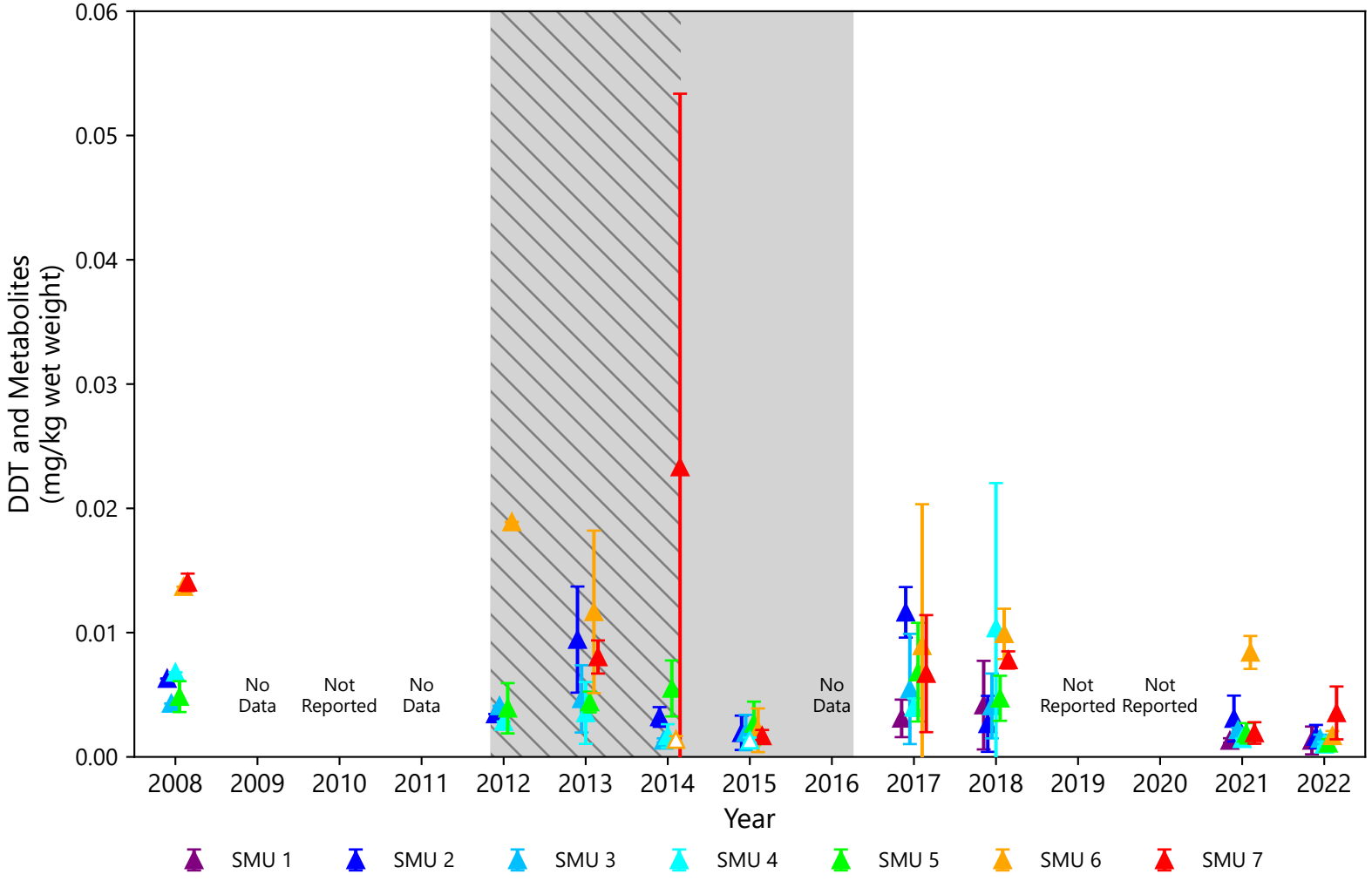


Large prey fish = White Sucker and Shorthead Redhorse.
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring.
TPCB is the sum of detected Aroclors. Non-detects included at 1/2 RL.
Prey fish had whole body preparation; all ages and sexes combined; mean +/- 2 SE.
In-lake remediation began in late July 2012. Large prey fish sampling began in 2014.
Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell, compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. NYSDEC and Honeywell are currently exploring options for applying estimation factors to the results. If it is agreed that estimation factors should be applied, then figures and tables would be revised in future reports that utilize these data.

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Figure 3.51
Total PCB Concentrations in Pumpkinseed By SMU



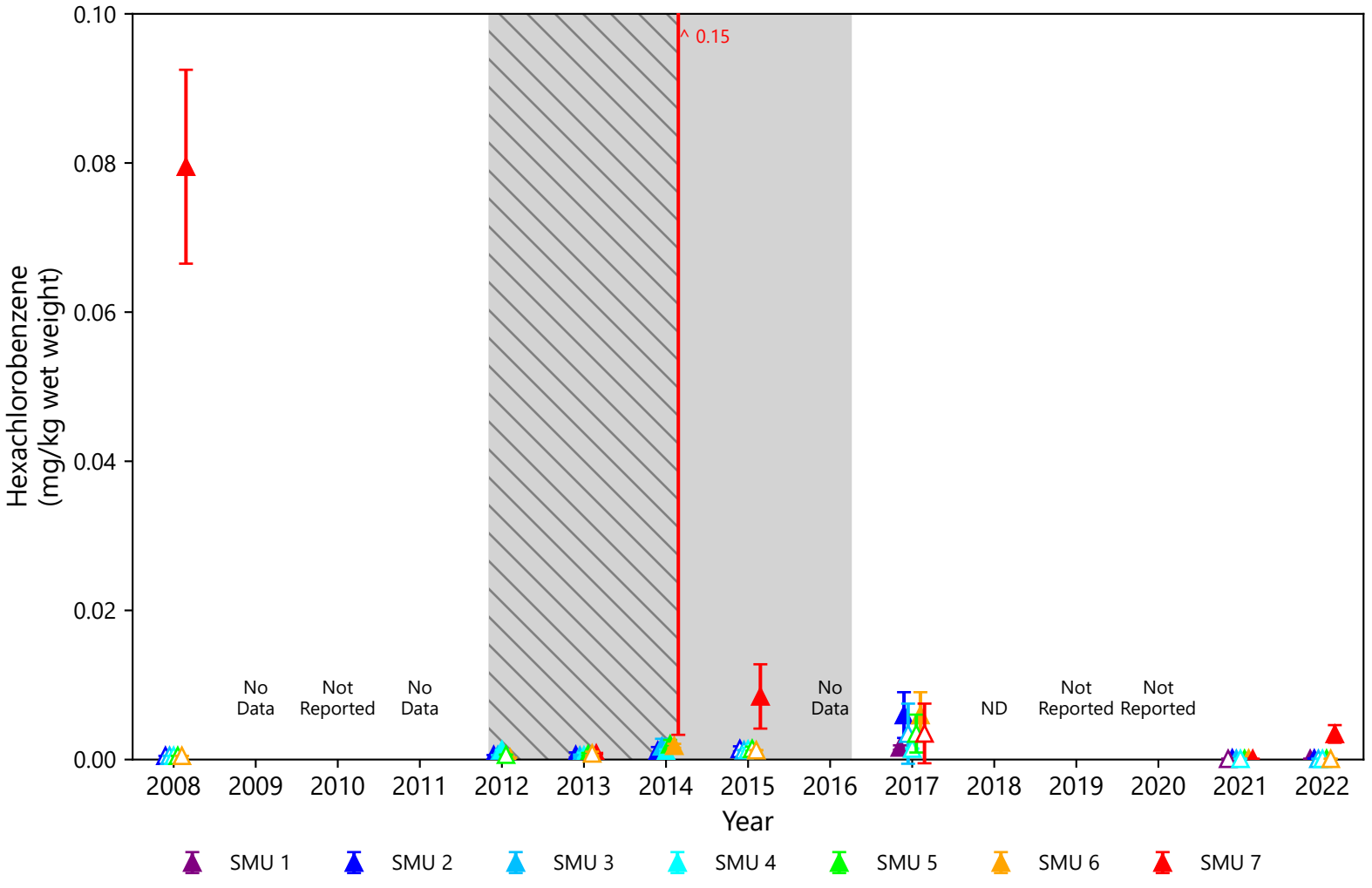
Small prey fish = Golden Shiner, Brook Silverside, Minnow, Bluntnose Minnow, Banded Killifish, and Round Goby (Alewife excluded).
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring.
Non-detects included at 1/2 RL.Prey fish had whole body preparation; all ages and sexes combined; mean +/- 2 SE.
In 2012, in-lake remediation began in late July and fish were sampled in early August 2012. 2010 organics data are excluded from long-term trends.
DDT and Metabolites are not analyzed in fish tissue on an annual basis, and was not analyzed in 2016.

Dredging
Capping

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ANCHOR QEA

Figure 3.52
DDT and Metabolites Concentrations in Small Prey Fish By SMU

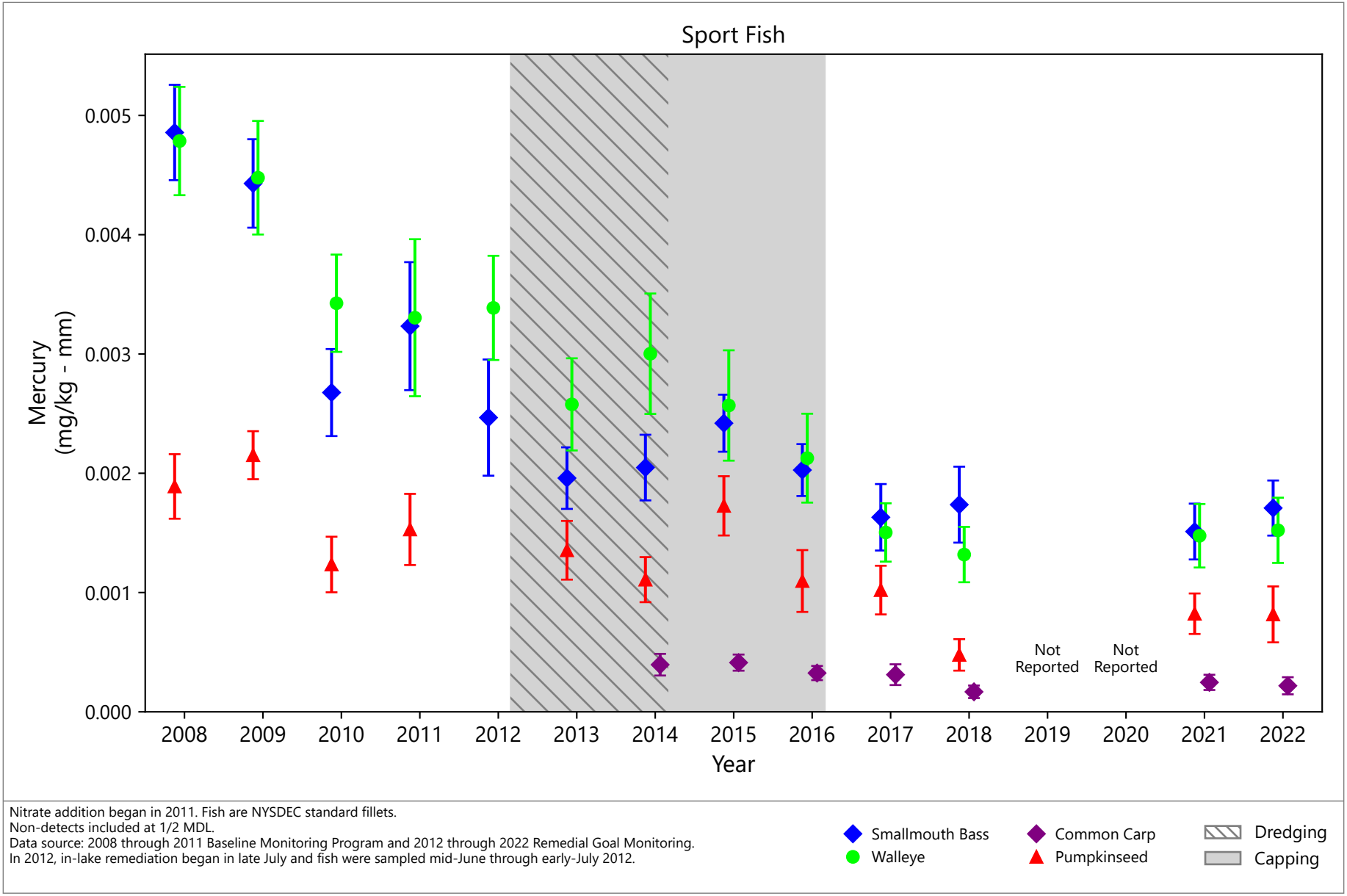


Small prey fish = Golden Shiner, Brook Silverside, Minnow, Bluntnose Minnow, Banded Killifish, and Round Goby (Alewife excluded).
Data source: 2008 through 2011 Baseline Monitoring Program and 2012 through 2022 Remedial Goal Monitoring. Non-detects included at 1/2 RL.
Open symbols indicate all results were non-detect.Prey fish had whole body preparation; all ages and sexes combined; mean +/- 2 SE.
In 2012, in-lake remediation began in late July and fish were sampled in early August 2012. 2010 organics data are excluded from long-term trends.
Hexachlorobenzene is not analyzed in fish tissue on an annual basis, and was not analyzed in 2016.

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ANCHOR QEA

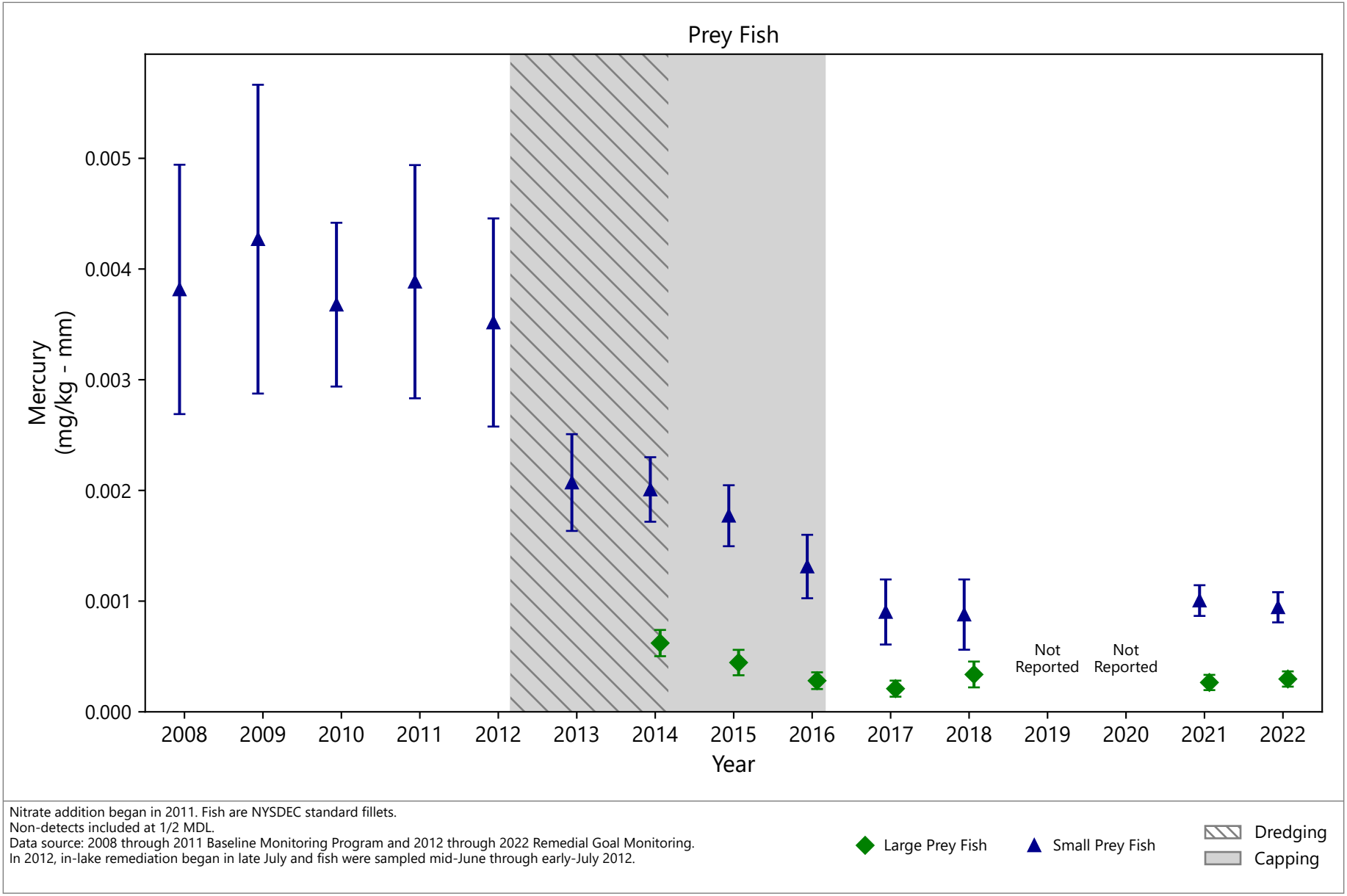
Figure 3.53
Hexachlorobenzene Concentrations in Small Prey Fish By SMU



Publish Date: 04/28/2025 09:08 AM | User: BAL-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_length_normalized_Hg.py

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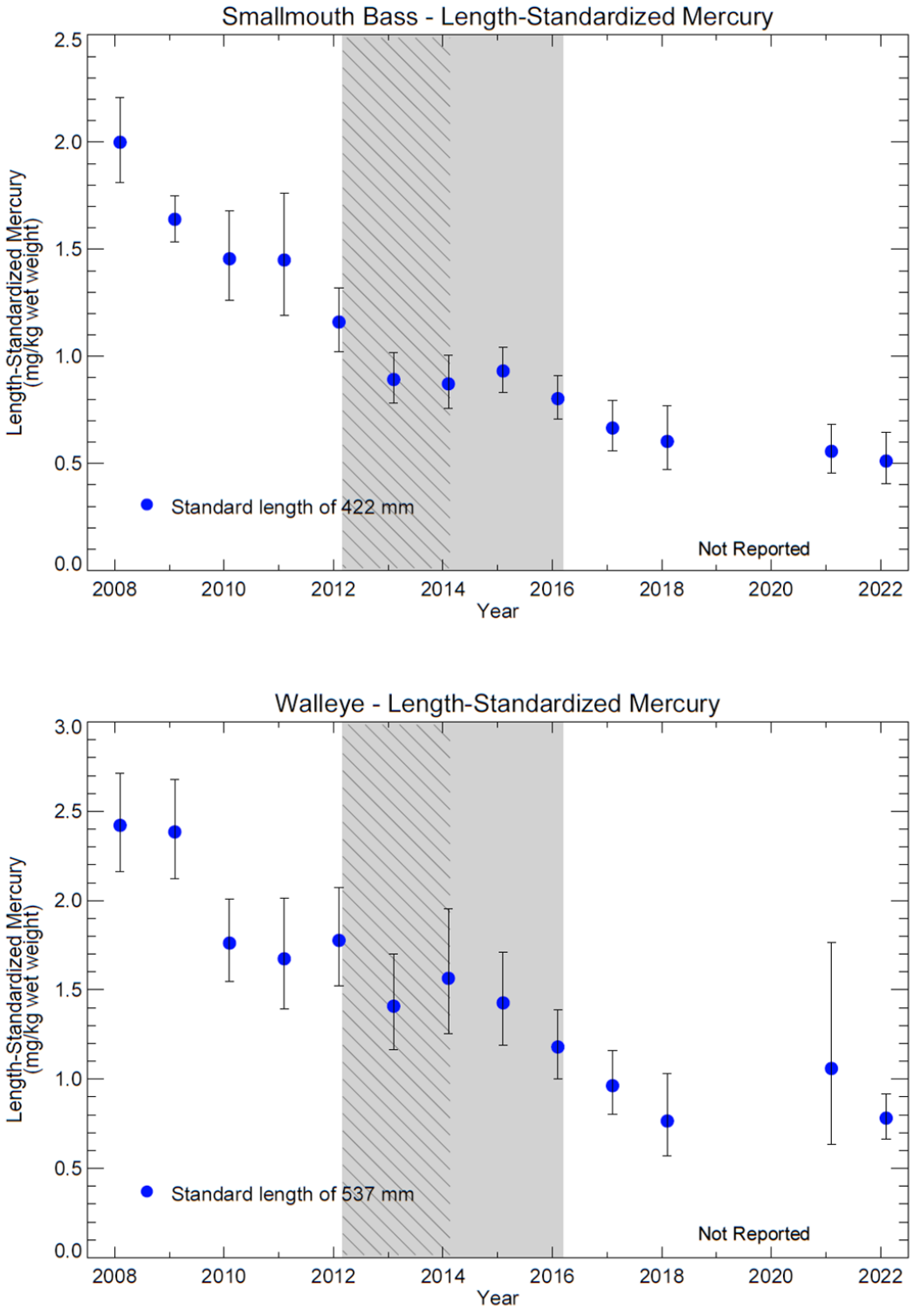
Figure 3.54
Length-Normalized Mercury Concentrations in Sport Fish



Publish Date: 04/28/2025 09:08 AM | User: BAL-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\temporal_length_normalized_Hg.py

ANCHOR QEA

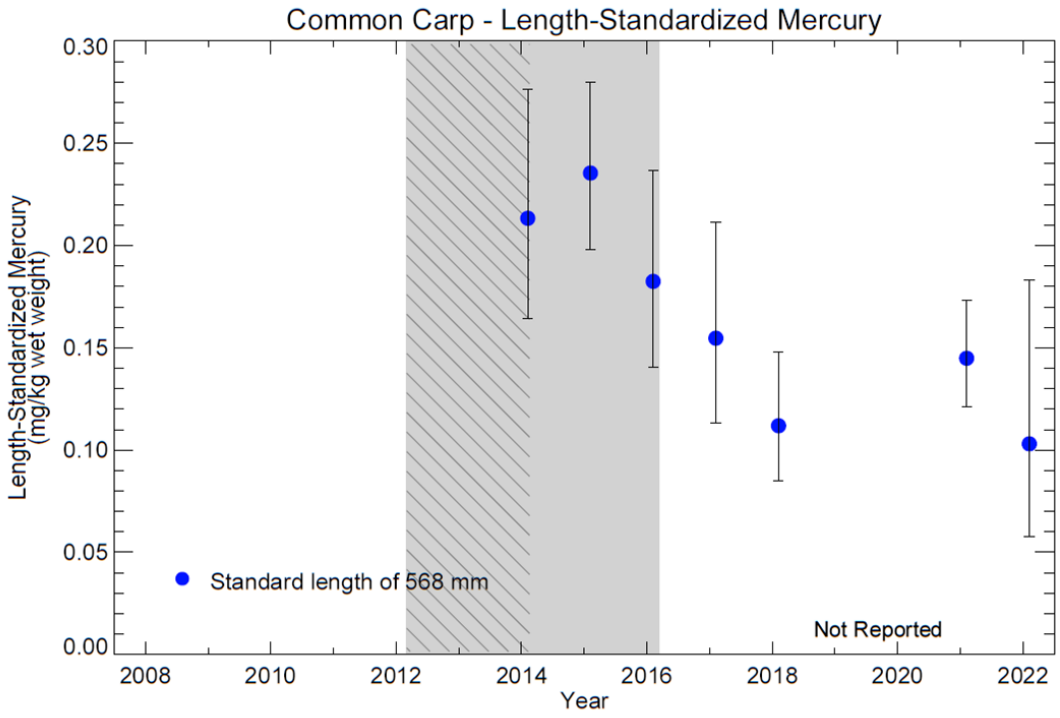
Figure 3.55
Length-Normalized Mercury Concentrations in Prey Fish (All SMUs)

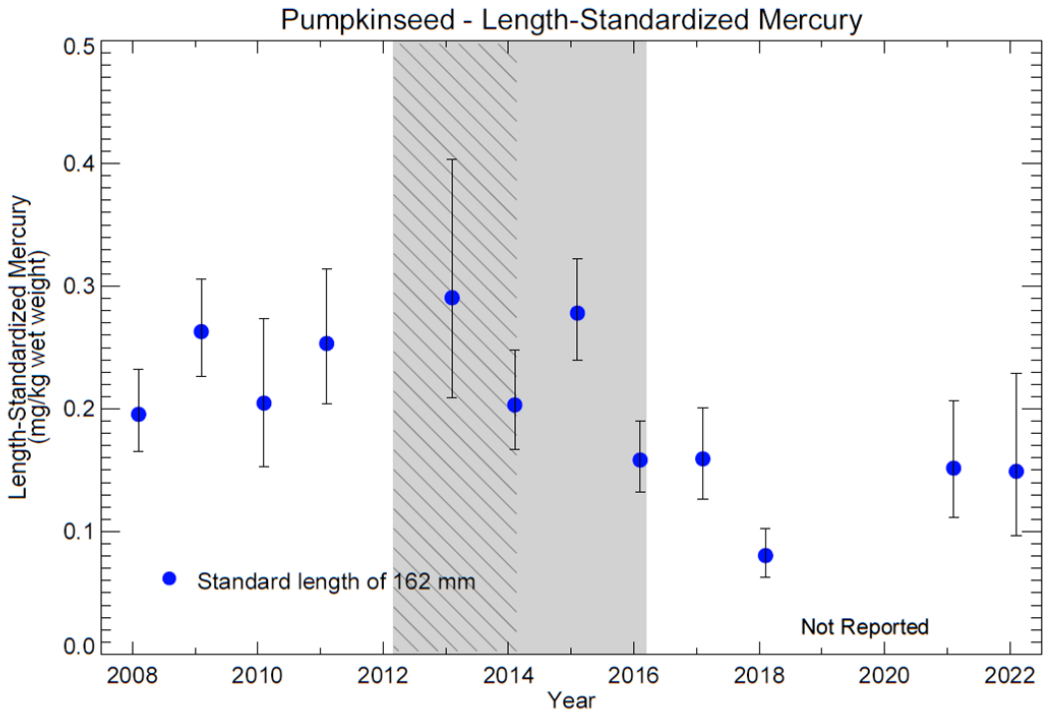


Notes: For each species, the standard length represents the average of the annual mean lengths from 2008 to 2022.
Nitrate addition began in 2011.
Dredging and capping periods shown with gray hatching and gray shading, respectively.

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Figure 3.56
Length-Standardized Mercury Concentrations in Smallmouth Bass and Walleye

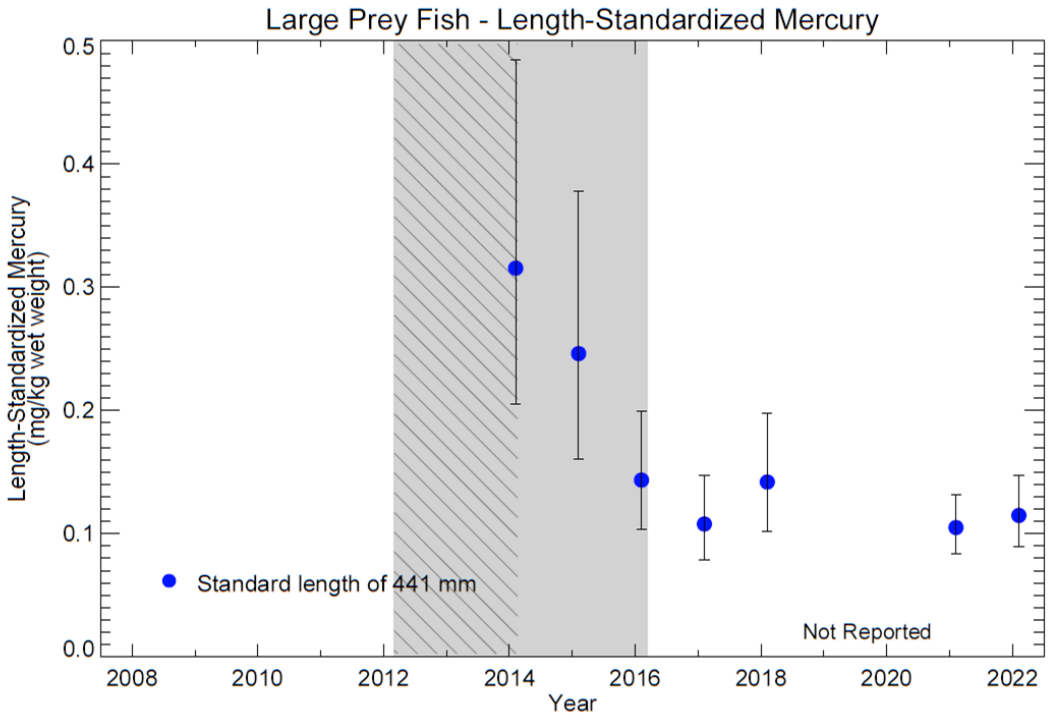




Notes: For each species, the standard length represents the average of the annual mean lengths from 2008 to 2022.
Nitrate addition began in 2011.
Dredging and capping periods shown with gray hatching and gray shading, respectively.

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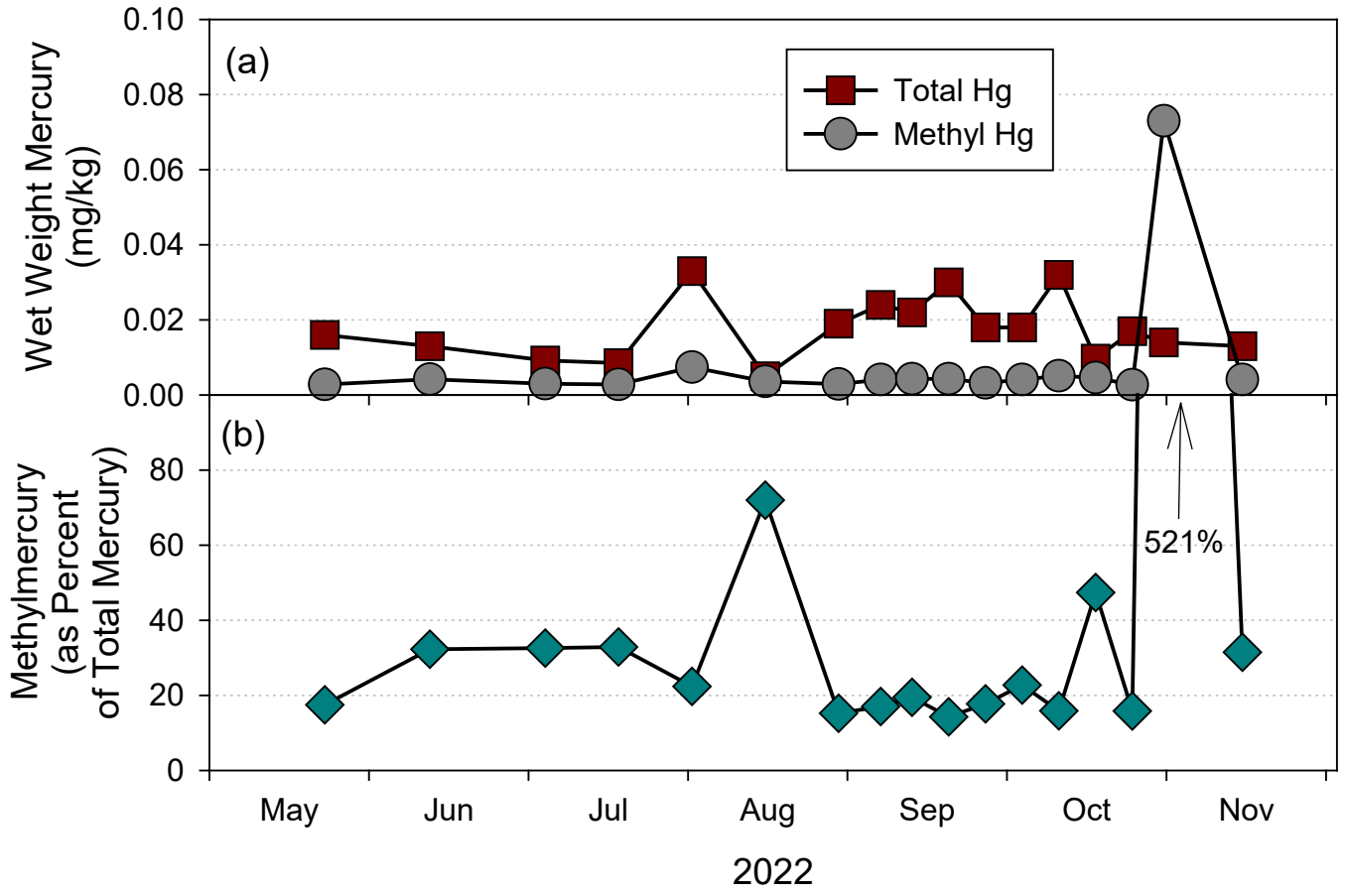
Figure 3.57
Length-Standardized Mercury Concentrations in Pumpkinseed and Common Carp



Notes: For each species, the standard length represents the average of the annual mean lengths from 2008 to 2022.
Nitrate addition began in 2011.
Dredging and capping periods shown with gray hatching and gray shading, respectively.

Filepath: \\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Plots\PLOTS_IDL

Figure 3.58
Length-Standardized Mercury Concentrations in Large Prey Fish



(a) Total Mercury (Hg) and Methylmercury (Methyl Hg)
(b) Percentage Total Mercury Measured as Methylmercury

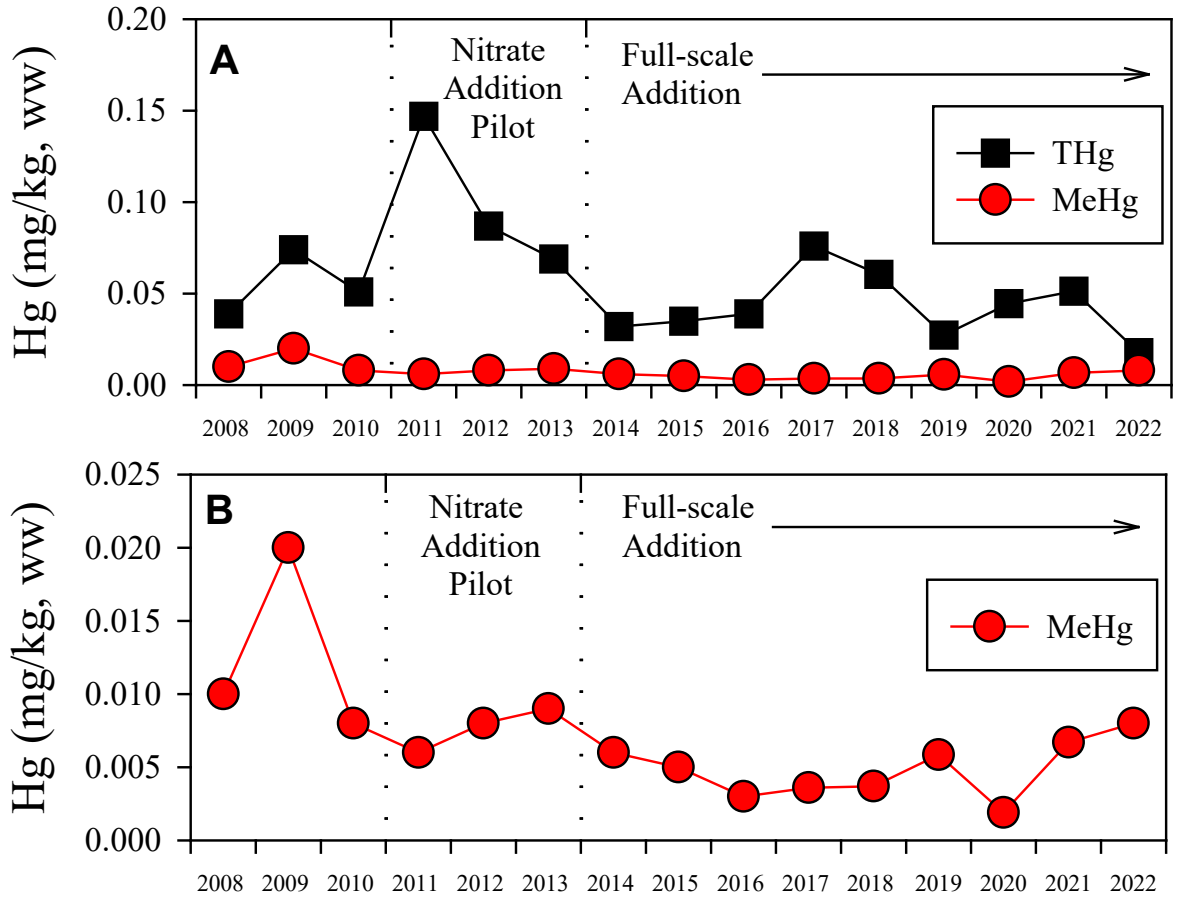
FIGURE 3.59

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Syracuse, New York

Wet Weight Mercury Concentrations in Zooplankton Collected from South Deep in 2022

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(A) total mercury and methylmercury concentrations and
(B) methylmercury concentrations presented with modified y-axis.

FIGURE 3.60

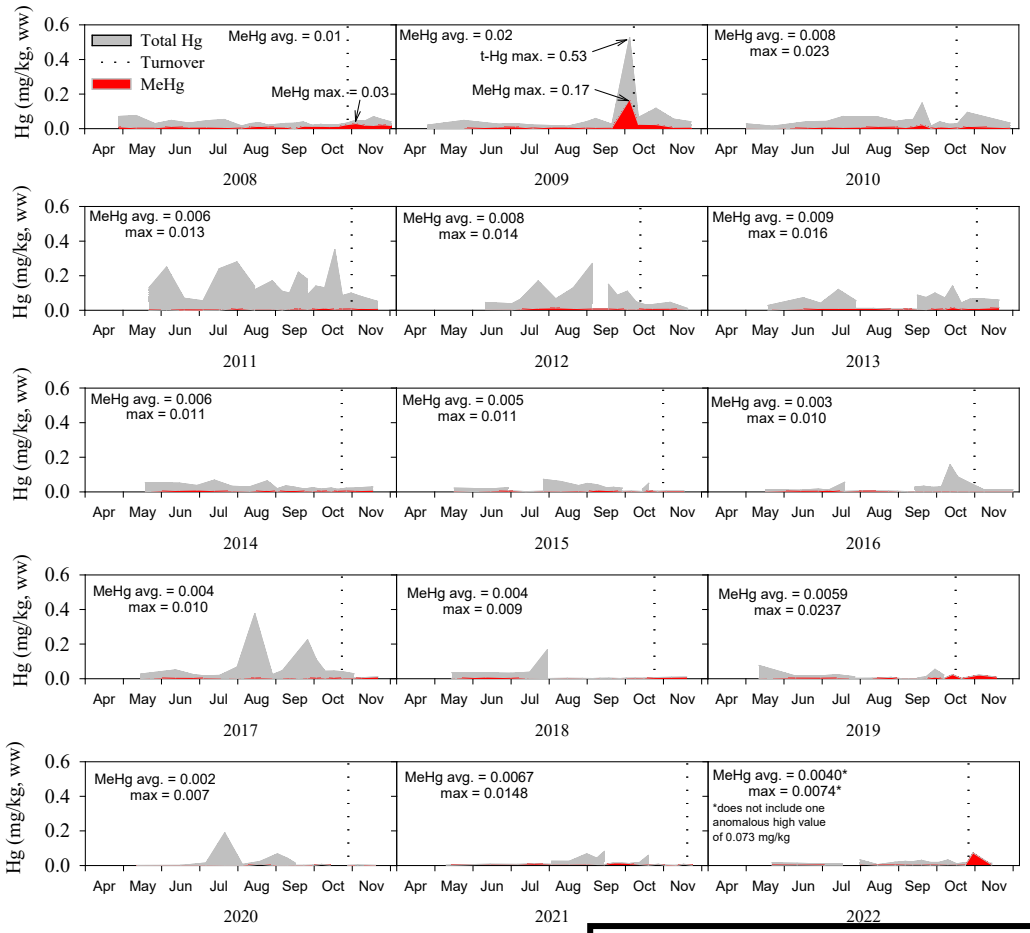
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Onondaga Lake
Syracuse, New York

Annual Average Wet Weight Mercury Concentrations in Zooplankton (2008-2022)

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Note: The timing of fall turnover is indicated by vertical dashed lines.

FIGURE 3.61

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Onondaga Lake
Syracuse, New York

Wet Weight Total Mercury and Methylmercury Concentrations in Zooplankton (2008-2022)

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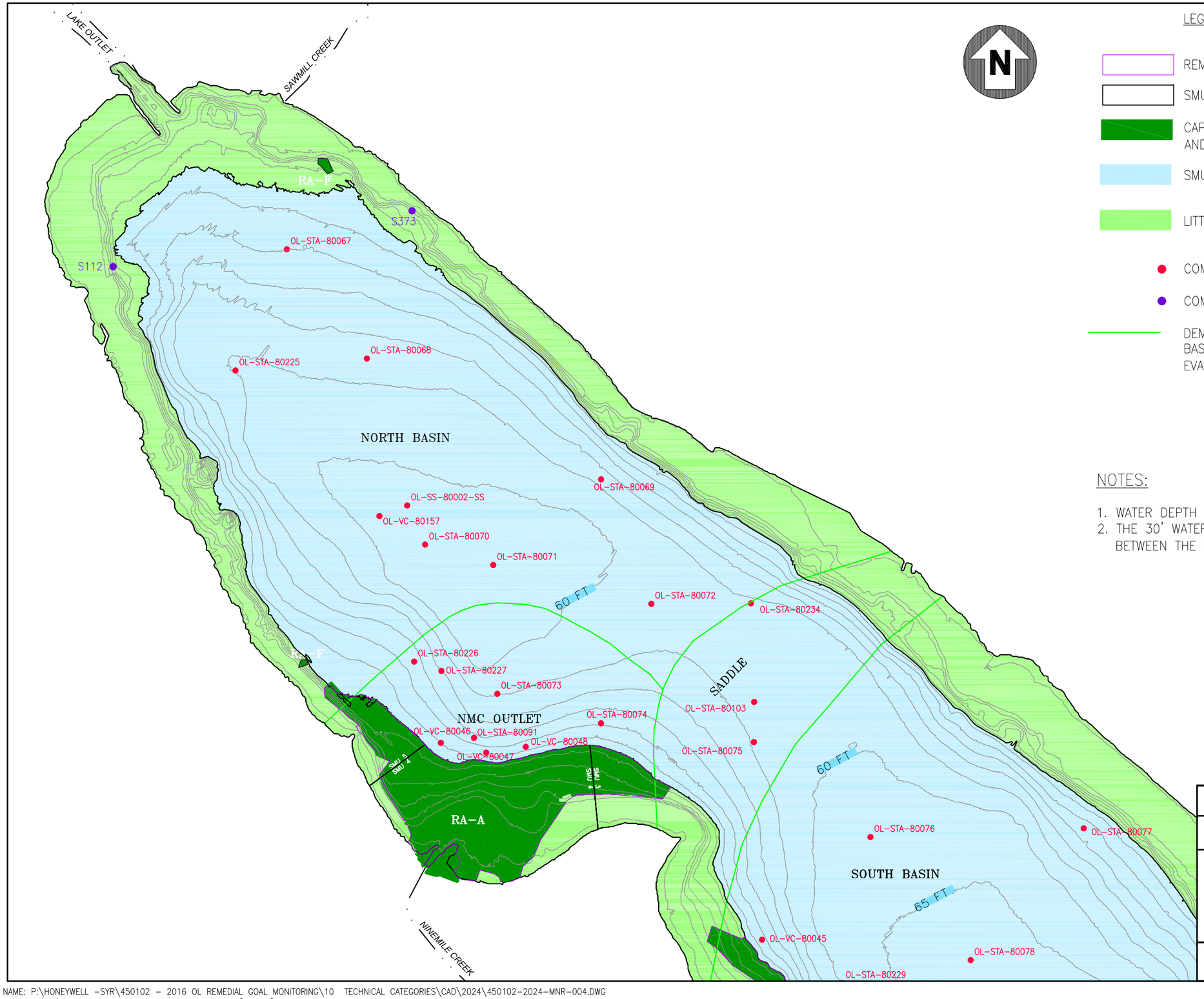


FIGURE 4.1A

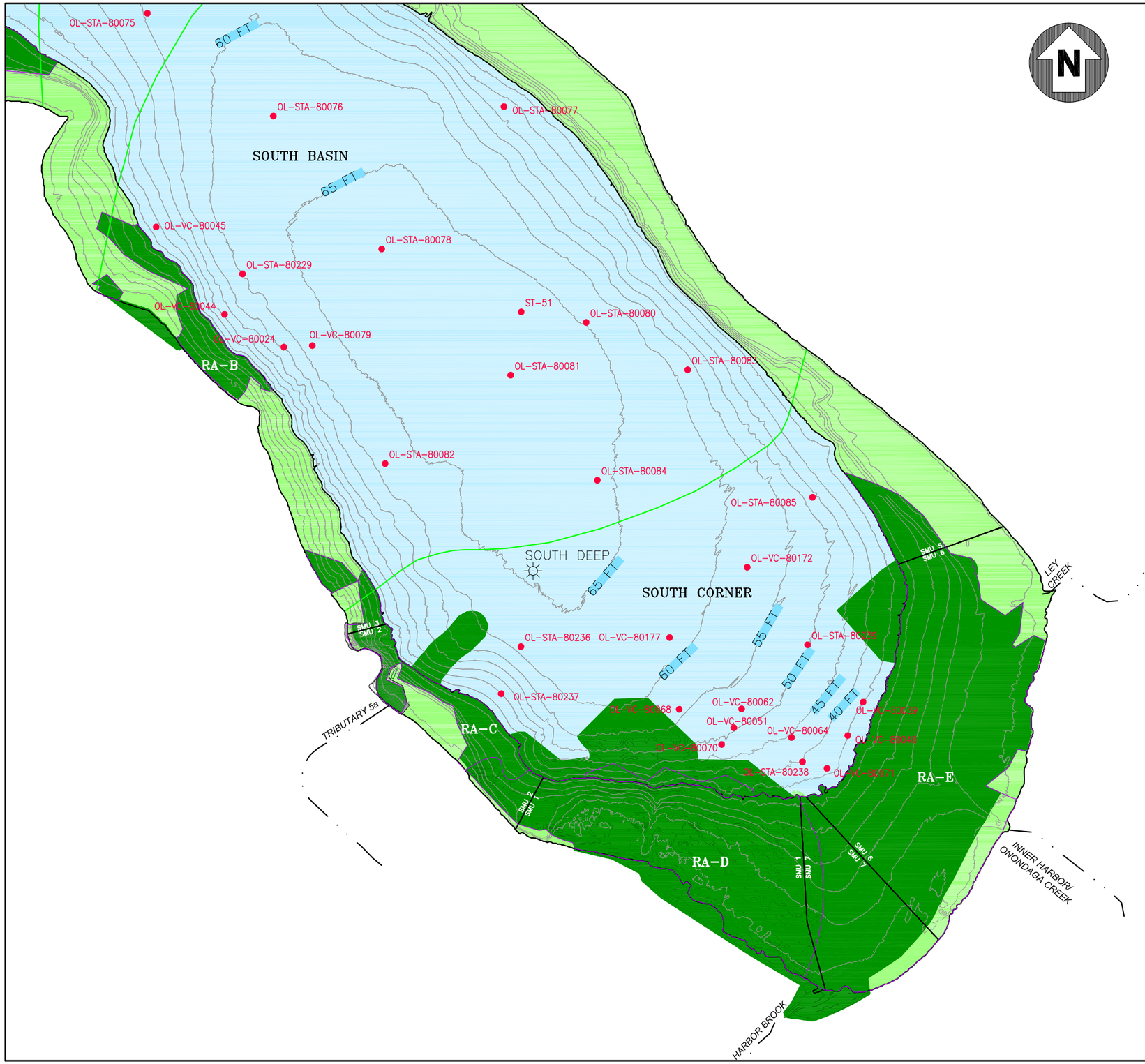
Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

COMPLIANCE VERIFICATION SEDIMENT SAMPLE LOCATIONS IN NORTH HALF OF ONONDAGA LAKE

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FILE NAME: P:\HONEYWELL -SYR\450102 - 2016 OL REMEDIAL GOAL MONITORING\10 TECHNICAL CATEGORIES\CAD\2024\450102-2024-MNR-004.DWG
PLOT DATE: 8/22/2024 9:48 AM PLOTTED BY: RUSSO, JILL [US-US]



LEGEND:

- REMEDIATION AREA BOUNDARY
- SMU BOUNDARIES
- CAPPED AREAS (INCLUDES ALL ISOLATION, THIN LAYER, AND MODIFIED PROTECTIVE CAPS)
- SMU 8
- LITTORAL ZONE
- COMPLIANCE VERIFICATION SAMPLE LOCATIONS (SMU 8)
- DEMARCATION FOR BSQV SUBAREAS (DELINEATION IS BASED ON FINAL THIESSEN POLYGONS FOR BSQV EVALUATION)
- SEDIMENT TRAP SAMPLE LOCATION

NOTES:

1. WATER DEPTH CONTOUR INTERVAL IS 5 FT.
2. THE 30' WATER DEPTH CONTOUR IS THE BOUNDARY BETWEEN THE LITTORAL ZONE (SMUs 1–7) AND SMU 8.
3. SAMPLE LOCATIONS USED IN THE FINAL DESIGN REPORT (PARSONS AND ANCHOR QEA, 2012) THAT ARE NOW WITHIN CAPPED AREAS WILL BE SAMPLED UNDER THE CAP MONITORING PROGRAM. SEE SECTION 6 OF THE OLMMP FOR FURTHER DETAILS.

1200 600 0 1200 2400

SCALE: 1"=1200'

FIGURE 4.1B

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ONONDAGA LAKE
SYRACUSE, NEW YORK

COMPLIANCE VERIFICATION SEDIMENT SAMPLE LOCATIONS IN SOUTH HALF OF ONONDAGA LAKE

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FILE NAME: P:\HONEYWELL -SYR\450102 - 2016 OL REMEDIAL GOAL MONITORING\10 TECHNICAL CATEGORIES\CAD\2024\450102-2024-MNR-004.DWG
PLOT DATE: 8/22/2024 9:47 AM PLOTTED BY: RUSSO, JILL [US-US]

DRAFT

North Basin

Ninemile Creek Outlet Area

Saddle

South Basin

South Corner

0 4,000

Feet

LEGEND:

Sub-Basin Boundary

Sample Year

- 1992
- 2000
- 2006
- 2009
- 2010
- 2019
- 2021
- 2022

Thiessen Polygons

- Profundal Zone (non-capped areas)
- Multi-Layer Cap Areas
- Multi-Layer Modified Protective Caps (MPCs)
- Mono Layer MPCs
- Mono-Layer (less than 6 in.) MPCs
- Thin Layer Caps
- Direct Application MPCs
- CSX Area
- Littoral Zone (non-capped areas)

FIGURE 4.2

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Evaluation of BSQV Compliance: Year 2 of Comprehensive Sampling

ANCHOR QEA

Publish Date: 2023/04/11, 11:00 AM | User: nwagner
Filepath: Q:\Jobs\Honeywell_Intl_1102\OnondagaLake\Maps\Monitoring\2022\OL_Fig4.2_HgMonitoring_2022.mxd



Path: Q:\GIS\GIS_Lake\Baseline_Monitor\MXDs\2021_NitrateInjectLocs.mxd

Date Revised: 5/20/2022 9:45:13 AM

2022 Nitrate Application Locations

Bathymetry Contours For Water Depth

10 Foot Intervals

30 Foot Water Depth Contour

0 1,200 2,400 4,800 7,200

Feet

Figure 5.1

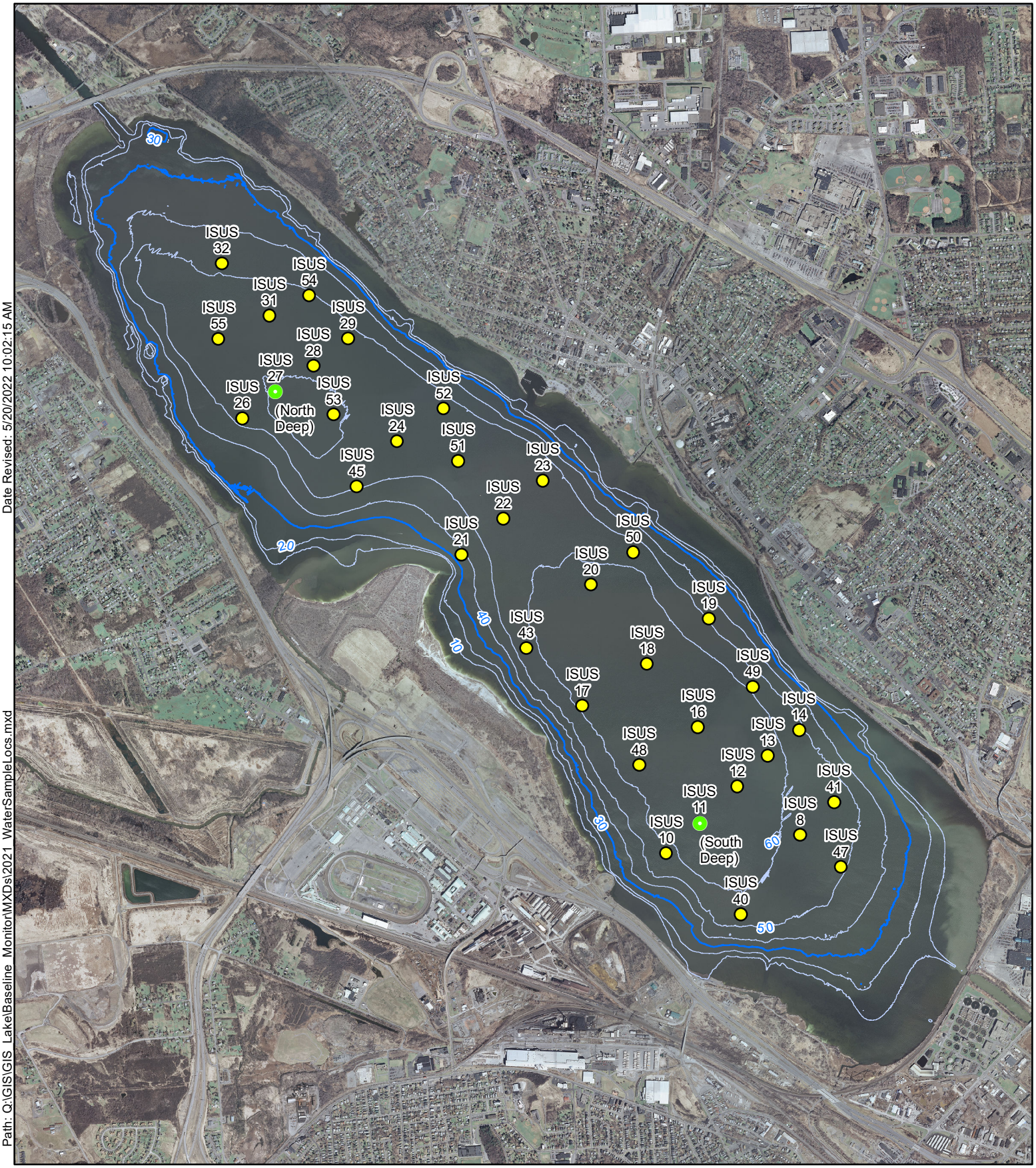
Honeywell

Onondaga Lake
Syracuse, New York

2022 Nitrate Application Locations

PARSONS

301 Plainfield Road, Suite 350; Syracuse NY 13212 Phone:(315)451-9560



Path: Q:\GIS\GIS_Lake\Baseline_Monitor\MXDs\2021_WaterSampleLocs.mxd

Date Revised: 5/20/2022 10:02:15 AM

North Deep and South Deep

ISUS-SUNA Monitoring Location

Bathymetry Contours For Water Depth

10 Foot Intervals

30 Foot Water Depth Contour

0 1,200 2,400 4,800 7,200

Feet

Figure 5.2

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Onondaga Lake
Syracuse, New York

2022 ISUS-SUNA
Monitoring Locations

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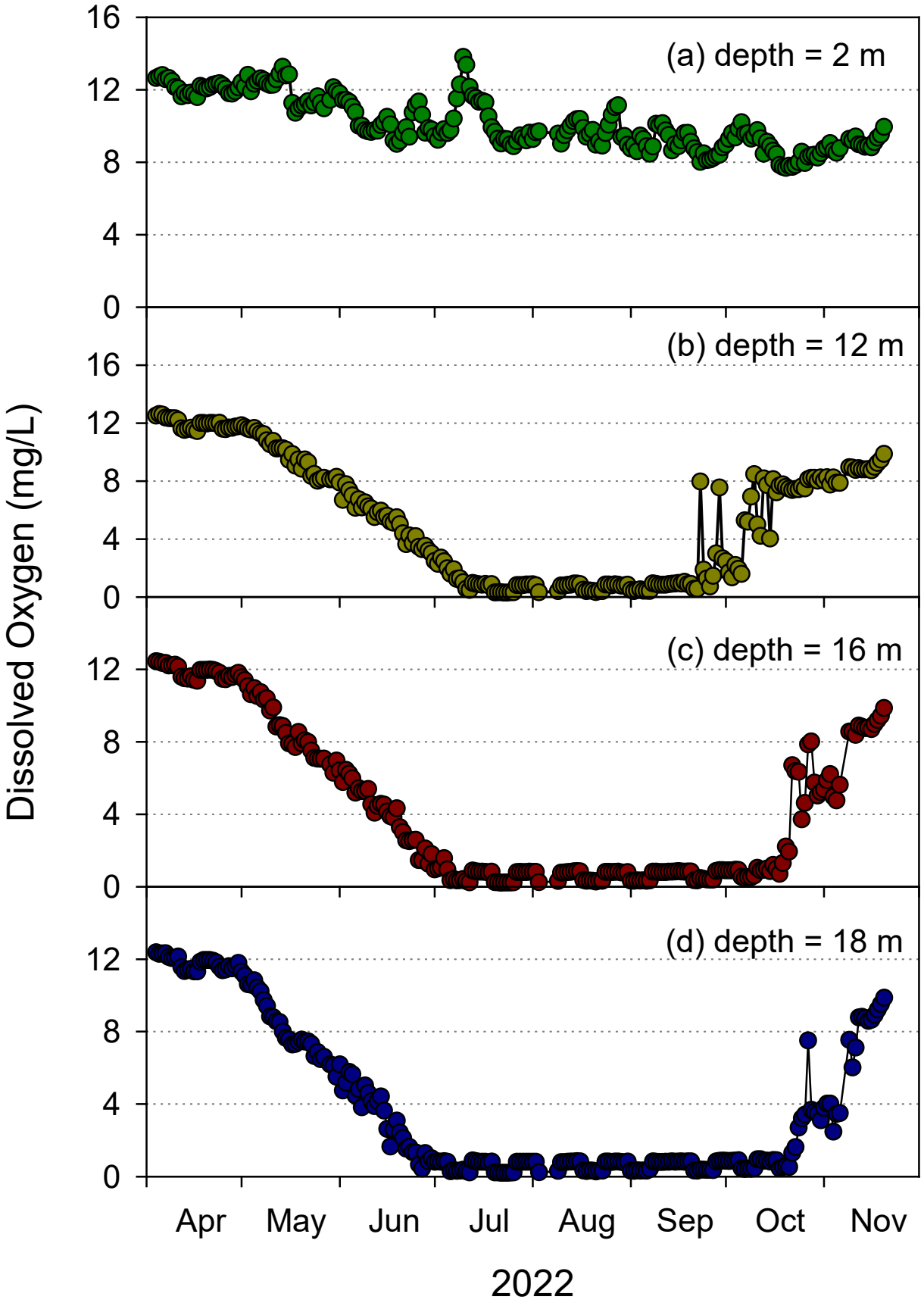


FIGURE 5.3

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Onondaga Lake
Syracuse, New York

Measurements of Dissolved Oxygen from the Onondaga Lake South Deep Buoy in 2022: (a) 2, (b) 12, (c) 16, and (d) 18-Meter Water Depths

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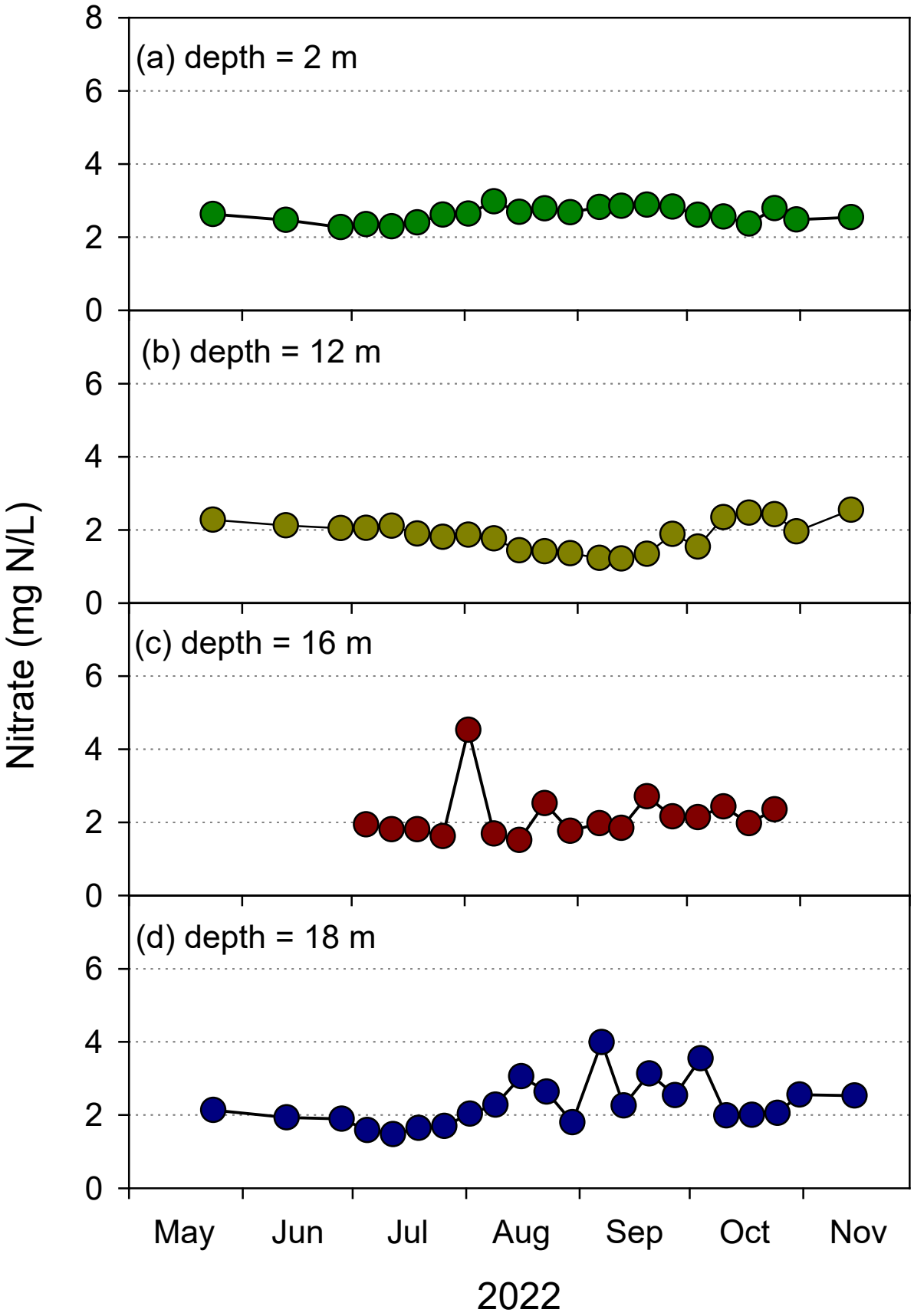


FIGURE 5.4

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Onondaga Lake
Syracuse, New York

Laboratory Measurements of Nitrate at Onondaga Lake South Deep in 2022: (a) 2, (b) 12, (c) 16, and (d) 18-meter water depths

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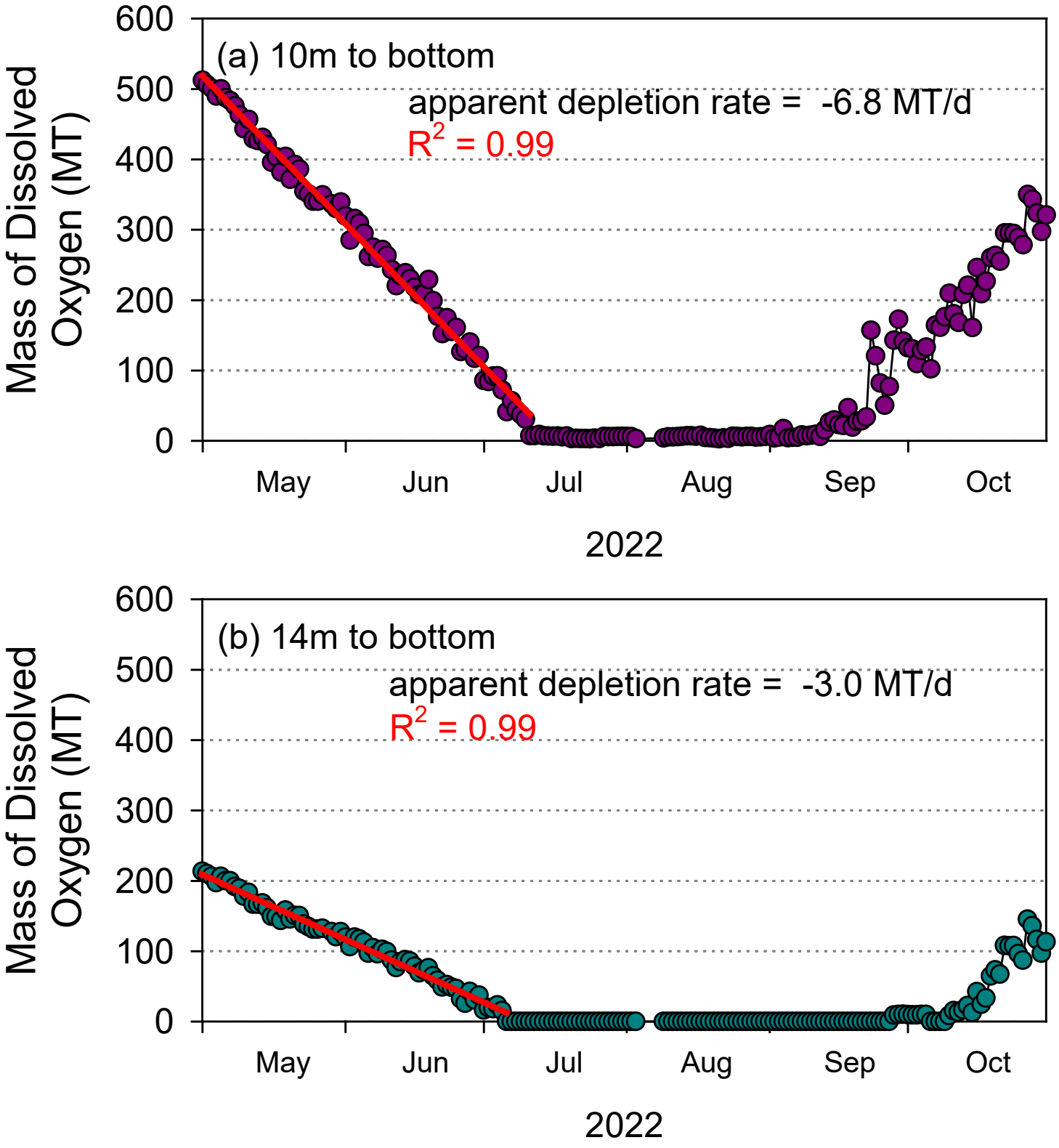


FIGURE 5.5

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Onondaga Lake
Syracuse, New York

Dissolved Oxygen Mass in Hypolimnion During 2022 Summer Stratification: (a) 10 meters to the bottom and (b) 14 meters to the bottom

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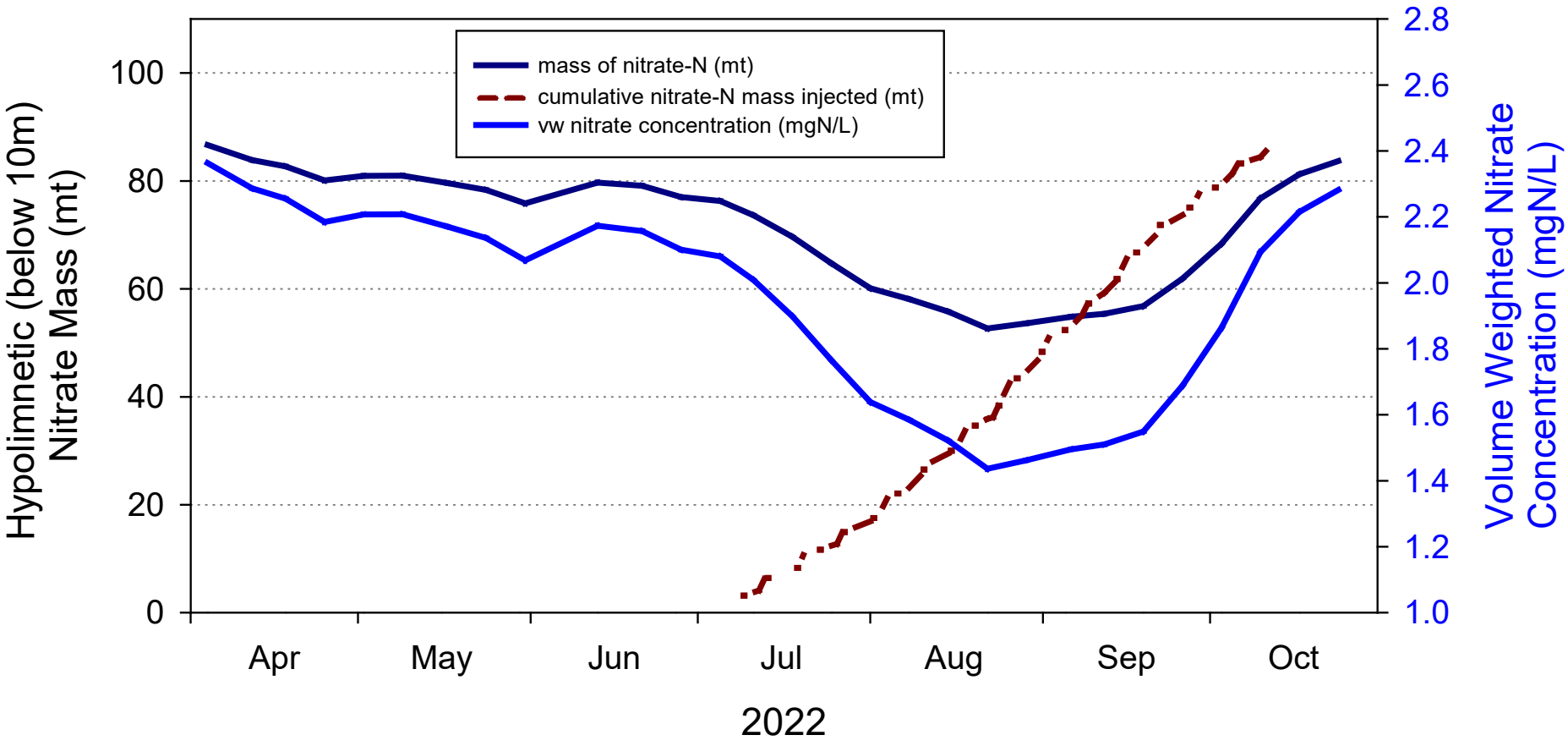


FIGURE 5.6

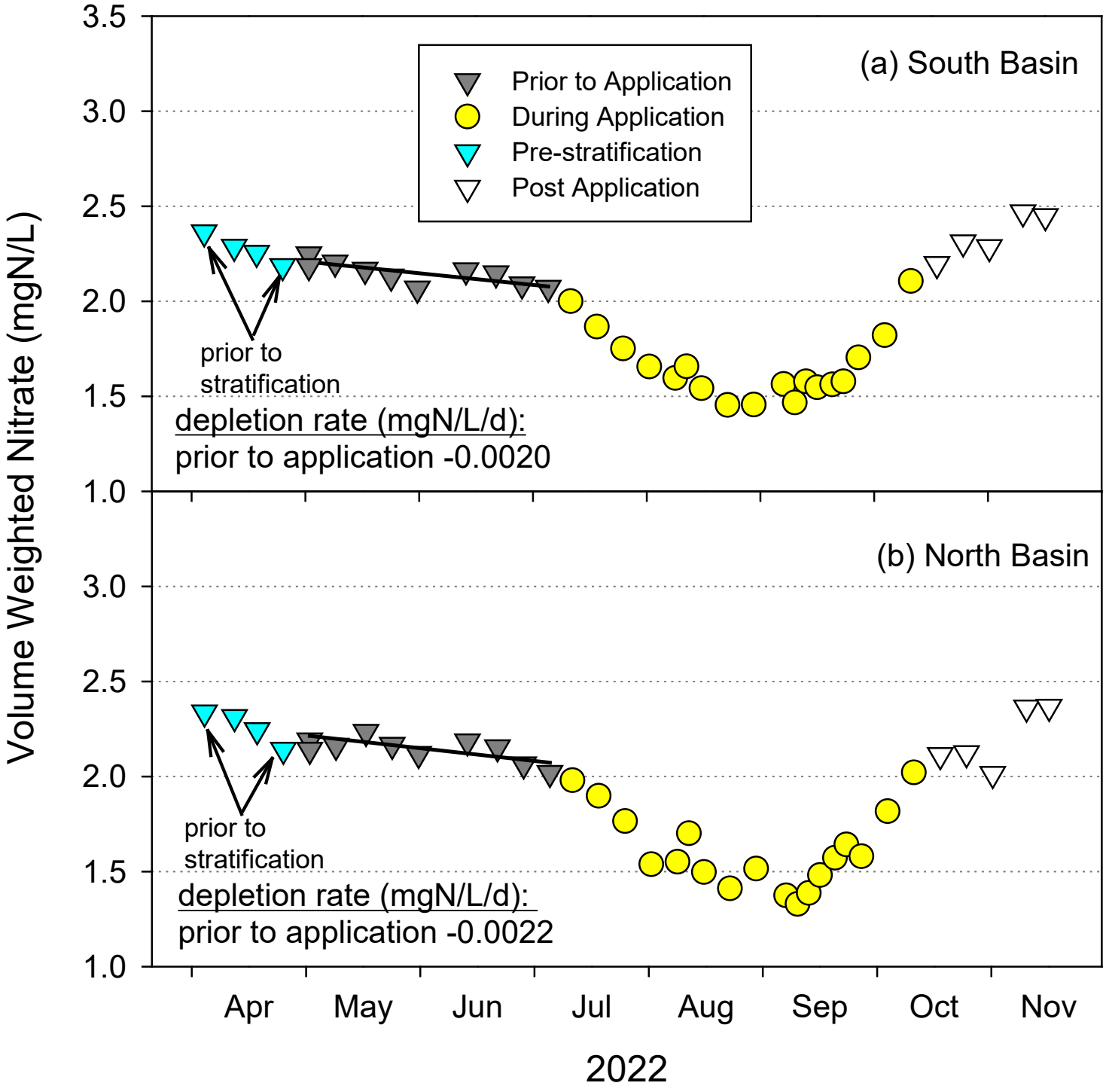
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Onondaga Lake
Syracuse, New York

Hypolimnetic Nitrate Mass, Cumulative Mass of Nitrate Added, and Volume-Weighted Hypolimnetic Average Nitrate Concentration 2022

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Note: Volume-weighted concentrations for the north and south basins were determined from field nitrate profiles and the respective water volumes of the basins.

FIGURE 5.7

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Onondaga Lake
Syracuse, New York

Nitrate Depletion Rates in the Hypolimnion (10 to 19-Meter Water Depths) of Onondaga Lake in 2022: (a) South Basin and (b) North Basin

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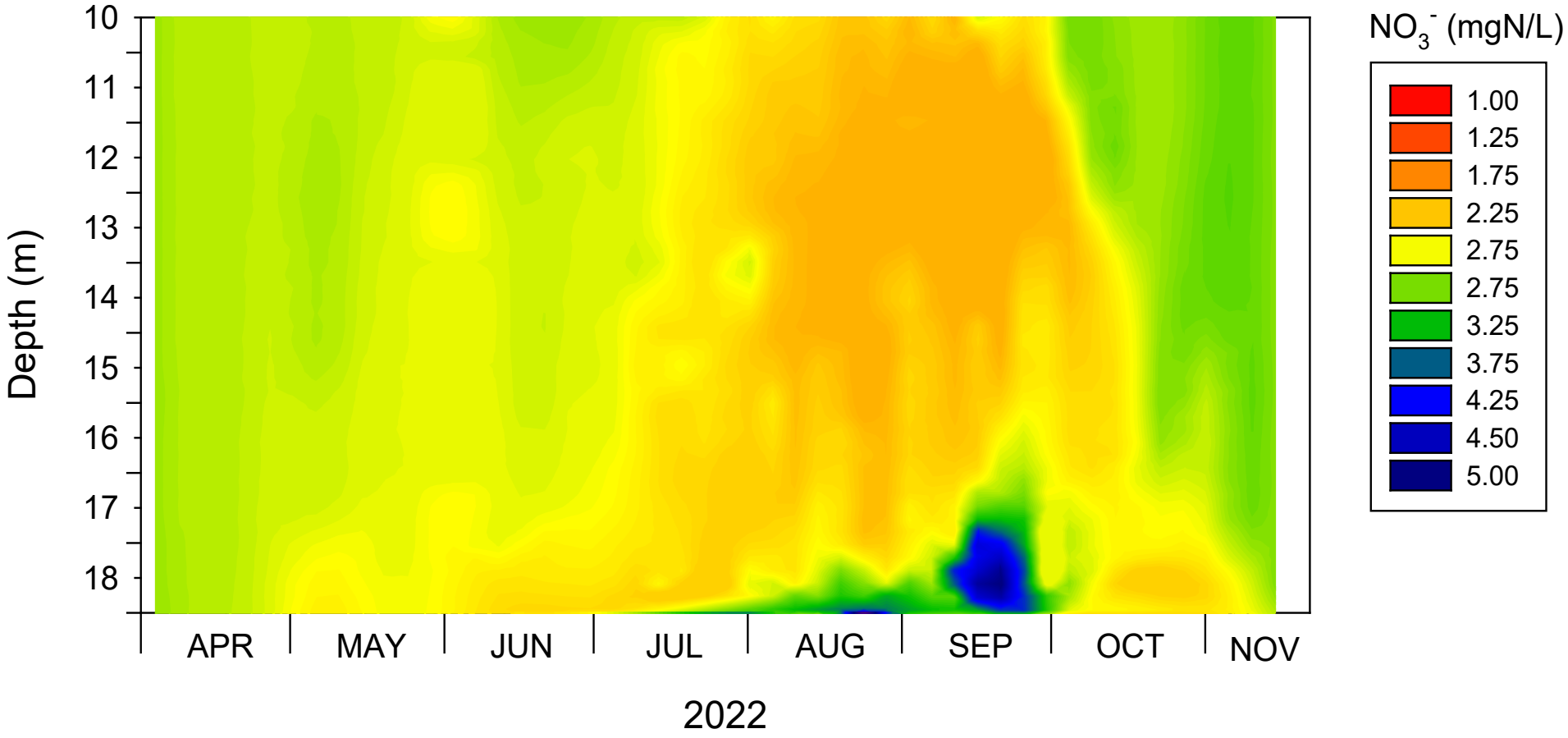


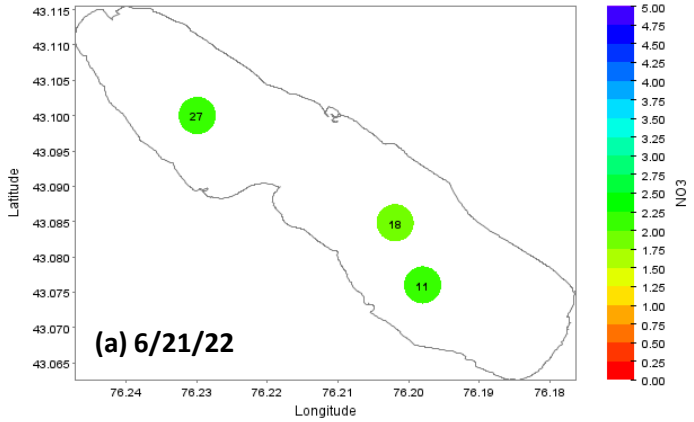
FIGURE 5.8

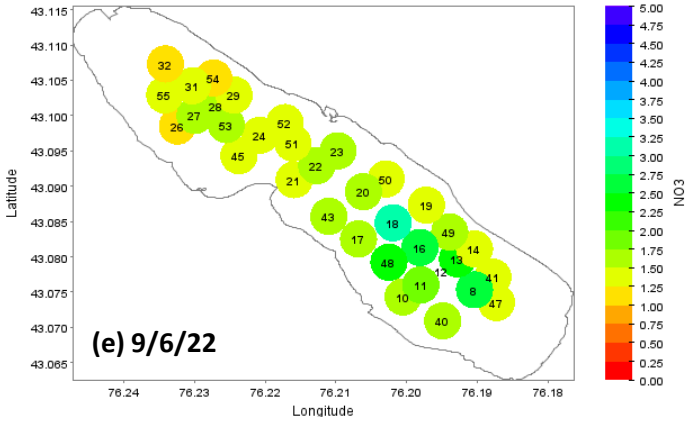
Honeywell

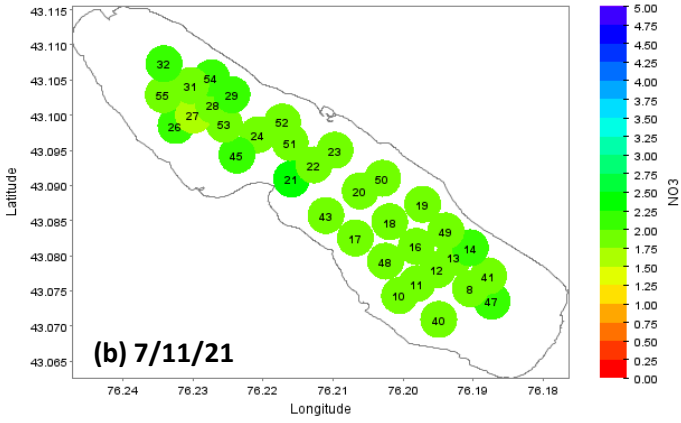
Onondaga Lake
Syracuse, New York

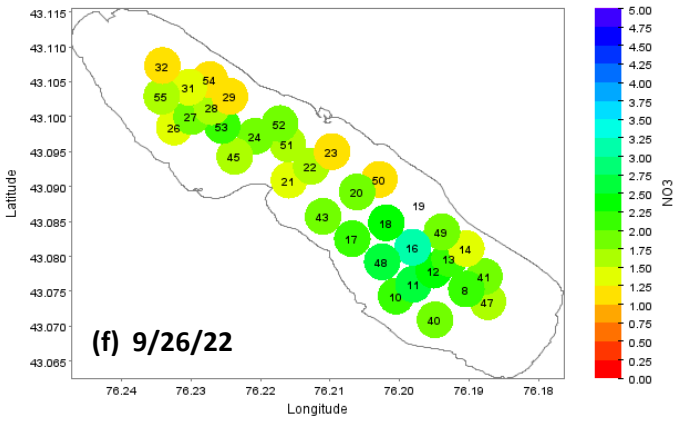
Nitrate Concentrations in the Hypolimnion (10 meters to bottom) of Onondaga Lake in 2022

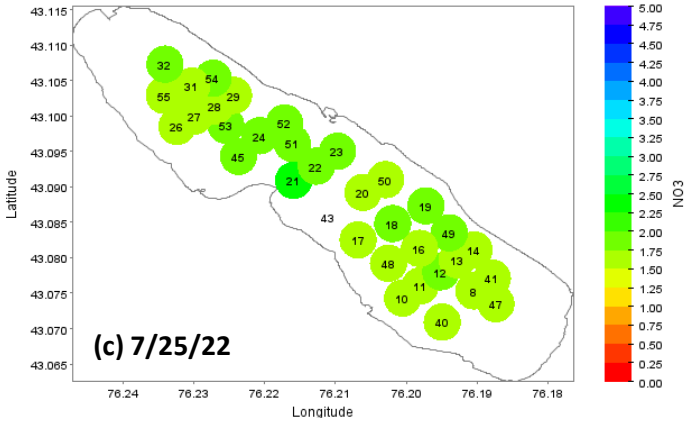
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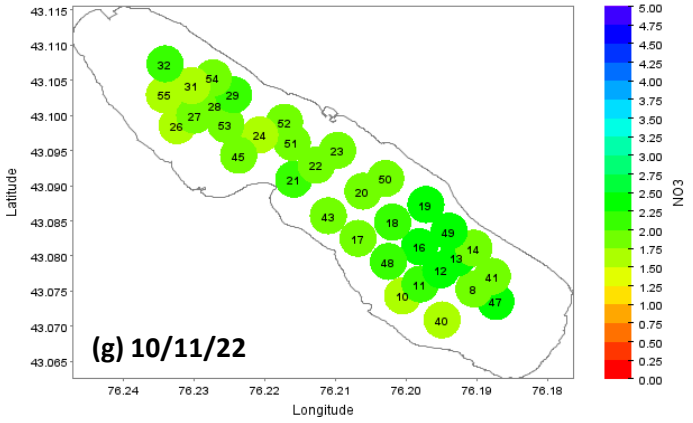


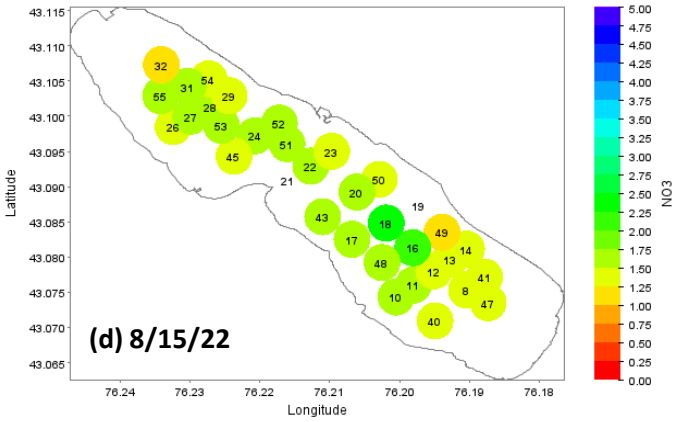












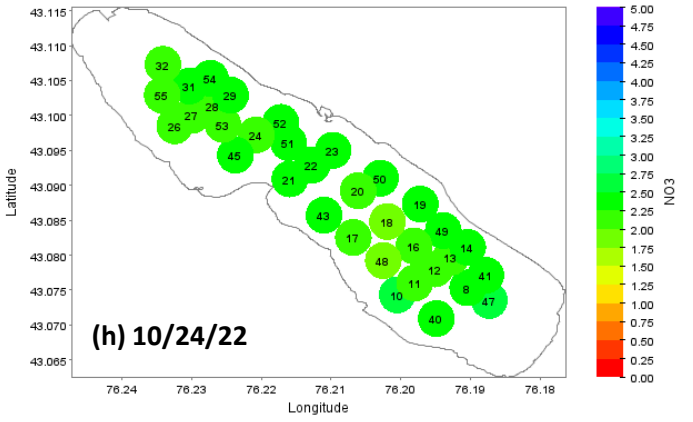


FIGURE 5.9

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Onondaga Lake
Syracuse, New York

Representative Plan-view Plots of Nitrate Concentrations (mgN/L) One Meter above the Lake Bottom for Onondaga Lake in 2022

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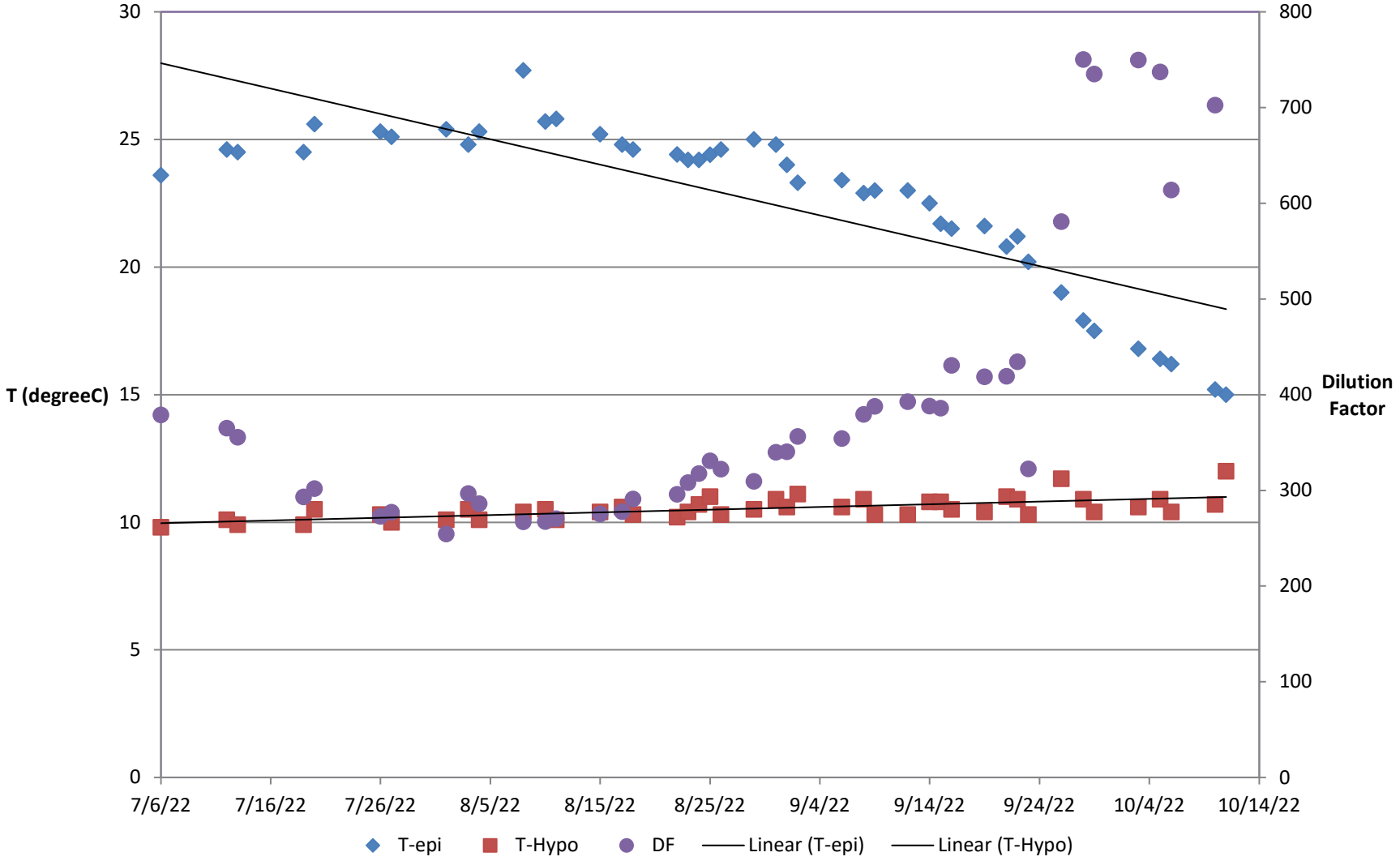


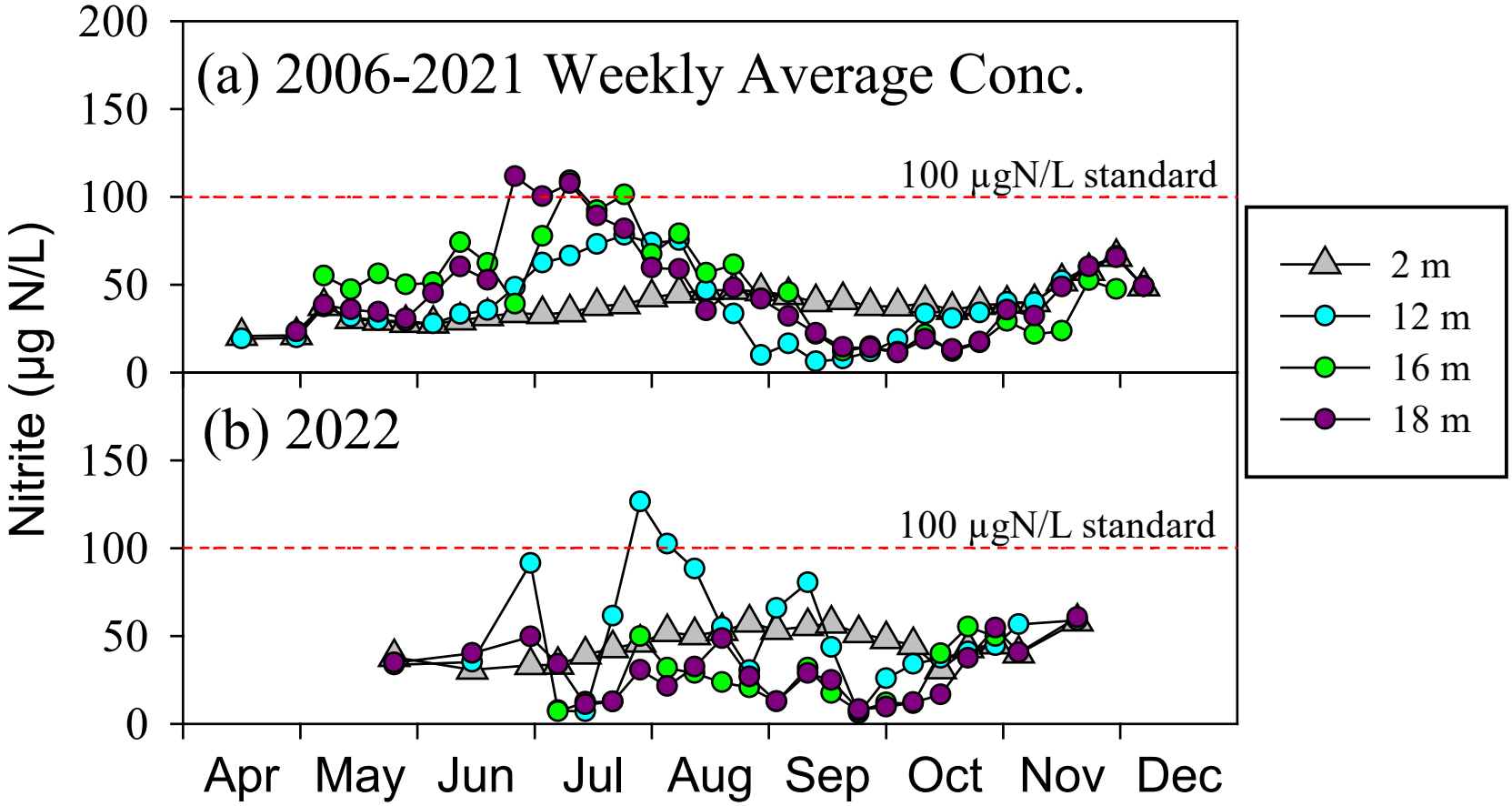
FIGURE 5.10

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Onondaga Lake
Syracuse, New York

2022 Epilimnion and Hypolimnion Temperatures and Dilution Factors

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a) weekly average concentration for 2006-2021 and (b) 2022 concentrations. Note: The ambient water quality standard for nitrite applicable to warm-water fisheries is 100 micrograms per liter (µgN/L) as nitrogen (red-dashed line)

FIGURE 5.11

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Onondaga Lake
Syracuse, New York

Time Series of Nitrite-Nitrogen (NO2-N) for Onondaga Lake at South Deep for Four Water Depths

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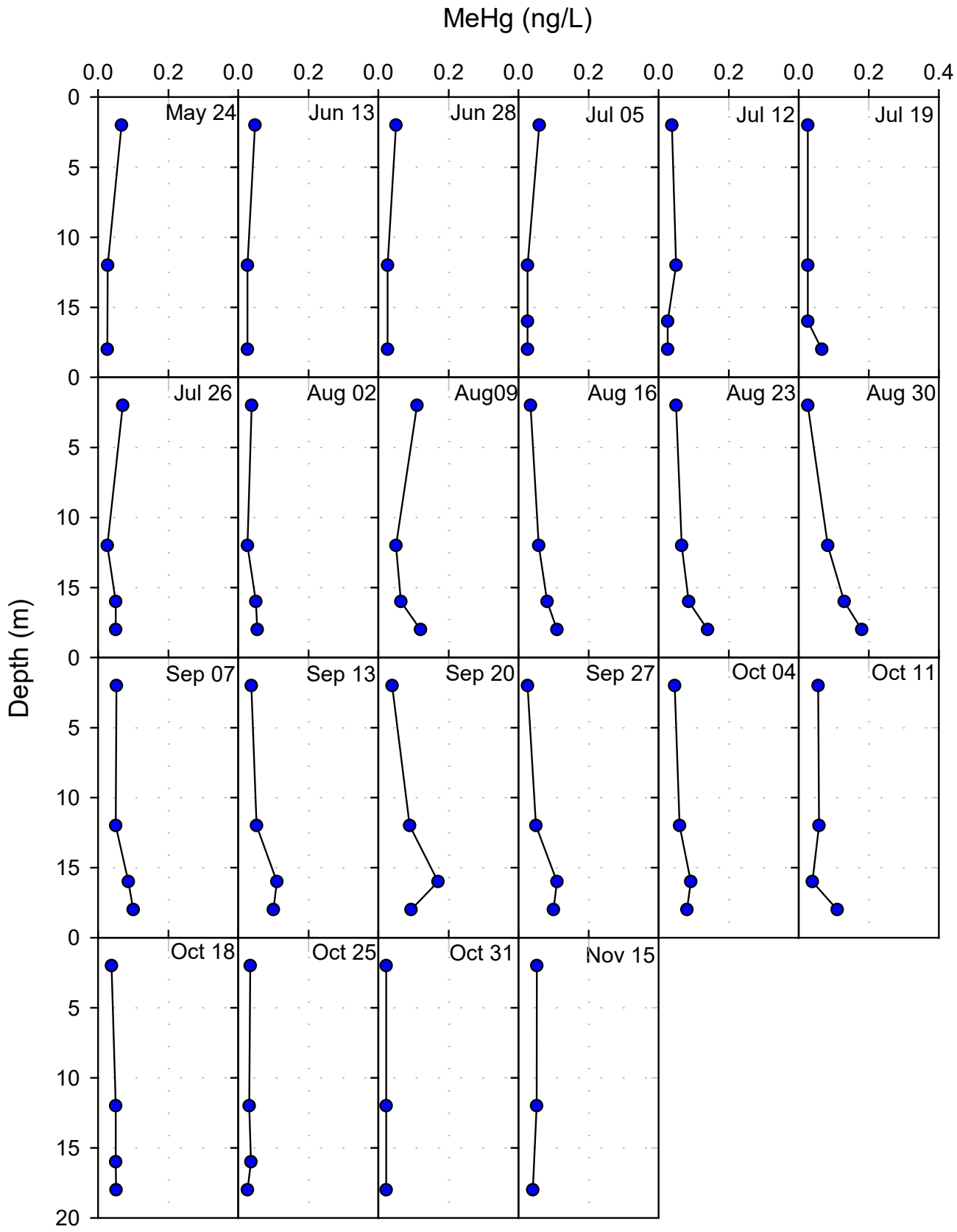


FIGURE 5.12

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Onondaga Lake
Syracuse, New York

Vertical Profiles of Methylmercury (MeHg) Concentrations in Onondaga Lake Waters Measured at the South Deep Location: May 24 through November 15, 2022

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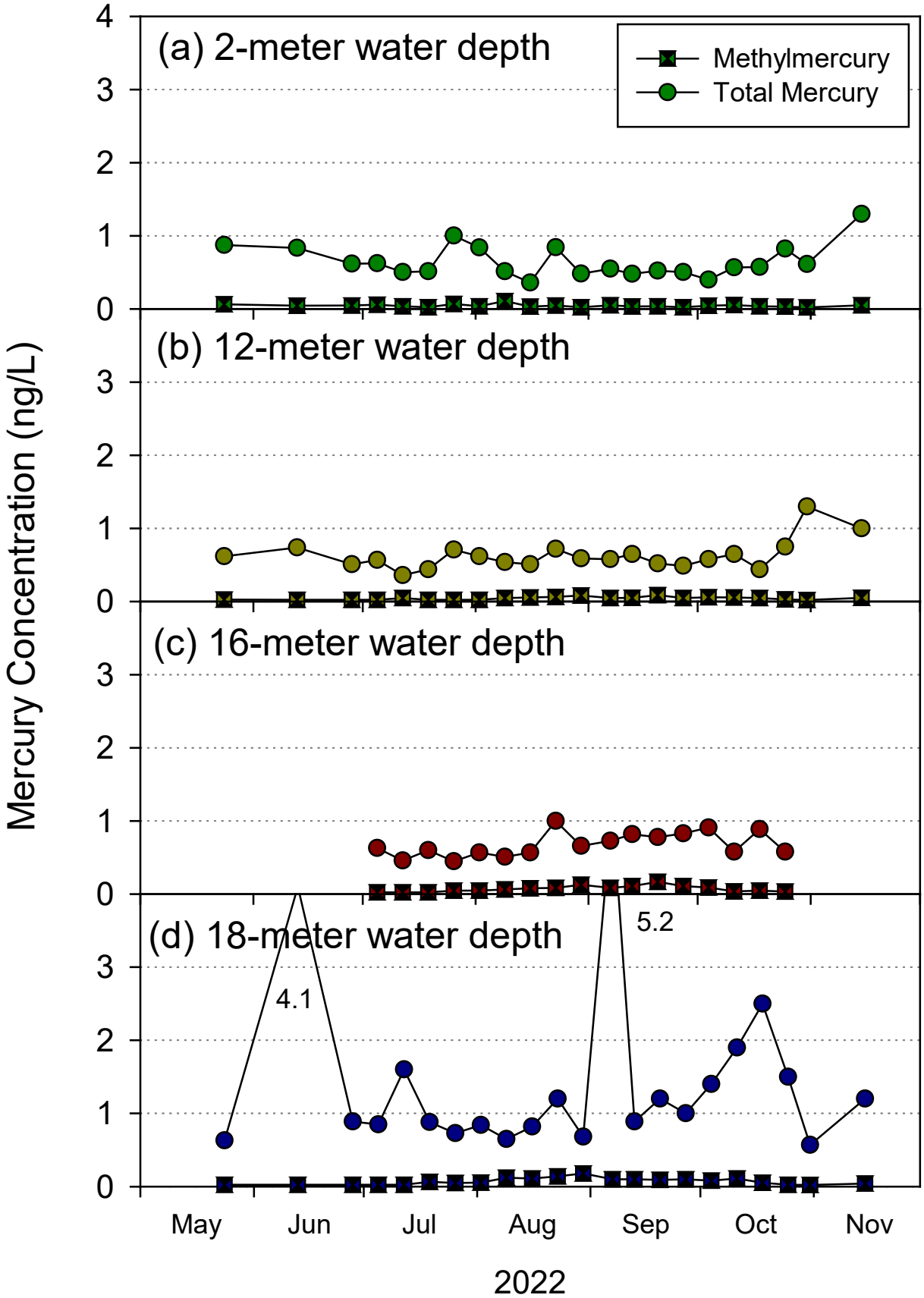


FIGURE 5.13

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Onondaga Lake
Syracuse, New York

Total Mercury and Methylmercury Concentrations in Onondaga Lake at the South Deep Location in 2022: (a) 2, (b) 12, (c) 16, and (d) 18-Meter Water Depths

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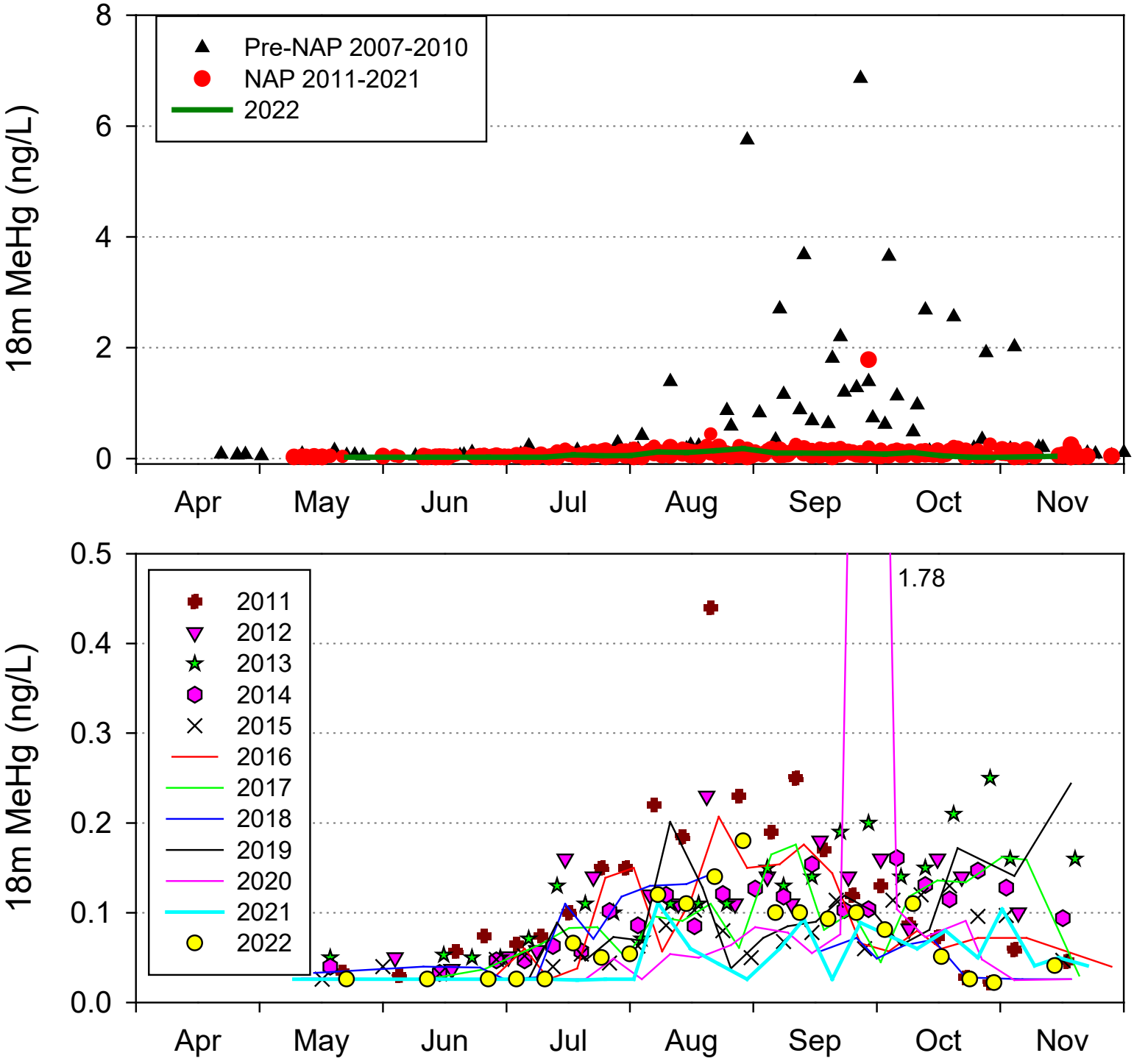


FIGURE 5.14

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Onondaga Lake
Syracuse, New York

Time Series of Methylmercury Concentrations Measured at the 18-Meter Water Depth at the South Deep Location, 2007-2022

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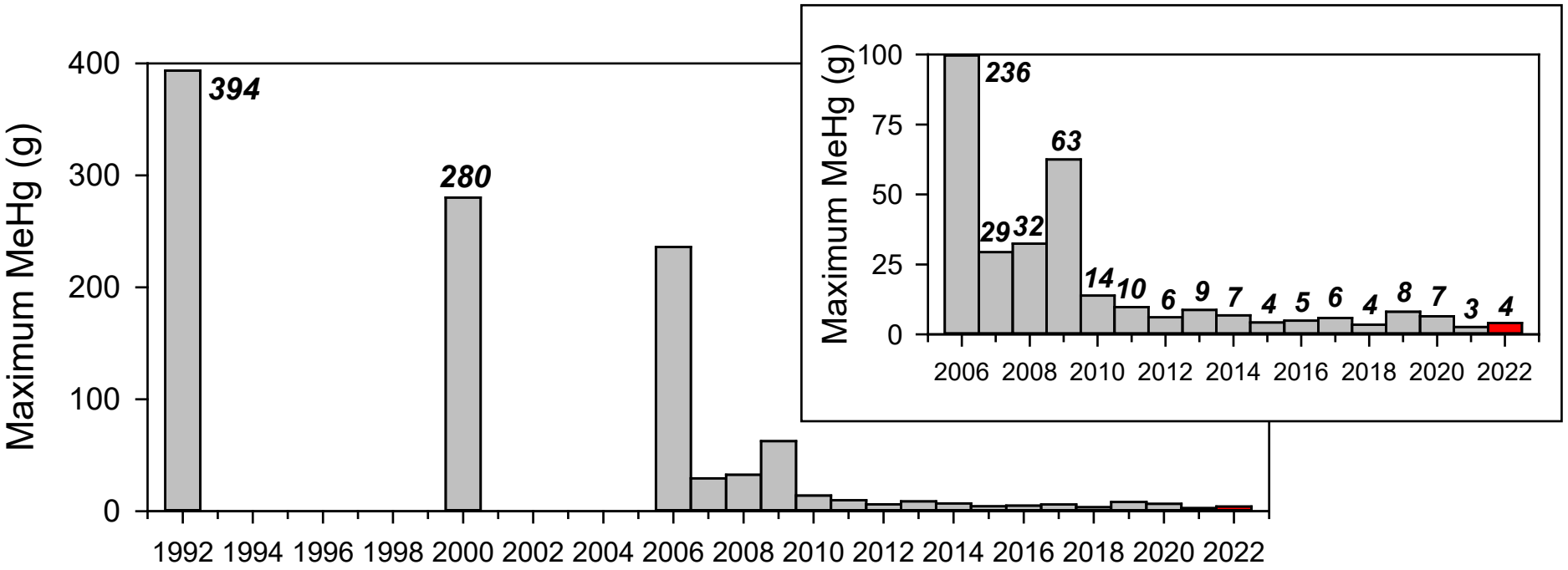


FIGURE 5.15

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Onondaga Lake
Syracuse, New York

Annual Maximum Mass of Methylmercury in the Hypolimnion of Onondaga Lake from 1992 through 2022

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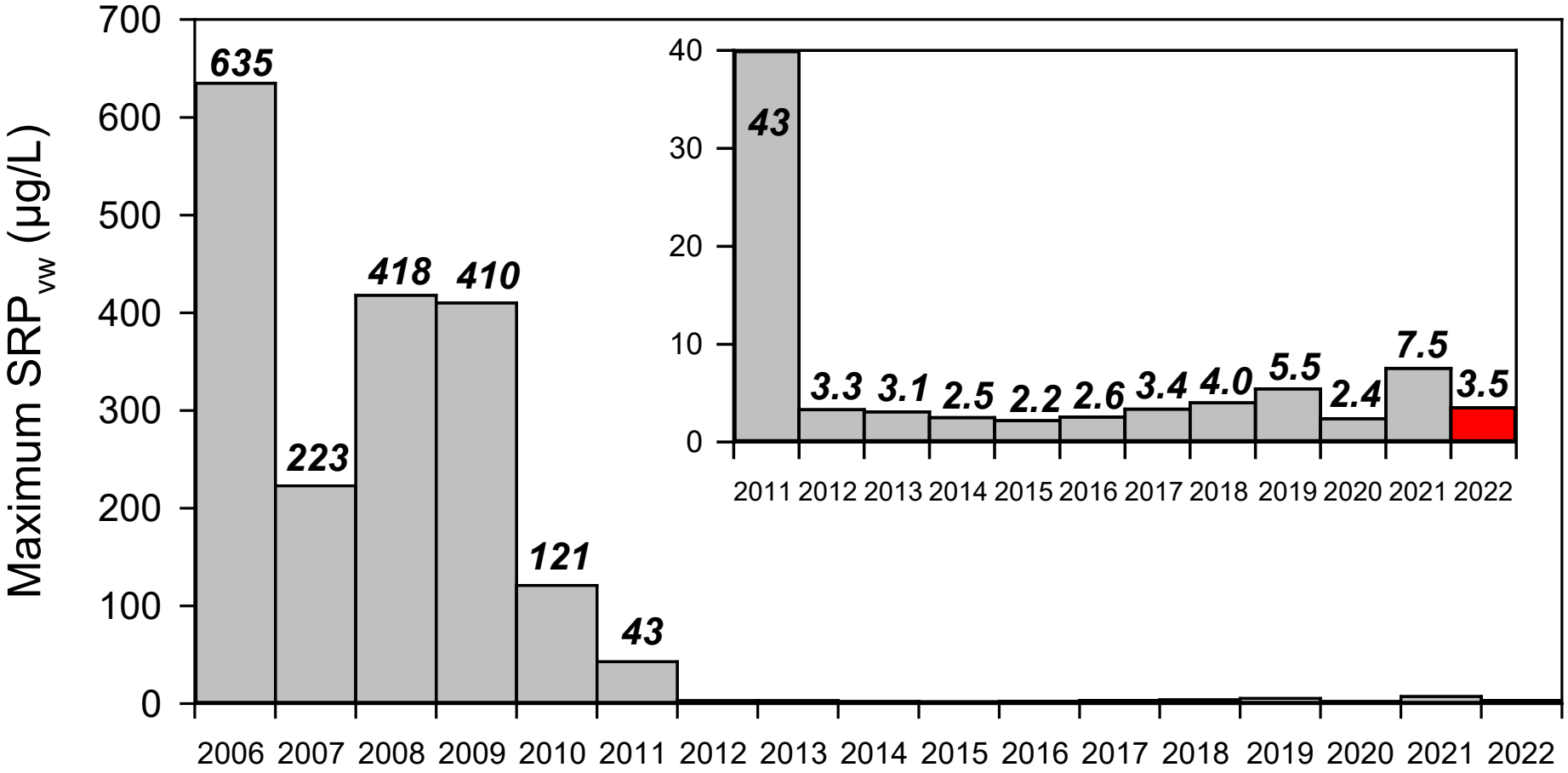


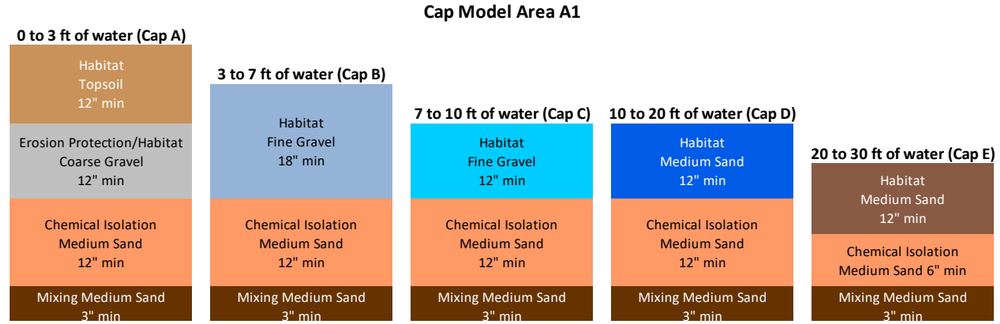
FIGURE 5.16

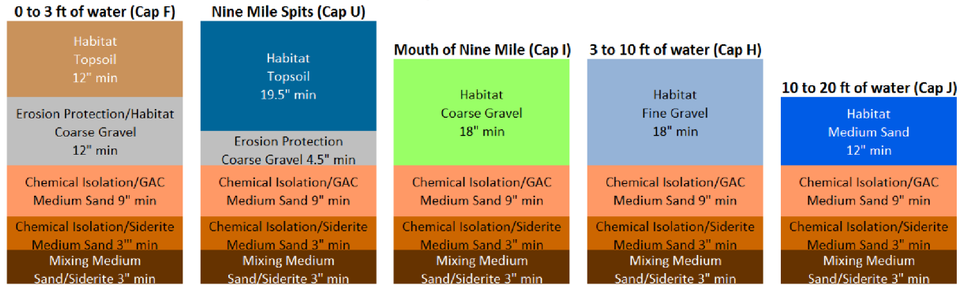
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Onondaga Lake
Syracuse, New York

Annual Maximum Volume Weighted Concentrations of Soluble Reactive Phosphorus (SRP) in the Lower Hypolimnion of Onondaga Lake from 2006 through 2022

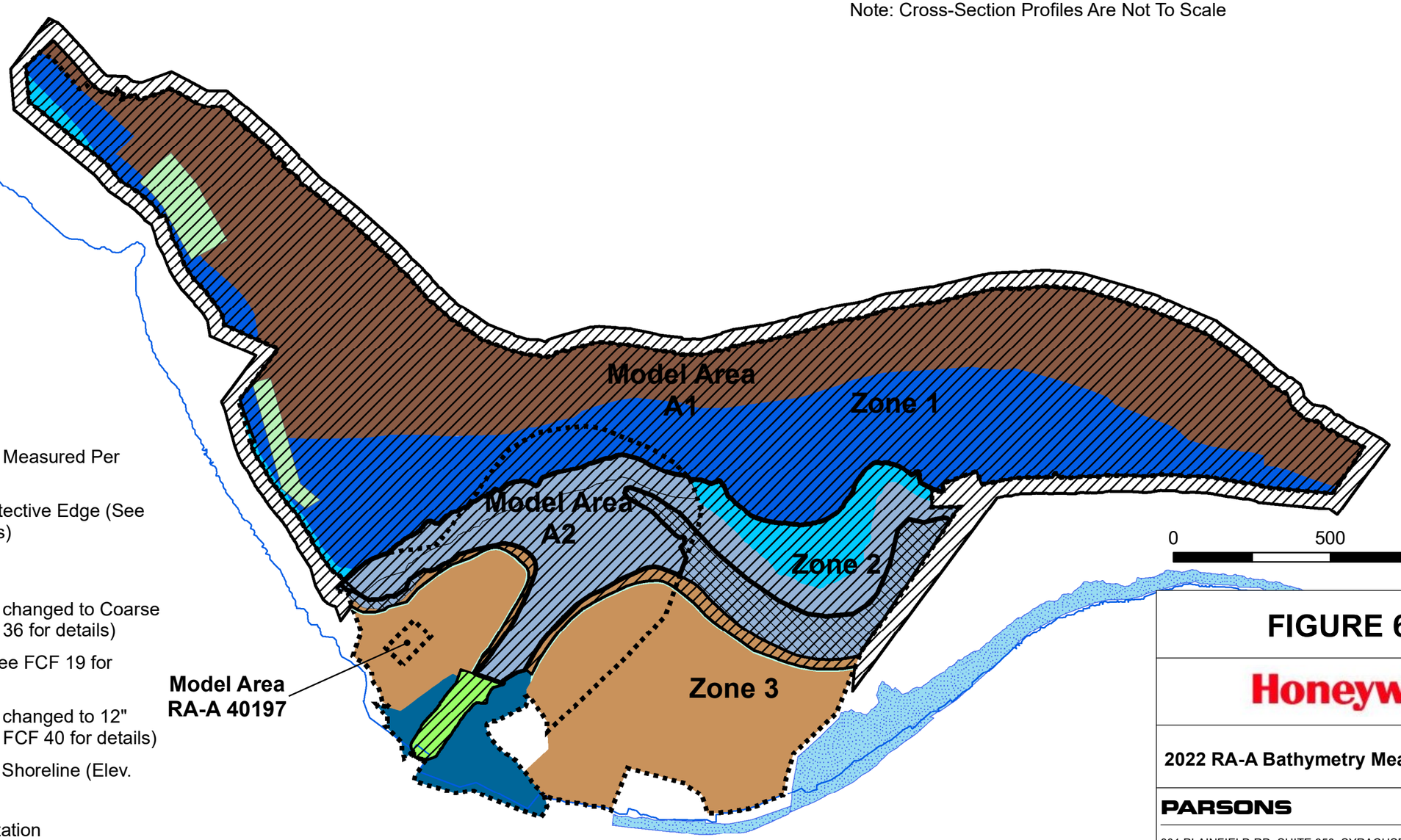
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Note: Cross-Section Profiles Are Not To Scale

N



2022 Bathymetry Measured Per Work Plan

Planted Area Protective Edge (See FCF 27 for details)

Cap Model

Habitat/EP Layer changed to Coarse Gravel (See FCF 36 for details)

Sand Buttress (See FCF 19 for details)

Habitat/EP Layer changed to 12" Fine Gravel (See FCF 40 for details)

Pre-Remediation Shoreline (Elev. 362.5)

Shoreline Stabilization

0 500 1,000 Feet

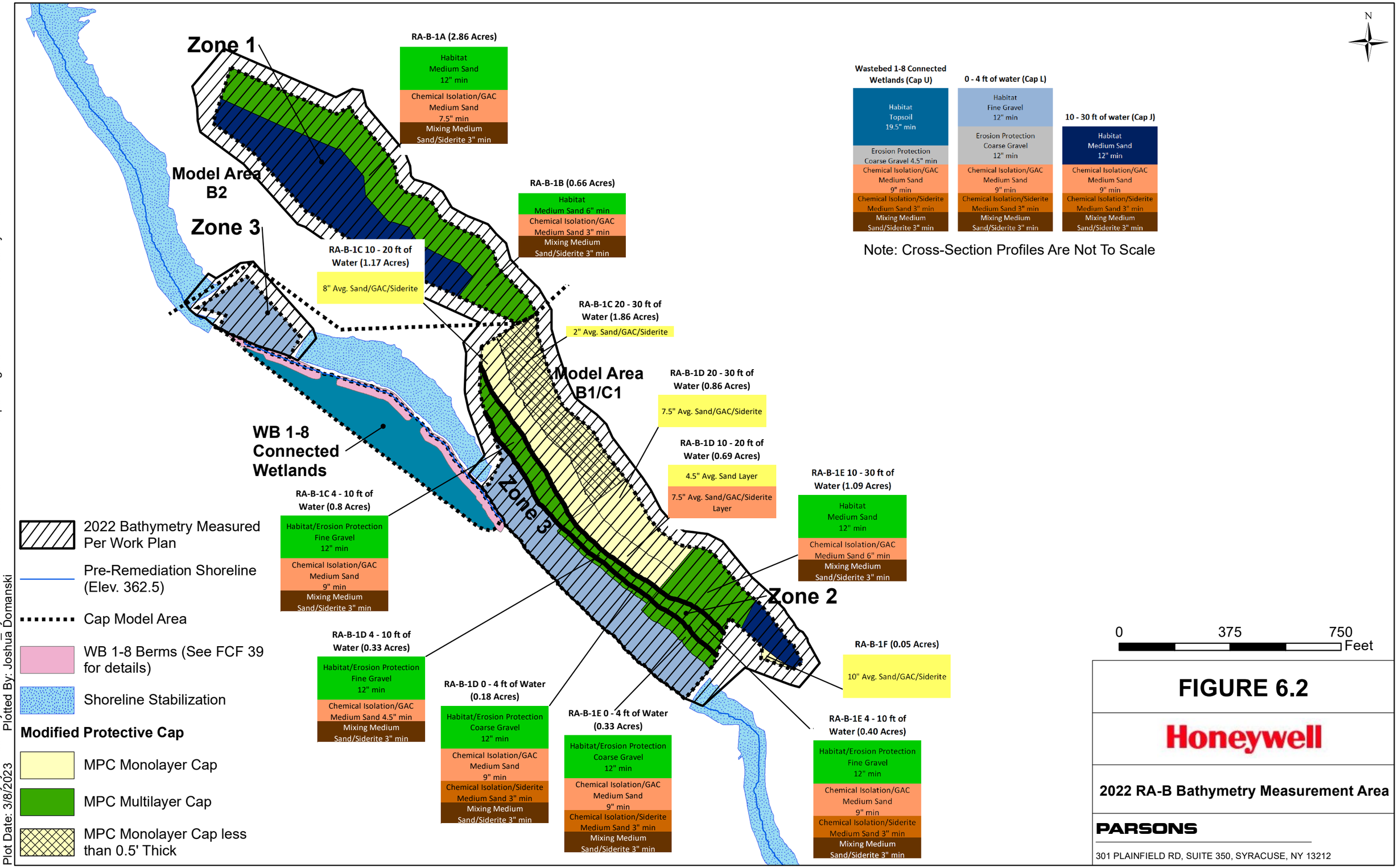
FIGURE 6.1

Honeywell

2022 RA-A Bathymetry Measurement Area

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\Figure 6.1 - 2022 RAA Bathy.mxd
Plot Date: 3/7/2023 Plotted By: Joshua Domanski



Note: Cross-Section Profiles Are Not To Scale

FIGURE 6.2

Honeywell

2022 RA-B Bathymetry Measurement Area

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\Figure 6.2 - 2022 RAB Bathy.mxd
Plot Date: 3/8/2023 Plotted By: Joshua Domanski

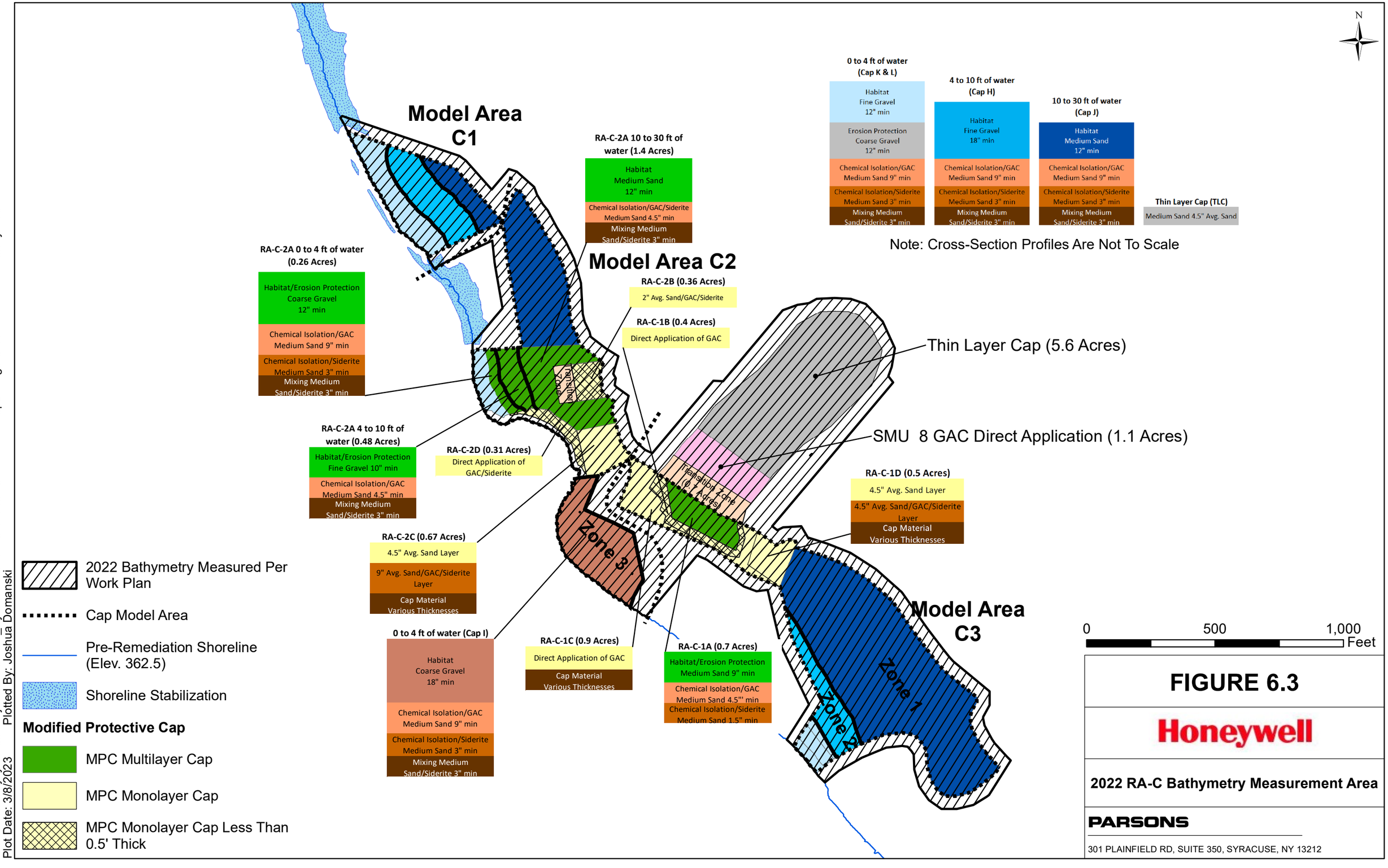


FIGURE 6.3

Honeywell

2022 RA-C Bathymetry Measurement Area

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: \\nysyr04fs01\Prj\Data\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\Figure 6.3 - 2022 RAC Bathy.mxd
Plot Date: 3/8/2023 Plotted By: Joshua Domanski

N

Outboard West & Center (Cap U)
- Habitat Topsoil 19.5" min
- Erosion Protection Coarse Gravel 4.5" min
- Chemical Isolation/GAC Medium Sand 9" min
- Chemical Isolation/Siderite Medium Sand 3" min
- Mixing Medium Sand/Siderite 3" min

Outboard East (Cap T)
- Habitat Topsoil 19.5" min
- Erosion Protection Coarse Gravel 4.5" min
- Chemical Isolation/GAC Medium Sand 12" min
- Mixing Medium Sand/GAC 3" min

0 to 4 ft of water (Cap F & G)
- Habitat Medium Sand 12" min
- Erosion Protection/Habitat Coarse Gravel 12" min
- Chemical Isolation/GAC Medium Sand 9" min
- Chemical Isolation/Siderite Medium Sand 3" min
- Mixing Medium Sand/Siderite 3" min

4 to 7 ft of water (Cap H)
- Habitat Fine Gravel 18" min
- Chemical Isolation/GAC Medium Sand 9" min
- Chemical Isolation/Siderite Medium Sand 3" min
- Mixing Medium Sand/Siderite 3" min

7 to 10 ft of water (Cap M)
- Habitat Fine Gravel 12" min
- Chemical Isolation/GAC Medium Sand 9" min
- Chemical Isolation/Siderite Medium Sand 3" min
- Mixing Medium Sand/Siderite 3" min

10 to 30 ft of water (Cap J)
- Habitat Medium Sand 12" min
- Chemical Isolation/GAC Medium Sand 9" min
- Chemical Isolation/Siderite Medium Sand 3" min
- Mixing Medium Sand/Siderite 3" min

Thin Layer Cap (TLC)
- Medium Sand 2" min

Amended TLC
- Sand/GAC Layer 4.5" Avg.

Note: Cross-Section Profiles Are Not To Scale

Model Area D-SMU-2

1 Extra Foot of Sand Placed Over Former Water Inlet Pipe Valve Structure

RA-D-1B (1.17 Acres)
- 4.5" Avg. Sand/GAC/Siderite

RA-D-1A (7.55 Acres)
- Habitat Medium Sand 12" min
- Chemical Isolation/GAC Medium Sand 6" min
- Mixing Medium Sand/Siderite 3" min

RA-D-2 (2.4 Acres)
- Habitat Medium Sand 10.5" min
- Chemical Isolation/GAC Medium Sand 4.5" min
- Chemical Isolation/Siderite Medium Sand 3" min
- Mixing Medium Sand/Siderite 3" min

Amended TLC Area B (9.3 Acres)

Amended TLC Area A (7.5 Acres)

RA-D-1A

Addendum East

Model Area D-West

Model Area D-Center

Model Area OL-VC-10138/40

Model Area Outboard West

Model Area D-East

Zone 1

Zone 2

Zone 3

Model Area Outboard Center

Model Area Outboard East

- Supplemental Probing Line
- Cobble Armoring w/Topsoil on 5H:1V Slope Adjacent to Barrier Wall (See FCF 62 for details)
- West Naturalized Shoreline (See FCF 57 for details)
- East Naturalized Shoreline (See FCF 58 for details)
- Berms (See FCF 62 for details)
- 25 ft Zone of Topsoil Habitat
- Plateau Armored Edge (See FCF 62 for details)
- Marine Mattress and Adjacent Sand Buttress (See FCF 63 for details)

- Harbor Brook Channel
- Pre-Remediation Shoreline (Elev. 362.5)
- Cap Model Area

Modified Protective Cap
- MPC Monolayer Cap Less Than 0.5' Thick
- MPC Multilayer Cap

- 2022 Bathymetry Measures Per Work Plan

0 500 1,000 Feet

FIGURE 6.4

Honeywell

2022 RA-D Bathymetry Measurement Area and Probing Transects

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: \\nysyr04fs01\Prj\Data\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\Figure 6.4 - 2022 RAD Bathy and Probing.mxd
Plot Date: 6/15/2023 Plotted By: Joshua Domanski

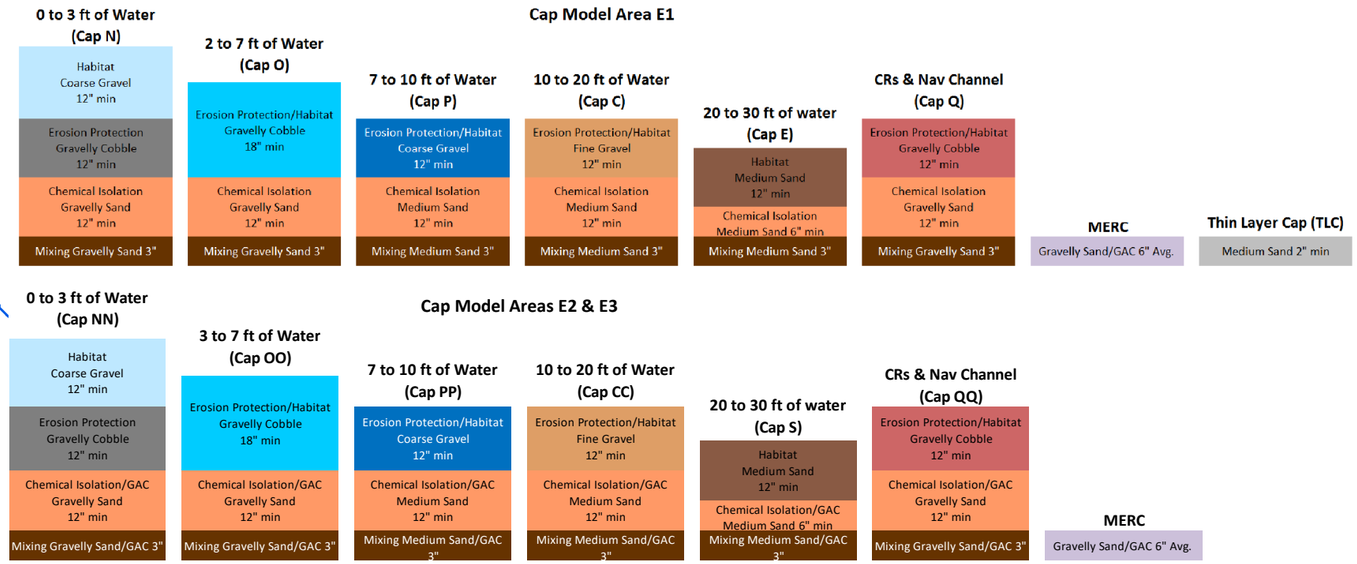


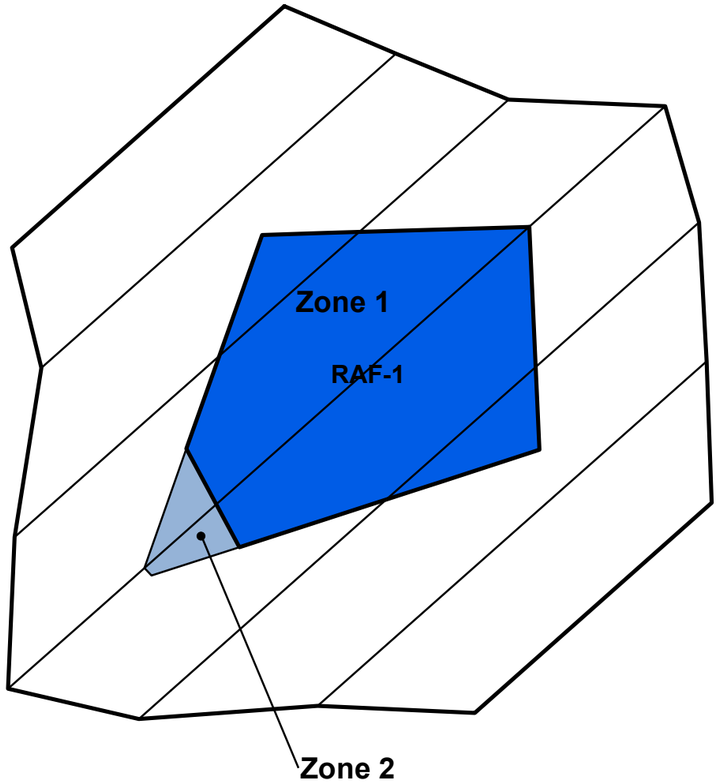
FIGURE 6.5

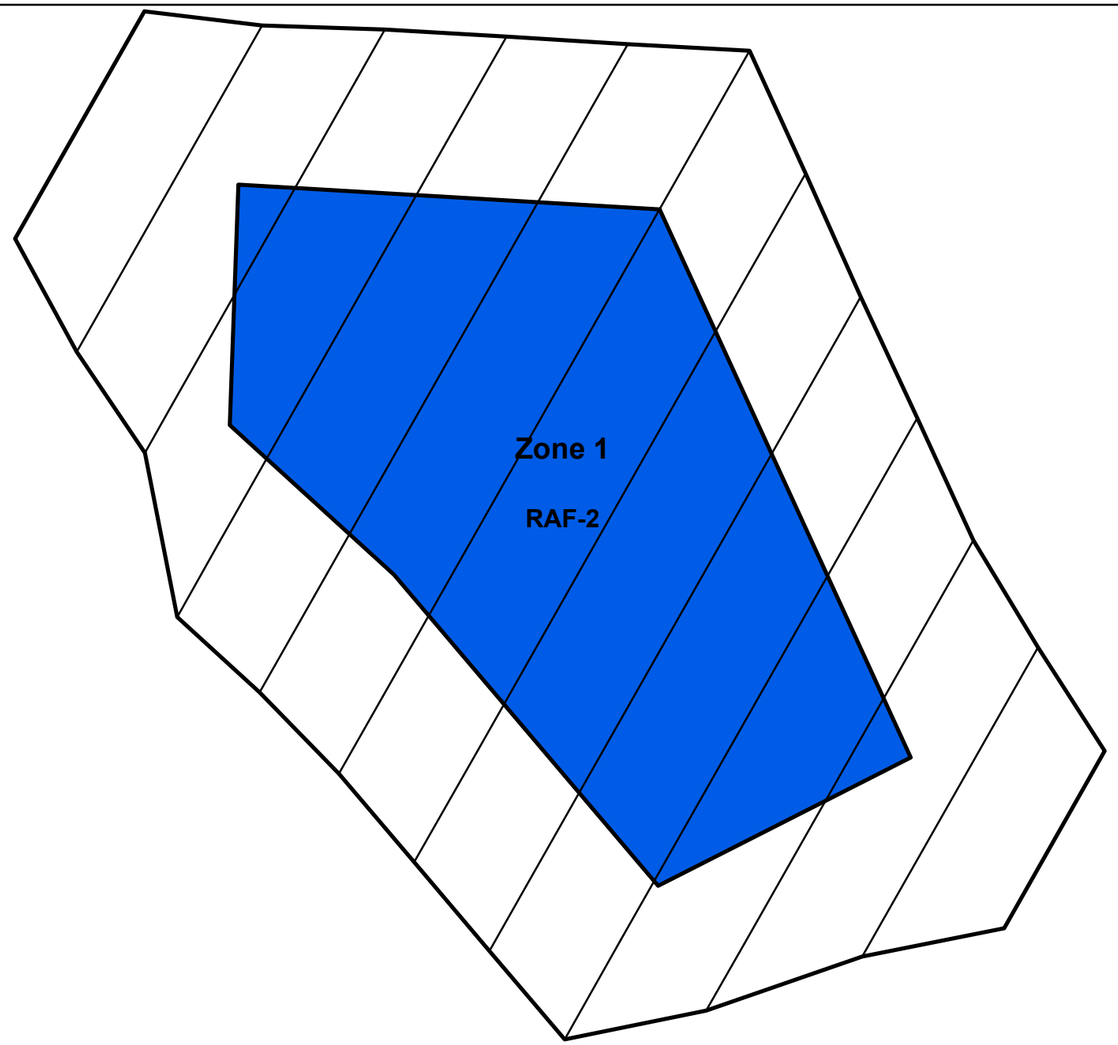
Honeywell

2022 RA-E Bathymetry Measurement Area

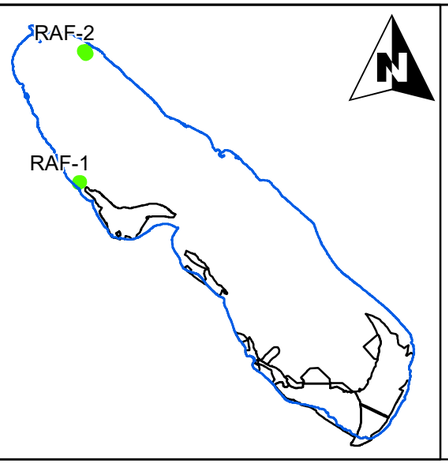
PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\Figure 6.5 - 2022 RAE Bathy.mxd
Plot Date: 3/8/2023 Plotted By: Sisson, Evan





2022 Bathymetry Measured Per Work Plan



7 to 30 ft of water (Cap D)

Habitat
Medium Sand
12" min

Chemical Isolation
Medium Sand
12" min

Mixing Medium Sand
3" min

3 to 7 ft of water (Cap B)

Habitat
Fine Gravel
18" min

Chemical Isolation
Medium Sand
12" min

Mixing Medium Sand
3" min

Note: Cross-Section Profiles Are Not To Scale

0 50 100 Feet

FIGURE 6.6

Honeywell

2022 RA-F Bathymetry Measurement Area

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: \\nysyr04fs01\Prj\Data\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\Figure 6.6 - 2022 RAF Bathy.mxd
Plot Date: 3/8/2023 Plotted By: Joshua Domanski

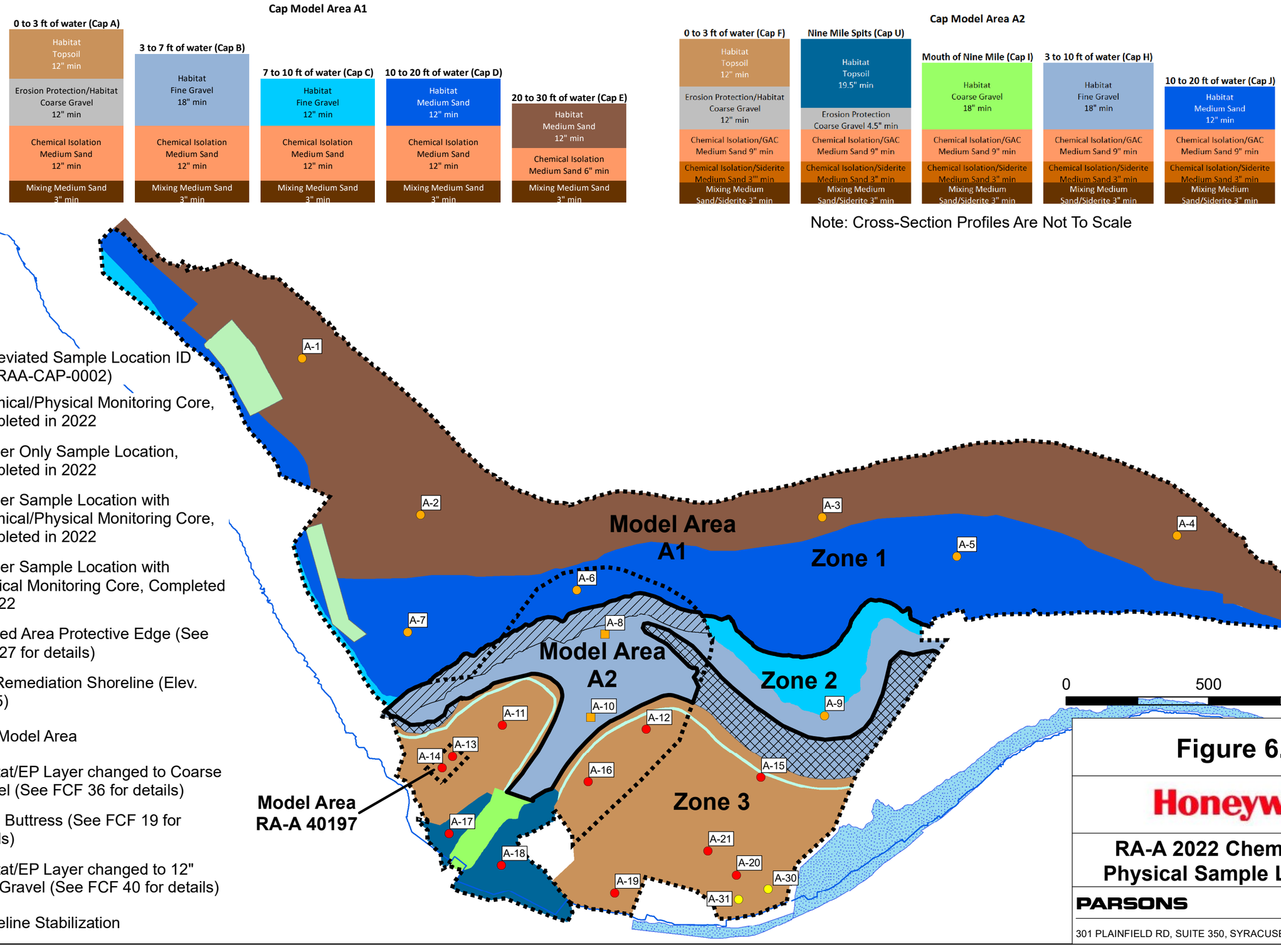


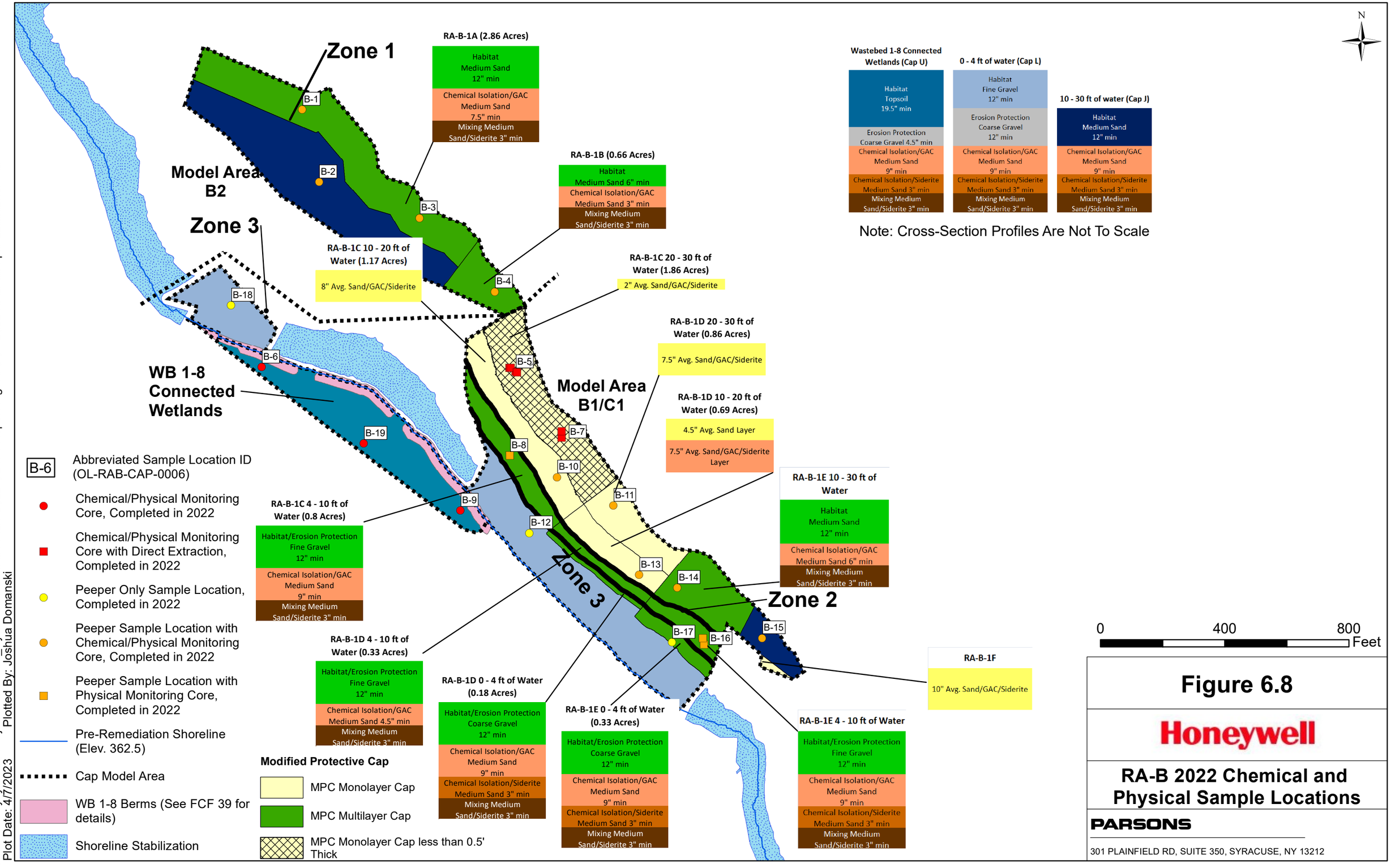
Figure 6.7

Honeywell

RA-A 2022 Chemical and Physical Sample Locations

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\Figure 6.7 - 2022 RAA Sample Locations.mxd
Plotted By: Joshua Domanski
Plot Date: 4/7/2023



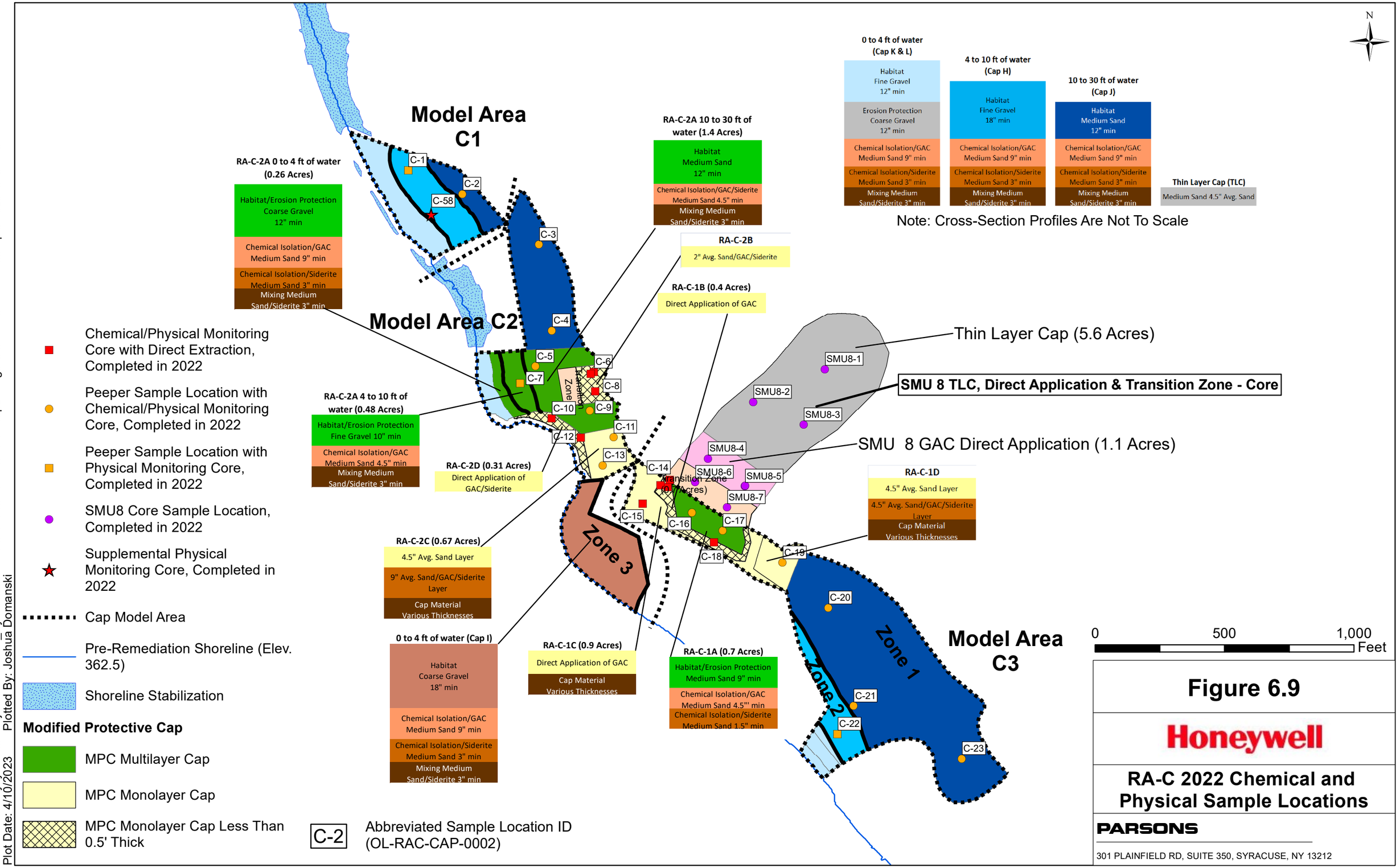
File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\Figure 6.8 - 2022 RAB Sample Locations.mxd
Plot Date: 4/7/2023
Plotted By: Joshua Domanski

Figure 6.8

Honeywell

RA-B 2022 Chemical and Physical Sample Locations

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212



- Chemical/Physical Monitoring Core with Direct Extraction, Completed in 2022
- Peeper Sample Location with Chemical/Physical Monitoring Core, Completed in 2022
- Peeper Sample Location with Physical Monitoring Core, Completed in 2022
- SMU8 Core Sample Location, Completed in 2022
- Supplemental Physical Monitoring Core, Completed in 2022
- Cap Model Area
- Pre-Remediation Shoreline (Elev. 362.5)
- Shoreline Stabilization

Modified Protective Cap

- MPC Multilayer Cap
- MPC Monolayer Cap
- MPC Monolayer Cap Less Than 0.5' Thick

C-2 Abbreviated Sample Location ID (OL-RAC-CAP-0002)

Figure 6.9

Honeywell

RA-C 2022 Chemical and Physical Sample Locations

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\Figure 6.9 - 2022 RAC Sample Locations.mxd
Plot Date: 4/10/2023 Plotted By: Joshua Domanski

N

Outboard West & Center (Cap U)
Habitat Topsoil 19.5" min
Erosion Protection Coarse Gravel 4.5" min
Chemical Isolation/GAC Medium Sand 9" min
Chemical Isolation/Siderite Medium Sand 3" min
Mixing Medium Sand/Siderite 3" min

Outboard East (Cap T)
Habitat Topsoil 19.5" min
Erosion Protection Coarse Gravel 4.5" min
Chemical Isolation/GAC Medium Sand 12" min
Mixing Medium Sand/GAC 3" min

0 to 4 ft of water (Cap F & G)
Habitat Medium Sand 12" min
Erosion Protection/Habitat Coarse Gravel 12" min
Chemical Isolation/GAC Medium Sand 9" min
Chemical Isolation/Siderite Medium Sand 3" min
Mixing Medium Sand/Siderite 3" min

4 to 7 ft of water (Cap H)
Habitat Fine Gravel 18" min
Chemical Isolation/GAC Medium Sand 9" min
Chemical Isolation/Siderite Medium Sand 3" min
Mixing Medium Sand/Siderite 3" min

7 to 10 ft of water (Cap M)
Habitat Fine Gravel 12" min
Chemical Isolation/GAC Medium Sand 9" min
Chemical Isolation/Siderite Medium Sand 3" min
Mixing Medium Sand/Siderite 3" min

10 to 30 ft of water (Cap J)
Habitat Medium Sand 12" min
Chemical Isolation/GAC Medium Sand 9" min
Chemical Isolation/Siderite Medium Sand 3" min
Mixing Medium Sand/Siderite 3" min

Thin Layer Cap (TLC)
Medium Sand 2" min

Amended TLC
Sand/GAC Layer 4.5" Avg.

Note: Cross-Section Profiles Are Not To Scale

RA-D-2 (2.4 Acres)
Habitat Medium Sand 10.5" min
Chemical Isolation/GAC Medium Sand 4.5" min
Chemical Isolation/Siderite Medium Sand 3" min
Mixing Medium Sand/Siderite 3" min

RA-D-1B (1.17 Acres)
4.5" Avg. Sand/GAC/Siderite

RA-D-1A
Habitat Medium Sand 12" min
Chemical Isolation/GAC Medium Sand 6" min
Mixing Medium Sand/Siderite 3" min

Model Area D-SMU-2

1 Extra Foot of Sand Placed Over Former Water Inlet Pipe Valve Structure

Amended TLC Area B (9.3 Acres)

Amended TLC Area A (7.5 Acres)

RA-D-1A

Addendum East

SMU 8 TLC & Amended TLC - Core

SMU8-8, SMU8-9, SMU8-10, SMU8-11, SMU8-12, SMU8-13, SMU8-14, SMU8-15, SMU8-16, SMU8-17, SMU8-18, SMU8-19, SMU8-20

D-1, D-2, D-3, D-4, D-5, D-6, D-7, D-8, D-9, D-10, D-11, D-12, D-13, D-14, D-15, D-16, D-17, D-18, D-19, D-20, D-21, D-22, D-23, D-24, D-25, D-26, D-27, D-28, D-29, D-30, D-31, D-32, D-33, D-34, D-35, D-36, D-37, D-38, D-39, D-40, D-41, D-42, D-43, D-44, D-45, D-46, D-57

Model Area D-West

Model Area D-Center

Model Area D-East

Model Area OL-VC-10138/40

Model Area Outboard West

Model Area Outboard Center

Model Area Outboard East

Zone 1

Zone 2

Zone 3

D-2 Abbreviated Sample Location ID (OL-RAD-CAP-0002)

- Chemical/Physical Monitoring Core, Completed in 2022
- Chemical/Physical Monitoring Core with Direct Extraction, Completed in 2022
- Peeper Sample Location with Chemical/Physical Monitoring Core, Completed in 2022
- Peeper Sample Location with Physical Monitoring Core, Completed in 2022
- Peeper Sample Location with Sample Port Core Sample, Completed in 2022
- Peeper Sample Location with Physical Monitoring Core Adjacent to Sample Port, Completed in 2022
- SMU8 Core Sample Location, Completed in 2022
- Supplemental Physical Monitoring Core, Completed in 2022

- Cobble Armoring w/Topsoil on 5H:1V Slope Adjacent to Barrier Wall (See FCF 62 for details)
- Harbor Brook Channel
- Pre-Remediation Shoreline (Elev. 362.5)
- Cap Model Area

Modified Protective Cap

- MPC Monolayer Cap Less Than 0.5' Thick
- MPC Multilayer Cap

- West Naturalized Shoreline (See FCF 57 for details)
- East Naturalized Shoreline (See FCF 58 for details)
- Berms (See FCF 62 for details)
- 25 ft Zone of Topsoil Habitat
- Plateau Armored Edge (See FCF 62 for details)
- Marine Mattress and Adjacent Sand Buttress (See FCF 63 for details)

0 500 1,000 Feet

Figure 6.10

Honeywell

RA-D 2022 Chemical and Physical Sample Locations

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: Q:\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\PPKXs\2022 Sample Locations.aprx
Plotted By: Joshua Domanski
Plot Date: 5/12/2025

Cap Model Area E1

0 to 3 ft of Water (Cap N)
- Habitat: Coarse Gravel 12" min
- Erosion Protection: Gravelly Cobble 12" min
- Chemical Isolation: Gravelly Sand 12" min
- Mixing: Gravelly Sand 3"

2 to 7 ft of Water (Cap O)
- Erosion Protection/Habitat: Gravelly Cobble 18" min
- Chemical Isolation: Gravelly Sand 12" min
- Mixing: Gravelly Sand 3"

7 to 10 ft of Water (Cap P)
- Erosion Protection/Habitat: Coarse Gravel 12" min
- Chemical Isolation: Medium Sand 12" min
- Mixing: Medium Sand 3"

10 to 20 ft of Water (Cap C)
- Erosion Protection/Habitat: Fine Gravel 12" min
- Chemical Isolation: Medium Sand 12" min
- Mixing: Medium Sand 3"

20 to 30 ft of water (Cap E)
- Habitat: Medium Sand 12" min
- Chemical Isolation: Medium Sand 6" min
- Mixing: Medium Sand 3"

CRs & Nav Channel (Cap Q)
- Erosion Protection/Habitat: Gravelly Cobble 12" min
- Chemical Isolation: Gravelly Sand 12" min
- Mixing: Gravelly Sand 3"

MERC
- Gravelly Sand/GAC 6" Avg.

Thin Layer Cap (TLC)
- Medium Sand 2" min

Cap Model Areas E2 & E3

0 to 3 ft of Water (Cap NN)
- Habitat: Coarse Gravel 12" min
- Erosion Protection: Gravelly Cobble 12" min
- Chemical Isolation/GAC: Gravelly Sand 12" min
- Mixing: Gravelly Sand/GAC 3"

3 to 7 ft of Water (Cap OO)
- Erosion Protection/Habitat: Gravelly Cobble 18" min
- Chemical Isolation/GAC: Gravelly Sand 12" min
- Mixing: Gravelly Sand/GAC 3"

7 to 10 ft of Water (Cap PP)
- Erosion Protection/Habitat: Coarse Gravel 12" min
- Chemical Isolation/GAC: Medium Sand 12" min
- Mixing: Medium Sand/GAC 3"

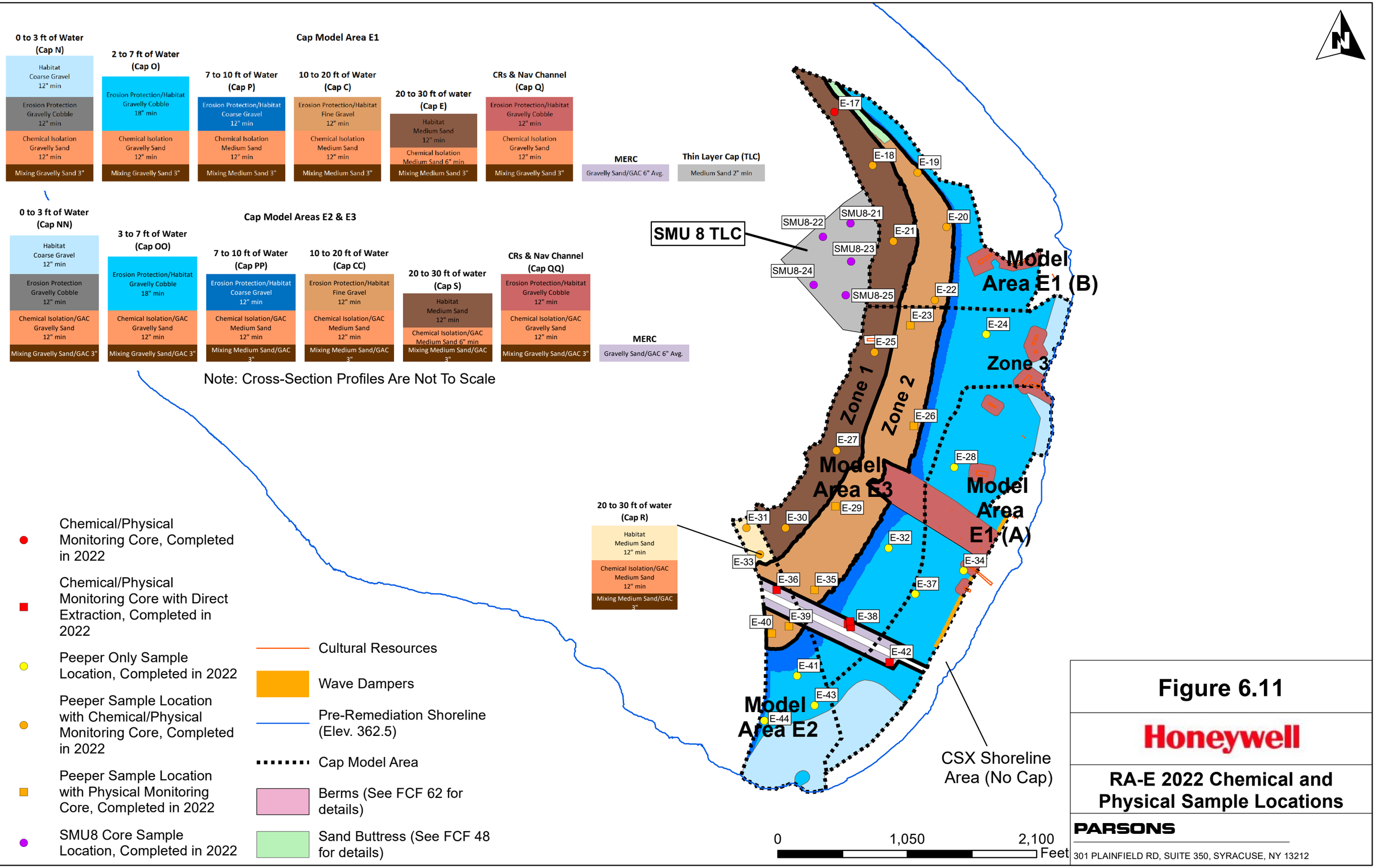
10 to 20 ft of Water (Cap CC)
- Erosion Protection/Habitat: Fine Gravel 12" min
- Chemical Isolation/GAC: Medium Sand 12" min
- Mixing: Medium Sand/GAC 3"

20 to 30 ft of water (Cap S)
- Habitat: Medium Sand 12" min
- Chemical Isolation/GAC: Medium Sand 6" min
- Mixing: Medium Sand/GAC 3"

CRs & Nav Channel (Cap QQ)
- Erosion Protection/Habitat: Gravelly Cobble 12" min
- Chemical Isolation/GAC: Gravelly Sand 12" min
- Mixing: Gravelly Sand/GAC 3"

MERC
- Gravelly Sand/GAC 6" Avg.

Note: Cross-Section Profiles Are Not To Scale



- Chemical/Physical Monitoring Core, Completed in 2022
- Chemical/Physical Monitoring Core with Direct Extraction, Completed in 2022
- Peeper Only Sample Location, Completed in 2022
- Peeper Sample Location with Chemical/Physical Monitoring Core, Completed in 2022
- Peeper Sample Location with Physical Monitoring Core, Completed in 2022
- SMU8 Core Sample Location, Completed in 2022

- Cultural Resources
- Wave Dampers
- Pre-Remediation Shoreline (Elev. 362.5)
- Cap Model Area
- Berms (See FCF 62 for details)
- Sand Buttress (See FCF 48 for details)

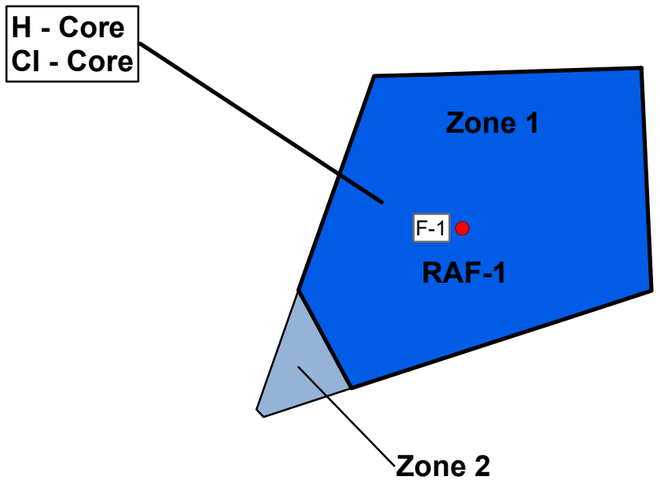
Figure 6.11

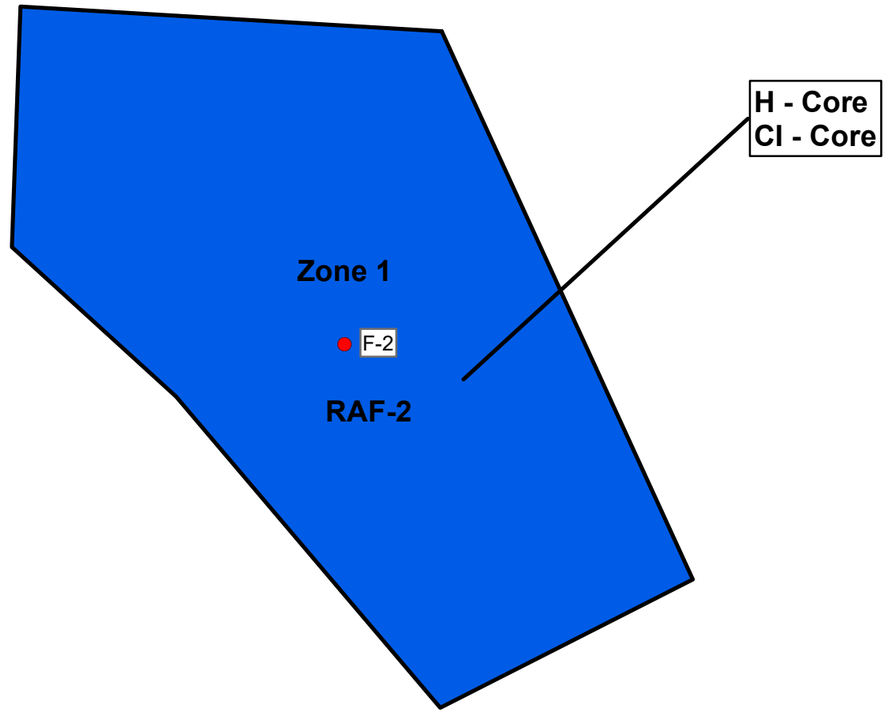
Honeywell

RA-E 2022 Chemical and Physical Sample Locations

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\Figure 6.11 - 2022 RAE Sample Locations.mxd
Plot Date: 4/10/2023 Plotted By: Joshua Domanski





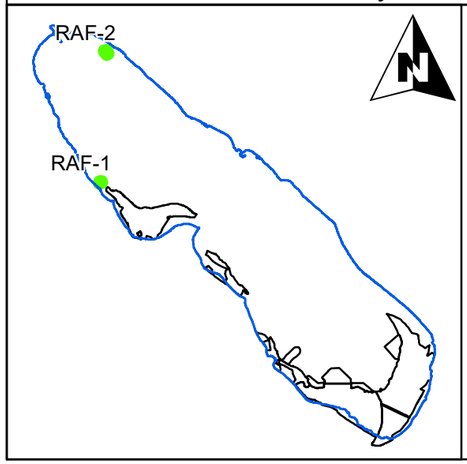
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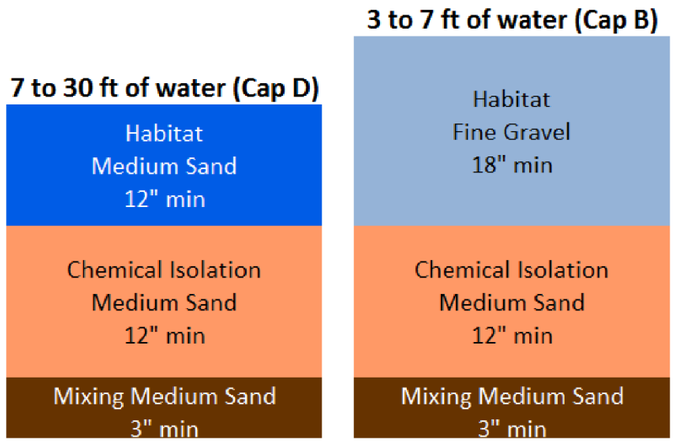
F-2 Abbreviated Sampled Location ID (OL-RAF-CAP-0002)

Chemical/Physical Monitoring Core, Completed in 2022

H - Habitat Layer Sample

CI - Chemical Isolation Layer Sample





Note: Cross-Section Profiles Are Not To Scale

0 50 100 Feet

Figure 6.12

Honeywell

RA-F 2022 Chemical and Physical Sample Locations

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

Assessment Area Summary and 2023 Recommendations

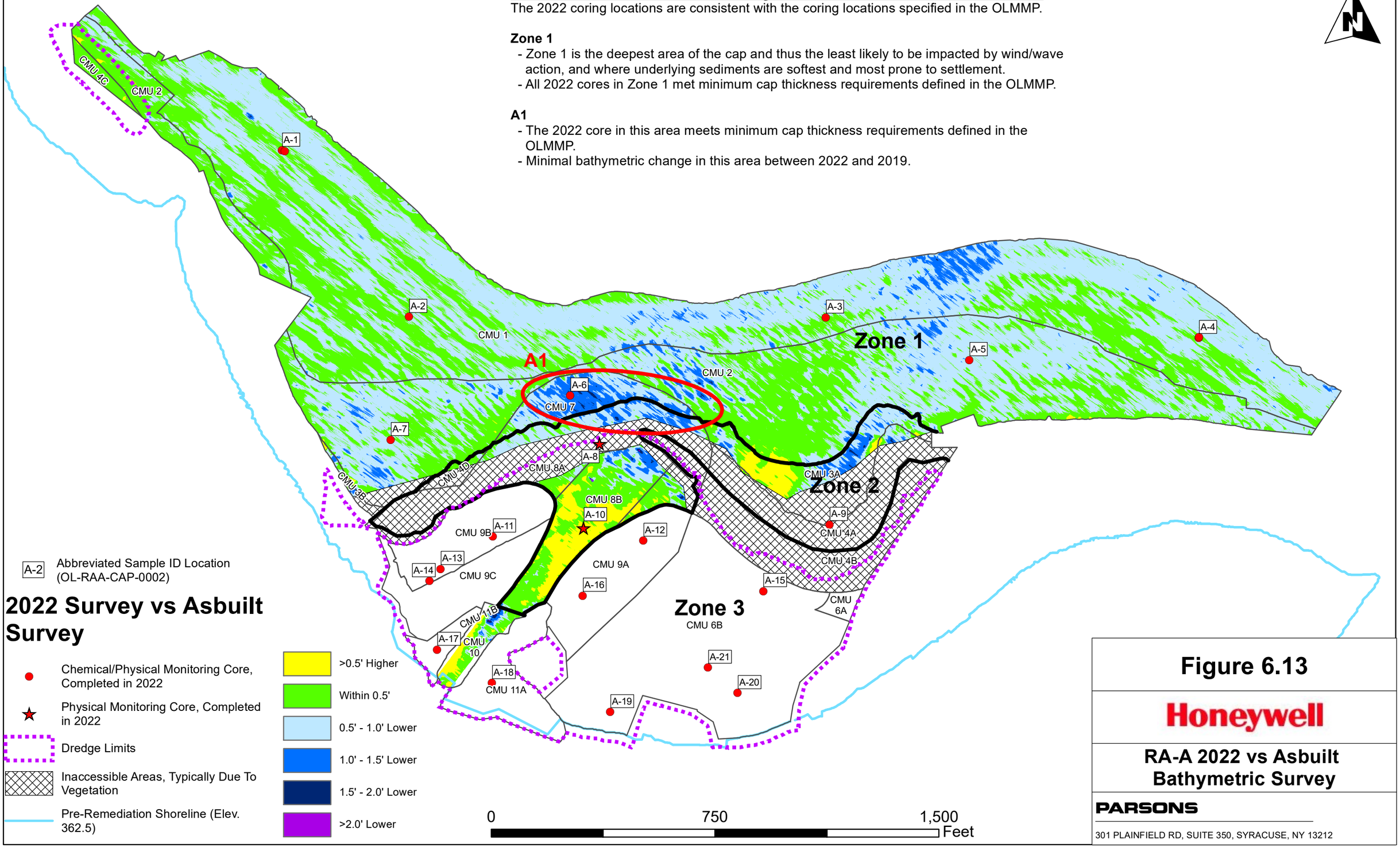
The 2022 coring locations are consistent with the coring locations specified in the OLMMP.

Zone 1

- Zone 1 is the deepest area of the cap and thus the least likely to be impacted by wind/wave action, and where underlying sediments are softest and most prone to settlement.
- All 2022 cores in Zone 1 met minimum cap thickness requirements defined in the OLMMP.

A1

- The 2022 core in this area meets minimum cap thickness requirements defined in the OLMMP.
- Minimal bathymetric change in this area between 2022 and 2019.



Plotted By: Domanski, Joshua

Plot Date: 6/23/2023

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAA OMM Survey 2022.mxd

Figure 6.13

Honeywell

RA-A 2022 vs Asbuilt Bathymetric Survey

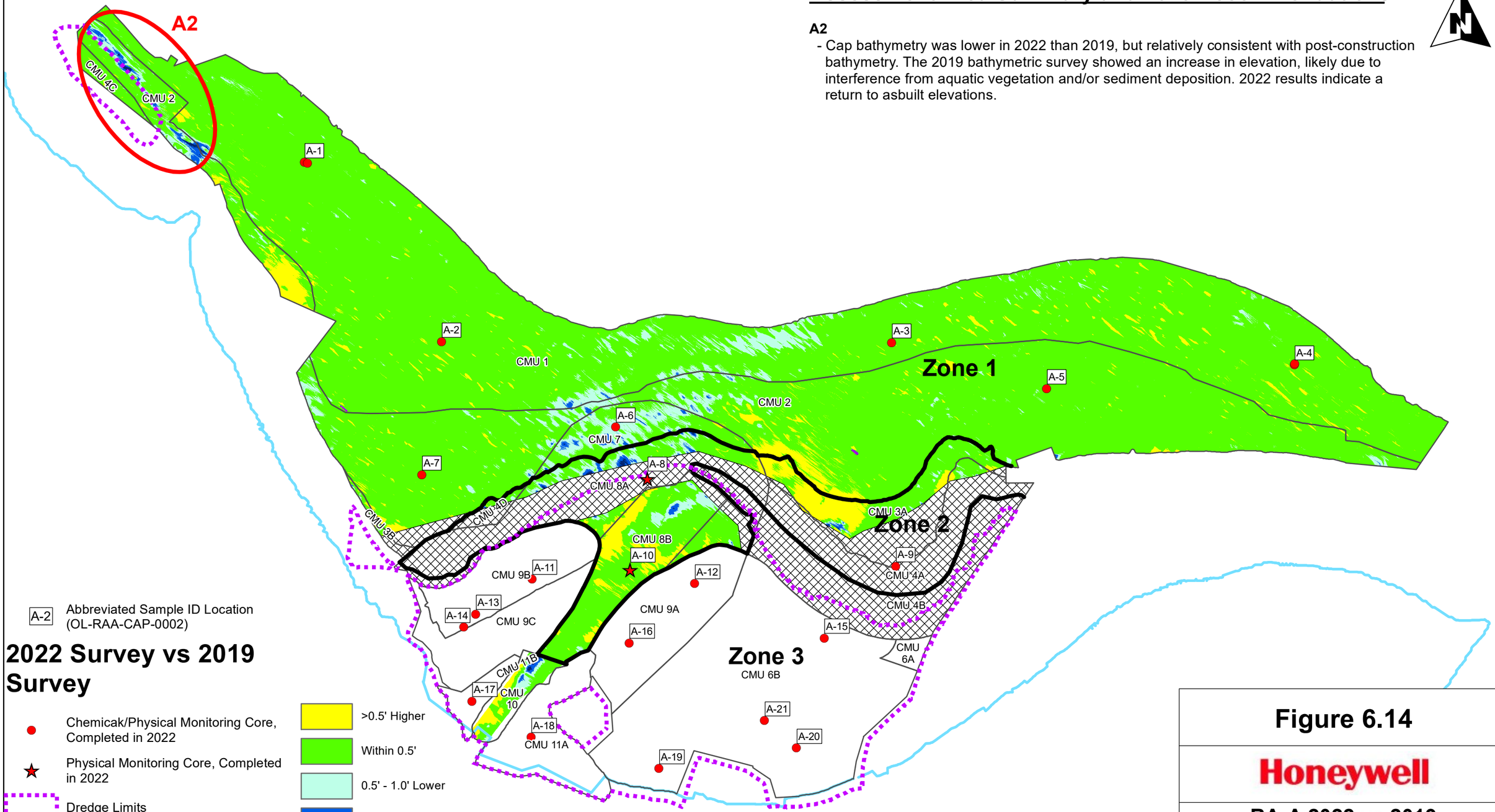
PARSONS

301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

Assessment Area Summary and 2023 Recommendations

A2

- Cap bathymetry was lower in 2022 than 2019, but relatively consistent with post-construction bathymetry. The 2019 bathymetric survey showed an increase in elevation, likely due to interference from aquatic vegetation and/or sediment deposition. 2022 results indicate a return to asbuilt elevations.



A-2 Abbreviated Sample ID Location (OL-RAA-CAP-0002)

2022 Survey vs 2019 Survey

- Chemicak/Physical Monitoring Core, Completed in 2022
- Physical Monitoring Core, Completed in 2022
- Dredge Limits
- Inaccessible Areas, Typically Due To Vegetation
- Pre-Remediation Shoreline (Elev. 362.5)

- >0.5' Higher
- Within 0.5'
- 0.5' - 1.0' Lower
- 1.0' - 1.5' Lower
- 1.5' - 2.0' Lower
- >2.0' Lower

0 750 1,500 Feet

Plotted By: Domanski, Joshua

Plot Date: 4/5/2023

Figure 6.14

Honeywell

RA-A 2022 vs 2019 Bathymetric Survey

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

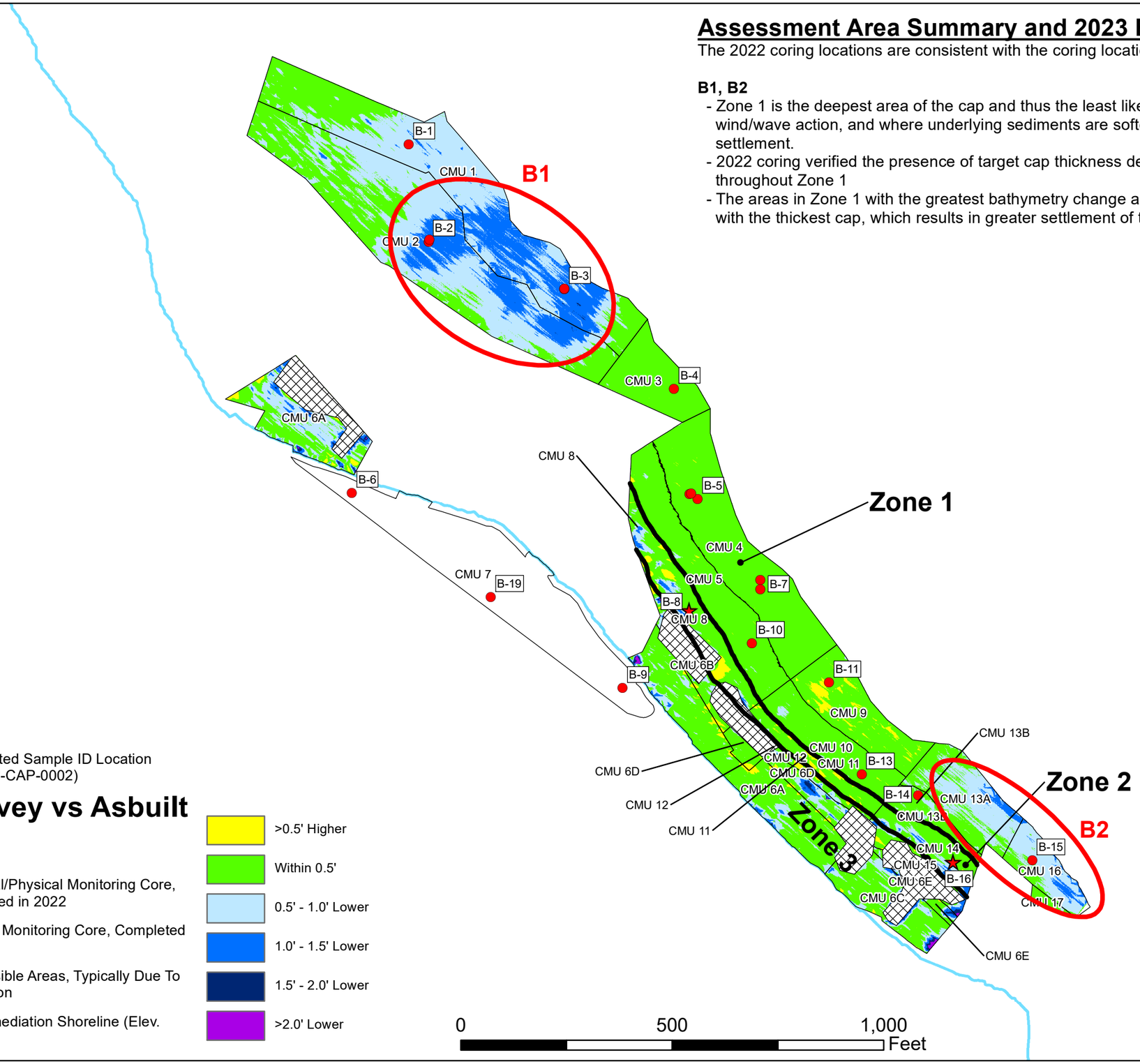
Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAA OMM Survey 2019 v 2022.mxd

Assessment Area Summary and 2023 Recommendations

The 2022 coring locations are consistent with the coring locations specified in the OLMMP.

B1, B2

- Zone 1 is the deepest area of the cap and thus the least likely to be impacted by wind/wave action, and where underlying sediments are softest and most prone to settlement.
- 2022 coring verified the presence of target cap thickness defined in the OLMMP throughout Zone 1
- The areas in Zone 1 with the greatest bathymetry change are generally the areas with the thickest cap, which results in greater settlement of the underlying sediments.



B-2 Abbreviated Sample ID Location (OL-RAB-CAP-0002)

2022 Survey vs Asbuilt Survey

- Chemical/Physical Monitoring Core, Completed in 2022
- Physical Monitoring Core, Completed in 2022
- Inaccessible Areas, Typically Due To Vegetation
- Pre-Remediation Shoreline (Elev. 362.5)

- >0.5' Higher
- Within 0.5'
- 0.5' - 1.0' Lower
- 1.0' - 1.5' Lower
- 1.5' - 2.0' Lower
- >2.0' Lower

Plotted By: Domanski, Joshua

Plot Date: 5/23/2024

Document Path: Q:\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAB OMM Survey 2022.mxd

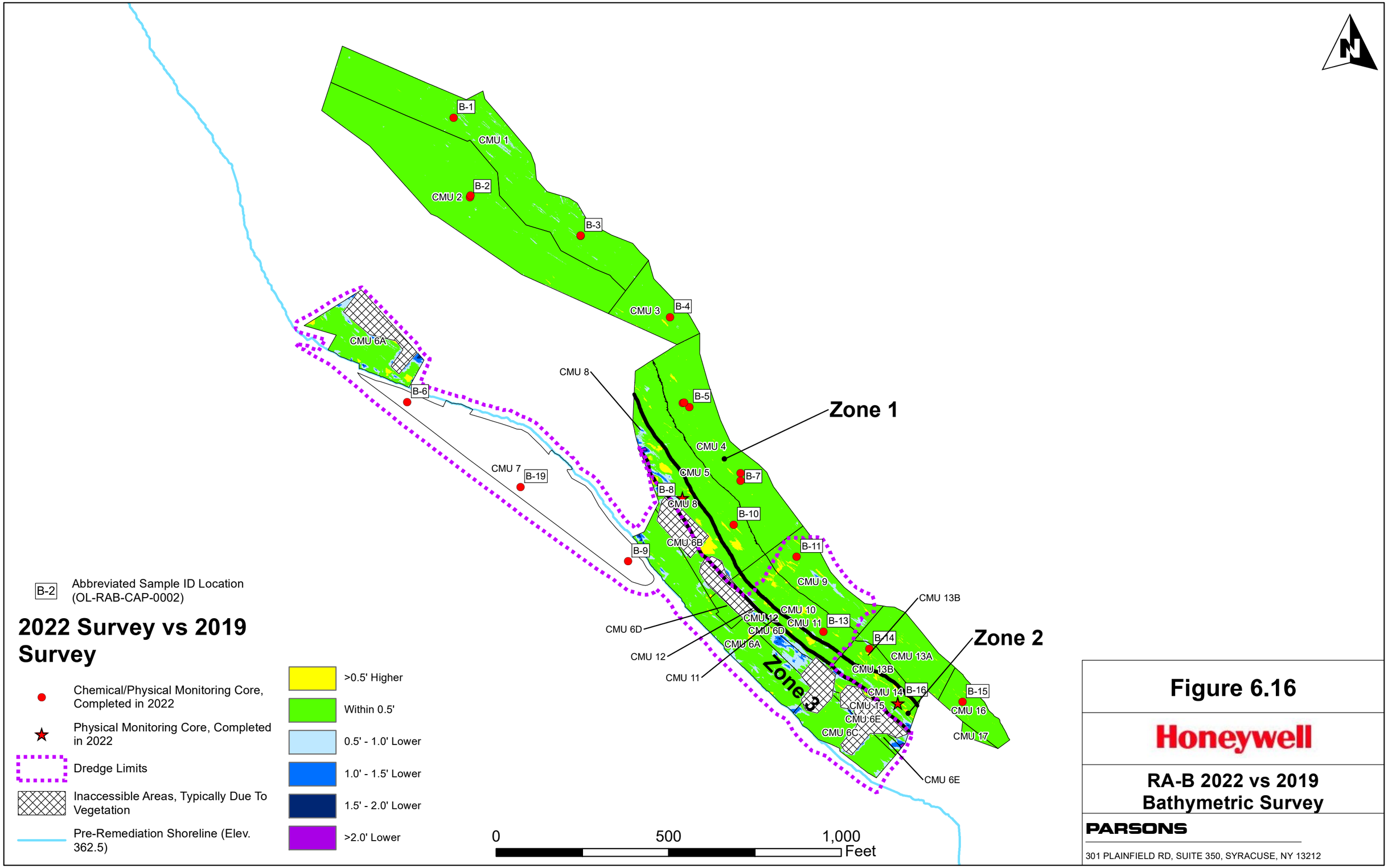
Figure 6.15

Honeywell

RA-B 2022 vs Asbuilt Bathymetric Survey

PARSONS

301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212



Plotted By: Domanski, Joshua

Plot Date: 5/23/2024

Document Path: Q:\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAB OMM Survey 2019 v 2022.mxd

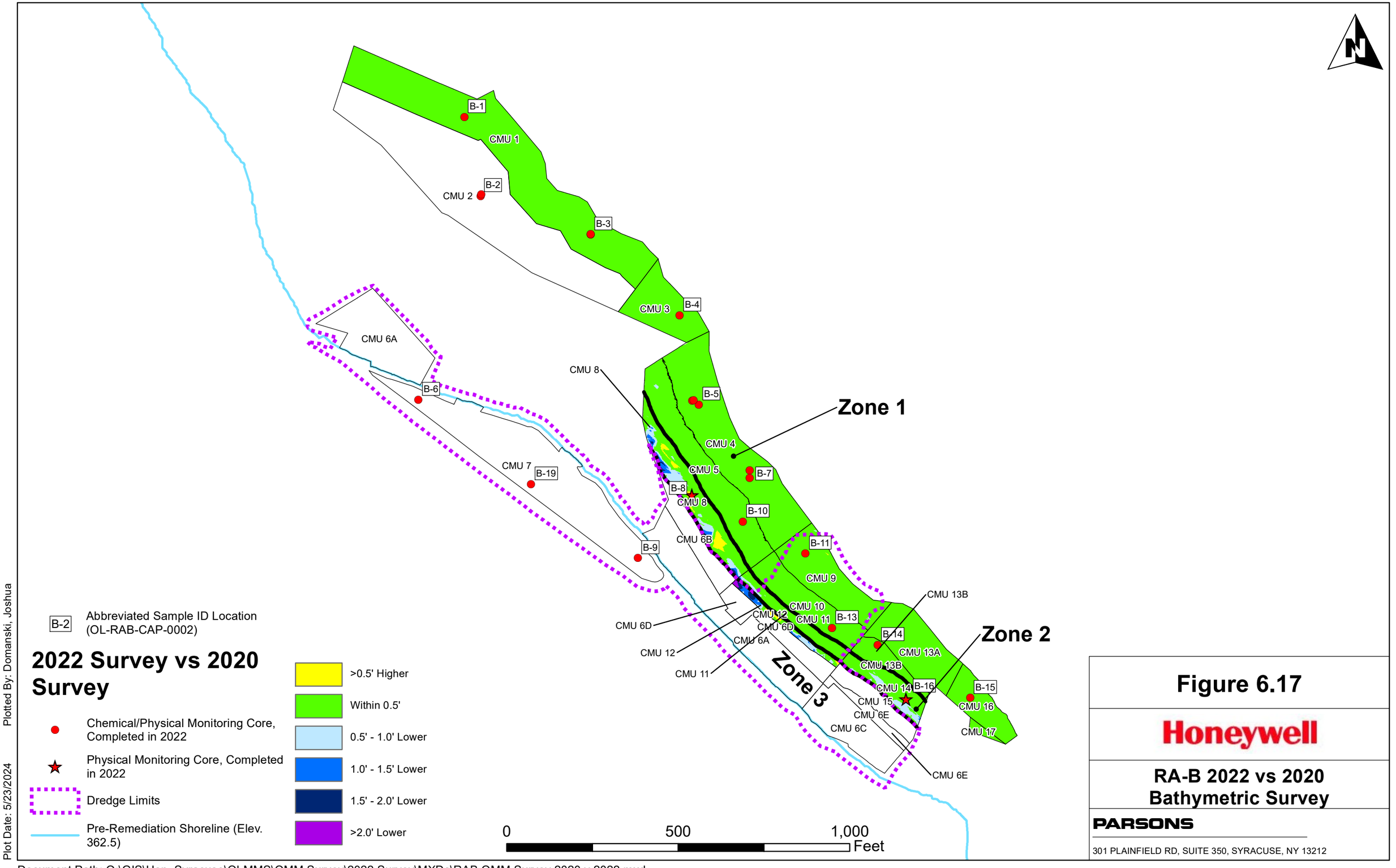
Figure 6.16

Honeywell

RA-B 2022 vs 2019 Bathymetric Survey

PARSONS

301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212



Plotted By: Domanski, Joshua

Plot Date: 5/23/2024

Figure 6.17

Honeywell

RA-B 2022 vs 2020 Bathymetric Survey

PARSONS

301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

Document Path: Q:\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAB OMM Survey 2020 v 2022.mxd

Assessment Area Summary and 2023 Recommendations

The 2022 coring locations (excluding supplemental coring) are consistent with the coring locations specified in the OLMMP.

Zone 1

- Zone 1 is the deepest area of the cap and thus the least likely to be impacted by wind/wave action, and where underlying sediments are softest and most prone to settlement.
- All 2022 cores in Zone 1 met minimal cap thickness requirements defined in the OLMMP.

C1, C2

- Minimal bathymetric change in these areas between 2019 and 2022.
- 2022 coring verified the presence of target cap thickness in these areas.
- Based on the relatively thin caps in these areas, significant settlement of the underlying settlement is unlikely. Given the area of significant bathymetry change in each area corresponds almost exactly with the CMU boundary, it is suspected that the as-built survey for these two CMUs may have been incorrect.

C3

- Supplmental physical monitoring core C-58 collected in 2022 met the gravel habitat/erosion target thickness in this area.

C-2 Abbreviated Sample ID Location (OL-RAC-CAP-0002)

2022 Survey vs Asbuilt Survey

- Chemical/Physical Monitoring Core, Completed in 2022
- Physical Monitoring Core, Completed in 2022
- Dredge Limits
- Inaccessible Areas, Typically Due To Vegetation
- Pre-Remediation Shoreline (Elev. 362.5)

- >0.5' Higher
- Within 0.5'
- 0.5' - 1.0' Lower
- 1.0' - 1.5' Lower
- 1.5' - 2.0' Lower
- >2.0' Lower

0 500 1,000 Feet

Plotted By: Domanski, Joshua

Plot Date: 5/24/2024

Document Path: Q:\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAC OMM Survey 2022.mxd

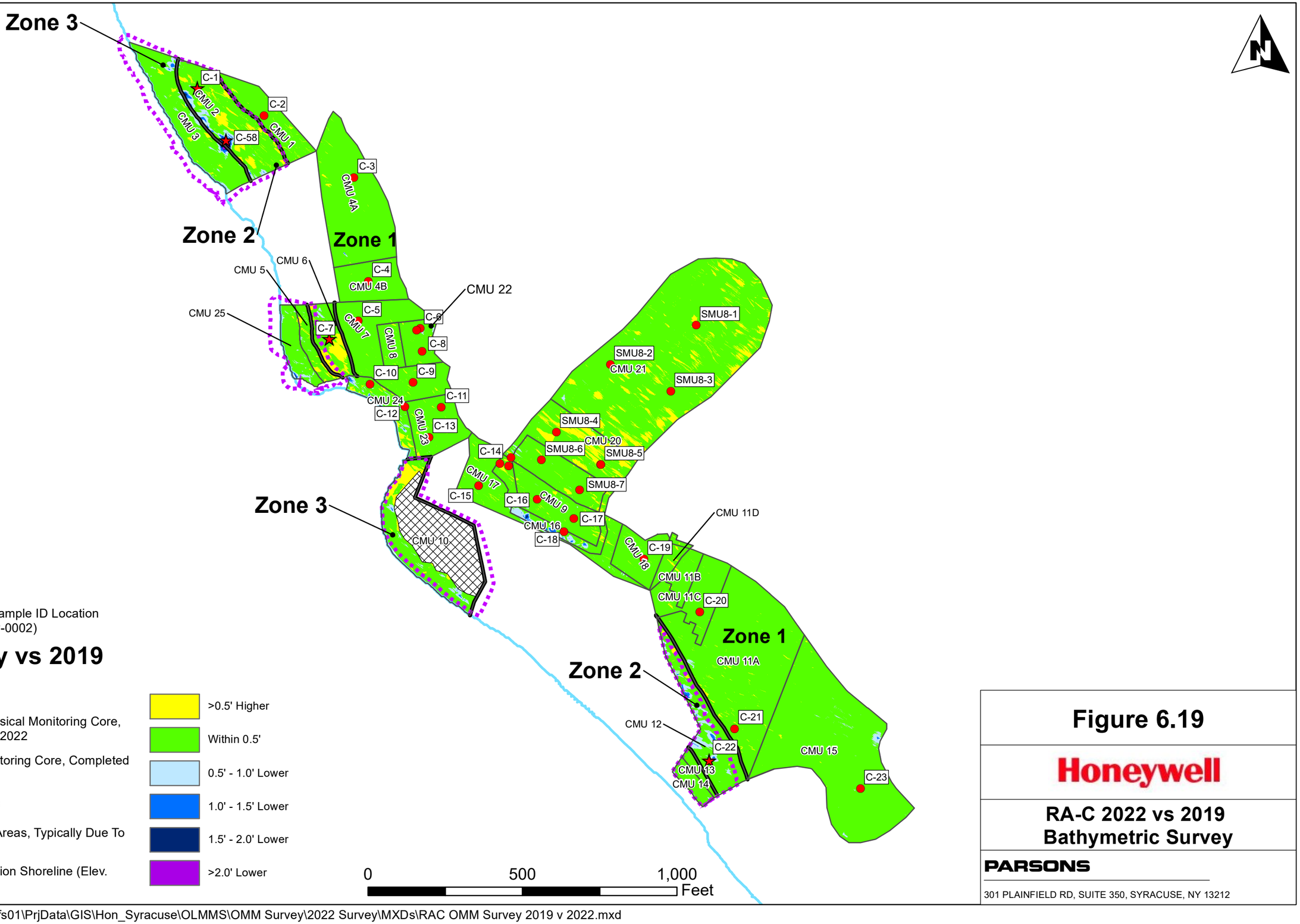
Figure 6.18

Honeywell

RA-C 2022 vs Asbuilt Bathymetric Survey

PARSONS

301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212



Plotted By: Domanski, Joshua

Plot Date: 3/27/2023

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAC OMM Survey 2019 v 2022.mxd

Figure 6.19

Honeywell

RA-C 2022 vs 2019 Bathymetric Survey

PARSONS

301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

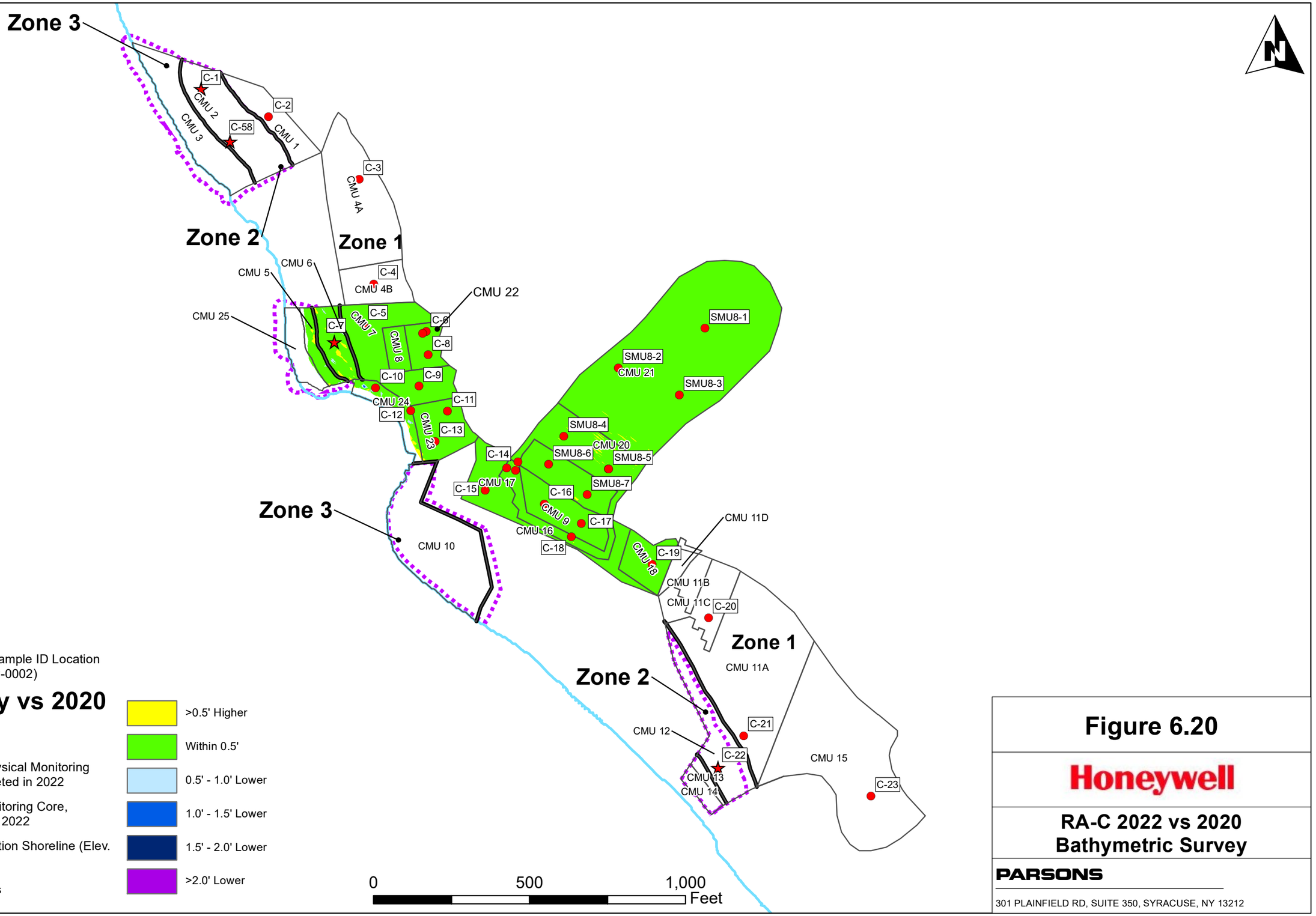


Figure 6.20

Honeywell

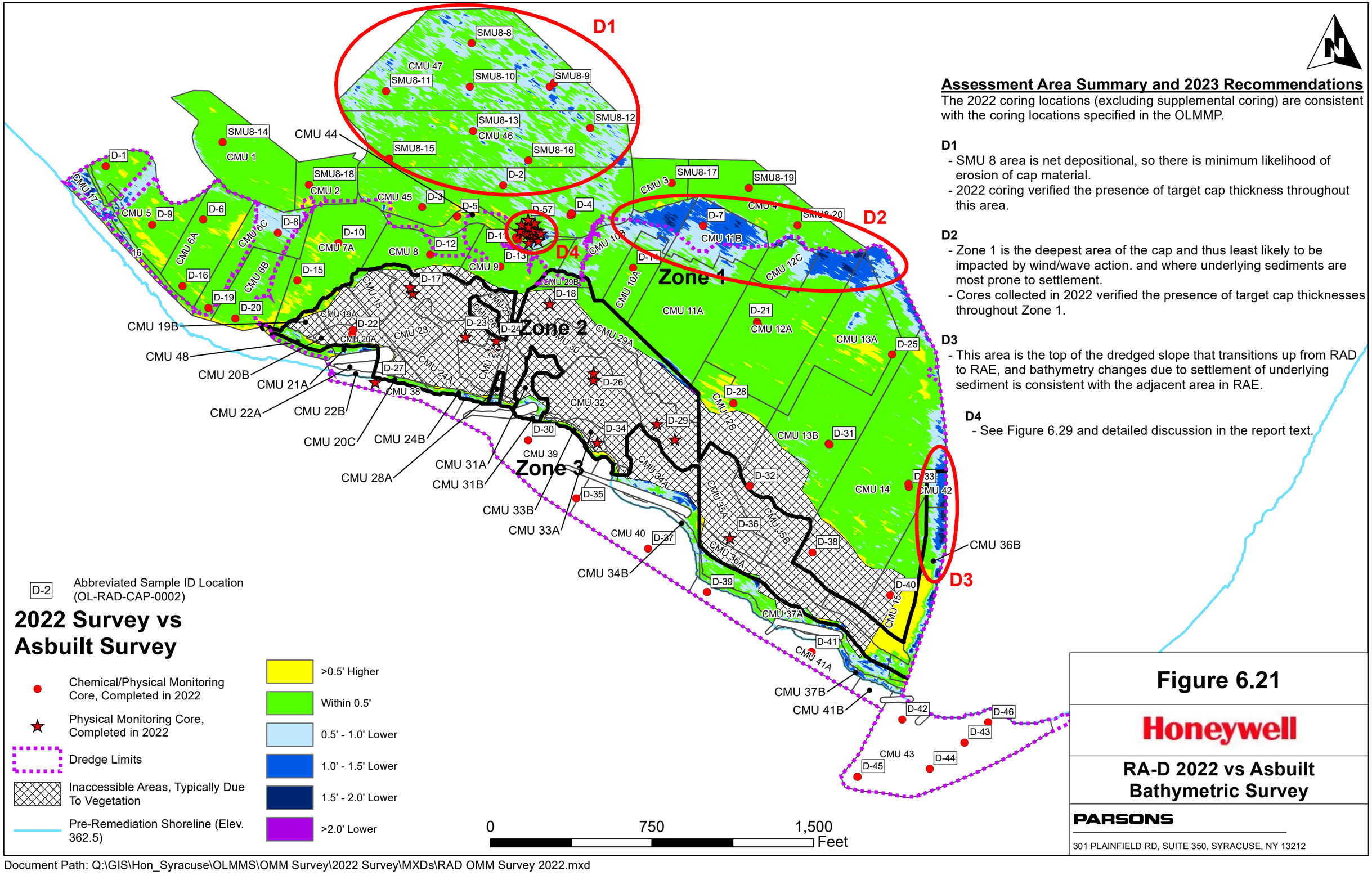
RA-C 2022 vs 2020 Bathymetric Survey

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

Plotted By: Domanski, Joshua

Plot Date: 3/27/2023

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAC OMM Survey 2020 v 2022.mxd



Assessment Area Summary and 2023 Recommendations

The 2022 coring locations (excluding supplemental coring) are consistent with the coring locations specified in the OLMMP.

D1
- SMU 8 area is net depositional, so there is minimum likelihood of erosion of cap material.
- 2022 coring verified the presence of target cap thickness throughout this area.

D2
- Zone 1 is the deepest area of the cap and thus least likely to be impacted by wind/wave action. and where underlying sediments are most prone to settlement.
- Cores collected in 2022 verified the presence of target cap thicknesses throughout Zone 1.

D3
- This area is the top of the dredged slope that transitions up from RAD to RAE, and bathymetry changes due to settlement of underlying sediment is consistent with the adjacent area in RAE.

D4
- See Figure 6.29 and detailed discussion in the report text.

D-2 Abbreviated Sample ID Location (OL-RAD-CAP-0002)

2022 Survey vs Asbuilt Survey

- Chemical/Physical Monitoring Core, Completed in 2022
- Physical Monitoring Core, Completed in 2022
- Dredge Limits
- Inaccessible Areas, Typically Due To Vegetation
- Pre-Remediation Shoreline (Elev. 362.5)

- >0.5' Higher
- Within 0.5'
- 0.5' - 1.0' Lower
- 1.0' - 1.5' Lower
- 1.5' - 2.0' Lower
- >2.0' Lower

Plotted By: Domanski, Joshua

Plot Date: 5/24/2024

Document Path: Q:\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAD OMM Survey 2022.mxd

Figure 6.21

Honeywell

RA-D 2022 vs Asbuilt Bathymetric Survey

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

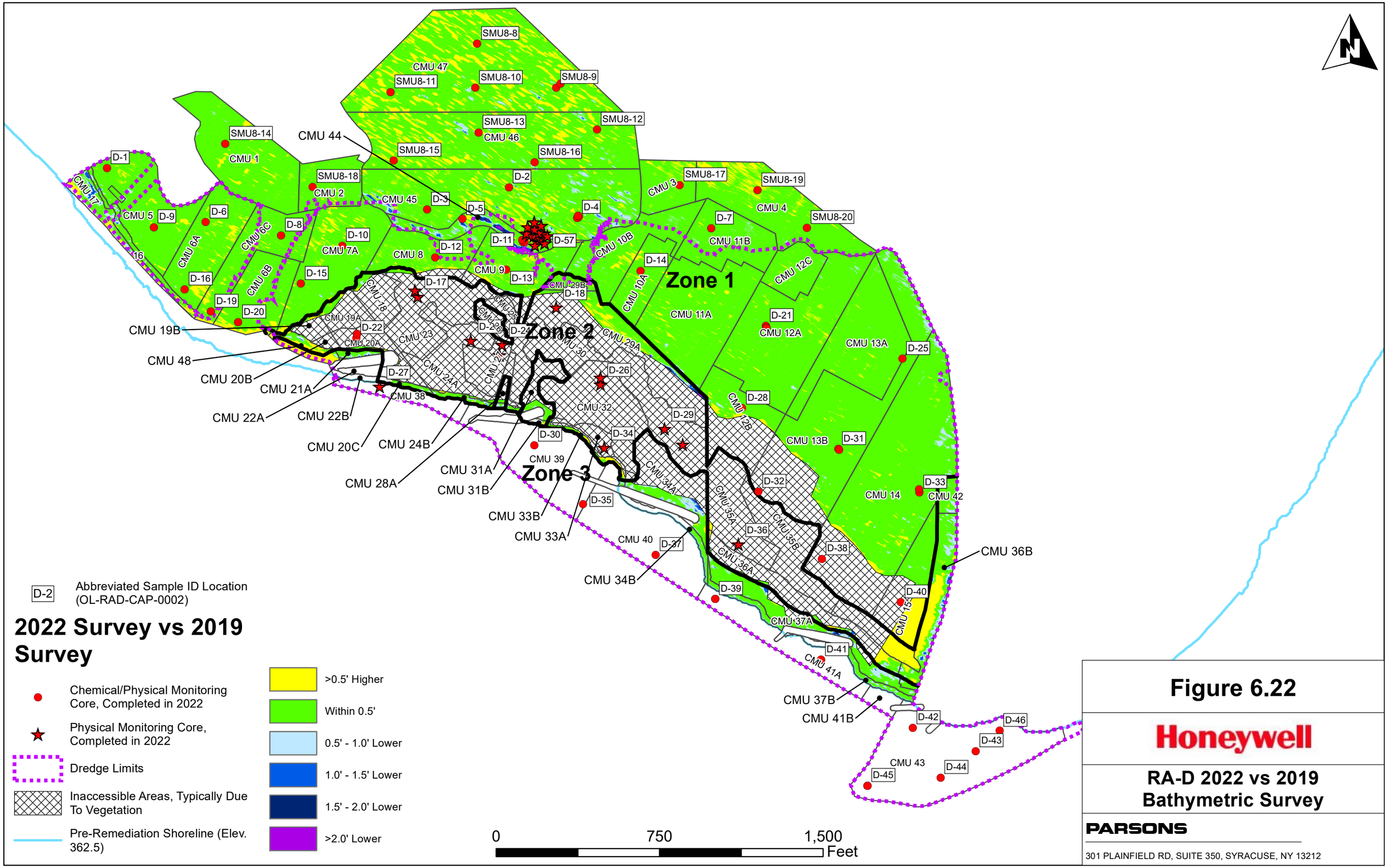


Figure 6.22

Honeywell

RA-D 2022 vs 2019 Bathymetric Survey

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

Plotted By: Domanski, Joshua

Plot Date: 5/24/2024

Document Path: Q:\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAD OMM Survey 2019 v 2022.mxd

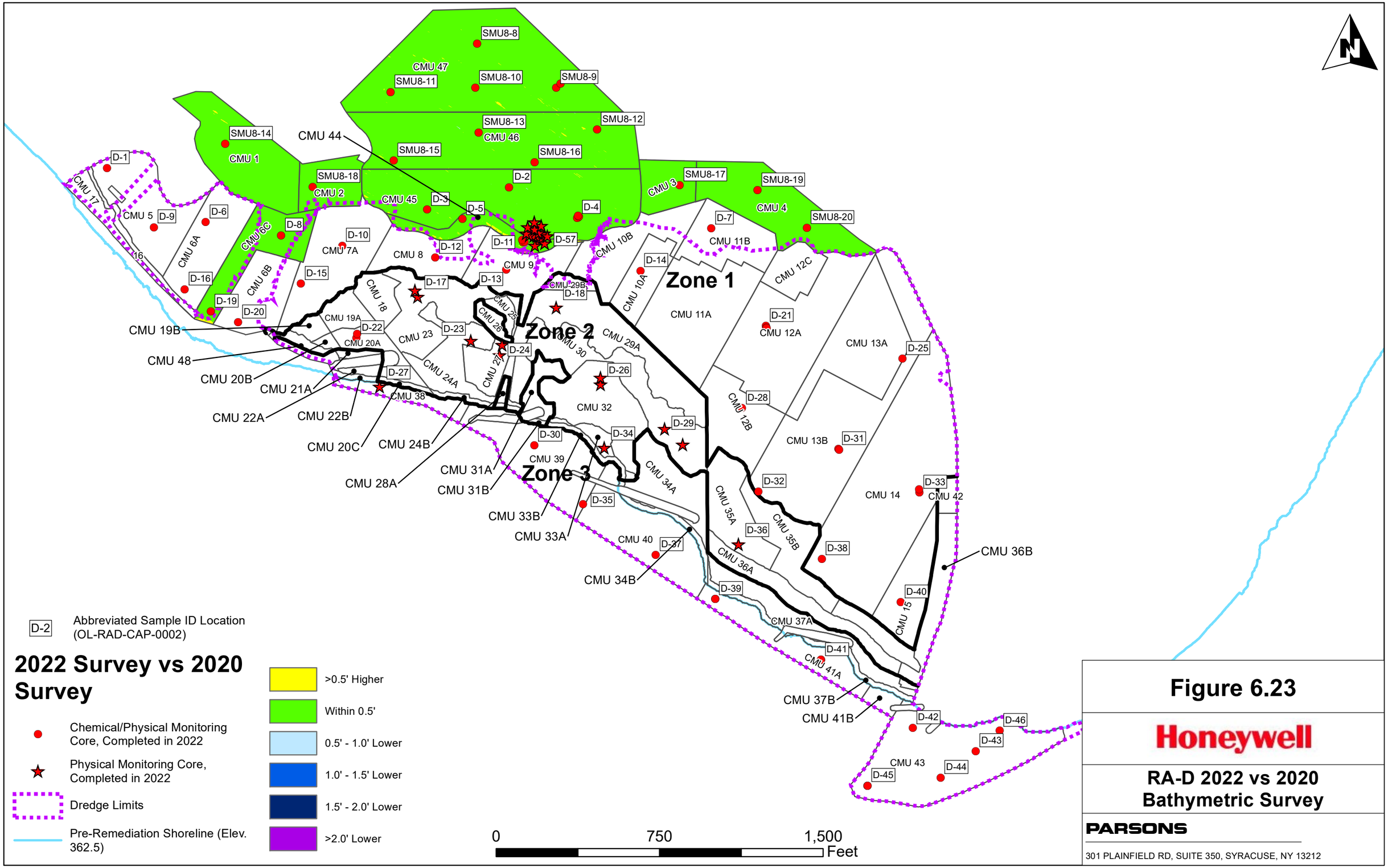


Figure 6.23

Honeywell

RA-D 2022 vs 2020 Bathymetric Survey

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

Plotted By: Domanski, Joshua

Plot Date: 5/24/2024

Document Path: Q:\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAD OMM Survey 2020 v 2022.mxd

Assessment Area Summary and 2023 Recommendations

The 2022 coring locations are consistent with the coring locations specified in the OLMMP.

Zone 1

- Zone 1 is the deepest area of the cap and thus the least likely to be impacted by wind/wave action, and where underlying sediments are softest and most prone to settlement.
- Minimal change in bathymetry between 2019 and 2022.
- The cores in 2022 verified the presence of the target cap thickness.

Zone 2

- Minimal change in bathymetry between 2019 and 2022.
- 2022 cores verified the presence of target cap thickness.

E1

- Minimal changes in bathymetry between 2019 and 2022.
- The cap in this area includes 12" min cobble erosion protection layer overlain by 12" min coarse gravel habitat layer. Movement/loss of portions of the habitat layer is expected, which results in a decrease in cap elevation.
- Erosion protection layer is too coarse for core samples

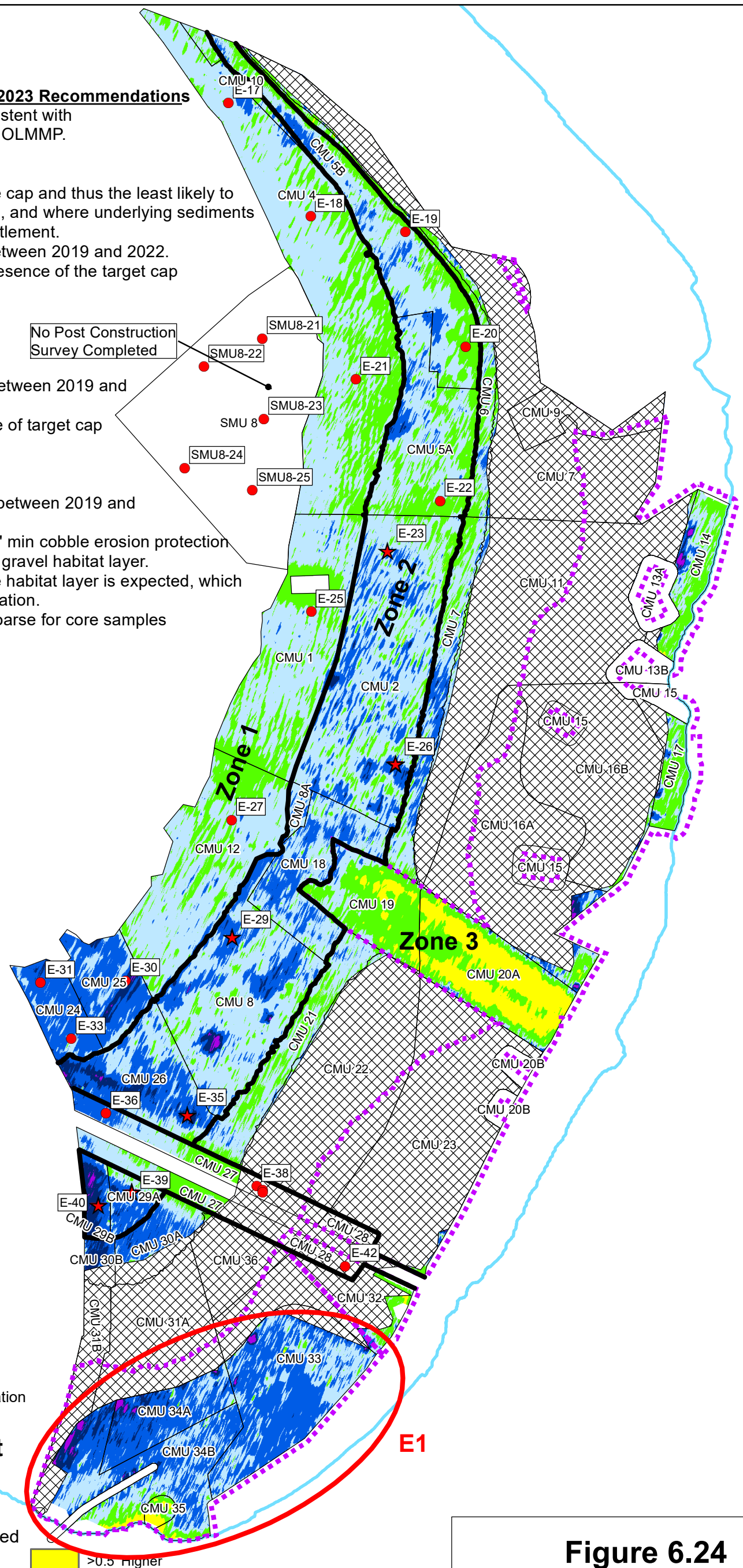


Figure 6.24

Honeywell

RA-E 2022 vs Asbuilt Bathymetric Survey

PARSONS

301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

Plot Date: 6/23/2023 Plotted By: Domanski, Joshua

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAE OMM Survey 2022.mxd

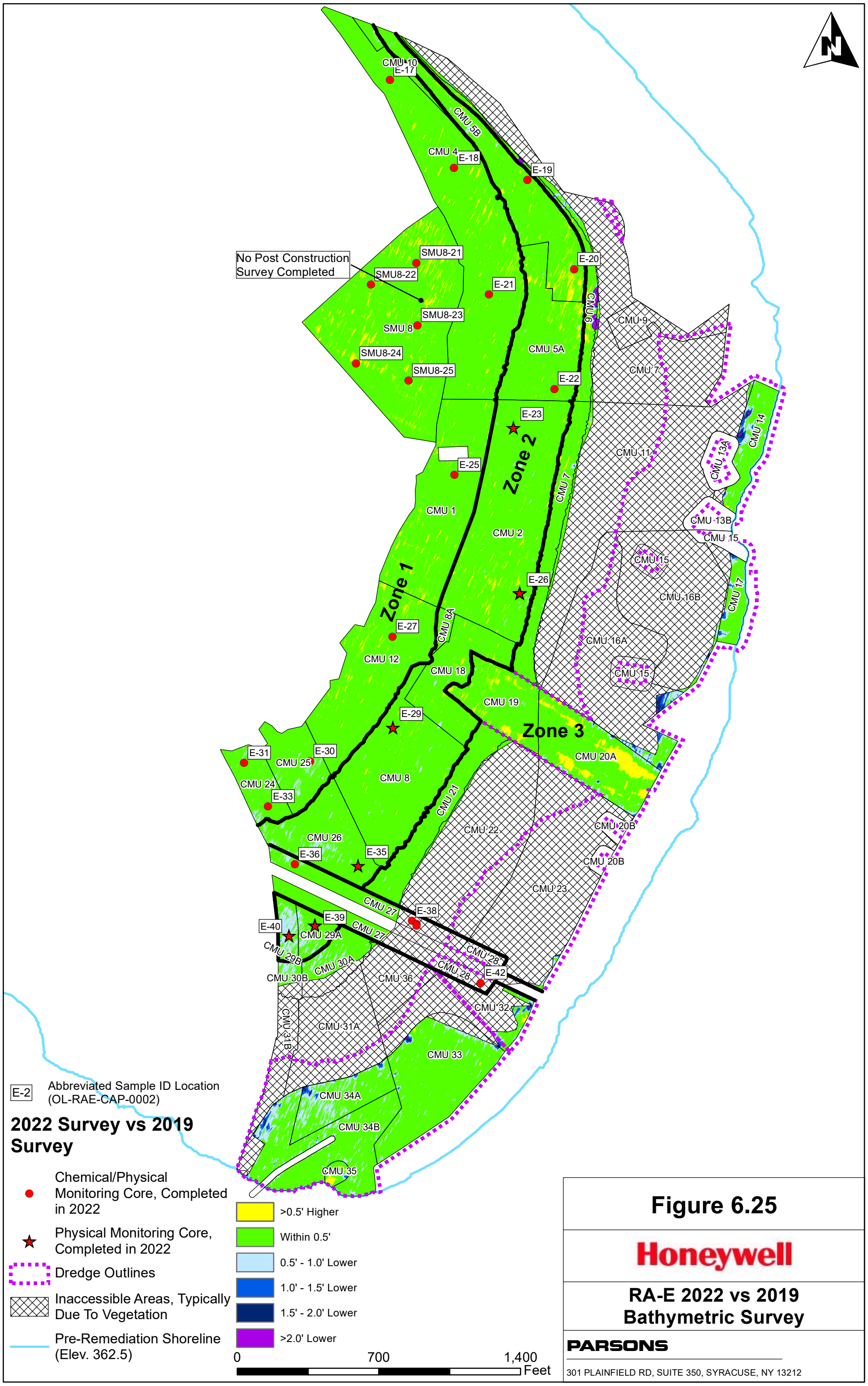


Figure 6.25

Honeywell

RA-E 2022 vs 2019 Bathymetric Survey

PARSONS

301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

Plot Date: 3/27/2023 Plotted By: Domanski, Joshua

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAE OMM Survey 2019 v 2022.mxd

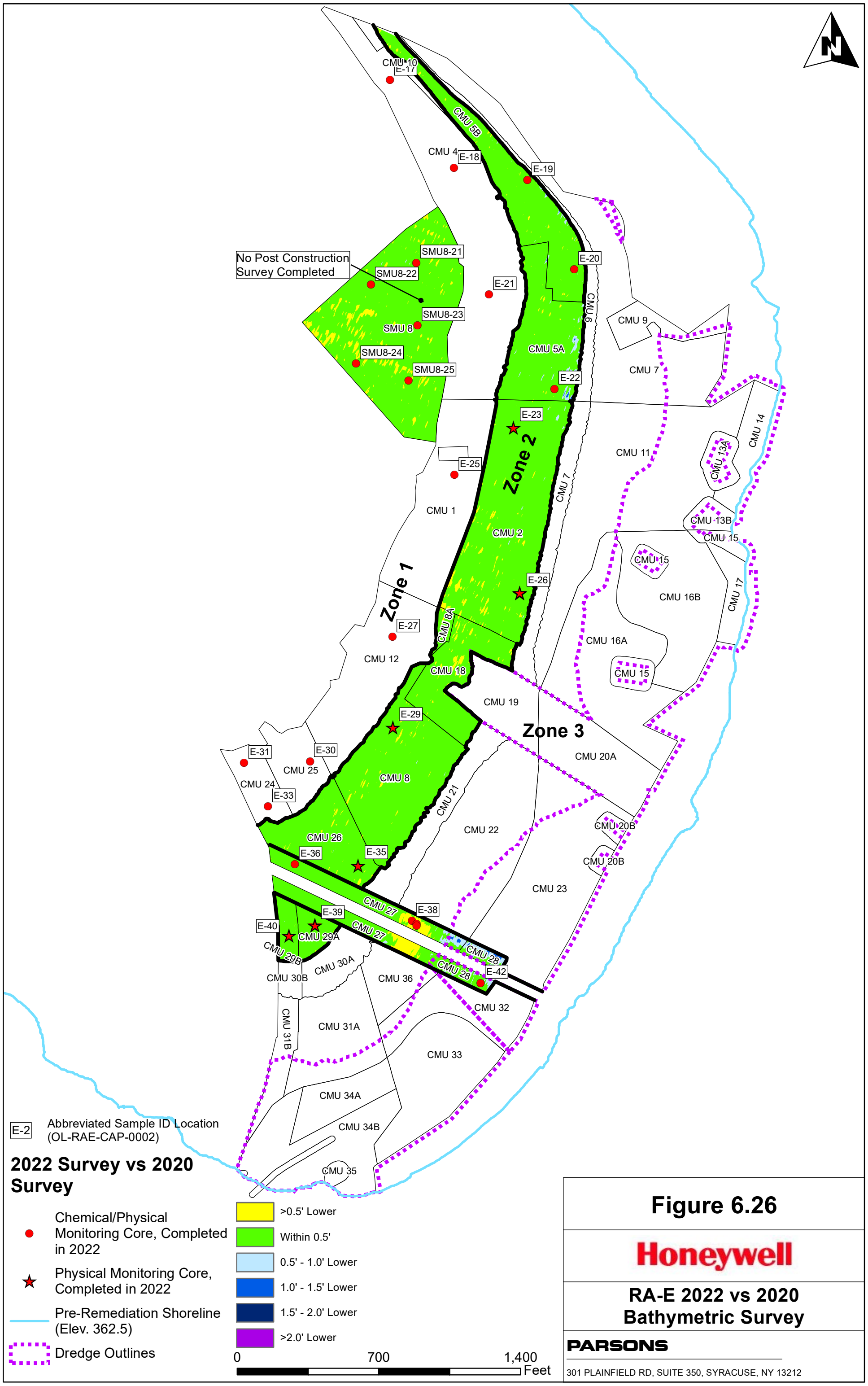


Figure 6.26

Honeywell

RA-E 2022 vs 2020 Bathymetric Survey

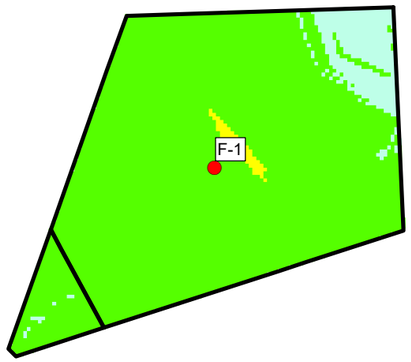
PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

Plot Date: 3/27/2023 Plotted By: Domanski, Joshua

Document Path: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAE OMM Survey 2020 v 2022.mxd

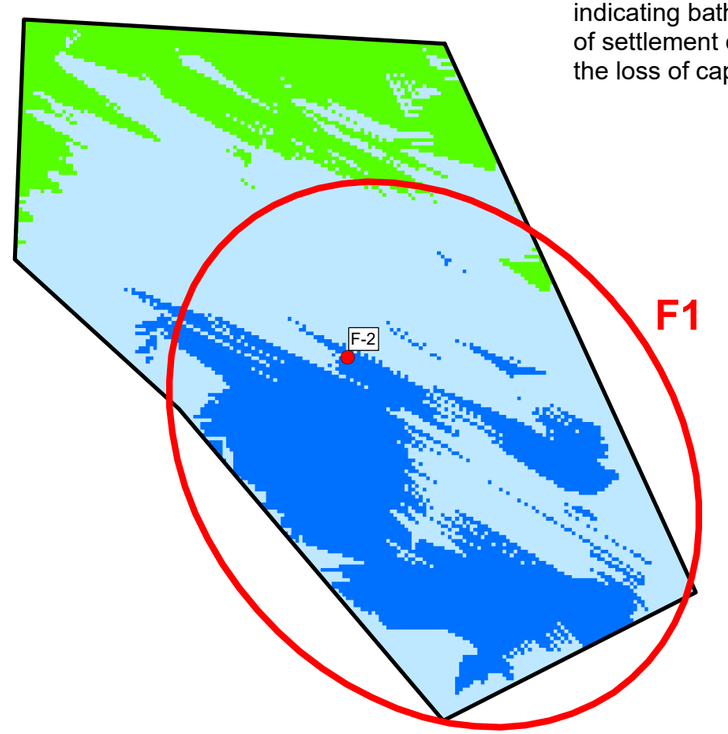
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Plot Date: 3/27/2023 Plotted By: Schneid, Christopher

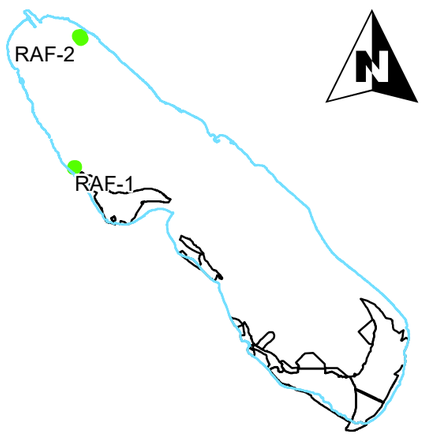
RA-F 1



RA-F 2

F1
- Core verified presence of cap thickness, indicating bathymetry change is a result of settlement of underlying sediment, not the loss of cap material.





2022 Survey vs Asbuilt Survey

- Chemical/Physical Monitoring Core, Completed in 2022
- Pre-Remediation Shoreline (Elev. 362.5)
- F-2 Abbreviated Sample ID Location (OL-RAF-CAP-0002)

- >0.5' Higher
- Within 0.5'
- 0.5' - 1.0' Lower
- 1.0' - 1.5' Lower
- 1.5' - 2.0' Lower
- >2.0' Lower

0 50 100 Feet

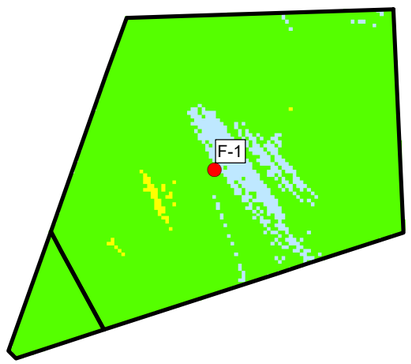
Figure 6.27

Honeywell

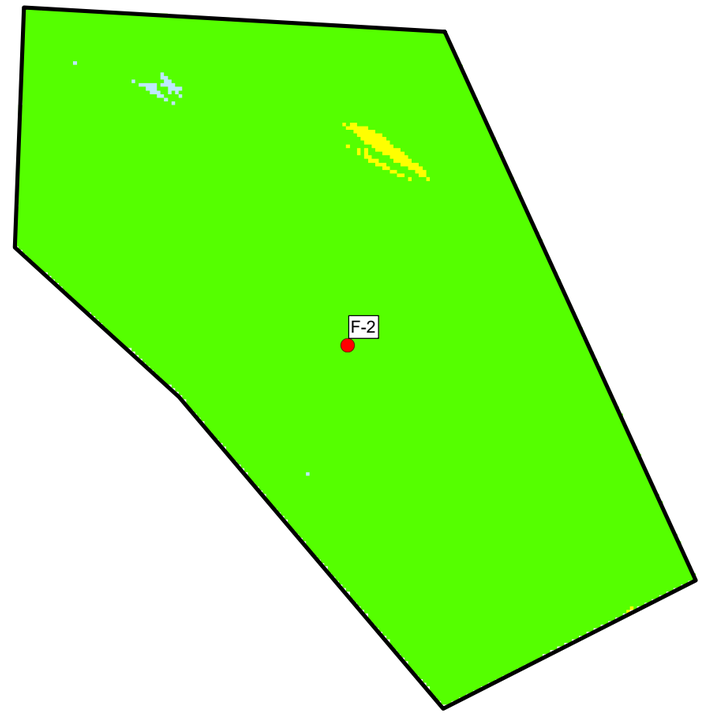
RA-F 2022 vs Asbuilt Bathymetric Survey

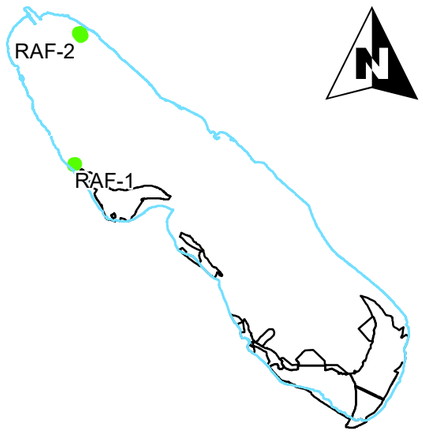
PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

RA-F 1



RA-F 2





2022 Survey vs 2019 Survey

- Chemical/Physical Monitoring Core, Completed in 2022
- Pre-Remediation Shoreline (Elev. 362.5)
- F-2 Abbreviated Sample ID Location (OL-RAF-CAP-0002)

- >0.5' Higher
- Within 0.5'
- 0.5' - 1.0' Lower
- 1.0' - 1.5' Lower
- 1.5' - 2.0' Lower
- >2.0' Lower

0 50 100 Feet

Figure 6.28

Honeywell

RA-F 2022 vs 2019 Bathymetric Survey

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\OMM Survey\2022 Survey\MXDs\RAF OMM Survey 2019 v 2022.mxd
Plot Date: 3/27/2023 Plotted By: Schneid, Christopher

N

RA-D-1A (7.55 Acres)	RA-D-1B (1.17 Acres)
Habitat Medium Sand 12" min	4.5" Avg. Sand/GAC/Siderite
Chemical Isolation/GAC Medium Sand 6" min	
Mixing Medium Sand/Siderite 3" min	

D-2
[Core 1] Total Cap = 25"+
[Core 2] Total Cap = 32"

D-3
[Core 1] Total Cap = 30"
[Core 2] Total Cap = 19"+

D-5
[Core 1] Total Cap = 9.5"
[Core 2] Total Cap = 10"
[Core 3] Total Cap = 11.5"
[Core 4] Total Cap = 9"
[Core 5] Total Cap = 6.5"
[Core 6] Total Cap = 10"

D-57J
[Core 1] Total Cap = 6"
[Core 2] Total Cap = 5"

D-57P
[Core 1] Total Cap = 11"
[Core 2] Total Cap = 15"

D-4
[Core 8] Total Cap = 22.75"

D-4
[Core 7] Total Cap = 14.5"

D-4
[Core 1] Total Cap = 30"+
[Core 2] Total Cap = 31.5"
[Core 3] Total Cap = 33"
[Core 4] Total Cap = 23"

D-4
[Core 5] Total Cap = 33"+
[Core 6] Total Cap = 33"

D-57M
[Core 1] Total Cap = 26"
[Core 2] Total Cap = 13"

D-57G
[Core 1] Total Cap = 4"
[Core 2] Total Cap = 6"

D-57I
[Core 1] Total Cap = 9"
[Core 2] Total Cap = 2"

D-57O
[Core 1] Total Cap = 11"
[Core 2] Total Cap = 15"

D-57C
[Core 1] Total Cap = 44"+
[Core 2] Total Cap = 37"

D-57A
[Core 1] Total Cap = 40"
[Core 2] Total Cap = 40"+
[Core 3] Total Cap = 14.5"

D-57N
[Core 1] Total Cap = 16"
[Core 2] Total Cap = 11"

D-57L
[Core 1] Total Cap = 33"
[Core 2] Total Cap = 28"

D-11A
[Core 4] Total Cap = 5"
[Core 5] Total Cap = 7"

D-57
[Core 1] Total Cap = 0"
[Core 2] Total Cap = 0"

D-11
[Core 1] Total Cap = 8"
[Core 2] Total Cap = 1.5"
[Core 3] Total Cap = 7.5"

D-57B
[Core 1] Total Cap = 32"
[Core 2] Total Cap = 33"

D-11A
[Core 1] Total Cap = 8"
[Core 2] Total Cap = 7"
[Core 3] Total Cap = 5"

D-57K
[Core 1] Total Cap = 36"
[Core 2] Total Cap = 28"

D-57H
[Core 1] Total Cap = 17"
[Core 2] Total Cap = 8"

D-57E
[Core 1] Total Cap = 40.5"
[Core 2] Total Cap = 37"

D-57D
[Core 1] Total Cap = 1"

D-57F
[Core 1] Total Cap = 8"
[Core 2] Total Cap = 7"

Core Location With Cap thickness Less Than Target Minimum Thickness

Chemical/Physical Monitoring Core, Completed in 2022

Supplemental Physical Monitoring Core, Completed in 2022

Peeper, Completed in 2022

30' Water Depth

Modified Protective Cap

MPC Monolayer Cap Less Than 0.5' Thick

MPC Multilayer Cap

Note:
- 30' water depth is based on a water elevation of 362.5'.
- Red core thickness measurements indicate that the collected thickness was less than the target thickness.
- + indicates that no native plug was present, therefore the total thickness may be greater than listed.

0 70 140 Feet

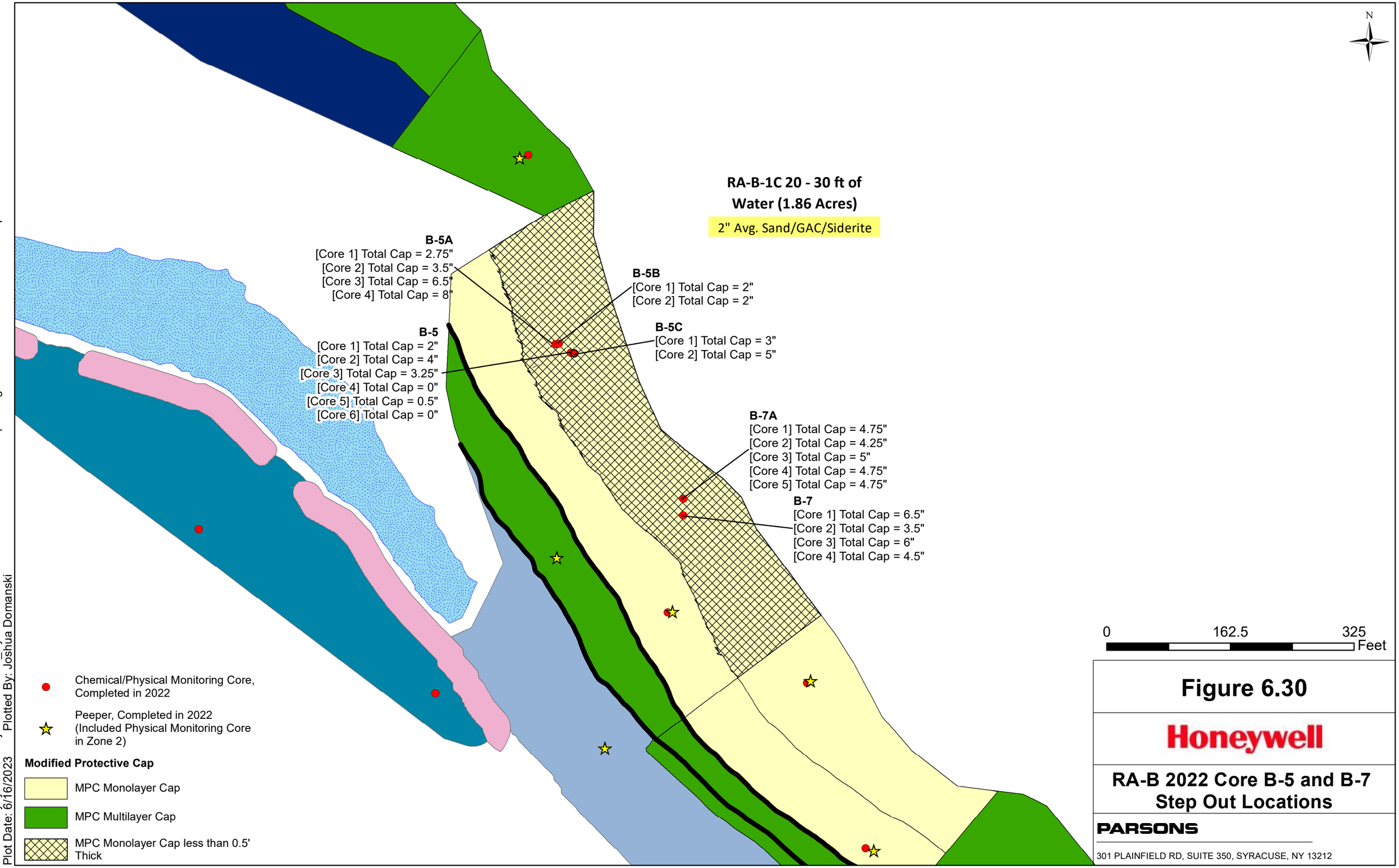
Figure 6.29

Honeywell

RA-D 2022 Core D-57 Step Out Locations

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: Q:\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\PPKXs\2022 Rev 1.aprx
Plot Date: 9/18/2024 Plotted By: Joshua Domanski


N
RA-B-1C 20 - 30 ft of Water (1.86 Acres)
2" Avg. Sand/GAC/Siderite
B-5A
[Core 1] Total Cap = 2.75"
[Core 2] Total Cap = 3.5"
[Core 3] Total Cap = 6.5"
[Core 4] Total Cap = 8"
B-5B
[Core 1] Total Cap = 2"
[Core 2] Total Cap = 2"
B-5C
[Core 1] Total Cap = 3"
[Core 2] Total Cap = 5"
B-5
[Core 1] Total Cap = 2"
[Core 2] Total Cap = 4"
[Core 3] Total Cap = 3.25"
[Core 4] Total Cap = 0"
[Core 5] Total Cap = 0.5"
[Core 6] Total Cap = 0"
B-7A
[Core 1] Total Cap = 4.75"
[Core 2] Total Cap = 4.25"
[Core 3] Total Cap = 5"
[Core 4] Total Cap = 4.75"
[Core 5] Total Cap = 4.75"
B-7
[Core 1] Total Cap = 6.5"
[Core 2] Total Cap = 3.5"
[Core 3] Total Cap = 6"
[Core 4] Total Cap = 4.5"
0
162.5
325
Feet
Chemical/Physical Monitoring Core, Completed in 2022
Peeper, Completed in 2022 (Included Physical Monitoring Core in Zone 2)
Modified Protective Cap
MPC Monolayer Cap
MPC Multilayer Cap
MPC Monolayer Cap less than 0.5' Thick
Figure 6.30
Honeywell
RA-B 2022 Core B-5 and B-7 Step Out Locations
PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212
File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\Figure 6.30 - 2022 RAB MPC Sample Locations.mxd
Plot Date: 6/16/2023
Plotted By: Joshua Domanski

RA-C-1B (0.4 Acres)

Direct Application of GAC

Transition Zone

C-14A
[Core 1] Total Cap = 7"
[Core 2] Total Cap = 2"
[Core 3] Total Cap = 10"
[Core 4] Total Cap = 13"
[Core 5] Total Cap = 4"

C-14B
[Core 1] Total Cap = 8"
[Core 2] Total Cap = 6.5"
[Core 3] Total Cap = 4"
[Core 4] Total Cap = 4"
[Core 5] Total Cap = 4.5"

C-14
[Core 1] Total Cap = 2.75"
[Core 2] Total Cap = 2.5"
[Core 3] Total Cap = 5"
[Core 4] Total Cap = 0"
[Core 5] Total Cap = 3"
[Core 6] Total Cap = 6"

N

0 140 280 Feet

Chemical/Physical Monitoring Core, Completed in 2022

Peeper, Completed in 2022 (Included Physical Monitoring Core in Zone 2)

Modified Protective Cap

MPC Multilayer Cap

MPC Monolayer Cap

MPC Monolayer Cap Less Than 0.5' Thick

Figure 6.31

Honeywell

RA-C 2022 Core C-14 Step Out Locations

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\Figure 6.31 - 2022 RAC MPC Sample Locations.mxd
Plot Date: 4/10/2023 Plotted By: Joshua Domanski

MERC

Gravelly Sand/GAC 6" Avg.

E-38C
[Core 1] Total Cap = 3"
[Core 2] Total Cap = 5"

E-38A
[Core 1] Total Cap = 5"
[Core 2] Total Cap = 6"
[Core 3] Total Cap = 1"

E-38
[Core 1] Total Cap = 7"
[Core 2] Total Cap = 0"
[Core 3] Total Cap = 5"
[Core 4] Total Cap = 2"
[Core 5] Total Cap = 2"
[Core 6] Total Cap = 0"

E-38B
[Core 1] Total Cap = 6"
[Core 2] Total Cap = 5.5"

Chemical/Physical Monitoring Core, Completed in 2022

Peeper, Completed in 2022 (Included Physical Core in Zone 2)

Wave Dampers

0 170 340 Feet

Figure 6.32

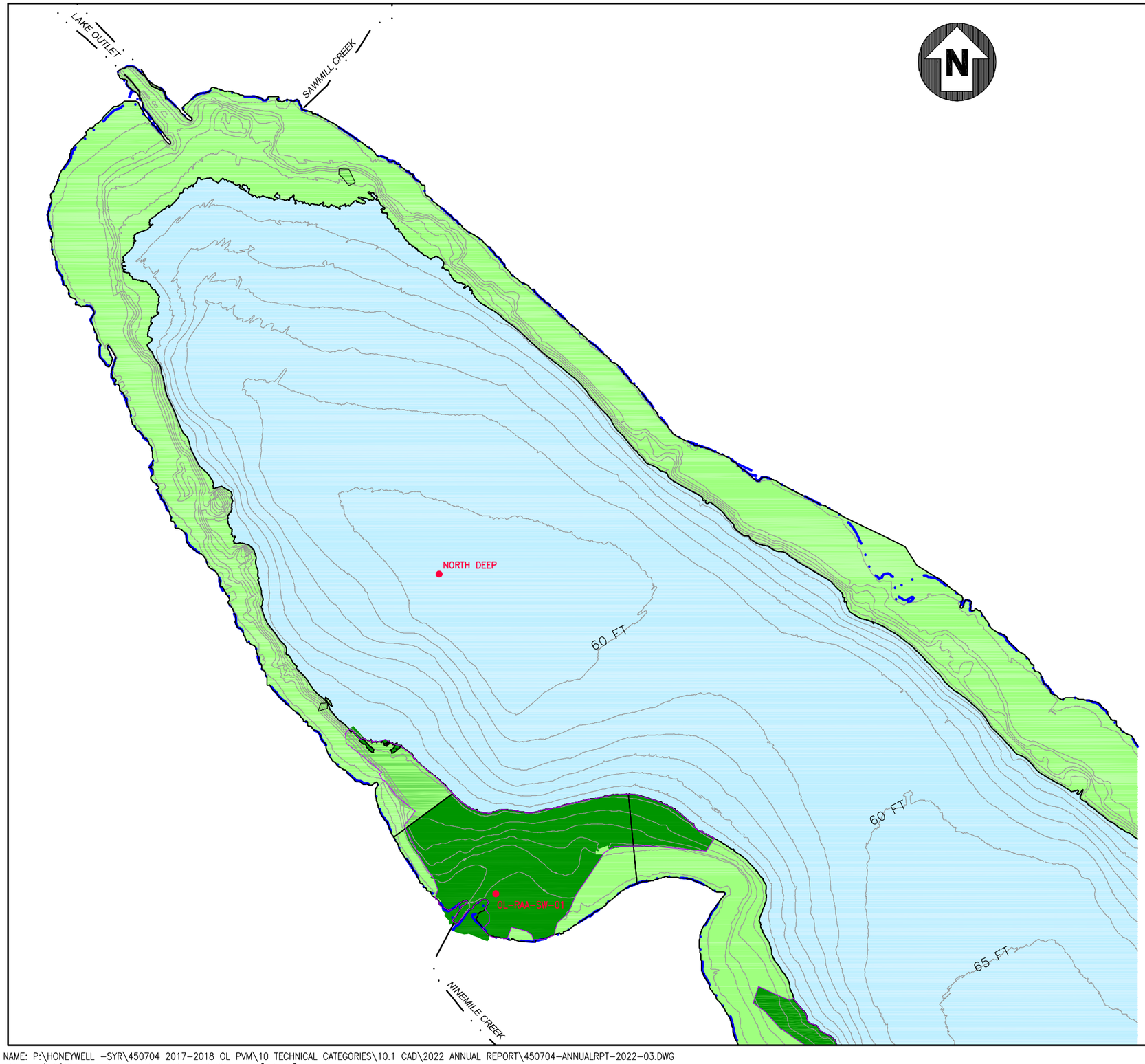
Honeywell

RA-E 2022 Core E-38 Step Out Locations

PARSONS

301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\MXDs\2022 OLMM Report\Figure 6.32 - 2022 RAE MERC Sample Locations.mxd
Plot Date: 6/16/2023 Plotted By: Joshua Domanski



LEGEND:

- REMEDIATION AREA BOUNDARY
- SMU BOUNDARY
- CAPPED AREAS (INCLUDES ALL ISOLATION, THIN LAYER, AND MODIFIED PROTECTIVE CAPS)
- SMU 8
- LITTORAL ZONE
- SURFACE WATER SAMPLE LOCATIONS

NOTES:

1. WATER DEPTH CONTOUR INTERVAL IS 5 FT (POST-REMEDIATION).
2. THE 30' WATER DEPTH CONTOUR IS THE BOUNDARY BETWEEN THE LITTORAL ZONE (SMUs 1-7) AND SMU 8.

1200 600 0 1200 2400

SCALE: 1"=1200'

FIGURE 7.1A

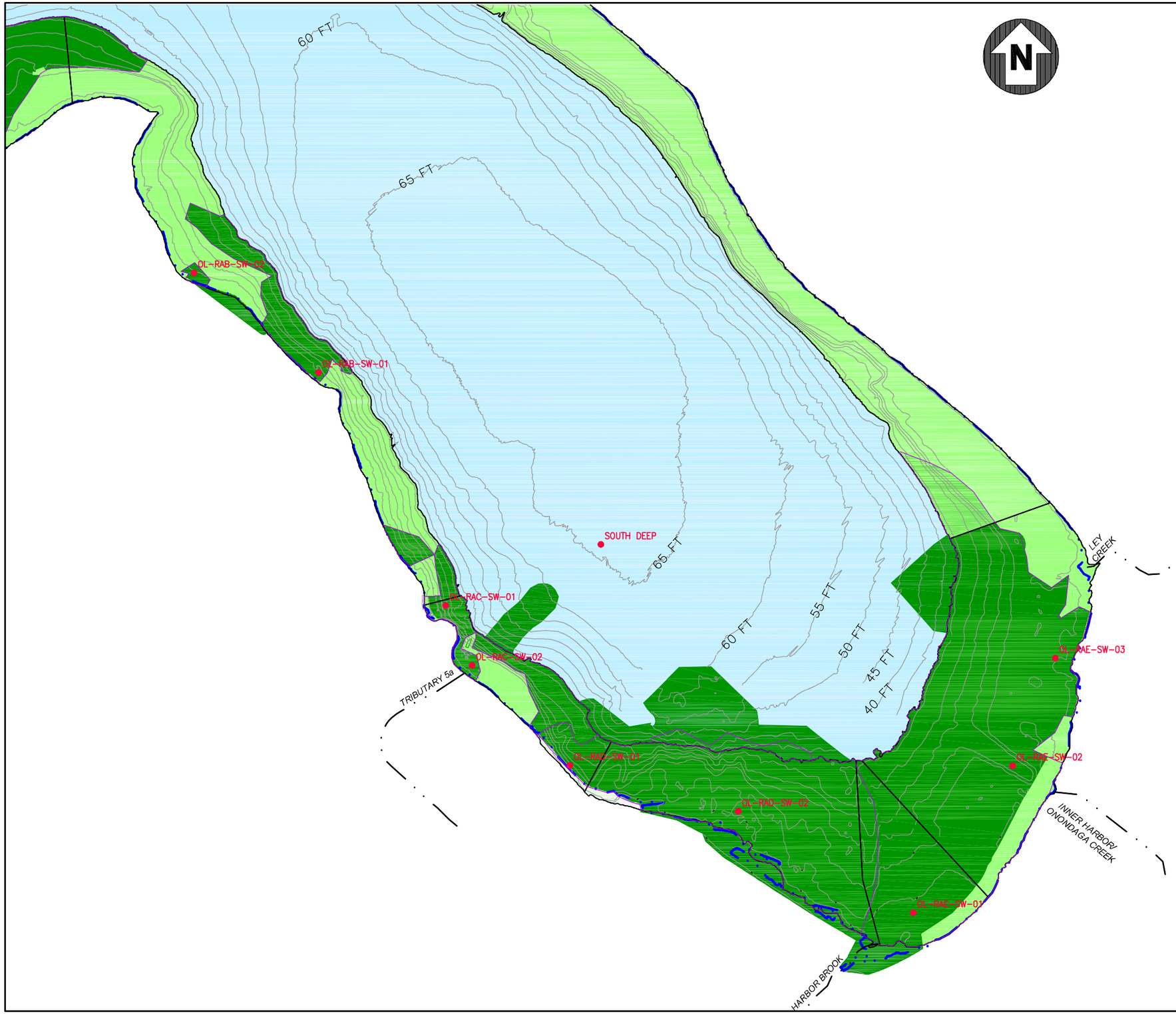
Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

SURFACE WATER COMPLIANCE SAMPLE LOCATIONS IN NORTH HALF OF ONONDAGA LAKE

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\450704 2017-2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\2022 ANNUAL REPORT\450704-ANNUALRPT-2022-03.DWG
PLOT DATE: 4/18/2023 11:12 AM PLOTTED BY: RUSSO, JILL [US-US]



LEGEND:

- REMEDIATION AREA BOUNDARY
- SMU BOUNDARY
- CAPPED AREAS (INCLUDES ALL ISOLATION, THIN LAYER, AND MODIFIED PROTECTIVE CAPS)
- SMU 8
- LITTORAL ZONE
- SURFACE WATER SAMPLE LOCATIONS

NOTES:

1. WATER DEPTH CONTOUR INTERVAL IS 5 FT (POST-REMEDIATION).
2. THE 30' WATER DEPTH CONTOUR IS THE BOUNDARY BETWEEN THE LITTORAL ZONE (SMUs 1-7) AND SMU 8.

1200 600 0 1200 2400

SCALE: 1"=1200'

FIGURE 7.1B

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ONONDAGA LAKE
SYRACUSE, NEW YORK

SURFACE WATER COMPLIANCE SAMPLE LOCATIONS IN SOUTH HALF OF ONONDAGA LAKE

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301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\450704 2017-2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\2022 ANNUAL REPORT\450704-ANNUALRPT-2022-03.DWG
PLOT DATE: 4/18/2023 11:03 AM PLOTTED BY: RUSSO, JILL [US-US]

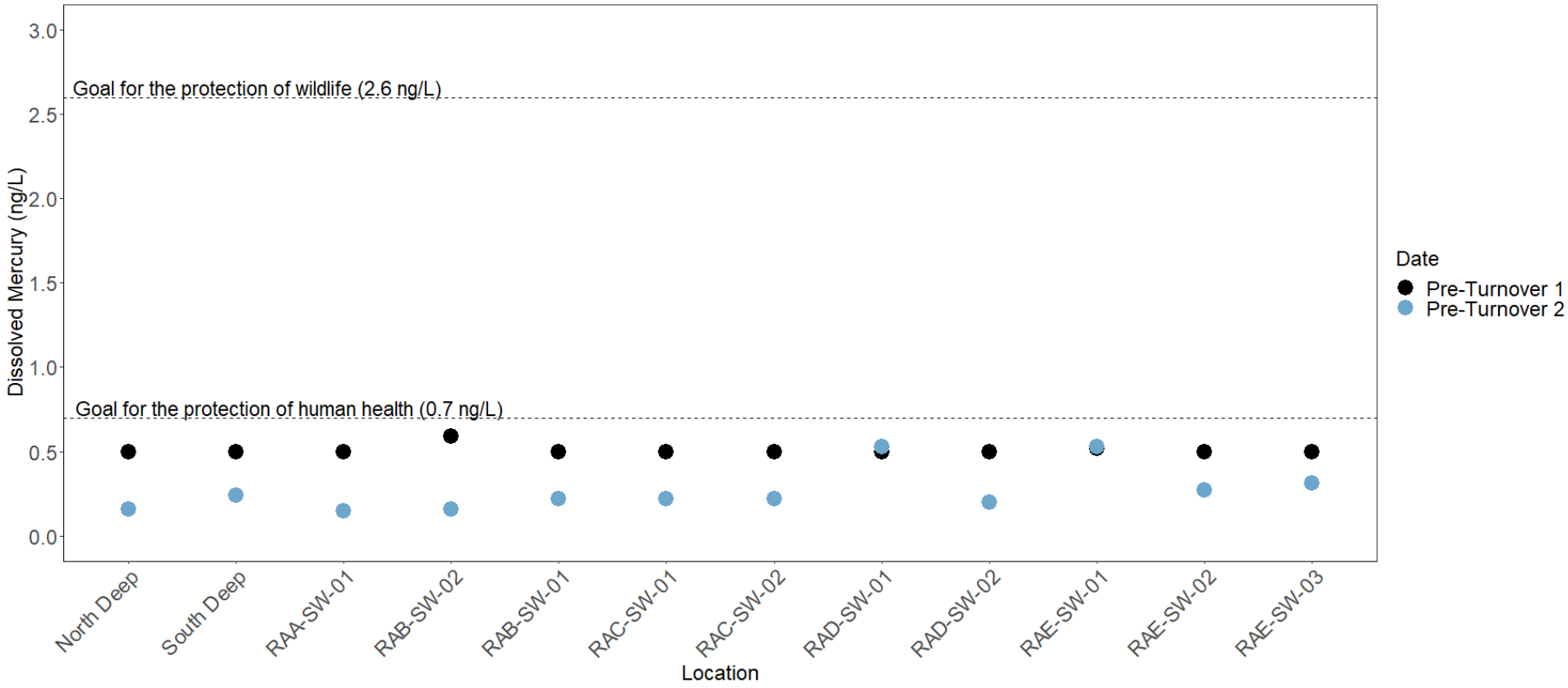


FIGURE 7.2

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Onondaga Lake
Syracuse, New York

Onondaga Lake 2022 Dissolved Mercury Concentrations in Surface Water

PARSONS

301 Plainfield Rd, Suite 350, Syracuse, NY, 13212, Phone 315-451-9560

APPENDIX 1A – 2022 SCOPE DOCUMENTATION

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau D
625 Broadway, 12th Floor, Albany, NY 12233-7013
P: (518) 402-9676 I F: (518) 402-9773
www.dec.ny.gov

July 6, 2022

Shane Blauvelt, P.E.
Honeywell International, Inc.
301 Plainfield Road
Suite 330
Syracuse, NY 13212

Re: 2022 Onondaga Lake Scope – Date July 5, 2022

Dear Shane Blauvelt:

The New York State Department of Environmental Conservation (NYSDEC) has received and reviewed the "2022 Onondaga Lake Scope" submitted by Ed Glaza to my attention on July 5, 2022 and the revised document has appropriately addressed our previous comments. Therefore, the 2022 Onondaga Lake Scope, dated July 5, 2022, is hereby approved. Please see that this document, along with this approval letter, is sent to the document repositories. If you have any questions, please contact me at 518-402-9796.

Sincerely,

Tracy A. Smith
Project Manager

ecc:
J. Pelton, NYSDEC
T. Larson, NYSDEC
R. Nunes, USEPA
E. Glaza, Parsons
A. Burnham, Parsons

Honeywell

HONEYWELL
301 Plainfield Road, Suite 330
Syracuse, NY 13212
www.honeywell.com

July 5, 2022

Mr. Tracy Smith
Project Manager
Division of Environmental Remediation
Remedial Bureau D
New York State Department of Environmental Conservation
625 Broadway – 12th Floor
Albany, New York 12233-7016

RE: 2022 Onondaga Lake Lake Scope
Dated July 2022
Consent Order No: 89-CV-815, October 11, 2006

Dear Mr. Smith:

Enclosed for your approval is the 2022 Onondaga Lake Scope, dated July 2022.

In an ongoing effort to be eco-friendly, we are sending this document electronically only, unless we hear otherwise from you. Please contact Ed Glaza at 315.552.9691 if you have any questions or require additional information.

Sincerely,

Shane R Blauvelt

Shane Blauvelt, PE
Senior Remediation Manager

Enclosure

ec: Gary Priscott, NYSDEC (ecopy)
Hazel Powless, NYSDEC (ecopy)
Andrew Gershon, NYSDOL (ecopy Cover Ltr Only)
Bob Nunes, USEPA (ecopy)
Mark Sergott, NYSDOH (ecopy)
Argie Cirillo, USEPA (ecopy Cover Ltr Only)
Robert Montione, AECOM (ecopy)
Mike Spera, AECOM (ecopy)
Joseph Health, Esq. (ecopy Cover Ltr Only)
Alma Lowry, Esq. (ecopy)
Margaret Sheen, Esq., NYSDEC (ecopy Cover Ltr Only)
Jeanne Shenandoah, Onondaga Nation (ecopy)
Brian Israel, Esq., Arnold & Porter (ecopy)
Ed Glaza, Parsons (ecopy)

Prepared by:
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301 Plainfield Road, Suite 350
Syracuse, New York 13212
315.451.9560

Honeywell

2022 ONONDAGA LAKE SCOPE
JULY 2022

Below is a summary of the Onondaga Lake monitoring anticipated to be performed in 2022. As in 2020 and 2021, we continue to work through the challenges associated with Covid-19 and will notify New York State Department of Environmental Conservation (NYSDEC) if anticipated 2022 field work detailed below is impacted.

SMU-8 Monitored Natural Recovery (MNR)

Monitoring in 2022 related to MNR will include collection and analysis of settling sediments at South Deep as specified in the Onondaga Lake Monitoring and Maintenance Plan (OLMMP) (Parsons 2018).

As documented in the Onondaga Lake 2018 Annual and Comprehensive Monitoring and Maintenance report, MNR is progressing faster than anticipated based on projections completed as part of the Final Design. A review of data indicate that mercury concentrations in surface sediment samples (0 to 4 cm) collected in SMU-8 during the MNR routine sampling events completed in 2014 and 2017 were less than the mercury PEC of 2.2 mg/kg at all sample locations and, based on data from 2017, the area-weighted average surface sediment mercury concentrations have declined to values less than or equal to the mercury bioaccumulation-based sediment quality value (BSQV) of 0.8 mg/kg in all five sub-basins of Onondaga Lake. Therefore, in accordance with the OLMMP, sampling in 2021 consisted of the expanded sampling associated with the first compliance verification sampling event. This entailed sampling from a higher number of sampling locations than was completed during prior routine sampling events, including 49 locations in SMU 8 (sampled from 0 to 4 cm and 4 to 10 cm) and 14 in the unremediated portion of the littoral zone (sampled from 0 to 15 cm), as detailed in the Monitored Natural Recovery Work Plan in the OLMMP.

Based on results from the 2021 compliance monitoring event and an evaluation of the comprehensive data set, natural recovery of SMU 8 sediments is progressing faster than anticipated based on projections completed as part of the Final Design, and MNR sediment-based goals for mercury have already been achieved. Therefore, in accordance with the OLMMP, it is recommended that the second of two sediment monitoring events for compliance verification be completed in 2022. The 2022 sampling would be the second year of two compliance sampling events, with sampling to occur at 49 locations in SMU 8 (sampled from 0 to 4 cm and 4 to 10 cm) in accordance with the OLMMP. Sampling would likely occur in late May or early June.

A subset of littoral zone sample locations that were used to calculate the surface weighted average concentrations (SWACs) in the Final Design were sampled in 2021 to verify that conditions have not changed significantly since the locations were previously sampled. Except for two locations, concentrations observed in 2021 were consistent with or lower than previously sampled locations. The two concentrations for which there were observed differences between historical and 2021 data were S112 and S373, both of which are in the North Basin. Measured mercury concentrations at S112 were 1.1 mg/kg in 1992 and 1.9 mg/kg in 2021. Measured mercury concentrations at S373 were 0.56 mg/kg in 2000 and 0.83 mg/kg in 2021. Measured concentrations at both of these locations are within the range of values observed in this area during the remedial investigation. Nevertheless, it is recommended that these two littoral zone locations be resampled in 2022.

Biota Tissue

Fish tissue sample collection conducted in 2022 will continue consistent with the OLMMP, with the target species for large prey fish revised consistent with the 2020 Onondaga Lake Monitoring Scope Memo[1] as approved on July 3, 2020. Tissue monitoring of zooplankton will be conducted in 2022 in accordance with the OLMMP.

Due to delays as a result of evaluations of the 2019 fish data usability and revision to the fish tissue homogenization standard operating procedure, fish samples from 2020 are currently being processed and analyzed by the laboratory. It is recommended that a full determination on analytes for 2021 and 2022 fish tissues be delayed until 2020 data are validated and discussed with NYSDEC. It is expected that 2022 fish will be analyzed for, at minimum, mercury and polychlorinated biphenyls (PCBs). Additional recommendations as to analysis of hexachlorobenzene, dichlorodiphenyltrichloroethane (DDT) and metabolites, and dioxins/furans will be made following review of 2020 data. As discussed in the 2020 Onondaga Lake Monitoring Scope Memo, hexachlorobenzene, which has no target concentration, has been consistently undetected or detected at low concentrations in all species. Concentrations of DDT and metabolites have been consistently low with 95 percent Upper Confidence Limit (UCL) values below targets in small and large prey fish. Regarding dioxins/furans, concentrations are not consistently below the noncancer and cancer targets, with the exception of Pumpkinseed.

Surface Water

Additional surface water monitoring occurred in 2021 as documented in Section 4 of the 2018 Annual and Comprehensive Report to evaluate polychlorobiphenyl (PCB) concentrations in surface waters of Onondaga Lake and its tributaries. In general, in-lake average PCB concentrations were lower than the averages documented in background tributaries. Additionally, two rainwater samples collected in 2021 exceeded the lowest PCB criteria by one to two orders of magnitude, but were at or below the goal for the protection of wildlife (0.12 ng/L). The third rainwater sample was non-detect for all congeners. It is recommended that no further lake, tributary, or rainwater monitoring for PCBs take place in 2022.

At the request of NYSDEC, an additional round of pre- and post- turnover near shore data were collected from Onondaga Lake in 2021 to further assess mercury (total, dissolved, and methyl) concentrations at these locations. Based on results from sampling in 2021, there were exceedances of the performance criteria for dissolved mercury for the protection of human health via fish consumption of 0.7 ng/L at multiple locations from the pre-turnover event (8/12 locations) based on validated data.

During data validation, results from two pre-turnover locations were not considered usable due to contamination present at the laboratory at the time of filtration of the samples. Those specific samples were rejected due to the contamination and the presence of concentrations of dissolved mercury which were higher than concentrations of total mercury, which is technically not possible. Although only those two data were rejected, the mercury contamination that was present in the laboratory during the time that all pre-turnover samples were processed, leads to the questionability of the quality of the dissolved mercury data from that sampling round. Following the contamination, the laboratory implemented corrective actions to minimize the potential for such contamination in the future. In addition, field blank samples during the pre-turnover event also exhibited higher concentrations than anticipated (0.74 ng/L for total mercury and 0.23 ng/L for dissolved mercury), which was

[1] The target species for large prey fish will consist of both White Sucker (*Catostomus commersonii*) and Shorthead Redhorse (*Moxostoma macrolepidotum*) as approved in 2020. Efforts will be made to have an even distribution of 12 White Suckers and 12 Shorthead Redhorse, but may vary based on availability at the time of collection.

higher than the field blank samples from the post-turnover event where both total and dissolved mercury were non-detects (0.08 ng/L).

In 2017 and 2018, pre-turnover mercury concentrations were consistently lower than post-turnover mercury concentrations, while in 2021, pre-turnover mercury concentrations were consistently higher than post-turnover mercury concentrations, adding further doubt on the accuracy of the pre-turnover mercury concentrations. Therefore, it is recommended that an additional round of sampling for pre-turnover in-lake nearshore and North and South Deep locations be conducted for mercury (total, dissolved, and methyl) during the summer/early fall of 2022. Following the receipt of pre-turnover samples, results will be discussed with NYSDEC and if results are unexpected (i.e., higher than criteria) then post-turnover sampling for mercury (total, dissolved and methyl) would be conducted. However, as all post-turnover samples from 2017, 2018 and 2021 were within criteria and did not have any quality concerns, this is not expected. The 2021 post-turnover mercury concentrations were consistent with the concentrations measured in 2017 and 2018. In-lake samples will be collected with a submersible pump as per UFI SOP 304 and analyzed for total mercury, dissolved mercury, and methylmercury from locations outlined in the OLMMP.

Surface water monitoring will also be completed as part of the Nitrate Addition program, as documented in the Operations and Monitoring (OM) Plan for Nitrate Addition (Parsons and UFI 2014). Certain samples collected under the nitrate addition program in 2021 had similar data quality issues as were noted above for compliance sampling, which resulted in rejected dissolved mercury data in July and September. These issues included filter blank contamination of dissolved mercury concentrations of 1.35 ng/L (July samples) and 4.74 ng/L (September samples). Samples will be collected as per UFI SOP 303 utilizing a Kemmerer sampler. Monitoring of surface water will be conducted in 2022 as specified in the OM Plan, except for the elimination of monitoring for manganese, total dissolved gas, and ferrous iron. The elimination of these three parameters from the monitoring program was documented in the 2017 Annual Report for Nitrate Addition, which has been approved by the NYSDEC.

Cap Maintenance and Monitoring

Physical Monitoring

Cap physical monitoring will be completed in 2022 consistent with the OLMMP. This will consist of completion of a comprehensive bathymetric survey of all capped areas and the uncapped areas along the RA-E CSX shoreline, and collection of cores and documentation of cap thicknesses as part of the chemical monitoring program. Consistent with the OLMMP, comprehensive probing and aerial drone photography will not be completed in 2022. Additional coring or probing may be proposed based on the results of the bathymetric survey. Although not required per the OLMMP, a shoreline walk and visual inspection will be completed in 2022. Any signs of potential erosion along the capped areas and Wastebeds 1-8 stabilized shoreline will be photographed and noted during the shoreline inspection.

For all core locations, a minimum of two cores will be collected. If habitat layer or total thicknesses are less that the target, additional cores as well as step-out cores may be conducted, to be determined in consultation with NYSDEC.

In addition, elevation measurements will be collected in the area of additional placement completed along RA-D shoreline in 2019 for comparison to the elevations measured shortly after additional material placement, as per Honeywell's response to NYSDEC comment 44 to the 2019 Annual Report. This scope was originally planned for completion in 2021.

The cap monitoring work plan, included as Appendix D of the OLMMP, anticipated that bathymetric surveys would be completed using the Z-boat 1800, which was the remotely operated hydrographic survey boat used by the Quality Assurance/Quality Control (QA/QC) team during capping operations. The Z-boat is no longer in service, therefore the bathymetric survey will be completed using a manned boat. This will satisfy the requirements of the work plan, including accuracy, water depths, and spacing of transect lines.

As specified in the habitat section below, vegetation monitoring in 2022 would only be done in the Outboard Area (and not capped areas in RA-A planted area, Ninemile Creek (NMC) spits, and WBs 1-8 connected wetland) for purposes of verifying habitat goals are met. However, all of these areas will be inspected for vegetation to confirm there has been no significant erosion of the cap in these areas.

Chemical Monitoring

Comprehensive cap chemical monitoring will be completed in 2022 consistent with the OLMMP, with the following revisions:

- Porewater samples will be collected at new peeper locations A-30 and A-31, as shown in Figure D.13. Samples will be collected per the schematic shown in Figure D.19a. These peeper locations were added in 2019 per NYSDEC's request to enhance the cap monitoring adjacent to the WB 1-8 north shore hydraulic containment system.
- Porewater from peeper locations A-8 and A-10 will be sampled from the intervals shown in Figure D.19a, which has been corrected from Figure D.19 from Appendix D of the OLMMP to accurately reflect that the habitat layer at these locations is a minimum of 18 inch rather than 12 inch. This is consistent with the sampling completed in 2019.
- An evaluation of the impacts of filtering and suspended solids on direct-extraction porewater analytical results for VOCs and Phenol will be completed, as detailed in Attachment 1.
- Peeper sampling will be added for porewater collection in Zone 1, as detailed below.

Peeper Sampling in Zone 1

The proposed revision applies to Zone 1 cap areas, which are the areas where the habitat/erosion protection (H/EP) layer consists of sand. Addition of peeper sampling in Zone 1 will allow collection of porewater samples from the habitat layer in Zone 1 for benzene, toluene and phenol analysis, eliminating uncertainty associated with converting solid phase results to an aqueous basis for comparison to aqueous-based cap performance criteria for these parameters. It will also allow collection of porewater samples from the chemical isolation (CI) layer using peepers rather than direct extraction of porewater, eliminating concerns regarding impacts of suspended solids in direct extraction samples on volatile organic compound (VOC) and light polyaromatic hydrocarbon (LPAH) (including phenol) results. Solid-phase samples will continue to be collected for analysis of the remaining parameters in the H/EP layer and unamended CI layer and cores will continue to be collected at all locations to document cap thickness. The current and proposed revised sampling plans in these areas are detailed below. Revised OLMMP Figures D.13 through D.19 showing the revised sampling approach in each area and peeper sampling intervals are attached. Revised OLMMP Tables D.6 though D.11 detailing the revised sampling plan are also attached.

Multi-layer Caps

Current Sampling Plan

- H/EP layer: Solid phase samples for all parameters - VOCs (including naphthalene), LPAHs (fluorene, phenanthrene, acenaphthene, acenaphthylene, and anthracene), phenol, heavy polyaromatic hydrocarbons (HPAHs), PCBs, mercury, total organic compound (TOC) and pH (where applicable).

- Amended CI layer: Direct extraction porewater samples for VOCs, LPAHs, phenol, mercury, and pH.
- Unamended CI layer: Solid phase samples for all required parameters

Proposed Revised Sampling Plan

- H/EP layer: Peeper porewater sample for benzene, toluene and phenol. Solid phase for all other parameters
- Amended CI layer: Peeper porewater samples for VOCs, LPAHs, phenol, mercury, and pH.
- Unamended CI layer: Peeper porewater samples for benzene, toluene and phenol. Solid phase samples for all other required parameters

Mono-Layer Caps

Note, the proposed change only applies to monolayer caps with design average thickness of 7.5" or greater, no change is proposed to thinner mono-layer caps, including modified erosion-resistant caps (MERCs), due to concerns about practicality of peeper sampling in thinner caps.

Current Sampling Plan

- Direct extraction porewater samples for VOCs, LPAHs, phenol and pH. Solid phase samples for mercury. Also includes solid phase samples for HPAHs and PCBs in select locations.

Proposed Revised Sampling Plan

- Peeper porewater samples for VOCs, LPAHs, phenol and pH. Solid phase samples for mercury. Also includes solid phase samples for HPAHs and PCBs in select locations.

The above change applies to mono-layer cap sampling locations B-10, B-11, B-13, C-11, C-13 and C-19. At these locations, sediment cores will be collected and shared with NYSDEC prior to peeper installation to evaluate whether revisions to the peeper sampling strategy may be appropriate.

Per the OLMMP, there were 39 peeper sample locations, all in multi-layer caps. We currently possess 13 peepers, which has allowed the peeper sampling program to be completed in three deployments. The proposed change detailed above would increase the total number of peeper sample locations to 100, consisting of 94 multi-layer cap locations and six mono-layer cap locations. Therefore, we are having 21 new peepers manufactured, which will bring the total to 34. The new peepers include 19 full-length (3 feet) peepers and 2 short (1-foot) peepers for use in mono-layer caps. This will allow the expanded peeper program to be completed in three deployments.

The method used previously to ensure the peeper was driven to the target depth consisted of lowering the peeper by gravity until the tip rested on the surface of the cap, and then accurately measuring the driving depth from that point. A camera is used to verify the appropriate driving depth by viewing a red plastic sleeve located on the peeper denoting the targeted drive depth. This method has proven effective in cap areas where the H/EP consists of gravel or cobble. However, there is a potential concern in the new peeper locations that the peeper tip could partially penetrate the sand cap prior to driving, leading to a less-accurate estimate of the depth to the cap surface than was achieved in areas where the cap included gravel or cobble that provided more penetration resistance. Therefore, in areas where the cap consists entirely of sand, the depth to the cap surface will be accurately measured using a weighted tape or rigid pole prior to driving the peeper to provide an accurate baseline for peeper drive depth.

Habitat Reestablishment and Biological Response

Habitat monitoring and maintenance will be completed in 2022 consistent with the OLMMP. Monitoring will consist of the following:

Wastebed B/Harbor Brook Outboard Area

- Vegetation Monitoring, including a year-five wetland delineation
- Additional maintenance plantings in accordance with the correspondence from Mark Arrigo to Tim Larson on 4/14/2022.
- Invasive species control
- Spawning and juvenile Northern Pike monitoring[2]

Lake-wide Monitoring

- Wildlife monitoring (all remediation areas)
- Lake-wide fish community monitoring

Monitoring will generally begin in May of 2022 and continue into the fall/early winter months (in the case of wildlife monitoring). A summary of the scope and extent of the year-five wetland delineation for Wastebed B/Harbor Brook will be provided to NYSDEC prior to the event.

References

Parsons and UFI. 2014. Operations and Monitoring Plan for Adding Nitrate to the Hypolimnion of Onondaga Lake. Prepared for Honeywell, August 2014.

Parsons. 2018. Onondaga Lake Monitoring and Maintenance Plan. Prepared for Honeywell, June 2018.

[2] As per the OLMMP, as there have not been observations of adult spawning or juvenile Northern Pike following four years of monitoring, the appropriate field data to calculate a habitat suitability index (HSI) for Northern Pike will be collected in 2022 for the area to evaluate the suitability of the wetland for Northern Pike Spawning.

TABLES

Honeywell

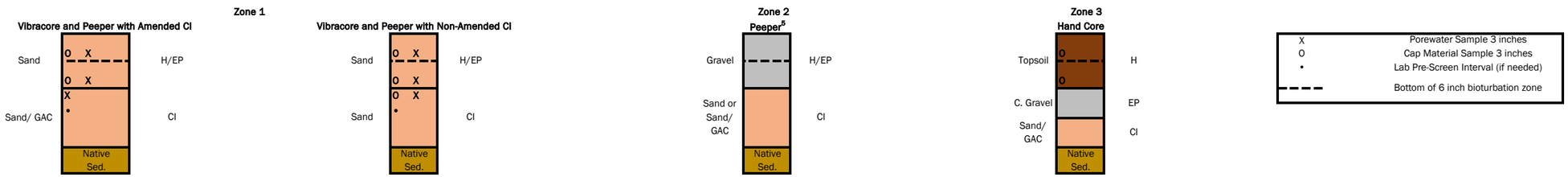
PARSONS

TABLE D.6 REMEDIATION AREA A COMPREHENSIVE SAMPLE COLLECTION AND ANALYTICAL SUMMARY

					Compliance Sample (Habitat/Erosion Protection Layer)														Supporting Sample (Chemical Isolation Layer)											
					Solid Phase Analysis[1]									Porewater Analysis[1]						Solid Phase Analysis[1]								Porewater Analysis[1]					
Cap Model Area	Water Depth	Number of Sample Locations	Sample Location IDs[6]	Collection Method	Mercury	VOCs[2]	VOC minus benzene and toluene	LPAHs[3]	LPAH minus phenol	HPAHs[4]	pH	PCBs	TOC	Mercury	VOCs[2]	Benzene and toluene only	LPAHs[3]	Phenol only	pH	Mercury	VOCs[2]	VOC minus benzene and toluene	LPAHs[3]	LPAH minus phenol	HPAHs[4]	pH	PCBs	Mercury	VOCs[2]	Benzene and toluene only	LPAHs[3]	Phenol only	pH
A1	Zone 1 20-30 ft	4	A-1, A-2, A-3, A-4	Vibracore (Non-Amended Cl)	O		O		O	O		O	O							O		O		O	O		O						
A1	Zone 1 20-30 ft			Peeper[5] (Non-Amended Cl)												X		X												X		X	
A1	Zone 1 10-20 ft	2	A-5, A-7	Vibracore (Non-Amended Cl)	O		O		O	O		O	O							O		O		O	O		O						
A1	Zone 1 10-20 ft			Peeper[5] (Non-Amended Cl)												X		X												X		X	
A1	Zone 2 3-10 ft	1	A-9	Vibracore (Non-Amended Cl)																O		O		O	O		O						
				Peeper[5] (Non-Amended Cl)										X	X		X												X		X	
A1	Zone 3 0-3 ft	2	A-30, A-31	Peeper[5] (Non-Amended Cl)										X	X		X											X	X		X		
A1	Zone 3 0-3 ft	4	A-15, A-19, A-20, A-21	Hand Core	O	O		O		O		O	O																			
A2	Zone 1 10-20 ft	1	A-6	Vibracore (Amended Cl)	O		O		O	O	O	O	O																			
A2	Zone 1 10-20 ft			Peeper[5] (Amended Cl)												X		X	X									X	X		X		X
A2	Zone 2 3-10 ft	2	A-8, A-10	Peeper[5] (Amended Cl)										X	X		X		X									X	X		X		X
A2	Zone 3 0-3 ft	3	A-11, A-12, A-16	Hand Core	O	O		O		O	O	O	O																			
RA-A-40197	Zone 3 0-3 ft	2	A-13, A-14	Hand Core	O	O		O		O	O	O	O																			
NMC Spits	Zone 3 NA	2	A-17, A-18	Hand Core	O	O		O		O	O	O	O																			
		23																														

Notes:

1. Black font designates indicator chemical group analyses and red font designates additional chemical group analyses.
2. Naphthalene is included as a VOC.
3. LPAHs include fluorene, phenanthrene, acenaphthene, acenaphthylene, and anthracene. Phenol is not a PAH but is included in the LPAH indicator and additional chemical group for convenience.
4. HPAHs include the remaining PAHs included in the development of the Mean PECQ.
5. HPAHs and PCBs (additional chemical group) are not included due to volume limitations with the peeper collection method. See Figure D.19 for details.
6. Abbreviated sample location IDs (e.g., A-2 corresponds to OL-RAA-CAP-0002)



Honeywell

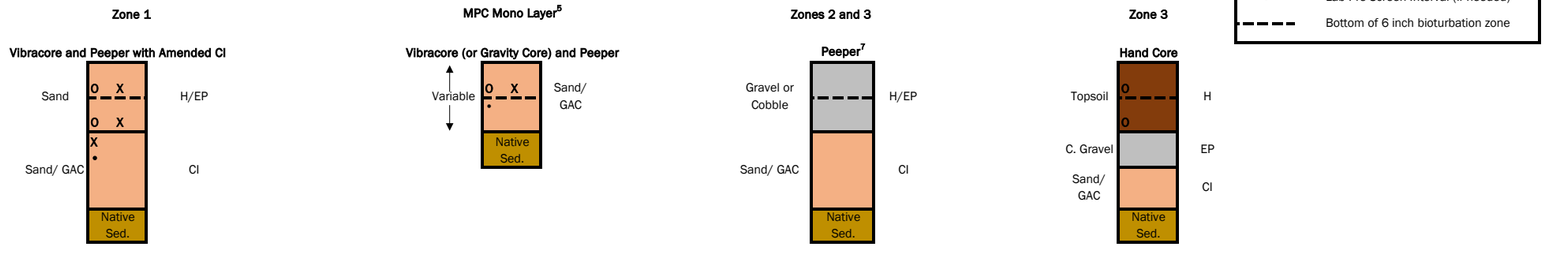
PARSONS

TABLE D.7 REMEDIATION AREA B COMPREHENSIVE SAMPLE COLLECTION AND ANALYTICAL SUMMARY

					Compliance Sample (Habitat/Erosion Protection Layer)												Supporting Sample (Chemical Isolation)									
					Solid Phase Analysis[1]									Porewater Analysis[1]						Solid Phase Analysis[1]						Porewater Analysis[1]			
Cap Model Area	Water Depth	Number of Sample Locations	Sample Location IDs[8]	Collection Method	Mercury	VOCs[2]	VOCs minus Benzene and Toluene	LPAHs[3]	LPAHs minus Phenol	HPAHs[4]	pH	PCBs	TOC	Mercury	VOCs[2]	Benzene and toluene only	LPAHs[3]	Phenol Only	pH	Mercury	VOCs[2]	LPAHs[3]	HPAHs[4]	pH	PCBs	Mercury	VOCs[2]	LPAHs[3]	pH
RA-B-1A (Model Area B2)	Zone 1 10-30 ft	2	B-1, B-3	Vibracore (Amended Cl)	O		O		O	O	O	O	O															
RA-B-1A (Model Area B2)	Zone 1 10-30 ft			Peeper[7] (Amended Cl)												X		X							X	X	X	X
RA-B-1B (Model Area B2)[6]	Zone 1 10-30 ft	1	B-4	Vibracore[6] (Amended Cl)	O		O		O	O	O	O	O															
RA-B-1B (Model Area B2)[6]	Zone 1 10-30 ft			Peeper[6,7] (Amended Cl)												X		X										X
B2	Zone 1 10-30 ft	1	B-2	Vibracore (Amended Cl)	O		O		O	O	O	O	O															
B2	Zone 1 10-30 ft			Peeper[7] (Amended Cl)												X		X							X	X	X	X
RA-B-1C (Model Area B1)	Zone1 20-30 ft	2	B-5, B-7	Gravity Core MPC Mono Layer[5]	O										X		X		X									
RA-B-1C (Model Area B1)	Zone 1 10-20 ft	1	B-10	Vibracore MPC Mono Layer[5]	O																							
RA-B-1C (Model Area B1)	Zone 1 10-20 ft			Peeper[7] MPC Mono Layer[5]											X		X		X									
RA-B-1C	Zone 2 4-10 ft	1	B-8	Peeper[7] (Amended Cl)										X	X		X									X	X	X	X
RA-B-1D (Model Area B1)	Zone 1 20-30 ft	1	B-11	Vibracore MPC Mono Layer[5]	O																							
RA-B-1D (Model Area B1)	Zone 1 20-30 ft			Peeper[7] MPC Mono Layer[5]											X		X		X									
RA-B-1D (Model Area B1)	Zone 1 10-20 ft	1	B-13	Gravity Core MPC Mono Layer[5]	O					O		O			X		X		X									
RA-B-1D (Model Area B1)	Zone 1 10-20 ft			Peeper[7] MPC Mono Layer[5]											X		X		X									
RA-B-1E (Model Arae B1/C1)	Zone 1 10-30 ft	1	B-14	Vibracore (Amended Cl)	O		O		O	O	O	O	O															
RA-B-1E (Model Arae B1/C1)	Zone 1 10-30 ft			Peeper[7] (Amended Cl)												X		X							X	X	X	X
RA-B-1E (Model Area B1/C1)	Zone2 4-10 ft	1	B-16	Peeper[7] (Amended Cl)										X	X		X								X	X	X	X
B1/C1	Zone 1 10-30 ft	1	B-15	Vibracore (Amended Cl)	O		O		O	O	O	O	O															
B1/C1	Zone 1 10-30 ft			Peeper[7] (Amended Cl)												X		X							X	X	X	X
B1/C1	Zone 3 0-4 ft	3	B-12, B-17, B-18	Peeper[7] (Amended Cl)										X	X		X								X	X	X	X
WB 1-8 Connected Wetland	Zone 3 NA	3	B-6, B-9, B-19	Hand Core	O	O		O		O	O	O	O															

19

Notes:
1. Black font designates indicator chemical group analyses and red font designates additional chemical group analyses.
2. Naphthalene is included as a VOC.
3. LPAHs include fluorene, phenanthrene, acenaphthene, acenaphthylene, and anthracene. Phenol is not a PAH but is included in the LPAH indicator and additional chemical group for convenience.
4. HPAHs include the remaining PAHs included in the development of the Mean PECQ.
5. See Section 5.2.4 for specific details regarding mono-layer and multi-layer MPC cap sampling.
6. Supporting samples not collected since the chemical isolation layer is less than 6 inches thick.
7. HPAHs and PCBs are not being collected due to volume limitations with the peeper collection method. See Figure D.19 for details.
8. Abbreviated sample location IDs (e.g., B-2 corresponds to OL-RAB-CAP-0002)



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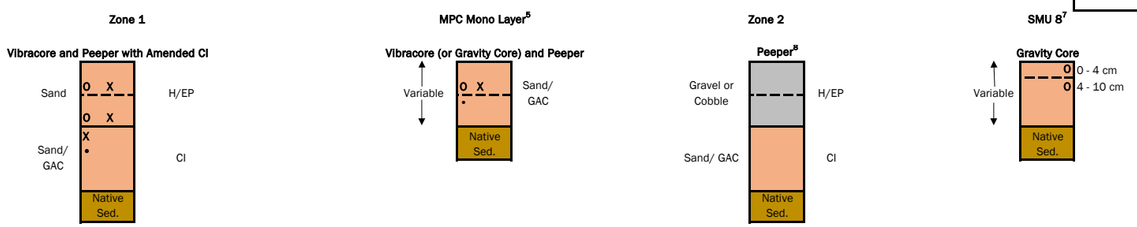
TABLE D.8 REMEDIATION AREA C COMPREHENSIVE SAMPLE COLLECTION AND ANALYTICAL SUMMARY

					Compliance Sample (Habitat/Erosion Protection Layer)														Supporting Sample (Chemical Isolation)								
					Solid Phase Analysis[1]								Porewater Analysis[1]						Solid Phase Analysis[1]					Porewater Analysis[1]			
Cap Model Area	Water Depth	Number of Sample Locations	Sample Location IDs[9]	Collection Method	Mercury	VOCs[2]	VOCs minus benzene and toluene	LPAHs[3]	LPAHs minus phenol	HPAHs[4]	pH	PCBs	TOC	Mercury	VOCs[2]	Benzene and toluene only	LPAHs[3]	Phenol only	pH	Mercury	VOCs[2]	LPAHs[3]	HPAHs[4]	pH	Mercury	VOCs[2]	LPAHs[3]	pH
B1/C1	Zone 1 10-30 ft	1	C-2	Vibracore (Amended Cl)	O		O		O	O	O	O	O														
B1/C1	Zone 1 10-30 ft			Peeper[8] (Amended Cl)												X		X							X	X	X	X
B1/C1	Zone 2 4-10 ft	1	C-1	Peeper[8] (Amended Cl)										X	X		X		X						X	X	X	X
C2	Zone 1 10-30 ft	2	C-3, C-4	Vibracore (Amended Cl)	O		O		O	O	O	O	O														
C2	Zone 1 10-30 ft			Peeper[8] (Amended Cl)												X		X							X	X	X	X
RA-C-2A (Model Area C2)[6]	Zone 1 10-30 ft	2	C-5, C-9	Vibracore[6] (Amended Cl)	O		O		O	O	O	O	O														
RA-C-2A (Model Area C2)[6]	Zone 1 10-30 ft			Peeper[5,8] (Amended Cl)												X		X										X
RA-C-2A (Model Area C2)[6]	Zone 2 4-10 ft	1	C-7	Peeper[8] (Amended Cl)										X	X		X											X
RA-C-2B (Model Area C2)	Zone 1 10-30 ft	2	C-6, C-8	Gravity Core MPC Mono Layer[5]	O										X		X		X									
RA-C-2C (Model Area C2)	Zone 1 10-30 ft	2	C-11, C-13	Gravity Core MPC Mono Layer[5]	O					O		O																
RA-C-2C (Model Area C2)	Zone 1 10-30 ft			Peeper[8] MPC Mono Layer[5]											X		X		X									
RA-C-2D (Model Area C2)	Zone 2 4-10 ft	2	C-10, C-12	Gravity Core MPC Mono Layer[5]	O										X		X		X									
RA-C-1C (Model Area C3)	Zone 1 10-30 ft	1	C-15	Gravity Core MPC Mono Layer[5]	O										X		X		X									
RA-C-1B (Model Area C3)	Zone 1 10-30 ft	2	C-14, C-18	Gravity Core MPC Mono Layer[5]	O										X		X		X									
RA-C-1A (Model Area C3)[6]	Zone 1 10-30 ft	2	C-16, C-17	Vibracore[6] (Amended Cl)	O		O		O	O	O	O	O														
RA-C-1A (Model Area C3)[6]	Zone 1 10-30 ft			Peeper[5,8] (Amended Cl)												X		X										X
RA-C-1D (Model Area C3)	Zone 1 10-30 ft	1	C-19	Gravity Core MPC Mono Layer[5]	O					O		O																
RA-C-1D (Model Area C3)	Zone 1 10-30 ft			Peeper[8] MPC Mono Layer[5]											X		X		X									
C3	Zone 1 10-30 ft	3	C-20, C-21, C-23	Vibracore (Amended Cl)	O		O		O	O	O	O	O														
C3	Zone 1 10-30 ft			Peepers[8] (Amended Cl)												X		X							X	X	X	X
C3	Zone 2 4-10 ft	1	C-22	Peeper[8] (Amended Cl)										X	X		X		X						X	X	X	X
RA-C TLC (inc. Transition Zone and SMU 8 Direct GAC Application Areas)	SMU 8 >30 ft	7	SMU8-1, 2, 3, 4, 5, 6, 7	Gravity Core[7]	O	O		O		O	O	O	O															
		30																										

Notes:

1. Black font designates indicator chemical group analyses and red font designates additional chemical group analyses.
2. Naphthalene is included as a VOC.
3. LPAHs include fluorene, phenanthrene, acenaphthene, acenaphthylene, and anthracene. Phenol is not a PAH but is included in the LPAH indicator and additional chemical group for convenience.
4. HPAHs include the remaining PAHs included in the development of the Mean PECQ.
5. See Section 5.2.4 for specific details regarding mono-layer and multi-layer MPC cap sampling.
6. Supporting samples not collected since the chemical isolation layer is less than 6 inches thick.
7. Sample intervals in SMU 8 will be:
   a. Unamended TLC: 0 to 4 cm and 4 to 10 cm
   b. Amended TLC and Transition Zone: 0 to 4 cm
   c. GAC Direct Application Areas: 0 to 4 cm.
   d. Samples will not be collected in SMU 8 amended TLC and Direct Application areas until sediment cores show a minimum thickness of sand and overlying settled sediments of 4 inches. A minimum of 3 attempts will be made, See Section 5.2.5 for details.
8. HPAHs and PCBs (additional chemical group) are not included due to volume limitations with the peeper collection method. See Figure D.19 for details.
9. Abbreviated sample location IDs (e.g., C-2 corresponds to OL-RAC-CAP-0002)

X	Porewater Sample 3 inches
O	Cap Material Sample 3 inches
•	Lab Pre-Screen Interval (if needed)
- - - -	Bottom of 6 inch bioturbation zone



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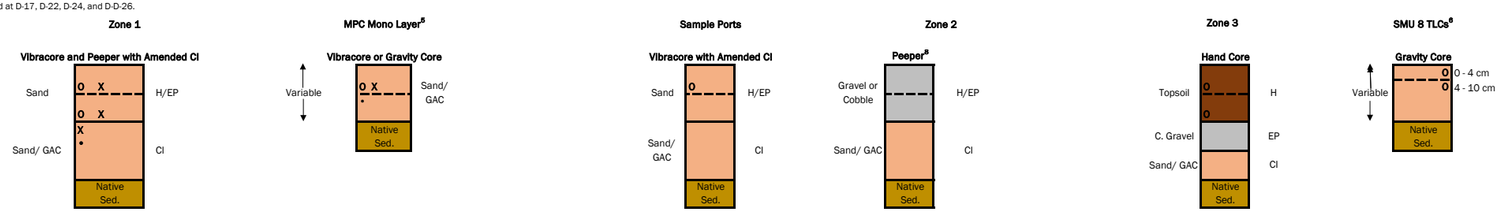
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TABLE D.9 REMEDIATION AREA D COMPREHENSIVE SAMPLE COLLECTION AND ANALYTICAL SUMMARY

					Compliance Sample (Habitat/Erosion Protection Layer)																Supporting Sample (Chemical Isolation)									
					Solid Phase Analysis[1]										Porewater Analysis[1]						Solid Phase Analysis[1]						Porewater Analysis[1]			
Cap Model Area	Water Depth	Number of Sample Locations	Sample Location IDs[10]	Collection Method	Mercury	VOCs[2]	VOCs minus benzene and toluene	LPAHs[3]	LPAHs minus phenol	HPAHs[4]	pH	PCBs	TOC	Mercury	VOCs[2]	Benzene and toluene only	LPAHs[3]	Phenol only	pH	Mercury	VOCs[2]	LPAHs[3]	HPAHs[4]	pH	Mercury	VOCs[2]	LPAHs[3]	pH
D-SMU-2	Zone 1 10-30 ft	4	D-1, D-6, D-9, D-16	Vibracore (Amended Cl)	O		O		O	O	O	O	O															
D-SMU-2	Zone 1 10-30 ft			Peeper[8] (Amended Cl)												X		X						X	X	X	X
RA-D-2	Zone 1 10-30 ft	2	D-8, D-19	Vibracore (Amended Cl)	O		O		O	O	O	O	O															
RA-D-2	Zone 1 10-30 ft			Peeper[8] (Amended Cl)												X		X									X
D-West	Zone 1 10-30 ft	3	D-10, D-15, D-20	Vibracore (Amended Cl)	O		O		O	O	O	O	O															
D-West	Zone 1 10-30 ft			Peeper[8] (Amended Cl)												X		X						X	X	X	X
D-West	Zone 2 4-7 ft Sample Port	1	D-22	Vibracore (Amended Cl)						O		O	O															
				Peeper[8] (Amended Cl)										X	X		X		X						X	X	X	X
RA-D-1A	Zone 1 10-30 ft	3	D-2, D-3, D-4	Vibracore (Amended Cl)	O		O		O	O	O	O	O															
RA-D-1A	Zone 1 10-30 ft			Peeper[8] (Amended Cl)												X		X						X	X	X	X
RA-D-1B	Zone 1 10-30 ft	2	D-5, D-11	Gravity Core MPC Mono Layer[5]	O										X		X		X									
D-Center	Zone1 10-30 ft	2	D-12, D-13	Vibracore (Amended Cl)	O		O		O	O	O	O	O															
D-Center	Zone1 10-30 ft			Peeper[8] (Amended Cl)												X		X						X	X	X	X
D-Center	Zone 2 4-10 ft Sample Port	4	D-17, D-18, D-26, D-29	Vibracore (Amended Cl)						O		O	O															
		4	D-17, D-18, D-26, D-29	Peeper[8] (Amended Cl)										X	X		X		X[9]						X	X	X	X
D-Center	Zone 2 4-7 ft	1	D-34	Peeper[8] (Amended Cl)										X	X		X		X						X	X	X	X
OL-VC-10138/40	Zone 2 4-7 ft	1	D-23	Peeper[8] (Amended Cl)										X	X		X		X						X	X	X	X
	Zone 2 4-7ft Sample Port	1	D-24	Vibracore (Amended Cl)						O		O	O															
				Peeper[8] (Amended Cl)										X	X		X								X	X	X	X
D-East	Zone 1 10-30 ft	9	D-14, D-21, D-25, D-28, D-31, D-32, D-33, D-38, D-40	Vibracore (Amended Cl)	O		O		O	O	O	O	O															
D-East	Zone 1 10-30 ft			Peeper[8] (Amended Cl)												X		X						X	X	X	X
D-East	Zone 2 7-10 ft	1	D-36	Peeper[8] (Amended Cl)										X	X		X								X	X	X	X
D-Addendum East	Zone 1 10-30 ft	1	D-7	Vibracore (Amended Cl)	O		O		O	O	O	O	O															
D-Addendum East	Zone 1 10-30 ft			Peeper[8] (Amended Cl)												X		X						X	X	X	X
Outboard West	Zone 3 NA	3	D-27, D-30, D-35	Hand Core	O	O		O		O	O	O	O															
Outboard Center	Zone 3 NA	3	D-37, D-39, D-41	Hand Core	O	O		O		O	O	O	O															
Outboard East	Zone 3 NA	5	D-42, D-43, D-44, D-45, D-46	Hand Core	O	O		O		O		O	O															
RA-D TLC	SMU 8 >30 ft	13	SMU8-8, 9 ,10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20	Gravity Core[6]	O	O		O		O	O[7]	O	O															
		63																												

Notes:
1. Black font designates indicator chemical group analyses and red font designates additional chemical group analyses.
2. Naphthalene is included as a VOC.
3. LPAHs include fluorene, phenanthrene, acenaphthene, acenaphthylene, and anthracene. Phenol is not a PAH but is included in the LPAH indicator and additional chemical group for convenience.
4. HPAHs include the remaining PAHs included in the development of the Mean PECQ.
5. See Section 5.2.4 for specific details regarding mono-layer and MPC multi-layer cap sampling.
6. Sample intervals in SMU 8 will be:
   a. Unamended TLC: 0 to 4 cm and 4 to 10 cm
   b. Amended TLC: 0 to 4 cm
7. Amended TLC only.
8. HPAHs and PCBs (additional chemical group) are not included due to volume limitations with the peeper collection method. See Figure D.19 for details.
9. pH analyzed for when Fine Gravel minimum design thickness is greater than 12 inches
10. Abbreviated sample location IDs (e.g., D-2 corresponds to OL-RAD-CAP-0002)
11. To include Sample Ports located at D-17, D-22, D-24, and D-D-26.

X	Porewater Sample 3 inches
O	Cap Material Sample 3 inches
•	Lab Pre-Screen Interval (if needed)
- - -	Bottom of 6 inch bioturbation zone



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TABLE D.10 REMEDIATION AREA E COMPREHENSIVE SAMPLE COLLECTION AND ANALYTICAL SUMMARY

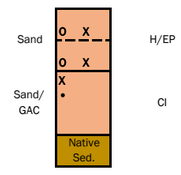
					Compliance Sample (Habitat/erosion Protection Layer)														Supporting Sample (Chemical Isolation)											
					Solid Phase Analysis[1]									Porewater Analysis[1]						Solid Phase Analysis[1]							Porewater Analysis[1]					
Cap Model Area	Water Depth	Number of Sample Locations	Sample Location IDs[8]	Collection Method	Mercury	VOCs[2]	VOCs minus benzene and toluene	LPAHs[3]	LPAHs minus phenol	HPAHs[4]	pH	PCBs	TOC	Mercury	VOCs[2]	Benzene and toluene only	LPAHs[3]	Phenol only	pH	Mercury	VOCs[2,9]	VOCs minus benzene and toluene	LPAHs[3,10]	LPAHs minus phenol	HPAHs[4]	pH	PCBs	Mercury	VOCs[2,11]	Benzene and toluene only	LPAHs[3,12]	Phenol only	pH
E-1 (B)	Zone 1 20-30 ft	3	E-17, E-18, E-21	Vibracore (Non-Amended Cl)	O		O		O	O		O	O							O		O		O	O		O						
E-1 (B)	Zone 1 20-30 ft			Peeper[5] (Non-Amended Cl)												X		X											X		X	
E-1 (B)	Zone 2 10-20 ft	3	E-19, E-20, E-22	Vibracore (Non-Amended Cl)																O		O		O	O		O					
				Peeper[5] (Non-Amended Cl)										X	X		X													X		X	
E-1 (A)	Zone 3 2-7 ft	3	E-28, E-34, E-37	Peeper[5] (Non-Amended Cl)										X	X		X											X	X		X		
E-2	Zone 1 20-30 ft	2	E-31, E-33	Vibracore (Amended Cl)	O		O		O	O		O	O																			
E-2	Zone 1 20-30 ft			Peeper[5] (Amended Cl)												X		X										X	X		X		
E-2	Zone 2 10-20 ft	2	E-39, E-40	Peeper[5] (Amended Cl)										X	X		X										X	X		X		
E-2	Zone 3 0-10 ft	3	E-41, E-43, E-44	Peeper[5] (Amended Cl)										X	X		X										X	X		X		
E-3	Zone 1 20-30 ft	3	E-25, E-27, E-30	Vibracore (Amended Cl)	O		O		O	O		O	O																			
E-3	Zone 1 20-30 ft			Peeper[5] (Amended Cl)												X		X										X	X		X		
E-3	Zone 2 10-20 ft	4	E-23, E-26, E-29, E-35	Peeper[5] (Amended Cl)										X	X		X										X	X		X		
E-3	Zone 3 3-7 ft	2	E-24, E-32	Peeper[5] (Amended Cl)										X	X		X										X	X		X		
MERC E1	3-7 ft	1	E-42	Vibracore or Gravity Core[6]	O										X		X															
MERC E2	10-20 ft	1	E-36	Vibrcore or Gravity Core[6]	O										X		X															
MERC E3	3-7 ft	1	E-38	Vibracore or Gravity Core[6]	O										X		X															
TLC	SMU 8 >30 ft	5	SMU8-21, 22, 23, 24, 25	Gravity Core[7]	O	O		O		O		O	O																			
		33																														

Notes:
1. Black font designates indicator chemical group analyses and red font designates additional chemical group analyses.
2. Naphthalene is included as a VOC.
3. LPAHs include fluorene, phenanthrene, acenaphthene, acenaphthylene, and anthracene. Phenol is not a PAH but is included in the LPAH indicator and additional chemical group for convenience.
4. HPAHs include the remaining PAHs included in the development of the Mean PECQ.
5. HPAHs and PCBs (additional chemical group) are not included due to volume limitations with the peeper collection method. See Figure D.19 for details.
6. See Section 5.2.4 for specific details regarding MERC sampling.
7. Sample intervals in SMU 8 will be 0 to 4 cm and 4 to 10 cm.
8. Abbreviated sample location IDs (e.g., E-2 corresponds to OL-RAE-CAP-0002)

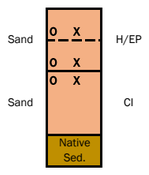
X	Porewater Sample 3 inches
O	Cap Material Sample 3 inches
•	Lab Pre-Screen Interval (if needed)
- - - -	Bottom of 6 inch bioturbation zone

Zone 1

Vibracore and Peeper with Amended Cl

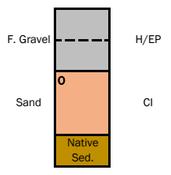


Vibracore and Peeper with Non-Amended Cl



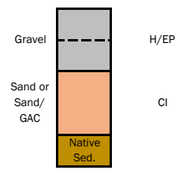
Zone 2

Vibracore with Non-Amended Cl



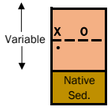
Zones 2 and 3

Peeper[5]



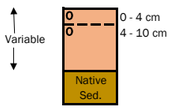
MERC Area[6]

Gravity Core or Vibracore



SMU 8 TLCs[7]

Gravity Core



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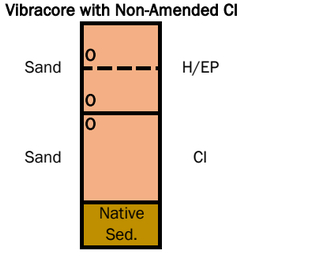
TABLE D.11 REMEDIATION AREA F COMPREHENSIVE SAMPLE COLLECTION AND ANALYTICAL SUMMARY

Cap Model Area	Water Depth	Number of Sample Locations	Sample Location IDs[5]	Collection Method	Compliance Sample (Habitat/Erosion Protection Layer)											Supporting Sample (Chemical Isolation Layer)									
					Solid Phase Analysis							Porewater Analysis				Solid Phase Analysis						Porewater Analysis			
					Mercury	VOCs[2]	LPAHs[3]	HPAHs[4]	pH	PCBs	TOC	Mercury	VOCs[2,6]	LPAHs[3,7]	pH	Mercury	VOCs[2]	LPAHs[3]	HPAHs[4]	pH	PCBs	Mercury	VOCs[2,6]	LPAHs[3,7]	pH
F	Zone 1 7-30 ft	2	F-1, F-2	Vibracore (Non-Amended Cl)	0	0	0	0		0	0					0	0	0	0		0				
		170																							

Notes:

1. Black font designates indicator chemical group analyses and red font designates additional chemical group analyses.
2. Naphthalene is included as a VOC.
3. LPAHs include fluorene, phenanthrene, acenaphthene, acenaphthylene, and anthracene. Phenol is not a PAH but is included in the LPAH indicator and additional chemical group for convenience.
4. HPAHs include the remaining PAHs included in the development of the Mean PECQ.
5. Abbreviated sample location IDs (e.g., F-2 corresponds to OL-RAF-CAP-0002)

Zone 1
Vibracore with Non-Amended Cl



0	Cap Material Sample 3 inches
- - - -	Bottom of 6 inch bioturbation zone

FIGURES

Cap Model Area A1

0 to 3 ft of water (Cap A)
- Habitat Topsoil 12" min
- Erosion Protection/Habitat Coarse Gravel 12" min
- Chemical Isolation Medium Sand 12" min
- Mixing Medium Sand 3" min

3 to 7 ft of water (Cap B)
- Habitat Fine Gravel 18" min
- Chemical Isolation Medium Sand 12" min
- Mixing Medium Sand 3" min

7 to 10 ft of water (Cap C)
- Habitat Fine Gravel 12" min
- Chemical Isolation Medium Sand 12" min
- Mixing Medium Sand 3" min

10 to 20 ft of water (Cap D)
- Habitat Medium Sand 12" min
- Chemical Isolation Medium Sand 12" min
- Mixing Medium Sand 3" min

20 to 30 ft of water (Cap E)
- Habitat Medium Sand 12" min
- Chemical Isolation Medium Sand 6" min
- Mixing Medium Sand 3" min

Cap Model Area A2

0 to 3 ft of water (Cap F)
- Habitat Topsoil 12" min
- Erosion Protection/Habitat Coarse Gravel 12" min
- Chemical Isolation/GAC Medium Sand 9" min
- Chemical Isolation/Siderite Medium Sand 3"" min
- Mixing Medium Sand/Siderite 3" min

Nine Mile Spits (Cap U)
- Habitat Topsoil 19.5" min
- Erosion Protection Coarse Gravel 4.5" min
- Chemical Isolation/GAC Medium Sand 9" min
- Chemical Isolation/Siderite Medium Sand 3" min
- Mixing Medium Sand/Siderite 3" min

Mouth of Nine Mile (Cap I)
- Habitat Coarse Gravel 18" min
- Chemical Isolation/GAC Medium Sand 9" min
- Chemical Isolation/Siderite Medium Sand 3" min
- Mixing Medium Sand/Siderite 3" min

3 to 10 ft of water (Cap H)
- Habitat Fine Gravel 18" min
- Chemical Isolation/GAC Medium Sand 9" min
- Chemical Isolation/Siderite Medium Sand 3" min
- Mixing Medium Sand/Siderite 3" min

10 to 20 ft of water (Cap J)
- Habitat Medium Sand 12" min
- Chemical Isolation/GAC Medium Sand 9" min
- Chemical Isolation/Siderite Medium Sand 3" min
- Mixing Medium Sand/Siderite 3" min

Note: Cross-Section Profiles Are Not To Scale

N

A-2 Abbreviated Sample Location ID (OL-RAA-CAP-0002)

Chemical/Physical Monitoring Core Location

Peeper Only Sample Location

Peeper Sample Location, with Chemical/Physical Monitoring Core

Peeper Sample Location, with Physical Monitoring Core

Planted Area Protective Edge (See FCF 27 for details)

Pre-Remediation Shoreline (Elev. 362.5)

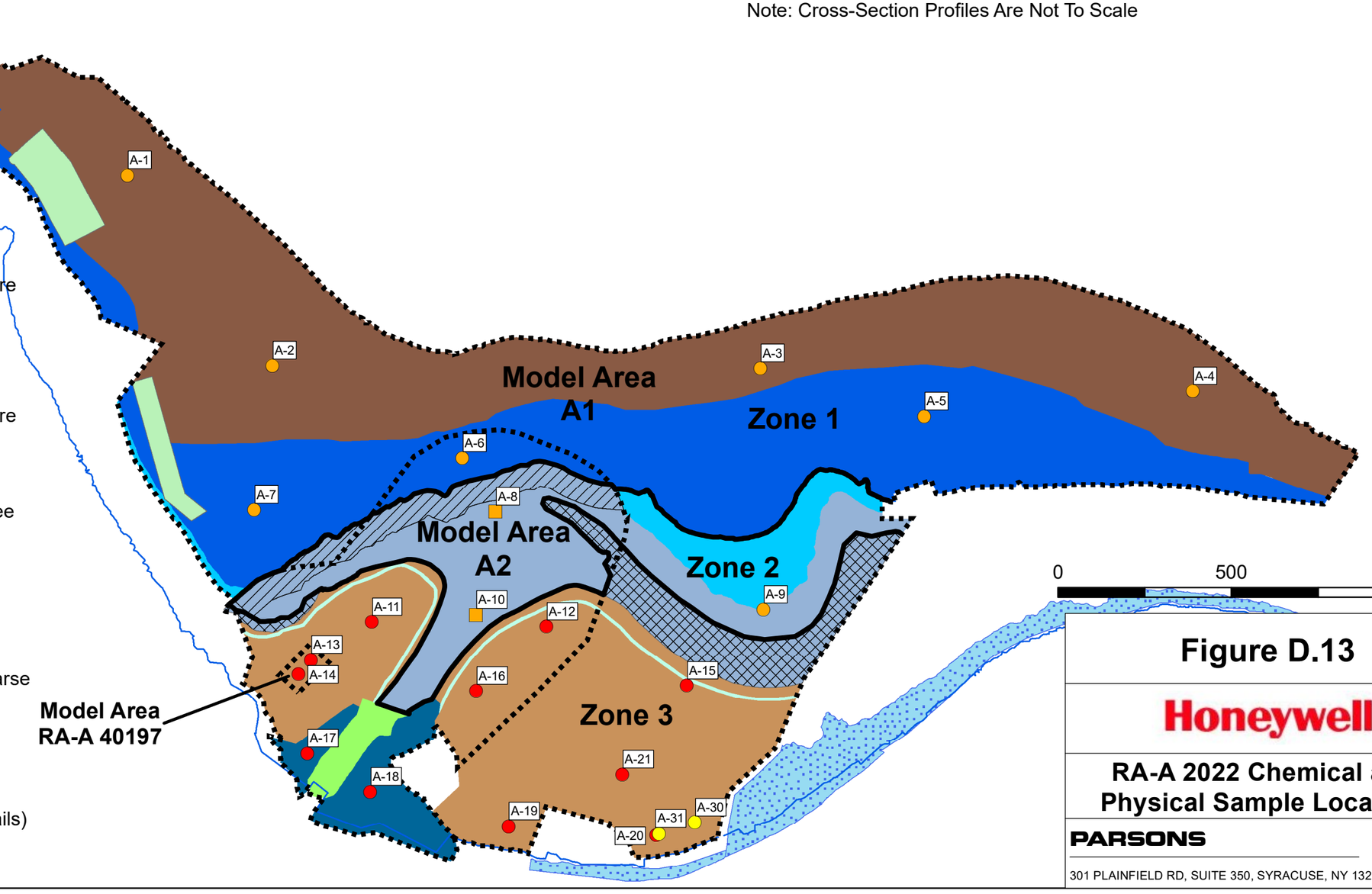
Cap Model Area

Habitat/EP Layer changed to Coarse Gravel (See FCF 36 for details)

Sand Buttress (See FCF 19 for details)

Habitat/EP Layer changed to 12" Fine Gravel (See FCF 40 for details)

Shoreline Stabilization



0 500 1,000 Feet

Figure D.13

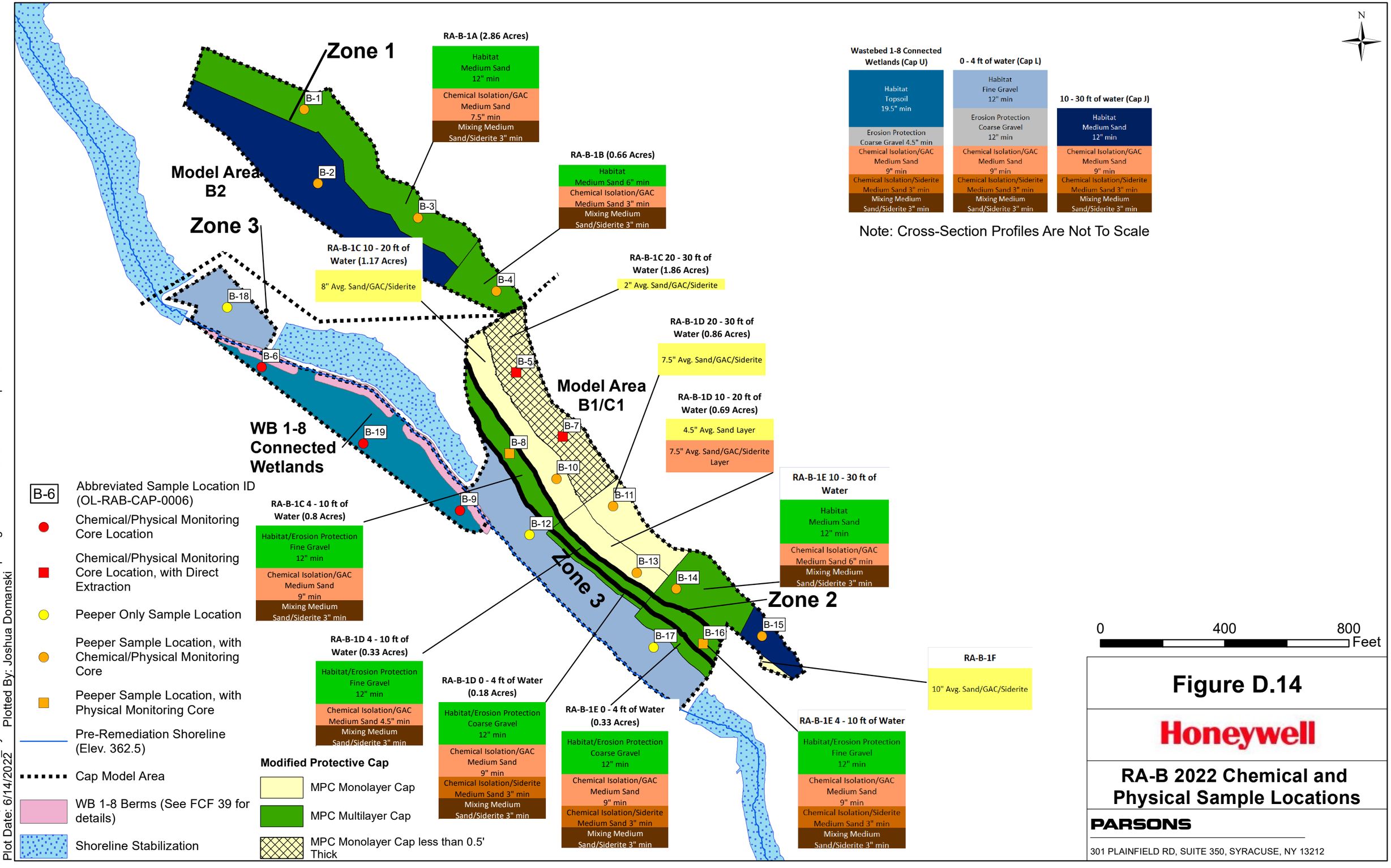
Honeywell

RA-A 2022 Chemical and Physical Sample Locations

PARSONS

301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: Q:\GIS\Hon_Syracuse\OLMMS\MXDs\2022 Scope\Figure D.13 - 2022 RAA Sample Locations.mxd
Plot Date: 4/20/2022 Plotted By: Joshua Domanski



Note: Cross-Section Profiles Are Not To Scale

Figure D.14

Honeywell

RA-B 2022 Chemical and Physical Sample Locations

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: Q:\GIS\Hon_Syracuse\OLMMS\MXDs\2022 Scope\Figure D.14 - 2022 RAB Sample Locations.mxd
Plot Date: 6/14/2022 Plotted By: Joshua Domanski

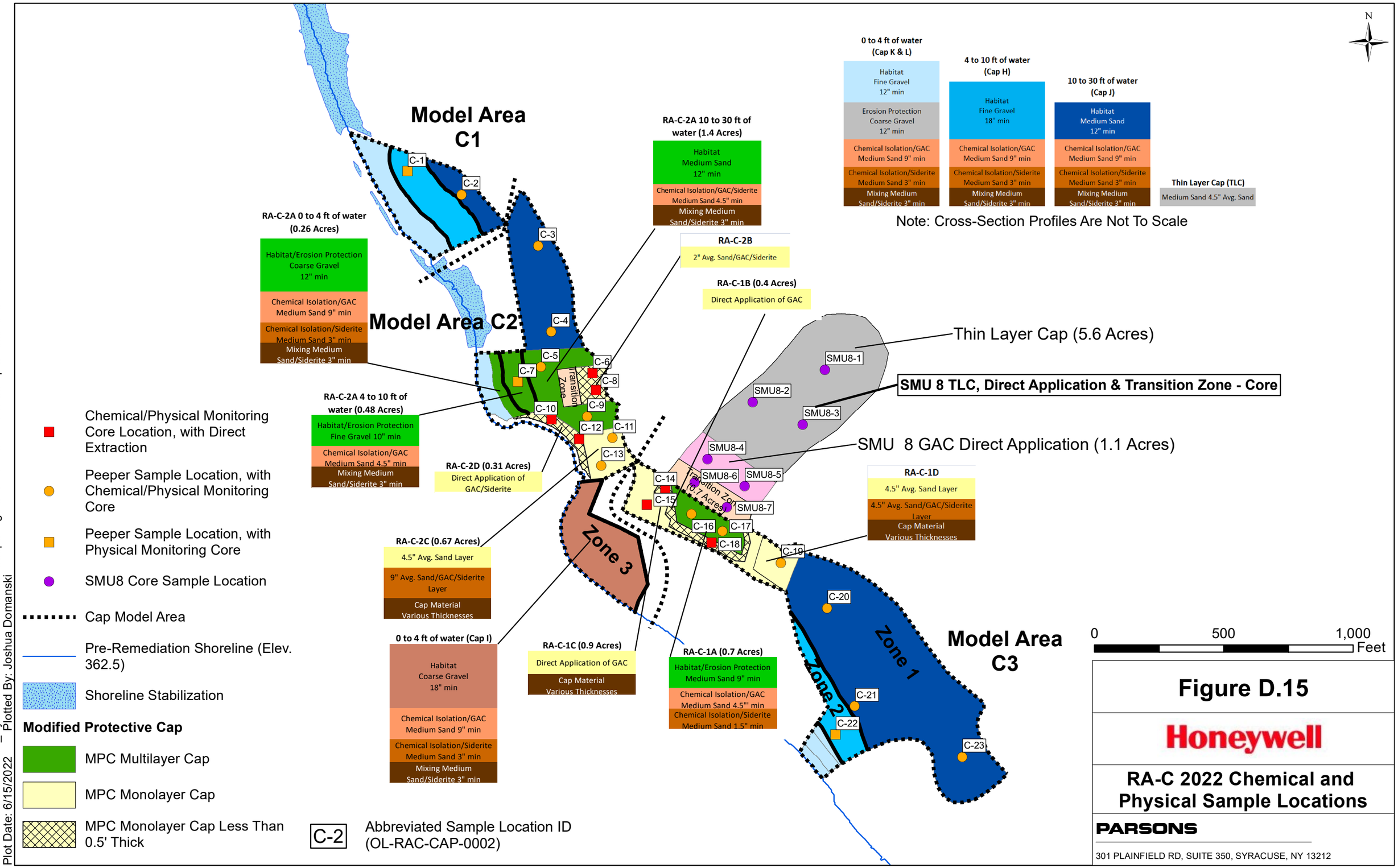


Figure D.15

Honeywell

RA-C 2022 Chemical and Physical Sample Locations

PARSONS

301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: Q:\GIS\Hon_Syracuse\OLMMSMXDs\2022 Scope\Figure D.15 - 2022 RAC Sample Locations.mxd
Plot Date: 6/15/2022 Plotted By: Joshua Domanski

N

Outboard West & Center (Cap U)
Habitat Topsoil 19.5" min
Erosion Protection Coarse Gravel 4.5" min
Chemical Isolation/GAC Medium Sand 9" min
Chemical Isolation/Siderite Medium Sand 3" min
Mixing Medium Sand/Siderite 3" min

Outboard East (Cap T)
Habitat Topsoil 19.5" min
Erosion Protection Coarse Gravel 4.5" min
Chemical Isolation/GAC Medium Sand 12" min
Mixing Medium Sand/GAC 3" min

0 to 4 ft of water (Cap F & G)
Habitat Medium Sand 12" min
Erosion Protection/Habitat Coarse Gravel 12" min
Chemical Isolation/GAC Medium Sand 9" min
Chemical Isolation/Siderite Medium Sand 3" min
Mixing Medium Sand/Siderite 3" min

4 to 7 ft of water (Cap H)
Habitat Fine Gravel 18" min
Chemical Isolation/GAC Medium Sand 9" min
Chemical Isolation/Siderite Medium Sand 3" min
Mixing Medium Sand/Siderite 3" min

7 to 10 ft of water (Cap M)
Habitat Fine Gravel 12" min
Chemical Isolation/GAC Medium Sand 9" min
Chemical Isolation/Siderite Medium Sand 3" min
Mixing Medium Sand/Siderite 3" min

10 to 30 ft of water (Cap J)
Habitat Medium Sand 12" min
Chemical Isolation/GAC Medium Sand 9" min
Chemical Isolation/Siderite Medium Sand 3" min
Mixing Medium Sand/Siderite 3" min

Thin Layer Cap (TLC)
Medium Sand 2" min

Amended TLC
Sand/GAC Layer 4.5" Avg.

Note: Cross-Section Profiles Are Not To Scale

RA-D-2 (2.4 Acres)
Habitat Medium Sand 10.5" min
Chemical Isolation/GAC Medium Sand 4.5" min
Chemical Isolation/Siderite Medium Sand 3" min
Mixing Medium Sand/Siderite 3" min

RA-D-1B (1.17 Acres)
4.5" Avg. Sand/GAC/Siderite

RA-D-1A
Habitat Medium Sand 12" min
Chemical Isolation/GAC Medium Sand 6" min
Mixing Medium Sand/Siderite 3" min

Model Area D-SMU-2

1 Extra Foot of Sand Placed Over Former Water Inlet Pipe Valve Structure

Amended TLC Area B (9.3 Acres)
Amended TLC Area A (7.5 Acres)

RA-D-1A

Addendum East

SMU 8 TLC & Amended TLC - Core

SMU8-8, SMU8-9, SMU8-10, SMU8-11, SMU8-12, SMU8-13, SMU8-14, SMU8-15, SMU8-16, SMU8-17, SMU8-18, SMU8-19, SMU8-20

D-1, D-2, D-3, D-4, D-5, D-6, D-7, D-8, D-9, D-10, D-11, D-12, D-13, D-14, D-15, D-16, D-17, D-18, D-19, D-20, D-21, D-22, D-23, D-24, D-25, D-26, D-27, D-28, D-29, D-30, D-31, D-32, D-33, D-34, D-35, D-36, D-37, D-38, D-39, D-40, D-41, D-42, D-43, D-44, D-45, D-46

Model Area D-West
Model Area D-Center
Model Area D-East
Zone 1
Zone 2
Zone 3
Model Area OL-VC-10138/40
Model Area Outboard West
Model Area Outboard Center
Model Area Outboard East

D-2 Abbreviated Sample Location ID (OL-RAD-CAP-0002)

- Chemical/Physical Monitoring Core Location
- Chemical/Physical Monitoring Core Location, with Direct Extraction
- Peeper Sample Location, with Chemical/Physical Monitoring Core
- Peeper Sample Location, with Physical Monitoring Core
- Peeper Sample Location, with Sample Port Core Sample
- SMU8 Core Sample Location
- Cobble Armoring w/Topsoil on 5H:1V Slope Adjacent to Barrier Wall (See FCF 62 for details)
- West Naturalized Shoreline (See FCF 57 for details)
- East Naturalized Shoreline (See FCF 58 for details)
- Berms (See FCF 62 for details)
- 25 ft Zone of Topsoil Habitat
- Plateau Armored Edge (See FCF 62 for details)
- Marine Mattress and Adjacent Sand Buttress (See FCF 63 for details)
- Harbor Brook Channel
- Pre-Remediation Shoreline (Elev. 362.5)
- Cap Model Area

Modified Protective Cap

- MPC Monolayer Cap Less Than 0.5' Thick
- MPC Multilayer Cap

0 500 1,000 Feet

Figure D.16

Honeywell

RA-D 2022 Chemical and Physical Sample Locations

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: Q:\GIS\Hon_Syracuse\OLMMS\MXDs\2022 Scope\Figure D.16 - 2022 RAD Sample Locations.mxd
Plotted By: Joshua Domanski
Plot Date: 6/15/2022

Cap Model Area E1

0 to 3 ft of Water (Cap N)
- Habitat: Coarse Gravel 12" min
- Erosion Protection: Gravelly Cobble 12" min
- Chemical Isolation: Gravelly Sand 12" min
- Mixing: Gravelly Sand 3"

2 to 7 ft of Water (Cap O)
- Erosion Protection/Habitat: Gravelly Cobble 18" min
- Chemical Isolation: Gravelly Sand 12" min
- Mixing: Gravelly Sand 3"

7 to 10 ft of Water (Cap P)
- Erosion Protection/Habitat: Coarse Gravel 12" min
- Chemical Isolation: Medium Sand 12" min
- Mixing: Medium Sand 3"

10 to 20 ft of Water (Cap C)
- Erosion Protection/Habitat: Fine Gravel 12" min
- Chemical Isolation: Medium Sand 12" min
- Mixing: Medium Sand 3"

20 to 30 ft of water (Cap E)
- Habitat: Medium Sand 12" min
- Chemical Isolation: Medium Sand 6" min
- Mixing: Medium Sand 3"

CRs & Nav Channel (Cap Q)
- Erosion Protection/Habitat: Gravelly Cobble 12" min
- Chemical Isolation: Gravelly Sand 12" min
- Mixing: Gravelly Sand 3"

MERC
- Gravelly Sand/GAC 6" Avg.

Thin Layer Cap (TLC)
- Medium Sand 2" min

SMU 8 TLC

Cap Model Areas E2 & E3

0 to 3 ft of Water (Cap NN)
- Habitat: Coarse Gravel 12" min
- Erosion Protection: Gravelly Cobble 12" min
- Chemical Isolation/GAC: Gravelly Sand 12" min
- Mixing: Gravelly Sand/GAC 3"

3 to 7 ft of Water (Cap OO)
- Erosion Protection/Habitat: Gravelly Cobble 18" min
- Chemical Isolation/GAC: Gravelly Sand 12" min
- Mixing: Gravelly Sand/GAC 3"

7 to 10 ft of Water (Cap PP)
- Erosion Protection/Habitat: Coarse Gravel 12" min
- Chemical Isolation/GAC: Medium Sand 12" min
- Mixing: Medium Sand/GAC 3"

10 to 20 ft of Water (Cap CC)
- Erosion Protection/Habitat: Fine Gravel 12" min
- Chemical Isolation/GAC: Medium Sand 12" min
- Mixing: Medium Sand/GAC 3"

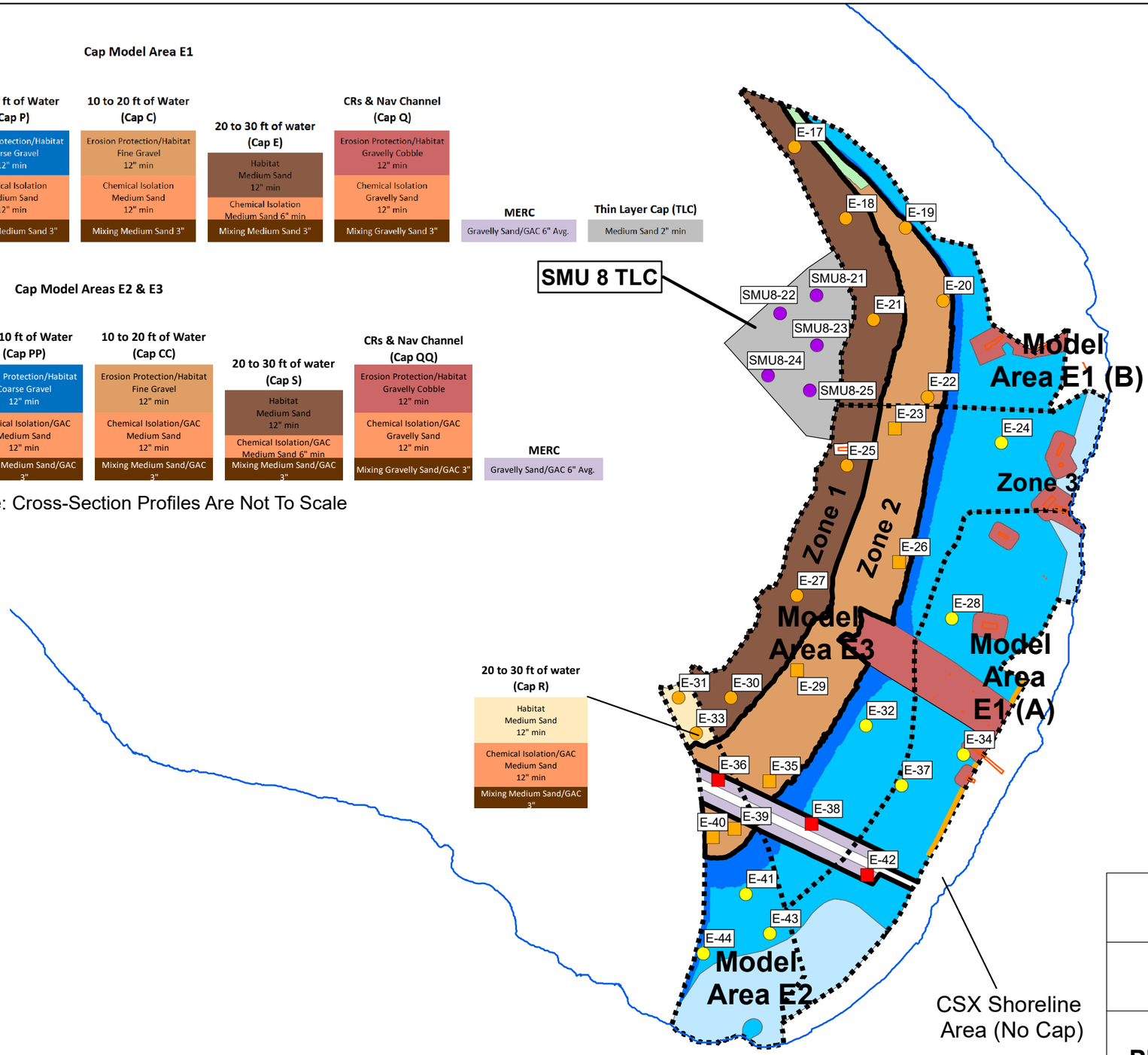
20 to 30 ft of water (Cap S)
- Habitat: Medium Sand 12" min
- Chemical Isolation/GAC: Medium Sand 6" min
- Mixing: Medium Sand/GAC 3"

CRs & Nav Channel (Cap QQ)
- Erosion Protection/Habitat: Gravelly Cobble 12" min
- Chemical Isolation/GAC: Gravelly Sand 12" min
- Mixing: Gravelly Sand/GAC 3"

MERC
- Gravelly Sand/GAC 6" Avg.

20 to 30 ft of water (Cap R)
- Habitat: Medium Sand 12" min
- Chemical Isolation/GAC: Medium Sand 12" min
- Mixing: Medium Sand/GAC 3"

Note: Cross-Section Profiles Are Not To Scale



- Chemical/Physical Monitoring Core, with Direct Extraction
- Peeper Only Sample Location
- Peeper Sample Location, with Chemical/Physical Monitoring Core
- Peeper Sample Location, with Physical Monitoring Core
- SMU8 Core Sample Location
- Cultural Resources
- Wave Dampers
- Pre-Remediation Shoreline (Elev. 362.5)
- Cap Model Area
- Berms (See FCF 62 for details)
- Sand Buttress (See FCF 48 for details)

0 1,000 2,000 Feet

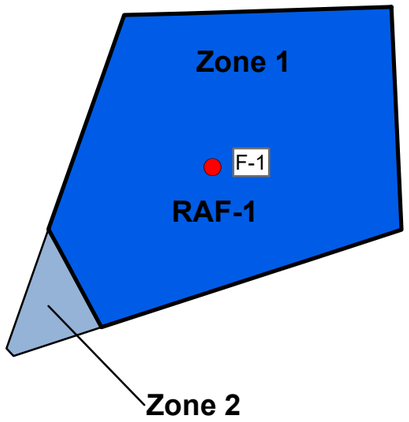
File Name: Q:\GIS\Hon_Syracuse\OLMMS\MXDs\2022 Scope\Figure D.17 - 2022 RAE Sample Locations.mxd
Plot Date: 6/23/2022 Plotted By: Joshua Domanski

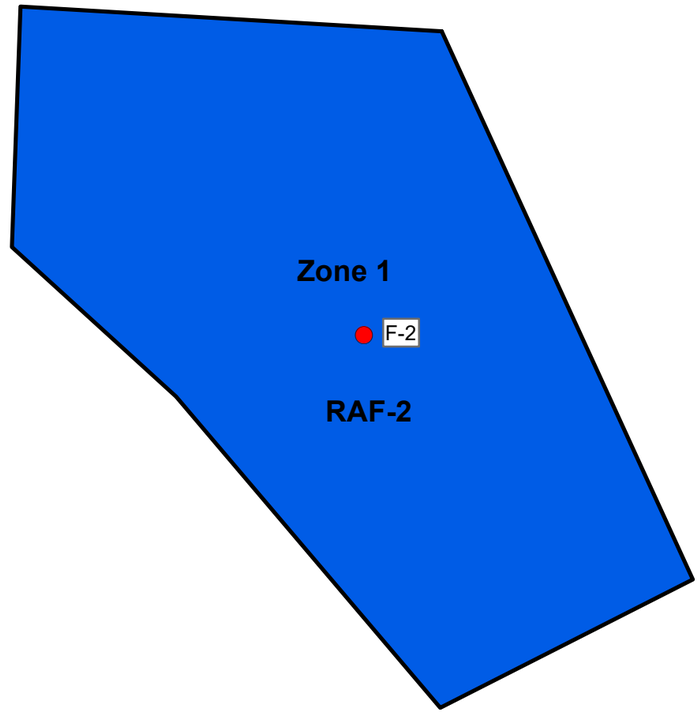
Figure D.17

Honeywell

RA-E 2022 Chemical and Physical Sampling Locations

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

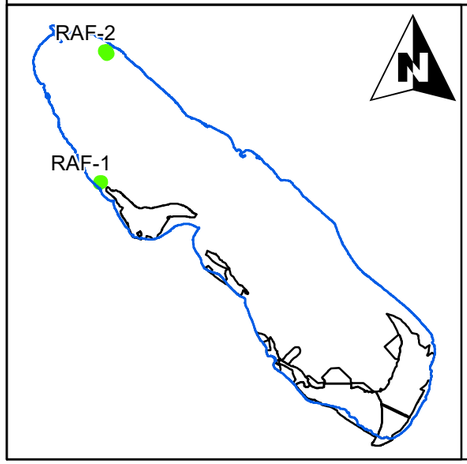


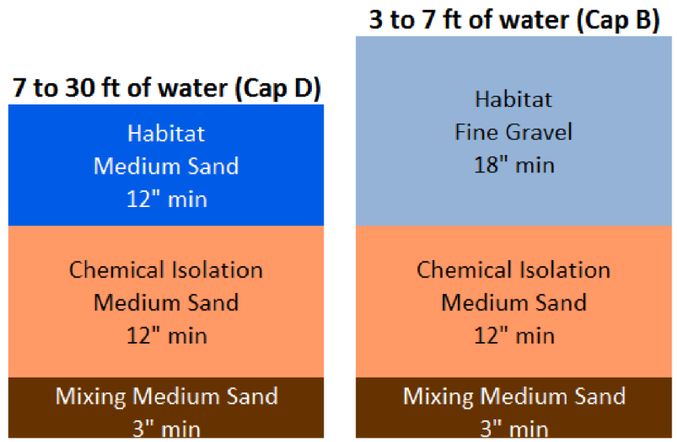


Legend

F-2 Abbreviated Sampled Location ID (OL-RAF-CAP-0002)

Chemical/Physical Monitoring Core Location





Note: Cross-Section Profiles Are Not To Scale

0 50 100 Feet

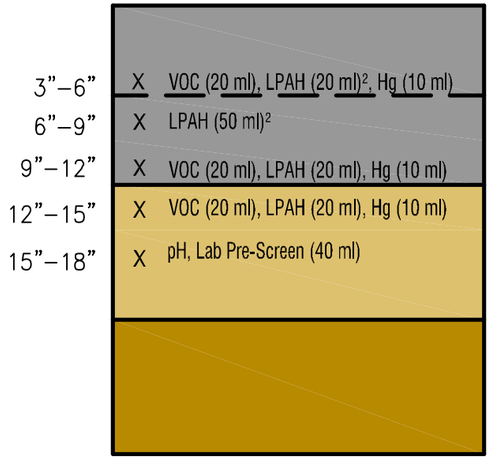
Figure D.18

Honeywell

RA-F 2022 Chemical and Physical Sampling Locations

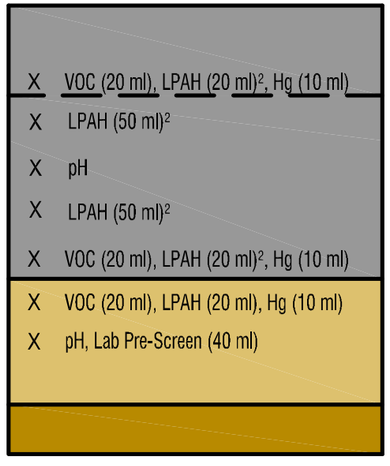
PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

OL–RAB–CAP–0008
OL–RAB–CAP–0012
OL–RAB–CAP–0016
OL–RAB–CAP–0017
OL–RAB–CAP–0018
OL–RAD–CAP–0017
OL–RAD–CAP–0018
OL–RAD–CAP–0024
OL–RAD–CAP–0026
OL–RAD–CAP–0036
OL–RAE–CAP–0019[1]
OL–RAE–CAP–0020[1]
OL–RAE–CAP–0022[1]
OL–RAE–CAP–0023[3]
OL–RAE–CAP–0026[3]
OL–RAE–CAP–0029[3]
OL–RAE–CAP–0035[3]
OL–RAE–CAP–0039[3]
OL–RAE–CAP–0040[3]



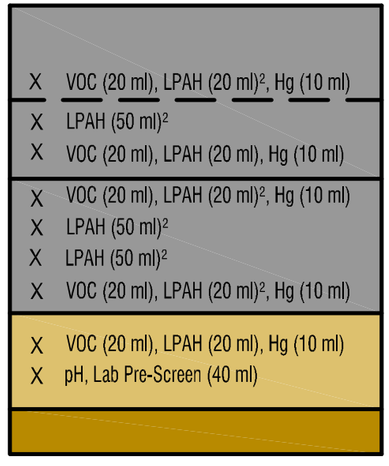
Multi–Layer Amended Cl

OL–RAA–CAP–0008
OL–RAA–CAP–0009[1]
OL–RAA–CAP–0010
OL–RAC–CAP–0001
OL–RAC–CAP–0022
OL–RAD–CAP–0022
OL–RAD–CAP–0023
OL–RAD–CAP–0029
OL–RAD–CAP–0034
OL–RAE–CAP–0024[3]
OL–RAE–CAP–0028[3]
OL–RAE–CAP–0032[3]
OL–RAE–CAP–0034[3]
OL–RAE–CAP–0037[3]
OL–RAE–CAP–0041[3]
OL–RAE–CAP–0043[3]
OL–RAE–CAP–0044[3]



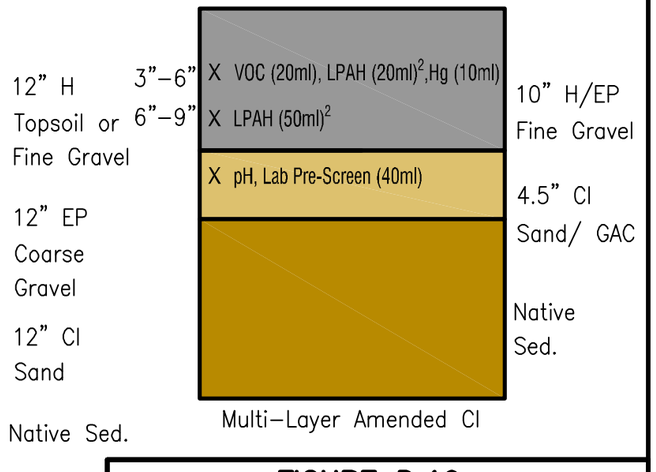
Multi–Layer Amended Cl

OL–RAA–CAP–0030
OL–RAA–CAP–0031



Multi–Layer Unamended Cl

OL–RAC–CAP–0007



Multi–Layer Amended Cl

X – Porewater Sample Interval–3 inches

NOTE:
MEMBRANES WILL BE PLACED ON AT LEAST ONE INTERVAL BELOW THE LOWEST INTERVALS SHOWN. THESE INTERVALS COULD BE SAMPLED, SUBJECT TO NYSDEC APPROVAL, IN THE EVENT OF DAMAGE TO MEMBRANES IN THE INTERVALS DESIGNATED FOR SAMPLING AND/OR OTHER REASONS.

1. Unamended Cl layer, therefore solid phase samples will also be collected from the Cl layer, pH analysis not required. Porewater analysis from Cl samples will be for benzene, toluene, and phenol only.
2. Combine at the lab following VOC analysis for a total LPAH sample volume of 70 ml.
3. Amended cap not containing siderite, pH analysis not required.

FIGURE D.19a

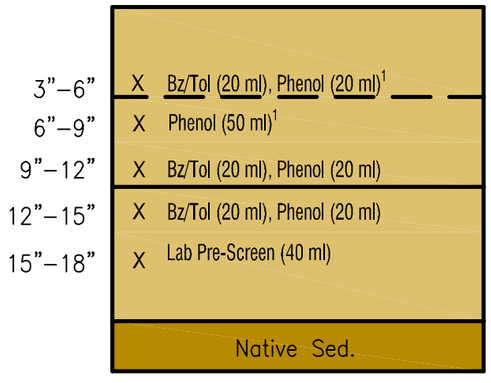
Honeywell — ONONDAGA LAKE SYRACUSE, NY

ZONE 2 AND ZONE 3 PEEPER POREWATER SAMPLING SCHEMATICS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315–451–9560

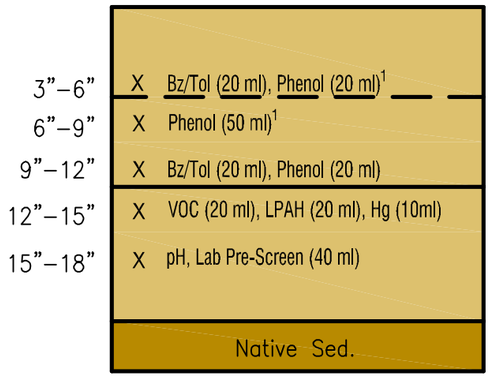
FILE NAME: \\NYSYR04FS01\PROJECTS\HONEYWELL –SYR\446232 – CAP DESIGN\10 TECHNICAL CATEGORIES\10.1 CAD\FINAL TO DEC\446232–FIGURE D.19A_REV1.DWG
PLOT DATE: 6/17/2022 6:57 AM PLOTTED BY: DOMANSKI, JOSHUA [US–US]

OL–RAA–CAP–0001
OL–RAA–CAP–0002
OL–RAA–CAP–0003
OL–RAA–CAP–0004
OL–RAA–CAP–0005
OL–RAA–CAP–0007
OL–RAE–CAP–0017
OL–RAE–CAP–0018
OL–RAE–CAP–0021



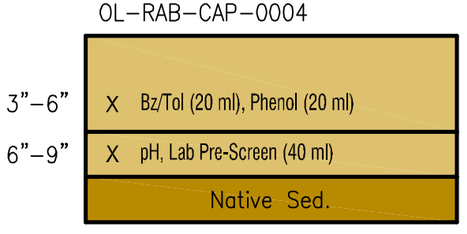
Multi–Layer Unamended Cl

OL–RAA–CAP–0006
OL–RAB–CAP–0001
OL–RAB–CAP–0002
OL–RAB–CAP–0003
OL–RAB–CAP–0014
OL–RAB–CAP–0015
OL–RAC–CAP–0002
OL–RAC–CAP–0003
OL–RAC–CAP–0004
OL–RAC–CAP–0020
OL–RAC–CAP–0021
OL–RAC–CAP–0023
OL–RAD–CAP–0001
OL–RAD–CAP–0002
OL–RAD–CAP–0003
OL–RAD–CAP–0004
OL–RAD–CAP–0006
OL–RAD–CAP–0007
OL–RAD–CAP–0009
OL–RAD–CAP–0010
OL–RAD–CAP–0012
OL–RAD–CAP–0013
OL–RAD–CAP–0014
OL–RAD–CAP–0015
OL–RAD–CAP–0016
OL–RAD–CAP–0020
OL–RAD–CAP–0021
OL–RAD–CAP–0025
OL–RAD–CAP–0028
OL–RAD–CAP–0031
OL–RAD–CAP–0032
OL–RAD–CAP–0033
OL–RAD–CAP–0038
OL–RAD–CAP–0040
OL–RAE–CAP–0025[2]
OL–RAE–CAP–0027[2]
OL–RAE–CAP–0030[2]
OL–RAE–CAP–0031[2]
OL–RAE–CAP–0033[2]



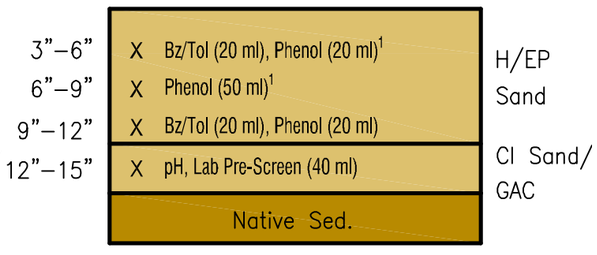
Multi–Layer Amended Cl

OL–RAB–CAP–0004



Multi–Layer Amended Cl

OL–RAC–CAP–0005
OL–RAC–CAP–0009



Multi–Layer Amended Cl

Bz/Tol – Benzene/Toluene

X – Porewater Sample Interval–3 inches

NOTE:
MEMBRANES WILL BE PLACED ON AT LEAST ONE INTERVAL BELOW THE LOWEST INTERVALS SHOWN. THESE INTERVALS COULD BE SAMPLED, SUBJECT TO NYSDEC APPROVAL, IN THE EVENT OF DAMAGE TO MEMBRANES IN THE INTERVALS DESIGNATED FOR SAMPLING AND/OR OTHER REASONS.

1. Combine at the lab following benzene and toluene analysis for a total phenol sample volume of 70 ml.
2. Amended cap not containing siderite, pH analysis not required.

FIGURE D.19b

Honeywell — ONONDAGA LAKE SYRACUSE, NY

ZONE 1
PEEPER POREWATER SAMPLING SCHEMATICS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315–451–9560

FILE NAME: \\NYSYR04FS01\PROJECTS\HONEYWELL –SYR\446232 – CAP DESIGN\10 TECHNICAL CATEGORIES\10.1 CAD\FINAL TO DEC\446232–FIGURE D.19B&C.DWG
PLOT DATE: 6/16/2022 7:38 AM PLOTTED BY: DOMANSKI, JOSHUA [US–US]

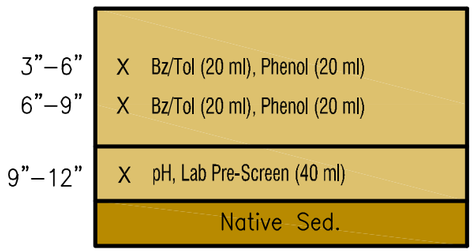
Bz/Tol – Benzene/Toluene

X – Porewater Sample Interval–3 inches

NOTE:

MEMBRANES WILL BE PLACED ON AT LEAST ONE INTERVAL BELOW THE LOWEST INTERVALS SHOWN. THESE INTERVALS COULD BE SAMPLED, SUBJECT TO NYSDEC APPROVAL, IN THE EVENT OF DAMAGE TO MEMBRANES IN THE INTERVALS DESIGNATED FOR SAMPLING AND/OR OTHER REASONS.

OL–RAC–CAP–0016
OL–RAC–CAP–0017
OL–RAD–CAP–0008
OL–RAD–CAP–0019

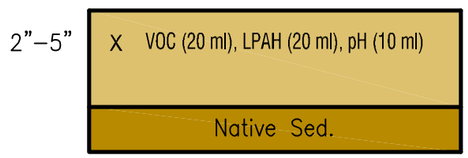


H/EP Sand

Cl Sand/ GAC

Multi–Layer Amended Cl

OL–RAB–CAP–0010[1]
OL–RAB–CAP–0011[1]
OL–RAB–CAP–0013[1]
OL–RAC–CAP–0011[1]
OL–RAC–CAP–0013[1]
OL–RAC–CAP–0019[1]



Sand/ GAC

Mono Layer

1. At these locations, sediment cores will be collected and shared with NYSDEC prior to peeper installation to evaluate whether revisions to the peeper sampling strategy may be appropriate.

FIGURE D.19c

Honeywell ONONDAGA LAKE SYRACUSE, NY

ZONE 1
PEEPER POREWATER SAMPLING SCHEMATICS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315–451–9560

FILE NAME: \\NYSYR04FS01\PROJECTS\HONEYWELL –SYR\446232 – CAP DESIGN\10 TECHNICAL CATEGORIES\10.1 CAD\FINAL TO DEC\446232–FIGURE D.19B&C.DWG
PLOT DATE: 6/23/2022 1:09 PM PLOTTED BY: DOMANSKI, JOSHUA [US–US]

ATTACHMENT 1

DIRECT EXTRACTION POREWATER FILTER TESTING
ONONDAGA LAKE CAP MONITORING
JULY 2022

1.0 Introduction

Phenol concentrations in peeper porewater samples collected during 2019 Onondaga Lake Cap Monitoring were frequently lower than phenol concentrations in direct extraction porewater samples collected during the same monitoring event. This difference in phenol concentrations is potentially due to fine (i.e., small enough to pass through a 0.45-micron filter) particulate matter with sorbed phenol being present in the porewater sample after filtering. During direct extraction sampling, the sample medium was observed to be highly turbid prior to filtering and remained slightly cloudy and discolored after filtering.

Phenol is unique among the analyzed compounds in that it is charged and polar, and therefore significantly more likely to sorb to fine mineral (e.g., clay) surfaces. Direct extraction involves sampling of turbid, sediment-laden water, and it is likely that some fine particles are small enough to pass through the 0.45-micron filter. These fine sediment particles likely contribute to the phenol concentrations from direct extraction samples being elevated compared to concentrations predicted during cap modeling performed during the remedial design, though still lower than the 250 ug/L cap criterion. Elevated concentrations compared to modeled cap performance in turbid samples are because the analytical results represent not only the porewater concentrations, but also the mass of chemicals sorbed to the fine sediment particles. For this reason, phenol results from direct extraction sampling are believed to be biased high. As a result, the preferred method for future porewater sampling is to use peepers, except in areas with mono-layer caps with a design average thickness of less than 7.5 inches, which will continue to be sampled via direct extraction. Peeper sampling avoids inclusion of suspended sediment in the porewater sample because sampling of chemical constituents involves chemical diffusion across a membrane rather than sampling of sediment-laden water.

Volatile organic compound (VOC) concentrations in porewater samples collected from peepers were also sometimes lower than concentrations in porewater samples collected using the direct extraction method. Samples collected for VOC analysis are not filtered to prevent potential loss of VOCs associated with the filtering process. Similar to the concerns above related to the effect of sediment load on phenol concentration, VOC results from unfiltered samples are likely biased high due to the presence of VOCs sorbed to suspended particulates. The magnitude of potential VOC loss due to the field filtering process is not known and will also be explored during this experiment.

To further evaluate the impacts of filtering and particulate matter on phenol and VOC porewater analytical results, Parsons proposes analysis of samples collected via direct extraction that are:

- Case 1: unfiltered, analyze for VOCs and Phenol
- Case 2: filtered through a 0.45-micron filter, analyze for VOCs and Phenol
  - Case 2a: analyze for VOCs only, filtered twice through a 0.45-micron filter
- Case 3: filtered through a 0.1-micron filter, analyze for VOCs and Phenol
  - Case 3a: analyze for VOCs only filtered twice through a 0.1-micron filter

Sample water will be collected from multiple co-located cores, composited, sampled for each case and sent to the analytical laboratory for analysis. Analytical results for phenol will be compared between Cases 1, 2 and 3 to evaluate whether there is a systematic decrease in constituent concentrations with decreasing filter size, indicating that the suspended solids present in less filtered/unfiltered samples correspond to higher constituent concentrations. If filtering with the 0.1-micron filter results in significantly lower phenol concentrations, this filter size may replace the 0.45-micron filter in future phenol field sampling at direct extraction locations. VOC concentrations from the once-filtered and twice-filtered samples will be compared in Cases 2 and 2a and Cases 3 and 3a to evaluate potential VOC losses during filtration via volatilization vs removal of suspended solids. If losses due to volatilization are negligible, filtering prior to VOC analysis may be considered in future field sampling events at direct extraction locations.

Laboratory samples will also be analyzed for particle size distribution (PSD) to determine the range of particles sizes present in unfiltered and filtered samples. Particle sizes are expected to be smaller than the size of field filter used for each sample. The presence of particles larger than the filter size would indicate that some larger particles are pushing through the filter during sampling. The turbidity of each sample will be measured in the field during sample collection.

2.0 Location Selection and Coring

Five sample locations have been selected for filter testing: A-1, A4, D-4, D-21, and D-31. Peeper porewater samples will also be collected from these locations. Phenol and VOC concentrations in these peeper porewater samples will be compared to the concentrations from the various direct extraction cases. However, it will not be possible to determine if differences noted between peeper and direct extraction methods at individual locations are due to method differences or the fact that there may be spatial variability in concentrations between where the peeper samples are located and where the direct extraction samples are located.

Sample locations were selected based on consideration of constituent concentrations during the 2019 sampling event, cap material and cap thickness. The selected sample locations had the five highest phenol concentrations from direct extraction sampling in full-thickness caps in 2019. D-21 and D-4 also had the two highest VOC concentrations from direct extraction sampling in full-thickness caps in 2019. Proposed sample locations were selected in cap areas composed of sand of sufficient thickness, as dictated by the remedial design and confirmed by previous coring observations. Locations require sufficient sand thickness to ensure that sufficient porewater can be collected with a reasonable number of cores. In addition, the auguring and push-point components of direct extraction sampling can only be performed in sandy material.

Cores will be collected using vibracore methods consistent with previous monitoring events. It is anticipated that six cores will be required from each proposed sample location to provide sufficient sample volume. Prior to sampling, cores will be examined through the Lexan core liner to observe that there is at least one foot of cap material (i.e., sand) present. If less than 1 foot of sand is present, then the core will not be used for testing, and additional cores may be required from that sample location.

3.0 Sampling Procedure

Direct extraction sampling will follow the method described in Section 4.3 of Standard Operating Procedure (SOP) S-7: Porewater Sampling Program, which is included in Attachment 2 of the Quality Assurance Project Plan for Onondaga Lake Long-Term Cap Monitoring Revision 1 (Parsons, September 2019), up until the description of filling bottleware. The bottle filling procedure for this test procedure has been modified to allow for compositing of porewater from several cores and depth intervals to provide a single composite sample from the chemical

isolation layer from each location. This single composite sample will be used as the sampling medium for all three cases. Bottle filling procedures have also been modified to describe the process of filtering samples with two different filter sizes. The procedure for filling sample bottles and performing turbidity testing is described below. The depth from which the porewater will be collected using the Henry sampler for this effort will be the upper portion of the isolation layer (12" to 15"), consistent with the following subsection of Section 4.3 of SOP S7 in the revised 2019 Cap Monitoring QAPP: "Porewater Samples from GAC-Amended Chemical Isolation Layer in Multi-Layer Caps with Sand Habitat/Erosion Protection Layer."

1. Once the syringe is full of porewater extracted from a core and the first 10 mL have been discarded, the 3-way valve in the sampling assembly will be opened and porewater will be discharged into a clean 1 L Tedlar® bag or 1 L amber glass bottle. Initially, the Tedlar® bag will be used to minimize exposure to air to decrease volatilization of VOCs. However, if it is difficult to limit exposure to air using the Tedlar® bag, a 1 L amber glass bottle will be used instead. If the 1 L amber glass bottle is used, it will be fitted with the laboratory provided cap, modified to include a hose barb (threaded on both sides) attached through the center of the cap. Tubing will be attached to the end of the hose barb inside the bottle and will extend down to approximately ½-inch off the bottom of the bottle. Tubing will be attached to the hose barb end outside of the bottle and extend back to the 3-way valve and sampling setup.

   Porewater will be extracted from the core until the water level in the core liner above the cap drops down to the top of the cap surface. At this time, the core will be discarded, and the process will be repeated on additional cores. Once the Tedlar® bag or 1 L container contains approximately 660 mL (6 cores), porewater extraction is complete and the bottle of composited porewater can be sampled.

2. To sample a composited porewater sample, the syringe plunger will be used to draw porewater into the assembly from the Tedlar® bag or 1 L container. Once water reaches the 3-way valve, the inlet will be closed, and the discharge valve will be opened. The plunger will be depressed to evacuate air from the syringe. The inlet will then be reopened, the discharge will be closed, and the syringe will be filled. Once the syringe is filled, the inlet will be closed, the outlet will be opened, and water will be discharged into a VOC sample container (40 mL VOA vial), very slowly depressing the plunger so as not to aerate the sample. Once the VOC bottle is filled, the process will be repeated to fill the Phenol sample bottle (70 ml in 100 mL amber glass bottle, resulting in a minimum detection limit (MDL) of 1.14 ug/L), the PSD sample bottle, and the Hach Turbidimeter sample vial. These bottles constitute the unfiltered sample (Case 1).

   The turbidity sample will be placed in the turbidimeter and measured, and the measurement will be recorded in the field book. After the turbidity measurement is taken, the sample will be dumped from the turbidity sample vial into the wastewater container and the vial will be thoroughly rinsed with clean DI water for reuse.

3. Once unfiltered sample bottles are filled and the turbidity has been measured, a 0.45-micron in-line filter will be attached to the end of the outlet tubing. Using the process described above, water will be extracted from the Tedlar® bag or 1 L container and discharged from the syringe, slowly pushing it through the filter. The first 10 mL of filtered water will be discarded, then the VOC bottle will be filled. Care will be taken not to aerate the sample while filling the VOC bottle.

   After the initial VOC bottle is filled, a second sample for VOC analysis will be collected and run through the filter twice to determine if the filtration process impacts VOC concentrations by causing volatilization (Case 2a). To do this, approximately 50 mL of water will be drawn from the Tedlar® bag or 1 L container and run through the 0.45-micron filter, as described above. Instead of being deposited into the VOC sample vial, it will be deposited into a clean, 100 ml amber glass bottle. The inlet tubing from the Tedlar® bag or 1 L container will be disconnected from the three-way valve and clean tubing will be

connected to the inlet of the three-way valve from the 100 ml amber glass bottle. The once-filtered water from the 100 ml glass bottle will be collected into the syringe and pushed out through the filter a second time, again discarding the first 10 mL of sample water. The remaining water will be collected into a 40 ml VOA vial and will constitute a double-filtered VOC sample.

After collection of both VOC samples, the inlet tubing from the 100 ml bottle will be removed and tubing from the Tedlar bag or 1 L sample container will be replaced on the inlet of the three-way valve, and the same procedure for collecting the once-filtered VOC sample will be followed for collection of the Phenol, PSD, and turbidity samples. These samples constitute the 0.45 micron filtered sample (Case 2).

4. The above process (including sampling of for Phenol, VOCs, PSD, and turbidity and double filtration of one of the VOC samples (constituting Case 3a)will be repeated for the 0.1-micron filter, replacing the 0.45-micron filter connected to the outlet tubing with a 0.1-micron filter. This will constitute the 0.1-micron filtered sample (Case 3).

   If difficulty is encountered passing the water through the 0.1-micron filter, it will be passed through the 0.45-micron filter prior to passing it through the 0.1-micron filter. If filtering through the 0.1 micron proves to be successful during this field effort, the SOP for all direct extraction Phenol sampling may be revised to incorporate use of a 0.1-micron filter. Similarly, If filtering proves to be successful during this field effort for VOC analysis and it is concluded that VOC losses due to filtering would be minimal, the SOP for all direct extraction VOC sampling may be revised to incorporate use of a 0.45-micron or 0.1-micron filter.

5. Sample ID procedures will be consistent with those identified in the QAPP (## - #### - ## denoting Site ID – COC # - COC sample #). Location ID procedures will be amended to distinguish between cases by adding the case number to the end of the Short ID in the field database. For example, a sample from OL-RAA-CAP-0001 sampled and analyzed under Case 1 will be given the Short ID "A-1 Case 1."

6. Sample bottles will be handled and shipped to the analytical laboratory, in accordance with the procedures described in SOP H-1: Containers, Preservation, Processing, and Tracking of Samples for Analysis included in Attachment 2 of the QAPP (Parsons 2019). Samples will be analyzed for the full list of VOCs that are CPOIs (including BTEX, chlorobenzene, dichlorobenzenes, trichlorobenzenes, and naphthalene) as well as phenol and particle size distribution in all of the direct extraction samples.

In areas with less than 7.5 inches cap material, direct extraction processes will continue to be used. To allow the lessons learned from the above program pertaining to filter size and VOC losses due to filtration to be incorporated, the goal will be to complete the above program and receive analytical results back prior to initiating direct extraction porewater sampling of these areas.

Supplemental gridding under nitrate addition

From: Larson, Tim (DEC)
To: Burnham, Anne [US-US]; Smith, Tracy (DEC)
Cc: McDonald, Michelle; damatthews@upstatefreshwater.org; Carr, Jesse [US-US]
Subject: [EXTERNAL] RE: supplemental gridding under nitrate addition
Date: Friday, August 12, 2022 7:42:39 AM
Attachments: image003.png
image004.png
image005.png
image006.png

Anne,
Your proposed approach, as discussed in your email shown below, is acceptable and therefore on behalf of Tracy I am approving your modification to weekly profiles used to assess nitrate locations around the Lake.
Thank you,

Timothy J. Larson, P.E.
Senior Project Manager, Division of Environmental Remediation

New York State Department of Environmental Conservation
625 Broadway, 12th Floor, Albany, NY 12233
P: (518) 402-9789 | C: (518) 257-0665 | Fax: (518) 402-9773 | tim.larson@dec.ny.gov
www.dec.ny.gov [dec.ny.gov] | [facebook.com] | [twitter.com] | [instagram.com]

From: Anne.Burnham@parsons.com <Anne.Burnham@parsons.com>
Sent: Thursday, August 11, 2022 2:55 PM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>; Larson, Tim (DEC) <tim.larson@dec.ny.gov>
Cc: michelle.mcdonald@honeywell.com; damatthews@upstatefreshwater.org; Jesse.Carr@parsons.com
Subject: supplemental gridding under nitrate addition

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Tracy-

As a follow up to my conversation with Tim a little bit ago, the nitrate addition program has typically conducted twice weekly profiles with the SUNA to assess nitrate locations around the lake. The first gridding event consists of 34 sites, while the second gridding event consists of 11 sites. The 11 site grid, which has typically been performed on a Wednesday or Thursday, was previously used to guide applications and chemical procurement for the following week. Due to changes in the timeline of purchasing chemical, decisions regarding the application numbers and schedule are now made on Tuesdays of a given week, rendering the 11 site grid not necessary. Additionally, the more comprehensive 34 site grid provides an adequate amount of data 1) for decision making as the team

has improved in their understanding of the lake's behaviors in the time since the pilot and 2) to confirm that the nitrate addition program is protective. Therefore, we propose eliminating the 11 site grid unless there are observations of nitrate less than 1 mg/L at any given location, in which case the second gridding event would be conducted.

Please let me know if you have any questions or would like to discuss, or if this is acceptable.

Thanks,
Anne

Anne L. Burnham
Senior Scientist
1442 S Tryon Street, Suite 800
Charlotte, NC 28203
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Trib 5a - for your review

From: Glaza, Edward [NN-US]
Sent: Wednesday, April 27, 2022 1:56 PM
To: Smith, Tracy (DEC)
Cc: Abrams, Tom [US-US]; McDonald, Michelle; Larson, Tim (DEC); Broschart, Michael [NN-US]; Domanski, Joshua [US-US]
Subject: RE: [External] Trib 5a - for your review
Attachments: RA-C Trib 5A Cap Disturbance.pdf; DOT Trib 5A seed mix.xlsx

Sorry, here you go

From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Wednesday, April 27, 2022 7:39 AM
To: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>
Cc: Abrams, Tom [US-US] <Tom.Abrams@parsons.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>; Larson, Tim (DEC) <tim.larson@dec.ny.gov>; Broschart, Michael [NN-US] <Michael.Broschart@parsons.com>; Domanski, Joshua [US-US] <Joshua.Domanski@parsons.com>
Subject: RE: [External] Trib 5a - for your review

Ed,

Thanks for this summary. However, the figure referenced in the third bullet is not attached. Thanks.

Tracy

From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Tuesday, April 26, 2022 9:03 PM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Tom.Abrams@parsons.com; michelle.mcdonald@honeywell.com; Larson, Tim (DEC) <tim.larson@dec.ny.gov>; Michael.Broschart@parsons.com; Joshua.Domanski@parsons.com
Subject: FW: [External] Trib 5a - for your review

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Tracy
Consistent with our discussion on 4/21/22 regarding the recent shoreline activities associated with DOT repair of the Trib 5A pipeline, provided below is the recommended path forward. As we discussed, we understand that you will take the lead in relaying these expectations to DOT. Please let us know if you have any comments or questions. Thanks.

Mouth of Trib 5A

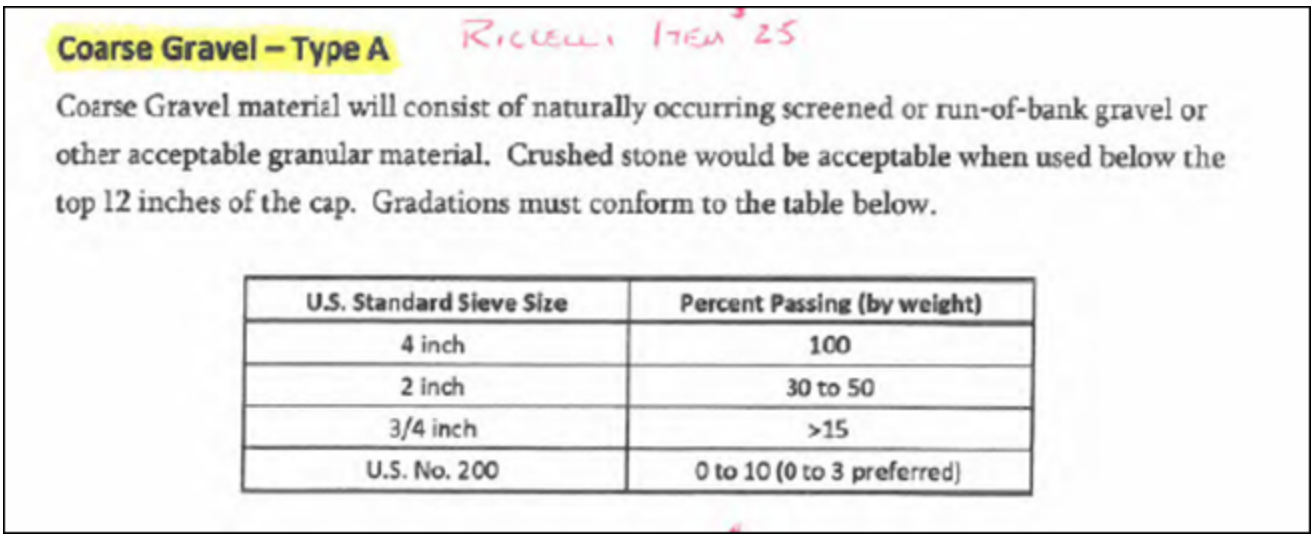


- As we discussed, the disturbed area at the pipe outfall is not within the area of the lake cap, and the upland disturbed area is not within the boundaries of the Semet Site, and therefore not within areas for which Honeywell has remedial responsibility.
- We understand that any restoration expectations DEC and/or the County may have will be provided to DOT by you.
- DOT should be made aware that this area is in close proximity to the lake cap which should not be disturbed. See attached figure.

Hose Scour Area



- This is within the lake adjacent to the shoreline east of Trib 5A where the discharge hose displaced a small amount of cap erosion protection layer material, which consists of a minimum of 18" of coarse gravel in this area.
- The disturbed area is approximately 10 sq ft. The maximum scour depth is approximately 12" to 18". The total volume of material displaces is approximately 1 cy.
- It is recommended that DOT be requested to fill in the scour area using material with the same specifications used for the coarse gravel cap material in this area, provided below. This material was provided by Riccelli Trucking (contact Steve – 315-952-1238 or Jillian – 315-374-8491) during cap construction and they may be able to provide similar material for this use. See specification below.
- Any disturbance of vegetation along the shoreline should be restored using the seed mix used throughout this area by Honeywell for restoration, specification attached. To provide stabilization of soils while seed is establishing, rolled erosion control product (RECP) and jute netting should bel be installed over the disturbed area immediately after seed has been sown. A two-layer system composed of RECP (BIONET C125BN or equivalent) under jute netting (ROLANKA BIOD-MAT 60 or equivalent) should be installed. All RECP and jute netting used should be made of 100 percent natural biodegradable fiber and be installed with wood or biodegradable stakes installed as per manufactures direction.
- Please request that DOT notify both you and I prior to placement so that we can schedule somebody observe and document for inclusion in the annual report.



Coarse Gravel – Type A RICKELL ITEM 25

Coarse Gravel material will consist of naturally occurring screened or run-of-bank gravel or other acceptable granular material. Crushed stone would be acceptable when used below the top 12 inches of the cap. Gradations must conform to the table below.

U.S. Standard Sieve Size	Percent Passing (by weight)
4 inch	100
2 inch	30 to 50
3/4 inch	>15
U.S. No. 200	0 to 10 (0 to 3 preferred)

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Peeper location D2

From: Glaza, Edward [NN-US]
Sent: Tuesday, July 5, 2022 4:19 PM
To: Smith, Tracy (DEC); Spera, Michael
Cc: Larson, Tim (DEC); ONeill, Marleiah; Clark, Megan [US-US]; McDonald, Michelle
Subject: RE: Peeper location D2

confirmed

From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Tuesday, July 5, 2022 2:52 PM
To: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>; Spera, Michael <michael.spera@aecom.com>
Cc: Larson, Tim (DEC) <tim.larson@dec.ny.gov>; ONeill, Marleiah <Marleiah.Oneill@aecom.com>; Clark, Megan [US-US] <Megan.Clark@parsons.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>
Subject: [EXTERNAL] RE: Peeper location D2

Ed, also note that we discussed that since a peeper was not being installed at D-2, that the chemical core at D-2 would include benzene, toluene, and phenol as per the work plan. Please confirm that is what will be performed. Thanks.

Tracy

From: Smith, Tracy (DEC)
Sent: Tuesday, July 5, 2022 2:41 PM
To: Edward.Glaza@parsons.com; michael.spera@aecom.com
Cc: Larson, Tim (DEC) <tim.larson@dec.ny.gov>; ONeill, Marleiah <Marleiah.Oneill@aecom.com>; Megan.Clark@parsons.com; michelle.mcdonald@honeywell.com
Subject: RE: Peeper location D2

Ed,

Yes, we just wanted to confirm that what we discussed during that call was accurate. Thanks.

Tracy

From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Tuesday, July 5, 2022 2:39 PM
To: michael.spera@aecom.com; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Larson, Tim (DEC) <tim.larson@dec.ny.gov>; ONeill, Marleiah <Marleiah.Oneill@aecom.com>; Megan.Clark@parsons.com; michelle.mcdonald@honeywell.com
Subject: RE: Peeper location D2

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That is correct. Do we have DEC concurrence?

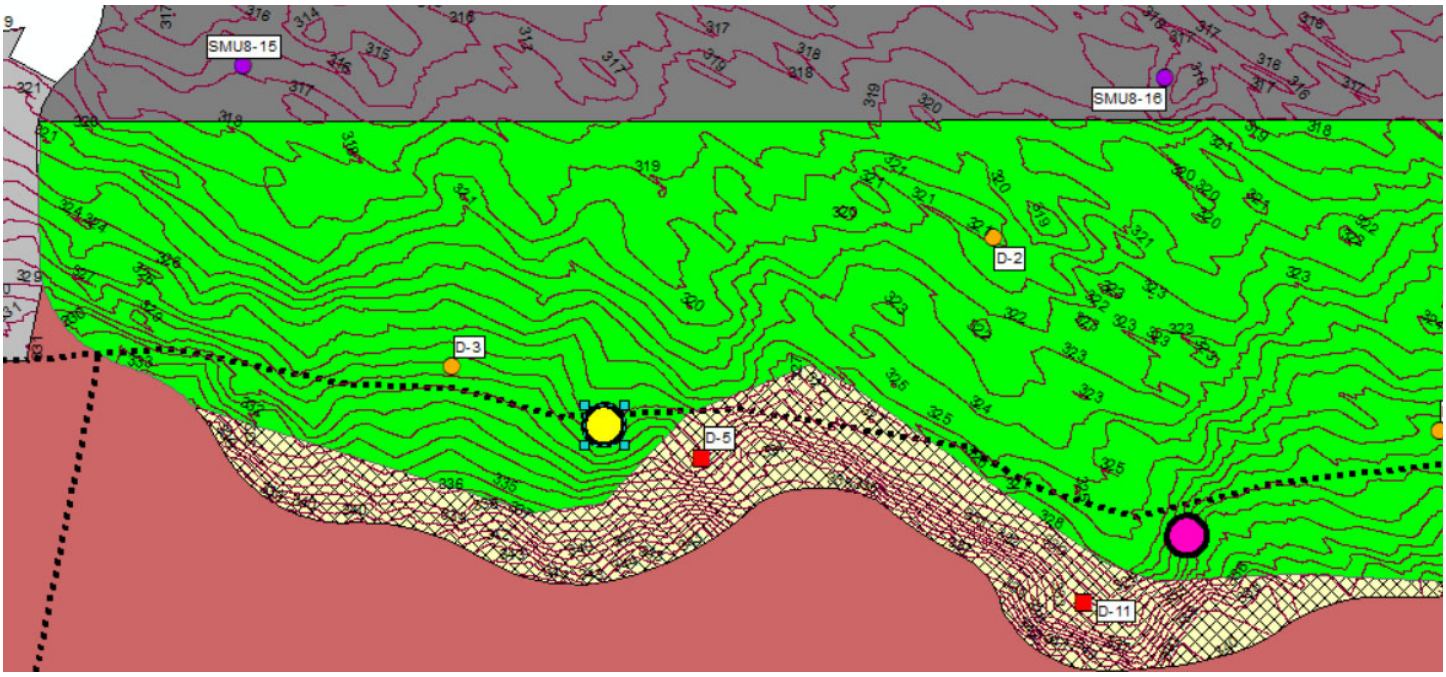
From: Spera, Michael <Michael.Spera@aecom.com>
Sent: Tuesday, June 21, 2022 5:36 PM

To: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Larson, Tim (DEC) <tim.larson@dec.ny.gov>; ONeill, Marleiah <Marleiah.Oneill@aecom.com>; Clark, Megan [US-US] <Megan.Clark@parsons.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>
Subject: [EXTERNAL] RE: Peeper location D2

Ed,
As a follow-up to our 3:45 call with Tracy, it is our understanding that you will install a peeper and do physical/chemical cores at the new location shown in purple (and assign it a different station ID) and do physical/chemical cores at location D-2.
Sorry, had to jump off at 4 for my other call. I'm off that call now if there is something that still needs to be discussed.
Mike

From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Tuesday, June 21, 2022 1:48 PM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: tim.larson@dec.ny.gov; Spera, Michael <Michael.Spera@aecom.com>; ONeill, Marleiah <Marleiah.Oneill@aecom.com>; Megan.Clark@parsons.com; michelle.mcdonald@honeywell.com
Subject: [EXTERNAL] Peeper location D2

Tracy
We tried installing a peeper at location D2, but location is in about 42 feet of water depth, which is too deep for the barge to spud into. Max depth is about 35'. Below is a proposed revised location (large pink dot). This would put it at about 33' of water depth, consistent with locations D-3 and D-4, where they were successful in installing peepers. Pending your concurrence, they would like to install this peeper this afternoon. The alternative is to switch this location back to solid phase sampling, but would prefer to stick with peeper for consistency. Thanks.



Edward Glaza, P.E.
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Peeper location C-13

From: Glaza, Edward [NN-US]
Sent: Monday, July 11, 2022 11:53 AM
To: Spera, Michael; Smith, Tracy (DEC)
Cc: ONeill, Marleiah; Clark, Megan [US-US]; McDonald, Michelle; Larson, Tim (DEC)
Subject: RE: peeper location C-13

Tracy
Based on our call last Friday:

For the mono-layer cap peeper locations, based on consideration of 2022 and prior core thickness results:

- A second peeper sampling interval (supporting sample) will be collected from 5" to 8" at C-13
- No additional peeper samples will be collected at B-10, B-11, B-13 and C-19
- Collection of a second peeper sample interval at C-11 TBD pending collection of cores

---

From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Wednesday, July 6, 2022 11:06 AM
To: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>
Cc: Spera, Michael <michael.spera@aecom.com>; Oneill, Marleiah <Marleiah.Oneill@aecom.com>; Clark, Megan [US-US] <Megan.Clark@parsons.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>; Larson, Tim (DEC) <tim.larson@dec.ny.gov>
Subject: [EXTERNAL] RE: peeper location C-13

Ed,

There were no cells highlighted in the attached table. However, although it is agreed that 2 to 5" represents the compliance sample at this location, both physical cores at C-13 as presented in the 6/20/22 email below had cap material at a depth (10" and 13") below the next peeper interval (5 to 8") considered to be a "supporting" (not compliance) sample as per our request below. This was the intent of the following text that was included in the 2022 Scope Memo: "The above change applies to mono-layer cap sampling locations B-10, B-11, B-13, C-11, C-13 and C-19. At these locations, sediment cores will be collected and shared with NYSDEC prior to peeper installation to evaluate whether revisions to the peeper sampling strategy may be appropriate."

In addition, as the other mini-peeper was installed at C-11 before this text was added to the 2022 Scope Memo, two physical cores should be collected at C-11 (similar to C-13) prior to collecting porewater from the C-11 peeper (scheduled for 7/11/22 based on a 5-week deployment period).

Please ensure the supporting sample in C-13 is collected and the two physical cores are collected at C-11. If you have any questions or would like to discuss, please let me know.

Tracy A. Smith
Project Manager, Division of Environmental Remediation

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From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Tuesday, July 5, 2022 2:26 PM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: michael.spera@aecom.com; Oneill, Marleiah <Marleiah.Oneill@aecom.com>; Megan.Clark@parsons.com; michelle.mcdonald@honeywell.com; Larson, Tim (DEC) <tim.larson@dec.ny.gov>
Subject: RE: peeper location C-13

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Tracy
Although there are two lifts here, it is still considered a mono-layer cap. The OLMMP specifies for monolayer caps that "For mono-layer caps, compliance will be verified based on meeting the cap performance criteria based on concentrations measured within sample intervals collected from 0 to 0.5 ft., which corresponds to the anticipated bioturbation depth and is the zone of potential exposure for sediment-dwelling organisms." We would suggest staying with this approach for C-13 consistent with prior years, as modified to collect the sample between 2" and 5". As shown in the highlighted cells in the attached monolayer cap thickness table from 2019, there can be significant thickness measurement differences even with "co-located" cores. We will not know the exact thickness of the cap in the peeper location. We want to make sure we avoid collecting a sample that we think is within the upper layer of cap material that is actually from within the bottom of the cap material or even within the underlying sediment, which could lead to a false conclusion regarding contaminant migration. In prior years, we did not collect samples from additional depths in the mono-layer caps even when we were collecting them from cores so we knew the material being sampled. Please let us know if would like to discuss.

From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Tuesday, June 21, 2022 12:34 PM
To: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>
Cc: Spera, Michael <michael.spera@aecom.com>; Oneill, Marleiah <Marleiah.Oneill@aecom.com>; Clark, Megan [US-US] <Megan.Clark@parsons.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>; Larson, Tim (DEC) <tim.larson@dec.ny.gov>
Subject: [EXTERNAL] Re: peeper location C-13

Ed,

As discussed, as this location has two separate lifts (layers) of sand above sand/GAC with design average thickness of 13.5", in addition to collecting a compliance sample from 2 to 5" as per Figure D.19c, a supporting sample should be collected from the next 3" interval which is expected to be in cap material as per the thickness measurements noted below. If you have any questions or would like to discuss, please contact me at 518-878-1388. Thanks.

Tracy

From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Monday, June 20, 2022 2:30 PM

To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: michael.spera@aecom.com <michael.spera@aecom.com>; Oneill, Marleiah <Marleiah.Oneill@aecom.com>; Megan.Clark@parsons.com <Megan.Clark@parsons.com>; michelle.mcdonald@honeywell.com <michelle.mcdonald@honeywell.com>; Larson, Tim (DEC) <tim.larson@dec.ny.gov>
Subject: peeper location C-13

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Tracy
Consistent with the language below that was added to the scoping document, we cored peeper location C-13 today. The results from core 1 were 10" of sand with no overlying sediment. The results from core 2 were 13" of sand and 0.25" of overlying sediment. The design thickness for the MPC in this area is a 4.5" avg lift of sand overlying a 9" average lift of sand/GAC/siderite. Therefore, we propose no revision to the sampling strategy as detailed in the scoping document is required. Pending your concurrence, we would like to install this peeper tomorrow. Thanks

> The above change applies to mono-layer cap sampling locations B-10, B-11, B-13, C-11, C-13 and C-19. At th locations, sediment cores will be collected and shared with NYSDEC prior to peeper installation to evalu whether revisions to the peeper sampling strategy may be appropriate.

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Porewater filtering test

From: Glaza, Edward [NN-US]
Sent: Tuesday, September 13, 2022 5:03 PM
To: 'Spera, Michael'; 'Smith, Tracy (DEC)'
Cc: Clark, Megan [US-US]; 'ONeill, Marleiah'; Vetter, Matthew [US-US]; McDonald, Michelle
Subject: RE: porewater filtering test
Attachments: Copy of Honeywell - 2022Capping_DEFT_20220912_NOTValidated.xlsx

Tracy
Provided below is a summary of the filter blank testing, results attached. We can discuss tomorrow.

Equipment blanks were collected from different types of filters to determine if filters could have potentially contributed to observed phenol concentrations in previous monitoring years and phenol and VOC concentrations observed in results from direct extraction filter testing in June 2022, as well as to determine the ideal filter type for future direct extraction sampling. Equipment blank methods and results are outlined below.

Filter Types
During previous monitoring, 0.45-micron, in-line, cartridge style groundwater filters were purchased from Pine Environmental. Pine carries three different brands of filters: Voss, AquaBailer, and ProActive. Voss filters were used during direct extraction filter testing in June 2022, but we do not know which specific brand(s) were used during previous monitoring events. Equipment blanks were collected from all three brands of cartridge-style filters. All three brands use a polyethersulfone (PES) membrane as the filter.

Three new filters were also evaluated as part of this testing. All three filters are 0.45-micron, syringe-attached filters. The following new filters were tested: nylon membrane by Foxx Life Sciences, glass fiber membrane by Foxx Life Sciences, and cellulose acetate membrane by Tisch.

Collection Method
Equipment blanks were collected from all filters (Voss, AquaBailer, and ProActive cartridge filters and nylon Foxx, glass fiber Foxx, and cellulose acetate Tisch syringe-attached filters). Control samples of unfiltered DI water were also collected. For collection of each equipment blank, lab-provided DI water was run through the filter once and deposited into sample jars. DI water was then run through the filter 5 times and deposited into sample jars. Each process (one time filtered and five times filtered) were repeated for each filter type, with the exception of the nylon filter, to create a duplicate set of samples for each filter type. Only one sample (one time filtered) was collected from the nylon filter because it was extremely difficult to push water through the filter, making it impractical for use during sampling.

Results
Data from equipment blanks indicate the following results:

- All samples collected from cartridge style filters have detections for VOCs, most consistently toluene, 1,4-dichlorobenzene, and m,p-xylenes. During direct extraction filter testing earlier this year, 3 out of 5 sample locations had a post-filtration increase in m,p-xylenes and 4 out of 5 had a post-filtration increase in toluene.
- Phenol was detected in one once filtered sample and one five times filtered sample from the Voss filter. Phenol was not detected in samples from any other filters.
- VOCs and phenol were not detected in samples from any of the syringe-attached filters.

Filtration Effectiveness
Because syringe-attached filters have not been used previously, we qualitatively tested the effectiveness of the glass fiber and cellulose acetate filters. Filtration effectiveness testing of the nylon filter was not performed because of the difficulty of using this filter type observed during collection of equipment blanks. To test filtration effectiveness, a turbid

mixture of water and soil were created and ran through both filter types. Both filters clogged up relatively quickly, but we could easily swap them out and continue filtration. Water filtered with the glass fiber filter was clear after filtration and we needed to use roughly 1 filter per 20 mL of turbid water. Water filtered with the cellulose acetate filter was slightly cloudy after filtration and the filter seemed to clog quicker, using roughly 1 filter per 10 mL of turbid water.

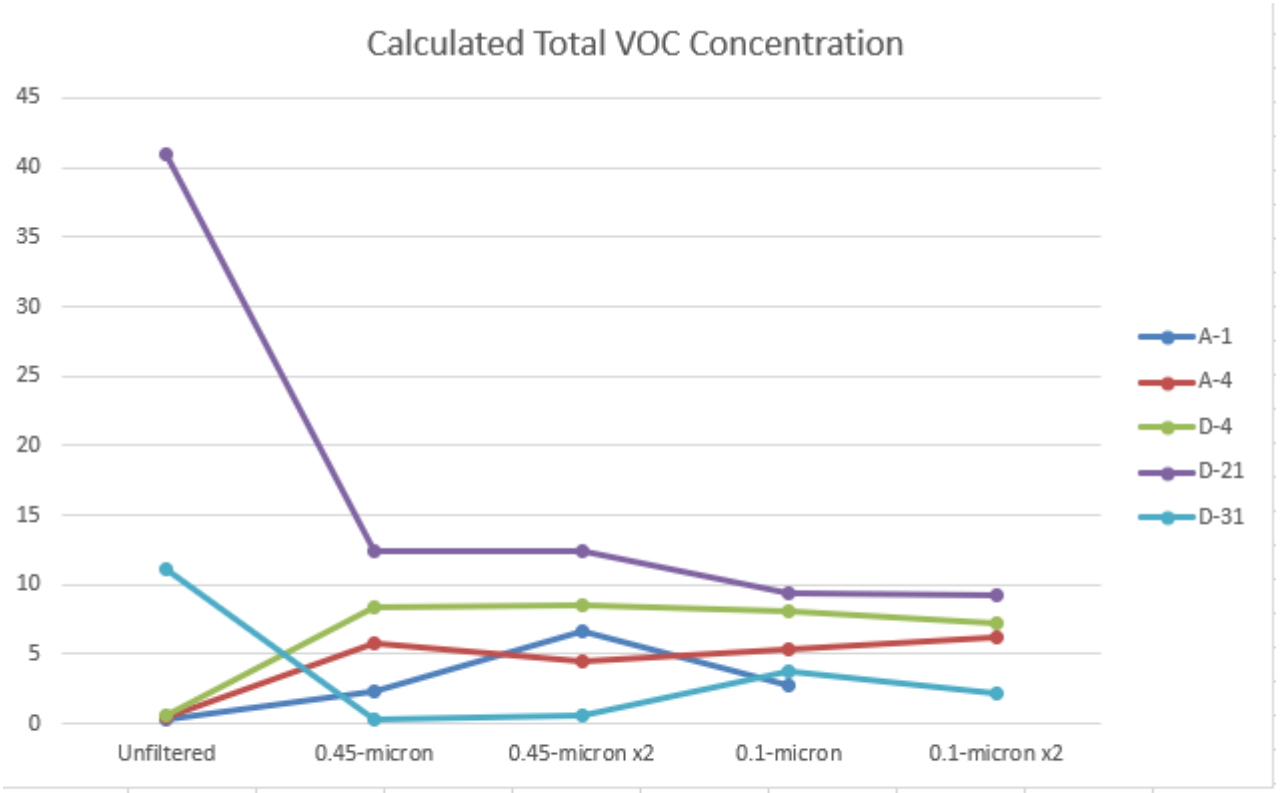
Recommendations

We recommend using glass fiber syringe-attached filters for future phenol and VOC sampling due to the lack of detections in equipment blanks from this filter type, as well as the effectiveness of filtration.

From: Glaza, Edward [NN-US]
Sent: Tuesday, August 23, 2022 11:58 AM
To: Spera, Michael <Michael.Spera@aecom.com>; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Clark, Megan [US-US] <Megan.Clark@parsons.com>; ONeill, Marleiah <Marleiah.Oneill@aecom.com>; Vetter, Matthew [US-US] <Matthew.Vetter@parsons.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>
Subject: RE: porewater filtering test

Mike

See below and attached. For D-21 and D-31, concentrations decreased with the first filtering. For D-4, A-1 and D-31, there was a slight increase measured with the first filtering, however concentrations were low and around the detection limit, so not sure if that is real. What is most significant is that concentrations from the initial 0.45 micron and onward are all relatively constant, indicating that there is minimal volatilization resulting from the filtering process, and the decreases between unfiltered and filtered for D-21 and D-31 are likely due to removal of particles with sorbed VOCs rather than volatilization. Based on this, we think filtering for VOC analysis may be appropriate, but realize more discussion is warranted. Given that possibility, we should probably add VOCs to the analysis for the filter testing to make sure no issues there. I am out for a week starting tomorrow, and we should have a call after that to review this issue as well as other physical and chemical sampling results to-date. Hoping to do this testing this week so we can get the results back quick. Let us know if any other questions or concerns, or ok to proceed. Thanks.



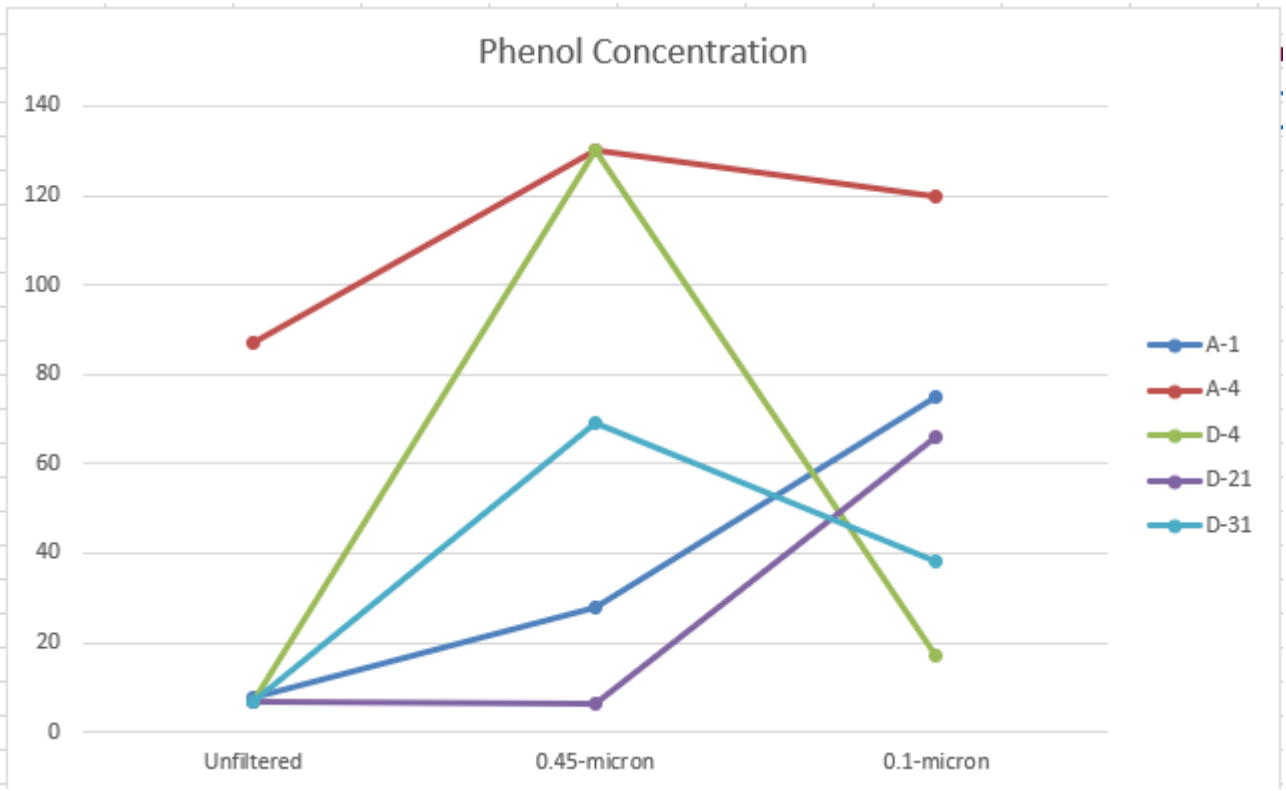
Notes:
1. For samples with no VOC detections, highest VOC detection limit was used as a placeholder
2. Insufficient volume for 0.1-micron x2 from location A-1

From: Spera, Michael <Michael.Spera@aecom.com>
Sent: Tuesday, August 23, 2022 10:39 AM
To: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Clark, Megan [US-US] <Megan.Clark@parsons.com>; ONeill, Marleiah <Marleiah.Oneill@aecom.com>; Vetter, Matthew [US-US] <Matthew.Vetter@parsons.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>
Subject: [EXTERNAL] RE: porewater filtering test

Ed, thanks. Do you also have the VOC data?

From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Tuesday, August 23, 2022 8:37 AM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Spera, Michael <Michael.Spera@aecom.com>; Megan.Clark@parsons.com; ONeill, Marleiah <Marleiah.Oneill@aecom.com>; Matthew.Vetter@parsons.com; michelle.mcdonald@honeywell.com
Subject: [EXTERNAL] porewater filtering test

Tracy
As we discussed yesterday, we received the analytical results from the porewater direct extraction filter testing. Unexpectedly, the filtered samples had higher concentrations of phenol than the unfiltered samples, as shown below. We believe the filters themselves may be a source of phenol, therefore we are planning to run a series of tests to evaluate this, per the attached procedure. We will also evaluate alternative filter materials. Please let us know if you have any comments or questions. We anticipate starting the testing this week. Thanks.



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FILTER CARTRIDGE BLANK COLLECTION ONONDAGA LAKE CAP MONITORING AUGUST 2022

1.0 Background

Equipment blanks will be collected from filters to determine if filter cartridges are a potential source of phenol, which was observed in filtered samples from previous cap monitoring years, as well as in direct extraction filter testing samples collected in June 2022. Filter cartridges for previous monitoring and direct extraction filter testing were obtained from Pine Environmental (Pine). Pine uses two manufacturers for the filters and fulfills orders for filters with whichever brand they currently have on-hand. The two manufacturers that Pine uses are Voss Technologies and Aqua Bailers. Because it is not possible to determine which manufacturer produced the filters used during previous monitoring events and the 2022 direct extraction filter testing, equipment blanks will be collected for phenol analysis using filters from both brands. Samples will also be collected using two alternate filter types to evaluate whether either is appropriate for use during direct extraction sampling. The alternate filters are a glass fiber, 0.45-micron syringe filter and a nylon, 0.45-micron syringe filter, both of which are manufactured by Foxx Life Sciences. Sample collection procedures are described in Section 2.

2.0 Sampling Procedure

1. Deionized (DI) water will be obtained from the analytical laboratory.
2. Using a plastic, disposable syringe and Tygon tubing, 200 mL of DI water will be transferred from the original container to a lab-provided 250 mL amber glass sample bottle. This sample represents the control to provide a baseline of phenol concentrations prior to sampling, which are expected to be non-detect in lab-provided DI water.
3. A filter will be attached to the outlet of the syringe.
4. 200 mL of DI water will be transferred from the original container, into the syringe, and subsequently pushed through the filter into a 250 mL amber glass sample bottle.
5. Step 3 will be repeated to generate a duplicate sample of the 1x filtered water.
6. An additional 200 mL will be pulled from the DI water container, run through the 0.45-micron filter as described in step 3, deposited into a clean sample container, pulled from the clean sample container using the syringe, and run through the filter again. This process will be repeated so that the water passes through the 0.45-micron filter a total of five times.
7. Step 6 will be repeated to generate a duplicate sample of the 5x times filtered water.
8. Steps 4 through 7 will be performed with each filter (Voss, Aqua Bailer, Foxx nylon, and Foxx glass fiber). Once steps 4 through 7 are performed with the first filter type, the filter will be removed and replaced

with the next filter type, until the samples described in steps 4 through 7 have been collected from all four filters.

9. Samples will be labeled following the nomenclature established in June 2022 direct extraction filter testing, beginning with the next sequential filter testing chain-of-custody (COC) number. A detailed record of filtration steps and filter brands associated with each sample ID will be kept in the field log.
10. Samples will be sent to the analytical lab and analyzed for phenol.

Direct extraction sampling

From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Friday, September 16, 2022 2:38 PM
To: Glaza, Edward [NN-US]
Cc: Clark, Megan [US-US]; 'Oneill, Marleiah'; McDonald, Michelle; Spera, Michael; Vetter, Matthew [US-US]
Subject: [EXTERNAL] RE: Direct extraction sampling

Ed,

The summary is consistent with our discussions and is acceptable. Thanks.

Tracy A. Smith
Project Manager, Division of Environmental Remediation

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From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Friday, September 16, 2022 2:13 PM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Megan.Clark@parsons.com; 'Oneill, Marleiah' <Marleiah.Oneill@aecom.com>; michelle.mcdonald@honeywell.com; michael.spera@aecom.com; Matthew.Vetter@parsons.com
Subject: RE: Direct extraction sampling

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Tracy
As per our discussion today:

- C-6 rather than C-12 will be included in the 50% of samples that get unfiltered porewater analysis for LPAHs and phenol.
- The glass filter is 45 micron consistent with previously used filters
- See highlighted text revision below regarding turbidity
- pH will be done on unfiltered samples consistent with prior sampling events
- We verified that solid phase analysis not required for HPAHs or PCBs for any of these samples

Let us know if this is acceptable, thanks

From: Glaza, Edward [NN-US]
Sent: Thursday, September 15, 2022 8:43 AM

To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Clark, Megan [US-US] <Megan.Clark@parsons.com>; Oneill, Marleiah <Marleiah.Oneill@aecom.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>; Spera, Michael <michael.spera@aecom.com>; Vetter, Matthew [US-US] <Matthew.Vetter@parsons.com>
Subject: FW: Direct extraction sampling

Tracy
Consistent with our discussion today and the results from the recent filter and filter blank testing, we propose the following sampling approach for the locations requiring direct extraction porewater sampling. Please let us know if you have any further questions or comments. Thanks.

- pH: Porewater samples consistent with the 2022 Scoping Document
- Mercury: Solid phase samples consistent with the 2022 Scoping Document
- LPAHs, including Phenol:
    - Filtered porewater samples from all locations. Samples will be filtered once using glass filter membranes. If visible~~significant~~ turbidity is noted in a sample after the initial filtering, the sample will be filtered a second time.
    - Unfiltered porewater samples from 50% of the sample locations. Proposed locations are highlighted yellow in the table below, and were selected based on consideration of 2019 phenol concentrations and distribution among all remedial areas with direct extraction sampling
    - Porewater samples from multiple cores at a specific location will be consolidated prior to completion of the filtered and unfiltered sample collection
    - It is anticipated that the filtered sample results will be used as representative of cap conditions. The unfiltered results will provide additional information regarding the contribution of suspended solids to phenol concentrations.
- VOCs
    - Filtered and unfiltered porewater samples from all locations. Samples will be filtered once using glass filter membranes. Samples will not be filtered a second time even if significant turbidity is noted in a sample after the initial filtering.
    - Porewater samples will not be consolidated prior to completion of the filtered and unfiltered sample collection
    - It is anticipated that the unfiltered sample results will be used as representative of cap conditions. However, if elevated VOC concentrations and a significant discrepancy between filtered and unfiltered sample results is noted, additional testing may be recommended to further evaluate whether filtering results in significant VOC losses and whether filtered or unfiltered results are most representative of cap conditions.

Location ID	Report Result	Report Units	Detected
OL-RAC-CAP-0010-H	79	ug/L	Y
OL-RAB-CAP-0007-H	48	ug/L	Y
OL-RAC-CAP-0015-H	44	ug/L	Y
OL-RAB-CAP-0005-H	42	ug/L	Y
OL-RAC-CAP-0006-H	42	ug/L	Y
OL-RAC-CAP-0018-H	37	ug/L	Y
OL-RAC-CAP-0008-H	36	ug/L	Y
OL-RAE-CAP-0038-H	36	ug/L	Y
OL-RAD-CAP-0011-H	24	ug/L	Y
OL-RAC-CAP-0014-H	23	ug/L	Y
OL-RAC-CAP-0012-H	21	ug/L	Y
OL-RAD-CAP-0005-H	21	ug/L	Y
OL-RAE-CAP-0042-H	16	ug/L	Y
OL-RAE-CAP-0036-H	11	ug/L	Y

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Hg lab contamination

From: Glaza, Edward [NN-US]
Sent: Thursday, September 29, 2022 5:27 PM
To: Smith, Tracy (DEC)
Cc: Spera, Michael; McDonald, Michelle; Kosciewicz, Maryanne [US-US]; Clark, Megan [US-US]; Oneill, Marleiah
Subject: Hg lab contamination
Attachments: peeper Hg.xlsx

Tracy
We want to make you aware of an issue reported to us by the lab. Unfortunately the samples included in the attached table were contaminated with mercury at the lab and therefore unusable. This impacted 10 sample locations, 7 of which also have solid phase samples analyzed for mercury. They have minimal volume left but they will use what they have. To get enough volume to analyze, they will need to dilute by 25x, resulting in detection limits that are 25x higher, see below for details and comparison to the porewater-equivalent performance standard for mercury. Mercury concentrations were very low at all of these locations in 2019. The table below shows the detected concentrations at these locations. These were all solid phase results. All porewater results at all of these locations were ND. Based on the factors above, we do not believe this issue significantly impacts the overall data set, and we are working with the lab on corrective actions to prevent this from happening in the future. Let us know if you have any questions. Thanks.

- MDL after dilution 4.83 ug/L
- PQL after dilution 12.5 ug/L
- Porewater-equivalent performance standard for mercury varies between model areas because Kd varies
    - A1 1.04 ug/L
    - A2 3.86 ug/L
    - B, C, D 1.64 ug/L

2019 detected mercury concentrations

Location ID	Sample Start Depth	Sample End Depth	Sample Depth Units	Repor
OL-RAB-CAP-0003-H	3	6	in	
OL-RAB-CAP-0014-H	3	6	in	
OL-RAB-CAP-0014-H	9	12	in	
OL-RAB-CAP-0015-H	9	12	in	
OL-RAC-CAP-0002-H	3	6	in	
OL-RAC-CAP-0002-H	9	12	in	
OL-RAC-CAP-0003-H	3	6	in	
OL-RAC-CAP-0003-H	9	12	in	
OL-RAC-CAP-0004-H	3	6	in	
OL-RAC-CAP-0004-H	9	12	in	

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Cap physical monitoring results

From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Friday, November 18, 2022 7:21 AM
To: Glaza, Edward [NN-US]
Cc: Cook, Alison [US-US]; Spera, Michael; Clark, Megan [US-US]; McDonald, Michelle; Domanski, Joshua [US-US]
Subject: [EXTERNAL] Re: Cap physical monitoring results

Ed,

We agree with these responses, thanks.

Tracy

From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Thursday, November 17, 2022 5:03 PM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Alison.Cook@parsons.com <Alison.Cook@parsons.com>; michael.spera@aecom.com <michael.spera@aecom.com>; Megan.Clark@parsons.com <Megan.Clark@parsons.com>; michelle.mcdonald@honeywell.com <michelle.mcdonald@honeywell.com>; Joshua.Domanski@parsons.com <Joshua.Domanski@parsons.com>
Subject: RE: Cap physical monitoring results

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Tracy, see responses below. Megan and Alison, note the additional coring agreed to in RA-C. Thanks

From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Monday, November 14, 2022 3:18 PM
To: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>
Cc: Cook, Alison [US-US] <Alison.Cook@parsons.com>; Spera, Michael <michael.spera@aecom.com>; Clark, Megan [US-US] <Megan.Clark@parsons.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>
Subject: [EXTERNAL] RE: Cap physical monitoring results

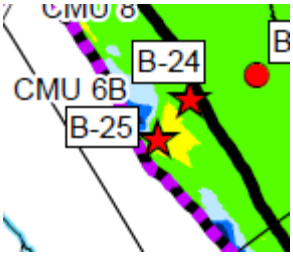
Ed,

We have the following comments:

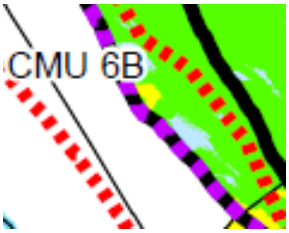
1. In the fourth bullet please clarify in the notes that the 0 measured cap thickness may be due to disturbance following the collection of multiple cores in one area. Will do
2. Sediment coring should be performed at E-17 as previously discussed. Will do
3. Based on the RA-B 2022 vs 2019 and 2022 vs 2020 bathymetry figures, it is recommended that supplemental cores be collected in the areas with greater than 1 ft lower elevation near B-22 and B-25. The area near B-22 is zone 3 and therefore not able to core. Re the area near B-25, the elevation is showing higher in 2022 than as built, so not seeing need for core. As shown below, this area was more than 6" higher than as built in 2020, and it appears that 2022 indicates a return to as-built elevations. Both of these areas are proximate to where we had survey challenges in 2022. Therefore, we suggest that all of Zones 2 and 3 be resurveyed in 2023, which will include these areas, after which, the need for any follow-up assessment can be evaluated.

Also, in the statement after the bullets below, location C-10 is referenced but that location is farther south in the direct application area near the Visitor's center. It is agreed that supplemental cores should be collected south of C-1 and C-2 in the area circled below. If you have any questions, please contact me. Thanks.

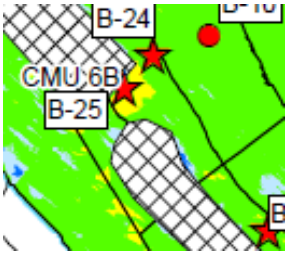
2022 vs 2020



2020 vs as-built



2022 vs as-built



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[gcc02.safelinks.protection.outlook.com] [gcc02.safelinks.protection.outlook.com]

From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Thursday, November 10, 2022 2:36 PM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Alison.Cook@parsons.com; michael.spera@aecom.com; Megan.Clark@parsons.com; michelle.mcdonald@honeywell.com
Subject: RE: Cap physical monitoring results

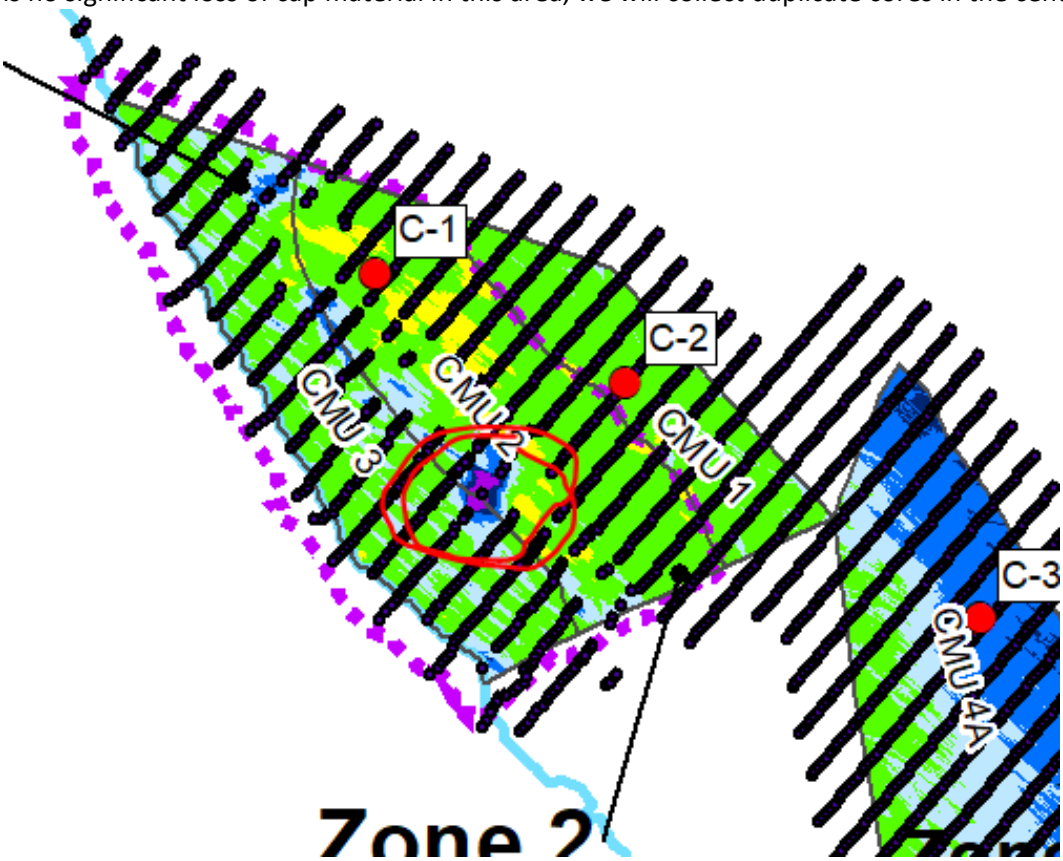
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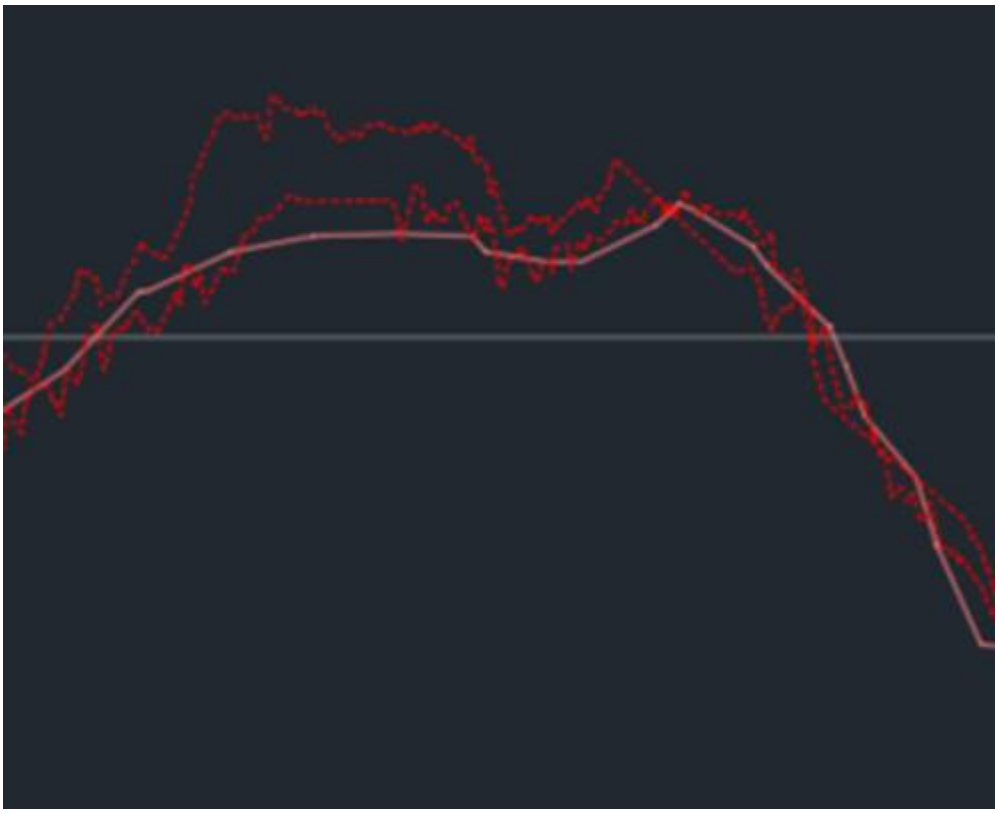
Tracy
Below are the action items based on our call. Let us know if any comments. Thanks.

- Complete bathymetric survey in 2023 in areas where we were unable to get good coverage in 2022 due to vegetation and/or shallow water. Complete the survey in the spring prior to vegetation establishment, and preferably in time to include in the 2022 monitoring report
- Collect additional cores in the vicinity of D-57 as shown in the attached figure. Complete additional step outs if these locations show cap thicknesses less than the target thickness of 15”

- Collect a second core at E-39 where only one core was collected to-date
- Revise cap thickness tables to explain that notes that mixed soft cap/sediment and/or cores with 0 measured cap thickness in select cores at locations B-5, B-7, C-14, D-11 likely due to disturbance of the core during collection
- Collect 2 co-located cores at SMU 8-5 due to 0 measured cap thickness

We also discussed taking a closer look at the area in RA-C south of sample location C-10 where the bathy results indicate lower cap elevations than prior years, circled below. The black lines show the bathy measurement locations, and indicate incomplete bathy measurement in this location. This is an area where there is a ridge of material as we have discussed below, as shown in the x-section below, which likely interfered with the bathy measurements. To verify there is no significant loss of cap material in this area, we will collect duplicate cores in the center of this location.





-----Original Appointment-----
From: Glaza, Edward [NN-US]
Sent: Thursday, November 3, 2022 10:57 AM
To: Glaza, Edward [NN-US]; Smith, Tracy (DEC); Spera, Michael; Clark, Megan [US-US]
Subject: Cap physical monitoring results
When: Monday, November 7, 2022 1:00 PM-2:30 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Microsoft Teams Meeting

Microsoft Teams meeting

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D-57

From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Friday, November 18, 2022 10:50 AM
To: Glaza, Edward [NN-US]
Cc: Clark, Megan [US-US]; Cook, Alison [US-US]; Spera, Michael; McDonald, Michelle; Vetter, Matthew [US-US]
Subject: [EXTERNAL] Re: D-57

Ed,

Further cores are not needed at this time. When additional information is available (e.g., solid phase samples collected from these locations for analysis of contaminants other than benzene, toluene, and phenol), please share it with us and we can discuss the path forward in the future.

Also, the D-57 figure that you sent included 2 additional green circles with no data. I assume these were a copy/paste error but please let me know if this is incorrect. Thanks.

Tracy

From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Thursday, November 17, 2022 4:44 PM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Megan.Clark@parsons.com <Megan.Clark@parsons.com>; Alison.Cook@parsons.com <Alison.Cook@parsons.com>; michael.spera@aecom.com <michael.spera@aecom.com>; michelle.mcdonald@honeywell.com <michelle.mcdonald@honeywell.com>; Matthew.Vetter@parsons.com <Matthew.Vetter@parsons.com>
Subject: RE: D-57

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Tracy
Below are the detected parameters at D-4 and D-57, limited to low-level phenol detects. Results from D-11 and D-2 not yet available. Weather permitting, we are planning on completing the remaining coring tomorrow, all peepers retrieved, so that should wrap up the season. Please let us know asap if you think further cores are needed in this area, thanks.

Location ID	LOC_ID	Sample Start Depth	Sample End Depth	Sample Depth Units	Sample Matrix	Sample Type	Porewa
OL-RAD-CAP-0004-I	OL-RAD-CAP-0004	12	15	in	WATER	W-PORE	DIRECT E
OL-RAD-CAP-0004-H	OL-RAD-CAP-0004	9	12	in	WATER	W-PORE	DIRECT E
OL-RAD-CAP-0004-H	OL-RAD-CAP-0004	3	9	in	WATER	W-PORE	DIRECT E
OL-RAD-CAP-0057-H	OL-RAD-CAP-0057	9	12	in	WATER	W-PORE	CORE

From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Wednesday, November 16, 2022 1:17 PM
To: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>
Cc: Clark, Megan [US-US] <Megan.Clark@parsons.com>; Cook, Alison [US-US] <Alison.Cook@parsons.com>; Spera, Michael <michael.spera@aecom.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>; Vetter, Matthew [US-US] <Matthew.Vetter@parsons.com>
Subject: [EXTERNAL] RE: D-57

D-57 and D-4 were pulled back in July, D-11 was collected by direct extraction on 10/26.

From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Wednesday, November 16, 2022 11:45 AM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Megan.Clark@parsons.com; Alison.Cook@parsons.com; michael.spera@aecom.com; michelle.mcdonald@honeywell.com; Matthew.Vetter@parsons.com
Subject: RE: D-57

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Will do. I believe that is round 3 peeper, that just pulled, correct Megan or Alison?

From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Wednesday, November 16, 2022 10:24 AM
To: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>
Cc: Clark, Megan [US-US] <Megan.Clark@parsons.com>; Cook, Alison [US-US] <Alison.Cook@parsons.com>; Spera, Michael <michael.spera@aecom.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>; Vetter, Matthew [US-US] <Matthew.Vetter@parsons.com>
Subject: [EXTERNAL] RE: D-57

Ed,

We will review the information and let you know if we have any questions. It may also be useful to look at the peeper and core sampling data from this and the nearby locations (e.g., D-2, D-4, D-11). When that is available could you send it to us. Thanks.

Tracy A. Smith
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From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Tuesday, November 15, 2022 4:53 PM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Megan.Clark@parsons.com; Alison.Cook@parsons.com; michael.spera@aecom.com; michelle.mcdonald@honeywell.com; Matthew.Vetter@parsons.com
Subject: D-57

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Tracy

The attached figure has been updated to include the additional step out core locations around core D-57. I have circled in green those locations with at least one core that meets the target thickness goal. The target thickness is 15” for the multi-layer cap area. For the mono-layer cap area, the design specified an average thickness of 4.5” but there is no minimum target thickness. Given these results, we believe the area where the multi-layer cap is less than the target thickness has been delineated (approximately 0.05 acres) and no further coring is warranted in this area. Given the very small size of this area and the fact that cap material is present in the majority of the area, we do not believe this area presents a significant concern. We can consider the path forward in this area during future discussions. Thanks.

Edward Glaza, P.E.
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Avoiding peepers round 4

From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Wednesday, November 2, 2022 9:52 AM
To: Glaza, Edward [NN-US]; Spera, Michael
Cc: Clark, Megan [US-US]; Cook, Alison [US-US]; Vetter, Matthew [US-US]; ONeill, Marleiah
Subject: [EXTERNAL] RE: Avoiding peepers round 4

Ed,

Yes, I agree with your email and Mike's follow-up. Thanks.

Tracy

From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Wednesday, November 2, 2022 9:47 AM
To: michael.spera@aecom.com; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Megan.Clark@parsons.com; Alison.Cook@parsons.com; Matthew.Vetter@parsons.com; ONeill, Marleiah <Marleiah.Oneill@aecom.com>
Subject: RE: Avoiding peepers round 4

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Agreed Tracy?

From: Spera, Michael <Michael.Spera@aecom.com>
Sent: Tuesday, November 1, 2022 10:01 PM
To: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Clark, Megan [US-US] <Megan.Clark@parsons.com>; Cook, Alison [US-US] <Alison.Cook@parsons.com>; Vetter, Matthew [US-US] <Matthew.Vetter@parsons.com>; ONeill, Marleiah <Marleiah.Oneill@aecom.com>
Subject: [EXTERNAL] RE: Avoiding peepers round 4

I think this is fine although please include TOC for converting solid to water phase for B, T, and phenol.

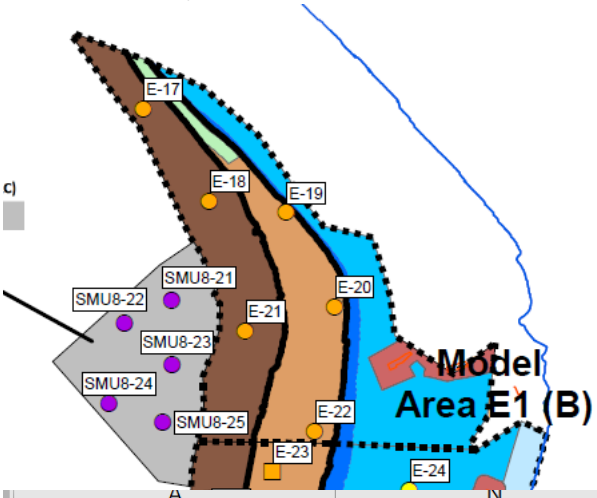
From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Tuesday, November 1, 2022 8:58 PM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Spera, Michael <Michael.Spera@aecom.com>; Megan.Clark@parsons.com; Alison.Cook@parsons.com; Matthew.Vetter@parsons.com
Subject: FW: Avoiding peepers round 4

Tracy
Consistent with the email below, we ended up with one planned peeper (E-17) not installed. We suggest collecting the sample here this fall as originally specified in the OLMMP, which consists of solid phase sampling and analysis for all parameters in both the habitat and chemical isolation layers. This is consistent with how samples were collected in 2019 at this location. This is an unamended cap area. Please let us know if this is acceptable.

From: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>
Sent: Wednesday, September 28, 2022 2:22 PM
To: Clark, Megan [US-US] <Megan.Clark@parsons.com>
Cc: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>; Spera, Michael <michael.spera@aecom.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>; Oneill, Marleiah <Marleiah.Oneill@aecom.com>
Subject: Avoiding peepers round 4

Megan
As we discussed with DEC, we may be one peeper short for completing all peepers in 3 rounds. If so, I would opt not to install E-17 in round 3 based on:

- It is in an area of relatively high peeper density
- It is in zone 1 with an unamended CI layer, therefore we could collect the samples as solid phase or direct extraction rather than having one peeper in round four, pending DEC approval
- Of the peepers shown in zone 1 below, it had the lowest concentrations in 2019, and they were very low-level detects, see below



Location ID	Parameter Name	Report Result	Report Units	Detected
OL-RAE-CAP-0017-H	TOLUENE	1.2	ug/kg	Y
OL-RAE-CAP-0017-I	TOLUENE	1.8	ug/kg	Y
OL-RAE-CAP-0017-H	TOLUENE	0.6	ug/kg	Y
OL-RAE-CAP-0017-H	MERCURY	0.006	mg/kg	Y

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Results of pre-turnover near-shore sampling

From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Wednesday, November 30, 2022 2:41 PM
To: Burnham, Anne [US-US]; Spera, Michael
Cc: Arrigo, Mark [US-US]; Kosciewicz, Maryanne [US-US]; Montione, Bob; Carr, Jesse [US-US]; ONeill, Marleiah; Glaza, Edward [NN-US]
Subject: [EXTERNAL] RE: Results of pre-turnover near-shore sampling

Anne,

We agree based on the results of the pre-turnover sampling that no further post-turnover near shore sampling is needed this year. Thanks.

Tracy A. Smith
Project Manager, Division of Environmental Remediation

New York State Department of Environmental Conservation
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From: Anne.Burnham@parsons.com <Anne.Burnham@parsons.com>
Sent: Wednesday, November 30, 2022 8:33 AM
To: michael.spera@aecom.com; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Mark.Arrigo@parsons.com; Maryanne.Kosciewicz@parsons.com; Montione, Bob <Robert.Montione@aecom.com>; Jesse.Carr@parsons.com; ONeill, Marleiah <Marleiah.Oneill@aecom.com>; Edward.Glaza@parsons.com
Subject: RE: Results of pre-turnover near-shore sampling

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Tracy,

Based on the results of the reanalysis of both Honeywell and DEC split samples from the initial round of sampling, as well as the results of the second round of pre-turnover sampling, we believe that no further post turnover sampling is needed this year.

Please let us know if you would like to discuss.

Thank you,
Anne

Anne L. Burnham
Senior Scientist

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From: Spera, Michael <Michael.Spera@aecom.com>
Sent: Tuesday, November 29, 2022 6:12 PM
To: Burnham, Anne [US-US] <Anne.Burnham@parsons.com>; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Arrigo, Mark [US-US] <Mark.Arrigo@parsons.com>; Kosciewicz, Maryanne [US-US] <Maryanne.Kosciewicz@parsons.com>; Montione, Bob <Robert.Montione@aecom.com>; Carr, Jesse [US-US] <Jesse.Carr@parsons.com>; ONeill, Marleiah <Marleiah.Oneill@aecom.com>; Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>
Subject: [EXTERNAL] RE: Results of pre-turnover near-shore sampling

Anne,
As requested, attached is the ALS report for the surface water split samples collected on 10/20/22, including total Hg and dissolved Hg from four locations.
Note, all total Hg and dissolved Hg results were reported as less than the ALS PQL (1 ng/L) but at or above the MDL (0.3 ng/L). As shown on PDF page 49, three of the four dissolved Hg results are less than 0.7 ng/L. One dissolved Hg result slightly exceeded the lower goal of 0.7 ng/L, although the reported dissolved concentration (0.77 ng/L) is slightly higher than the total Hg concentration (0.74 ng/L) which should not be the case. Thus, this one exceedance is questionable.

Please let us know if you would like to discuss.

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VP, Sr. Program Manager/Engineer
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From: Anne.Burnham@parsons.com <Anne.Burnham@parsons.com>
Sent: Wednesday, November 9, 2022 12:58 PM
To: Spera, Michael <Michael.Spera@aecom.com>; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Mark.Arrigo@parsons.com; Maryanne.Kosciewicz@parsons.com; Montione, Bob <Robert.Montione@aecom.com>; Jesse.Carr@parsons.com; ONeill, Marleiah <Marleiah.Oneill@aecom.com>; Edward.Glaza@parsons.com
Subject: RE: Results of pre-turnover near-shore sampling

Mike,

Thanks for sending over the information on the reanalysis. We look forward to seeing the results of the splits from 10/20.

Yes, there were post-turnover samples collected on 10/31 and samples will be collected again the week of 11/14 under NAP. Note, the lake turned over on 10/27.

Let me know if you have any questions or would like to discuss.

Thanks!
Anne

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Senior Scientist
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From: Spera, Michael <Michael.Spera@aecom.com>
Sent: Wednesday, November 9, 2022 11:51 AM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>; Burnham, Anne [US-US] <Anne.Burnham@parsons.com>
Cc: Arrigo, Mark [US-US] <Mark.Arrigo@parsons.com>; Kosciewicz, Maryanne [US-US] <Maryanne.Kosciewicz@parsons.com>; Montione, Bob <Robert.Montione@aecom.com>; Carr, Jesse [US-US] <Jesse.Carr@parsons.com>; ONeill, Marleiah <Marleiah.Oneill@aecom.com>; Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>
Subject: [EXTERNAL] RE: Results of pre-turnover near-shore sampling

Tracy and Anne,

The attached ALS report has the 10/13/22 re-analyses of the 4 split samples collected on 8/2/22. As shown on PDF page 19, the re-analysis of the dissolved Hg sample from OL-RAE-SW-01, which was initially reported as 3.2 ng/L, is reported as 1.0 U ng/L. Based on the raw data presented on PDF page 51 (R2207264-001 thru 004), the re-analysis of this sample and the other 3 splits are all below the 0.7 ng/L standard.

We will provide you with the report for the splits collected on 10/20/22 when available.

Anne, can you confirm that there will be at least two post-turnover samples collected from South Deep under the NAP? Thanks.

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From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Monday, November 7, 2022 9:30 AM
To: Anne.Burnham@parsons.com; Spera, Michael <Michael.Spera@aecom.com>
Cc: Mark.Arrigo@parsons.com; Maryanne.Kosciewicz@parsons.com; Montione, Bob <Robert.Montione@aecom.com>; Jesse.Carr@parsons.com; ONeill, Marleiah <Marleiah.Oneill@aecom.com>; Edward.Glaza@parsons.com
Subject: RE: Results of pre-turnover near-shore sampling

Anne,

Since a second round of the pre-turnover samples were collected, we do not see a need to analyze the remaining sample volume from the first round of sampling by our respective labs.

We will get you results of our splits from the second round as soon as they are available along with the results of our reanalysis of the first round. If you have any questions, please let me know. Thanks.

Tracy A. Smith
Project Manager, Division of Environmental Remediation

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NEW YORK STATE | Department of Environmental Conservation

From: Anne.Burnham@parsons.com <Anne.Burnham@parsons.com>
Sent: Friday, November 4, 2022 5:55 PM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>; michael.spera@aecom.com
Cc: Mark.Arrigo@parsons.com; Maryanne.Kosciewicz@parsons.com; Montione, Robert <Robert.Montione@aecom.com>; Jesse.Carr@parsons.com; Marleiah O'Neill - AECOM (Marleiah.Oneill@aecom.com) <Marleiah.Oneill@aecom.com>; Edward.Glaza@parsons.com
Subject: RE: Results of pre-turnover near-shore sampling

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Tracy-

Please see the attached results from the second round of pre-turnover sampling. Results for dissolved mercury are all below the 0.7 ng/L criteria for the protection of human health via fish consumption. It should be noted that data have not yet been validated but substantial changes are not anticipated. These data confirm the results from the initial pre-turnover sampling event, as well as the reanalysis of those samples as communicated in my 10/28/22 email, and support our opinion that additional post turnover sampling is not necessary.

The remaining sample volume from the first round of pre-turnover can be shipped to ALS for analysis at any point. Note that there is enough volume remaining for a single run at minimal dilution. Please advise on shipping address and whose attention we should send these two and we will work on getting the samples out. At your convenience, please advise on the status of having the DEC splits shipped to Eurofins Frontier as well as the results from the reanalysis and the second round of pre-turnover sampling.

Please let us know if you have any questions or would like to discuss.

Thank you-
Anne

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From: Burnham, Anne [US-US]
Sent: Friday, October 28, 2022 1:09 PM
To: Spera, Michael <Michael.Spera@aecom.com>; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>; Arrigo, Mark [US-US] <Mark.Arrigo@parsons.com>; Kosciewicz, Maryanne [US-US] <Maryanne.Kosciewicz@parsons.com>; Montione, Bob <Robert.Montione@aecom.com>; Carr, Jesse [US-US] <Jesse.Carr@parsons.com>; Marleiah O'Neill - AECOM (Marleiah.Oneill@aecom.com) <Marleiah.Oneill@aecom.com>
Subject: RE: Results of pre-turnover near-shore sampling

Tracy,

Please see the attached results of the reanalysis. The lab package attached includes both the original and reanalysis results so please note the analysis date to differentiate between the original and the reanalysis. I have also attached a table for convenience. Results were comparable to the previous, with all of the dissolved mercury results below the criteria as we saw in the original analysis.

Please let us know when you have the results from your reanalysis. Related to the recent collection of additional pre-turnover samples, we have asked the lab to expedite the analysis of those samples. We will keep you updated on the receipt of that data. Please note that the lake turned over yesterday, October 27. Let us know if you have any questions or would like to discuss.

Thank you,
Anne

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From: Burnham, Anne [US-US]
Sent: Tuesday, October 25, 2022 9:06 AM
To: Spera, Michael <Michael.Spera@aecom.com>; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>; Arrigo, Mark [US-US] <Mark.Arrigo@parsons.com>; Kosciewicz, Maryanne [US-US] <Maryanne.Kosciewicz@parsons.com>; Montione, Bob <Robert.Montione@aecom.com>; Carr, Jesse [US-US] <Jesse.Carr@parsons.com>; Marleiah O'Neill - AECOM (Marleiah.Oneill@aecom.com) <Marleiah.Oneill@aecom.com>
Subject: RE: Results of pre-turnover near-shore sampling

Tracy-

As discussed, based on NYSDEC's plan to analyze the samples collected last week, Parsons/Honeywell plans to analyze the samples that we collected as well and not place them on hold as mentioned in my email below.

Please let us know if you have any questions or would like to discuss.

Thank you,
Anne

From: Burnham, Anne [US-US]
Sent: Wednesday, October 19, 2022 10:42 AM
To: Spera, Michael <Michael.Spera@aecom.com>; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>; Arrigo, Mark [US-US] <Mark.Arrigo@parsons.com>; Kosciewicz, Maryanne [US-US] <Maryanne.Kosciewicz@parsons.com>; Montione, Bob <Robert.Montione@aecom.com>; Carr, Jesse [US-US] <Jesse.Carr@parsons.com>; Marleiah O'Neill - AECOM (Marleiah.Oneill@aecom.com) <Marleiah.Oneill@aecom.com>
Subject: RE: Results of pre-turnover near-shore sampling

Tracy-

As a follow up to my 10/11 email below, we are planning to collect an additional round of pre-turnover samples on Thursday October 20, 2022. Samples will be collected and preserved, then placed on a hold pending analysis until the results of the reanalysis can be completed. This would be in place of any post turnover sampling. Please let us know if DEC would like to provide oversight/collect splits for this event.

Thank you,
Anne

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From: Spera, Michael <Michael.Spera@aecom.com>
Sent: Tuesday, October 11, 2022 11:22 AM
To: Burnham, Anne [US-US] <Anne.Burnham@parsons.com>; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>; Arrigo, Mark [US-US] <Mark.Arrigo@parsons.com>;

Kosciewicz, Maryanne [US-US] <Maryanne.Kosciewicz@parsons.com>; Montione, Bob <Robert.Montione@aecom.com>; Carr, Jesse [US-US] <Jesse.Carr@parsons.com>
Subject: [EXTERNAL] RE: Results of pre-turnover near-shore sampling

Yes, filtering occurred and our lab is re-running the samples. We have not received results yet.

From: Anne.Burnham@parsons.com <Anne.Burnham@parsons.com>
Sent: Tuesday, October 11, 2022 9:25 AM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>; Spera, Michael <Michael.Spera@aecom.com>
Cc: Edward.Glaza@parsons.com; Mark.Arrigo@parsons.com; Maryanne.Kosciewicz@parsons.com; Montione, Bob <Robert.Montione@aecom.com>; Jesse.Carr@parsons.com
Subject: RE: Results of pre-turnover near-shore sampling

Tracy,

To document our group conversation that was below, we have developed the below bullet points:

- DEC confirming with their laboratory (ALS) as to remaining volume to a) confirm results from previous analysis and b)to send a split to Honeywell's lab (Eurofins Frontier)
- DEC to discuss with their lab to check that filtering occurred
- Parsons, as of the call, had already requested that the Honeywell lab reanalyze the samples to confirm previous results. We are awaiting results.
- Parsons to confirm with the lab as to remaining volume for a subsequent split sample. Since the call, we have confirmed that following the confirmation of results, there will be enough volume for one remaining reanalysis if needed.
- We have checked and are able to perform a confirmatory round of pre-turnover sampling at the earliest convenience of the field team.

Please let us know if you have any questions or if you would like to discuss further.

Thank you,
Anne

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From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Monday, October 3, 2022 2:38 PM
To: Spera, Michael <michael.spera@aecom.com>; Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>; Burnham, Anne [US-US] <Anne.Burnham@parsons.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>
Cc: Arrigo, Mark [US-US] <Mark.Arrigo@parsons.com>; Carr, Jesse [US-US] <Jesse.Carr@parsons.com>; Kosciewicz, Maryanne [US-US] <Maryanne.Kosciewicz@parsons.com>; Montione, Bob <Robert.Montione@aecom.com>
Subject: [EXTERNAL] Re: Results of pre-turnover near-shore sampling

I am open Wednesday morning.

From: Spera, Michael <Michael.Spera@aecom.com>
Sent: Monday, October 3, 2022 2:31 PM
To: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>; Anne.Burnham@parsons.com <Anne.Burnham@parsons.com>; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>; michelle.mcdonald@honeywell.com <michelle.mcdonald@honeywell.com>
Cc: Mark.Arrigo@parsons.com <Mark.Arrigo@parsons.com>; Jesse.Carr@parsons.com <Jesse.Carr@parsons.com>; Maryanne.Kosciewicz@parsons.com <Maryanne.Kosciewicz@parsons.com>; Montione, Bob <Robert.Montione@aecom.com>
Subject: RE: Results of pre-turnover near-shore sampling

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I'm booked all morning Wed except 9:30-10. Bob Montione should be available then.
I can also do 12-3.

From: Edward.Glaza@parsons.com <Edward.Glaza@parsons.com>
Sent: Monday, October 3, 2022 2:22 PM
To: Anne.Burnham@parsons.com; Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>; Spera, Michael <Michael.Spera@aecom.com>; michelle.mcdonald@honeywell.com
Cc: Mark.Arrigo@parsons.com; Jesse.Carr@parsons.com; Maryanne.Kosciewicz@parsons.com
Subject: RE: Results of pre-turnover near-shore sampling

Available Wednesday morning, afternoon bad

From: Burnham, Anne [US-US] <Anne.Burnham@parsons.com>
Sent: Monday, October 3, 2022 2:10 PM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>; Spera, Michael <michael.spera@aecom.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>
Cc: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>; Arrigo, Mark [US-US] <Mark.Arrigo@parsons.com>; Carr, Jesse [US-US] <Jesse.Carr@parsons.com>; Kosciewicz, Maryanne [US-US] <Maryanne.Kosciewicz@parsons.com>
Subject: RE: Results of pre-turnover near-shore sampling

Tracy- do you have availability on Wednesday? We just had a conflict come up due to some travel.

Thanks,
Anne

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Senior Scientist
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From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Friday, September 30, 2022 7:31 AM
To: Burnham, Anne [US-US] <Anne.Burnham@parsons.com>; Spera, Michael <michael.spera@aecom.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>
Cc: Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>; Arrigo, Mark [US-US] <Mark.Arrigo@parsons.com>; Carr, Jesse [US-US] <Jesse.Carr@parsons.com>; Kosciewicz, Maryanne [US-US] <Maryanne.Kosciewicz@parsons.com>
Subject: [EXTERNAL] RE: Results of pre-turnover near-shore sampling

Anne,

We would be available Monday between 11 and 4 and Tuesday from 9-10 or 12-3:30. Let me know if one of those times works. Thanks.

Tracy

From: Anne.Burnham@parsons.com <Anne.Burnham@parsons.com>
Sent: Thursday, September 29, 2022 3:19 PM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>; michael.spera@aecom.com; michelle.mcdonald@honeywell.com
Cc: Edward.Glaza@parsons.com; Mark.Arrigo@parsons.com; Jesse.Carr@parsons.com; Maryanne.Kosciewicz@parsons.com
Subject: RE: Results of pre-turnover near-shore sampling

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Tracy,

Can you please provide availability to have a discussion on this topic?

Thank you,
Anne

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From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Tuesday, September 27, 2022 11:38 AM
To: Burnham, Anne [US-US] <Anne.Burnham@parsons.com>
Cc: Spera, Michael <michael.spera@aecom.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>; Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>; Arrigo, Mark [US-US] <Mark.Arrigo@parsons.com>; Carr, Jesse [US-US]

<Jesse.Carr@parsons.com>
Subject: [EXTERNAL] RE: Results of pre-turnover near-shore sampling

Anne,

Sorry for the delay in getting back to you. Based on a review of preliminary data for our split samples, one of the four NYSDEC split samples for dissolved (filtered) mercury was reported as a detection at 3.2 ng/L (OL-RAE-SW-01) which is above the SWQS of 0.7 ng/L and above both the total (unfiltered) mercury and dissolved mercury (0.78 ng/L and 0.52 ng/L) at this location reported by the Honeywell/Parsons lab (Eurofins Frontier).

Following our request, ALS provided their Tier IV report (attached) which has reporting of all QA/QC data and raw results. The concentrations in the filter blank (0.29 ng/L) and method blank (0.22 ng/L) were below the MDL (0.3 ng/L). Based on these results and the additional QA/QC data (e.g., lab control samples, spikes), they do not suggest an issue at the lab (i.e., no carry over contamination from other samples or from the filter). In addition, the other three samples were reported as 1 ng/L U on the Form I's (with a PQL of 1 ng/L) but looking at the raw data (PDF page 44, samples SDG R2207264-002, -003, -004), these ranged from 0.86 to 0.95 J ng/L, also above the SWQS of 0.7 ng/L and higher than the Honeywell results which were all below 0.7 ng/L.

Based on the split sample results as well as prior exceedances of the dissolved mercury SWQS reported by the Honeywell/Parsons lab from the Nitrate Addition sampling in 2019, 2020, and 2021 (up to 10.6 ng/L after fall turnover in 2020), Honeywell/Parsons should conduct a post-turnover event this fall, and we will plan to collect split samples for both total (unfiltered) and dissolved (filtered).

If you have any question or you would like to discuss, please contact me. Thanks.

Tracy A. Smith
Project Manager, Division of Environmental Remediation

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From: Anne.Burnham@parsons.com <Anne.Burnham@parsons.com>
Sent: Tuesday, September 13, 2022 4:31 PM
To: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Cc: michael.spera@aecom.com; michelle.mcdonald@honeywell.com; Edward.Glaza@parsons.com; Mark.Arrigo@parsons.com; Jesse.Carr@parsons.com
Subject: RE: Results of pre-turnover near-shore sampling

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Good afternoon Tracy,

I just wanted to see if DEC had any feedback on this topic so that we can plan accordingly. Please let me know if there are questions or if you would like to discuss.

Thank you!
Anne

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Senior Scientist
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From: Smith, Tracy (DEC) <tracy.smith@dec.ny.gov>
Sent: Wednesday, August 24, 2022 7:40 AM
To: Burnham, Anne [US-US] <Anne.Burnham@parsons.com>; Larson, Tim (DEC) <tim.larson@dec.ny.gov>
Cc: Spera, Michael <michael.spera@aecom.com>; McDonald, Michelle <michelle.mcdonald@honeywell.com>; Glaza, Edward [NN-US] <Edward.Glaza@parsons.com>; Arrigo, Mark [US-US] <Mark.Arrigo@parsons.com>; Carr, Jesse [US-US] <Jesse.Carr@parsons.com>
Subject: [EXTERNAL] RE: Results of pre-turnover near-shore sampling

Anne,

We are reviewing this along with our splits data and will get back to you. Thanks.

Tracy A. Smith
Project Manager, Division of Environmental Remediation

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Subject: Results of pre-turnover near-shore sampling

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Tracy-

As called for in the 2022 Onondaga Lake Scope Memo (July 2022), an additional round of pre-turnover surface water samples were collected from near-shore and North and South Deep locations. Sampling was performed on August 2, 2022, and samples were submitted to Eurofins Frontier for analysis of total mercury, dissolved mercury, and methylmercury. The lab report containing results is attached, as well as a summary table of the data. All results for dissolved mercury are below the 0.7 ng/L criteria for the protection of human health via fish consumption. Note that these data are unvalidated; the project chemist has confirmed that there would not be substantive changes to results during validation (i.e., not anticipated that results would be above the criteria following validation). Therefore, as all data points are below the criteria, it is recommended that no further near shore sampling (i.e., post turnover sampling) will be conducted in accordance with the approved 2022 Onondaga Lake Scope Memo (July 2022).

Please let us know if you have any questions or would like to discuss.

Thank you,
Anne

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APPENDIX 2A – WASTEBED B/ HARBOR BROOK OUTBOARD AREA PHOTOGRAPHIC LOG

Habitat Reestablishment Photographic Log
Onondaga Lake
Syracuse, NY

Approximate photo locations are shown on Figures 2B.2 and 2B.3 of Appendix B



Photo Number: 1 Date: 8/12/22

Photo Description: View from Wastebed B/Harbor Brook Outboard Area photo location 1



Photo Number: 2 Date: 8/12/22

Photo Description: View from Wastebed B/Harbor Brook Outboard Area photo location 2



Photo Number: 3 Date: 8/12/22

Photo Description: View from Wastebed B/Harbor Brook Outboard Area photo location 3

Habitat Reestablishment Photographic Log
Onondaga Lake
Syracuse, NY



Photo Number: 4 Date: 8/12/22

Photo Description: View from Wastebed B/Harbor Brook Outboard Area photo location 4



Photo Number: 5 Date: 8/12/22

Photo Description: View from Wastebed B/Harbor Brook Outboard Area photo location 5



Photo Number: 6 Date: 8/12/22

Photo Description: View from Wastebed B/Harbor Brook Outboard Area photo location 6



Photo Number: 7 Date: 8/12/22

Photo Description: View from Wastebed B/Harbor Brook Outboard Area photo location 7



Photo Number: 8 Date: 8/12/22

Photo Description: View from Wastebed B/Harbor Brook Outboard Area photo location 8



Photo Number: 9 Date: 8/12/22

Photo Description: View from Wastebed B/Harbor Brook Outboard Area photo location 9



Photo Number: 10 Date: 8/12/22

Photo Description: View from Outboard/Harbor Brook photo location 10



Photo Number: 11 Date: 8/12/22

Photo Description: View from Outboard/Harbor Brook photo location 11



Photo Number: 12 Date: 8/12/22

Photo Description: View from Wastebed B/Harbor Brook Outboard Area photo location 12



Photo Number: 13 Date: 8/12/22

Photo Description: View from Outboard/Harbor Brook photo location 13



Photo Number: 14 Date: 8/12/22

Photo Description: View from Outboard/Harbor Brook photo location 14



Photo Number: 15 Date: 8/12/22

Photo Description: View from Wastebed B/Harbor Brook Outboard Area photo location 15

APPENDIX 2B – VEGETATION DATA

TABLE 2B.1 2022 PLANT SPECIES OBSERVED IN RESTORATION AREAS

Scientific Name[1]	Common Name	Wetland Indicator Status[2,3]	Outboard/ Harbor Brook
Woody Species			
Ulmus americana	American elm	FACW	X
Platanus occidentalis	American sycamore	FACW	X
Robinia pseudoacacia	Black locust	FACU	X
Rubus occidentalis	Black raspberry	UPL	X
Salix nigra	Black willow	OBL	X
Cephalanthus occidentalis	Buttonbush	OBL	X
Ilex verticillata	Common winterberry	FACW	X
Populus deltoides	Eastern cottonwood	FAC	X
Juniperus virginiana	Eastern red cedar	FACU	X
Rhamnus cathartica	European buckthorn	FAC	X
Fraxinus pennsylvanica	Green ash	FACW	X
Viburnum lentago	Nannyberry	FAC	X
Thuja occidentalis	Northern white cedar	FACW	X
Salix discolor	Pussy willow	FACW	X
Populus tremuloides	Quaking aspen	FACU	X
Acer rubrum	Red maple	FAC	X
Betula nigra	River birch	FACW	X
Vitis riparia	Riverbank grape	FAC	X
Salix interior	Sandbar willow	FACW	X
Cornus amomum	Silky dogwood	FACW	X
Viburnum dentatum	Smooth arrowwood	FAC	X
Alnus incana ssp. rugosa	Speckled alder	FACW	X
Alnus incana	Speckled alder ssp. Rugosa	FACW	X
Lindera benzoin	Spicebush	FACW	X
Rhus typhina	Staghorn sumac	UPL	X
Rosa palustris	Swamp rose	OBL	X
Quercus bicolor	Swamp white oak	FACW	X
Rosa virginiana	Virginia rose	FAC	X
Morus alba	White mulberry	FACU	X
Herbaceous Species			
Trifolium hybridum	Alsike clover	FACU	X
Echinochloa spp.	Barnyard grass	FACW	X
Lotus corniculatus	Birdsfoot trefoil	FACU	X
Solanum dulcamara	Bitter-sweet nightshade	FAC	X
Medicago lupulina	Black medic	FACU	X
Brassica nigra	Black mustard	Unknown	X
Iris versicolor	Blueflag iris	OBL	X
Acer negundo	Box elder	FAC	X
Carex comosa	Bristly sedge	OBL	X
Typha latifolia	Broadleaf cattail	OBL	X
Rumex obtusifolius	Broad-leaved dock	FAC	X
Cyperus fuscus	Brown galingale	FAC	X
Centaurea jacea	Brown knapweed	FACU	X

TABLE 2B.1 2022 PLANT SPECIES OBSERVED IN RESTORATION AREAS (CONTINUED)

Scientific Name[1]	Common Name	Wetland Indicator Status[2,3]	Outboard/ Harbor Brook
Cicuta bulbifera	Bulb-bearing water hemlock	OBL	X
Elodea canadensis	Canada waterweed	OBL	X
Canada thistle	Cirsium arvense	FACU	X
Xanthium strumarium	Cocklebur	FAC	X
Tussilago farfara	Coltsfoot	FACU	X
Sagittaria latifolia	Common arrowhead	OBL	X
Nepeta cataria	Common catnip	FACU	X
Spirodela polyrhiza	Common duckmeal	OBL	X
Lemna minor	Common duckweed	OBL	X
Euthamia graminifolia	Common flat-topped goldenrod	FAC	X
Asclepias syriaca	Common milkweed	UPL	X
Verbascum thapsus	Common mullein	UPL	X
Erechtites hieraciifolius	Common pilewort	FACU	X
Plantago major	Common plantain	FACU	X
Ambrosia artemisiifolia	Common ragweed	FACU	X
Helenium autumnale	Common sneezeweed	FACW	X
Juncus effusus	Common soft rush	OBL	X
Hypericum perforatum	Common St. Johnswort	UPL	X
Acalypha rhomboidea	Common three-seeded mercury	FACU	X
Solidago rugosa	Common wrinkle-leaved goldenrod	FAC	X
Oxalis stricta	Common yellow wood sorrel	FACU	X
Ceratophyllum demersum	Coontail	OBL	X
Digitaria sp.	Crab grass	FAC	X
Rumex crispus	Curly dock	FAC	X
Potamogeton crispus	Curly pondweed	OBL	X
Scirpus atrovirens	Dark-green bulrush	OBL	X
Bidens frondosa	Devil's beggar ticks	FACW	X
Persicaria lapathifolia	Dock-leaved smartweed	FACW	X
Erigeron annuus	Eastern daisy fleabane	FACU	X
Asclepias incarnata	Eastern swamp milkweed	OBL	X
Myriophyllum spicatum	Eurasian water milfoil	OBL	X
Boehmeria cylindrica	False nettle	OBL	X
Lepidium campestre	Field cress	Unknown	X
Carex vulpinoidea	Fox sedge	OBL	X
Penstemon digitalis	Foxglove beardtongue	FAC	X
Nymphaea odorata	Fragrant white water lily	OBL	X
Symphyotrichum pilosum	Frostweed aster	FACU	X
Sparganium eurycarpum	Giant bur-reed	OBL	X
Peltandra virginica	Green arrow arum	OBL	X
Pilea pumila	Green-fruited clearweed	FACW	X
Schoenoplectus acutus	Hard-stemmed bulrush	OBL	X
Hieracium sp.	Hawkweed	Unknown	X
Picris hieracioides	Hawkweed oxtongue	UPL	X

TABLE 2B.1 2022 PLANT SPECIES OBSERVED IN RESTORATION AREAS (CONTINUED)

Scientific Name[1]	Common Name	Wetland Indicator Status[2,3]	Outboard/ Harbor Brook
Calystegia sepium	Hedge bindweed	FAC	X
Convolulus sepium	Hedge bindweed	FAC	X
Eutrochium fistulosum	Hollow Joe Pye weed	FACW	X
Solanum carolinense	Horse nettle	FACU	X
Equisetum sp.	Horsetail	Unknown	X
Typha x glauca	Hybrid cattail	OBL	X
Potamogeton illinoensis	Illinois pondweed	OBL	X
Apocynum cannabinum	Indian hemp	FAC	X
Chenopodium album	Lamb's quarters, pigweed	FACU	X
Ranunculus longirostris	Long-beaked white water buttercup	OBL	X
Coreopsis lanceolata	Long-stalked coreopsis	FACU	X
Galium palustre	Marsh bedstraw	OBL	X
Spiraea alba	Meadowsweet	FACW	X
Artemisia vulgaris	Mugwort	UPL	X
Sisyrinchium angustifolium	Narrow-leaved blue-eyed grass	FAC	X
Typha angustifolia	Narrow-leaved cattail	OBL	X
Vernonia noveboracensis	New York ironweed	FACW	X
Senna hebecarpa	Northern wild senna	FACW	X
Phragmites australis	Old World reed grass	FACW	X
Leucanthemum vulgare	Oxeye daisy	UPL	X
Heliopsis helianthoides	Ox-eye sunflower	FACU	X
Persicaria pensylvanica	Pennsylvania smartweed	FACW	X
Erigeron philadelphicus	Philadelphia fleabane	FAC	X
Pontederia cordata	Pickerelweed	OBL	X
Conium maculatum	Poison-hemlock	FACW	X
Phytolacca americana	Pokeweed	FACU	X
Spartina pectinata	Prairie cordgrass	FACW	X
Eutrochium purpureum	Purple Joe Pye weed	FAC	X
Lythrum salicaria	Purple loosestrife	OBL	X
Bidens connata	Purple-stemmed beggar ticks	FACW	X
Phalaris arundinacea	Reed canary grass	FACW	X
Leersia oryzoides	Rice cutgrass	OBL	X
Geum laciniatum	Rough avens	FACW	X
Stuckenia pectinata	Sago pondweed	OBL	X
Carex lurida	Sallow sedge	OBL	X
Lysimachia arvensis	Scarlet pimpernel	FACU	X
Prunella vulgaris	Selfheal	FAC	X
Onoclea sensibilis	Sensitive fern	FACW	X
Desmodium canadense	Showy tick trefoil	FAC	X
Acer saccharinum	Silver maple	FACW	X
Sporobolus alterniflorus	Smooth cord grass	OBL	X
Schoenoplectus tabernaemontani	Softstem bulrush	OBL	X
Agrimonia parviflora	Southern agrimony	FAC	X
Alisma subcordatum	Southern water plantain	OBL	X
Eleocharis sp.	Spike rush	Unknown	X

TABLE 2B.1 2022 PLANT SPECIES OBSERVED IN RESTORATION AREAS (CONTINUED)

Scientific Name[1]	Common Name	Wetland Indicator Status[2,3]	Outboard/ Harbor Brook
Sonchus asper	Spiny-leaved sow thistle	FACU	X
Impatiens capensis	Spotted jewelweed	FACW	X
Euphorbia sp.	Spurge	Unknown	X
Nitellopsis obtusa	Starry stonewort	OBL	X
Bolboschoenus robustus	Sturdy bulrush	OBL	X
Potentilla recta	Sulphur cinquefoil	UPL	X
Hibiscus moscheutos	Swamp rose mallow	OBL	X
Melilotus officinalis	Sweetclover	FACU	X
Acorus americana	Sweetflag	OBL	X
Panicum virgatum	Switch grass	FAC	X
Lactuca biennis	Tall blue lettuce	FAC	X
Solidago altissima	Tall goldenrod	FACU	X
Potentilla norvegica	Ternate-leaved cinquefoil	FAC	X
Schoenoplectus pungens	Three-square bulrush	OBL	X
Atriplex prostrata	Triangle orache	FAC	X
Vicia cracca	Tufted vetch	Unknown	X
Hybrid cattail	Typha x glauca	OBL	X
Abutilon theophrasti	Velvetleaf	FACU	X
Vallisneria americana	Water celery	OBL	X
Lycopus sp.	Water horehound	OBL	X
Najas sp.	Water nymph	OBL	X
Ludwigia palustris	Water purslane	OBL	X
Heteranthera dubia	Water stargrass	OBL	X
Decodon verticillatus	Water willow	OBL	X
Melilotus albus	White sweet-clover	FACU	X
Monarda fistulosa	Wild bergamot	FACU	X
Daucus carota	Wild carrot	UPL	X
Echinocystis lobata	Wild cucumber	FACW	X
Pastinaca sativa	Wild parsnip	UPL	X
Zizania aquatica	Wild rice	OBL	X
Dipsacus fullonum	Wild teasel	FACU	X
Epilobium sp.	Willowherb	Unknown	X
Geum aleppicum	Yellow avens	FAC	X
Cyperus esculentus	Yellow nut sedge	FACW	X
Nuphar lutea	Yellow pond-lily	OBL	X

[1] Botanical nomenclature follows New York Flora Atlas (Werier et al. 2023).

[2] Wetland Indicator Status nomenclature:

Obligate Wetland (OBL): occurs almost always (estimated probability >99%) in wetlands.

Facultative Wetland (FACW): usually occurs in wetlands (estimated probability 67%-99%), but is occasionally found in non-wetlands.

Facultative (FAC): equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).

Facultative Upland (FACU): usually occurs in non-wetlands (estimated probability 67%-99%), but is occasionally found in wetlands (estimated probability 1%-33%).

Obligate Upland (UPL): occurs almost always (estimated probability >99%) in non-wetlands.

[3] References for Wetland Indicator Statuses throughout the document follow New York Flora Atlas (Werier et al. 2023).

TABLE 2B.2 2022 QUANTITATIVE VEGETATION MONITORING PLOT PERCENT PLANT COVERS, MOUTH OF NINEMILE CREEK WETLAND RESTORATION AREA

Wetland Monitoring Locations		
Monitoring Location	Total Plant Cover	Total Invasive Cover[1]
Ninemile Creek Spits		
Plot 30	100%	0%
Plot 31	80%	0%
Plot 32	95%	0%
Plot 33	100%	0%
Plot 34	100%	0%
Plot 35	100%	0%
Plot 36	100%	2%
Plot 37	100%	0%
Plot 38	100%	0%
Plot 39	100%	0%
Plot 40	100%	0%
Plot 41	80%	0%
Plot 42	95%	0%
Plot 43	100%	5%
Plot 44	100%	0%
Plot 45	100%	0%
Plot 46	100%	0%
Plot 47	80%	0%
2022 Average Cover[2]	**96.1%**	**0.39%**
In-Lake Planted Areas		
Plot 1	100%	0%
Plot 2	100%	0%
Plot 3	100%	0%
Plot 4	100%	0%
Plot 5	100%	0%
Plot 6	100%	0%
Plot 7	100%	0%
Plot 8	95%	0%
Plot 9	75%	0%
Plot 10	95%	0%
Plot 11	100%	0%
Plot 12	100%	0%
Plot 13	60%	0%
Plot 14	100%	0%
Plot 15	100%	0%
Plot 16	95%	0%
Plot 17	100%	0%
Plot 18	100%	0%
Plot 19	100%	0%
Plot 20	100%	0%
Plot 21	100%	0%
Plot 22	100%	0%

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TABLE 2B.2 2022 QUANTITATIVE VEGETATION MONITORING PLOT PERCENT PLANT COVERS, MOUTH OF NINEMILE CREEK WETLAND RESTORATION AREA (CONTINUED)

Wetland Monitoring Locations		
Monitoring Location	Total Plant Cover	Total Invasive Cover[1]
Plot 23	60%	0%
Plot 24	95%	0%
Plot 25	80%	0%
Plot 26	90%	0%
Plot 27	100%	0%
Plot 28	65%	0%
Plot 29	100%	0%
Plot 48	100%	0%
Plot 49	100%	0%
Plot 50	100%	0%
Plot 51	80%	0%
Plot 52	100%	0%
Plot 53	80%	0%
Plot 54	75%	0%
Plot 55	100%	0%
Plot 56	100%	0%
Plot 57	80%	0%
Plot 58	100%	0%
Plot 59	20%	0%
2022 Average Cover[3]	**91.3%**	**0.00%**

[1]Table 7.4 of the OLMMP provides a list of invasive vegetative species to be managed

[2] The OLMMP thresholds for the Ninemile Creek Spits after the fifth growing season are total wetland plant cover is at least 85 percent and invasive wetland species are is less than or equal to 5 percent.

[3] The OLMMP thresholds for the Ninemile Creek in-lake planted areas after the fifth growing season are total wetland plant cover is at least 75 percent and invasive wetland species is less than or equal to 5 percent.

TABLE 2B.3 2022 RELATIVE COVER OF DIFFERENT WETLAND INDICATOR STATUS VEGETATION TYPES, MOUTH OF NINEMILE CREEK RESTORATION AREA

Wetland Indicator Status[1,2]	Overall (%)[3]
UPL	0.00%
FACU	0.94%
FAC	2.31%
FACW	2.59%
OBL	94.09%

[1] Wetland Indicator Status nomenclature:

- Obligate Wetland (OBL): occurs almost always (estimated probability >99%) in wetlands.
- Facultative Wetland (FACW): usually occurs in wetlands (estimated probability 67%-99%), but is occasionally found in non-wetlands.
- Facultative (FAC): equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).
- Facultative Upland (FACU): usually occurs in non-wetlands (estimated probability 67%-99%), but is occasionally found in wetlands (estimated probability 1%-33%).
- Obligate Upland (UPL): occurs almost always (estimated probability >99%) in non-wetlands.

[2] References for Wetland Indicator Statuses throughout the document follow New York Flora Atlas (Werier et al. 2023).

[3] Calculated from all sampling plots combined.

TABLE 2B.4 2022 QUANTITATIVE VEGETATION MONITORING PLOT PERCENT PLANT COVERS, WASTEBED B/HARBOR BROOK OUTBOARD AREA

Monitoring Location	Total Plant Cover	Total Invasive Cover[1]
Upland Areas		
Plot 15	100%	0%
Plot 16	100%	2%
Plot 18	100%	2%
Plot 25	100%	0%
Plot 44	100%	0%
Plot 48	100%	0%
Plot 49	100%	0%
2022 Average Cover[2]	**100.0%**	**0.6%**
Wetland Areas		
Plot 1	100%	0%
Plot 2	100%	0%
Plot 3	100%	2%
Plot 4	100%	5%
Plot 5	100%	0%
Plot 6	100%	2%
Plot 7	100%	0%
Plot 8	100%	0%
Plot 9	100%	0%
Plot 10	100%	2%
Plot 11	100%	0%
Plot 12	100%	5%
Plot 13	100%	0%
Plot 14	100%	0%
Plot 17	100%	0%
Plot 19	100%	0%
Plot 20	50%	2%
Plot 21	100%	0%
Plot 22	80%	0%
Plot 23	100%	0%
Plot 24	100%	0%
Plot 26	100%	0%
Plot 27	75%	0%
Plot 28	100%	0%
Plot 29	100%	0%
Plot 30	100%	0%
Plot 31	100%	0%
Plot 32	100%	0%
Plot 33	100%	0%

TABLE 2B.4 2022 QUANTITATIVE VEGETATION MONITORING PLOT PERCENT PLANT COVERS, WASTEBED B/HARBOR BROOK OUTBOARD AREA (CONTINUED)

Monitoring Location	Total Plant Cover	Total Invasive Cover[1]
Plot 34	100%	0%
Plot 35	95%	0%
Plot 36	100%	7%
Plot 37	100%	0%
Plot 38	100%	0%
Plot 39	100%	0%
Plot 40	100%	0%
Plot 41	100%	0%
Plot 42	100%	0%
Plot 43	100%	0%
Plot 45	100%	2%
Plot 46	0%	0%
Plot 47	15%	0%
Plot 50	100%	0%
Plot 51	100%	2%
Plot 52	90%	0%
Plot 53	100%	2%
Plot 54	100%	5%
Plot 55	20%	0%
Plot 56	100%	0%
Plot 57	40%	0%
Plot 58	75%	0%
2022 Average Cover[3]	**91.0%**	**0.7%**
25' Planted Buffer		
Plot 59	50%	0%
Plot 60	75%	0%
Plot 61	50%	0%
Plot 62	100%	0%
Plot 63	100%	0%
Plot 64	20%	0%
2022 Average Cover[4]	**65.8%**	**0.0%**

[1]Table 7.4 of the OLMMP provides a list of invasive vegetative species to be managed

[2] The OLMMP thresholds for planted upland areas after the fourth full growing season are total plant cover is at least 85 percent and Invasive species are not present

[3] The OLMMP thresholds for planted wetland areas after the fourth full growing season are total wetland plant cover is at least 85 percent and invasive wetland species are not present.

[4]The 25' Planted Buffer is outside of the Wastebed B/Harbor Brook Outboard Area boundary.

TABLE 2B.5 2022 RELATIVE COVER OF DIFFERENT WETLAND INDICATOR STATUS VEGETATION TYPES WASTEBED B/HARBOR BROOK OUTBOARD AREA

Wetland Indicator Status[1,2]	Overall (%)[3]
UPL	0.3%
FACU	5.0%
FAC	5.4%
FACW	10.5%
OBL	76.1%

[1] Wetland Indicator Status nomenclature:

- Obligate Wetland (OBL): occurs almost always (estimated probability >99%) in wetlands.
- Facultative Wetland (FACW): usually occurs in wetlands (estimated probability 67%-99%), but is occasionally found in non-wetlands.
- Facultative (FAC): equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).
- Facultative Upland (FACU): usually occurs in non-wetlands (estimated probability 67%-99%), but is occasionally found in wetlands (estimated probability 1%-33%).
- Obligate Upland (UPL): occurs almost always (estimated probability >99%) in non-wetlands.

[2] References for Wetland Indicator Statuses throughout the document follow New York Flora Atlas (Werier et al. 2023).

[3] Calculated from all sampling plots combined.

TABLE 2B.6 2022 PLANT INSTALLATION SUMMARY
WASTEBED B/HARBOR BROOK OUTBOARD AND MOUTH OF NINEMILE CREEK AREAS

Scientific Name	Common Name	OB/HB Quantity
Large Trees		
Salix nigra	Black willow	6
	Total	**6**
Live Stakes		
Salix nigra	Black willow	250
	Total	**250**
Plugs		
Hibiscus moscheutos	Swamp rose mallow	750
Nuphar lutea	Spatterdock	900
Nymphaea odorata	American white water lily	400
Pontederia cordata	Pickerelweed	16850
Schoenoplectus tabernaemontani	Softstem Bulrush	4100
Sparganium americanum	American burreed	1200
Spartina alterniflora	Smooth cordgrass	150
	Total	**24350**

TABLE 2B.7 2022 VEGETATION DATA SUMMARY MOUTH OF NINEMILE CREEK RESTORATION AREA

Scientific Name[1]	Common Name	Wetland Indicator Status[2,3]	Relative Cover
Stuckenia pectinata	Sago pondweed	OBL	20.9%
Typha latifolia [4]	Broadleaf cattail	OBL	15.7%
Elodea canadensis	Common waterweed	OBL	9.6%
Ceratophyllum demersum	Coontail	OBL	8.8%
Heteranthera dubia	Water stargrass	OBL	8.8%
Schoenoplectus tabernaemontani	Softstem bulrush	OBL	6.7%
Typha x glauca [4]	Hybrid cattail	OBL	3.9%
Potamogeton illinoensis	Illinois pondweed	OBL	2.8%
Leersia oryzoides	Rice cutgrass	OBL	2.8%
Nymphaea odorata	American white waterlily	OBL	2.1%
Nitellopsis obtusa	Starry stonewort	OBL	2.1%
Potamogeton crispus	Curly-leaf pondweed	OBL	1.7%
Nuphar lutea	Yellow pond-lily	OBL	1.6%
Pontederia cordata	Pickerelweed	OBL	1.5%
Sparganium eurycarpum	Giant bur-reed	OBL	1.1%
other species (<1% rel. cover, 41 species)			10.0%
		Total	100%

[1] Botanical nomenclature follows New York Flora Atlas (Werier et al. 2023).

[2] Wetland Indicator Status nomenclature:

Obligate Wetland (OBL): occurs almost always (estimated probability >99%) in wetlands.

Facultative Wetland (FACW): usually occurs in wetlands (estimated probability 67%-99%), but is occasionally found in non-wetlands.

Facultative (FAC): equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).

Facultative Upland (FACU): usually occurs in non-wetlands (estimated probability 67%-99%), but is occasionally found in wetlands (estimated probability 1%-33%).

Obligate Upland (UPL): occurs almost always (estimated probability >99%) in non-wetlands.

[3] References for Wetland Indicator Statuses throughout the document follow New York Flora Atlas (Werier et al. 2023).

[4] Broadleaf cattail hybridizes readily with narrowleaf cattail and the hybrid can be challenging to distinguish from broadleaf cattail. Narrowleaf cattail has been documented in the qualitative surveys and there are also nearby populations outside the restoration area. Therefore, it is likely that some degree of hybridization is occurring.



LEGEND:

- LAKE CONTOURS–1' INTERVAL (POST REMEDY CONTOURS SHOWN)
- PROTECTIVE EDGE
- REMEDIATION AREA A BOUNDARY
- SHORELINE (362.5')
- SHORELINE STABILIZATION AND ENHANCEMENT AREA
- NINEMILE CREEK SPITS
- PLANTED AREAS
- NINEMILE CREEK SPITS PLOTS
- IN–LAKE PLANTED AREA PLOTS



KEY PLAN
NOT TO SCALE

150 0 150 300

SCALE: 1"=150'

FIGURE 2B.1

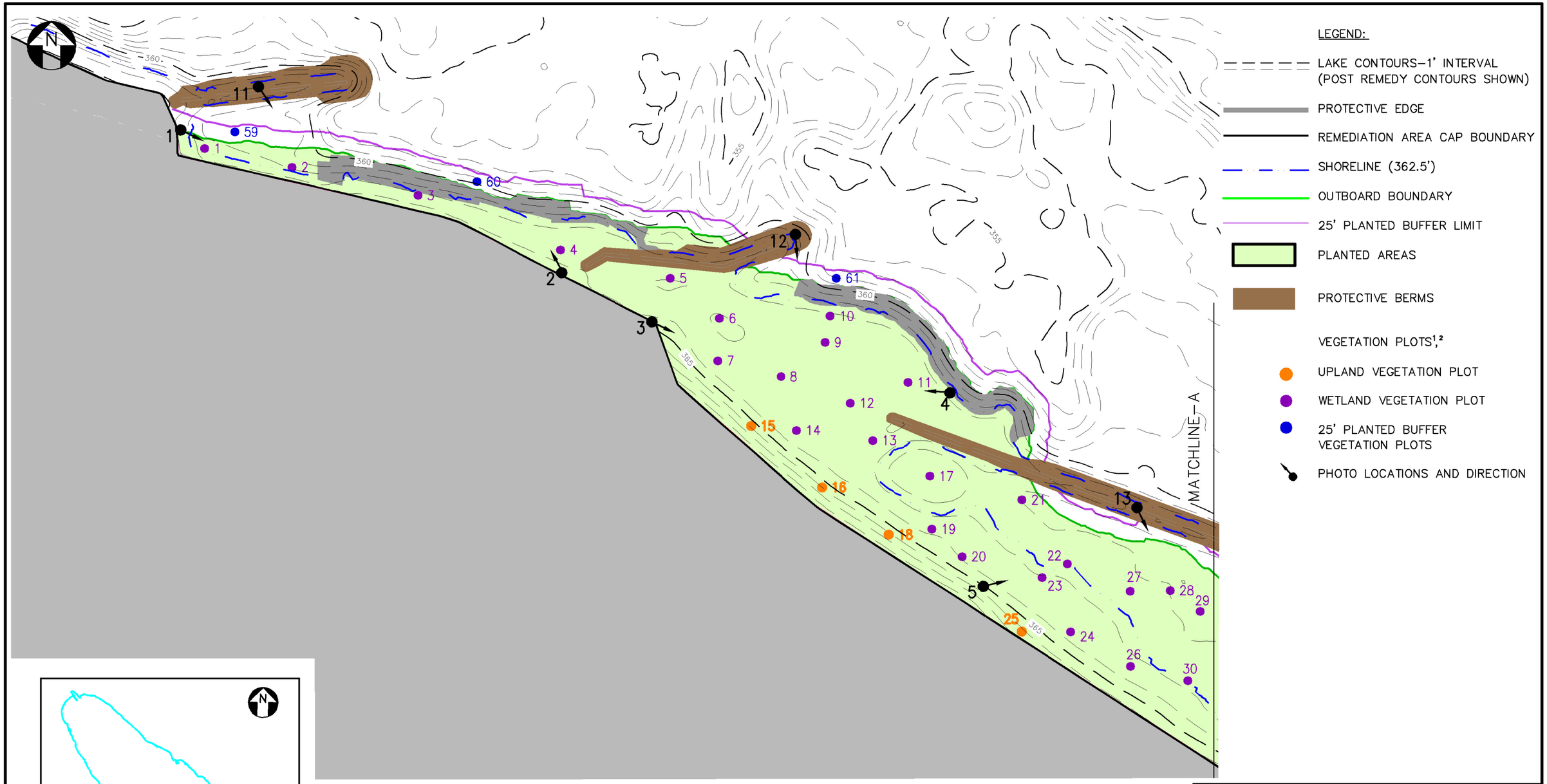
Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

MOUTH OF NINEMILE CREEK
PLANTED AREA VEGETATION
MONITORING PLOTS AND
PHOTOGRAPH LOCATIONS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\450704 2017-2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\2022 ANNUAL REPORT\450704-ANNUALRPT-2022-04.DWG
PLOT DATE: 5/8/2023 3:23 PM PLOTTED BY: RUSSO, JILL [US-US]





1. PLOTS 6, 7, 8, 13, 14, 15, 16, 18, 19, 20, AND 25 MONITORED FOR HERBACEOUS AND WOODY COMPONENTS. ALL OTHER PLOTS ARE HERBACEOUS ONLY.

2. PLOTS 59, 60, AND 61 CONDUCTED WITH A THROW RAKE DUE TO WATER DEPTH.

150 0 150 300

SCALE: 1"=150'

FIGURE 2B.2

Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

WESTERN WASTEBED B/HARBOR BROOK OUTBOARD AREA VEGETATION MONITORING PLOTS AND PHOTOGRAPH LOCATIONS

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\450704 2017-2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\2020 ANNUAL REPORT\450704-ANNUALRPT-2020-05.DWG
PLOT DATE: 7/19/2021 3:52 PM PLOTTED BY: RUSSO, JILL

N

MATCHLINE – A

LEGEND:

- LAKE CONTOURS–1' INTERVAL (POST REMEDY CONTOURS SHOWN)
- PROTECTIVE EDGE
- REMEDIATION AREA CAP BOUNDARY
- SHORELINE (362.5')
- OUTBOARD BOUNDARY
- 25' PLANTED BUFFER LIMIT
- PLANTED AREAS
- PROTECTIVE BERMS
- STREAM

VEGETATION PLOTS[1,2]

- UPLAND VEGETATION PLOT
- WETLAND VEGETATION PLOT
- 25' PLANTED BUFFER VEGETATION PLOTS
- PHOTO LOCATIONS AND DIRECTION

HARBOR BROOK

ONONDAGA LAKE

1. PLOTS 43, 44, 45, 48, 49, 50, 51 MONITORED FOR HERBACEOUS AND WOODY COMPONENTS. ALL OTHER PLOTS ARE HERBACEOUS ONLY.

2. PLOTS 59, 60, AND 61 CONDUCTED WITH A THROW RAKE DUE TO WATER DEPTH.

KEY PLAN
NOT TO SCALE

150 0 150 300

SCALE: 1"=150'

FIGURE 2B.3

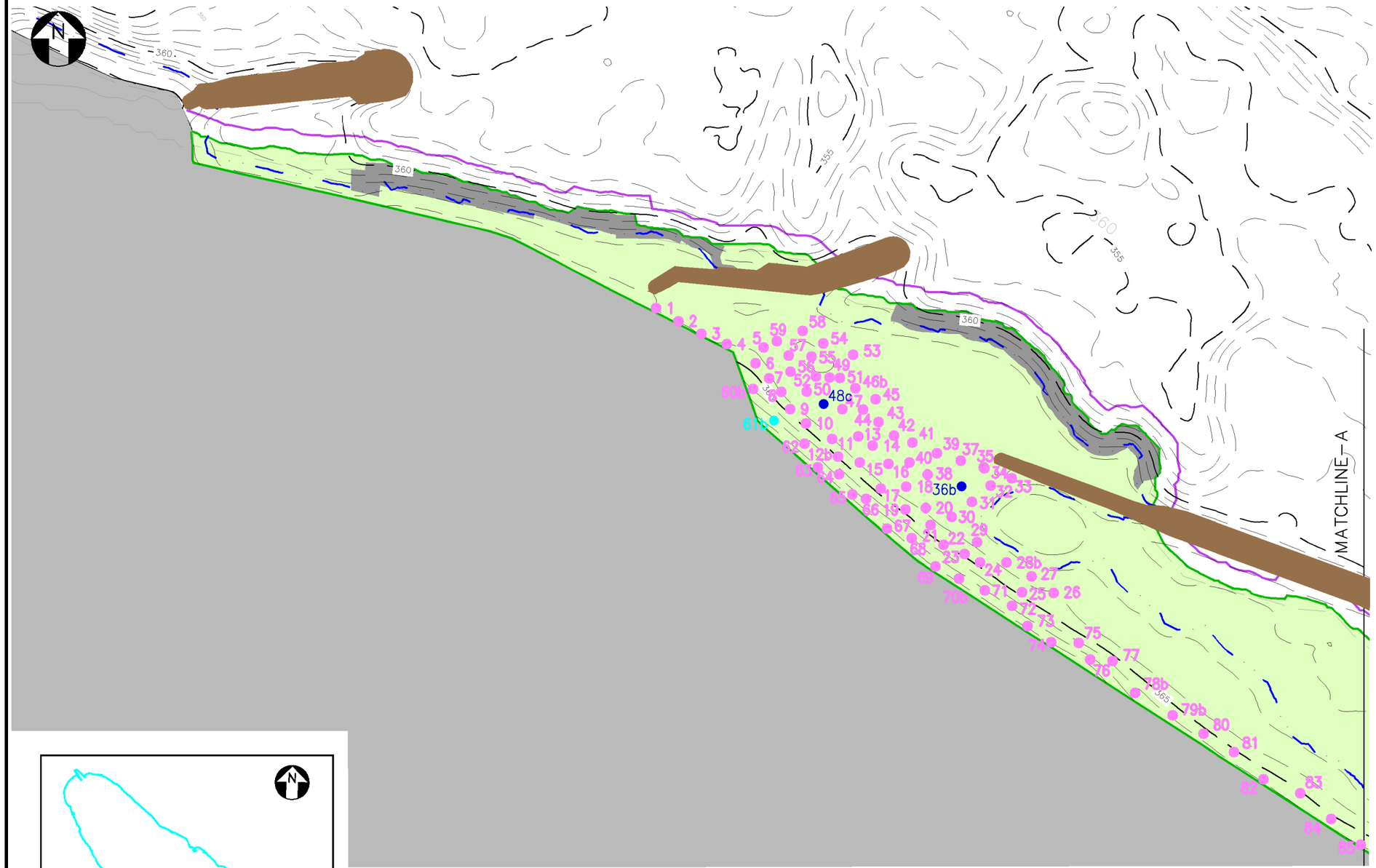
Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

EASTERN WASTEBED B/HARBOR BROOK OUTBOARD AREA VEGETATION MONITORING PLOTS AND PHOTOGRAPH LOCATIONS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\450704 2017-2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\2020 ANNUAL REPORT\450704-ANNUALRPT-2020-05.DWG
PLOT DATE: 7/19/2021 3:54 PM PLOTTED BY: RUSSO, JILL



NOTES:

1. TREE 36 WAS NOTED IN DEAD CONDITION IN THE 2021 SURVEY. TREE 36 WAS REPLACED IN 2022 AND RELABELED AS TREE 36B
2. TREE 48B WAS NOTED IN DEAD CONDITION IN THE 2022 SURVEY. TREE 48B WAS REPLACED IN 2022 AND RELABELED TREE 48C.
3. TREE 61B WAS NOTED IN VERY POOR CONDITION IN THE 2022 SURVEY. TREE 61B WILL BE REPLACED AT A 3:1 RATIO IN 2023.



KEY PLAN
NOT TO SCALE

150 0 150 300

SCALE: 1"=150'

FIGURE 2B.4

Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

WESTERN WASTEBED B/HARBOR BROOK OUTBOARD AREA
LARGE TREE LOCATIONS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\450704 2017-2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\2022 ANNUAL REPORT\450704-AR-TREES-2022.DWG
PLOT DATE: 5/8/2023 4:01 PM PLOTTED BY: RUSSO, JILL [US-US]

N

MATCHLINE – A

LEGEND:

- LAKE CONTOURS–1' INTERVAL (POST REMEDY CONTOURS SHOWN)
- REMEDIATION AREA CAP BOUNDARY
- SHORELINE (362.5')
- OUTBOARD BOUNDARY
- 25' PLANTED BUFFER LIMIT
- PLANTED AREAS
- PROTECTIVE BERMS
- LARGE TREE LOCATIONS
- LARGE TREE LOCATIONS (REPLACED)
- PHOTO LOCATIONS AND DIRECTION

355

360

HARBOR BROOK

86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103

KEY PLAN
NOT TO SCALE

ONONDAGA LAKE

150 0 150 300

SCALE: 1"=150'

FIGURE 2B.5

Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

EASTERN WASTEBED B/HARBOR BROOK OUTBOARD AREA
LARGE TREE LOCATIONS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL –SYR\450704 2017–2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\2022 ANNUAL REPORT\450704–AR–TREES–2022.DWG
PLOT DATE: 5/8/2023 4:05 PM PLOTTED BY: RUSSO, JILL [US–US]

APPENDIX 2C – WASTEBED B/HARBOR BROOK OUTBOARD YEAR 5 WETLAND DELINEATION REPORT

WETLANDS/WATERS DELINEATION REPORT WASTEBED B/HARBOR BROOK OUTBOARD AREA

ONONDAGA COUNTY, NEW YORK

Prepared For:

Honeywell

301 Plainfield Road
Suite 330
Syracuse, New York 13212

Prepared By:

JOSEPH MCMULLEN, SENIOR PWS
17 Quail Path
Liverpool, NY 13090

and

PARSONS

301 Plainfield Road
Suite 350
Syracuse, New York 13212

FEBUARY 2025

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LIST OF ACRONYMS

FAC	Facultative Plant
FACW	Facultative Wetland Plant
GPS	Global Positioning System
NYSDEC	New York State Department of Environmental Conservation
NWI	National Wetlands Inventory
OLMMP	Onondaga Lake Monitoring and Maintenance Plan
TES	Terrestrial Environmental Specialists, Inc.
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey

EXECUTIVE SUMMARY

Following completion of remediation of Onondaga Lake in 2017, wetlands and adjacent habitats were restored/created in the southwestern corner of Onondaga Lake. The area is referred to as the Wastebed B/Harbor Brook Outboard Area. It is located in the Town of Geddes and City of Syracuse. Monitoring was required of the restored habitats for five years, and one of the requirements of the monitoring plan was a formal delineation of the wetlands/waters in the area. This report presents the results of this formal delineation, along with additional information on wildlife usage and quality of the restored habitats using functions and values comparisons to pre-remediation habitats. The delineation was performed by Joseph M. McMullen and Parsons.

The specific study area for the Wastebed B/Harbor Brook Outboard Area includes the area at the mouth of Harbor Brook and the southern lake shore area east from the mouth approximately 450 feet and west along the shoreline approximately 3200 feet. The limits of the study area extend out from the lake shore approximately 300 feet in places. The study area included portions of the protective berms that were constructed in the area to protect the created wetlands from wave action and ice. The area is bordered on the landward edge by well-vegetated restored uplands and Onondaga County's West Shore Recreational Trail.

Methods involved in the delineation included an initial review of background resource maps, aerial photographs, as-built surveys, and information gathered by Parsons over the years. Wetlands/waters were delineated with numbered flags using state and federal methodologies on August 9 and 10, 2022. Each flag was located using global positioning system (GPS) equipment by Parsons and plotted on an as-built survey of the area. During the field effort, data on vegetation, soils, and hydrology were collected in plots on either side of the delineated boundary at various locations. The plot data were recorded on standard federal forms. Photographs were taken, and a cover map of wetland and upland habitat types was developed. Information was recorded on wildlife usage and vegetation abundance throughout the field efforts.

Results of the delineation effort are presented in text and tabular form, supplemented with figures. Plot data and photographs are provided in appendices. Acreage of each wetland/water area was calculated from the plotted GPS-located points. Lists of plants and animals recorded at the study areas are presented in tables, which include species documented by Parsons and McMullen since 2018. The wetlands/waters delineated on the site are described, including detailed information on vegetation and wildlife/fish usage, as well as information on soils and hydrology.

ES.1 Wastebed B/Harbor Brook Outboard Area

Persistent emergent, non-persistent emergent, and forested wetland types totaling 10.6 acres dominated by native species covered much of the Wastebed B/Harbor Brook Outboard Area. Common species found throughout the emergent wetlands included: cattail (*Typha* sp.), softstem bulrush (*Schoenoplectus tabernaemontani*), bur-reed (Sparganium sp.), common arrowhead (*Sagittaria latifolia*), nut sedge (*Cyperus* sp.), dock-leaved smartweed (*Persicaria lapathifolia*), swamp rose mallow (*Hibiscus moscheutos*), rough cocklebur (*Xanthium strumarium*), white and yellow water lily (*Nymphaea odorata, Nuphar advena*), and pickerelweed (*Pontederia cordata*). A young forested/scrub-shrub wetland was also created in the area as part of the remediation/restoration. Silver maple (*Acer saccharinum*), black willow (*Salix nigra*), and eastern sycamore (*Platanus occidentalis*) trees were common in this area and reached heights of 25 to 35 feet. In addition to wetland areas, 4.1 acres of deeper open waters occurred in the study area, dominated by submerged aquatic plants such as water stargrass (Heteranthera dubia), coontail (*Ceratophyllum demersum*), bladderwort (*Utricularia* sp.), waterweed (*Elodea canadensis*), and sago pondweed (*Stuckenia pectinata*).

Various wildlife/fish species were observed in the restoration areas. A number of waterfowl species and other birds dependent on wetlands habitat were observed in or near the wetlands/waters of the study area. The landscape position of the wetlands within the adjacent Onondaga Lake waters increases their value for this group. Several duck species were noted utilizing the area with some nesting in the emergent wetlands. Green heron (*Butorides virescens*), great blue heron (*Ardea herodias*), great egret (*Ardea alba*), spotted sandpiper (*Actitis macularius*), and red-winged blackbird (*Agelaius phoeniceus)*, as well as special concern raptors, such as bald eagle *(Haliaeetus* l*eucocephalus*) and osprey (*Pandion haliaetus*) were observed. Large and small mammals noted in the area included American beaver (*Castor canadensis*), muskrat (*Ondatra zibethicus*), and eastern cottontail rabbit (*Sylvilagus floridanus*).

With a restored substrate mix of soil and gravel/cobble improving the in-water habitat in the restoration areas, various fish species were noted. Paper pondshell (*Utterbackia imbecillis*), a freshwater mussel with an S1 state conservation status, was found in the wetlands.

ES.2 Goals and General Functions and Benefits Comparisons

This report also addresses the goals of the habitat restoration plan from a quantitative standpoint, as well as a comparison of the quality of the habitats restored to those that existed pre-remediation using a functions and benefit parameters approach.

The wetlands that occurred prior to remediation in the Wastebed B/Harbor Brook Outboard Area were dominated by dense stands of the invasive common reed grass. Results of the post-restoration wetlands/waters delineation indicated that a total of 10.6 acres of wetland dominated by native species were created in the area. An additional 4.1 acres of primarily submerged aquatic vegetation in deeper water areas was also created.

Quantitative comparisons using acreage numbers is part of what should be considered when viewing successful restoration. The other part is the quality of the restored habitats, especially wetlands/waters habitats, in comparison to that which existed pre-remediation. A wetlands functions and benefits analysis and wildlife assessment were made of the areas prior to remediation. The results of this study were used to make general quality comparisons to the restored habitats and showed that functions are being maintained in the restored habitats, with plant diversity and wildlife habitat value greatly increased. In-water habitat has also greatly improved with restoration.

Prior to remediation, invasive species, particularly common reed grass, were common in the restoration areas. The wetlands are now dominated by a diverse mix of native species greatly improving habitat value, and invasive species are rare.

The abundance of wildlife in the created wetlands, especially waterfowl and raptors, along with the development of Onondaga County's West Shore Recreational Trail, has resulted in a tremendous increase in wildlife viewing and photography in the area. This community benefit value did not exist in the area prior to remediation.

SECTION 1 INTRODUCTION

Mr. McMullen was contracted to assist Parsons' personnel in the performance of a delineation of wetlands/ waters within the Wastebed B/Harbor Brook Outboard Area, which is a portion of the area remediated and restored as part of the Onondaga Lake remediation program. The delineation was a required part of the long-term monitoring plan, as specified in the Onondaga Lake Monitoring and Maintenance Plan (OLMMP) (Parsons 2018a). The study area for this delineation is referred to as the Wastebed B/Harbor Brook Outboard Area. It is located along the lake shore and at the mouth of Harbor Brook in the southwestern corner of Onondaga Lake and is in the Town of Geddes and City of Syracuse, Onondaga County, New York.

Environmental studies were performed in this area prior to any remediation activities. These studies included wetlands/waters delineation efforts. Mr. McMullen was involved with some of the original wetlands/waters delineations when he was a principal in the firm Terrestrial Environmental Specialists, Inc. (TES). O'Brien & Gere (now Ramboll) also performed studies of the area. An overview of the delineation and related studies are provided in Section 2 Prior Studies.

The current Investigation included a review of background information, maps, and aerial photographs prior to the field delineation of wetlands/waters and associated efforts, as indicated in Section 3. Detailed methods involved in the wetlands/waters delineation are provided in Section 4. Results of the delineation and habitat assessment are presented in Section 5, and are supplemented by various tables and figures, as well as appendices of wetland determination plot data forms and photographs. A general functions and benefits analysis of the restored habitats is provided in Section 6.

SECTION 2 PRIOR STUDIES

As previously indicated, prior to remediation efforts, the Wastebed B/Harbor Brook Outboard Area underwent environmental resource studies. These prior studies included detailed wetlands delineations of the area and are presented in O'Brien & Gere (2003 and 2007). At the time of the delineation, wetlands existed at a few locations in the area, not all of which were connected to the lake. There was a large wetland area contiguous to the lake at the mouth of Harbor Brook. All these areas were dominated by dense stands of common reed grass (*Phragmites australis*), with a substrate of primarily spoil material, and provided habitat primarily for passerine birds. Very few waterfowl species were noted.

A separate wetlands/floodplain assessment report (O'Brien & Gere and Parsons 2010) for Onondaga Lake provided an evaluation of the function and benefits of the wetlands along the lake, including the Wastebed B/ Harbor Brook Outboard Area. This report provides information that is helpful in assessing the habitat changes and the success of the wetland/waters habitat restoration. Such comparisons are further addressed in Section 6 General Functions and Benefits Assessment Comparisons.

SECTION 3 BACKGROUND INFORMATION REVIEW

Prior to the field investigations of the Wastebed B/Harbor Brook Outboard Area, various background maps and information were assembled and reviewed. This information included prior reports of the area and the following specific information.

- The United States Geological Survey (USGS) topographic map (Syracuse West quadrangle) (Figure 1).
- New York State Department of Environmental Conservation (NYSDEC) New York State Freshwater Wetlands map (Figure 2).
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) map (Figure 3).
- Aerial photographs used to present the vegetation/land use cover map of the Wastebed B/Harbor Brook Outboard Area (Figures 4a and 4b).

As indicated, these background resource maps were developed into figures. All figures are provided after the text of the report.

SECTION 4 METHODS

The agency resource maps and aerial photographs discussed in Section 3 were used during the field review of the area. Delineation of the wetlands/waters and plot data collection along the wetland boundaries were performed by Mr. McMullen and Parsons on August 9, 2022. The boundaries were delineated using the state and federal criteria for delineating wetlands (NYSDEC 1995, Environmental Laboratory 1987, USACE 2012, USACE 2020, and USDA NRCS 2017). The main study area is defined as the restored wetlands within the limit of the Outboard Boundary as shown in Figures 4a and 4b. Although the delineation focused on this area, any continuous wetland vegetation that was a direct result of the restoration efforts, but outside of the study area, were also included in the overall wetland assessment.

Mr. McMullen and Parsons performed an additional review of the wetlands and upland habitats on August 10, 2022. This review included a refinement of the vegetation cover map and collection of qualitative information on abundant plant species in each cover type. Observations on wildlife usage were recorded during all field visits.

Surveyors ribbon was placed along the wetland/waters boundaries based on observations of vegetation, soils, and hydrologic conditions. Each wetland flag was labeled with a letter identifier of the wetland and was numbered consecutively (for example, A-1, A-2, A-3, etc.). The flagged wetland boundaries were surveyed by Parsons using a Trimble SPS995 GPS unit, with sub-2-inch accuracy. GPS location efforts occurred as the flags were placed.

To further support the wetland boundaries, data on vegetation, soils, and hydrology were collected during the field efforts in plots located along the wetland boundaries. A total of 15 plots were sampled in and around the wetlands of the study area. The plot data were recorded on wetland determination data forms designed to follow the requirements in USACE (2012). Representative photographs of each plot and each wetland area were taken as well.

Vegetation data were collected in each of the plots. Ocular estimates of the percent areal cover by plant species for each vegetation layer (tree, shrub, and herbaceous layers) were recorded. The plots varied in size by vegetation layer being sampled. The sizes were: 30-foot radius for the trees, 10-foot. radius for the shrubs, and 5- foot. radius for the herbaceous layer.

The presence of wetland vegetation was determined using the dominance test, which is met when more than 50 percent of the dominant species in a sample plot have an indicator status of obligate (OBL), facultative-wet (FACW), or facultative (FAC). The dominant species for each layer in a plot were determined by ranking the species in decreasing order of percent cover and recording those species which, when cumulatively totaled, exceed 50 percent of the total cover of that layer. Additionally, any plant species that comprises 20 percent or more of the total cover for each layer was considered to be a dominant species. As provided in USACE (2012), dominants are determined by layer and treated equally.

The identification of plant species not readily known were determined using various plant identification keys and floras. Scientific nomenclature for plant species generally follows the New York Flora Atlas (Werier et al. 2022). The indicator status for each plant species was determined using the 2018 National Wetland Plant List for the Northcentral and Northeastern Region (USACE 2020).

Soil and hydrology data were collected in soil pits or soil borer holes within each sample plot. Soil characteristics were noted along the soil profile as specified by USACE (2012). Procedures for identifying hydric soils as outlined in the Field Indicators of Hydric Soils in the United States (USDA NRCS 2017) were also followed. Soil colors were determined by using the Munsell color chart. Soil samples were analyzed to at least 12 inches depth where possible. Because the study area soils are non-native and the wetlands were recently constructed, wetland soils

may be problematic, and additional information such as landscape position, presence or absence of restrictive soil layers, or hydrology may be used to meet the definition of hydric soil (USACE 2012). Additionally, due to engineered subsurface layers such as cobble stone, soil samples may not be recoverable to 12 inches in all cases. In some cases where inundation is permanent year-round (Lakeward wetland edge plots), soil samples may not be taken as hydric conditions are obvious and difficult to recover in standing water. Primary and secondary indicators of hydrology were also noted at each sample plot. If necessary, the wetland boundaries were refined on the basis of additional soil borer holes taken along a transect perpendicular to the wetland boundary.

In addition to the information on plant and animal species recorded during the current wetland delineation, a number of observations on species occurrence were made by Mr. McMullen and Parsons personnel from 2018 to 2022 in the restored wetlands/waters of the study area. These species observations were added to those made during the wetland delineation and are presented in tabular form (Tables 1 and 2). All observations were used in the discussion of wildlife usage of the area.

SECTION 5 RESULTS

Results of the wetlands/waters delineation and habitat assessment are provided for the Wastebed B/Harbor Brook Outboard Area in the following sections. Included is a general study area description identifying the features and setting. Figures 1 through 3 and the aerial photograph base of Figures 4a and 4b supplement the descriptions.

The study area ecology section describes the vegetation/land use types found in the study area, as well as descriptions of the areas of upland habitat. Tables 1 and 2 include lists of plant and animal species, respectively, observed in the study area. The acreage of each vegetation/waters cover type is provided in Table 3, with the cover map provided as Figures 5a and 5b.

Each delineated wetland type is described in detail based on collected plot data and other observations in the wetland descriptions section. Acreage of each wetland is provided in Table 3, and the surveyed delineation limit is presented on Figures 5a, 5b, 6a, and 6b. Sample plot and photograph locations are provided on Figures 7a and 7b, with representative photographs and completed data forms presented in Appendices A and B, respectively. The specific areas designated for wetland and open water mitigation are shown on Figure 8.

General wildlife and fish observations and usage of each habitat type are provided in the wildlife section. Table 2 lists the animals noted in the Wastebed B/Harbor Brook Outboard Area based on visual observations or sign (tracks, scat, etc.).

5.1 Study Area Description

The Wastebed B/Harbor Brook Outboard Area is located in the southwestern corner of Onondaga Lake in the area east of Interstate 690 and north of the CSX Railroad tracks (Figure 1). It includes the southern lake shore area from the mouth of Harbor Brook east approximately 450 feet, and the southwestern shoreline area from the mouth of Harbor Brook west approximately 3200 feet. Approximately two thirds of the study area, on the eastern side, is located in the City of Syracuse. The remainder of the study area is located in the Town of Geddes.

The study area extends outboard (lakeward) from an onshore buried barrier wall (an underground wall designed to restrict groundwater movement into the lake) to the designed limit of the Wastebed B/Harbor Brook Outboard Area, as shown on Figures 1, 2, 3, 4a, and 4b. The lakeward limit of the study area varies, extending 300 feet from the barrier wall in some locations. Six protective berms were installed along the lakeward portion of the area to shelter the created wetland areas from wave action and ice. Portions of these protective berms are included within the study area.

The study area is bordered on the landward side by restored uplands and Onondaga County's West Shore Recreational Trail (Figures 4a and 4b; Photo 14, Appendix A). East of the mouth of Harbor Brook, the recreation trail rises on an elevated bridge that parallels the wetland along the southern lake shore (Photos 18 and 20, Appendix A). This bridge turns south and crosses over the CSX Railroad tracks that occur just south of Onondaga lake. There are excellent wildlife viewing opportunities along all portions of this recreational trail, especially from the elevated bridge where the eastern and southern portions of the wetland complex and the mouth of Harbor Brook are readily observed.

Onondaga Lake water level elevation fluctuates and varies seasonally, but the summer lake level averages about 362.8 feet (NAVD 1988). During the summer months of 2022, precipitation was fairly low in central New York.

Lake water levels were slightly lower than average and did not vary much during the summer. Water level elevation during the field delineation on the August 9 and 10, 2022 was around 362.6 feet (NAVD 1988).

The lake bottom throughout the study area was restored with fine material to various elevations to create different water depths, with shallow areas created to accommodate forested wetland areas, and deeper areas for emergent wetlands. Coarser material of gravel and cobble was used to create a Protective Edge on the lakeward limits in portions of the study area (Figures 5a and 5b). Also, several elevated protective berms of coarse cobble material were established to protect the wetlands from wave energy during the growing season and ice during the winter months (Figures 5a and 5b). Portions of these protective berms extend into the study area.

As indicated on the New York State Department of Environmental Conservation (NYSDEC) New York State freshwater wetlands map (Figure 2), state-regulated Wetland SYW 19 is mapped in the vicinity of the study area. State–regulated wetlands were mapped for Onondaga County in the late 1970s and promulgated in 1985. As a result, the accuracy and registration of the maps are somewhat wanting, and the NYSDEC has initiated an effort to consider the state-wide maps to be used for informational purposes only in the future.

The USFWS National Wetlands Inventory map (Figure 3) indicates a wetland area around the mouth of Harbor Brook. The wetland is labeled as PEM1Cs, which stands for a Palustrine, Persistent Emergent, Seasonally Flooded wetland area. The special modifier “s” indicates that the mapped area is considered a wetland where deposition of spoil material forms the primary substrate type. Within the lake in the vicinity of the study area, the NWI map shows near shore water habitat as L2UBH (Lacustrine, Littoral, Unconsolidated Bottom, Permanently Flooded).

As part of the remediation activities, soils/substrate that were originally present in the study area were removed and replaced with approved substrate and topsoil as part of the restoration activities. Soils, therefore, do not match those shown on published soil survey maps.

5.2 Study Area Ecology

The study area ecology section provides an overview of the study area cover types and describes the small upland habitats of the area. Wetlands are described in detail in the following Section 5.3 and wildlife usage in Section 5.4. Representative photographs are provided in Appendix A and field plot data forms in Appendix B. Plants and animals observed are presented in Tables 1 and 2, respectively.

As indicated on the vegetation and land use cover map (Figures 5a and 5b) and Table 3, the Wastebed B/Harbor Brook Area consists of persistent emergent (5.5 acres), nonpersistent emergent (3.6 acres), and young forested/scrub-shrub (1.5 acres) wetlands, with an additional area of 4.1 acres of primarily submerged aquatic beds in deeper water areas.

A narrow strip of open field/scrub-shrub upland habitat occurs along the landward edge of the wetland within the study area (Figures 5a and 5b). This upland habitat covers 1.5 acres of the study area. This cover type is densely vegetated with a mix of herbaceous and woody species (Photos 4, 13, and 14, Appendix A), which provides an extremely stable lakeshore edge. Most of the upland habitat is dominated by a mix of woody and herbaceous vegetation, with portions of dense woody vegetation, especially along the wetland east of the mouth of Harbor Brook. Common tree and shrub species noted included: eastern cottonwood (*Populus deltoides*), eastern sycamore, willows (*Salix* sp.), silky dogwood (*Cornus amomum*), and staghorn sumac (*Rhus typhina*). Grasses and forbs mixed in the area included the following common species: Queen Anne’s lace (*Daucus carota*), tall goldenrod (*Solidago altissima*), foxglove beardtongue (*Penstemon digitalis*), rough cocklebur, Fuller’s teasel (*Dipsacus fullonum*), black mustard (*Brassica nigra*), blackeyed Susan (*Rudbeckia hirta*), flat-topped goldenrod

(*Euthamia graminifolia*), switchgrass (*Panicum virgatum*), wild bergamot (*Monarda fistulosa*), hawkweed oxtongue (*Picris hieracoides*), Indian hemp (*Apocynum cannabinum*), and mugwort (*Artemisia vulgaris*).

There are a few locations where portions of a protective berm extend into the study area limits (Figures 5a and 5b). Although these berms have a coarse cobble substrate, fine material has accumulated in places and vegetation has established on them, becoming quite dense in places (Photo 8, Appendix A). Common species noted were rough cocklebur, dock-leaved smartweed, and triangle orache (*Atriplex prostrata*).

5.3 Wetlands/Waters Description

Wetlands/waters delineated by Mr. McMullen and Parsons within the Wastebed B/Harbor Brook Outboard Area are described in this section. Figures 6a and 6b show the surveyed wetland boundaries. Sample plot and photograph locations are indicated on Figures 7a and 7b. Photographs of the wetlands and plot data forms are provided in Appendix A and Appendix B, respectively.

As indicated on Figures 5a and 5b, wetlands delineated within the study area are primarily emergent types (persistent and non-persistent), with one area of young forested/scrub-shrub wetlands in the western portion of the study area. A total of 10.6 acres of wetlands were delineated during the survey, with 5.5 acres of persistent emergent wetland, 3.6 acres of non-persistent emergent wetland, and 1.5 acres of young forested/scrub-shrub wetland (Table 3). Within the study area limits, there are also some open water areas of primarily submerged aquatic vegetation, with the largest of these areas at the mouth of Harbor Brook (Figure 5b). The water/ submerged aquatic vegetation areas total 4.1 acres.

5.3.1 Persistent Emergent Wetlands

Persistent emergent is the most common wetland cover type in the area, with a total of 5.5 acres at the mouth of Harbor Brook and southwestern shoreline areas (Figures 5a and 5b, Table 3). Vegetation is very dense in this cover type, with total cover of 100 percent. There is a diverse mix of native species in the area. Common species include broadleaf cattail (*Typha latifolia*), hybrid cattail (*Typha x glauca*), softstem bulrush, bur-reed, nutsedge, dock-leaved smartweed, switch grass, swamp rose mallow, rough cocklebur, rice cutgrass (*Leersia oryzoides*), swamp milkweed (*Asclepias incarnata*), barnyard grass (*Echinochloa* sp.), sweetflag (*Acorus americanus*), prairie cordgrass (*Sporobolus michauxianus*), and American burnweed (*Erechtites hieraciifolius*). Broadleaf cattail was prevalent throughout the area in places, with some species, like switchgrass, cocklebur, and swamp rose mallow, more common along the landward edge of the wetland A few areas in the persistent emergent wetland at the mouth of Harbor Brook are dominated by a low-growing flatsedge, which is most likely brown galingale (*Cyperus fuscus*).

The persistent emergent wetlands contained a mix of woody species in a narrow band along the landward edge. Common tree and shrub species included: black willow, pussy willow (*Salix discolor*), sandbar willow (*Salix interior*), eastern sycamore, eastern cottonwood, speckled alder (*Alnus incana*), and silky dogwood. Beneath the woody species, spotted Joe Pye weed (*Eutrochium maculatum*) and rough cocklebur are mixed with other ground layer herbaceous species.

Hydrology in the persistent emergent wetland varies somewhat seasonally, with standing water 10 inches deep to just saturated soils in the upper 12 inches recorded during the plot data collection on August 9, 2022. Soils were primarily a silt loam mix. Hydric soils were indicated by hydrogen sulfide odor and redox dark surface.

5.3.2 Non-persistent Emergent Wetlands

A total of 3.6 acres of non-persistent emergent/aquatic bed wetlands occurs within the Wastebed B/Harbor Brook Outboard Area (Figures 5a and 5b, and Table 3). This cover type occurs in the deeper water portions of the wetlands. It is dominated by a mix of non-persistent emergent and a few floating aquatic species, with submerged aquatics throughout.

Pickerelweed was the most common non-persistent emergent species in this cover type, with some common arrowhead, softstem bulrush, and bur-reed in places. Pickerelweed was extremely tall in portions of this wetland type sheltered by the Protective Berms, and very dense in the areas at the mouth of Harbor Brook (Figure 5b, and Photos 16 and 19, Appendix A). Floating aquatics dominated a few small aquatic bed portions of this cover type, and the common species were white water lily, yellow water lily, and duckweed (*Lemna* spp.).

Submerged aquatic vegetation is mixed among the non-persistent emergent and floating aquatic vegetation in this cover type. Common submerged aquatics were water stargrass, coontail, bladderwort, waterweed, water milfoil *(Myriophyllum* sp.) and sago pondweed. Submerged aquatics are also dense in the shallow open waters beyond the limits of the delineated wetland areas.

An aquic moisture regime (permanent water) is usually found in the non-persistent emergent wetland areas, with water depths of 8 to 18 inches recorded during the August 9, 2022 plot data collection. During the initial field survey, soil cores were not collected at several inundated plots due to the depth of standing water and aquic moisture regime. However, in response to a request by NYSDEC to collect additional soil cores for the delineation performed at the Mouth of Ninemile Creek in 2021 (included in the 2021 Annual Report), three plot locations (Plots B1W, B2W, and B4W) from the Wastebed B/Harbor Brook Outboard Area delineation were revisited on February 14, 2023 to collect and describe soil in those plots. The soil descriptions from this additional sampling are included in the wetland determination data sheets for those plots in Appendix B. Substrates in these areas are fine silt loam and silty clay loam material and exhibited sulfidic odor.

5.3.3 Young Forested/Scrub-Shrub Wetlands

There is one area of scrub-shrub/young, forested wetland in the study area (Figures 5a and 6b), and it covers 1.5 acres (Table 3). Silver maple, eastern sycamore, and black willow are the most common tree species, although several others were noted. They are up 25 to 35 feet in height in places. Shrubs in this cover type included silky dogwood and several shrub willows. Herbaceous wetland plants are dense among the woody species and add to the dense cover of this habitat type (Photos 6 and 7, Appendix A). American burnweed, green-fruited clearweed (*Pilea pumila*), dock-leaved smartweed, and broadleaf cattail are common.

Hydrology varies seasonally in this cover type and is usually lower in late summer when the plot data collection occurred. Water-stained leaves indicated wetland hydrology presence earlier in the season. Soils sampled had a silt loam texture, with a dark surface layer.

5.3.4 Submerged Aquatic Vegetation

As indicated on Figure 5b, areas of submerged aquatic vegetation occur in the shallow water in the lakeward portion of the study area beyond the limits of the delineated wetland areas, especially at the mouth of Harbor Brook. The total area of submerged vegetation/waters is 4.1 acres (Table 3). Dominant species of these areas are as described under the non-persistent emergent wetlands.

5.4 Invasive Species

Invasive species were infrequent in the wetlands or uplands of the Wastebed B/Harbor Brook Outboard study area. Total cover of invasive species was estimated to be well less than one percent. Scattered individuals of purple loosestrife (*Lythrum salicaria*) and common reed grass were noted in isolated places.

5.5 Wildlife, Fish, and Other Organisms

Wildlife species noted in and near the Wastebed B/Harbor Brook Outboard area are presented in Table 2. This table includes fish and wildlife species noted in the last five years. A tremendously diverse mix of wildlife species utilized the areas, especially waterfowl and other bird species. The primary reasons for this increased wildlife usage are creation of interspersed wetland habitats along the lake shoreline, occasional mudflats during periods of low water levels, dense protective cover from non-persistent emergent and floating aquatics for young-of-year fish species, and the establishment of the protective berm areas, which provide upland loafing habitat and create calm water areas in the wetlands/waters on the leeward side for various bird species.

Several amphibian and reptile species were observed in the study area. Northern leopard frog *(L. pipiens*) and American toads (*Anaxyrus americanus*) occur, with tadpoles of American toads indicating reproduction in the area. Reptiles included northern water snake (*Nerodia sipendon*), DeKay's brownsnake (*Storeria delayi*), garter snake (*Thamnophis brachystoma*), and snapping turtle *(Chelydra serpentina*).

Any fish species that is found in the lake could occur in the study area. The non-persistent emergent wetlands in the lake offer sheltering habitat and cover for young fish. Restored substrates also provided improved spawning habit for certain fish species.

An apparently uncommon mussel for the area, paper pondshell, was discovered in 2022 along the edge of a protective berm in the wetlands west of Harbor Brook. It was not previously known from the lake and has not been observed from the Onondaga Lake drainage since 1970 (Strayer and Jirka 1997), until a population was identified at the Geddes Brook restoration site in 2015 (Parsons 2018b). Identification of this mussel was based on input from Kurt Jirka, author of The Pearly Mussels of New York State (Strayer and Jirka 1997) and an experienced mussel surveyor. The paper pondshell has a conservation rank of S1 and is currently listed as a High Priority Species of Greatest Conservation Need by the NYSDEC, indicating that it is being considered for state listing.

A number of bird species used the restored and newly created wetlands habitat within the study area for nesting and foraging (Table 2). Ducks, shorebirds, and wading birds were common. Among the puddle ducks, mallards (*Anas platyrhynchos*) are probably the most common, but diving ducks, such as wood duck (*Aix sponsa*) and bufflehead (*Bucephala albeola*) were noted. American coots (*Fulica americana*) and Canada goose (*Branta canadensis*) were also abundant. Spotted sandpiper was a frequent shorebird in the edges of the fringing wetlands, along with wading birds, like great blue heron and great egret. Green heron were abundant. Raptors were also noted frequently in the study area, especially bald eagle and osprey. The bald eagle concentration in the winter at the southern end of Onondaga Lake is becoming a tourist attraction for the area. A number of passerines, including song sparrow (*Melospiza melodia*), red-winged blackbird, and American goldfinch (*Spinus tristis*), are frequent.

The protective berms provide loafing areas for a number of bird species. Double-breasted cormorants (*Phalacrocorax auritus*) often occurred on the berms, as well as various gulls and duck species. In 2022, a common tern (*Sterna hirundo*) nest was found on one of the berms.

Mammals frequenting the study area (Table 2) included muskrat and American beaver. Muskrat houses are common in the persistent emergent wetlands.

A diverse mix of showy flowering plants are abundant in the on-shoreline uplands in and near the study area, and offer feeding opportunities for a variety of butterflies, bees, and other invertebrate pollinators.

SECTION 6 GENERAL FUNCTIONS AND BENEFITS ASSESSMENT COMPARISONS

The goals of the restoration plan for the Wastebed B/Harbor Brook Area are reviewed in this section and a discussion is provided as to how these goals have been met. This discussion includes the quality of the habitats that occurred prior to remediation compared to those that currently exist after restoration. As the discussion indicates, the ability of wetlands/waters to provide functions and values has been maintained and the goals of the plan met.

6.1 Goals of Habitat Restoration

One of the overarching goals as specified in the Onondaga Lake Habitat Restoration Plan was to: "*maintain or improve the size, diversity, and ecological function of wetlands*" (Parsons 2021). Success criteria and goals of the restoration plan for the various portions of the Lake project are covered in the Onondaga Lake Monitoring and Maintenance Plan (OLMMP) (Parsons 2018a).

During the design process, it was determined that due to the extent of remedial action needed, the acreage of wetlands created at each site individually would likely differ from what was present prior to the remedy, but that the total wetland acreage across all lake sites should holistically achieve the wetland acreage goals outlined in the OLMMP. To achieve this, slightly more wetland acreage was constructed overall than was needed. This provided a buffer in the event that some restored wetland/upland transition areas were drier than expected and were delineated as upland. Wastebeds 1-8 perched wetlands and connected wetlands, Mouth of Ninemile Creek spits, Wastebed B/Harbor Brook Inboard wetlands, and the Wastebed B/Harbor Brook Outboard wetlands are included in the holistic overall goal for wetland acreage. The Wastebed B/Harbor Brook Outboard Area was the last mitigation area to be restored. Therefore, the year 5 wetland delineation completed in 2022 marked the final delineation needed to evaluate the overall achievement of wetland mitigation requirements for Onondaga Lake. The delineated wetland acreage across the restoration areas following their respective year 5 delineations show that there are a total of 28.39 wetland acres created across all areas. The overall wetland mitigation acreage goal of 19.5 acres has therefore been met.

6.2 Goal Accomplishment and Quantity of Restored Habitats

The overall ecological and community benefit mitigation goals of the Wastebed B/Harbor Brook Outboard Area have been fully met. Vegetation cover thresholds and limits for invasive species were accomplished.

A total of 10.6 acres of wetlands were created in the study area, along with an additional 4.1 acres of primarily submerged aquatic vegetation. This is slightly less than the designed 11.6 acres for the area, but there was a slight buffer in the acreage planned to ensure the mitigation requirements were met holistically.

6.3 Quality of Restored Habitats

Habitat quality or value can be as important as habitat quantity when determining restoration success. However, habitat quality is difficult to evaluate primarily because there is no one universally accepted method of making habitat quality determinations.

For upland habitats, species richness (number of species), species diversity (a combined measure of species richness and evenness of species abundance), habitat interspersion, and percent cover or amount of invasive species are common metrics used to compare habitat quality.

In wetlands, considerable literature exists on the functions and benefits of wetlands, and these functions and benefits are used to compare wetland quality or value among habitats. To understand wetlands functions and benefits, the following text is abstracted from McMullen (2014).

The relative importance of different wetlands has been greatly studied over the years, with numerous attempts made to quantify their worth to both the ecosystem (functions) and to man (benefits, formerly called values). The functions and benefits of wetlands were originally formally recognized by Adamus (1983) and further refined in the Wetland Evaluation Technique methodology (Adamus et al. 1987). The following ten functions of wetlands were recognized:

- Ground water recharge
- Ground water discharge
- Nutrient removal/transformation
- Production export
- Flood flow alteration
- Sediment stabilization
- Sediment/toxicant retention
- Uniqueness/heritage
- Wildlife diversity/abundance
- Aquatic diversity/abundance

With a few adjustments, these ten functions are still recognized today, with recreation and several subsequent benefits also recognized. Although the quantification of these functions and benefits among wetlands remains a rather elusive quarry, there are several reasonable methods of assessing the relative worth that wetlands provide.

Regardless of the method used to assess wetlands functions and benefits, any such assessment should always consider both the ability and opportunity of a wetland to provide a given function or benefit. This ability versus opportunity assessment can be critical to the determination of how well a wetland provides these attributes.

Ability or effectiveness of a wetland to provide a function relates to its innate properties, regardless of its landscape position or connectivity to outside systems. The question when assessing ability is, does the wetland by itself have the capability to provide a given function or benefit?

Opportunity is different. When assessing opportunity, you need to consider whether a wetland is so located in the landscape and has a connection to outside systems that it has the chance to provide a function or benefit. Whether it has such properties depends on the nature of the wetland, as well as the characteristics of the surrounding area. The question here is not just whether it has the capability to provide a function, but whether it has the opportunity to do so.

6.4 Comparisons of Pre-Remediation Habitat to Restored Habitat

Prior to remediation, a functions and benefits assessment was made of the wetlands in the Wastebed B/Harbor Brook Outboard Area. This assessment was presented in O'Brien & Gere and Parsons (2010) and based on prior surveys and descriptions of the areas (O'Brien & Gere 2003 and 2007).

Wetlands in the Wastebed B/Harbor Brook Outboard Area prior to remediation were generally emergent types. However, all the wetlands consisted of dense stands of common reed grass, with native vegetation comprising only a small portion of the wetland plant cover, and substrate in the wetlands was primarily spoil material. Regardless of the low-quality plant cover and substrate, these wetlands were considered to have the ability and opportunity to provide several wetland functions and benefits, such as flood flow attenuation, nutrient removal, sediment/toxicant retention, etc. (O'Brien & Gere and Parsons 2010).

Wetlands restored/created in the Wastebed B/Harbor Brook Outboard Area currently provide flood flow attenuation, nutrient removal, and sediment/toxicant retention functions similar to or exceeding those that existed prior to remediation. However, the improvement in habitat quality has been dramatic.

Relative to habitat types and quality, the created wetlands are a mix of persistent and non-persistent emergent types dominated by a number of native species. On a per acre basis, these created wetlands offer considerably more habitat value than the Phragmites-dominated wetlands present prior to restoration. The created wetland areas also include 1.5 acres of developing forested wetland. This important wetland type did not exist in the area prior to remediation and has increased the diversity of the wetland complex.

According to the original assessments, the wetlands that existed prior to remediation primarily offered habitat for passerine birds, with only one or two waterfowl species noted. Currently, the wetlands in the study area are used year-round by numerous waterfowl and other water-dependent bird species, with species nesting in the area.

Underwater lake habitat quality was also increased with the restoration. Improvements to lake substrate and the addition of below water portions of emergent and floating aquatics, as well as increased submerged aquatics cover has increased the spawning and cover habitat for a number of fish and other aquatic species. In addition, the wetland substrate of spoil mater that existed prior to remediation was replaced with clean soil/substrate material, which benefited aquatic organisms that occur in this material and provide a food base for other species. The overall increase in habitat value of this area has been tremendous.

The Wastebed B/Harbor Brook Outboard Area wetlands have also improved in function by providing habitat for unique/heritage element species. State-listed bird species, including bald eagle and osprey, were frequently documented in the restored wetlands and were usually not present in these areas prior to remediation. Other state-listed species noted in the area included common tern, peregrine falcon, pied-billed grebe, and black tern. Paper pondshell, a freshwater mussel with an S1 state conservation status, was found in the created wetland. Several halophytic plant species, some of which are state-listed, were noted in the wetland, including: sturdy bulrush (*Bolboschoenus robustus*), American salt marsh bulrush (*B. maritimus* var. *paludosus*), swamp rose mallow, among others.

In regard to invasive species cover, as previously discussed, prior to remediation the invasive common reed grass was a prevalent species in the study area, especially at the mouth of Harbor Brook. Currently, common reed grass cover is very low, well less than one percent. This reduction in common reed grass has permitted the establishment of a diverse plant species mix that benefits many different wildlife species and also many invertebrate pollinators.

One of the components of assessing the functions and values of wetlands is the benefit (i.e., value) provided by the area. Benefit is the worth or value of the habitat to humans. The created wetland complex at the Wastebed B/Harbor Brook Outboard Area has increased significantly in benefit value, because of both the nature of the habitat and the development of Onondaga County's West Lake Shoreline Recreational Trail adjacent to the wetland and on the overhead bridge overlooking the area. Wildlife viewing and photography activity, particularly for waterfowl and raptors (both bald eagle and osprey), in this area is tremendous. It has actually become a tourist attraction. This benefit did not exist in the wetland prior to remediation, not just because the recreational trail did not exist then, but because the pre-remediation wetland did not offer appropriate habitat for waterfowl species of interest to wildlife viewers.

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TABLES

TABLE 1 LIST OF PLANT SPECIES RECORDED IN 2018 - 2022,
WASTEBED B/HARBOR BROOK OUTBOARD AREA,
TOWN OF GEDDES AND CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

Common Name	Scientific Name[1]
Woody Species	
Box elder	*Acer negundo*
Red maple	*Acer rubrum*
Silver maple	*Acer saccharinum*
Freeman maple	*Acer xfreemanii*
Speckled alder	*Alnus incana ssp. rugosa*
Smooth alder	*Alnus serrulata*
Red chokeberry	*Aronia arbutifolia*
River birch	*Betula nigra*
Catalpa	*Catalpa sp.*
Hackberry	*Celtis occidentalis*
Buttonbush	*Cephalanthus occidentalis*
Silky dogwood	*Cornus amomum*
Gray dogwood	*Cornus racemosa*
Red-osier dogwood	*Cornus sericea*
Glossy false buckthorn	*Frangula alnus*
White ash	*Fraxinus americana*
Green ash	*Fraxinus pennsylvanica*
Honey locust	*Gleditsia triacanthos*
American witchhazel	*Hamamelis virginiana*
Common winterberry	*Ilex verticillata*
Eastern red-cedar	*Juniperus virginiana*
Spicebush	*Lindera benzoin*
Honeysuckle	*Lonicera sp.*
White mulberry	*Morus alba*
Sweetgale	*Myrica gale*
Virginia creeper	*Parthenocissus quinquefolia*
White pine	*Pinus strobus*
Eastern sycamore	*Platanus occidentalis*
Eastern cottonwood	*Populus deltoides*
Bigtooth aspen	*Populus grandidentata*
Quaking aspen	*Populus tremuloides*
Swamp white oak	*Quercus bicolor*
Bur oak	*Quercus macrocarpa*
European buckthorn	*Rhamnus cathartica*
Staghorn sumac	*Rhus typhina*
Black locust	*Robinia pseudoacacia*
Swamp rose	*Rosa palustris*
Virginia rose	*Rosa virginiana*
Black raspberry	*Rubus occidentalis*
Peach-leaf willow	*Salix amygdaloides*
Pussy willow	*Salix discolor*
Sandbar willow	*Salix interior*
Black willow	*Salix nigra*
American black elderberry	*Sambucus nigra ssp. canadensis*
Broad-leaved meadowsweet	*Spiraea alba var. latifolia*
Northern white cedar	*Thuja occidentalis*
Eastern poison ivy	*Toxicodendron radicans*
American elm	*Ulmus americana*
Smooth arrowwood	*Viburnum dentatum*
Nannyberry	*Viburnum lentago*
River grape	*Vitis riparia*
Herbaceous Species	
Velvetleaf	*Abutilon theophrasti*
Common three-seeded mercury	*Acalypha rhomboidea*
Sweetflag	*Acorus americanus*
Southern agrimony	*Agrimonia parviflora*
Redtop	*Agrostis gigantea*
Southern water plantain	*Alisma subcordatum*
Meadow garlic	*Allium canadense*
Pigweed	*Amaranthus spp.*
Annual ragweed	*Ambrosia artemisiifolia*
Scarlet pimpernel	*Anagallis arvensis*
Big bluestem	*Andropogon gerardii*
Sweet vernal grass	*Anthoxanthum odoratum*
Indian hemp	*Apocynum cannabinum*
Greater burdock	*Arctium lappa*
Lesser burdock	*Arctium minus*
Mugwort	*Artemisia vulgaris*

TABLE 1 LIST OF PLANT SPECIES RECORDED IN 2018 - 2022,
WASTEBED B/HARBOR BROOK OUTBOARD AREA,
TOWN OF GEDDES AND CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

Common Name	Scientific Name[1]
Eastern swamp milkweed	*Asclepias incarnata*
Common milkweed	*Asclepias syriaca*
Triangle orache	*Atriplex prostrata*
Garden yellow rocket	*Barbarea vulgaris*
Nodding beggartick	*Bidens cernua*
Purplestem beggarticks	*Bidens connata*
Devil's beggartick	*Bidens frondosa*
False nettle	*Boehmeria cylindrica*
Sturdy bulrush	*Bolboschoenus robustus*
Black mustard	*Brassica nigra*
Brome	*Bromus spp.*
Hedge bindweed	*Calystegia sepium*
Narrowleaf bittercress	*Cardamine impatiens*
Bristly sedge	*Carex comosa*
Limestone meadow sedge	*Carex granularis*
Hybrid sedge	*Carex hystericina x pseudocyperus*
Hop sedge	*Carex lupulina*
Sallow sedge	*Carex lurida*
Broom sedge	*Carex scoparia*
Awl-fruited sedge	*Carex stipata*
Tussock sedge	*Carex stricta*
Fox sedge	*Carex vulpinoidea*
Black knapweed	*Cenaurea nigra*
Meadow knapweed	*Centaurea ×moncktonii*
Brown knapweed	*Centaurea jacea*
Spotted knapweed	*Centaurea stoebe ssp. micranthos*
Coontail	*Ceratophyllum demersum*
Partridge pea	*Chamaecrista fasciculata*
Lamb's quarters, pigweed	*Chenopodium album*
Chicory	*Cichorium intybus*
Bulb-bearing water hemlock	*Cicuta bulbifera*
Spotted water hemlock	*Cicuta maculata*
Canada thistle	*Cirsium arvense*
Bull thistle	*Cirsium vulgare*
Poison-hemlock	*Conium maculatum*
Hedge bindweed	*Convolulus sepium*
Long-stalked coreopsis	*Coreopsis lanceolata*
Pumpkin	*Cucurbita pepo*
Shining flat sedge	*Cyperus bipartitus*
Umbrella flatsedge	*Cyperus diandrus*
Yellow nutsedge	*Cyperus esculentes*
Brown galingale	*Cyperus fuscus*
Shrubby cinquefoil	*Dasiphora fruticosa*
Wild carrot	*Daucus carota*
Water willow	*Decodon verticillatus*
Showy ticktrefoil	*Desmodium canadense*
Rosette grass	*Dichanthelium sp.*
Crab grass	*Digitaria sp.*
Wild teasel	*Dipsacus fullonum*
Cutleaf teasel	*Dipsacus laciniatus*
Jerusalem-oak	*Dysphania botrys*
Barnyardgrass	*Echinochloa sp.*
Wild cucumber	*Echinocystis lobata*
Creeping spikerush	*Eleocharis obtusa*
Common spikerush	*Eleocharis palustris*
Common waterweed	*Elodea canadensis*
Virginia wildrye	*Elymus virginicus*
Fringed willowherb	*Epilobium ciliatum*
Eastern willowherb	*Epilobium coloratum*
Small-flower hairy willowherb	*Epilobium parviflorum*
Horsetail	*Equisetum sp.*
American burnweed	*Erechtites hieracifolius*
Eastern daisy fleabane	*Erigeron annuus*
Philadelphia fleabane	*Erigeron philadelphicus*
Common boneset	*Eupatorium perfoliatum*
Spotted sandmat	*Euphorbia maculata*
Flat-top goldenrod	*Euthamia graminifolia*
Hollow Joe Pye weed	*Eutrochium fistulosum*
Spotted Joe pye weed	*Eutrochium maculatum*
Purple Joe Pye weed	*Eutrochium purpureum*

TABLE 1 LIST OF PLANT SPECIES RECORDED IN 2018 - 2022,
WASTEBED B/HARBOR BROOK OUTBOARD AREA,
TOWN OF GEDDES AND CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

Common Name	Scientific Name[1]
Strawberry	*Fragaria sp.*
Hedge bedstraw	*Galium album*
Rough bedstraw	*Galium asprellum*
Marsh bedstraw	*Galium palustre*
Yellow avens	*Geum aleppicum*
Rough avens	*Geum laciniatum*
Ground ivy	*Glechoma hederacea*
Fowl mannagrass	*Glyceria striata*
Common sneezeweed	*Helenium autumnale*
Maximilian sunflower	*Helianthus maximiliani*
Smooth oxeye	*Heliopsis helianthoides*
Dames rocket	*Hesperis matronalis*
Water stargrass	*Heteranthera dubia*
Swamp rose mallow	*Hibiscus moscheutos*
Hawkweed	*Hieracium sp.*
Sweet vernal grass	*Hierochloe odorata*
Common St. John's-wort	*Hypericum perforatum*
Spotted jewelweed	*Impatiens capensis*
Yellow iris	*Iris pseudacorus*
Blueflag iris	*Iris versicolor*
Tansy ragwort	*Jacobaea vulgaris*
Common soft rush	*Juncus effusus*
Poverty rush	*Juncus tenuis*
Tall blue lettuce	*Lactuca biennis*
Common nipplewort	*Lapsana communis*
Perennial pea	*Lathyrus latifolius*
Rice cutgrass	*Leersia oryzoides*
Common duckweed	*Lemna minor*
Field cress	*Lepidium campestre*
Oxeye daisy	*Leucanthemum vulgare*
Many-seeded goosefoot	*Lipandra polysperma var. polysperma*
Cardinal flower	*Lobelia cardinalis*
Great blue lobelia	*Lobelia siphilitica*
Birdsfoot trefoil	*Lotus corniculatus*
Water purslane	*Ludwigia palustris*
American water horehound	*Lycopus americanus*
Virginia water horehound	*Lycopus virginicus*
Scarlet pimpernel	*Lysimachia arvensis*
Creeping jenny	*Lysimachia nummularia*
Purple loosestrife	*Lythrum salicaria*
Musk mallow	*Malva moschata*
Black medic	*Medicago lupulina*
White sweetclover	*Melilotus albus*
Yellow sweetclover	*Melilotus officinalis*
American wild mint	*Mentha canadensis*
Allegheny monkeyflower	*Mimulus ringens*
Wild bergamot	*Monarda fistulosa*
Eurasian watermilfoil	*Myriophyllum spicatum*
Water nymph	*Najas sp.*
Water cress	*Nasturtium officinale*
Common catnip	*Nepeta cataria*
Starry stonewort	*Nitellopsis obtusa*
Yellow pond-lily	*Nuphar advena*
Fragrant white water lily	*Nymphaea odorata*
Common evening primrose	*Oenothera biennis*
Sensitive fern	*Onoclea sensibilis*
Common yellow wood sorrel	*Oxalis stricta*
Oak-leaved goosefoot	*Oxybasis glauca ssp. glauca*
Common panic grass	*Panicum capillare*
Fall panicgrass	*Panicum dichotomiflorum*
Switchgrass	*Panicum virgatum*
Virginia creeper	*Parthenocissus quinquefolia*
Wild parsnip	*Pastinaca sativa*
Green arrow arum	*Peltandra virginica*
Foxglove beardtongue	*Penstemon digitalis*
Water smartweed	*Persicaria amphibia*
Dock-leaved smartweed	*Persicaria lapathifolia*
Spotted lady's-thumb	*Persicaria maculosa*

TABLE 1 LIST OF PLANT SPECIES RECORDED IN 2018 - 2022,
WASTEBED B/HARBOR BROOK OUTBOARD AREA,
TOWN OF GEDDES AND CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

Common Name	Scientific Name[1]
Pennsylvania smartweed	*Persicaria pensylvanica*
Reed canarygrass	*Phalaris arundinacea*
Timothy	*Phleum pratense*
Common reed	*Phragmites australis*
American pokeweed	*Phytolacca americana*
Hawkweed oxtongue	*Picris hieracioides*
Green-fruited clearweed	*Pilea pumila*
Narrowleaf plantain	*Plantago lanceolata*
Common plantain	*Plantago major*
Blackseed plantain	*Plantago rugelii*
Canada bluegrass	*Poa compressa*
Pickerelweed	*Pontederia cordata*
Purslane	*Portulaca oleracea*
Curly pondweed	*Potamageton crispus*
Illinois pondweed	*Potamogeton illinoensis*
Silverweed	*Potentilla anserina*
Shrubby cinquefoil	*Potentilla fruticosa*
Ternate-leaved cinquefoil	*Potentilla norvegica*
Sulphur cinquefoil	*Potentilla recta*
Selfheal	*Prunella vulgaris*
Weeping alkaligrass	*Puccinellia distans*
Tall buttercup	*Ranunculus acris*
Long-beaked white water buttercup	*Ranunculus longirostris*
Yellow mignonette	*Reseda lutea*
Bog yellowcress	*Rorippa palustris*
Black-eyed Susan	*Rudbeckia hirta*
Garden sorrel	*Rumex acetosella*
Wood pale dock	*Rumex altissimus*
Curly dock	*Rumex crispus*
Bitter dock	*Rumex obtusifolius*
Broadleaf arrowhead	*Sagittaria latifolia*
Lizard's tail	*Saururus cernuus*
Hardstem bulrush	*Schoenoplectus acutus*
Three-square bulrush	*Schoenoplectus pungens*
Softstem bulrush	*Schoenoplectus tabernaemontani*
Dark-green bulrush	*Scirpus atrovirens*
Common wool grass	*Scirpus cyperinus*
Crownvetch	*Securigera varia*
Northern wild senna	*Senna hebecarpa*
Bur cucumber	*Sicyos angulatus*
Bladder campion	*Silene latifolia*
Charlock mustard	*Sinapis arvensis*
Narrow-leaved blue-eyed grass	*Sisyrinchium angustifolium*
Horse nettle	*Solanum carolinense*
Bitter-sweet nightshade	*Solanum dulcamara*
Tall goldenrod	*Solidago altissima*
Canada goldenrod	*Solidago canadensis*
Giant goldenrod	*Solidago gigantea*
Common wrinkle-leaved goldenrod	*Solidago rugosa*
Field sowthistle	*Sonchus arvensis*
Spiny sowthistle	*Sonchus asper*
Indian grass	*Sorghastrum nutans*
Giant bur-reed	*Sparganium eurycarpum*
Meadowsweet	*Spiraea alba*
Common duckmeal	*Spirodela polyrhiza*
Smooth cord grass	*Sporobolus alterniflorus*
Prairie cordgrass	*Sporobolus michauxianus*
Longleaf starwort	*Stellaria longifolia*
Sago pondweed	*Stuckenia pectinata*
New England aster	*Symphyotrichum novae-angliae*
Hairy white oldfield aster	*Symphyotrichum pilosum*
Purplestem aster	*Symphyotrichum puniceum*

TABLE 1 LIST OF PLANT SPECIES RECORDED IN 2018 - 2022,
WASTEBED B/HARBOR BROOK OUTBOARD AREA,
TOWN OF GEDDES AND CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

Common Name	Scientific Name[1]
Common dandelion	*Taraxacum officinale*
Alsike clover	*Trifolium hybridum*
Red clover	*Trifolium pratense*
Coltsfoot	*Tussilago farfara*
Narrowleaf cattail	*Typha angustifolia*
Broadleaf cattail	*Typha latifolia*
Hybrid cattail	*Typha x glauca*
Stinging nettle	*Urtica dioica*
Bladderwort	*Utricularia sp.*
Water celery	*Vallisneria americana*
Moth mullein	*Verbascum blattaria*
Common mullein	*Verbascum thapsus*
Blue vervain	*Verbena hastata*
New York ironweed	*Vernonia noveboracensis*
Speedwell	*Veronica spp.*
Bird vetch	*Vicia cracca*
Winter vetch	*Vicia villosa*
Rough cocklebur	*Xanthium strumarium*
Horned pondweed	*Zannichellia palustris*
Wild rice	*Zizania aquatica*

1 Botanical nomenclature follows New York Flora Atlas (Werier *et al.* 2023)

TABLE 2 LIST OF WILDLIFE SPECIES RECORDED IN 2017 - 2022, WASTEBED B/HARBOR BROOK OUTBOARD AREA, TOWN OF GEDDES AND CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

Common Name	Scientific Name
Mammals	
American Mink	*Neovison vison*
Chipmunk	*Tamias striatus*
Coyote	*Canis latrans*
Eastern cottontail	*Sylvilagus floridanus*
Eastern Meadow Vole	*Microtus pennsylvanicus*
Muskrat	*Ondatra zibethicus*
North American Beaver	*Castor canadensis*
Northern Short-tailed Shrew	*Blarina brevicauda*
Racoon	*Procyon lotor*
Red fox	*Vulpes vulpes*
Weasel	*Mustela sp.*
White-tailed Deer	*Odocoileus virginianus*
Woodchuck	*Marmota monax*
Birds	
Alder Flycatcher	*Empidonax alnorum*
American black duck	*Anas rubripes*
American Coot	*Fulica americana*
American Crow	*Corvus brachyrhynchos*
American Goldfinch	*Spinus tristis*
American herring gull	*Larus smithsonianus*
American Kestrel	*Falco sparverius*
American Robin	*Turdus migratorius*
American Wigeon	*Mareca americana*
Bald Eagle[2]	*Haliaeetus leucocephalus*
Barn Swallow	*Hirundo rustica*
Belted Kingfisher	*Megaceryle alcyon*
Black Tern[1]	*Chlidonias niger*
Black-bellied Plover	*Pluvialis squatarola*
Black-capped Chickadee	*Poecile atricapillus*
Black-crowned Night Heron	*Nycticorax nycticorax*
Blue-winged Teal	*Spatula discors*
Brant	*Branta bernicla*
Broad-winged Hawk	*Buteo platypterus*
Brown-headed Cowbird	*Molothrus ater*
Bufflehead	*Bucephala albeola*
Canada goose	*Branta canadensis*
Caspian Tern	*Hydroprogne caspia*
Cedar Waxwing	*Bombycilla cedrorum*
Chimney Swift	*Chaetura pelagica*
Common Goldeneye	*Bucephala clangula*
Common Grackle	*Quiscalus quiscula*
Common Merganser	*Mergus merganser*
Common Nighthawk	*Chordeiles minor*
Common Tern[2]	*Sterna hirundo*
Common Yellowthroat	*Geothlypis trichas*
Double crested Cormorant	*Phalacrocorax auritus*
Dunlin	*Calidris alpina*
Eastern Phoebe	*Sayornis phoebe*
European Herring Gull	*Larus argentatus*
European Starling	*Sturnus vulgaris*
Fox Sparrow	*Passerella iliaca*
Gadwall	*Mareca strepera*
Great Black-backed Gull	*Larus maritimus*
Great Blue Heron	*Ardea herodias*
Great Egret	*Ardea alba*
Greater Yellowlegs	*Tringa melanoleuca*
Green Heron	*Butorides virescens*
Hooded Merganser	*Lophodytes cucullatus*
Horned Grebe	*Podiceps auritus*
House Finch	*Haemorhous mexicanus*
House Wren	*Troglodytes aedon*
Indigo bunting	*Passerina cyanea*
Killdeer	*Charadrius vociferus*
Least sandpiper	*Calidris minutilla*
Lesser Black-backed Gull	*Larus fuscus*

TABLE 2 LIST OF WILDLIFE SPECIES RECORDED IN 2017 - 2022, WASTEBED B/HARBOR BROOK OUTBOARD AREA, TOWN OF GEDDES AND CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

Common Name	Scientific Name
Lesser Scaup	*Aythya affinis*
Lesser Yellowlegs	*Tringa flavipes*
Little Gull	*Hydrocoloeus minutus*
Mallard	*Anas platyrhynchos*
Mourning dove	*Zenaida macroura*
Mute Swan	*Cygnus olor*
Northern Flicker	*Colaptes auratus*
Northern Mockingbird	*Mimus polyglottos*
Northern Pintail	*Anas acuta*
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*
Northern Shoveler	*Anas clypeata*
Osprey[3]	*Pandion haliaetus*
Palm Warbler	*Setophaga palmarum*
Peregrine Falcon[1]	*Falco peregrinus*
Pied-billed Grebe[2]	*Podilymbus podiceps*
Red-breasted Merganser	*Mergus serrator*
Redhead	*Aythya americana*
Red-tailed Hawk	*Buteo jamaicensis*
Red-winged blackbird	*Agelaius phoeniceus*
Ring-billed Gull	*Larus delawarensis*
Ring-necked Duck	*Aythya collaris*
Semipalmated plover	*Charadrius semipalmatus*
Semipalmated sandpiper	*Calidris pusilla*
Sharp-shinned Hawk	*Accipiter striatus*
Short-billed Dowitcher	*Limnodromus griseus*
Snowy Egret	*Egretta thula*
Song Sparrow	*Melospiza melodia*
Spotted Sandpiper	*Actitis macularius*
Tree Swallow	*Tachycineta bicolor*
Tundra swan	*Cygnus columbianus*
Turkey Vulture	*Cathartes aura*
Veery	*Catharus fuscescens*
Warbling Vireo	*Vireo gilvus*
Willow Flycatcher	*Empidonax traillii*
Yellow Warbler	*Setophaga petechia*
Reptiles / Amphibians	
American Toad	*Bufo americanus*
Common Garter Snake	*Thamnophis sirtalis*
Common Snapping Turtle	*Chelydra serpentina*
Common Water Snake	*Nerodia sipedon*
DeKay's Brown Snake	*Storeria dekayi*
Eastern Musk Turtle	*Sternotherus odoratus*
Northern Green Frog	*Lithobates clamitans*
Northern Leopard Frog	*Lithobates pipiens*
Northern water snake	*Nerodia sipedon*
Painted Turtle	*Chrysemys picta*
Pickerel Frog	*Lithobates palustris*
Snapping Turtle	*Chelydra serpentina*
Spring Peeper	*Pseudacris crucifer*
Fish	
Alewife	*Alosa pseudoharengus*
American Eel	*Anguilla rostrata*
Banded Killifish	*Fundulus diaphanus*
Black Crappie	*Pomoxis nigromaculatus*
Blacknose Dace	*Rhinichthys atratulus*
Bluegill	*Lepomis macrochirus*
Bluntnose Minnow	*Pimephales notatus*
Bowfin	*Amia calva*
Brook Silverside	*Labidesthes sicculus*
Brook Stickleback	*Culaea inconstans*
Brown Bullhead	*Ameiurus nebulosus*
Brown Trout	*Salmo trutta*
Channel Catfish	*Ictalurus punctatus*
Common Carp	*Cyprinus carpio*
Common Rudd	*Scardinius erythrophthalmus*
Common Shiner	*Luxilus cornutus*
Creek Chub	*Semotilus atromaculatus*
Emerald Shiner	*Notropis atherinoides*

TABLE 2 LIST OF WILDLIFE SPECIES RECORDED IN 2017 - 2022, WASTEBED B/HARBOR BROOK OUTBOARD AREA, TOWN OF GEDDES AND CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

Common Name	Scientific Name
Fathead Minnow	*Pimephales promelas*
Freshwater Drum	*Aplodinotus grunniens*
Gizzard Shad	*Dorosoma cepedianum*
Golden Shiner	*Notemigonus crysoleucas*
Goldfish	*Carassius auratus*
Greater Redhorse	*Moxostoma valenciennesi*
Green Sunfish	*Lepomis cyanellus*
Lake Sturgeon[2]	*Acipenser fulvescens*
Largemouth Bass	*Micropterus salmoides*
Longnose Gar	*Lepisosteus osseus*
Northern Pike	*Esox lucius*
Pumpkinseed	*Lepomis gibbosus*
Quillback	*Carpiodes cyprinus*
Rock Bass	*Ambloplites rupestris*
Round Goby	*Neogobius melanostomus*
Shorthead Redhorse	*Moxostoma macrolepidotum*
Smallmouth bass	*Micropterus dolomieu*
Tiger Muskellunge	*Esox masquinongy x Esox lucius*
Walleye	*Sander vitreus*
White Perch	*Morone americana*
White Sucker	*Catostomus commersonii*
Yellow Bullhead	*Ameiurus natalis*
Yellow Perch	*Perca flavescens*
Mollusk	
Amber Snail	*Succinea putris*
Paper Pondshell	*Utterbackia imbecillis*
Slug	*Gastropoda*
Zebra mussel	*Dreissena polymorpha*
Arthropod	
American bumblebee	*Bombus pensylvanicus*
Autumn Meadowhawk	*Sympetrum vicinum*
Bald-faced Hornet	*Dolichovespula maculata*
Black Swallowtail	*Papilio polyxenes*
Broad-winged Katydid	*Microcentrum rhombifolium*
Bumblebee	*Apidae Bombus*
Cabbage White Butterfly	*Pieris rapae*
Clouded Sulphur	*Colias philodice*
Cloudless Sulphur Butterfly	*Phoebis sennae*
Common Bluet	*Enallagma cyathigerum*
Crayfish	*Cambaridae*
Cricket	*Grylloidea*
Dog-day Cicada	*Tibicen canicularis*
Eastern Carpenter Bee	*Xylocopa virginica*
Eastern Forktail	*Ischnura verticalis*
Eastern Tailed-blue butterfly	*Cupido comyntas*
Fall Webworm	*Hyphantria cunea*
Firebug	*Pyrrhocoris apterus*
Garden Spider	*Argiope aurantia*
Green Darner	*Anax junius*
Honeybee	*Apis mellifera*
House Fly	*Muscidae*
Ichneumon Wasp	*Ichneumonidae*
Ladybug	*Coccinellidae*
Large Milkweed Bug	*Oncopeltus fasciatus*
Lunate Zale Moth	*Zale lunata*
Monarch Butterfly	*Danaus plexippus*
Mosquito	*Culicidae Aedes*
Painted Lady	*Cynthia spp.*
Pearl Crescent	*Phyciodes tharos*
Prince Baskettail	*Epitheca princeps*
Red Admiral	*Vanessa atalanta*
Red-legged Grasshopper	*Melanoplus femurrubrum*
Salt Marsh Moth	*Estigmene acrea*
Small Square-gilled Mayfly	*Caenidae caenis*
Spur-throated Grasshopper	*Melanoplus ponderosus*
Tachinid fly	*Tachinidae*

TABLE 2 LIST OF WILDLIFE SPECIES RECORDED IN 2017 - 2022, WASTEBED B/HARBOR BROOK OUTBOARD AREA, TOWN OF GEDDES AND CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

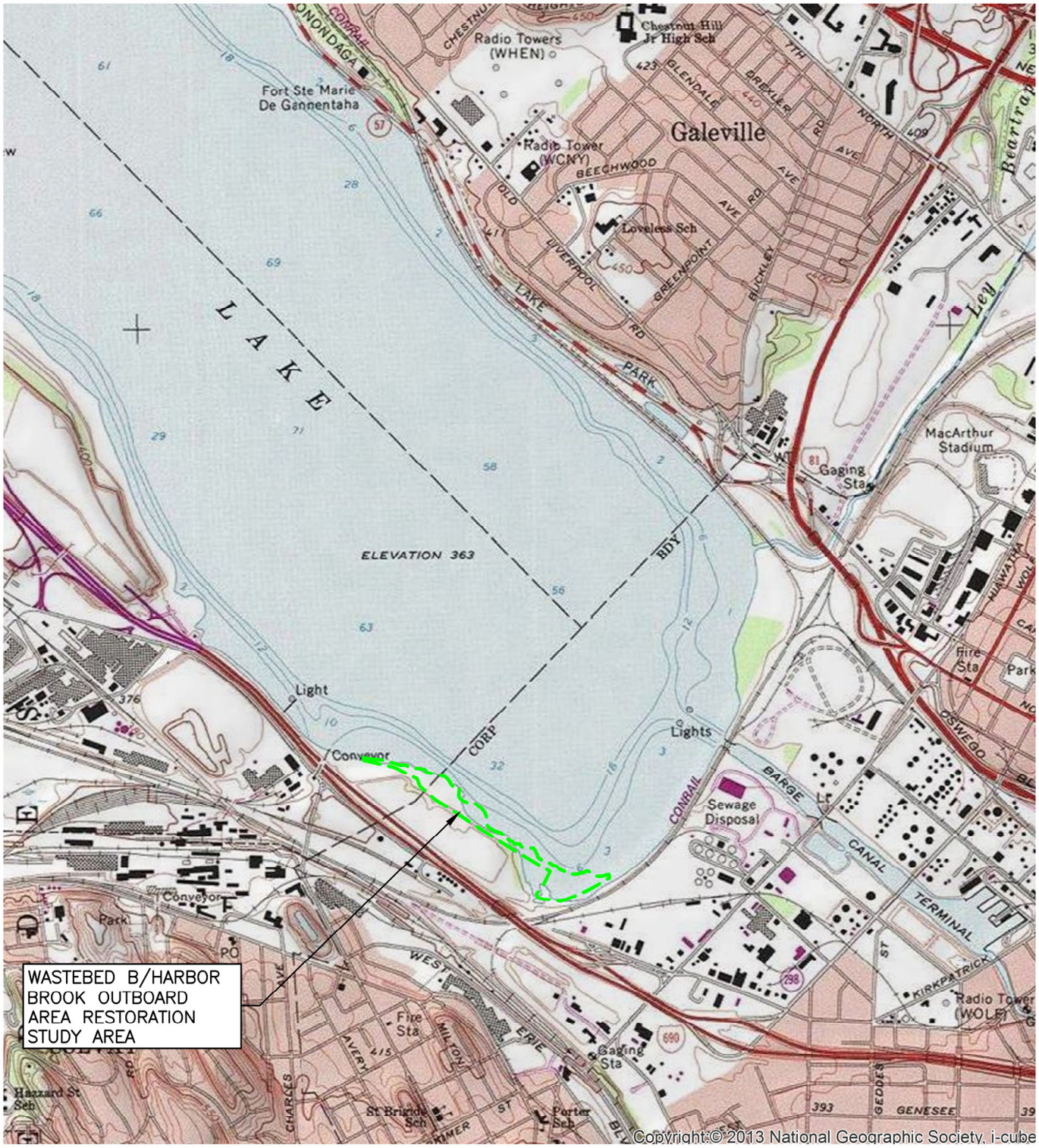
Common Name	Scientific Name
Praying Mantis	*Mantodea*
Twelve-spotted skimmer	*Libellula pulchella*
Centipede	Chilopoda
Viceroy Butterfly	*Limenitis archippus*
Water Strider	*Gerridae*
Weevil	*Curculionoidea*
Woolly bear	*Pyrrhartctia isabella*

1 State listed as Endangered
2 State listed as Threatened
3 State listed as a Species of Special Concern

TABLE 3 ACREAGE OF VEGETATION/WATERS COVER TYPES, WASTEBED B/ HARBOR BROOK OUTBOARD AREA, TOWN OF GEDDES AND CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

Cover Type	Acreage (acres)
Persistent Emergent Wetland	5.5
Non-Persistent Emergent Wetland	3.6
Young Forest/scrub-shrub Wetland	1.5
Total Surveyed Wetland Areas	10.6
Open Water/Submerged Aquatics	4.1
Vegetated Upland Areas	1.5

FIGURES





QUADRANGLE LOCATION

SOURCES:
USGS TOPOGRAPHIC MAP,
SYRACUSE WEST QUADRANGLE

N

2000 1000 0

SCALE: 1"=2000'

FIGURE 1

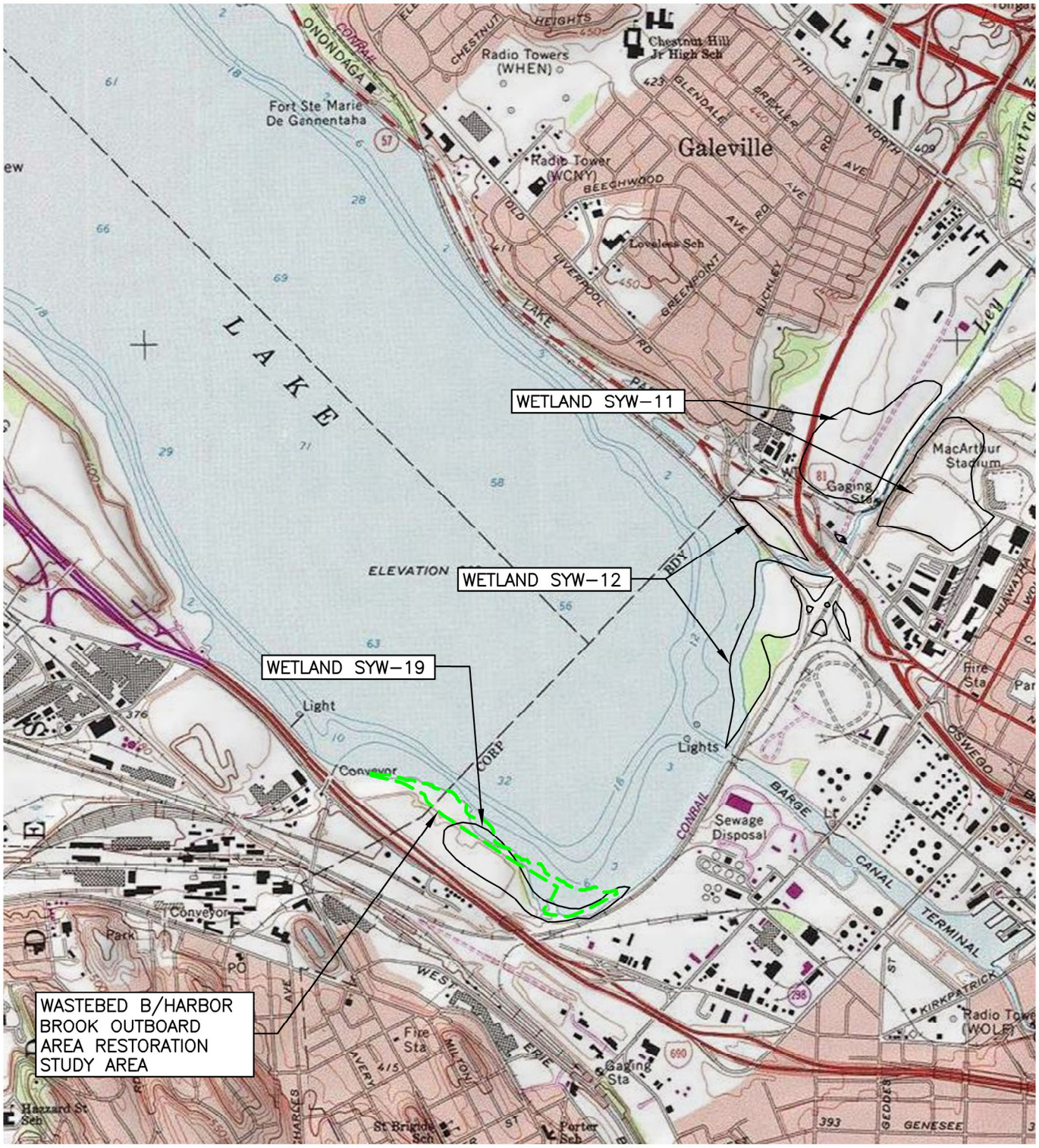
Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

STUDY AREA LOCATION

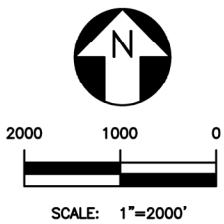
PARSONS
301 PLAINFIELD ROAD * SUITE 350 * SYRACUSE, NY 13212 * 315/451-9560
OFFICES IN PRINCIPAL CITIES

FILE NAME: P:\HONEYWELL -SYR\452669 2021 OL PVM\10 TECHNICAL CATEGORIES\CAD\OB-HB\452669-OB-HB-01.DWG
PLOT DATE: 3/9/2023 4:45 PM PLOTTED BY: RUSSO, JILL [US-US]





QUADRANGLE LOCATION



SCALE: 1"=2000'

SOURCES:
-USGS TOPOGRAPHIC MAP, SYRACUSE WEST QUADRANGLE
-NYS DEC ENVIRONMENTAL RESOURCE MAPPER

FIGURE 2

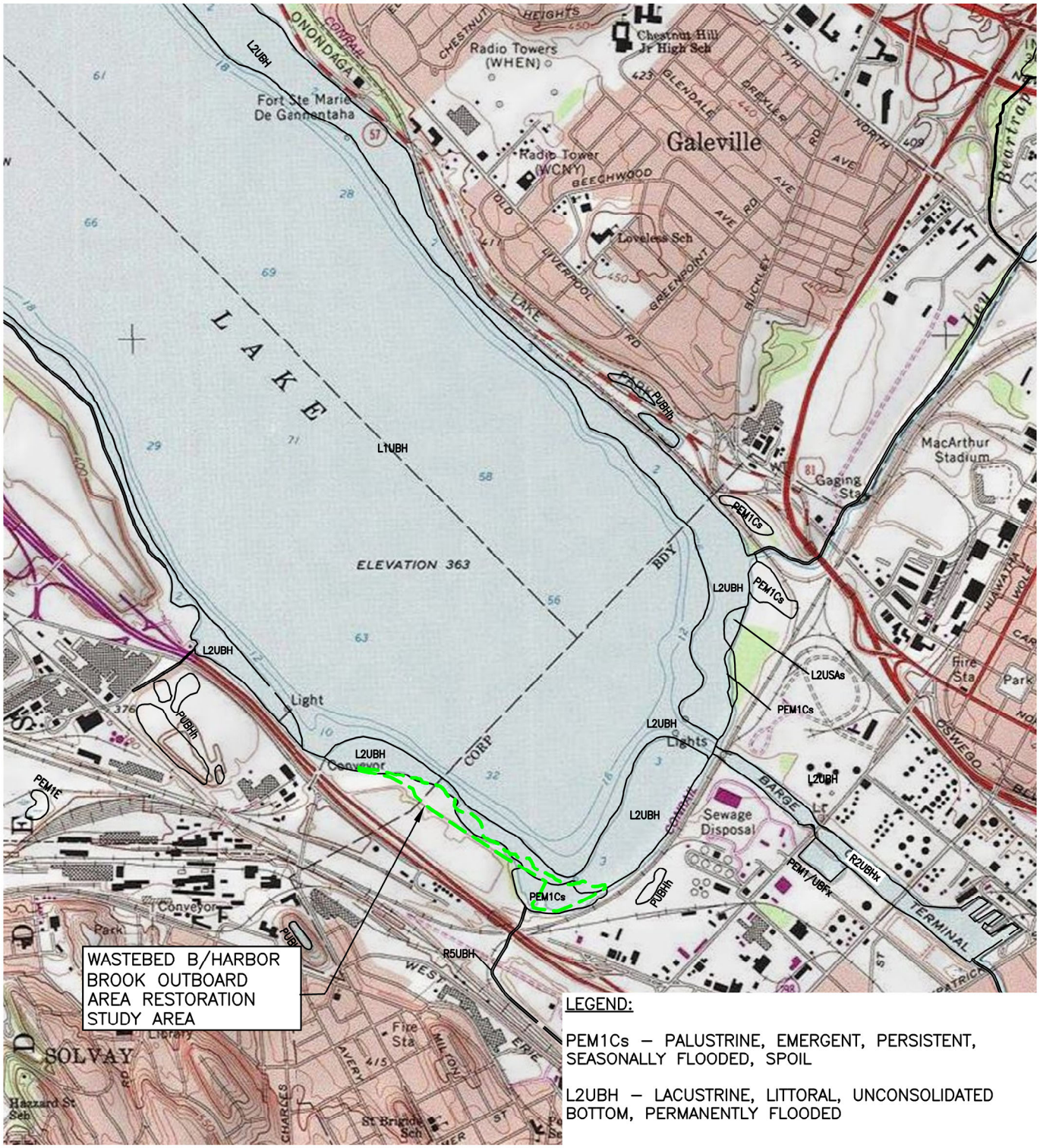
Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

NEW YORK STATE FRESHWATER WETLANDS MAP

PARSONS
301 PLAINFIELD ROAD * SUITE 350 * SYRACUSE, NY 13212 * 315/451-9560
OFFICES IN PRINCIPAL CITIES

FILE NAME: P:\HONEYWELL -SYR\452669 2021 OL PVM\10 TECHNICAL CATEGORIES\CAD\OB-HB\452669-OB-HB-01.DWG
PLOT DATE: 3/9/2023 4:41 PM PLOTTED BY: RUSSO, JILL [US-US]



LEGEND:

PEM1Cs – PALUSTRINE, EMERGENT, PERSISTENT, SEASONALLY FLOODED, SPOIL

L2UBH – LACUSTRINE, LITTORAL, UNCONSOLIDATED BOTTOM, PERMANENTLY FLOODED



QUADRANGLE LOCATION

N

2000 1000 0

SCALE: 1"=2000'

SOURCES:
–USGS TOPOGRAPHIC MAP, SYRACUSE WEST QUADRANGLE
–FISH AND WILDLIFE SERVICE NATIONAL WETLANDS INVENTORY

FIGURE 3

Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

NATIONAL WETLANDS INVENTORY MAP

PARSONS
301 PLAINFIELD ROAD * SUITE 350 * SYRACUSE, NY 13212 * 315/451-9560
OFFICES IN PRINCIPAL CITIES

FILE NAME: P:\HONEYWELL –SYR\452669 2021 OL PVM\10 TECHNICAL CATEGORIES\CAD\OB–HB\452669–OB–HB–01.DWG
PLOT DATE: 3/9/2023 4:35 PM PLOTTED BY: RUSSO, JILL [US–US]



OUTBOARD BOUNDARY (STUDY AREA)

25' PLANTED BUFFER LIMIT

AERIAL MAP PROVIDED THRU ARCVIEW GIS (GOOGLE EARTH) 7/14/22.



KEY PLAN
NOT TO SCALE

150 0 150 300

SCALE: 1"=150'

FIGURE 4a

Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

WASTEBED B/HARBOR BROOK OUTBOARD AREA (WESTERN PORTION) ON AERIAL PHOTOGRAPH

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\452669 2021 OL PVM\10 TECHNICAL CATEGORIES\CAD\OB-HB\452669-5-YR-WET-DEL-WBB-HB-2022.DWG
PLOT DATE: 10/17/2024 4:49 PM PLOTTED BY: RUSSO, JILL [US-US]

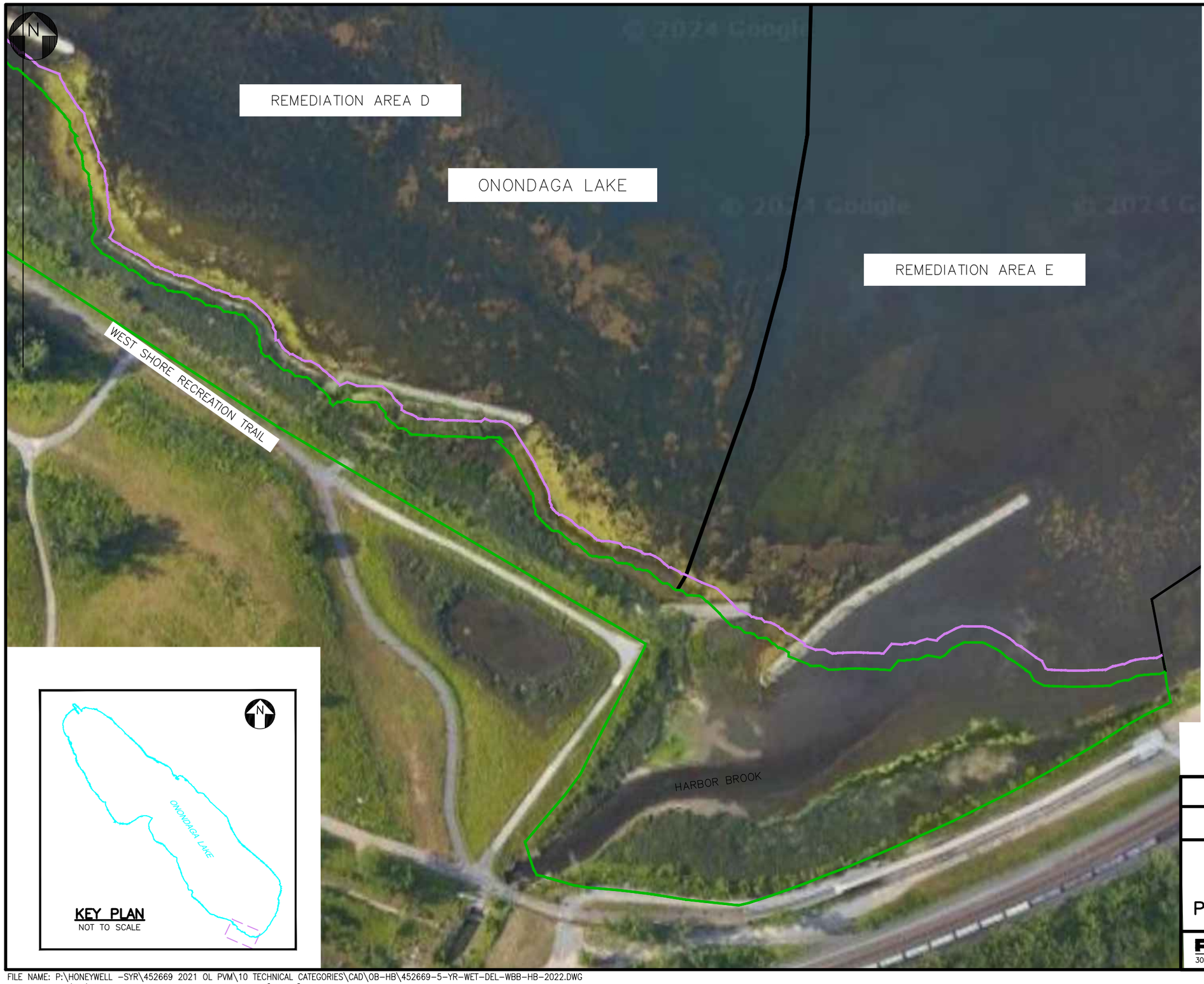


FIGURE 4b

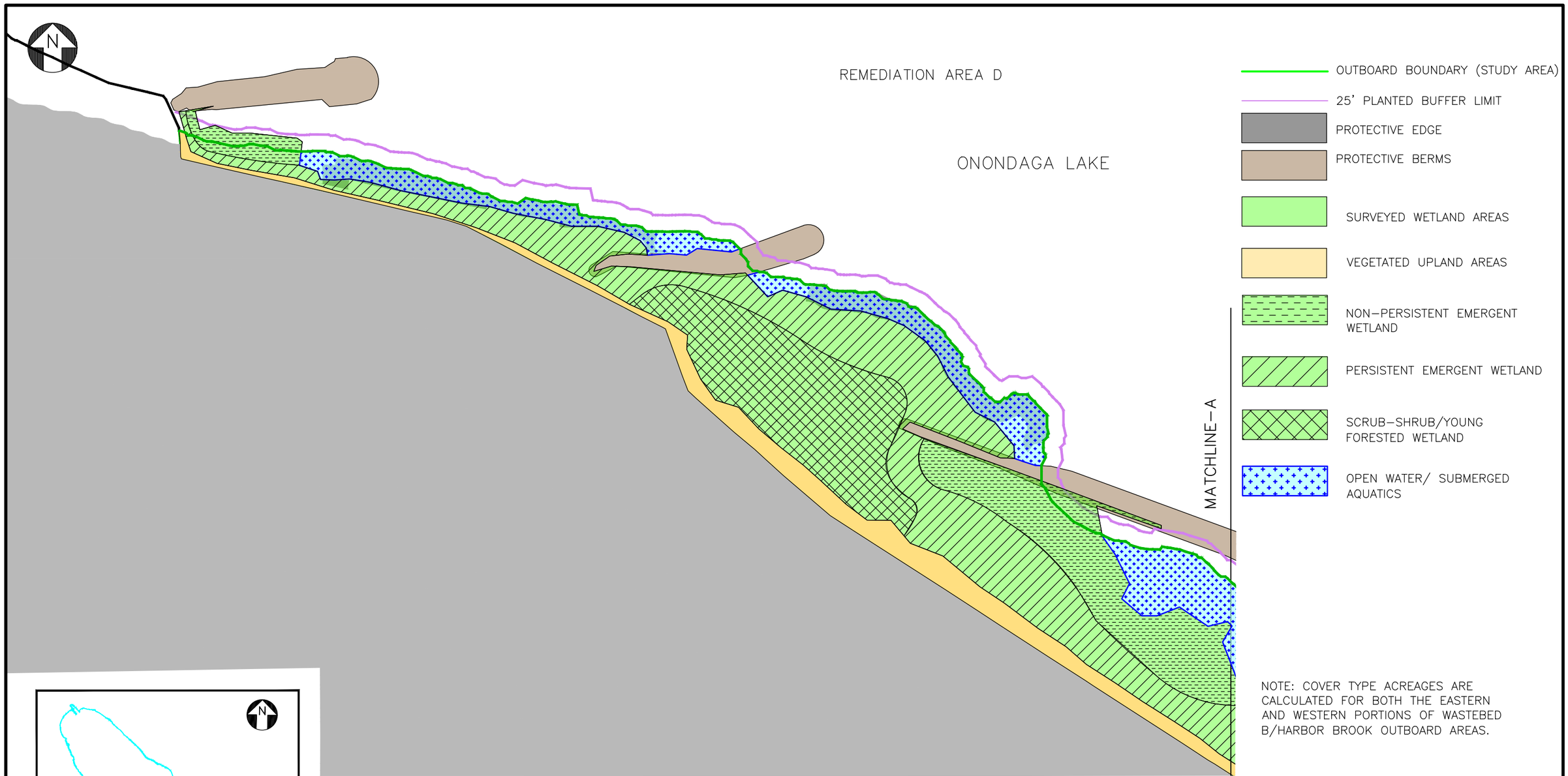
Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

WASTEBED B/HARBOR BROOK OUTBOARD AREA (EASTERN PORTION) ON AERIAL PHOTOGRAPH

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\452669 2021 OL PVM\10 TECHNICAL CATEGORIES\CAD\OB-HB\452669-5-YR-WET-DEL-WBB-HB-2022.DWG
PLOT DATE: 10/17/2024 4:50 PM PLOTTED BY: RUSSO, JILL [US-US]



NOTE: COVER TYPE ACREAGES ARE CALCULATED FOR BOTH THE EASTERN AND WESTERN PORTIONS OF WASTEBED B/HARBOR BROOK OUTBOARD AREAS.



KEY PLAN
NOT TO SCALE

VEGETATED COVER TYPES	2022 ACREAGES
SURVEYED WETLAND AREAS	10.6
VEGETATED UPLAND AREAS	1.5
WETLAND NON–PERSISTENT EMERGENT	3.6
WETLAND PERSISTENT EMERGENT	5.5
WETLAND SCRUB–SHRUB/YOUNG FORESTED	1.5
OPEN WATER/ SUBMERGED AQUATICS	4.1

150 0 150 300

SCALE: 1"=150'

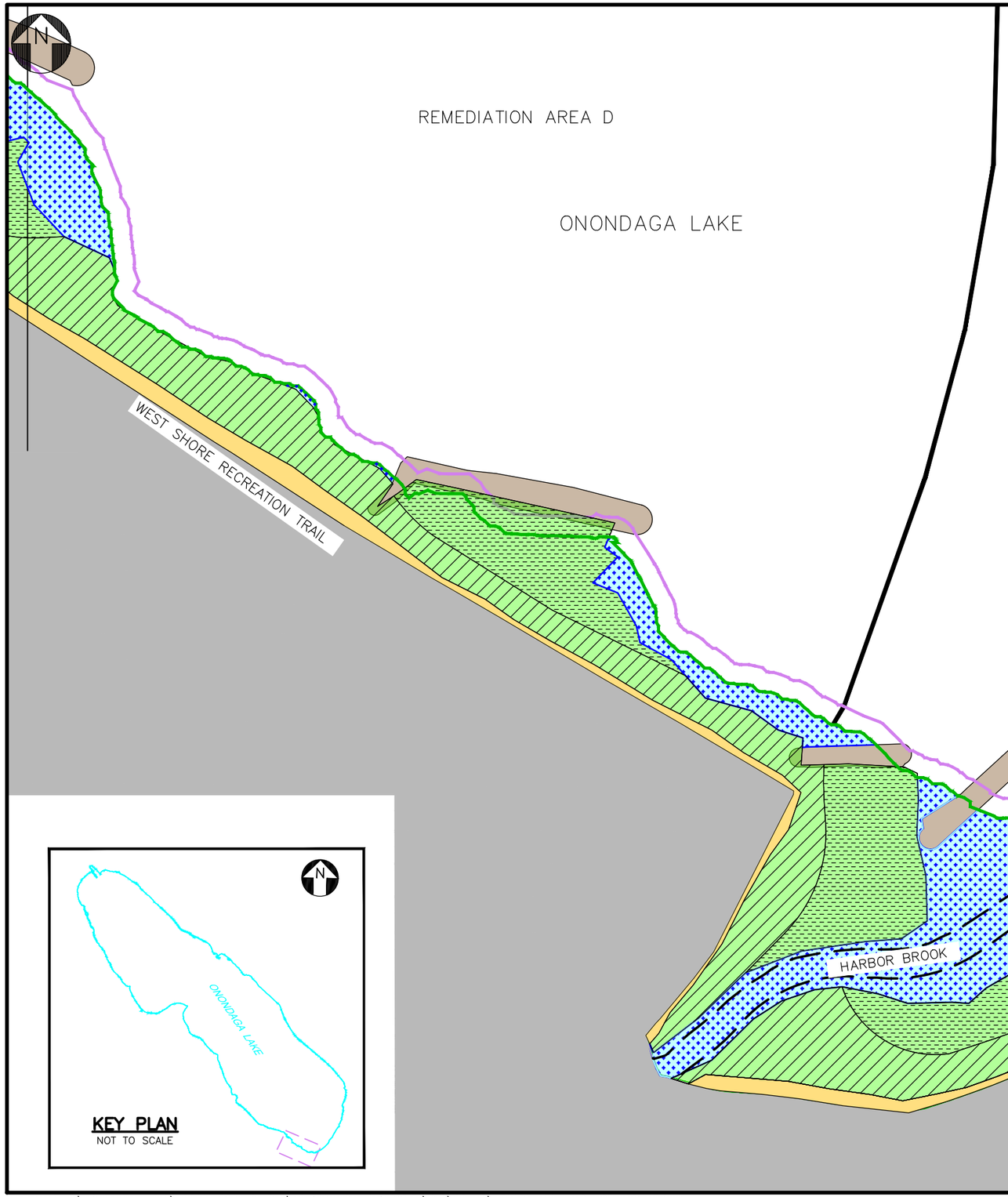
FIGURE 5a

Honeywell ONONDAGA LAKE SYRACUSE, NEW YORK

VEGETATION/LAND USE COVER MAP
WASTEBED B/HARBOR BROOK OUTBOARD AREA
(WESTERN PORTION)

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315–451–9560

FILE NAME: P:\HONEYWELL –SYR\452669 2021 OL PVM\10 TECHNICAL CATEGORIES\CAD\OB–HB\452669–VEG–LAND–USE WBB–HB.DWG
PLOT DATE: 3/23/2023 1:37 PM PLOTTED BY: RUSSO, JILL [US–US]



VEGETATED COVER TYPES	2022 ACREAGES
SURVEYED WETLAND AREAS	10.6
VEGETATED UPLAND AREAS	1.5
WETLAND NON-PERSISTENT EMERGENT	3.6
WETLAND PERSISTENT EMERGENT	5.5
WETLAND SCRUB-SHRUB/YOUNG FORESTED	1.5
OPEN WATER/ SUBMERGED AQUATICS	4.1

- OUTBOARD BOUNDARY (STUDY AREA)
- 25' PLANTED BUFFER LIMIT
- PROTECTIVE EDGE
- PROTECTIVE BERMS
- SURVEYED WETLAND AREAS
- VEGETATED UPLAND AREAS
- NON-PERSISTENT EMERGENT WETLAND/AQUATIC BED
- PERSISTENT EMERGENT WETLAND
- SCRUB-SHRUB/YOUNG FORESTED WETLAND
- OPEN WATER/ SUBMERGED AQUATICS

NOTE: COVER TYPE ACREAGES ARE CALCULATED FOR BOTH THE EASTERN AND WESTERN PORTIONS OF WASTEBED B/HARBOR BROOK OUTBOARD AREAS.

KEY PLAN
NOT TO SCALE

FIGURE 5b

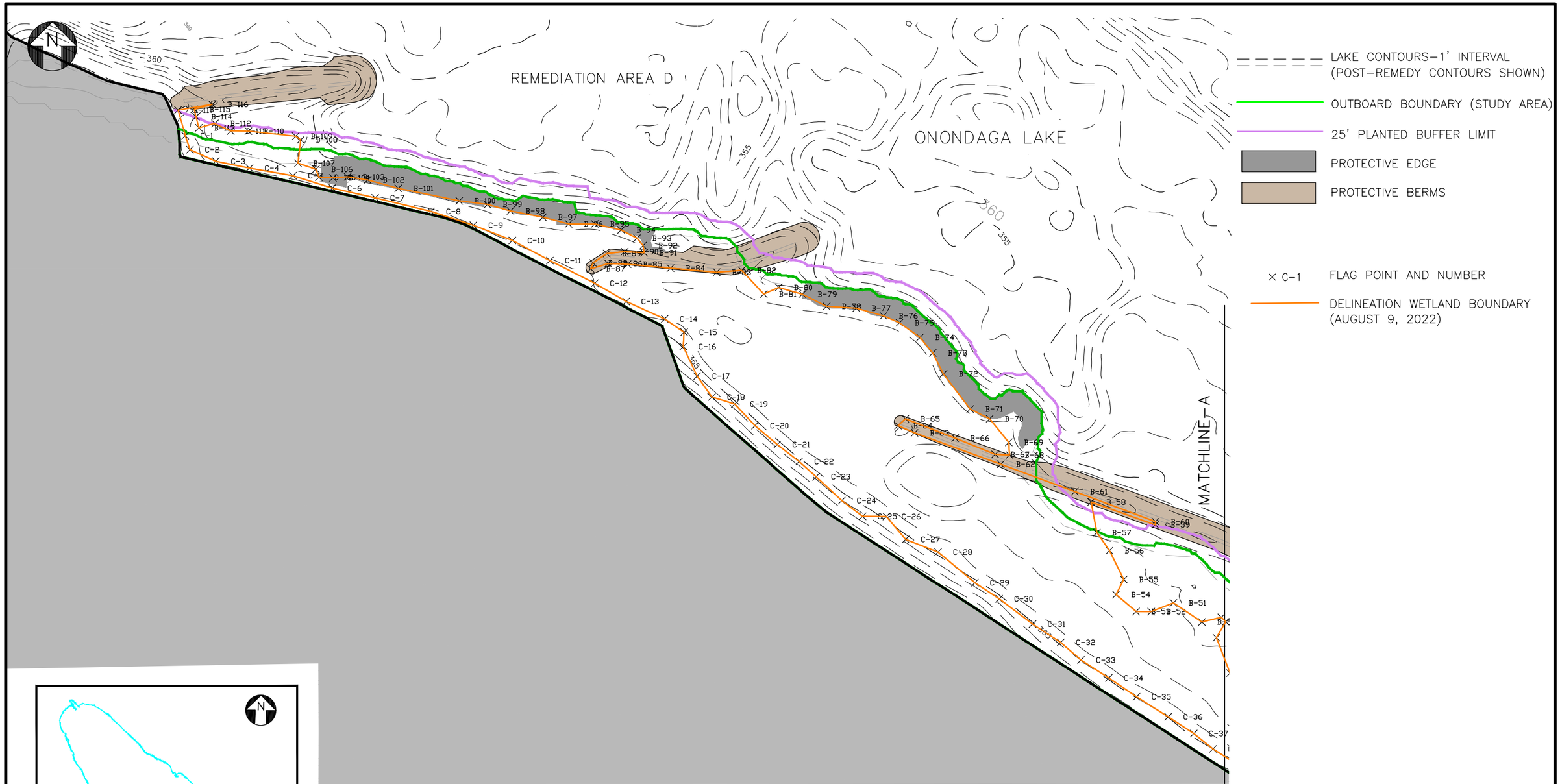
Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

VEGETATION/LAND USE COVER MAP WASTEBED B/HARBOR BROOK OUTBOARD AREA (EASTERN PORTION)

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\452669 2021 OL PVM\10 TECHNICAL CATEGORIES\CAD\OB-HB\452669-VEG-LAND-USE WBB-HB.DWG
PLOT DATE: 4/3/2023 5:28 PM PLOTTED BY: RUSSO, JILL [US-US]





150 0 150 300

SCALE: 1"=150'

FIGURE 6a

Honeywell ONONDAGA LAKE SYRACUSE, NEW YORK

WETLAND DELINEATION SURVEY
WASTEBED B/HARBOR BROOK
OUTBOARD AREA
(WESTERN PORTION)

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\452669 2021 OL PVM\10 TECHNICAL CATEGORIES\CAD\OB-HB\452669-WET-DEL-SURVEY WBB-HB.DWG
PLOT DATE: 3/6/2023 9:03 AM PLOTTED BY: RUSSO, JILL [US-US]

REMEDIATION AREA D

REMEDIATION AREA E

ONONDAGA LAKE

HARBOR BROOK

355

360

LAKE CONTOURS–1' INTERVAL
(POST–REMEDY CONTOURS SHOWN)

OUTBOARD BOUNDARY (STUDY AREA)

25' PLANTED BUFFER LIMIT

PROTECTIVE EDGE

PROTECTIVE BERMS

× C–1 FLAG POINT AND NUMBER

DELINEATION WETLAND BOUNDARY
(AUGUST 9, 2022)

150 0 150 300

SCALE: 1"=150'

KEY PLAN
NOT TO SCALE

ONONDAGA LAKE

FIGURE 6b

Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

WETLAND DELINEATION SURVEY
WASTEBED B/HARBOR BROOK
OUTBOARD AREA
(EASTERN PORTION)

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315–451–9560

FILE NAME: P:\HONEYWELL –SYR\452669 2021 OL PVM\10 TECHNICAL CATEGORIES\CAD\OB–HB\452669–WET–DEL–SURVEY WBB–HB.DWG
PLOT DATE: 3/6/2023 9:17 AM PLOTTED BY: RUSSO, JILL [US–US]

REMEDIATION AREA D

ONONDAGA LAKE

MATCHLINE – A

B4W

B3W

C1W

C1U

C2W

C2U

LAKE CONTOURS–1' INTERVAL (POST–REMEDY CONTOURS SHOWN)

OUTBOARD BOUNDARY (STUDY AREA)

25' PLANTED BUFFER LIMIT

PROTECTIVE EDGE

PROTECTIVE BERMS

× C–1 FLAG POINT AND NUMBER

DELINEATION WETLAND BOUNDARY (AUGUST 9, 2022)

1 PHOTO NUMBER AND DIRECTION

C2U WETLAND DELINEATION PLOT LOCATION

KEY PLAN
NOT TO SCALE

150 0 150 300

SCALE: 1"=150'

FIGURE 7a

Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

SAMPLE PLOT AND PHOTOGRAPH LOCATIONS WASTEBED B/HARBOR BROOK OUTBOARD AREA (WESTERN PORTION)

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315–451–9560

FILE NAME: P:\HONEYWELL –SYR\452669 2021 OL PVM\10 TECHNICAL CATEGORIES\CAD\OB–HB\452669–PHOTO LOCS WBB–HB.DWG
PLOT DATE: 3/6/2023 9:53 AM PLOTTED BY: RUSSO, JILL [US–US]

REMEDIATION AREA D

REMEDIATION AREA E

ONONDAGA LAKE

HARBOR BROOK

IN

B2W

C3W

C3U

B1W

C4U

C4W

A1W

D1W

D1U

10

11

12

13

14

15

16

17

18

19

20

355

360

LAKE CONTOURS–1' INTERVAL (POST–REMEDY CONTOURS SHOWN)

OUTBOARD BOUNDARY (STUDY AREA)

25' PLANTED BUFFER LIMIT

PROTECTIVE EDGE

PROTECTIVE BERMS

× C–1 FLAG POINT AND NUMBER

DELINEATION WETLAND BOUNDARY (AUGUST 9, 2022)

1 PHOTO NUMBER AND DIRECTION

C2U WETLAND DELINEATION PLOT LOCATION

KEY PLAN
NOT TO SCALE

ONONDAGA LAKE

150 0 150 300

SCALE: 1"=150'

FIGURE 7b

Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

SAMPLE PLOT AND PHOTOGRAPH LOCATIONS WASTEBED B/HARBOR BROOK OUTBOARD AREA (EASTERN PORTION)

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315–451–9560

FILE NAME: P:\HONEYWELL –SYR\452669 2021 OL PVM\10 TECHNICAL CATEGORIES\CAD\OB–HB\452669–PHOTO LOCS WBB–HB.DWG
PLOT DATE: 3/6/2023 9:47 AM PLOTTED BY: RUSSO, JILL [US–US]



REMEDIATION AREA BOUNDARY

OUTBOARD BOUNDARY

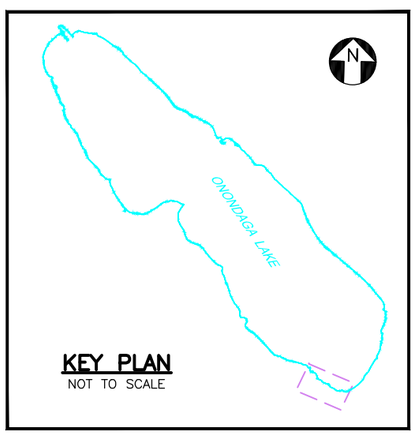
25' PLANTED BUFFER LIMIT

PROTECTIVE BERMS

UPLAND AREA

DELINEATED WETLAND BOUNDARY (10.6 ACRES)

OPEN WATER/SUBMERGED AQUATICS (4.1 ACRES)



KEY PLAN
NOT TO SCALE

NOTES:

1. 0.1 ACRES HAS BEEN SUBTRACTED FROM THE OVERALL OPEN WATER ACREAGE TO ACCOUNT FOR AREAS OF THE PLATEAU PROTECTIVE EDGES ABOVE THE MEAN LAKE LEVEL OF 362.5.

2. THE AREA OF THE PROTECTIVE BERMS WITHIN THE OUTBOARD AREA BOUNDARY IS APPROXIMATELY 0.4 ACRES AND THE AREA WITHIN THE LAKE IS APPROXIMATELY 1.4 ACRES. THE AREA OF THE BERMS IS NOT INCLUDED IN THE OPEN WATER, WETLAND, OR UPLAND ACREAGES, WITH THE EXCEPTION OF 0.17 ACRES OF PLANTED WETLAND VEGETATION ALONG THE EDGES OF THE BERMS

300 150 0 300 600

SCALE: 1"=300'

FIGURE 8

Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

YEAR FIVE WETLAND ACREAGE AREAS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\450704 2017-2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\FOCUS-2022\5-YR-WET-DEL-WBB-HB-2022.DWG
PLOT DATE: 2/21/2025 3:19 PM PLOTTED BY: RUSSO, JILL [US-US]

APPENDIX A PHOTOGRAPHS

APPENDIX A PHOTOGRAPHIC DOCUMENTATION

WASTEBED B/HARBOR BROOK OUTBOARD AREA



Title: Photograph 1.
Location: Geddes, New York.
Date: August 9, 2022.
Description: Looking southeast from protective berm at emergent wetland in western portion of the study area.



Title: Photograph 2.
Location: Geddes, New York.
Date: August 10, 2022.
Description: Looking northwest from upland at emergent wetland behind protective berm in western portion of the study area.

APPENDIX A PHOTOGRAPHIC DOCUMENTATION

WASTEBED B/HARBOR BROOK OUTBOARD AREA



Title: Photograph 3.
Location: Geddes, New York.
Date: August 9, 2022.
Description: Looking east along the study area wetland edge.



Title: Photograph 4.
Location: Geddes, New York.
Date: August 9, 2022.
Description: Looking northwest at upland plot C1U.

APPENDIX A PHOTOGRAPHIC DOCUMENTATION

WASTEBED B/HARBOR BROOK OUTBOARD AREA



Title: Photograph 5.
Location: Geddes, New York.
Date: August 9, 2022.
Description: Looking east along the study area wetland edge from protective berm.



Title: Photograph 6.
Location: Geddes, New York.
Date: August 10, 2022.
Description: Looking northwest in the young forested wetland

APPENDIX A PHOTOGRAPHIC DOCUMENTATION

WASTEBED B/HARBOR BROOK OUTBOARD AREA



Title: Photograph 7.
Location: Geddes, New York.
Date: August 10, 2022.
Description: Looking north in the young forested wetland.



Title: Photograph 8.
Location: Geddes, New York.
Date: August 10, 2022.
Description: Looking east down the longest protective berm.

APPENDIX A PHOTOGRAPHIC DOCUMENTATION

WASTEBED B/HARBOR BROOK OUTBOARD AREA



Title: Photograph 9.
Location: Syracuse, New York.
Date: August 9, 2022.
Description: Looking southeast at emergent wetland behind protective berm.



Title: Photograph 10.
Location: Syracuse, New York.
Date: August 10, 2022.
Description: Looking north at emergent wetland behind protective berm.

APPENDIX A PHOTOGRAPHIC DOCUMENTATION

WASTEBED B/HARBOR BROOK OUTBOARD AREA



Title: Photograph 11.
Location: Syracuse, New York.
Date: August 9, 2022.
Description: Looking southeast along the lakeward edge of the study area wetlands.



Title: Photograph 12.
Location: Syracuse, New York.
Date: August 10, 2022.
Description: Looking southeast over wetlands behind protective berm.

APPENDIX A PHOTOGRAPHIC DOCUMENTATION

WASTEBED B/HARBOR BROOK OUTBOARD AREA



Title: Photograph 13.
Location: Syracuse, New York.
Date: August 10, 2022.
Description: Looking northwest at persistent emergent wetlands.



Title: Photograph 14.
Location: Syracuse, New York.
Date: August 9, 2022.
Description: Looking northwest at the strip of upland between the study area wetlands and the paved recreational trail.

APPENDIX A PHOTOGRAPHIC DOCUMENTATION

WASTEBED B/HARBOR BROOK OUTBOARD AREA



Title: Photograph 15.
Location: Syracuse, New York.
Date: August 10, 2022.
Description: Looking west at emergent wetlands behind protective berm.



Title: Photograph 16.
Location: Syracuse, New York.
Date: August 9, 2022.
Description: Looking south at the emergent wetlands near the Harbor Brook channel.

APPENDIX A PHOTOGRAPHIC DOCUMENTATION

WASTEBED B/HARBOR BROOK OUTBOARD AREA



Title: Photograph 17.
Location: Syracuse, New York.
Date: August 9, 2022.
Description: Looking west at a stand of swamp rose mallow (*Hibiscus moscheutos*) in the wetlands north of the Harbor Brook channel.



Title: Photograph 18.
Location: Syracuse, New York.
Date: August 10, 2022.
Description: Looking east at the wetlands surrounding the Harbor Brook channel.

APPENDIX A PHOTOGRAPHIC DOCUMENTATION

WASTEBED B/HARBOR BROOK OUTBOARD AREA



Title: Photograph 19.
Location: Syracuse, New York.
Date: August 9, 2022.
Description: Looking southwest along wetlands east of the mouth of Harbor Brook.



Title: Photograph 20.
Location: Syracuse, New York.
Date: August 9, 2022.
Description: Looking southwest along wetlands east of the mouth of Harbor Brook.

APPENDIX B FIELD PLOT DATA SHEETS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Syracuse/Onondaga County Sampling Date: 8/9/2022

Applicant/Owner: Honeywell State: NY Sampling Point: A1W

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- X Aquatic Fauna (B13)
- Marl Deposits (B15)
- X Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches): 8	
Water Table Present?	Yes	No	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):	**Wetland Hydrology Present?** **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Flag A-7

Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants. Sampling Point: A1W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Pontederia cordata*	90	Yes	OBL
2. *Lemna minor*	75	Yes	OBL
3. *Stuckenia pectinata*	60	Yes	OBL
4. *Ceratophyllum demersum*	5	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	230 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	230	x 1 =	230
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	230 (A)		230 (B)

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: A1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

No soil data was taken due to in-lake conditions, aquic moisture regime, and muck substrate.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Syracuse/Onondaga County Sampling Date: 8/9/2022

Applicant/Owner: Honeywell State: NY Sampling Point: B1W

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- X Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches): 12	
Water Table Present?	Yes	No	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):	**Wetland Hydrology Present?** **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Flag B-11

Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants. Sampling Point: B1W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Pontederia cordata*	90	Yes	OBL
2. *Stuckenia pectinata*	80	Yes	OBL
3. *Lemna minor*	40	No	OBL
4. *Ceratophyllum demersum*	10	No	OBL
5. *Nuphar lutea*	5	No	UPL
6. *Potamogeton crispus*	5	No	OBL
7.			
8.			
9.			
10.			
11.			
12.			
	230 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	225	x 1 =	225
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	230 (A)		250 (B)

Prevalence Index = B/A = 1.09

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: B1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/1	100					Mucky Loam/Clay	Muck
2-7	2.5Y 3/2	90	5YR 3/4	10			Loamy/Clayey	Silty clay loam
7-14	10YR 4/1	95	7.5YR 3/4	5			Loamy/Clayey	Silty clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- X Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

No soil data was taken due to in-lake conditions, aquic moisture regime during initial assessment on 8/9/2022. Plot was revisited on 2/14/2023 to collect soil data.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Syracuse/Onondaga County Sampling Date: 8/9/2022

Applicant/Owner: Honeywell State: NY Sampling Point: B2W

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No	**within a Wetland?** **Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- X Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches): 10
Water Table Present?	Yes	No	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Flag B-47

Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants. Sampling Point: B2W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Pontederia cordata*	40	Yes	OBL
2. *Nymphaea odorata*	40	Yes	OBL
3. *Elodea canadensis*	25	Yes	OBL
4. *Myriophyllum sibiricum*	20	No	OBL
5. *Heteranthera dubia*	15	No	OBL
6. *Ceratophyllum demersum*	10	No	OBL
7. *Chara vulgaris*	5	No	Unknown
8. *Lemna minor*	5	No	OBL
9.			
10.			
11.			
12.			
	160 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	155	x 1 =	155
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	155 (A)		155 (B)

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: B2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	2.5Y 3/1	100					Loamy/Clayey	Silt loam
2-14	2.5Y 4/1	98	5YR 4/2	2			Loamy/Clayey	Silty clay loam, 10% gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

No soil data was taken due to in-lake conditions, aquic moisture regime during initial assessment on 8/9/2022. Plot was revisited on 2/14/2023 to collect soil data.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Geddes/Onondaga County Sampling Date: 8/9/2022

Applicant/Owner: Honeywell State: NY Sampling Point: B3W

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** **No** X
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- X Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches): 3	
Water Table Present?	Yes	No	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):	**Wetland Hydrology Present?** **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Flag B-70

Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants. Sampling Point: B3W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Typha latifolia*	60	Yes	OBL
2. *Pontederia cordata*	15	No	OBL
3. *Ceratophyllum demersum*	10	No	OBL
4. *Heteranthera dubia*	5	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	90 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	90 (A)		90 (B)

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: B3W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

No soil data was taken due to in-lake conditions, aquic moisture regime.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Geddes/Onondaga County Sampling Date: 8/9/2022

Applicant/Owner: Honeywell State: NY Sampling Point: B4W

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** **No** X
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- X Aquatic Fauna (B13)
- Marl Deposits (B15)
- X Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches): 4	
Water Table Present?	Yes	No	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):	**Wetland Hydrology Present?** **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
B-109

Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants. Sampling Point: B4W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Pontederia cordata*	75	Yes	OBL
2. *Stuckenia pectinata*	40	Yes	OBL
3. *Heteranthera dubia*	30	No	OBL
4. *Myriophyllum spicatum*	10	No	OBL
5. *Lemna minor*	2	No	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	157 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	157	x 1 =	157
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	157 (A)		157 (B)

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: B4W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 3/1	98	2.5YR 2.5/3	2			Loamy/Clayey	Silty clay loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

No soil data was taken due to in-lake conditions, aquic moisture regime during initial assessment on 8/9/2022. Plot was revisited on 2/14/2023 to collect soil data.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Geddes/Onondaga County Sampling Date: 8/9/2022

Applicant/Owner: Honeywell State: NY Sampling Point: C1U

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):

Wetland Hydrology Present? **Yes** **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Flag C-8

Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants. Sampling Point: C1U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Penstemon digitalis*	60	Yes	FAC
2. *Monarda fistulosa*	15	Yes	FACU
3. *Solidago altissima*	15	Yes	FACU
4. *Linaria vulgaris*	10	No	UPL
5. *Lotus corniculatus*	10	No	FACU
6. *Cirsium arvense*	5	No	FACU
7. *Rhus typhina*	5	No	UPL
8. *Rudbeckia laciniata*	5	No	FACW
9. *Vitis riparia*	2	No	FAC
10.			
11.			
12.			
	127 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	62	x 3 =	186
FACU species	45	x 4 =	180
UPL species	15	x 5 =	75
Column Totals:	127 (A)		451 (B)
Prevalence Index = B/A =			3.55

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: C1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 4/3	100					Loamy/Clayey	Silt

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Stone

Depth (inches): 8

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Geddes/Onondaga County Sampling Date: 8/9/2022

Applicant/Owner: Honeywell State: NY Sampling Point: C1W

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** **No** X
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Flag C-8

Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants. Sampling Point: C1W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Xanthium strumarium*	40	Yes	FAC
2. *Leersia oryzoides*	40	Yes	OBL
3. *Echinochloa sp.*	40	Yes	FAC
4. *Typha latifolia*	25	No	OBL
5. *Cyperus esculentus*	15	No	FACW
6. *scirpus acutus*	5	No	OBL
7. *Bidens frondosa*	5	No	FACW
8. *Persicaria lapathifolia*	2	No	FACW
9. *Alisma subcordatum*	2	No	OBL
10. *Lythrum salicaria*	2	No	OBL
11.			
12.			
	176 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	74	x 1 =	74
FACW species	22	x 2 =	44
FAC species	80	x 3 =	240
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	176 (A)		358 (B)

Prevalence Index = B/A = 2.03

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: C1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 3/2	85	5YR 3/4	15			Loamy/Clayey	Silt Loam
12 - 16	10YR 4/1	50	5YR 5/8	25			Loamy/Clayey	clayey silt loam 25% stone
16 - 20	10YR 4/1	90	7.5YR 5/8	10			Loamy/Clayey	clayey silt loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Geddes/Onondaga County Sampling Date: 8/9/2022

Applicant/Owner: Honeywell State: NY Sampling Point: C2U

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):

Wetland Hydrology Present? **Yes** **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants.

Sampling Point: C2U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. *Alnus incana*	10	Yes	FACW
2. *Quercus bicolor*	10	Yes	FACW
3. *Cornus sericea*	5	Yes	FACW
4.			
5.			
6.			
7.			
	25 =Total Cover		
Herb Stratum (Plot size:)			
1. *Solidago altissima*	90	Yes	FACU
2. *Galium palustre*	10	No	OBL
3. *Vernonia noveboracensis*	5	No	FACW
4. *Geum aleppicum*	5	No	FAC
5. *Monarda fistulosa*	2	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	112 =Total Cover		
Woody Vine Stratum (Plot size:)			
1. *Vitis riparia*	10	Yes	FAC
2.			
3.			
4.			
	10 =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	30	x 2 =	60
FAC species	15	x 3 =	45
FACU species	92	x 4 =	368
UPL species	0	x 5 =	0
Column Totals:	147 (A)		483 (B)

Prevalence Index = B/A = 3.29

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: C2U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 10	10YR 4/3	75					Loamy/Clayey	silt loam 25% stone

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Stone

Depth (inches): 10

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Geddes/Onondaga County Sampling Date: 8/9/2022

Applicant/Owner: Honeywell State: NY Sampling Point: C2W

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- X Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants.

Sampling Point: C2W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. *Salix nigra*	90	Yes	OBL
2. *Salix discolor*	5	No	FACW
3.			
4.			
5.			
6.			
7.			
	95 =Total Cover		
Herb Stratum (Plot size:)			
1. *Erechtites hieraciifolius*	40	Yes	FACU
2. *Persicaria lapathifolia*	15	Yes	FACW
3. *Ambrosia artemisiifolia*	10	No	FACU
4. *Typha latifolia*	10	No	OBL
5. *Phalaris arundinacea*	5	No	FACW
6. *Scirpus acutus*	5	No	OBL
7. *Carex lurida*	5	No	OBL
8. *Epilobium coloratum*	5	No	OBL
9. *Oxalis stricta*	2	No	FACU
10.			
11.			
12.			
	97 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	115	x 1 =	115
FACW species	25	x 2 =	50
FAC species	0	x 3 =	0
FACU species	52	x 4 =	208
UPL species	0	x 5 =	0
Column Totals:	192 (A)		373 (B)

Prevalence Index = B/A = 1.94

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: C2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 15	10YR 3/2	85	7.5YR 5/8	15			Loamy/Clayey	silt loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Stone

Depth (inches): 15

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Syracuse/Onondaga County Sampling Date: 8/9/2022

Applicant/Owner: Honeywell State: NY Sampling Point: C3U

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):

Wetland Hydrology Present? **Yes** **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Flag C-51

Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants. Sampling Point: C3U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Penstemon digitalis*	60	Yes	FAC
2. *Artemisia vulgaris*	20	No	UPL
3. *Trifolium hybridum*	10	No	FACU
4. *Rudbeckia laciniata*	5	No	FACW
5. *Rudbeckia triloba*	5	No	FACU
6. *Monarda fistulosa*	5	No	FACU
7. *Helenium autumnale*	2	No	FACW
8. *Daucus carota*	2	No	UPL
9. *Ambrosia artemisiifolia*	2	No	FACU
10. *Oxalis stricta*	2	No	FACU
11.			
12.			
	113 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	7	x 2 =	14
FAC species	60	x 3 =	180
FACU species	24	x 4 =	96
UPL species	22	x 5 =	110
Column Totals:	113 (A)		400 (B)

Prevalence Index = B/A = 3.54

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: C3U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 6	10YR 4/3	100					Loamy/Clayey	silt loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Stone

Depth (inches): 6

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Syracuse/Onondaga County Sampling Date: 8/9/2022

Applicant/Owner: Honeywell State: NY Sampling Point: C3W

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- X Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes X	No	Depth (inches): 10"

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Flag C-51

Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants. Sampling Point: C3W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Typha latifolia*	95	Yes	OBL
2. *Impatiens capensis*	5	No	FACW
3. *Sparganium eurycarpum*	5	No	OBL
4. *Xanthium strumarium*	5	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	110 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	100	x 1 =	100
FACW species	5	x 2 =	10
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	110 (A)		125 (B)

Prevalence Index = B/A = 1.14

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: C3W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 9	10YR 3/2	90	2.5YR 4/6	10			Loamy/Clayey	silt loam
9 - 12	10YR 4/1	80	5YR 5/6	20			Loamy/Clayey	clayey silt loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Stone

Depth (inches): 12

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Syracuse/Onondaga County Sampling Date: 8/9/2022

Applicant/Owner: Honeywell State: NY Sampling Point: C4U

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):

Wetland Hydrology Present? **Yes** **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Flag C-58

Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants. Sampling Point: C4U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Solidago altissima*	80	Yes	FACU
2. *Monarda fistulosa*	25	No	FACU
3. *Rudbeckia triloba*	15	No	FACU
4. *Artemisia vulgaris*	15	No	UPL
5. *Cirsium arvense*	10	No	FACU
6. *Penstemon digitalis*	10	No	FAC
7.			
8.			
9.			
10.			
11.			
12.			
	155 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	130	x 4 =	520
UPL species	15	x 5 =	75
Column Totals:	155 (A)		625 (B)
Prevalence Index = B/A =			4.03

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: C4U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 6	10YR 4/3	100					Mucky Sand	Gravelly silt loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Stone

Depth (inches): 6

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Syracuse/Onondaga County Sampling Date: 8/9/2022

Applicant/Owner: Honeywell State: NY Sampling Point: C4W

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes X	No	Depth (inches): 18"

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Flag C-58

Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants. Sampling Point: C4W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. *Cephalanthus occidentalis*	10	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	10 =Total Cover		
Herb Stratum (Plot size:)			
1. *Acorus americanus*	40	Yes	OBL
2. *Typha latifolia*	20	Yes	OBL
3. *Cyperus fuscus*	20	Yes	FAC
4. *Cyperus esculentus*	15	No	FACW
5. *Hibiscus moscheutos*	10	No	OBL
6. *Persicaria lapathifolia*	5	No	FACW
7. *Schoenoplectus acutus*	5	No	OBL
8. *Lythrum salicaria*	5	No	OBL
9. *Peltandra virginica*	2	No	OBL
10. *Echinochloa*	2	No	
11.			
12.			
	124 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	92	x 1 =	92
FACW species	20	x 2 =	40
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	132 (A)		192 (B)

Prevalence Index = B/A = 1.45

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: C4W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10YR 4/2	90	2.5YR 4/6	10			Loamy/Clayey	silt loam
12 - 20	2.5YR 4/1	80					Loamy/Clayey	silt loam 10% organics 10% stone

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Syracuse/Onondaga County Sampling Date: 8/10/2022

Applicant/Owner: Honeywell State: NY Sampling Point: D1U

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):

Wetland Hydrology Present? **Yes** **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Flag D-9

Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants. Sampling Point: D1U

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. *Populus deltoides*	10	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10 =Total Cover		
Herb Stratum (Plot size:)			
1. *Daucus carota*	50	Yes	UPL
2. *Calystegia sepium*	15	Yes	FAC
3. *Ambrosia artemisiifolia*	15	Yes	FACU
4. *Lotus corniculatus*	15	Yes	FACU
5. *Xanthium strumarium*	10	No	FAC
6. *Cornus sericea*	10	No	FACW
7. *Lythrum salicaria*	5	No	OBL
8. *Juncus tenuis*	5	No	FAC
9. *Euthamia graminifolia*	5	No	FAC
10. *Lycopus virginicus*	2	No	OBL
11. *Bidens frondosa*	2	No	FACW
12. *Artemisia vulgaris*	2	No	UPL
	136 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	7	x 1 =	7
FACW species	12	x 2 =	24
FAC species	45	x 3 =	135
FACU species	30	x 4 =	120
UPL species	52	x 5 =	260
Column Totals:	146 (A)		546 (B)

Prevalence Index = B/A = 3.74

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Two herbaceous species were not able to fit under the appropriate stratum therefore they have been moved to the remarks section:
13. Erigeron annuus - %2 total cover
14. Elymus virginicus - %2 total cover

SOIL

Sampling Point: D1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 4/2	90					Loamy/Clayey	silt loam 10% gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Stone

Depth (inches): 8

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Wastebed B/Harbor Brook Outboard Area City/County: Syracuse/Onondaga County Sampling Date: 8/10/2022

Applicant/Owner: Honeywell State: NY Sampling Point: D1W

Investigator(s): Joe McMullen, Kaitlyn Moranz, Jim Molloy, Jesse Carr Section, Township, Range:

Landform (hillside, terrace, etc.): Lake Edge Local relief (concave, convex, none): Slope (%):

Subregion (LRR or MLRA): LRR L, MLRA 101 Lat: Long: Datum:

Soil Map Unit Name: NA NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No	**within a Wetland?**	**Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- X Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- X Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes X	No	Depth (inches): 2 to 10

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Flag D-19

Precipitation below average during growing season and water levels in lake are slightly below average, but generally hydrologic conditions considered normal for wetlands.

VEGETATION – Use scientific names of plants. Sampling Point: D1W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Typha latifolia*	70	Yes	OBL
2. *Phalaris arundinacea*	15	No	FACW
3. *Typha × glauca*	10	No	OBL
4. *Hibiscus moscheutos*	5	No	OBL
5. *Galium palustre*	5	No	OBL
6. *Lythrum salicaria*	5	No	OBL
7. *Sparganium eurycarpum*	5	No	OBL
8. *Acorus americanus*	5	No	OBL
9. *Carex sp.*	5	No	FAC
10.			
11.			
12.			
	125 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	105	x 1 =	105
FACW species	15	x 2 =	30
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	125 (A)		150 (B)

Prevalence Index = B/A = 1.20

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: D1W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 -10	10YR 3/2	95	7.5YR 5/8	5			Loamy/Clayey	Silt Loam
10 - 16	10YR 3/2	50	7.5YR 3/4	10			Loamy/Clayey	clayey silt loam
	10YR 4/1	40						clayey silt loam
16 - 22	10YR 4/1	70	5YR 6/6	5			Loamy/Clayey	clayey silt loam 25% organics

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

APPENDIX 2D – FISH AND WILDLIFE DATA

TABLE 2D.1 2017 FISH MONITORING USING GILL NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Hiawatha	Iron Bridge	Ley Creek	Marina	Metro	Ninemile	Outlet	Parsons	PHM	Wastebeds	Total
Alewife	*Alosa pseudoharengus*	1												**1**
Bowfin	*Amia calva*									1		1		**2**
Freshwater Drum	*Aplodinotus grunniens*	7	12		3	20	12	7	15	3	2	10	3	**94**
Quillback	*Carpoides cyprinus*								1	1			2	**4**
White Sucker	*Catostomus commersoni*				2					1				**3**
Common Carp	*Cyprinus carpio*	1	11	5	4	4	14	3	5	5	3	5	9	**69**
Gizzard Shad	*Dorosoma cepedianum*	2	2	2	4	2		16	1		3	1	10	**43**
Northern Pike	*Esox lucius*			1				1		4				**6**
Tiger Muskellunge	*Esox masquinongy x Esox lucius*					1								**1**
Brown Bullhead	*Ictalurus nebulosus*			1					2				1	**4**
Channel Catfish	*Ictalurus punctatus*	2	2		3	2	2	6	3	3	2	1	4	**30**
Longnose Gar	*Lepisosteus osseus*								1					**1**
Smallmouth Bass	*Micropterus dolomieu*	1	3			5	3	3	5	6		4	3	**33**
Largemouth Bass	*Micropterus salmoides*				2	1						1		**4**
White Perch	*Morone americana*									2				**2**
Silver Redhorse	*Moxostoma anisurum*												1	**1**
Shorthead Redhorse	*Moxostoma macrolepidotum*	1	1	2					5	3	2		2	**16**
Walleye	*Sander vitreum*	34	12	4	8	1	16	7	19	16	11	18	14	**160**
Common Rudd	*Scardinius erythrophthalmus*			1	1							4		**6**
	Totals	**49**	**43**	**16**	**27**	**36**	**47**	**43**	**57**	**45**	**23**	**45**	**49**	**480**
	Species Richness	**8**	**7**	**7**	**8**	**8**	**5**	**7**	**10**	**11**	**6**	**9**	**10**	**19**

[1]A map depicting fish sampling locations can be found in Figure 2.7

TABLE 2D.2 2018 FISH MONITORING USING GILL NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Hiawatha	Iron Bridge	Ley Creek	Marina	Metro	Ninemile	Outlet	Parsons	PHM	Wastebeds	Total
Alewife	*Alosa pseudoharengus*											1		1
Brown Bullhead	*Ameiurus nebulosus*		1											1
Brown Trout	*Salmo trutta*	1										1		2
Channel Catfish	*Ictalurus punctatus*	2	5	3	3	16	8	1	4	5	4	4	1	56
Common Carp	*Cyprinus carpio*	8	20	8	10	5	4	3	8	18	4	2	4	94
Common Rudd	*Scardinius erythrophthalmus*		3			1					1			5
Freshwater Drum	*Aplodinotus grunniens*	6	18	8	3	6	11	2	5	1	6	21	6	93
Gizzard Shad	*Dorosoma cepedianum*	8	6	2		9	4	3	2		4		7	45
Greater Redhorse	*Moxostoma valenciennesi*	1	5	1			3		4	7	1	2		24
Lake Sturgeon	*Acipenser fulvescens*			1								1		2
Largemouth Bass	*Micropterus salmoides*			4				2				1	1	8
Longnose Gar	*Lepisosteus osseus*							1						1
Northern Pike	*Esox lucius*	1	2	1							1		1	6
Quillback	*Carpiodes cyprinus*	2								1		1		4
Shorthead Redhorse	*Moxostoma macrolepidotum*	1	1		1		1	1		2				7
Smallmouth Bass	*Micropterus dolomieu*	7	6	3	5	5	9	3		3	2	5	10	58
Walleye	*Sander vitreus*	23	29	31	22	11	23	5	8	19	9	41	17	238
White Perch	*Morone americana*		1			1					1			3
White Sucker	*Catostomus commersoni*				1		2			1	1	2		7
	Abundance	**60**	**97**	**62**	**45**	**54**	**65**	**21**	**31**	**57**	**34**	**82**	**47**	**655**
	Species Richness	**11**	**12**	**10**	**7**	**8**	**9**	**9**	**6**	**9**	**11**	**12**	**8**	**19**

[1]A map depicting fish sampling locations can be found in Figure 2.7

TABLE 2D.3 2019 FISH MONITORING USING GILL NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Hiawatha	Iron Bridge	Ley Creek	Marina	Metro	Ninemile	Outlet	Parsons	PHM	Wastebeds	Total
Bowfin	*Amia calva*					1						1	1	**3**
Brown Bullhead	*Ameiurus nebulosusz*			2					1			1		**4**
Brown Trout	*Salmo trutta*			1					1					**2**
Channel Catfish	*Ictalurus punctatus*	6	4	1		7	1	3	2	3	3	2	3	**35**
Common Carp	*Cyprinus carpio*	8	3	4	17	3	11	5	8	7	7	5	4	**82**
Common Rudd	*Scardinius erythrophthalmus*			1					1			1	1	**4**
Freshwater Drum	*Aplodinotus grunniens*	13	5	3	13		9	4		7	2	19	1	**76**
Gizzard Shad	*Dorosoma cepedianum*	12	45	2	4	16	8	22	14	7	9	4	19	**162**
Greater Redhorse	*Moxostoma valenciennesi*	2	2		1	1		1	3		1	1	3	**15**
Largemouth Bass	*Micropterus salmoides*	1		1			1		1	3		2	1	**10**
Longnose Gar	*Lepisosteus osseus*									1				**1**
Northern Pike	*Esox lucius*	1				1								**2**
Quillback	*Carpiodes cyprinus*	1				1				1		1		**4**
Shorthead Redhorse	*Moxostoma macrolepidotum*						1	1		1	2		1	**6**
Silver Redhorse	*Moxostoma anisurum*						1							**1**
Smallmouth Bass	*Micropterus dolomieu*	3	1		1	2	1	3	3	2	1	3	1	**21**
Tiger Muskellunge	*Esox masquinongy x Esox lucius*				1									**1**
Walleye	*Sander vitreus*	28	15	16	21	3	21	12	11	30	15	30	18	**220**
White Perch	*Morone americana*								1					**1**
White Sucker	*Catostomus commersoni*		1				2	1					1	**5**
	Abundance	**75**	**76**	**31**	**58**	**35**	**56**	**52**	**46**	**62**	**40**	**70**	**54**	**655**
	Species Richness	**10**	**8**	**9**	**7**	**9**	**10**	**9**	**11**	**10**	**8**	**12**	**12**	**20**

[1]A map depicting fish sampling locations can be found in Figure 2.7

TABLE 2D.4 2020 FISH MONITORING USING GILL NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Hiawatha	Iron Bridge	Ley Creek	Marina	Metro	Ninemile	Outlet	Parsons	PHM	Wastebeds	Total
Alewife	*Alosa pseudoharengus*		1											**1**
Bowfin	*Amia calva*											1	1	**2**
Brown Bullhead	*Ameiurus nebulosus*			2					1			2		**5**
Brown Trout	*Salmo trutta*						2				2			**4**
Channel Catfish	*Ictalurus punctatus*	6	4	3	1	4		6	8	1	2	5	3	**43**
Common Carp	*Cyprinus carpio*	8	2	7	5	2	6	10	11	8	6	8	1	**74**
Common Rudd	*Scardinius erythrophthalmus*			1		2			1			1		**5**
Freshwater Drum	*Aplodinotus grunniens*	9	1	6	8	5	14	3	1	8	2	20	1	**78**
Gizzard Shad	*Dorosoma cepedianum*	11	48	17	4	23	9	25	31	13	8	6	20	**215**
Greater Redhorse	*Moxostoma valenciennesi*		2	2	2	1	3		2			3	1	**16**
Largemouth Bass	*Micropterus salmoides*	1	2	1	2		1	1	2	6		4	1	**21**
Longnose Gar	*Lepisosteus osseus*									1				**1**
Northern Pike	*Esox lucius*	1		2									1	**4**
Quillback	*Carpiodes cyprinus*									1		1		**2**
Shorthead Redhorse	*Moxostoma macrolepidotum*		1	1			1	1		1	1	1	1	**8**
Smallmouth Bass	*Micropterus dolomieu*	3	2	3	2	5	6	5	5	2		3	1	**37**
Walleye	*Sander vitreus*	31	23	25	9	16	31	37	13	19	8	51	16	**279**
White Perch	*Morone americana*	1	1			1	1		1					**5**
White Sucker	*Catostomus commersonii*	1	1		1	2	2	1	1		1			**10**
	Abundance	**72**	**88**	**70**	**34**	**61**	**76**	**89**	**77**	**60**	**30**	**106**	**47**	**810**
	Species Richness	**10**	**12**	**12**	**9**	**10**	**11**	**9**	**12**	**10**	**8**	**13**	**11**	**19**

[1]A map depicting fish sampling locations can be found in Figure 2.7

TABLE 2D.5 2021 FISH MONITORING USING GILL NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Hiawatha	Iron Bridge	Ley Creek	Marina	Metro	Ninemile	Outlet	Parsons	PHM	Wastebeds	Total
Brown Trout	*Salmo trutta*				4						2	2	1	**9**
Channel Catfish	*Ictalurus punctatus*	2	4		3	7		1	3	3	6	11		**40**
Common Carp	*Cyprinus carpio*	7	2	3	4	8	8	1	7	8	7		8	**63**
Common Rudd	*Scardinius erythrophthalmus*					2		1		1			1	**5**
Freshwater Drum	*Aplodinotus grunniens*	2	3	3	2	4	1	2	2	1			1	**21**
Gizzard Shad	*Dorosoma cepedianum*	20	11	7	9	12	2	16	33	10	8	4	20	**152**
Greater Redhorse	*Moxostoma valenciennesi*	4	2	1		1	1		1	2	3	1	4	**20**
Lake Sturgeon	*Acipenser fulvescens*											1		**1**
Largemouth Bass	*Micropterus salmoides*	1			1	2		3		6		2		**15**
Longnose Gar	*Lepisosteus osseus*					1				1				**2**
Northern Pike	*Esox lucius*		1	1	1			1	1	2		1		**8**
Quillback	*Carpiodes cyprinus*						1						1	**2**
Shorthead Redhorse	*Moxostoma macrolepidotum*	1		1			1			1		2		**6**
Smallmouth Bass	*Micropterus dolomieu*	5	7	7	6	3	1	1	4	11	4	2	4	**55**
Tiger Muskellunge	*Esox masquinongy x Esox lucius*							1						**1**
Walleye	*Sander vitreus*	17	61	19	32	15	25	21	17	61	16	42	15	**341**
White Perch	*Morone americana*		2		5				1			1		**9**
White Sucker	*Catostomus commersonii*		1		1	1	2					2	6	**13**
	Abundance	**59**	**94**	**42**	**68**	**56**	**42**	**48**	**69**	**107**	**46**	**71**	**61**	**763**
	Species Richness	**9**	**10**	**8**	**11**	**11**	**9**	**10**	**9**	**12**	**7**	**12**	**10**	**18**

[1]A map depicting fish sampling locations can be found in Figure 2.7

TABLE 2D.6 2022 FISH MONITORING USING GILL NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Hiawatha	Iron Bridge	Ley Creek	Marina	Metro	Ninemile	Outlet	Parsons	PHM	Wastebeds	Total
Alewife	*Alosa pseudoharengus*										1	1		**2**
Bowfin	*Amia calva*					1							1	**2**
Brown Bullhead	*Ameiurus nebulosus*		1						1			1		**3**
Brown Trout	*Salmo trutta*	2	3				2			2	1	2	3	**15**
Channel Catfish	*Ictalurus punctatus*	4	3	1	2	4	3	4	2	7	8	16	2	**56**
Common Carp	*Cyprinus carpio*	5	16	1	5	10	4	4	6	1	2		10	**64**
Common Rudd	*Scardinius erythrophthalmus*		1						2		1			**4**
Freshwater Drum	*Aplodinotus grunniens*	11	11	8	7	2	15	7	9	4	4	2	5	**85**
Gizzard Shad	*Dorosoma cepedianum*	9	24	4	3	25	3	25	14	5	11	1	2	**126**
Goldfish	*Carassius auratus*					1		1						**2**
Greater Redhorse	*Moxostoma valenciennesi*	1	2								3	2	2	**10**
Lake Sturgeon	*Acipenser fulvescens*			4									2	**6**
Largemouth Bass	*Micropterus salmoides*					1			2	2	1	1	2	**9**
Northern Pike	*Esox lucius*					2			1	1				**4**
Quillback	*Carpiodes cyprinus*	1		1				1				1	1	**5**
Shorthead Redhorse	*Moxostoma macrolepidotum*		3	1					1					**5**
Smallmouth Bass	*Micropterus dolomieu*	5	6	6	6	5	8	7	4	1	7	2	3	**60**
Walleye	*Sander vitreus*	21	48	15	23	29	29	35	24	29	46	22	14	**335**
White Perch	*Morone americana*						1	1		1		3		**6**
White Sucker	*Catostomus commersonii*			1	5		2		2		1		1	**12**
	Abundance	**59**	**118**	**42**	**51**	**80**	**67**	**85**	**68**	**53**	**86**	**54**	**48**	**811**
	Species Richness	**9**	**11**	**10**	**7**	**10**	**9**	**9**	**12**	**10**	**12**	**12**	**13**	**20**

[1]A map depicting fish sampling locations can be found in Figure 2.7

Honeywell

PARSONS

TABLE 2D.7 2017 FISH MONITORING USING TRAP NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook [2]	Iron Bridge	Maple Bay	Marina	Metro	Ninemile	Parsons	PHM	Willow Bay	Ley Creek	Total
Alewife	*Alosa pseudoharengus*	23		82	12	1	8		31	56	9	314	**536**
Rock Bass	*Ambloplites rupestris*	11		31	20	12	4	15	53	22	14	47	**229**
Yellow Bullhead	*Ameiurus natalis*				6				2	2			**10**
Brown Bullhead	*Ameiurus nebulosus*	5		77	24	35	6	94	98	43	36	39	**457**
Bowfin	*Amia calva*				10	1	2		5	4	2	2	**26**
Freshwater Drum	*Aplodinotus grunniens*	1		2		1			3				**7**
White Sucker	*Catostomus commersoni*	1		2			4		1	1	2	5	**16**
Common Carp	*Cyprinus carpio*	3		5	8	1	21	2	5	5	4	5	**59**
Gizzard Shad	*Dorosoma cepedianum*	3		4	1	15	99	10	6	1	3	37	**179**
Northern Pike	*Esox lucius*				1						1		**2**
Tiger Muskellunge	*Esox masquinongy x Esox lucius*	1											**1**
Chain Pickerel	*Esox niger*										1		**1**
Banded Killifish	*Fundulus diaphanus*	233		446	855	938	1269	2409	412	2316	37	454	**9369**
Brook Silverside	*Labidesthes sicculus*			2		4	4			3	1		**14**
Green Sunfish	*Lempomis cyanellus*	3		66	4	46	84	7	94	2	25	83	**414**
Longnose Gar	*Lepisosteus osseus*								1	1		1	**3**
Pumpkinseed	*Lepomis gibbosus*	9		109	16	10	12	2	16	6	28	62	**270**
Bluegill	*Lepomis macrochirus*	173		437	177	253	59	85	241	945	368	727	**3465**
Smallmouth Bass	*Micropterus dolomieu*			1						2			**3**
Largemouth Bass	*Micropterus salmoides*	255		331	213	98	536	51	135	68	69	3504	**5260**
White Perch	*Morone americana*	13		12	2		2	2	3	4	3	19	**60**
Silver Redhorse	*Moxostoma anisurum*						2						**2**
Shorthead Redhorse	*Moxostoma macrolepidotum*								1				**1**
Round Goby	*Neogobius melanostomus*	101		329	32	200	534	108	410	55	54	517	**2340**
Golden Shiner	*Notemigonus crysoleucas*			13	2	10	5	12	13	8	2	18	**83**
Emerald Shiner	*Notropis atherinoides*						11		2	6			**19**
Tadpole Madtom	*Noturus gyrinus*				8			3		8	1		**20**
Margined Madtom	*Noturus insignis*							1					**1**
Yellow Perch	*Perca flavescens*	11		69	23	19	115	5	36	144	60	53	**535**
Bluntnose Minnow	*Pimephales notatus*	1		5	5	26	99	13	1	6	3	30	**189**
Black Crappie	*Pomoxis nigromaculatus*							2			4		**6**
Brown Trout	*Salmo trutta*			1		1							**2**
Common Rudd	*Scardinius erythrophthalmus*	3				1	1		3	10			**18**
Creek Chub	*Semotilus atromaculatus*							1				3	**4**
	Abundence	**850**		**2024**	**1419**	**1672**	**2877**	**2822**	**1572**	**3718**	**727**	**5920**	**23601**
	Species Richness	**1**		**20**	**19**	**19**	**21**	**18**	**23**	**24**	**22**	**19**	**34**

[1]A map depicting fish sampling locations can be found in Figure 2.7

[2] Harbor Brook trap net location not sampled in 2017; location inaccessible due to construction

TABLE 2D.8 2018 FISH MONITORING USING TRAP NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Iron Bridge	Maple Bay	Marina	Metro	Ninemile	Parsons	PHM	Willow Bay	Ley Creek	Total
Alewife	*Alosa pseudoharengus*	33		91	442	16	28	13	7	63	1	465	**1159**
Banded Killifish	*Fundulus diaphanus*	59	201	521	3670	528	1073	5795	369	599	387	1387	**14589**
Black Crappie	*Pomoxis nigromaculatus*				4								**4**
Bluegill	*Lepomis macrochirus*	76	177	285	773	145	115	100	243	408	1012	58	**3392**
Bluntnose Minnow	*Pimephales notatus*	1		5	1	18	1	11		1	4	11	**53**
Bowfin	*Amia calva*	3			6	2	3	3	1	4	6	1	**29**
Brook Silverside	*Labidesthes sicculus*							1		1			**2**
Brown Bullhead	*Ameiurus nebulosus*	27	4	33	20	7	14	4	39	32	22	16	**218**
Brown Trout	*Salmo trutta*											1	**1**
Channel Catfish	*Ictalurus punctatus*	1									1		**2**
Common Carp	*Cyprinus carpio*	1	7	1	73	4	46	1		3	5		**141**
Common Rudd	*Scardinius erythrophthalmus*	29							1	1		1	**32**
Common Shiner	*Luxilus cornutus*									1			**1**
Emerald Shiner	*Notropis atherinoides*		1	1		12	67	5	3	16	7	9	**121**
Fathead Minnow	*Pimephales promelas*							6					**6**
Freshwater Drum	*Aplodinotus grunniens*	1			1		4				1		**7**
Gizzard Shad	*Dorosoma cepedianum*	2531	1148	4	5	4	8411		16	4	1	22	**12146**
Golden Shiner	*Notemigonus crysoleucas*	8	20	12	2	4	10		7	2		12	**77**
Goldfish	*Cyprinus auratus*											2	**2**
Green Sunfish	*Lempomis cyanellus*	2	7	16	2	45	58	12	28	13	10	6	**199**
Largemouth Bass	*Micropterus salmoides*	709	251	1115	361	203	1301	164	306	94	324	737	**5565**
Logperch	*Percina caprodes*										1		**1**
Longnose Gar	*Lepisosteus osseus*				1	3	1		1				**6**
Margined Madtom	*Noturus insignis*									3			**3**
Northern Hogsucker	*Hypentelium nigricans*						1					2	**3**
Northern Pike	*Esox lucius*				1								**1**
Pumpkinseed	*Lepomis gibbosus*	1	56	5	17	19	45		12	19	73	33	**280**
Quillback	*Carpiodes cyprinus*		1										**1**
Rock Bass	*Ambloplites rupestris*	18	39	19	70	49	18	39	38	32	31	29	**382**
Round Goby	*Neogobius melanostomus*	42	26	114	55	95	332	29	210	51	83	39	**1076**
Smallmouth Bass	*Micropterus dolomieu*		1	3		2	5						**11**
Spotfin Shiner	*Cyprinella spiloptera*			1	1								**2**
Tadpole Madtom	*Noturus gyrinus*	1						1					**2**
Tesselated Darter	*Etheostoma olmstedi*							1					**1**
White Perch	*Morone americana*	2	146	5	1		7		8	2	1	4	**176**
White Sucker	*Catostomus commersoni*	1			1		22	1	1		3	2	**31**
Yellow Bullhead	*Ameiurus natalis*			1	6	1		2		7	5		**22**
Yellow Perch	*Perca flavescens*	8	2	78	60	32	74	1	28	50	29	19	**381**
	Abundance	**3554**	**2087**	**2310**	**5573**	**1189**	**11636**	**6189**	**1318**	**1406**	**2007**	**2856**	**40125**
	Species Richness	**21**	**16**	**19**	**23**	**19**	**22**	**19**	**18**	**22**	**21**	**21**	**38**

[1]A map depicting fish sampling locations can be found in Figure 2.7

TABLE 2D.9 2019 FISH MONITORING USING TRAP NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Iron Bridge	Maple Bay	Marina	Metro	Ninemile	Parsons	PHM	Willow Bay	Ley Creek	Total
Alewife	*Alosa pseudoharengus*	12	1	4	7	13	13			1		28	**79**
Banded Killifish	*Fundulus diaphanus*	102	72	147	350	1226	458	3670	293	219	40	292	**6869**
Black Crappie	*Pomoxis nigromaculatus*	4											**4**
Blacknose Dace	*Rhinichthys atratulus*						1						**1**
Bluegill	*Lepomis macrochirus*	132	518	50	457	415	351	252	611	203	1122	454	**4565**
Bluntnose Minnow	*Pimephales notatus*			1	5	1		1					**8**
Bowfin	*Amia calva*	1	6		2	1	5	5	3	2	8	2	**35**
Brook Silverside	*Labidesthes sicculus*	1			1								**2**
Brook Stickleback	*Culaea inconstans*		3										**3**
Brown Bullhead	*Ameiurus nebulosus*	17	56	516	4	1	8	11	9	4	4	6	**636**
Channel Catfish	*Ictalurus punctatus*			1			1						**2**
Common Carp	*Cyprinus carpio*	7	5	7	4	205	9	13	6	5	3	3	**267**
Common Rudd	*Scardinius erythrophthalmus*	26	8					1	5			5	**45**
Common Shiner	*Luxilus cornutus*						1						**1**
Creek Chub	*Semotilus atromaculatus*						2						**2**
Cutlips Minnow	*Exoglossum maxillingua*					1							**1**
Emerald Shiner	*Notropis atherinoides*		3	1	1		3	6	3		1	1	**19**
Fathead Minnow	*Pimephales promelas*						1	5		1		2	**9**
Freshwater Drum	*Aplodinotus grunniens*		1	1									**2**
Gizzard Shad	*Dorosoma cepedianum*	34	1	3	3	1	345		1	1		14	**403**
Golden Shiner	*Notemigonus crysoleucas*	2	1			1	3	4	14	2		18	**45**
Green Sunfish	*Lempomis cyanellus*	11	43	16	9	21	136	25	59	6	26	7	**359**
Largemouth Bass	*Micropterus salmoides*	151	201	48	403	458	258	23	123	53	106	511	**2335**
Longnose Gar	*Lepisosteus osseus*				1	1		1	3				**6**
Northern Pike	*Esox lucius*	1									1		**2**
Pumpkinseed	*Lepomis gibbosus*	4	17	5	1	4	11	4	8	5	23	13	**95**
Rainbow Trout	*Oncorhyncus mykiss*									1			**1**
Rock Bass	*Ambloplites rupestris*	15	36	14	29	41	13	63	47	18	21	46	**343**
Round Goby	*Neogobius melanostomus*	62	99	44	134	265	218	33	177	16	165	73	**1286**
Shorthead Redhorse	*Moxostoma macrolepidotum*							1					**1**
Smallmouth Bass	*Micropterus dolomieu*				3							3	**6**
Tadpole Madtom	*Noturus gyrinus*							2					**2**
Tiger Muskellunge	*Esox masquinongy x Esox lucius*								1				**1**
Walleye	*Sander vitreus*						1						**1**
White Perch	*Morone americana*	2		2	2		5	3	1	1	2	25	**43**
White Sucker	*Catostomus commersoni*		1				1			1	1		**4**
Yellow Bullhead	*Ameiurus natalis*			1	1	2		3	1	6	3	2	**19**
Yellow Perch	*Perca flavescens*	4	1	44	18	19	6	1	4	6	22	7	**132**
	Abundance	**588**	**1073**	**905**	**1435**	**2676**	**1850**	**4127**	**1369**	**551**	**1548**	**1512**	**17634**
	Species Richness	**19**	**19**	**18**	**20**	**18**	**23**	**21**	**19**	**19**	**16**	**20**	**38**

[1]A map depicting fish sampling locations can be found in Figure 2.7

TABLE 2D.10 2020 FISH MONITORING USING TRAP NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Iron Bridge	Maple Bay	Marina	Metro	Ninemile	Parsons	PHM	Willow Bay	Ley Creek	Total
Alewife	*Alosa pseudoharengus*	83	16	269	67	91	5		14	49	63	261	**918**
Banded Killifish	*Fundulus diaphanus*	54	190	124	181	363	532	1343	113	116	441	215	**3672**
Bluegill	*Lepomis macrochirus*	32	160	170	16	57	30	94	117	40	325	358	**1399**
Bluntnose Minnow	*Pimephales notatus*				4	1					56		**61**
Bowfin	*Amia calva*		1		1		1	6			3	5	**17**
Brook Silverside	*Labidesthes sicculus*				1								**1**
Brook Stickleback	*Culaea inconstans*						1	1				2	**4**
Brown Bullhead	*Ameiurus nebulosus*	1	8	1	5	9	20	5	3	1	3	10	**66**
Channel Catfish	*Ictalurus punctatus*		1				1		1				**3**
Common Carp	*Cyprinus carpio*	1		4			2	7			1	5	**20**
Common Rudd	*Scardinius erythrophthalmus*		4				1	1					**6**
Common Shiner	*Luxilus cornutus*						4						**4**
Creek Chub	*Semotilus atromaculatus*											1	**1**
Emerald Shiner	*Notropis atherinoides*						8	3			1	3	**15**
Fathead Minnow	*Pimephales promelas*						3				6	1	**10**
Freshwater Drum	*Aplodinotus grunniens*		1					1					**2**
Gizzard Shad	*Dorosoma cepedianum*		14	2	1	2	395		6	3	3	24	**450**
Golden Shiner	*Notemigonus crysoleucas*	2			2	1	3				3	3	**14**
Green Sunfish	*Lepomis cyanellus*		31	23	6	22	50	15	14	2	4	12	**179**
Largemouth Bass	*Micropterus salmoides*	7	89	113	75	45	222	23	35	22	38	97	**766**
Longnose Gar	*Lepisosteus osseus*								1	1			**2**
Pumpkinseed	*Lepomis gibbosus*	2	5	49	4	3	15	2	3	2	9	11	**105**
Rock Bass	*Ambloplites rupestris*	8	40	30	10	37	32	39	16	11	12	242	**477**
Round Goby	*Neogobius melanostomus*	76	186	517	103	344	578	28	188	63	116	458	**2657**
Smallmouth Bass	*Micropterus dolomieu*				1								**1**
Tadpole Madtom	*Noturus gyrinus*	1									1		**2**
White Perch	*Morone americana*		1	7		1	5	1	2	1		4	**22**
Yellow Bullhead	*Ameiurus natalis*				2			2		5	2		**11**
Yellow Perch	*Perca flavescens*	1		4	3	1		4		4		3	**20**
	Abundance	**268**	**747**	**1313**	**482**	**977**	**1908**	**1575**	**513**	**320**	**1087**	**1556**	**10905**
	Species Richness	**12**	**15**	**13**	**17**	**14**	**20**	**17**	**13**	**14**	**18**	**19**	**29**

[1]A map depicting fish sampling locations can be found in Figure 2.7

Honeywell

PARSONS

TABLE 2D.11 2021 FISH MONITORING USING TRAP NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Iron Bridge	Maple Bay	Marina	Metro	Ninemile	Parsons	PHM	Willow Bay	Ley Creek	Total
Alewife	*Alosa pseudoharengus*	79	1091	1109	21	630	48	38	36	55	47	71	**3225**
American Eel	*Anguilla rostrata*		1										**1**
Banded Killifish	*Fundulus diaphanus*	888	284	3057	8334	4272	8468	11020	2863	2091	3947	5651	**50875**
Black Crappie	*Pomoxis nigromaculatus*		2	2	2				6	3	9		**24**
Bluegill	*Lepomis macrochirus*	493	750	413	623	459	825	505	480	451	995	277	**6271**
Bluntnose Minnow	*Pimephales notatus*				63	17		14		43	50	2	**189**
Bowfin	*Amia calva*	2	6	1	2	2	4	2	4	10	7	6	**46**
Brook Silverside	*Labidesthes sicculus*				3							1	**4**
Brown Bullhead	*Ameiurus nebulosus*	11	38	44	16	17	59	242	33	40	27	42	**569**
Channel Catfish	*Ictalurus punctatus*		1	1						1			**3**
Common Carp	*Cyprinus carpio*	5	10	12	3	10	18	15	5	5	13	15	**111**
Common Rudd	*Scardinius erythrophthalmus*	10	11					2	2	1			**26**
Common Shiner	*Luxilus cornutus*	2		7	4		1		1	1		1	**17**
Emerald Shiner	*Notropis atherinoides*	3						1		4			**8**
Fathead Minnow	*Pimephales promelas*					4	1				3	5	**13**
Freshwater Drum	*Aplodinotus grunniens*		2	1		2							**5**
Gizzard Shad	*Dorosoma cepedianum*	9	75	38	4	27	429	9	3	39	34	97	**764**
Golden Shiner	*Notemigonus crysoleucas*	54	25	13	19	15	6	20	11	16	6	24	**209**
Green Sunfish	*Lempomis cyanellus*	5	10	31	15	52	108	22	45	3	23	243	**557**
Largemouth Bass	*Micropterus salmoides*	281	118	85	52	646	709	56	175	336	285	424	**3167**
Longnose Gar	*Lepisosteus osseus*		1	17	2	1		2	1	7	2	1	**34**
Northern Pike	*Esox lucius*						1				1		**2**
Pumpkinseed	*Lepomis gibbosus*	21	66	86	48	18	373	30	70	31	88	128	**959**
Rock Bass	*Ambloplites rupestris*	47	94	64	58	71	156	30	75	20	46	40	**701**
Round Goby	*Neogobius melanostomus*	168	79	179	72	272	488	70	273	337	271	315	**2524**
Sea Lamprey	*Petromyzon marinus*									1			**1**
Shorthead Redhorse	*Moxostoma macrolepidotum*	1		2	1		2						**6**
Smallmouth Bass	*Micropterus dolomieu*				1	2					2		**5**
Tadpole Madtom	*Noturus gyrinus*								1	1			**2**
Tiger Muskellunge	*Esox masquinongy x Esox lucius*						1						**1**
Walleye	*Sander vitreus*								1				**1**
White Perch	*Morone americana*	12	19	109	2	5	22	2	5	3	7	28	**214**
White Sucker	*Catostomus commersonii*	5	15	3	2	1	14	1	3	2	1	9	**56**
Yellow Bullhead	*Ameiurus natalis*		1		6		1	6			3	1	**18**
Yellow Perch	*Perca flavescens*	29	24	199	11	9	113	9	40	50	64	25	**573**
	Abundance	**2125**	**2723**	**5473**	**9364**	**6532**	**11847**	**12096**	**4133**	**3551**	**5931**	**7406**	**71181**
	Species Richness	**20**	**23**	**22**	**24**	**21**	**22**	**21**	**22**	**25**	**23**	**22**	**35**

[1]A map depicting fish sampling locations can be found in Figure 2.7

TABLE 2D.12 2022 FISH MONITORING USING TRAP NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Iron Bridge	Maple Bay	Marina	Metro	Ninemile	Parsons	PHM	Willow Bay	Ley Creek	Total
Alewife	*Alosa pseudoharengus*	2		317	75	271		5	4	82	9	65	**830**
Banded Killifish	*Fundulus diaphanus*	86	27	76	1092	542	172	678	95	1814	37	5897	**10516**
Black Crappie	*Pomoxis nigromaculatus*		1	2	6	1		3		1			**14**
Bluegill	*Lepomis macrochirus*	26	111	44	150	29	30	28	51	128	39	38	**674**
Bluntnose Minnow	*Pimephales notatus*				32	5	1			6	3		**47**
Bowfin	*Amia calva*	1	7	2	1		4	9	1	3	2	1	**31**
Brook Silverside	*Labidesthes sicculus*									2			**2**
Brown Bullhead	*Ameiurus nebulosus*	6	23	6	13	13	4	10	4	11	2	9	**101**
Brown Trout	*Salmo trutta*									1			**1**
Channel Catfish	*Ictalurus punctatus*			1									**1**
Common Carp	*Cyprinus carpio*		9	2	4	5	9			2		2	**33**
Common Rudd	*Scardinius erythrophthalmus*	2	5		7				3	2			**19**
Common Shiner	*Scardinius erythrophthalmus*					1						1	**2**
Creek Chub	*Semotilus atromaculatus*				1								**1**
Emerald Shiner	*Notropis atherinoides*			1		1	3			1	1	4	**11**
Fathead Minnow	*Pimephales promelas*					2				1		23	**26**
Freshwater Drum	*Aplodinotus grunniens*							1					**1**
Gizzard Shad	*Dorosoma cepedianum*		13	1	2	1	8		10	13	1	103	**152**
Golden Shiner	*Notemigonus crysoleucas*	4	4	4	21	2			1	4		12	**52**
Goldfish	*Carassius auratus*		1				1						**2**
Green Sunfish	*Lempomis cyanellus*		2	5	11	15	12	8	5	9	21	26	**114**
Largemouth Bass	*Micropterus salmoides*	33	62	277	47	575	63	17	51	33	21	45	**1224**
Longnose Gar	*Lepisosteus osseus*	1	1		4	1	1	1		1	1	1	**12**
Mimic Shiner	*Netropis volucellus*							1					**1**
Pumpkinseed	*Lepomis gibbosus*	1	20	6	17		38	1	3	17	5	53	**161**
Rock Bass	*Ambloplites rupestris*	31	26	23	55	75	17	21	32	43	36	20	**379**
Round Goby	*Neogobius melanostomus*	64	45	29	70	119	199	45	112	495	62	88	**1328**
Shorthead Redhorse	*Moxostoma macrolepidotum*		2		1		2						**5**
Tadpole Madtom	*Noturus gyrinus*	2			1			3					**6**
Walleye	*Sander vitreus*			1									**1**
White Perch	*Morone americana*	2	9	3	1		1			2		8	**26**
White Sucker	*Catostomus commersonii*		3	4	1	1		1		1			**11**
Yellow Bullhead	*Ameiurus natalis*				3								**3**
Yellow Perch	*Perca flavescens*	4	9	13	3	3	1		3	6	2		**44**
	Abundance	**265**	**380**	**817**	**1618**	**1662**	**566**	**832**	**375**	**2678**	**242**	**6396**	**15831**
	Species Richness	**15**	**20**	**20**	**24**	**19**	**18**	**16**	**14**	**24**	**15**	**18**	**34**

[1]A map depicting fish sampling locations can be found in Figure 2.7

TABLE 2D.13 2017 FISH MONITORING USING SEINE NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Iron Bridge	Ley Creek	Maple Bay	Marina	Metro	Ninemile	Parsons	PHM	Willow Bay	Total
Banded Killifish	*Fundulus diaphanus*	29	3	328	15	137	181	3	15	245	143	32	**1131**
Rock Bass	*Ambloplites repestris*	2	6		5	6	6		2	17	2	8	**54**
Brown Bullhead	*Ameiurus nebulosus*		714	2	9		2		32	1	24		**784**
Goldfish	*Carassius auratus*									2			**2**
Brook Stickleback	*Culaea inconstans*				1								**1**
Common Carp	*Cyprinus carpio*		1	1					1		1		**4**
Gizzard Shad	*Dorosoma cepedianum*			9									**9**
Northern Pike	*Esox lucius*											1	**1**
Tesselated Darter	*Etheostoma olmstedi*								1				**1**
Green Sunfish	*Lepomis cyanellus*		10		2			1		4	1		**18**
Pumpkinseed	*Lepomis gibbosus*			12	1								**13**
Bluegill	*Lepomis macrochirus*		6	18	2		38				2	2	**68**
Largemouth Bass	*Micropterus salmoides*	8	282	37	45	61	121	41	257	238	65	68	**1223**
Round Goby	*Neogobius melanostomus*	234	244	215	102	116	41	25	20	143	33	36	**1209**
Golden Shiner	*Notemigonus crysoleucas*		11										**11**
Tadpole Madtom	*Noturus gyrinus*					1			1	1	2	1	**6**
Yellow Perch	*Perca fulvescens*	80	6	48	1	2			1	9	4	22	**173**
Bluntnose Minnow	*Pimephales notatus*						1		2				**3**
	Abundance	**353**	**1283**	**670**	**183**	**323**	**390**	**70**	**332**	**660**	**277**	**170**	**4711**
	Species Richness	**5**	**10**	**9**	**10**	**6**	**7**	**4**	**10**	**9**	**10**	**8**	**18**

[1]A map depicting fish sampling locations can be found in Figure 2.7

TABLE 2D.14 2018 FISH MONITORING USING SEINE NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Iron Bridge	Ley Creek	Maple Bay	Marina	Metro	Ninemile	Parsons	PHM	Willow Bay	Total
Alewife	*Alosa pseudoharengus*					142						36	**178**
Banded Killifish	*Fundulus diaphanus*	287	14	433	365	361	61	86	37	200	290	235	**2369**
Bluegill	*Lepomis macrochirus*		36	12	102	1			2		106	1	**260**
Brook Silverside	*Labidesthes sicculus*										2		**2**
Brown Bullhead	*Ameiurus nebulosus*	2	40		4			3		6	1	4	**60**
Common Carp	*Cyprinus carpio*		13	17	2		11	1			3		**47**
Emerald Shiner	*Notropis atherinoides*	23	13		34		84	4					**158**
Freshwater Drum	*Aplodinotus grunniens*	1											**1**
Gizzard Shad	*Dorosoma cepedianum*		161		133	56							**350**
Green Sunfish	*Lempomis cyanellus*		1							1			**2**
Largemouth Bass	*Micropterus salmoides*	80	71	104	122	40	114	335	7	74	27	66	**1040**
Rock Bass	*Ambloplites rupestris*		3	53	11	1	5	2	5	14	20	29	**143**
Round Goby	*Neogobius melanostomus*	78	15	122	62	26	13	49	9	36	84	429	**923**
Smallmouth Bass	*Micropterus dolomieu*							1				1	**2**
Tadpole Madtom	*Noturus gyrinus*				1						1		**2**
Yellow Bullhead	*Ameiurus natalis*										1		**1**
Yellow Perch	*Perca flavescens*	30		6	1	7	2				9	13	**68**
	Abundance	**501**	**367**	**747**	**837**	**634**	**290**	**481**	**60**	**331**	**544**	**814**	5606
	Species Richness	**7**	**10**	**7**	**11**	**8**	**7**	**8**	**5**	**6**	**11**	**9**	**17**

[1]A map depicting fish sampling locations can be found in Figure 2.7

TABLE 2D.15 2019 FISH MONITORING USING SEINE NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Iron Bridge	Ley Creek	Maple Bay	Marina	Metro	Ninemile	Parsons	PHM	Willow Bay	Total
Banded Killifish	*Fundulus diaphanus*	262	29	562	168	470	240	13	116	304	270	131	**2565**
Bluegill	*Lepomis macrochirus*	18	21	80	97	73	10		37	32	227	5	**600**
Brown Bullhead	*Ameiurus nebulosus*	77	20		19	14			29	95	33	109	**396**
Channel Catfish	*Ictalurus punctatus*	2							1				**3**
Common Carp	*Cyprinus carpio*	2	8	8	4	7		4	2	22	3	1	**61**
Creek Chub	*Semotilus atromaculatus*				1								**1**
Emerald Shiner	*Notropis atherinoides*		3										**3**
Fathead Minnow	*Pimephales promelas*				1			1			1		**3**
Golden Shiner	*Notemigonus crysoleucas*	1											**1**
Green Sunfish	*Lempomis cyanellus*		1	3	11	2	1	1	4	5	2	3	**33**
Largemouth Bass	*Micropterus salmoides*	129	214	82	210	179	53	97	148	195	168	83	**1558**
Longnose Gar	*Lepisosteus osseus*		3									4	**7**
Margined Madtom	*Noturus insignis*										2		**2**
Pumpkinseed	*Lepomis gibbosus*										1		**1**
Rock Bass	*Ambloplites rupestris*	13	41	9	16	26	38	3	58	15	13	98	**330**
Round Goby	*Neogobius melanostomus*	160	47	154	232	221	128	42	79	128	25	292	**1508**
Rudd	*Scardinius erythrophthalmus*		1										**1**
Smallmouth Bass	*Micropterus dolomieu*					1							**1**
Tadpole Madtom	*Noturus gyrinus*					1			9		1		**11**
Tesselated Darter	*Etheostoma olmstedi*					1							**1**
Yellow Bullhead	*Ameiurus natalis*	2				4				32	5		**43**
Yellow Perch	*Perca flavescens*	1									2	1	**4**
Logperch	*Percina caprodes*									1			**1**
	Abundance	**667**	**388**	**898**	**759**	**999**	**470**	**161**	**483**	**829**	**753**	**727**	**7134**
	Species Richness	**11**	**11**	**7**	**10**	**12**	**6**	**7**	**10**	**10**	**14**	**10**	**23**

[1]A map depicting fish sampling locations can be found in Figure 2.7

TABLE 2D.16 2020 FISH MONITORING USING SEINE NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Iron Bridge	Ley Creek	Maple Bay	Marina	Metro	Ninemile	Parsons	PHM	Willow Bay	Total
Banded Killifish	*Fundulus diaphanus*	124	5	174	60	338	125	4	116	228	432	63	1669
Bluegill	*Lepomis macrochirus*		8		1				1		10		20
Brown Bullhead	*Ameiurus nebulosus*	53	3		32		2		71	86			247
Common Carp	*Cyprinus carpio*		14	11	3			8	3				39
Emerald Shiner	*Notropis atherinoides*		2										2
Green Sunfish	*Lepomis cyanellus*		9	6	12				1		1		29
Largemouth Bass	*Micropterus salmoides*	61	140	36	35	38	17	43	53	95	84	26	628
Longnose Gar	*Lepisosteus osseus*	1											1
Rock Bass	*Ambloplites rupestris*	42	14	18		6	3	1	42	9	5	151	291
Round Goby	*Neogobius melanostomus*	110	56	130	76	127	26	55	7	42	138	243	1010
Smallmouth Bass	*Micropterus dolomieu*				1			4					5
Tadpole Madtom	*Micropterus dolomieu*	2							2				4
Yellow Bullhead	*Ameiurus natalis*											5	5
Yellow Perch	*Perca flavescens*	2										5	7
Alewife	*Alosa pseudoharengus*											10	10
Gizzard Shad	*Dorosoma cepedianum*				2								2
Brook Silverside	*Labidesthes sicculus*					5							5
	Abundance	**395**	**251**	**375**	**222**	**514**	**173**	**115**	**296**	**460**	**670**	**503**	**3974**
	Species Richness	**8**	**9**	**6**	**9**	**5**	**5**	**6**	**9**	**5**	**6**	**7**	**17**

[1]A map depicting fish sampling locations can be found in Figure 2.7

TABLE 2D.17 2021 FISH MONITORING USING SEINE NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Iron Bridge	Ley Creek	Maple Bay	Marina	Metro	Ninemile	Parsons	PHM	Willow Bay	Total
Banded Killifish	*Fundulus diaphanus*	313	66	273	408	633	242	195	272	354	749	234	**3739**
Bluegill	*Lepomis macrochirus*	4	1	1			1				3		**10**
Brown Bullhead	*Ameiurus nebulosus*	1	4	6	1			49	32	7	25	4	**129**
Common Carp	*Cyprinus carpio*				1			5	1	4			**11**
Emerald Shiner	*Notropis atherinoides*	1											**1**
Green Sunfish	*Lempomis cyanellus*	2		20			1	2	2			7	**34**
Largemouth Bass	*Micropterus salmoides*	103	60	90	153	53	107	119	77	108	90	12	**972**
Longnose Gar	*Lepisosteus osseus*									1		1	**2**
Rock Bass	*Ambloplites rupestris*	70	5	26	20	2		6	7	27	64	12	**239**
Round Goby	*Neogobius melanostomus*	167	17	62	46	186	51	14	491	155	825	374	**2388**
Smallmouth Bass	*Micropterus dolomieu*											1	**1**
Yellow Bullhead	*Ameiurus natalis*				1					4			**5**
Yellow Perch	*Perca flavescens*	9		1					1		13	7	**31**
Common Shiner	*Luxilus cornutus*	1											**1**
Fathead Minnow	*Notropis atherinoides*			2									**2**
Creek Chub	*Semotilus atromaculatus*			2									**2**
Golden Shiner	*Notemigonus crysoleucas*				3					6			**9**
Pumpkinseed	*Lepomis gibbosus*						3						**3**
Channel Catfish	*Ictalurus punctatus*									1			**1**
	Abundance	**671**	**153**	**483**	**633**	**874**	**405**	**390**	**883**	**667**	**1769**	**652**	**7580**
	Species Richness	**10**	**6**	**10**	**8**	**4**	**6**	**7**	**8**	**10**	**7**	**9**	**19**

[1]A map depicting fish sampling locations can be found in Figure 2.7

TABLE 2D.18 2022 FISH MONITORING USING SEINE NETS[1]

Common Name	Scientific Name	690 Point	Harbor Brook	Iron Bridge	Ley Creek	Maple Bay	Marina	Metro	Ninemile	Parsons	PHM	Willow Bay	Total
Banded Killifish	*Fundulus diaphanus*	180	26	751	139	254	60	4	295	265	181	424	**2579**
Bluegill	*Lepomis macrochirus*	4		1		13		6			22	5	**51**
Brown Bullhead	*Ameiurus nebulosus*	10	15	7		26	47	6	47	69	21	174	**422**
Common Carp	*Cyprinus carpio*			14		5	4	5	30	2	1	2	**63**
Green Sunfish	*Lempomis cyanellus*			5	4	2	4	4			1	4	**24**
Largemouth Bass	*Micropterus salmoides*	23	26	38	147	56	58	89	26	138	64	64	**729**
Longnose Gar	*Lepisosteus osseus*			1		1						3	**5**
Rock Bass	*Ambloplites rupestris*	31	8	12		38	19	10		15	96	38	**267**
Round Goby	*Neogobius melanostomus*	177	7	385	92	135	23	201	1	252	64	129	**1466**
Tadpole Madtom	*Noturus gyrinus*	2				5			1	4	17		**29**
Yellow Bullhead	*Ameiurus natalis*					3					1		**4**
Yellow Perch	*Perca flavescens*											17	**17**
Gizzard Shad	*Dorosoma cepedianum*							1					**1**
Central Mudminnow	*Umbra limi*								1			20	**21**
Goldfish	*Carassius auratus*	1		11		1	12	8				1	**34**
Creek Chub	*Semotilus atromaculatus*									2			**2**
Pumpkinseed	*Lepomis gibbosus*							1					**1**
	Abundance	**428**	**82**	**1225**	**382**	**539**	**227**	**335**	**401**	**747**	**468**	**881**	5715
	Species Richness	**8**	**5**	**10**	**4**	**12**	**8**	**11**	**7**	**8**	**10**	**12**	**17**

[1]A map depicting fish sampling locations can be found in Figure 2.7

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PARSONS

TABLE 2D.19 FISH MONITORING - RELATIVE ABUNDANCE BASELINE COMPARISON

Scientific Name	Common Name	Lakewide Baseline (2008-2011)	Lakewide Construction (2012-2016)	Lakewide Post-Construction (2017-2022)	Lakewide 2022	Remediation Area Baseline (2008-2011)	Remediation Area Construction (2012-2016)	Remeniation Post-Construction (2017-2022)	Remediation 2022	Unremediated Baseline (2008-2011)	Unremediated Construction (2012-2016)	Unremeniated Post-Construction (2017-2022)	Unremediated 2022
Acipenser fulvescens	Lake Sturgeon	0.03%	0.03%	0.004%	0.03%	0.02%	0.03%	0.001%	-	0.03%	0.03%	0.01%	0.06%
Alosa pseudoharengus	Alewife	5.15%	5.29%	3.18%	3.72%	6.66%	6.19%	2.21%	0.66%	3.64%	0.03%	4.52%	7.08%
Ambloplites rupestris	Rock Bass	1.03%	1.08%	1.75%	2.89%	1.01%	1.53%	1.59%	1.81%	1.28%	0.83%	1.97%	4.08%
Ameiurus natalis	Yellow Bullhead	0.08%	0.03%	0.06%	0.03%	0.03%	0.01%	0.05%	-	0.11%	0.04%	0.09%	0.07%
Ameiurus nebulosus	Brown Bullhead	2.41%	1.88%	1.88%	2.35%	3.07%	2.26%	2.00%	1.75%	1.81%	1.67%	1.72%	3.01%
Amia calva	Bowfin	0.62%	0.41%	0.09%	0.15%	0.75%	0.57%	0.08%	0.21%	0.57%	0.33%	0.10%	0.08%
Anguilla rostrata	American Eel	-	-	0.0005%	-	-	-	0.001%	-	-	-	-	-
Aplodinotus grunniens	Freshwater Drum	0.36%	0.38%	0.22%	0.38%	0.50%	0.45%	0.18%	0.39%	0.30%	0.34%	0.27%	0.38%
Carassius auratus	Goldfish	0.42%	0.03%	0.02%	0.17%	0.68%	0.07%	0.01%	0.11%	0.47%	0.02%	0.03%	0.23%
Carpiodes cyprinus	Quillback	0.02%	0.01%	0.01%	0.02%	0.02%	-	0.01%	0.02%	0.01%	0.01%	0.02%	0.03%
Catostomus commersonii	White Sucker	0.66%	0.22%	0.07%	0.10%	0.88%	0.36%	0.08%	0.06%	0.52%	0.19%	0.06%	0.15%
Culaea inconstans	Brook Stickleback	0.05%	0.08%	0.004%	-	0.02%	0.03%	0.01%	-	0.07%	0.11%	-	-
Cyprinella spiloptera	Spotfin Shiner	0.003%	0.005%	0.001%	-	0.004%	0.01%	-	-	0.001%	0.003%	0.002%	-
Cyprinus carpio	Common Carp	1.26%	0.99%	0.60%	0.72%	1.32%	1.05%	0.47%	0.86%	1.38%	0.95%	0.77%	0.56%
Dorosoma cepedianum	Gizzard Shad	2.40%	1.06%	6.97%	1.25%	4.25%	1.84%	11.62%	2.08%	0.65%	0.60%	0.55%	0.34%
Esox lucius	Northern Pike	0.06%	0.07%	0.02%	0.02%	0.11%	-	0.01%	0.03%	0.09%	-	0.02%	0.01%
Esox masquinongy x Esox lucius	Tiger Muskellunge	0.03%	0.05%	0.003%	-	0.01%	0.06%	0.004%	-	0.04%	0.08%	0.001%	-
Esox niger	Chain Pickerel	0.002%	-	0.0005%	-	0.02%	0.03%	-	-	0.004%	0.06%	0.001%	-
Etheostoma olmstedi	Tesselated Darter	0.30%	0.09%	0.001%	-	0.11%	0.07%	0.002%	-	0.44%	0.11%	0.001%	-
Exoglossum maxillingua	Cutlips Minnow	-	-	0.0005%	-	-	-	-	-	-	-	0.001%	-
Fundulus diaphanus	Banded Killifish	32.37%	44.13%	50.38%	58.57%	24.03%	34.28%	49.31%	67.29%	37.77%	49.62%	51.87%	49.02%
Hypentelium nigricans	Northern Hogsucker	-	-	0.001%	-	-	-	0.002%	-	-	-	-	-
Ictalurus punctatus	Channel Catfish	0.67%	0.31%	0.13%	0.25%	0.88%	0.45%	0.13%	0.21%	0.52%	0.22%	0.12%	0.30%
Labidesthes sicculus	Brook Silverside	0.19%	0.07%	0.01%	0.01%	0.34%	0.07%	0.01%	-	0.06%	0.06%	0.03%	0.02%
Lepisosteus osseus	Longnose Gar	0.39%	0.18%	0.04%	0.08%	0.57%	0.31%	0.02%	0.04%	0.29%	0.11%	0.06%	0.11%
Lepomis cyanellus	Green Sunfish	0.19%	0.37%	0.90%	0.62%	0.12%	0.25%	1.07%	0.52%	0.27%	0.45%	0.67%	0.72%
Lepomis gibbosus	Pumpkinseed	8.85%	2.57%	0.87%	0.72%	8.80%	1.92%	0.91%	1.00%	9.34%	2.95%	0.81%	0.42%
Lepomis macrochirus	Bluegill	13.86%	12.12%	9.55%	3.24%	12.54%	13.49%	7.24%	2.52%	13.84%	11.20%	12.74%	4.04%
Luxilus cornutus	Common Shiner	0.02%	0.02%	0.01%	-	0.03%	0.03%	0.01%	-	0.003%	0.003%	0.01%	-
Micropterus dolomieu	Smallmouth Bass	0.34%	0.26%	0.14%	0.27%	0.27%	0.25%	0.12%	0.29%	0.47%	0.24%	0.17%	0.24%
Micropterus salmoides	Largemouth Bass	13.12%	14.29%	11.23%	8.78%	14.97%	16.55%	12.49%	6.20%	10.91%	12.78%	9.50%	11.60%
Morone americana	White Perch	1.67%	1.02%	0.26%	0.14%	2.82%	3.14%	0.30%	0.19%	1.27%	0.29%	0.21%	0.09%
Moxostoma anisurum	Silver Redhorse	0.03%	0.01%	0.002%	-	0.02%	0.01%	0.002%	-	0.03%	0.02%	0.002%	-
Moxostoma macrolepidotum	Shorthead Redhorse	0.15%	0.08%	0.03%	0.04%	0.18%	0.07%	0.03%	0.07%	0.13%	0.08%	0.03%	0.02%
Moxostoma valenciennesi	Greater Redhorse	-	-	0.04%	0.04%	-	-	0.03%	0.05%	-	-	0.05%	0.04%
Neogobius melanostomus	Round Goby	3.30%	6.29%	9.02%	12.50%	2.57%	6.15%	8.02%	10.98%	3.72%	6.32%	10.40%	14.16%
Netropis volucellus	Mimic Shiner	-	-	0.0005%	0.004%	-	-	0.001%	0.01%	-	-	-	-
Notemigonus crysoleucas	Golden Shiner	1.85%	0.72%	0.23%	0.23%	2.25%	0.66%	0.27%	0.18%	1.40%	0.79%	0.18%	0.29%
Notropis atherinoides	Emerald Shiner	0.15%	0.24%	0.16%	0.05%	0.17%	0.32%	0.17%	0.06%	0.12%	0.19%	0.15%	0.04%
Noturus gyrinus	Tadpole Madtom	0.06%	0.10%	0.05%	0.16%	0.08%	0.17%	0.03%	0.10%	0.04%	0.05%	0.08%	0.22%
Noturus insignis	Margined Madtom	-	-	0.003%	-	-	-	0.001%	-	-	-	0.01%	-
Oncorhynchus mykiss	Rainbow Trout	0.003%	-	0.0005%	-	0.01%	-	-	-	-	-	0.001%	-
Perca flavescens	Yellow Perch	1.65%	1.26%	0.90%	0.27%	1.49%	1.38%	0.62%	0.15%	1.83%	1.22%	1.29%	0.41%
Percina caprodes	Common Logperch	0.05%	-	0.001%	-	0.20%	-	0.001%	-	0.02%	-	0.001%	-
Petromyzon marinus	Sea Lamprey	-	-	0.0005%	-	-	-	-	-	-	-	0.001%	-
Pimephales notatus	Bluntnose Minnow	0.23%	0.36%	0.27%	0.21%	0.25%	0.46%	0.15%	0.01%	0.19%	0.30%	0.43%	0.43%
Pimephales promelas	Fathead Minnow	0.01%	0.01%	0.03%	0.12%	0.02%	0.02%	0.04%	0.20%	0.01%	0.01%	0.02%	0.03%
Pomoxis nigromaculatus	Black Crappie	0.16%	0.04%	0.02%	0.06%	0.04%	0.01%	0.01%	0.03%	0.26%	0.06%	0.04%	0.09%
Rhinichthys atratulus	Blacknose Dace	-	-	0.0005%	-	-	-	0.001%	-	-	-	-	-
Salmo trutta	Brown Trout	0.05%	0.05%	0.02%	0.07%	0.06%	0.07%	0.01%	0.05%	0.04%	0.03%	0.02%	0.09%
Sander vitreus	Walleye	1.17%	0.96%	0.72%	1.50%	1.05%	0.95%	0.58%	1.74%	1.34%	0.96%	0.92%	1.25%
Scardinius erythrophthalmus	Common Rudd	0.78%	1.09%	0.08%	0.11%	1.32%	2.28%	0.11%	0.13%	0.26%	0.36%	0.04%	0.09%
Semotilus atromaculatus	Creek Chub	0.01%	0.02%	0.01%	0.01%	0.02%	0.05%	0.01%	0.02%	0.003%	0.003%	0.003%	0.01%
Umbra limi	Central Mudminnow	-	-	0.01%	0.09%	-	-	0.001%	0.01%	-	-	0.02%	0.19%

TABLE 2D.20 FISH OBSERVED DURING MONITORING FOR ADULT NORTHERN PIKE AND WETLAND SPAWNING SPECIES

Location[1]	Date	Banded Killifish	Bluegill	Bluntnose Minnow	Bowfin	Brook Silverside	Brook Stickleback	Brown Bullhead	Brown Trout	Common Carp	Creek Chub	Emerald Shiner	Fathead Minnow	Gizzard Shad	Golden Shiner	Green Sunfish	Largemouth Bass	Northern Pike	Pumpkinseed	Rock Bass	Round Goby	Sunfish *spp.*	White Perch	White Sucker	Yellow Perch
HB Location #1	4/4/2018	62														2					5				
HB Location #3	4/4/2018	7		1								3				5	1			1	5				
HB Location #1	4/10/2018	2																							
HB Location #3	4/10/2018	1																							
HB Location #1	4/20/2018											7													
HB Location #3	4/20/2018	15	3									4				3					5				
HB Location #1	4/24/2018	7	2	1												2					24				
HB Location #3	4/24/2018	18	1					1				1		6		9					56				
HB Location #2	5/1/2018	32												1		6				1	18				
HB Location #3	5/1/2018	1														2									
HB Location #2	5/8/2018	1	3					3				1									16		1		
HB Location #3	5/8/2018	25	12		2			8		1					3	4			1	1	84		1		
HB Location #1	3/26/2019	2	2									6								1	1				2
HB Location #3	3/26/2019	36	4	15					1	2		15		2		2				1	10	4		2	
HB Location #1	3/27/2019	2	2	11						1		11				1					2	11			
HB Location #3	3/27/2019	5	1	17						3		18		1						1	9	8			
HB Location #1	3/28/2019	7		1						1		2									4	3			1
HB Location #3	3/28/2019	58	3	13						1		13					1			5	8	15			
HB Location #1	4/3/2019	24		12				1				2				2				2	14	5			
HB Location #1	4/5/2019	11		2								2				3			4	2	2	3			
HB Location #3	4/5/2019	13		11								18				1				1	7	4			1
HB Location #1	4/11/2019	25		13												6			2	10	19	9			1
HB Location #3	4/11/2019	593		28				1				6		2		4				6	9	12		1	
HB Location #1	4/12/2019	119		53								1		2		4			9	13	33	19			1
HB Location #3	4/12/2019	438		31								3				2				5	27	4	1		
HB Location #1	4/17/2019	88			1			3			1	160	1			13	2		13	2	11	26			
HB Location #3	4/17/2019	115	1	8					1	6	3	50				2	2		1	5		3			
HB Location #2	3/11/2020	1	4					2			1	3		6	4						9				1
HB Location #3	3/11/2020		9			1		1		2				3			1				1				
HB Location #2	3/12/2020	11	43					2				19		1	1				1	2	10				2
HB Location #3	3/12/2020	2	31									3		2	2	1			3		3				
HB Location #1	3/18/2020	15	27						1	2	1	39			7	2			1	1	6				
HB Location #2	3/18/2020	13	54					2				13			9	3			2	1	3			1	1
HB Location #1	3/19/2020	7	252							4		1			1	4	6		5	10	2				
HB Location #2	3/19/2020	120	363	2				12		13	7	7			29	15	4		17	12	4				2
HB Location #2	3/25/2020	350	232					11		2	1	4			29	1	4		3		2				
HB Location #3	3/25/2020	3	1																						
HB Location #2	3/26/2020	111	30					11		1		21		2	16	2	3			3	1				
HB Location #3	3/26/2020									1															
HB Location #2	4/1/2020		7					2													2				
HB Location #3	4/1/2020		4							1				17		1					2				
HB Location #2	4/2/2020	138	55					11			2	4			3	4	2		2	2	7			1	
HB Location #3	4/2/2020	1	66							2				6		2			2	1	9				
HB Location #2	4/8/2020	222	46					24		1	1				3	5	1		5	10	10		1		
HB Location #3	4/8/2020		7																		1				
HB Location #2	4/9/2020	77	117					8		1	3	1			9	14	1		3	8	9		1		
HB Location #3	4/9/2020	1	7									1				3	1				7				
HB Location #2	4/15/2020	133	9					1				1			2	3			1						
HB Location #3	4/15/2020		6																		1				
HB Location #2	4/16/2020	203	2					10								1	2						1		
HB Location #3	4/16/2020	2	18												1	1	3				4				
HB Location #2	4/22/2020	5	9					1								4			3						
HB Location #3	4/22/2020	40	39					2				2			7	5	1		3	7					
HB Location #2	4/23/2020	3	2					1																	
HB Location #3	4/23/2020	4	1																						

[1]A map depicting fish sampling locations can be found in Figure 2.8

TABLE 2D.20 FISH OBSERVED DURING MONITORING FOR ADULT NORTHERN PIKE AND WETLAND SPAWNING SPECIES (CONTINUED)

Location[1]	Date	Banded Killifish	Bluegill	Bluntnose Minnow	Bowfin	Brook Silverside	Brook Stickleback	Brown Bullhead	Brown Trout	Common Carp	Creek Chub	Emerald Shiner	Fathead Minnow	Gizzard Shad	Golden Shiner	Green Sunfish	Largemouth Bass	Northern Pike	Pumpkinseed	Rock Bass	Round Goby	Sunfish *spp.*	White Perch	White Sucker	Yellow Perch
HB Location #2	4/29/2020	6	26									1			10	1			1		7		1		1
HB Location #3	4/29/2020	5	243	2						2	2	3		2	15		1		3				1		
HB Location #2	4/30/2020		14			1								1	1		1								
HB Location #3	4/30/2020		32									1			2				1						
HB Location #2	5/6/2020	11	4											1	1						6				
HB Location #3	5/6/2020		8				1								97				1		1				
HB Location #2	5/7/2020	1	12												2				1	2	8		1		
HB Location #3	5/7/2020	1	14												1						5				
HB Location #3	3/18/2021	15												1	1						2				
HB Location #3	3/19/2021	10	35					2								2	2		3	6	3				2
HB Location #1	3/23/2021	40	30					1			1	12		1		4	1		1	9	37				
HB Location #3	3/23/2021	104	28					6			1				5	9	1		2	16	21				1
HB Location #1	3/24/2021	89	26					2	1			4		1		4	1		3	12	36			1	
HB Location #3	3/24/2021	81	21	1				17							1	3	2		2	21	15				3
HB Location #1	3/31/2021	166	56														2		2	28	69			3	
HB Location #3	3/31/2021		1														1			1	5				
HB Location #2	4/8/2021	1	67					5		1		1				4	4		1	15	123				
HB Location #2	4/9/2021	1	10					10								3	1		2	15	22		1		
HB Location #3	4/9/2021	9	17	1				1				1				2	4			18	36		1		2
HB Location #2	4/13/2021	4	11																2	16	29				
HB Location #3	4/13/2021		8														2		1	17	15				
HB Location #2	4/14/2021		30					1						1		2	2		1	7	46		1		
HB Location #3	4/14/2021		18														1		1	8	36		1		1
HB Location #2	4/20/2021	1	1														1			3	6				
HB Location #3	4/20/2021	1	7					2		1		1			1	6	1		4	10	12				
HB Location #2	3/22/2022					1								3			1			1	4				
HB Location #3	3/22/2022													7							3				
HB Location #2	3/31/2022											2					1			1	2				
HB Location #3	3/31/2022		4	1				1				13		40						2					2
HB Location #2	4/7/2022		1					1						16						3	5				
HB Location #3	4/7/2022													18							2			1	
HB Location #1	4/12/2022	8	1	1								1				1					7				
HB Location #2	4/12/2022	1	1														1	1							
HB Location #1	4/21/2022		1							2		39		14					1		2				
HB Location #2	4/21/2022	3								3		1		1	1					2	1				
HB Location #2	4/28/2022	1	7		3			1				3				1			4		3				
HB Location #3	4/28/2022	7																	4						
HB Location #2	5/4/2022	2	60									1					1		6	9	7				
HB Location #3	5/4/2022		12														1		2	6	27				

[1]A map depicting fish sampling locations can be found in Figure 2.8

TABLE 2D.21 FISH OBSERVED DURING MONITORING FOR JUVENILE NORTHERN PIKE AND WETLAND SPAWNING SPECIES[1]

Collection Method	Green Sunfish	White Perch	Banded Killifish	Largemouth Bass	Smallmouth Bass	Round Goby	Common Carp	Yellow Bullhead	Bullhead Spp.	Brown Bullhead	Pumpkinseed	Longnose Gar	Sunfish Spp.	Cyprinid Spp.	Common Shiner	Emerald Shiner	Bluegill
2018																	
Minnow Net	-	-	-	6	1	1	-	-	-	-	-	-	-	1	-	-	-
Dip Net	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-
Electroshocking	-	-	-	3	-	-	-	1	-	4	-	-	-	-	-	-	-
Visual Observations	-	-	2	3	-	4	2	-	1	-	-	2	-	-	-	-	-
2019																	
Minnow Trap	-	-	-	5	-	-	2	-	-	-	-	-	5	-	-	-	-
Visual Observations	-	-	4	4	-	1	3	-	-	-	-	-	0	-	-	-	-
2020																	
Minnow Trap	49	1	5	2	-	24	2	-	-	5	5	-	-	1	1	-	4
Visual Observations	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-
2021																	
Minnow Trap	26	-	19	2	-	-	-	-	-	2	-	-	-	-	-	-	4
Visual Observations	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
2022																	
Minnow Trap	1	-	8	1	-	1	-	-	-	-	-	-	-	-	-	-	-
Visual Observations	-	-	100	-	-	-	-	-	-	25	-	-	-	-	-	-	-

[1]A map depicting fish sampling locations can be found in Figure 2.8

TABLE 2D.22 2022 WILDLIFE OBSERVATIONS

Scientific Name	Common Name	Type of Observation	Habitat Use	Remediation Area A	Remediation Area B	Remediation Area C	Remediation Area D	Remediation Area E
Birds								
Fulica americana	American Coot	Visual	General	X				
Corvus brachyrhynchos	American Crow	Visual	General			X	X	X
Spinus tristis	American Goldfinch	Visual	General	X	X		X	X
Falco sparverius	American Kestrel	Visual	General				X	
Turdus migratorius	American Robin	Visual	General		X		X	
Setophaga petechia	American Yellow Warbler	Visual	General	X	X			
Haliaeetus leucocephalus	Bald Eagle	Visual	General	X	X		X	
Icterus galbula	Baltimore oriole	Visual	General		X			
Hirundo rustica	Barn Swallow	Visual	General	X	X		X	
Megaceryle alcyon	Belted Kingfisher	Visual	General, Hunting			X	X	X
Poecile atricapillus	Black-capped Chickadee	Visual	General				X	
Buteo platypterus	Broad-winged Hawk	Visual	General				X	
Branta canadensis	Canada Goose	Visual	General, Nesting, Feeding	X	X	X	X	
Hydroprogne caspia	Caspian Tern	Visual	General	X			X	X
Bombycilla cedrorum	Cedar Waxwing	Visual	General	X				
Chaetura pelagica	Chimney Swift	Visual	General				X	
Gallinula galeata	Common Gallinule	Visual	General	X				
Quiscalus quiscula	Common Grackle	Visual	General	X				
Gavia immer	Common Loon	Visual	General, Feeding		X	X		
Mergus merganser	Common Merganser	Visual	General			X	X	
Sterna hirundo	Common Tern	Visual	General				X	
Geothlypis trichas	Common Yellowthroat	Visual	General	X			X	
Phalacrocorax auritus	Double-crested Cormorant	Visual	General, Feeding	X			X	
Sayornis phoebe	Eastern Phoebe	Visual	General	X				X
Pipilo erythrophthalmus	Eastern Towhee	Visual	General	X				
Sturnus vulgaris	European Starling	Visual	General, Feeding			X		
Dumetella carolinensis	Gray Catbird	Visual	General	X				
Larus marinus	Great Black-backed Gull	Visual	General		X		X	
Ardea herodias	Great Blue Heron	Visual	General, Hunting	X	X		X	X

TABLE 2D.22 2022 WILDLIFE OBSERVATIONS (CONTINUED)

Scientific Name	Common Name	Type of Observation	Habitat Use	Remediation Area A	Remediation Area B	Remediation Area C	Remediation Area D	Remediation Area E
Ardea alba	Great Egret	Visual	General, Hunting	X			X	
Butorides virescens	Green Heron	Visual	General, Hunting	X	X		X	
Larus argentatus	Herring Gull	Visual	General	X	X		X	X
Lophodytes cucullatus	Hooded Merganser	Visual	General				X	
Troglodytes aedon	House Wren	Visual	General	X				
Passerina cyanea	Indigo Bunting	Visual	General				X	
Charadrius vociferus	Killdeer	Visual	General	X	X		X	
Ixobrychus exilis	Least Bittern	Visual	General	X				
Empidonax minimus	Least Flycatcher	Visual	General	X				
Anas platyrhynchos	Mallard	Visual	General, Nesting	X	X	X	X	X
Cistothorus palustris	Marsh Wren	Visual	General	X				
Zenaida macroura	Mourning Dove	Visual	General	X			X	
Cygnus olor	Mute Swan	Visual	General	X			X	
Cardinalis cardinalis	Northern Cardinal	Visual	General	X				
Stelgidopteryx serripennis	Northern Rough-winged Swallo	Visual	General	X				
Pandion haliaetus	Osprey	Visual	General, Hunting	X	X		X	
Podilymbus podiceps	Pied-billed Grebe	Visual	General, Nesting	X				
Mergus serrator	Red-breasted Merganser	Visual	General	X				
Aythya americana	Redhead	Visual	General, Feeding				X	
Buteo jamaicensis	Red-tailed Hawk	Visual	General	X			X	
Agelaius phoeniceus	Red-winged Blackbird	Visual	General	X	X		X	
Larus delawarensis	Ring-billed Gull	Visual	General	X		X	X	
Calidris pusilla	Semipalmated Sandpiper	Visual	General	X				
Melospiza melodia	Song Sparrow	Visual	General	X	X		X	
Actitis macularius	Spotted Sandpiper	Visual	General	X				
Melospiza georgiana	Swamp Sparrow	Visual	General	X				
Tachycineta bicolor	Tree Swallow	Visual	General	X	X		X	
Cathartes aura	Turkey Vulture	Visual	General				X	
Tringa sp.	Yellowlegs	Visual	General	X				

TABLE 2D.22 2022 WILDLIFE OBSERVATIONS (CONTINUED)

Scientific Name	Common Name	Type of Observation	Habitat Use	Remediation Area A	Remediation Area B	Remediation Area C	Remediation Area D	Remediation Area E
Fish[1]								
Alosa pseudoharengus	Alewife	Visual	General	X	X	X		X
Fundulus diaphanus	Banded Killifish	Visual	General	X	X	X	X	X
Pomoxis nigromaculatus	Black Crappie	Visual	General	X			X	
Lepomis macrochirus	Bluegill	Visual	General	X	X	X	X	X
Pimephales notatus	Bluntnose Minnow	Visual	General				X	X
Amia calva	Bowfin	Visual	General	X	X	X	X	X
Labidesthes sicculus	Brook Silverside	Visual	General				X	
Ameiurus nebulosus	Brown Bullhead	Visual	General	X	X	X	X	X
Salmo trutta	Brown Trout	Visual	General		X	X	X	
Umbra limi	Central Mudminnow	Visual	General	X				
Ictalurus punctatus	Channel Catfish	Visual	General	X	X	X	X	X
Cyprinus carpio	Common Carp	Visual	General	X	X	X	X	X
Scardinius erythrophthalmus	Common Rudd	Visual	General	X	X	X	X	
Luxilus cornutus	Common Shiner	Visual	General					X
Semotilus atromaculatus	Creek Chub	Visual	General			X		
Notropis atherinoides	Emerald Shiner	Visual	General				X	X
Pimephales promelas	Fathead Minnow	Visual	General					X
Aplodinotus grunniens	Freshwater Drum	Visual	General	X	X	X	X	X
Dorosoma cepedianum	Gizzard Shad	Visual	General	X	X	X	X	X
Notemigonus crysoleucas	Golden Shiner	Visual	General		X	X	X	X
Carassius auratus	Goldfish	Visual	General				X	X
Moxostoma valenciennesi	Greater Redhorse	Visual	General		X	X	X	
Lepomis cyanellus	Green Sunfish	Visual	General	X		X	X	X
Acipenser fulvescens	Lake Sturgeon	Visual	General	X	X			
Micropterus salmoides	Largemouth Bass	Visual	General	X	X	X	X	X
Lepisosteus osseus	Longnose Gar	Visual	General	X	X		X	X
Netropis volucellus	Mimic Shiner	Visual	General	X				
Esox lucius	Northern Pike	Visual	General	X			X	X
Lepomis gibbosus	Pumpkinseed	Visual	General	X	X	X	X	X
Carpiodes cyprinus	Quillback	Visual	General		X			X
Ambloplites rupestris	Rock Bass	Visual	General	X	X	X	X	X
Neogobius melanostomus	Round Goby	Visual	General	X	X	X	X	X
Moxostoma macrolepidotum	Shorthead Redhorse	Visual	General	X			X	X
Micropterus dolomieu	Smallmouth Bass	Visual	General	X	X	X	X	X
Noturus gyrinus	Tadpole Madtom	Visual	General	X	X	X		
Sander vitreus	Walleye	Visual	General	X	X	X	X	X
Morone americana	White Perch	Visual	General		X	X	X	X
Catostomus commersonii	White Sucker	Visual	General	X		X	X	
Perca flavescens	Yellow Perch	Visual	General		X	X	X	X

TABLE 2D.22 2022 WILDLIFE OBSERVATIONS (CONTINUED)

Scientific Name	Common Name	Type of Observation	Habitat Use	Remediation Area A	Remediation Area B	Remediation Area C	Remediation Area D	Remediation Area E
Macroinvertebrates								
Succineidae	Amber Snail	Visual	General				X	
Sympetrum vicinum	Autumn Meadowhawk	Visual	Reproductive				X	
Dolichovespula maculata	Bald-faced Hornet	Visual	General				X	
Papilio polyxenes	Black Swallowtail	Visual	General				X	
Apidae Bombus	Bumblebee	Visual	General / Feeding				X	
Pieris rapae	Cabbage White	Visual	General		X		X	
Enallagma cyathigerum	Common Bluet	Visual	General	X			X	X
Cambaridae	Crayfish	Visual	General				X	
Tibicen canicularis	Dog-day Cicada	Visual	General				X	
Xylocopa virginica	Eastern Carpenter Bee	Visual	General				X	
Ischnura verticalis	Eastern Forktail	Visual	General	X			X	X
Hyphantria cunea	Fall Webworm	Visual	Reproductive				X	
Argiope aurantia	Garden Spider	Visual	General				X	
Anax junius	Green Darner	Visual	General		X		X	
Apis mellifera	Honeybee	Visual	Swarm / General		X			
Oncopeltus fasciatus	Large Milkweed Bug	Visual	General				X	
Zale lunata	Lunate Zale Moth	Visual	General				X	
Danaus plexippus	Monarch Butterfly	Visual	Reproductive / General		X		X	
Culicidae Aedes	Mosquito	Visual	Reproductive	X	X	X	X	X
Utterbackia imbecillis	Paper Pondshell	Visual	General				X	
Phyciodes tharos	Pearl Crescent	Visual	General				X	
Coleomegilla maculata	Pink Spotted Lady Beetle	Visual	General	X				
Epitheca princeps	Prince Baskettail	Visual	General	X	X		X	
Melanoplus femurrubrum	Red-legged Grasshopper	Visual	General				X	
Estigmene acrea	Salt Marsh Moth	Visual	General	X			X	
Caenidae caenis	Small Square-gilled Mayfly	Visual	Reproduction				X	
Melanoplus ponderosus	Spur-throated Grasshopper	Visual	General				X	
Limenitis archippus	Viceroy	Visual	General				X	
Pyrrhartctia isabella	Woolly Bear	Visual	General				X	
Vespula sp.	Yellowjacket	Visual	General	X				
Dreissena polymorpha	Zebra mussel	Visual	General	X	X	X	X	X

TABLE 2D.22 2022 WILDLIFE OBSERVATIONS (CONTINUED)

Scientific Name	Common Name	Type of Observation	Habitat Use	Remediation Area A	Remediation Area B	Remediation Area C	Remediation Area D	Remediation Area E
Mammals								
Neovison vison	American Mink	Visual	Feeding , General	X			X	
Castor canadensis	Beaver	Visual	Feeding, Denning	X			X	
Canis latrans	Coyote	Sign	General	X			X	
Sylvilagus floridanus	Eastern Cottontail	Visual	General				X	
Microtus pennsylvanicus	Eastern Meadow Vole	Visual	General				X	
Ondatra zibethicus	Muskrat	Lodge	Denning	X	X		X	
Procyon lotor	Racoon	Sign	General	X			X	
Odocoileus virginianus	Whitetail Deer	Visual	Feeding, General	X			X	
Reptiles/Amphibians								
Bufo americanus	American Toad	Call	General	X			X	
Thamnophis sirtalis	Common Garter Snake	Visual	General				X	
Chelydra serpentina	Common Snapping Turtle	Visual	General				X	
Storeria dekayi	DeKay's Brown Snake	Visual	General, Basking				X	
Sternotherus odoratus	Eastern Musk Turtle	Visual	General				X	
Lithobates pipiens	Leopard Frog	Visual, Call	General	X			X	
Lithobates clamitans	Northern Green Frog	Call	General				X	
Nerodia sipedon	Northern Watersnake	Visual	General				X	
Chrysemys picta	Painted Turtle	Visual	General, Basking				X	
Lithobates palustris	Pickerel Frog	Visual	General				X	
Pseudacris crucifer	Spring Peeper	Call	General	X			X	

[1] Due to the fact that aquatic wildlife is difficult to visually observe, the majority of fish species were observed using trap, gill and seine nets associated with community fish monitoring performed by the SUNY ESF sampling team.

TABLE 2D.23 2017 - 2022 WILDLIFE OBSERVATIONS

Scientific Name	Common Name	Type of Observation	Habitat Use	Remediation Area A	Remediation Area B	Remediation Area C	Remediation Area D	Remediation Area E
Birds								
Empidonax alnorum	Alder Flycatcher	Visual	General	X			X	
Anas rubripes	American black duck	Visual	General	X	X	X	X	X
Fulica americana	American Coot	Visual	General	X		X	X	X
Corvus brachyrhynchos	American Crow	Visual	General	X		X	X	X
Spinus tristis	American Goldfinch	Visual	General	X	X	X	X	X
Larus smithsonianus	American Herring Gull	Visual	General				X	X
Falco sparverius	American Kestrel	Visual	General	X			X	
Turdus migratorius	American Robin	Visual	General		X	X	X	X
Mareca americana	American Wigeon	Visual	General		X		X	
Setophaga petechia	American Yellow Warbler	Visual	General	X	X	X	X	
Haliaeetus leucocephalus	Bald Eagle	Visual	General	X	X	X	X	X
Icterus galbula	Baltimore oriole	Visual	General		X			
Hirundo rustica	Barn Swallow	Visual	General	X	X	X	X	X
Megaceryle alcyon	Belted Kingfisher	Visual	General, Hunting	X	X	X	X	X
Chlidonias niger	Black Tern	Visual	General					X
Pluvialis squatarola	Black-bellied Plover	Visual	General				X	
Poecile atricapillus	Black-capped Chickadee	Visual	General				X	
Nycticorax nycticorax	Black-crowned Night Heron	Visual	General, Hunting	X			X	
Anas discors	Blue-winged Teal	Visual	General		X		X	
Chroicocephalus philadelphia	Bonaparte's Gull	Visual	General	X	X			
Branta bernicla	Brant	Visual	General			X	X	
Buteo platypterus	Broad-winged Hawk	Visual	General				X	
Molothrus ater	Brown-headed Cowbird	Visual	General		X			
Bucephala albeola	Bufflehead	Visual	General	X	X	X	X	
Branta canadensis	Canada Goose	Visual	General, Nesting, Feeding	X	X	X	X	X
Aythya valisneria	Canvasback	Visual	General		X			
Hydroprogne caspia	Caspian Tern	Visual	General	X	X	X	X	X
Bombycilla cedrorum	Cedar Waxwing	Visual	General	X				
Chaetura pelagica	Chimney Swift	Visual	General				X	
Spizella passerina	Chipping Sparrow	Visual	General	X				
Gallinula galeata	Common Gallinule	Visual	General	X				
Bucephala clangula	Common Goldeneye	Visual	General	X	X	X	X	
Quiscalus quiscula	Common Grackle	Visual	General	X		X	X	
Gavia immer	Common Loon	Visual	General, Feeding	X	X	X		
Mergus merganser	Common Merganser	Visual	General	X	X	X	X	X
Chordeiles minor	Common Nighthawk	Visual	General				X	
Sterna hirundo	Common Tern	Visual	General		X	X	X	X
Geothlypis trichas	Common Yellowthroat	Visual	General	X			X	
Junco hyemalis	Dark-eyed Junco	Visual	General	X				
Anas platyrhynchos domesticus	Domestic duck	Visual	General					X
Phalacrocorax auritus	Double-crested Cormorant	Visual	General, Feeding	X	X	X	X	X
Calidris alpina	Dunlin	Visual	General				X	
Sayornis phoebe	Eastern Phoebe	Visual	General	X			X	X
Pipilo erythrophthalmus	Eastern Towhee	Visual	General	X				

TABLE 2D.23 2017 - 2022 WILDLIFE OBSERVATIONS (CONTINUED)

Scientific Name	Common Name	Type of Observation	Habitat Use	Remediation Area A	Remediation Area B	Remediation Area C	Remediation Area D	Remediation Area E
Mareca penelope	Eurasian Widgeon	Visual	General	X				
Sturnus vulgaris	European Starling	Visual	General, Feeding	X		X	X	X
Spizella pusilla	Field Sparrow	Visual	General	X				
Passerella iliaca	Fox Sparrow	Visual	General				X	
Mareca strepera	Gadwall	Visual	General	X	X	X	X	X
Dumetella carolinensis	Gray Catbird	Visual	General	X				
Larus marinus	Great Black-backed Gull	Visual	General		X	X	X	X
Ardea herodias	Great Blue Heron	Visual	General, Hunting	X	X	X	X	X
Ardea alba	Great Egret	Visual	General, Hunting	X	X	X	X	X
Tringa melanoleuca	Greater Yellowlegs	Visual	General				X	X
Butorides virescens	Green Heron	Visual	General, Hunting	X	X		X	X
Larus argentatus	Herring Gull	Visual	General	X	X	X	X	X
Lophodytes cucullatus	Hooded Merganser	Visual	General	X	X	X		
Podiceps auritus	Horned Grebe	Visual	General	X	X	X	X	X
Haemorhous mexicanus	House Finch	Visual	General				X	
Troglodytes aedon	House Wren	Visual	General	X			X	
Passerina cyanea	Indigo Bunting	Visual	General	X			X	
Charadrius vociferus	Killdeer	Visual	General	X	X	X	X	X
Ixobrychus exilis	Least Bittern	Visual	General	X				
Empidonax minimus	Least Flycatcher	Visual	General	X				
Calidris minutilla	Least sandpiper	Visual	General				X	
Larus fuscus	Lesser Black-backed Gull	Visual	General				X	
Aythya affinis	Lesser Scaup	Visual	General	X	X	X	X	X
Tringa flavipes	Lesser Yellowlegs	Visual	General	X				X
Hydrocoloeus minutus	Little Gull	Visual	General					X
Clangula hyemalis	Long-tailed duck	Visual	General			X	X	
Anas platyrhynchos	Mallard	Visual	General, Nesting	X	X	X	X	X
Cistothorus palustris	Marsh Wren	Visual	General	X				
Zenaida macroura	Mourning Dove	Visual	General	X	X	X	X	
Cygnus olor	Mute Swan	Visual	General	X	X	X	X	X
Cardinalis cardinalis	Northern Cardinal	Visual	General	X	X			
Colaptes auratus	Northern Flicker	Visual	General	X			X	
Mimus polyglottos	Northern Mockingbird	Visual	General				X	
Anas acuta	Northern Pintail	Visual	General	X				X
Stelgidopteryx serripennis	Northern Rough-winged Swallow	Visual	General	X			X	
Anas clypeata	Northern Shoveler	Visual	General				X	X
Pandion haliaetus	Osprey	Visual	General, Hunting	X	X		X	X
Setophaga palmarum	Palm Warbler	Visual	General				X	
Falco peregrinus	Peregrine Falcon	Visual	General					X
Podilymbus podiceps	Pied-billed Grebe	Visual	General, Nesting	X	X	X	X	
Mergus serrator	Red-breasted Merganser	Visual	General	X			X	
Aythya americana	Redhead	Visual	General, Feeding	X	X	X	X	
Podiceps grisegna	Red-necked Grebe	Visual	General	X				
Buteo jamaicensis	Red-tailed Hawk	Visual	General	X	X	X	X	
Agelaius phoeniceus	Red-winged Blackbird	Visual	General	X	X	X	X	X

TABLE 2D.23 2017 - 2022 WILDLIFE OBSERVATIONS (CONTINUED)

Scientific Name	Common Name	Type of Observation	Habitat Use	Remediation Area A	Remediation Area B	Remediation Area C	Remediation Area D	Remediation Area E
Larus delawarensis	Ring-billed Gull	Visual	General	X	X	X	X	X
Aythya collaris	Ring-necked duck	Visual	General	X			X	
Columba livia	Rock Dove	Visual	General	X				
Charadrius semipalmatus	Semipalmated plover	Visual	General	X			X	
Calidris pusilla	Semipalmated Sandpiper	Visual	General	X			X	
Accipiter striatus	Sharp-shinned Hawk	Visual	General				X	
Limnodromus griseus	Short-billed Dowitcher	Visual	General				X	
Egretta thula	Snowy Egret	Visual	General	X			X	
Bubo scandiacus	Snowy Owl	Visual	General			X		
Melospiza melodia	Song Sparrow	Visual	General	X	X		X	X
Actitis macularius	Spotted Sandpiper	Visual	General	X	X	X	X	X
Melospiza georgiana	Swamp Sparrow	Visual	General	X				
Tachycineta bicolor	Tree Swallow	Visual	General	X	X	X	X	X
Cygnus buccinator	Trumpeter Swan	Visual	General	X				
Cygnus columbianus	Tundra swan	Visual	General	X			X	
Cathartes aura	Turkey Vulture	Visual	General	X			X	
Catharus fuscescens	Veery	Visual	General				X	
Rallus limicola	Virginia Rail	Visual	General	X				
Vireo gilvus	Warbling Vireo	Visual	General				X	
Pelecanus erythrorhynchos	White Pelican	Visual	General	X				
Zonotrichia albicollis	White-throated Sparrow	Visual	General		X			
Empidonax traillii	Willow Flycatcher	Visual	General				X	
Aix sponsa	Wood Duck	Visual	General	X				
Fish[1]								
Alosa pseudoharengus	Alewife	Visual	General	X	X	X	X	X
Anguilla rostrata	American Eel	Visual	General				X	
Fundulus diaphanus	Banded Killifish	Visual	General	X	X	X	X	X
Pomoxis nigromaculatus	Black Crappie	Visual	General	X		X	X	
Rhinichthys atratulus	Blacknose Dace	Visual	General					X
Lepomis macrochirus	Bluegill	Visual	General	X	X	X	X	X
Pimephales notatus	Bluntnose Minnow	Visual	General	X			X	X
Amia calva	Bowfin	Visual	General	X	X	X	X	X
Labidesthes sicculus	Brook Silverside	Visual	General		X		X	X
Culaea inconstans	Brook Stickleback	Visual	General	X			X	X
Ameiurus nebulosus	Brown Bullhead	Visual	General	X	X	X	X	X
Salmo trutta	Brown Trout	Visual	General		X	X	X	
Umbra limi	Central Mudminnow	Visual	General	X				
Ictalurus punctatus	Channel Catfish	Visual	General	X	X	X	X	X
Cyprinus carpio	Common Carp	Visual	General	X	X	X	X	X
Scardinius erythrophthalmus	Common Rudd	Visual	General	X	X	X	X	X
Luxilus cornutus	Common Shiner	Visual	General		X	X		X
Semotilus atromaculatus	Creek Chub	Visual	General			X	X	X
Notropis atherinoides	Emerald Shiner	Visual	General	X	X		X	X
Pimephales promelas	Fathead Minnow	Visual	General	X				X
Aplodinotus grunniens	Freshwater Drum	Visual	General	X	X	X	X	X

TABLE 2D.23 2017 - 2022 WILDLIFE OBSERVATIONS (CONTINUED)

Scientific Name	Common Name	Type of Observation	Habitat Use	Remediation Area A	Remediation Area B	Remediation Area C	Remediation Area D	Remediation Area E
Dorosoma cepedianum	Gizzard Shad	Visual	General	X	X	X	X	X
Notemigonus crysoleucas	Golden Shiner	Visual	General	X	X	X	X	X
Carassius auratus	Goldfish	Visual	General	X			X	X
Moxostoma valenciennesi	Greater Redhorse	Visual	General	X	X	X	X	X
Lepomis cyanellus	Green Sunfish	Visual	General	X	X	X	X	X
Acipenser fulvescens	Lake Sturgeon	Visual	General	X	X		X	X
Micropterus salmoides	Largemouth Bass	Visual	General	X	X	X	X	X
Percina caprodes	Logperch	Visual	General			X		
Lepisosteus osseus	Longnose Gar	Visual	General	X	X	X	X	X
Netropis volucellus	Mimic Shiner	Visual	General	X				
Esox lucius	Northern Pike	Visual	General	X	X		X	X
Lepomis gibbosus	Pumpkinseed	Visual	General	X	X	X	X	X
Carpiodes cyprinus	Quillback	Visual	General		X			X
Ambloplites rupestris	Rock Bass	Visual	General	X	X	X	X	X
Neogobius melanostomus	Round Goby	Visual	General	X	X	X	X	X
Moxostoma macrolepidotum	Shorthead Redhorse	Visual	General	X	X	X	X	X
Micropterus dolomieu	Smallmouth Bass	Visual	General	X	X	X	X	X
Noturus gyrinus	Tadpole Madtom	Visual	General	X	X	X		
Esox masquinongy x Esox lucius	Tiger Muskellunge	Visual	General			X		X
Sander vitreus	Walleye	Visual	General	X	X	X	X	X
Morone americana	White Perch	Visual	General	X	X	X	X	X
Catostomus commersonii	White Sucker	Visual	General	X	X	X	X	X
Ameiurus natalis	Yellow Bullhead	Visual	General	X	X	X	X	X
Perca flavescens	Yellow Perch	Visual	General	X	X	X	X	X
Macroinvertebrates								
Succineidae	Amber Snail	Visual	General				X	
Bombus pensylvanicus	American bumblebee	Visual	General	X			X	X
Sympetrum vicinum	Autumn Meadowhawk	Visual	Reproductive				X	
Notonectidae	Backswimmer	Visual	General	X				
Dolichovespula maculata	Bald-faced Hornet	Visual	General				X	
Papilio polyxenes	Black Swallowtail	Visual	General				X	
Microcentrum rhombifolium	Broad-winged Katydid	Visual	General	X			X	
Pieris rapae	Cabbage White	Visual	General	X	X	X	X	X
Chilopoda	Centipede	Visual	General					X
Colias philodice	Clouded Sulphur	Visual	General				X	
Phoebis sennae	Cloudless Sulphur Butterfly	Visual	General				X	
Enallagma cyathigerum	Common Bluet	Visual	General	X			X	X
Plathemis lydia	Common whitetail	Visual	General	X				
Cambaridae	Crayfish	Visual	General				X	X
Gryllidae	Cricket	Visual	General		X		X	X
Tibicen canicularis	Dog-day Cicada	Visual	General				X	
Lumbricina	Earthworm	Visual	General	X				
Xylocopa virginica	Eastern Carpenter Bee	Visual	General				X	
Ischnura verticalis	Eastern Forktail	Visual	General	X			X	X
Cupido comyntas	Eastern Tailed-blue butterfly	Visual	General				X	

TABLE 2D.23 2017 - 2022 WILDLIFE OBSERVATIONS (CONTINUED)

Scientific Name	Common Name	Type of Observation	Habitat Use	Remediation Area A	Remediation Area B	Remediation Area C	Remediation Area D	Remediation Area E
Hyphantria cunea	Fall Webworm	Visual	Reproductive				X	
Pyrrhocoris apterus	Firebug	Visual	General				X	
Argiope aurantia	Garden Spider	Visual	General				X	
Anax junius	Green Darner	Visual	General		X		X	
Halictidae	Halictid bee	Visual	General	X				
Apis mellifera	Honeybee	Visual	Swarm / General	X	X		X	X
Muscidae	Housefly	Visual	General	X				
Ichneumonidae	Ichneumon Wasp	Visual	General				X	
Oncopeltus fasciatus	Large Milkweed Bug	Visual	General				X	
Zale lunata	Lunate Zale Moth	Visual	General				X	
Danaus plexippus	Monarch Butterfly	Visual	Reproductive / General		X	X	X	X
Culicidae Aedes	Mosquito	Visual	Reproductive	X	X	X	X	X
Vanessa cardui	Painted Lady	Visual	General				X	
Utterbackia imbecillis	Paper Pondshell	Visual	General				X	
Phyciodes tharos	Pearl Crescent	Visual	General				X	
Armadillidiidae	Pillbug	Visual	General	X				
Coleomegilla maculata	Pink Spotted Lady Beetle	Visual	General	X				
Mantodea	Praying Mantis	Visual	General					X
Epitheca princeps	Prince Baskettail	Visual	General	X	X		X	
Vanessa atalanta	Red Admiral	Visual	General				X	
Melanoplus femurrubrum	Red-legged Grasshopper	Visual	General				X	

TABLE 2D.23 2017 - 2022 WILDLIFE OBSERVATIONS (CONTINUED)

Scientific Name	Common Name	Type of Observation	Habitat Use	Remediation Area A	Remediation Area B	Remediation Area C	Remediation Area D	Remediation Area E
Estigmene acrea	Salt Marsh Moth	Visual	General	X			X	
Caenidae caenis	Small Square-gilled Mayfly	Visual	Reproduction				X	
Melanoplus ponderosus	Spur-throated Grasshopper	Visual	General				X	
Tachinidae	Tachinid fly	Visual	General				X	
Libellula pulchella	Twelve-spotted Skimmer	Visual	General				X	
Limenitis archippus	Viceroy	Visual	General				X	
Gerridae	Water Strider	Visual	General				X	
Curculionoidea	Weevil	Visual	General				X	
Lepidoptera	White fuzzy caterpillar	Visual	General				X	
Pyrrhartctia isabella	Woolly Bear	Visual	General				X	
Argiope aurantia	Yellow Garden Spider	Visual	General	X				
Vespula sp.	Yellowjacket	Visual	General	X				
Dreissena polymorpha	Zebra mussel	Visual	General	X	X	X	X	X
Mammals								
Neovison vison	American Mink	Visual	Feeding , General	X			X	
Castor canadensis	Beaver	Visual	Feeding, Denning	X			X	X
Tamias striatus	Chipmunk	Visual	General				X	
Canis latrans	Coyote	Sign	General	X			X	X
Sylvilagus floridanus	Eastern Cottontail	Visual	General	X	X		X	
Microtus pennsylvanicus	Eastern Meadow Vole	Visual	General				X	
Ondatra zibethicus	Muskrat	Lodge	Denning	X	X		X	
Blarina brevicauda	Northern Short-tailed Shrew	Visual	General				X	
Procyon lotor	Racoon	Sign	General	X			X	
Vulpes vulpes	Red fox	Visual	General				X	
Odocoileus virginianus	Whitetail Deer	Visual	Feeding, General	X	X	X	X	X
Marmota monax	Woodchuck	Visual	General				X	
Reptiles/Amphibians								
Bufo americanus	American Toad	Call	General	X			X	
Thamnophis sirtalis	Common Garter Snake	Visual	General				X	
Chelydra serpentina	Common Snapping Turtle	Visual	General		X		X	X
Storeria dekayi	DeKay's Brown Snake	Visual	General, Basking	X			X	
Sternotherus odoratus	Eastern Musk Turtle	Visual	General				X	
Lithobates pipiens	Leopard Frog	Visual, Call	General	X		X	X	X
Lithobates clamitans	Northern Green Frog	Call	General				X	
Nerodia sipedon	Northern Watersnake	Visual	General	X			X	
Chrysemys picta	Painted Turtle	Visual	General, Basking				X	
Lithobates palustris	Pickerel Frog	Visual	General				X	
Pseudacris crucifer	Spring Peeper	Call	General	X			X	

[1] Due to the fact that aquatic wildlife is difficult to visually observe, the majority of fish species were observed using trap, gill and seine nets associated with community fish monitoring performed by the SUNY ESF sampling team.

APPENDIX 2E – NORTHERN PIKE HABITAT SUITABILITY INDEX FOR OUTBOARD/HARBOR BROOK

NORTHERN PIKE HABITAT SUITABILITY INDEX
WASTEBED B/HARBOR BROOK OUTBOARD AREA

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LIST OF ACRONYMS

HSI	Habitat Suitability Index
OLMMP	Onondaga Lake Monitoring and Maintenance Plan
SI	Suitability Index
USGS	United States Geological Survey

EXECUTIVE SUMMARY

The construction of the Wastebed B/Harbor Brook Outboard Area wetlands, which was designed to create habitat that was more suitable for Northern Pike reproduction, was completed in 2017. Monitoring for fish spawning in this area in the early spring has taken place annually since 2018, with a focus on monitoring for evidence of spawning Northern Pike. Prior to 2022, no adult Northern Pike had been found in the Wastebed B/Harbor Brook Outboard Area during early season monitoring events, and no juvenile Northern Pike had been observed in summer months. As a result, a Northern Pike habitat suitability index (HSI) was conducted for the Wastebed B/Harbor Brook Outboard Area in 2022 to assess the viability for this area to support spawning Northern Pike. The overall HSI for this area was calculated as 0.6 out of 1.0. The overall score is determined by taking the lowest score of seven independent variables. The score calculated in 2022 was driven by drop in water levels during embryo and early fry stages. Water level fluctuations in Onondaga Lake are a function of the hydroelectric dam operations on the Seneca River. Other variables, such as vegetation, yielded higher results (0.8 to 1.0). While conducting the Pike HSI, one adult Northern Pike was captured in the study area during temperatures conducive to spawning. This capture, paired with the calculated score of 0.6, indicate that the Wastebed B/Harbor Brook Outboard Area is meeting the intended goal of providing suitable Northern Pike spawning habitat.

SECTION 1 - INTRODUCTION

The construction of the Wastebed B/Harbor Brook Outboard Area wetlands was completed in 2017. Habitat restoration in the Outboard Area was designed to take better advantage of the seasonal inundation of emergent wetland areas along the shoreline and create habitat that was more suitable for Northern Pike reproduction. As documented in Onondaga Lake Capping, Dredging, Habitat and Profundal Zone (Sediment Management Unit 8) Final Design (Parsons and Anchor QEA 2012), the design for this area focused on providing appropriate water depths at the appropriate time of year (and concomitant water temperature) for Northern Pike spawning. In lieu of spawning channels with specific depths, which would be prone to sedimentation, the design included a gradual slope from the areas adjacent to the barrier wall to the lake shoreline. In accordance with Section 7 and Appendix E of the Onondaga Lake Monitoring and Maintenance Plan (OLMMP) (Parsons 2018), monitoring for fish spawning in early spring has been conducted in the Wastebed B/Harbor Brook Outboard Area wetlands since 2018. These events focused on monitoring for evidence of spawning/reproduction of Northern Pike (*Esox lucius*) and/or other wetland spawning species. Early season monitoring for spawning adults took place annually in the early spring period when water temperatures were between 41°F and 55°F, when spawning by Northern Pike typically occurs as documented in literature (Smith 1985). Summer efforts focused on targeting young-of-the-year Northern Pike as well as other wetland spawning species present in the area. As documented in OLMMP, due to the number of variables needed for Northern Pike to effectively spawn, the time until Northern Pike begin to utilize the Wastebed B/Harbor Brook Outboard Area is unknown. Although wetland spawning/rearing species were documented throughout the monitoring period (including species such as Yellow Perch [*Perca flavescens*], Brown Bullhead [*Ameiurus nebulosus*], Longnose Gar [*Lepisosteus osseus*]), prior to 2022, no adult or juvenile Northern Pike was observed during annual monitoring. Since neither adult spawning or juvenile Northern Pike had been observed following four years of monitoring, it was the appropriate field data to calculate a habitat suitability index (HSI) for Northern Pike was collected in 2022 to evaluate the suitability of the wetland for Northern Pike spawning. While the Pike HSI was being conducted, one adult Northern Pike was captured in the Wastebed B/Harbor Brook Outboard Area during spawning season. The HSI was still conducted as planned in 2022. Results of each variable used to calculate the overall HSI are presented herein.

SECTION 2 – HABITAT SUITABILITY INDEX

2.1 Northern Pike HSI

The Northern Pike HSI, developed by Inskip and the U.S. Department of Fish and Wildlife, synthesizes literature regarding the habitat requirements and preferences of Northern Pike into a model which is further scaled to produce an index between 0 (unsuitable habitat) and 1 (optimal habitat) (Inskip 1982). The HSI can be applied to both lake (lacustrine) and riverine systems. The lacustrine HSI model, presented in **Figure 2E.1**, incorporates seven habitat variables, all of which are individually scored into a corresponding suitability index (SI). The overall HSI is determined by taking the lowest of the seven suitability index ratings, i.e., the HSI identifies the likely limiting factor. The lacustrine model is intended for use in a whole waterbody. In this application, the lacustrine model was instead applied to only a portion of a waterbody. Additionally, the HSI models presented by Inskip are intended to serve as hypotheses of species-habitat relationships and have not been tested against field population data. The results of the HSI are therefore not absolute but are intended to provide generalized insight into factors that may be limiting Northern Pike reproduction in a system.

2.1.1 Variable 1: Spring Vegetation

Variable 1 of the HSI is defined as "the ratio of spawning habitat to summer habitat [area that is less than 1 m deep and vegetated (spring), divided by total midsummer area]". In order to determine the SI for Variable 1, the study area has to be classified into one of four categories based on the density of vegetation or plant debris within the area included as spawning habitat. The four categories are defined below.

A. Vegetation obscures most (>80% of the bottom; plant material dense throughout the 15 cm of the water column above the substrate. When submersed, plant material not tightly compacted. Vegetation provides extensive surface area to which eggs may adhere, abundant cover for eggs and fry, and allows for circulation of water around the eggs (e.g., flooded sedge or grass meadow).
B. Plant growth less lush than in A, but covers much of the substrate and occupies much of water column directly above the sediments. More than 60% of the bottom obscured in vertical projection from depth of 15 cm above the bottom. Plant material not compacted when under water.
C. Vegetation or debris covers much of the bottom, but plant material does not occupy much of the water column immediately above the substrate. This category may include compacted vegetation, branches of woody plants, and leaves of deciduous trees.
D. Thinly scattered vegetation or debris only. Would provide little, if any, shelter for eggs and fry.

2.1.2 Variable 2: Water Level Drop

Variable 2 of the HSI is defined as the drop in water level during embryo and fry stages. The SI is calculated for both stages. Whichever of the two stages yields the lowest SI is used as the overall SI for Variable 2. The two stages are defined below.

A. Embryo and early fry stages (until yolk sac is absorbed).
B. Fry stage, after yolk sac is absorbed.

The timing of these stages is determined by water temperatures. Spawning for Northern Pike typically begins when water temperatures reach 8°C. The exact length of the spawning season varies, depending on temperature fluctuations. When temperatures reach 13°C for several days, the 3.5-week embryo and early fry stage begins,

followed by a 4-week fry stage. Incubation time is inversely related to temperature, and at higher temperatures, these stages tend to be shorter.

2.1.3 Variable 3: Midsummer Vegetation

Variable 3 of the HSI is defined as the percent of midsummer area with emergent or submerged aquatic vegetation or remains of terrestrial plants, excluding bottom debris. The resulting SI varies depending on maximum depth of the system being evaluated. The two depths categories are defined below.

A. Maximum depth less than 3 meters and lake is ice covered for more than two months.
B. Maximum depths greater than 3 meters or lake is ice covered for less than 2 months, or both.

2.1.4 Variable 4: Total Dissolved Solids

Variable 4 of the HSI is defined as the logarithm (base 10) of total dissolved solids concentration of surface waters during the midsummer, with surface water being defined as 1 to 2 meters deep.

2.1.5 Variable 5: pH

Variable 5 of the HSI is defined as the least suitable pH in spawning habitat during embryo and fry stages.

2.1.6 Variable 6: Frost-free Season

Variable 6 of the HSI is defined as the average length of the frost-free season.

2.1.7 Variable 7: Temperature

Variable 7 of the HSI is defined as the maximal weekly average temperature of the surface layer at 1 to 2 meters depth. One of two curves is selected, based on the following categories.

A. Stratified lake with > 1.5 ppm dissolved oxygen in the metalimnion
B. River, stream, unstratified lake, or stratified lake with <1.5 ppm dissolved oxygen in metalimnion

2.2 Determining Study Area, Timing of Spawning and Juvenile Life Stages

Many of the variables that are evaluated as part of the Northern Pike HSI are driven by the timing of spawning and subsequent embryo and fry stages. Fluctuations in temperature can cause this timeline to differ annually and therefore is difficult to predict. Incubation time is and surface water temperature are inversely related, and the average length of incubation and the subsequent life stages defined below can vary. As such, surface water temperatures were collected in 2022 along the Wastebed B/Harbor Brook Outboard area to estimate a general, hypothetical timeline to use in the HSI calculations as shown below, using the longer time range for the early life stages as a conservative approach:

- March 24 – spawning begins at 8°C
- May 5 – spawning ends at 13°C
- May 6 through May 31 – 3.5-week embryo and early fry stage

- June 1 through June 29 – 4-week fry stage

To determine the area considered Northern Pike spawning habitat (areas that are vegetated and less than one meter depth), the total area between 0- and 1-meter water depth during spawning times was first established using United States Geological Survey (USGS) water level data and the topography of the restored lake bottom. The average maximum lake level during spawning times was calculated using USGS water level data from 2018 through 2021 during general Northern Pike spawning times (based on surface water temperature). This resulted in an average maximum lake elevation of 363.9 feet, which was used as the shoreward boundary of the study area. Using the average maximum lake elevation of 363.9 feet, and the as-built topography of the restored lake bottom, the lakeward boundary of the study area was established at a depth of 1 meter.

SECTION 3 – 2022 HABITAT SUITABILITY INDEX RESULTS

3.1 Results

Data was collected and analyzed in 2022 to calculate an overall Northern Pike HSI. Calculated suitability indices of each variable can be found in **Table 2E.1**. A summary of each result can be found below.

3.1.1 Variable 1 (Spring Vegetation) - Results

Variable 1 is the ratio of spawning habitat to summer habitat (area that is less than 1 m deep and vegetated (spring), divided by the total midsummer area). This variable uses one of four suitability curves (A, B, C, or D) that is selected based on the density of vegetation or plant debris. To determine which curve to use for Variable 1, a spring vegetation survey was conducted on May 13, 2022. The spring vegetation survey found numerous areas with vegetation that could be utilized for Northern Pike spawning. The shoreward portion of the study area in particular tends to be dominated by cattail mixed with interspersed emergent wetland species. The survey found that a total of 9.68 acres of the study area could be classified into one of the three spawning habitat categories (**Figure 2E.2**). The majority of this area was classified as category A (5.7 acres) or B (3.53 acres). A small, 0.45-acre portion of the area was characterized as category C. For the purposes of the SI calculation, category B was selected as a conservative approach. Photographs from the spring vegetation survey can be found in **Appendix 2E.A**. Photograph locations can be found in **Figure 2E.3**.

To determine midsummer area, USGS water level data was used to determine the average maximum elevation during the month of July from 2018 through 2021, with the month of July representing the typical "midsummer". This resulted in an average maximum elevation of 363.45 feet (NAVD88), which was used to define the shoreline of the study area. The Wastebed B/Harbor Brook Outboard Area boundary was used as the lakeward boundary of the study area. As such, this resulted in a total midsummer area of 9.36 acres (**Figure 2E.4**).

The resulting calculation resulted in a ratio of spawning habitat to midsummer area of 1.03, which corresponds to a SI value of 0.8 on the 0 to 1 scale. The HSI model calculates the SI for Variable 1 on a logarithmic scale. Any quotient larger than 0.3 for the B curve results in an overall SI of 0.8 (**Figure 2E.5**).

3.1.2 Variable 2 (Water Level Drop) - Results

Using water levels obtained from the USGS monitoring location at Onondaga Lake in 2022, the drop in water level was determined for both the embryo and early fry stage (May 6 through May 31) as well as the fry stage post-yolk sac absorption (June 1 through June 29). Water levels for this time periods are presented graphically in **Figure 2E.6**. For the embryo and early fry stage, the water level dropped 0.88 feet (0.27 meters). For the fry stage post-yolk sac absorption, the water level dropped 1.02 feet (0.31 meters).

For this SI, the lower result of the embryo and early fry stage or fry stage is used. The calculated SI for the embryo and early fry stage was calculated to be 0.6, while the SI for the fry stage post-yolk sac absorption was found to be 0.9, resulting in an overall SI of 0.6 for Variable 2 (**Figure 2E.7**).

To assess how this variable may differ annually, the same time periods as above were looked at for 2018 through 2021. Although the exact timing of the embryo, early fry, and late fry stages change depending upon water

temperatures, the same time windows were looked at to assess how annual variations in water level drop may potentially impact the overall score for Variable 2 as this is generally an uncontrollable variable. The water levels during these time periods, as well as the calculated SI for each year, are represented in **Figure 2E.8** and **Table 2E.2**. In summary, prior to 2022, the overall SI ranged from 0.2 (2019) to 0.55 (2018), indicating that the 0.6 result calculated in 2022 is not an anomalous result.

As described by Inskip, year-to-year variation in weather can complicate the application of the Pike HSI model. While annual variation is not a limitation of calculating a HSI for a singular year, as was the intent of the Pike HSI conducted in 2022, variables such as drop in water level can be drastically different year-to-year, due to number of uncontrollable variables. It is recommended, where possible, that the suitability indices used for determination of a HSI be averages of suitability indices corresponding to measured, estimated, or projected conditions over a series of years. As such, using the estimated SI results for Variable 2 from 2018 through 2022, the resulting average SI for Variable 2 would be 0.37. Due to the variation in Variable 2 observed from 2018 through 2022, the overall SI in Variable 2 presented in **Table 2E.1** is based on a calculated average from all five years of monitoring.

3.1.3 Variable 3 (Midsummer Vegetation) - Results

As discussed in Section 3.2.1 above, the total midsummer area in the Wastebed B/Harbor Brook Outboard area was determined to be 9.36 acres. A quantitative vegetation survey conducted on July 7, 2022 found 8.07 acres within the midsummer area to be vegetated, resulting in a percentage of 86%. The vegetated areas of the midsummer survey are displayed in **Figure 2E.3**. The midsummer vegetation survey resulted in a SI of 0.8 for Variable 3 (**Figure 2E.9**).

3.1.4 Variable 4 (Total Dissolved Solids) - Results

Water samples were collected from three locations at the Wastebed B/Harbor Brook Outboard Area consistent with Northern Pike monitoring locations (**Figure 2.8** of main text). One grab sample was collected per location (three locations total) and sent to Eurofins Environmental Testing America for analysis of Total Dissolved Solids via method 2540C. Sample results were 1500 mg/L, 960 mg/L, and 960 mg/L, for an average TDS of 1140 mg/L. A $\log_{10}$ transformation of the average was conducted as required for calculation of the SI, that resulted in a score of 0.8 (**Figure 2E.10**).

3.1.5 Variable 5 (pH) - Results

Variable 5 determines the least suitable surface water pH during embryo and fry stages. This was determined by evaluating the pH data collected by UFI at South Deep from May 6 through June 29. pH values recorded at the near-surface interval (top two meters) during this time period ranging from 7.9 to 8.35. This range of pH values resulted in an SI of 1.0 (**Figure 2E.11**).

3.1.6 Variable 6 (Frost-free Season) - Results

The average length of the frost-free season in Syracuse, NY is approximately 156 days. In 2022, the frost-free season in Syracuse was 158 days. Both the average frost-free season of 156 days and the 2022 frost-free season of 158 days result in an overall SI of 1.0 for Variable 6 (**Figure 2E.12**).

3.1.7 Variable 7 (Temperature) - Results

To determine the maximum weekly average temperature, weekly average surface water temperatures were calculated based on data collected by UFI at South Deep from April 3, 2022 through November 26, 2022, for a total of 34 weeks. Only the near-surface interval temperature data from South Deep was used in these calculations (i.e., data collected from the top two meters). The maximum weekly average temperature, as shown in **Figure 2E.13**, was approximately 26°C during early August. This results in an overall SI of 0.85 for Variable 7 (**Figure 2E.14**).

3.1.8 Overall HSI

The overall HSI is calculated as the lowest of the seven suitability index ratings. Therefore, the SI calculated for Variable 2 (water level drop) was used, resulting in an overall HSI of 0.6 for the Wastebed B/Harbor Brook Outboard Area in 2022. Due to annual variation in water level, the average SI for Variable 2, based on estimations documented in **Figure 2E.8** and **Table 2E.2**, the average SI for Variable 2 was calculated to be 0.37, resulting in an overall HSI for the Wastebed B/Harbor Brook Outboard Area of 0.37 (**Table 2E.1**).

SECTION 4 – 2022 HABITAT SUITABILITY INDEX CONCLUSIONS

The Northern Pike HSI condenses seven critical and quantifiable variables that may impact and limit Northern Pike spawning into a single overall suitability score. The HSI model is applicable to lakes, reservoirs, rivers and streams throughout North America. In this application of the model, the HSI was applied to a specific study area within the Wastebed B/Harbor Brook Outboard area of Onondaga Lake, an area which was designed with to create habitat suitable for Northern Pike spawning.

The HSI for the study area is determined based on the single lowest scoring variable. In this application, Variable 2 (water level drop) was the lowest scoring variable, with a score of 0.6 on the 0 to 1 SI scale in 2022, and an average score of 0.37 on the 0 to 1 SI scale on average. Therefore, water level drop is considered to be the limiting factor for Northern Pike spawning in this area, and 0.37 is used as the overall score for the study area. As discussed above, water level drop is an uncontrollable variable that is largely a function of the hydroelectric dam operations on the Seneca River, which can differ year-to-year, and is the driving factor that would cause the overall HSI score to fluctuate annually. The score calculated in 2022 suggests that the Outboard/Harbor Brook area is moderately suitable for Northern Pike. Due to the variability in water level fluctuations, the overall HSI likely fluctuates largely on an annual basis. However, all the other variables scored high (0.8, 0.85, or 1.0), indicating near ideal habitat and water quality exists for Northern Pike in this area. This, paired with the capture of an adult Northern Pike in the area in 2022 during temperatures conducive to spawning, indicates that the Wastebed B/Harbor Brook Outboard area of Onondaga Lake is meeting the intended goal of providing suitable Northern Pike spawning habitat. Due to the limitations associated with fluctuations in water levels during a critical reproductive phase, successful pike spawning in this area is unlikely in most years. However, the habitat restoration in this area has resulted in many of the wetland functions having been returned or created, so additional action to achieve better pike spawning conditions is not needed.

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TABLES

TABLE 2E.1 NORTHERN PIKE HABITAT SUITABILITY INDEX RESULTS FOR WASTBED B/HARBOR BROOK OUTBOARD AREA

Model Variable	Variable Description	Input Data Used or Assumption Made	Suitability Index
V1	Ratio of spawning habitat to summer habitat [area that is less than 1 m deep and vegetated (spring) divided by total midsummer area]	Qualitative spring vegetation survey	0.8
V2	Drop in water level (m) during embryo and fry stages	USGS Lake Surface Level Data	0.37
V3	Percent of midsummer area with emergent or submerged aquatic vegetation or remains of terrestrial plants (bottom debris excluded)	Qualitative midsummer vegetation survey	0.8
V4	Logarithm (base 10) of total dissolved solids concentration of surface waters (1 to 2 m deep) during midsummer	Water samples analyzed for TDS	0.8
V5	Least suitable pH in spawning habitat during embryo and fry stages	pH data from South Deep	1.0
V6	Average length of frost-free season (average number of days between last spring occurrence and first fall occurrence of an air temperature of 0°C)	Average of 156 days per the Old Farmers Almanac	1.0
V7	Maximal weekly average temperature of the surface layer (1 to 2 m deep)	Surface water temperature data from South Deep	0.85
Overall HSI[1]			0.37

Notes:

[1] Overall Habitat Suitability Index (HSI) is equal to the lowest suitability index of the seven variables assessed.

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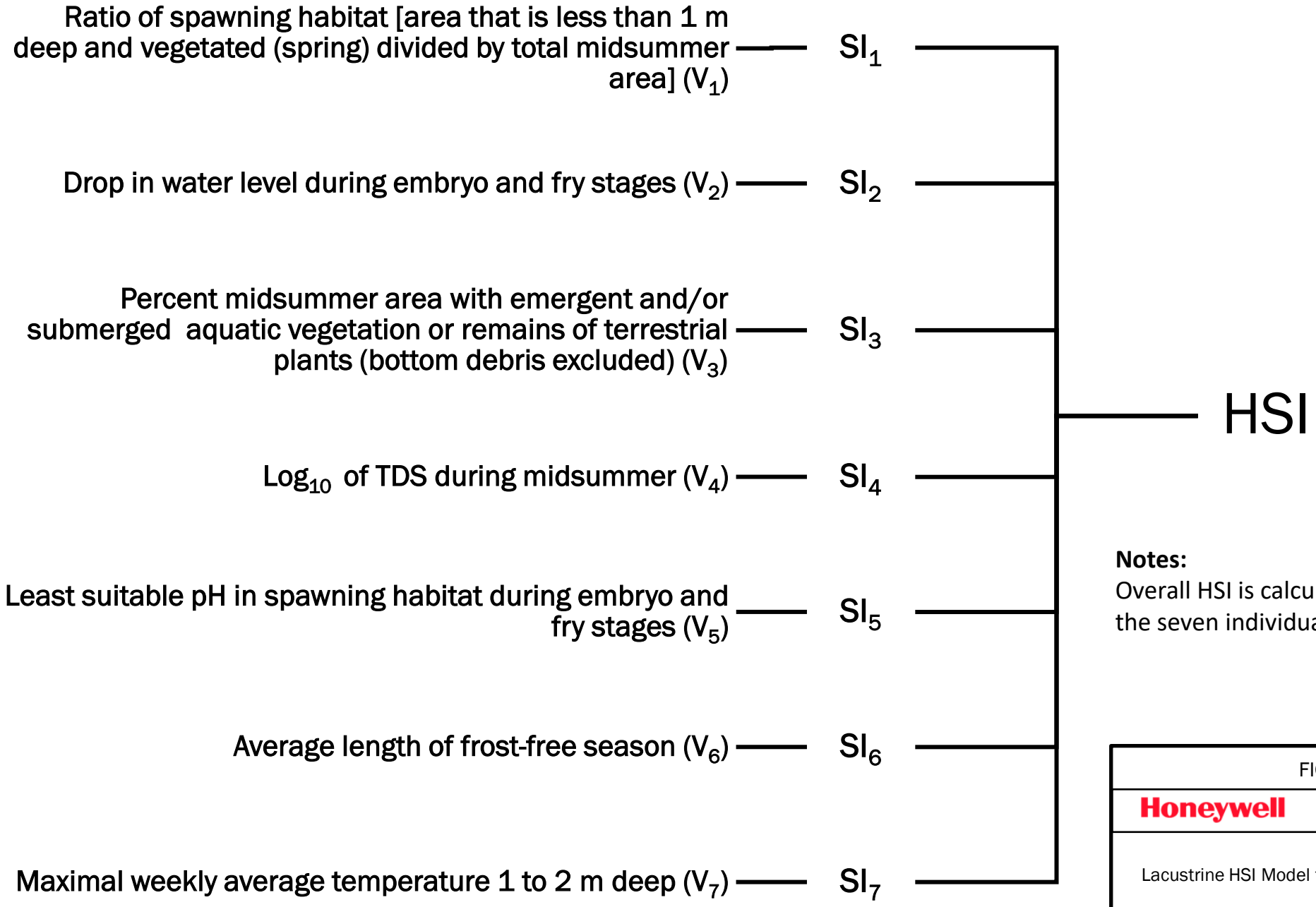
TABLE 2E.2 DROP IN WATER LEVEL DURING NORTHERN PIKE EMBRYO AND FRY STAGES (2018-2022)

Year	Elevation Data and Calculations to Determine Suitability Index	Embryo/Early Fry Stage[1,2]	Fry Stage [1,3]
2018	Drop in water level (feet)	0.96	0.86
	Drop in water level (meters)	0.29	0.26
	Suitability Index (SI)	0.55	0.9
	Overall SI for Variable 2[4]	0.55	
2019	Drop in water level (feet)	1.83	0.97
	Drop in water level (meters)	0.55	0.3
	Suitability Index (SI)	0.2	0.9
	Overall SI for Variable 2[4]	0.2	
2020	Drop in water level (feet)	1.51	0.56
	Drop in water level (meters)	0.46	0.17
	Suitability Index (SI)	0.25	0.95
	Overall SI for Variable 2[4]	0.25	
2021	Drop in water level (feet)	1.38	0.57
	Drop in water level (meters)	0.42	0.17
	Suitability Index (SI)	0.25	0.95
	Overall SI for Variable 2[4]	0.25	
2022	Drop in water level (feet)	0.88	1.02
	Drop in water level (meters)	0.27	0.31
	Suitability Index (SI)	0.6	0.9
	Overall SI for Variable 2[4]	0.6	
Average Estimated SI for Variable 2		**0.37**	

Notes:

1. Stages were determined by surface water temperatures collected in the study area in 2022. Exact timing of spawning and subsequent juvenile life stages can vary year-to-year.
2. Embryo/early fry stage: May 6 - May 31
3. Fry stage: June 1 - June 29
4. Overall suitability index (SI) for Variable 2 is determined as whichever life stage exhibits a lower SI.

FIGURES



Notes:
Overall HSI is calculated as the lowest of the seven individual suitability indices.

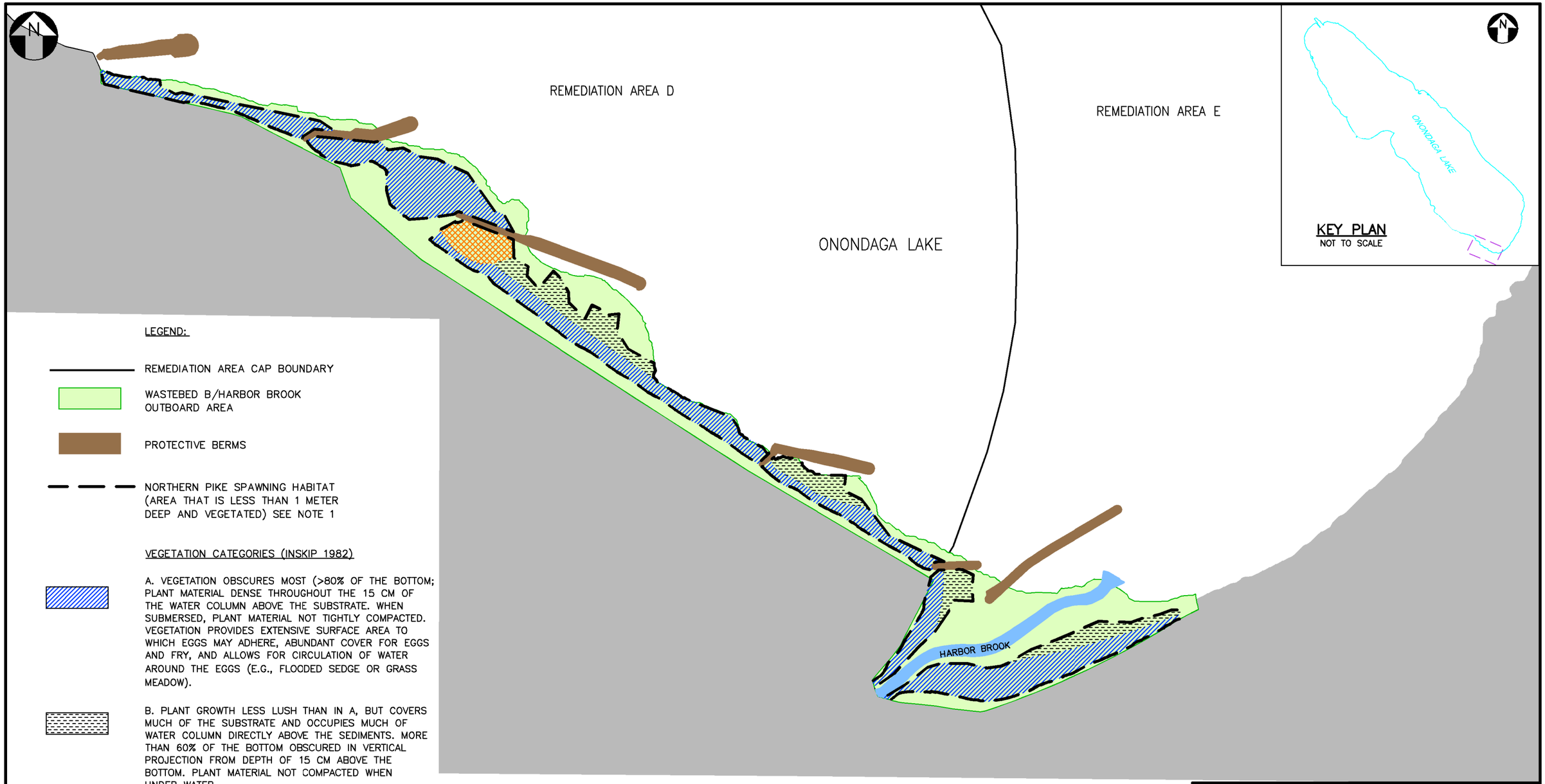
FIGURE 2E.1

Honeywell

Onondaga Lake
Syracuse, New York

Lacustrine HSI Model for Northern Pike (Inskip 1982)

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VEGETATION CATEGORY	ACREAGES
A	5.7
B	3.53
C	0.45
TOTAL	9.68

NOTE:

1. AVERAGE MAXIMUM LAKE LEVEL DURING NORTHERN PIKE SPAWNING SEASON (MARCH–MAY) FROM 2018 THROUGH 2021 OF 363.9 FEET USED AS SHOREWARD BOUNDARY.

300 150 0 300 600

SCALE: 1"=300'

FIGURE 2E.2

Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

2022 SPRING VEGETATION SURVEY WASTEBED B/HARBOR BROOK OUTBOARD AREA

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FILE NAME: P:\HONEYWELL -SYR\450704 2017-2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\2022 ANNUAL REPORT\450704-ANNUALRPT-VEG-2022-.DWG
PLOT DATE: 4/19/2023 11:15 AM PLOTTED BY: RUSSO, JILL [US-US]

REMEDIATION AREA D

REMEDIATION AREA E

ONONDAGA LAKE

HARBOR BROOK

1 2 3 4 5 6 7 8 9 10 11

KEY PLAN
NOT TO SCALE

ONONDAGA LAKE

LEGEND:

- REMEDIATION AREA CAP BOUNDARY
- WASTEBED B/HARBOR BROOK OUTBOARD AREA
- PROTECTIVE BERMS
- NORTHERN PIKE SPAWNING HABITAT (AREA THAT IS LESS THAN 1 METER DEEP AND VEGETATED) SEE NOTE 1
- 6 PHOTO LOCATION AND DIRECTION

NOTE:

1. AVERAGE MAXIMUM LAKE LEVEL DURING NORTHERN PIKE SPAWNING SEASON (MARCH–MAY) FROM 2018 THROUGH 2021 OF 363.9 FEET USED AS SHOREWARD BOUNDARY.

300 150 0 300 600

SCALE: 1"=300'

FIGURE 2E.3

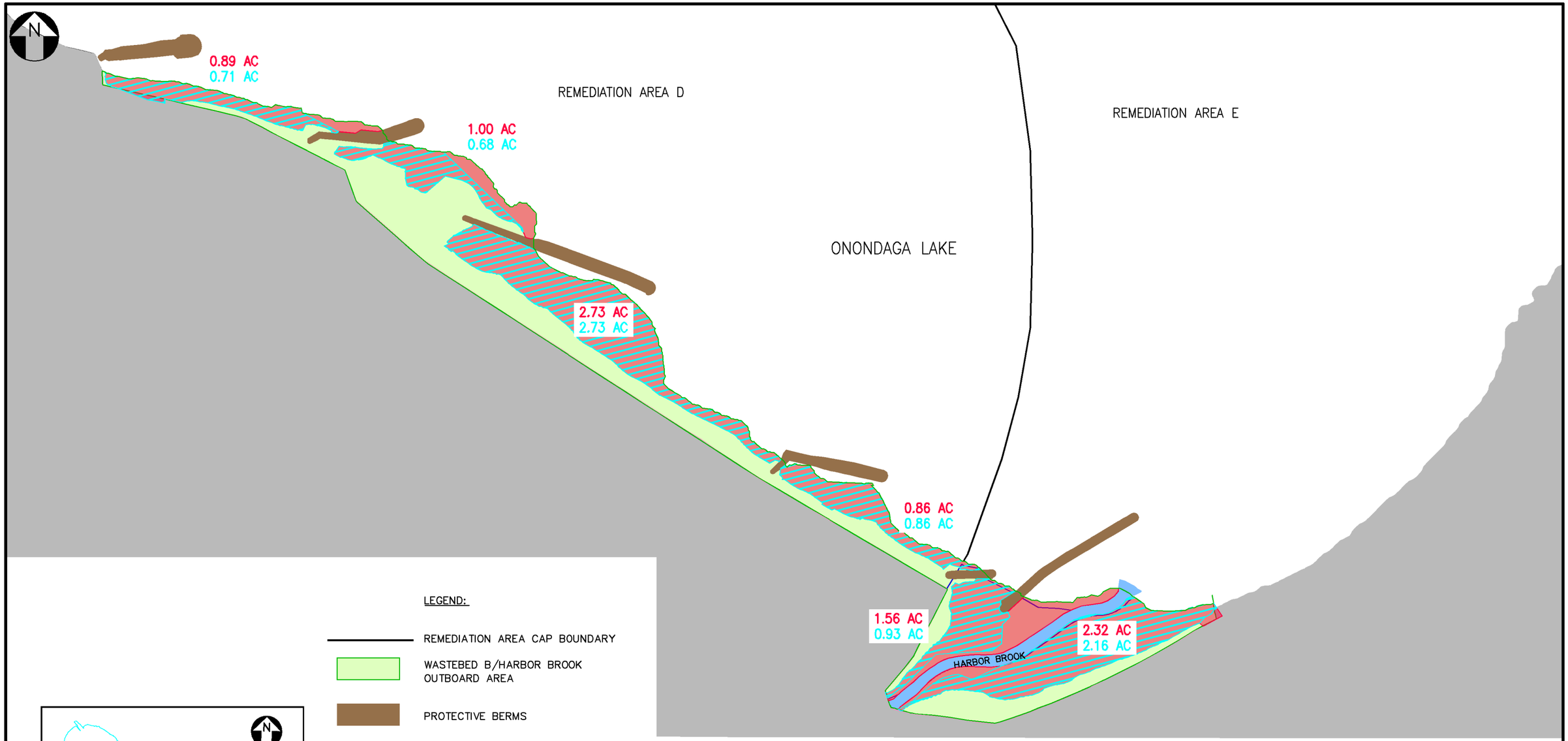
Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

2022 SPRING VEGETATION SURVEY PHOTOGRAPHIC LOG WASTEBED B/ HARBOR BROOK OUTBOARD AREA

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\450704 2017-2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\2022 ANNUAL REPORT\450704-ANNUALRPT-PHOTO-2022-.DWG
PLOT DATE: 4/19/2023 4:09 PM PLOTTED BY: RUSSO, JILL [US-US]



LEGEND:

- REMEDIATION AREA CAP BOUNDARY
- WASTEBED B/HARBOR BROOK OUTBOARD AREA
- PROTECTIVE BERMS
- MIDSUMMER AREA (SEE NOTE 1)
- VEGETATED AREA WITHIN THE MIDSUMMER AREA



TOTAL MIDSUMMER AREA: 9.36 ACRES

TOTAL VEGETATED AREA WITHIN THE MIDSUMMER AREA: 8.07 ACRES

NOTE:

1. AVERAGE MAXIMUM LAKE LEVEL DURING MONTH OF JULY FROM 2018–2021 (363.45) USED AS SHOREWARD BOUNDARY OF MIDSUMMER SURVEY. WASTEBED B/HARBOR BROOK OUTBOARD AREA BOUNDARY USED AS LAKEWARD BOUNDARY OF STUDY AREA.

300 150 0 300 600

SCALE: 1"=300'

FIGURE 2E.4

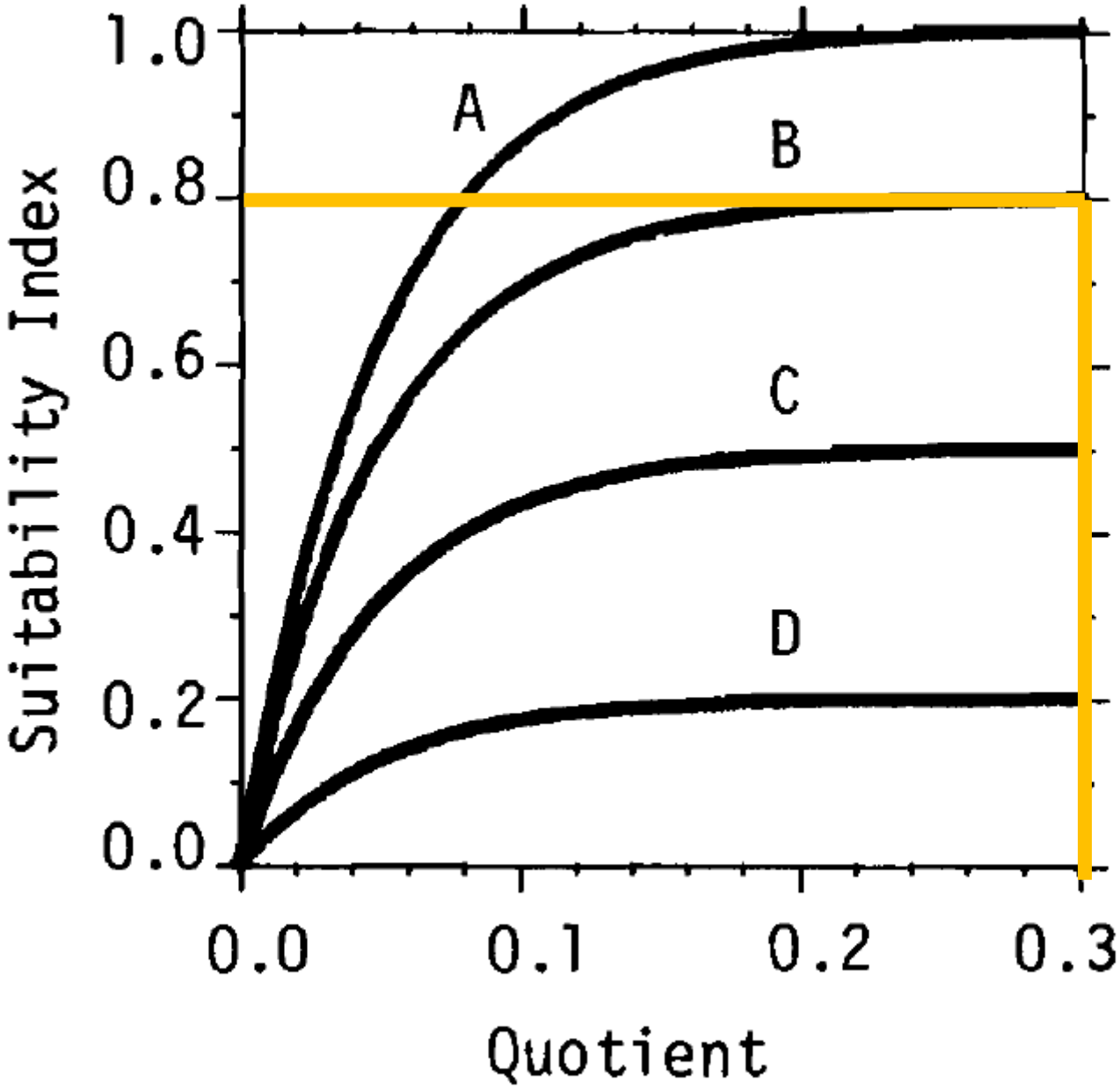
Honeywell

ONONDAGA LAKE
SYRACUSE, NEW YORK

2022 MIDSUMMER VEGETATION SURVEY WASTEBED B/ HARBOR BROOK OUTBOARD AREA

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\450704 2017-2018 OL PVM\10 TECHNICAL CATEGORIES\10.1 CAD\2022 ANNUAL REPORT\450704-ANNUALRPT-OL-PIKE-2022.DWG
PLOT DATE: 4/19/2023 4:01 PM PLOTTED BY: RUSSO, JILL [US-US]



Legend

suitability index based on 2022 data, using vegetation density category B (defined below)

Notes:

Study area classified into one of four categories based on density of vegetation or plant debris. Four categories are defined as:

A. Vegetation obscures most (>80% of the bottom; plant material dense throughout the 15 cm of the water column above the substrate. When submersed, plant material not tightly compacted. Vegetation provides extensive surface area to which eggs may adhere, abundant cover for eggs and fry, and allows for circulation of water around the eggs (e.g., flooded sedge or grass meadow).

B. Plant growth less lush than in A, but covers much of the substrate and occupies much of water column directly above the sediments. More than 60% of the bottom obscured in vertical projection from depth of 15 cm above the bottom. Plant material not compacted when under water.

C. Vegetation or debris covers much of the bottom, but plant material does not occupy much of the water column immediately above the substrate. This category may include compacted vegetation, branches of woody plants, and leaves of deciduous trees.

D. Thinly scattered vegetation or debris only. Would provide little, if any, shelter for eggs and fry.

FIGURE 2E.5

Honeywell

Onondaga Lake
Syracuse, New York

Variable 1: Spring Vegetation (Lacustrine HSI Model for Northern Pike, Inskip 1982)

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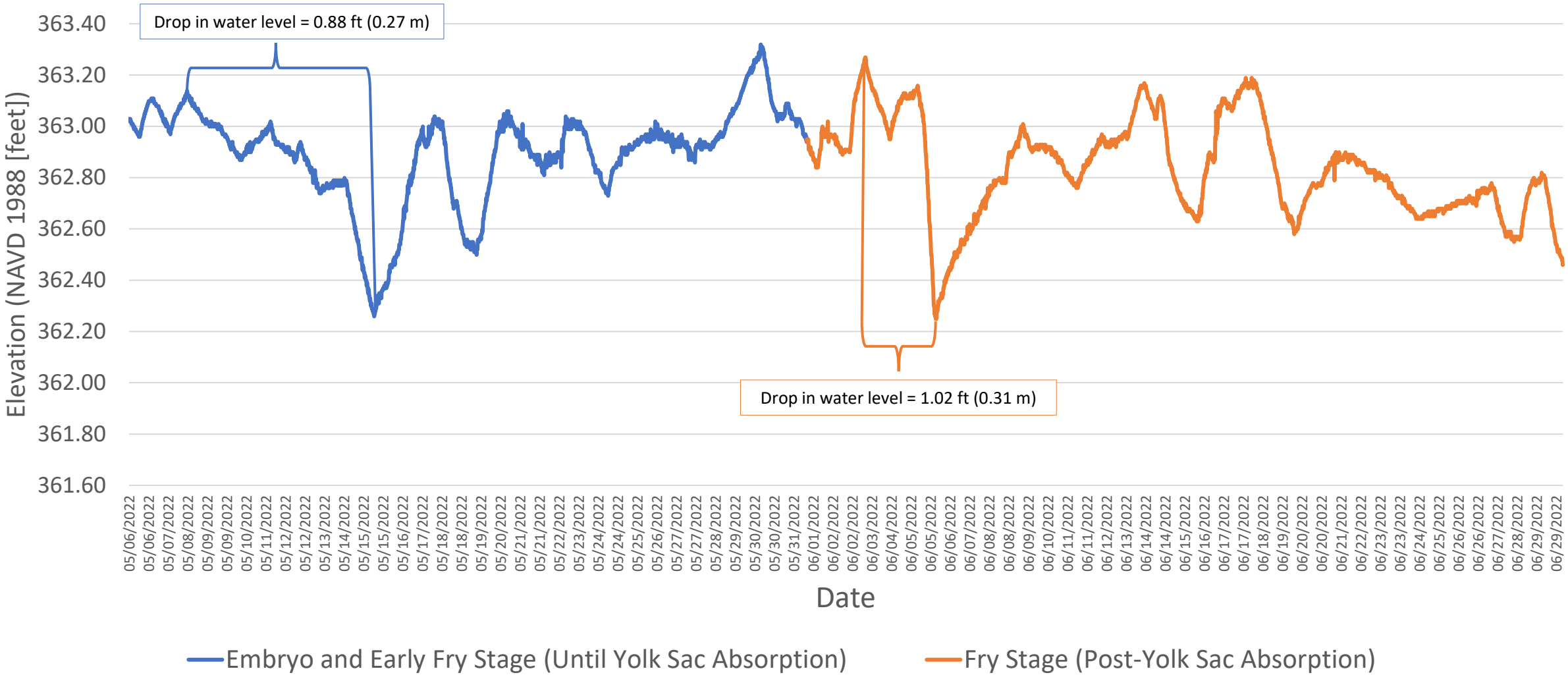


FIGURE 2E.6

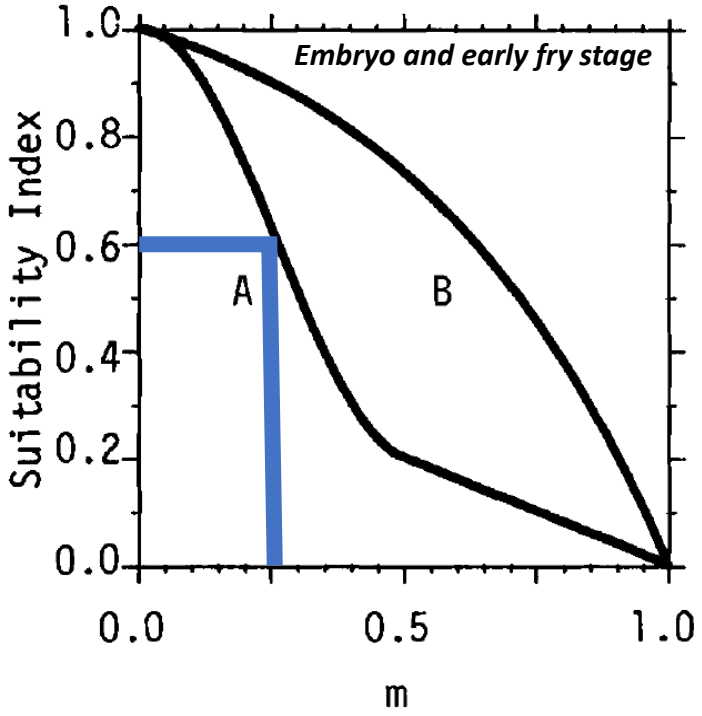
Honeywell

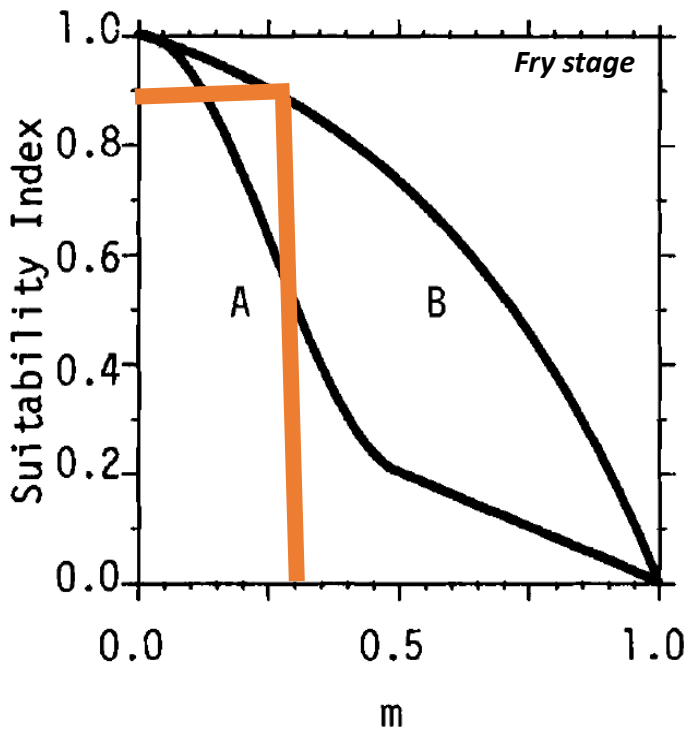
Onondaga Lake
Syracuse, New York

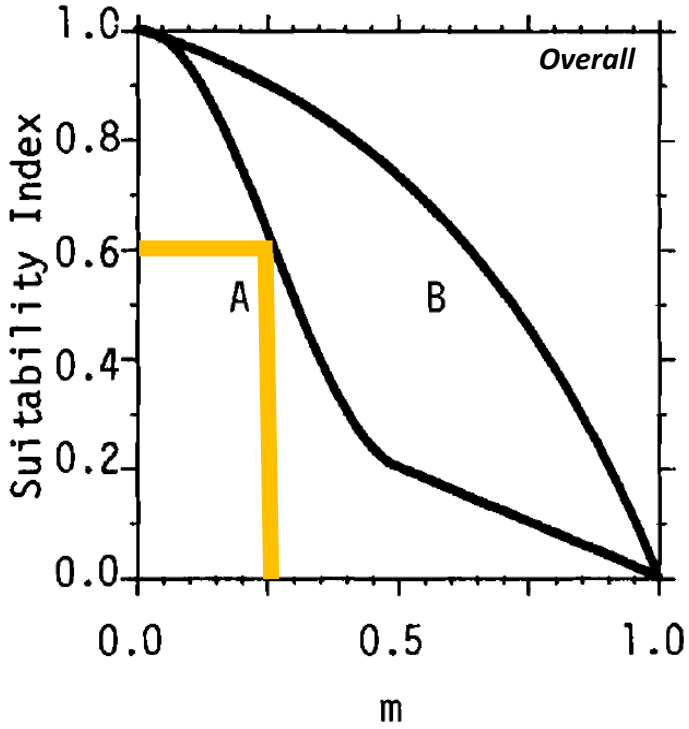
Lake Elevation from May 6 through June 29, 2022

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Notes:

SI is calculated for both stages below; whichever of the two stages yields the lowest SI is used as the overall score for Variable 2

A. Embryo and early fry stages (until yolk sac is absorbed)

B. Fry stage, after yolk sac is absorbed

Legend

- suitability index for embryo and early fry stage based on 2022 data
- suitability index for fry stage based on 2022 data
- overall suitability index based on 2022 data, using embryo and early fry stage

FIGURE 2E.7

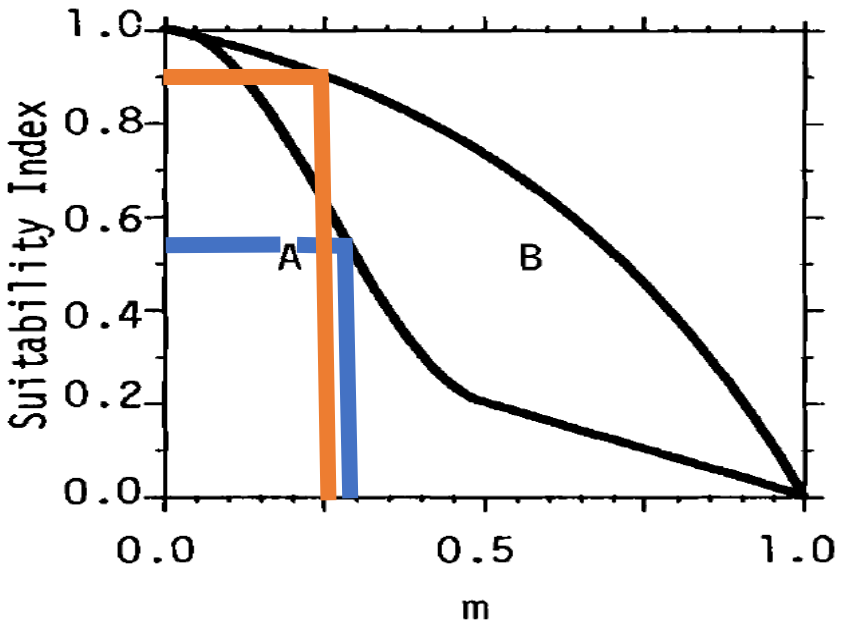
Honeywell

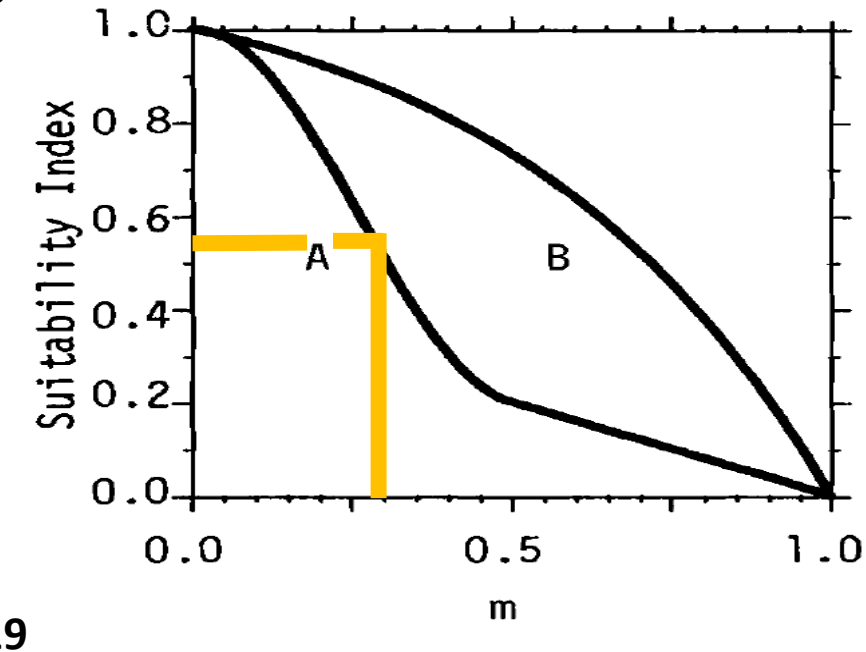
Onondaga Lake
Syracuse, New York

Variable 2: Water Level Fluctuation (Lacustrine HSI Model for Northern Pike, Inskip 1982)

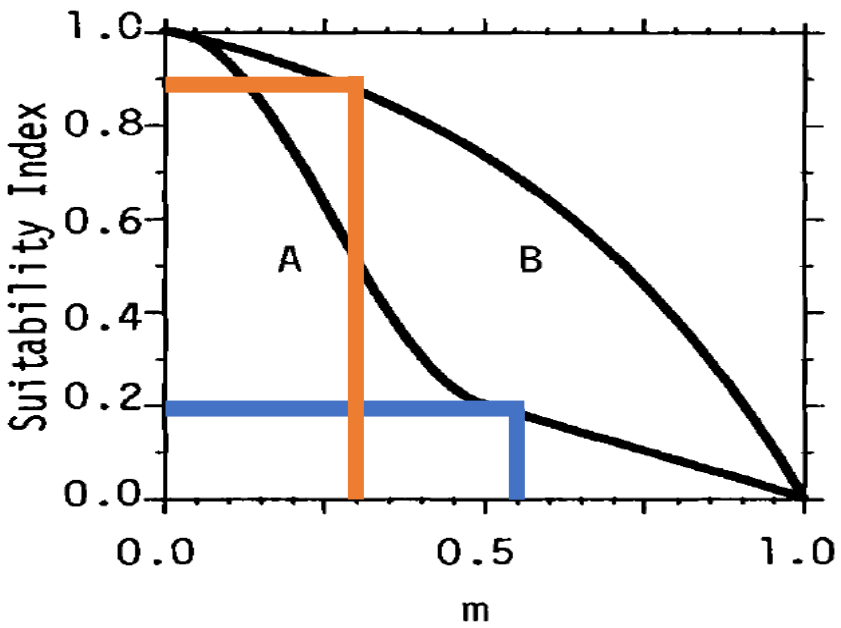
PARSONS
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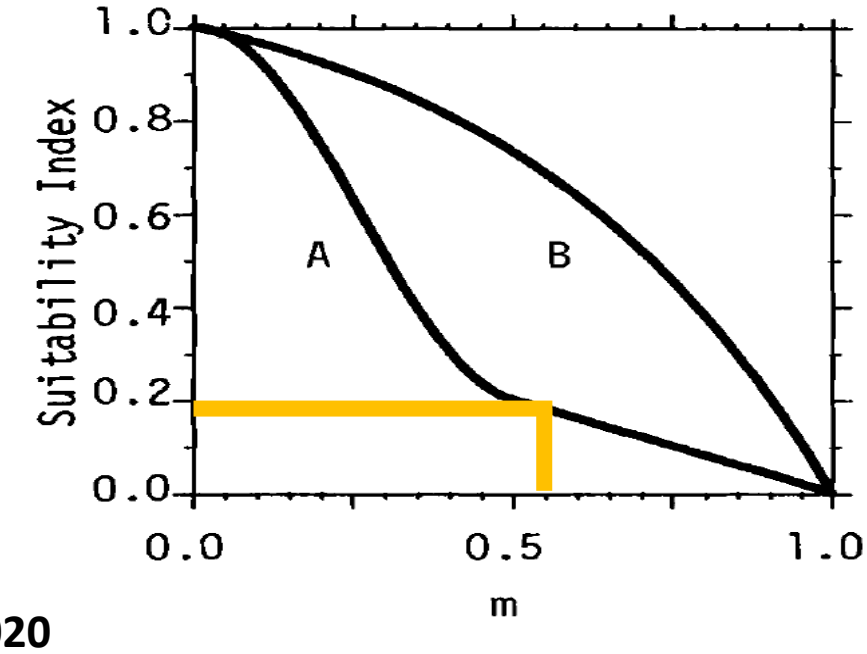
2018



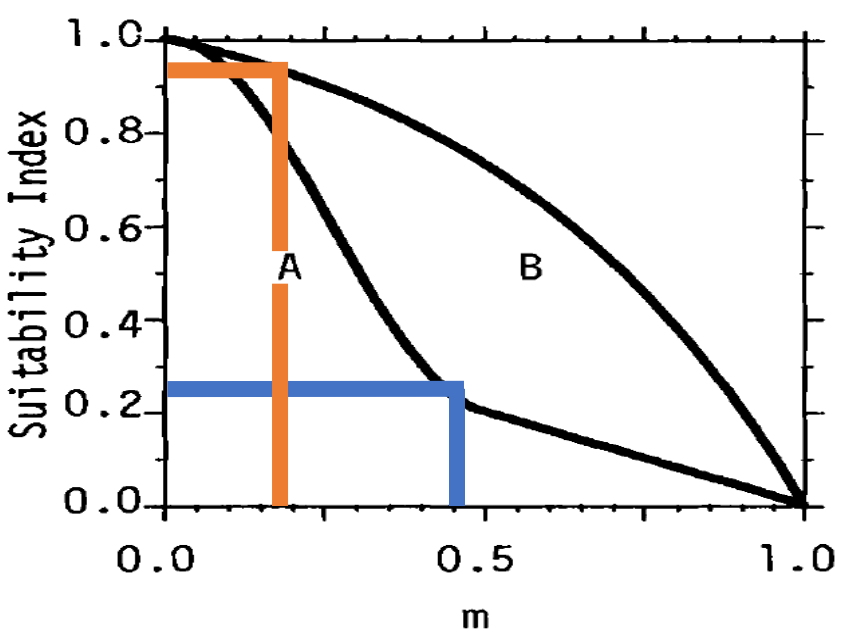


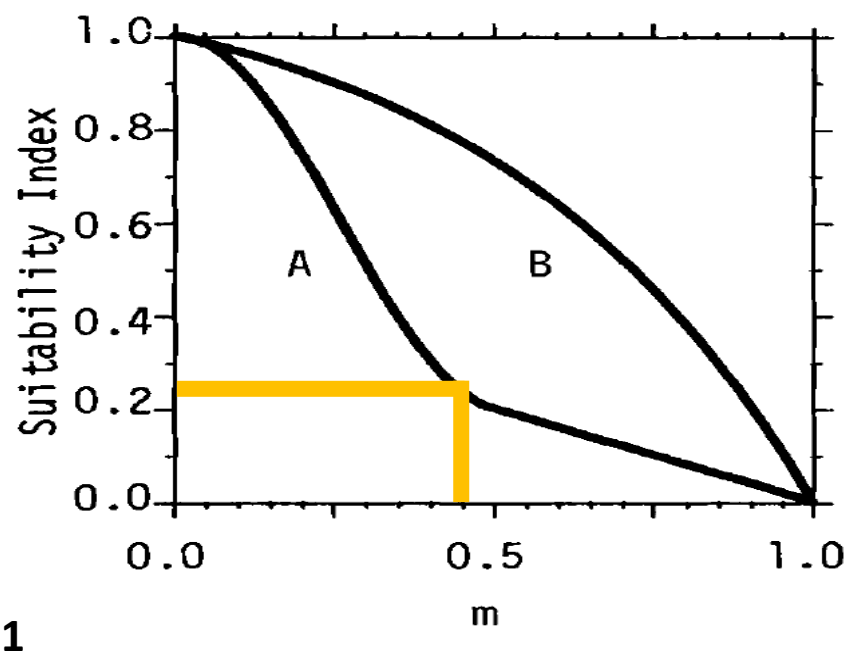
2019



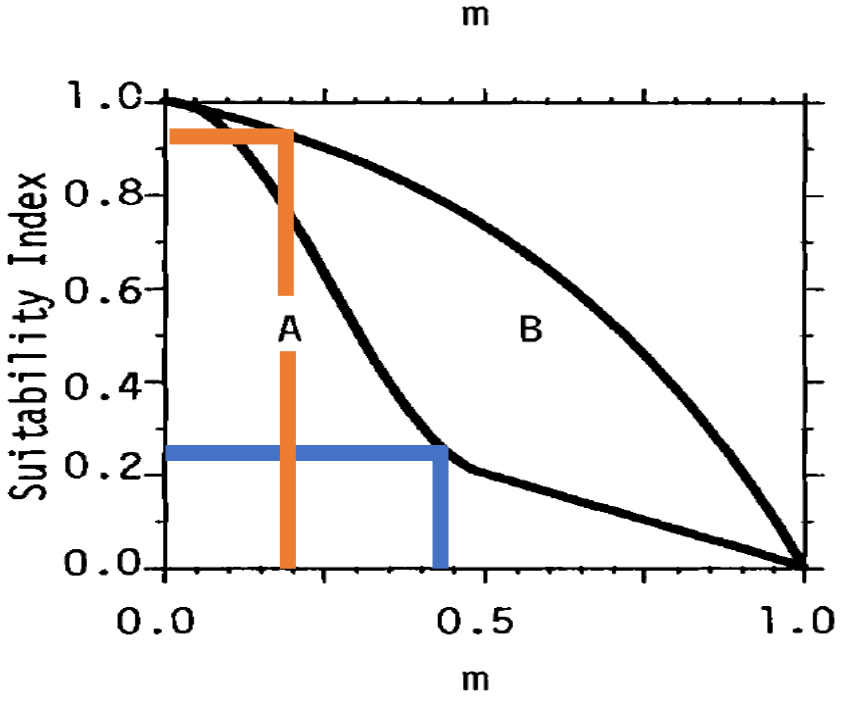


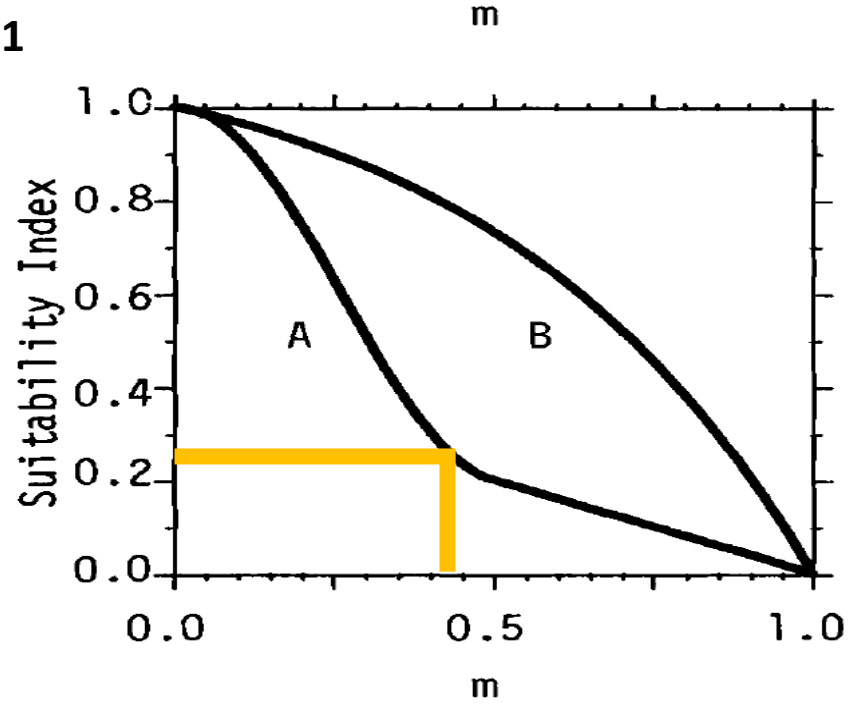
2020





2021





Legend

- suitability index for embryo and early fry stage
- suitability index for fry stage
- overall suitability index

Notes:

SI Is calculated for both stages below; whichever of the two stages yields the lowest SI is used as the overall score for Variable 2.

A. Embryo and early fry stages (until yolk sac is absorbed)
B. Fry stage, after yolk sac is absorbed

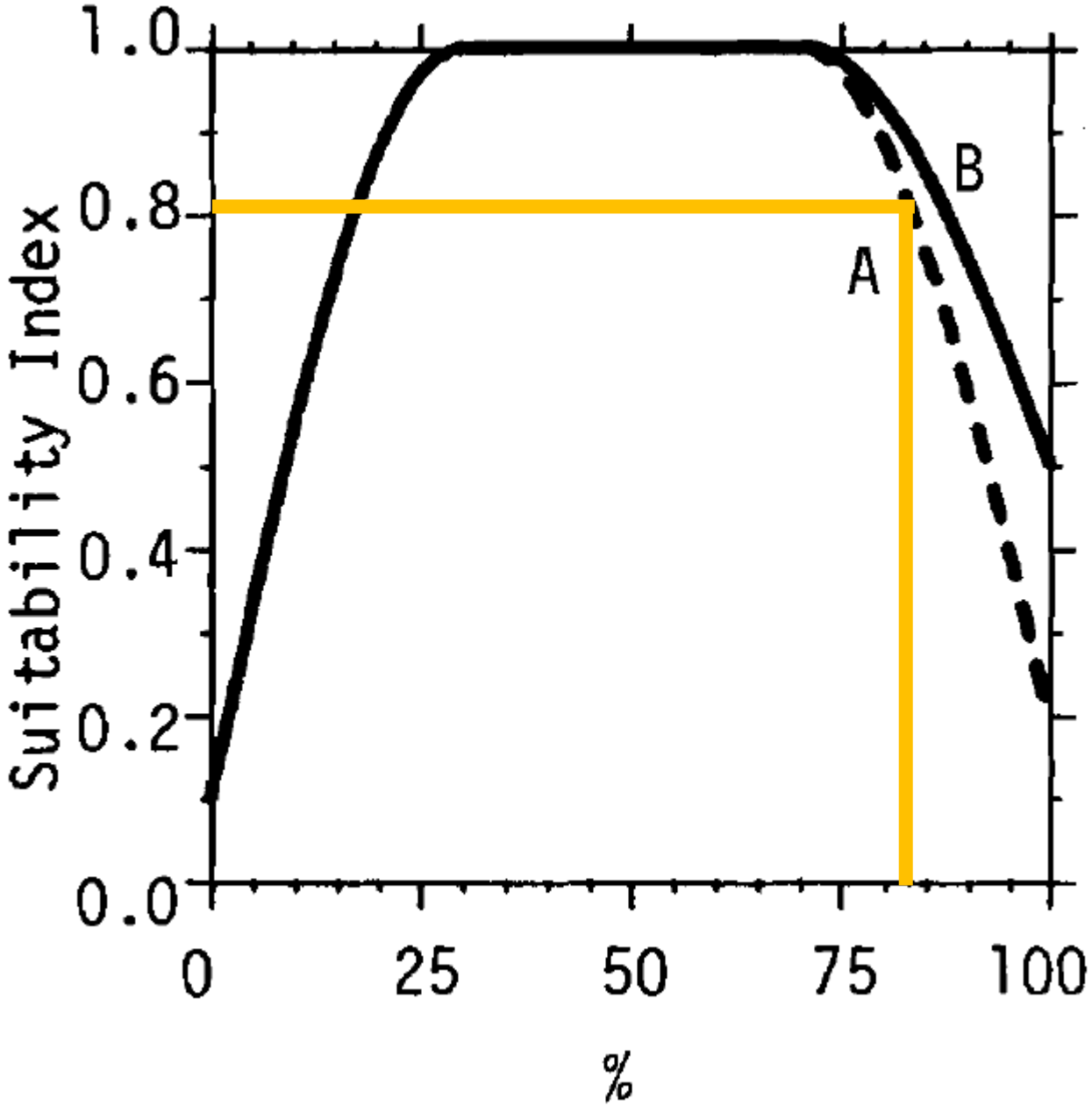
FIGURE 2E.8

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Onondaga Lake
Syracuse, New York

Variable 2: Water Level Fluctuation from 2018 - 2021 (Lacustrine HSI Model for Northern Pike, Inskip 1982)

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Notes:

Depth categories defined as:

A. Maximum depth less than 3 meters and lake is ice covered for more than 2 months.

B. Maximum depths greater than 3 meters or lake is ice covered for less than 2 months, or both.

Legend

suitability index based on 2022 data, using Curve A selected based on depth and ice cover of Outboard Harbor Brook area

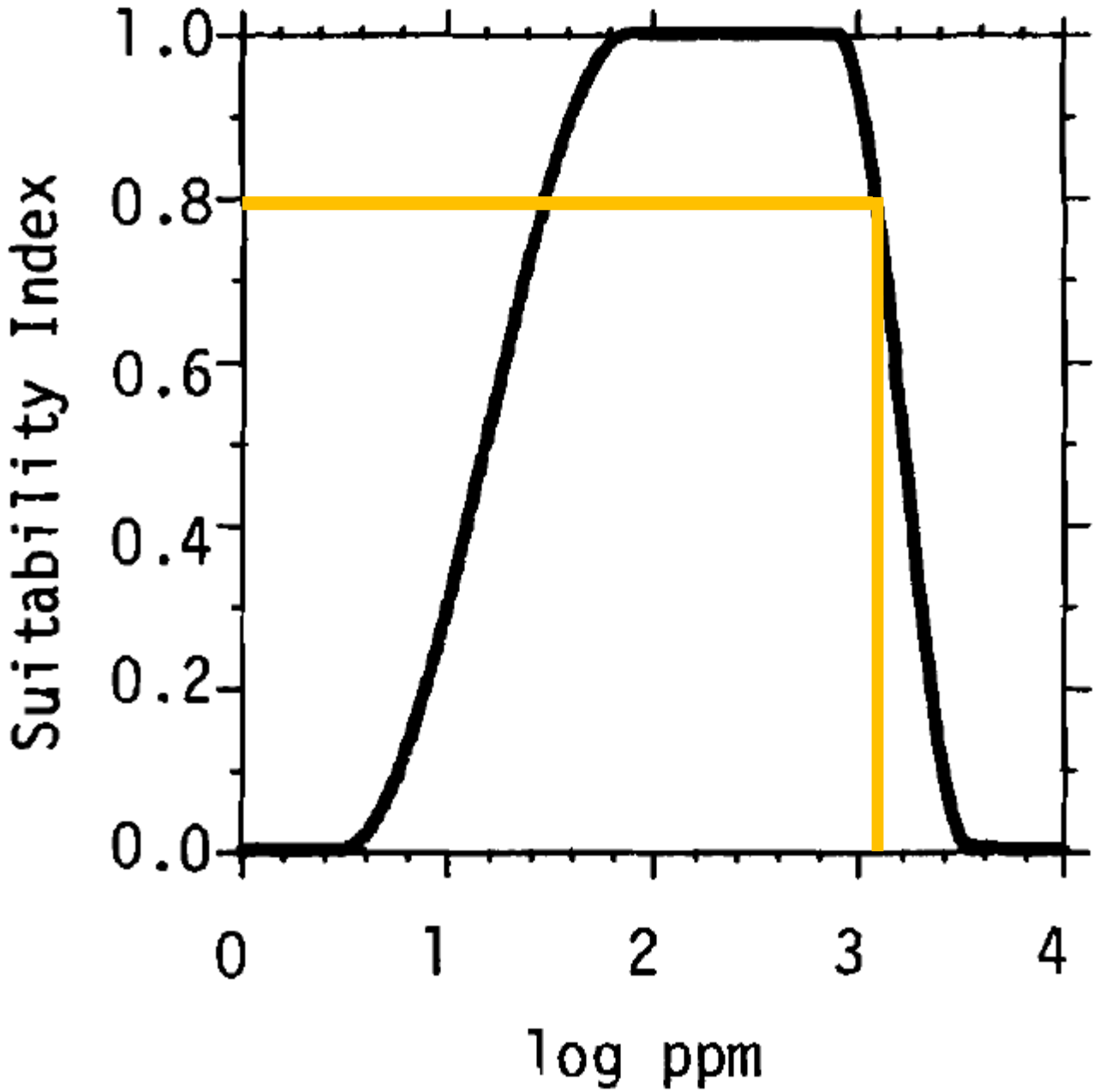
FIGURE 2E.9

Honeywell

Onondaga Lake
Syracuse, New York

Variable 3: Midsummer Vegetation (Lacustrine HSI Model for Northern Pike, Inskip 1982)

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Legend

suitability index based on 2022 data

FIGURE 2E.10

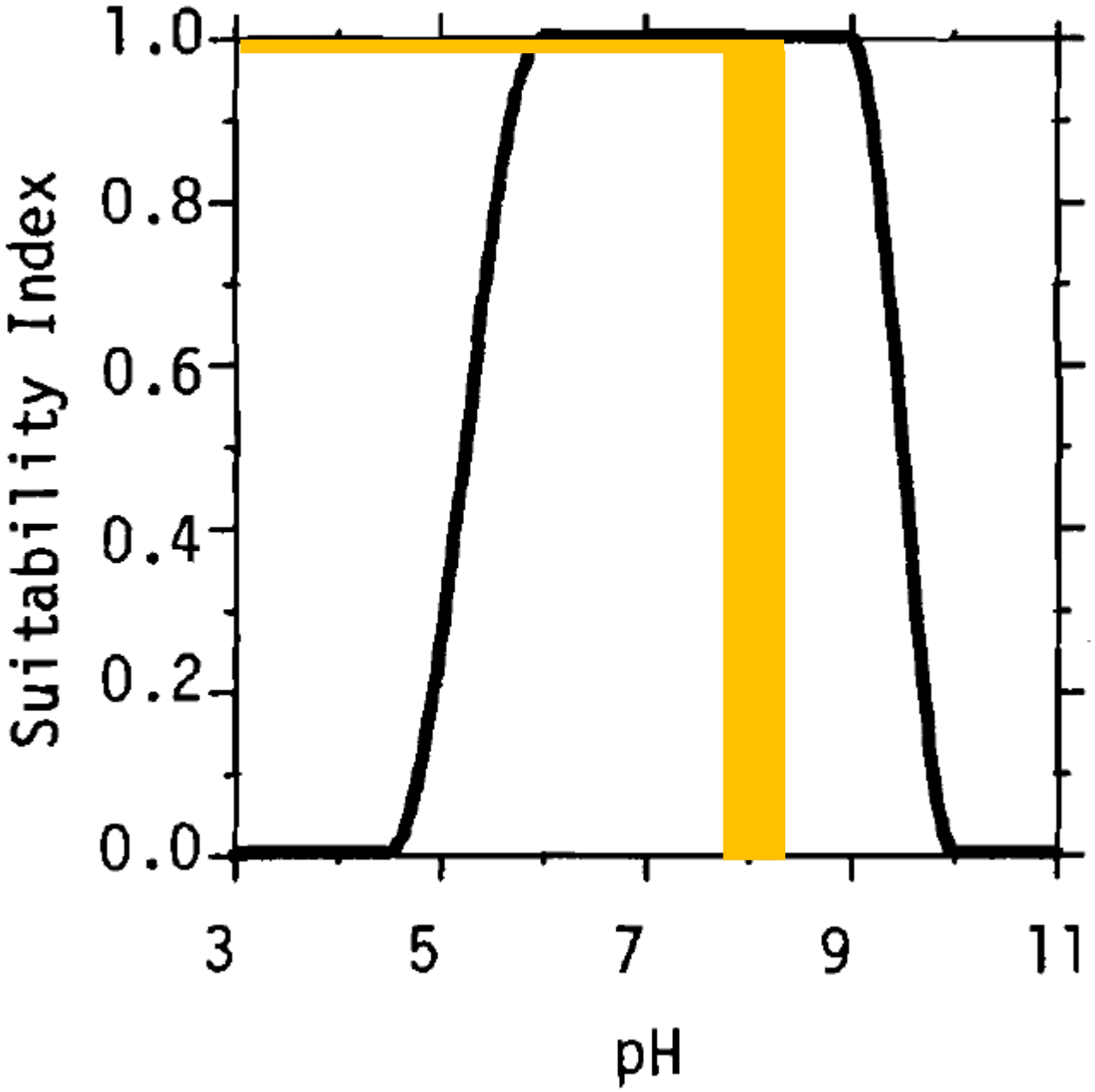
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Onondaga Lake
Syracuse, New York

Variable 4: Total Dissolved Solids (Lacustrine HSI Model for Northern Pike, Inskip 1982)

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Legend

suitability index based on 2022 data

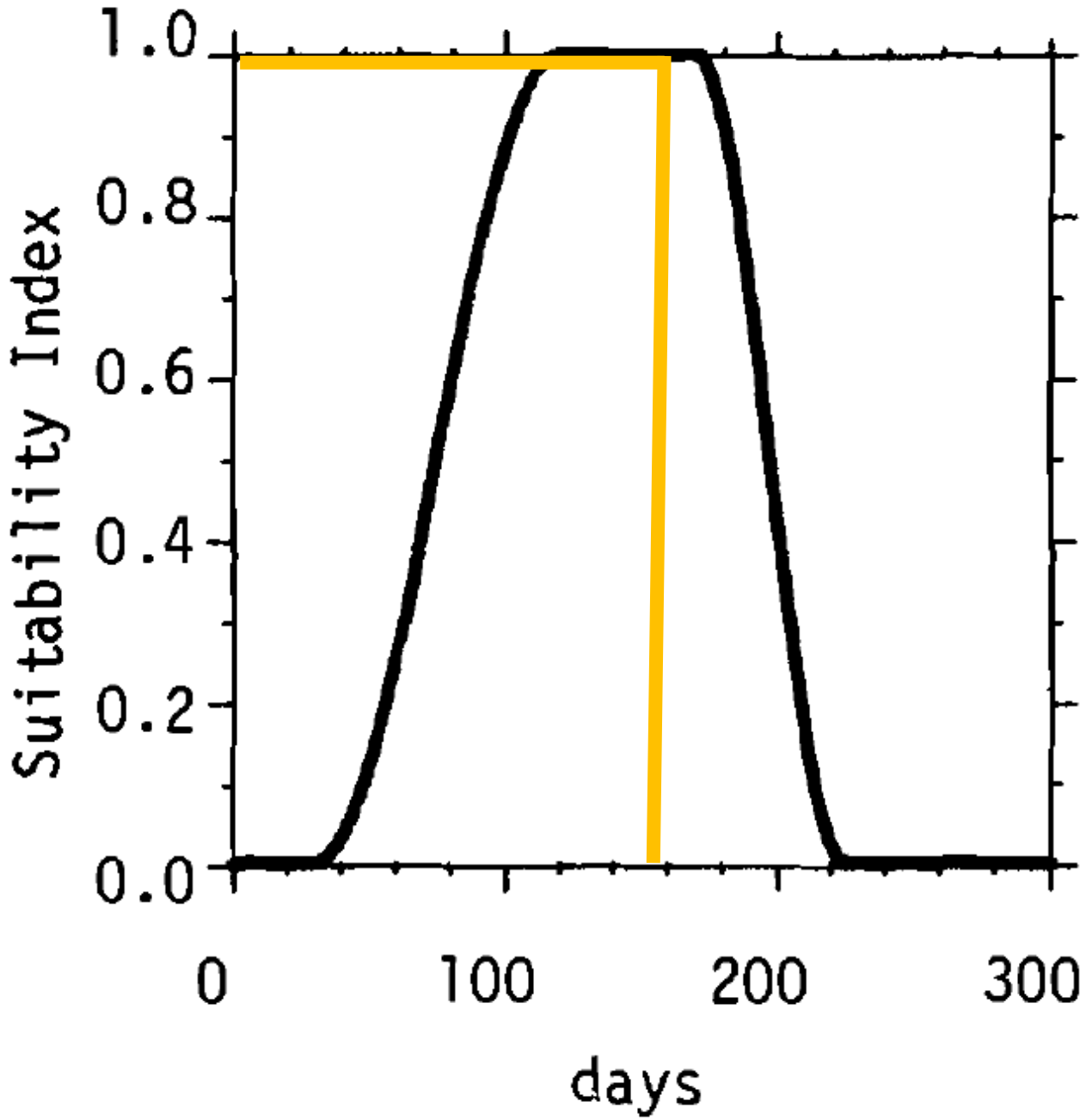
FIGURE 2E.11

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Onondaga Lake
Syracuse, New York

Variable 5: pH (Lacustrine HSI Model for Northern Pike, Inskip 1982)

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Legend

suitability index based on typical frost-free season in Syracuse, NY

FIGURE 2E.12

Honeywell

Onondaga Lake
Syracuse, New York

Variable 6: Frost-free Season (Lacustrine HSI Model for Northern Pike, Inskip 1982)

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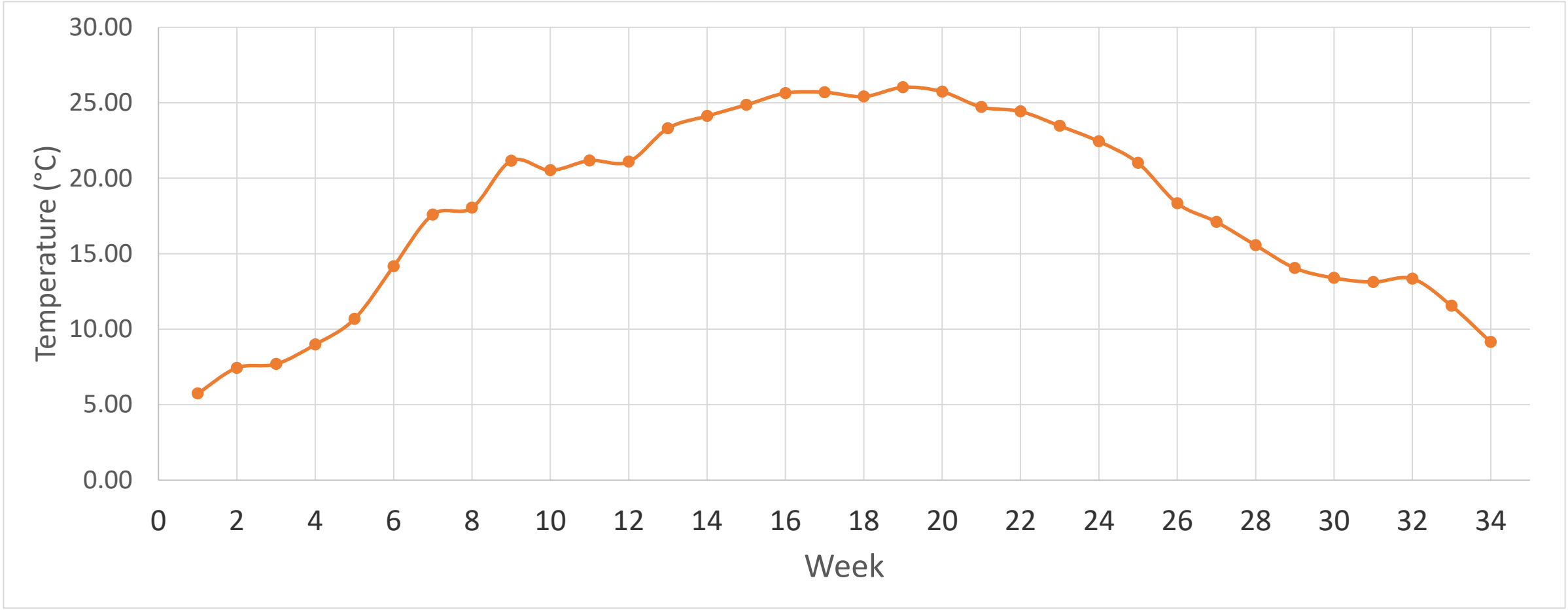


FIGURE 2E.13

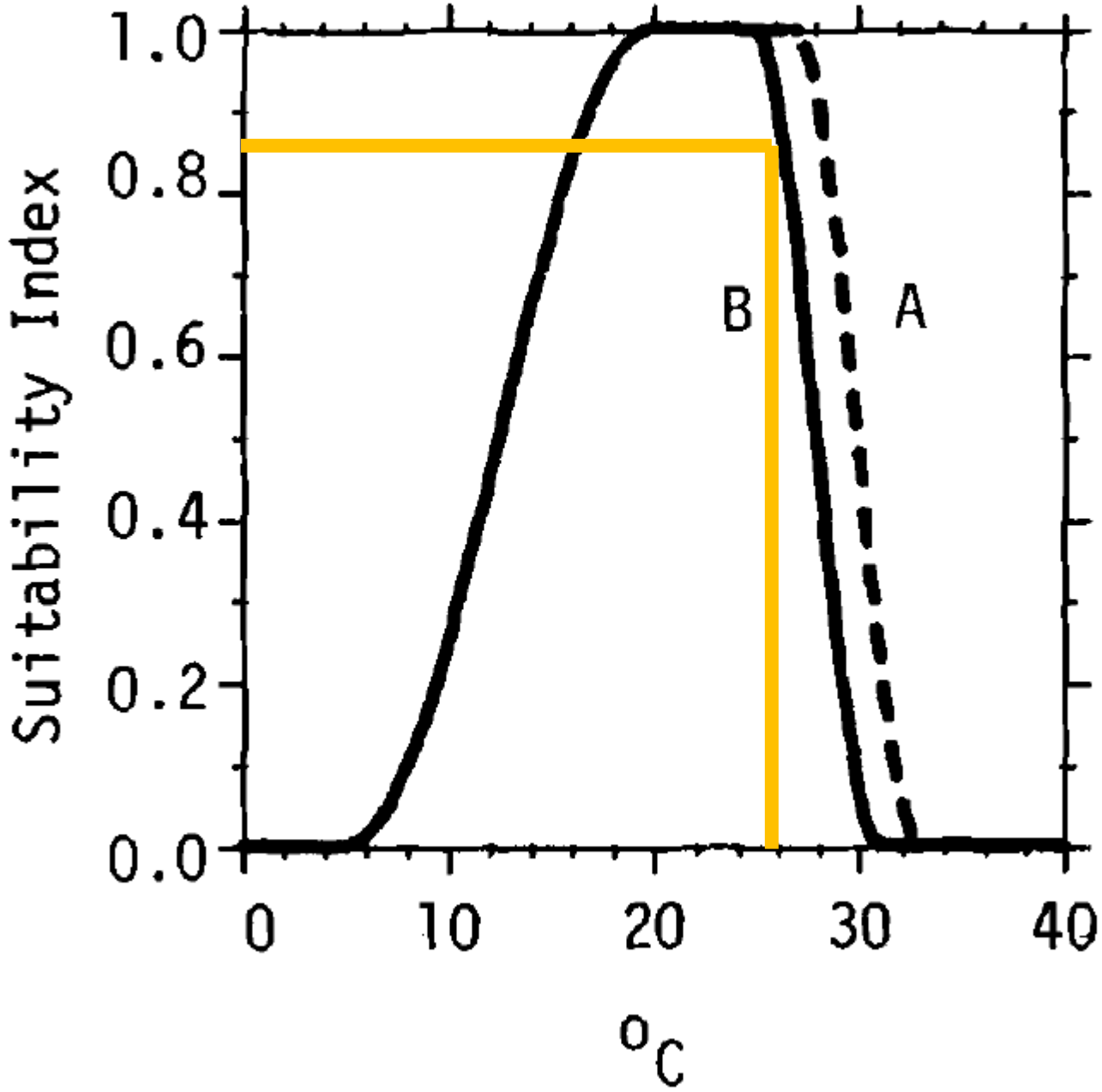
Honeywell

Onondaga Lake
Syracuse, New York

2022 Weekly Average Surface Water Temperatures
Collected at South Deep

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Notes:

Curve is selected based on the following categories:

A. Stratified lake with >1.5 ppm dissolved oxygen in the metalimnion
B. River, stream, unstratified lake, or stratified lake with <1.5 ppm dissolved oxygen in the metalimnion

Legend

suitability index based on 2022 data. Curve B selected based on lake conditions

FIGURE 2E.14

Honeywell

Onondaga Lake
Syracuse, New York

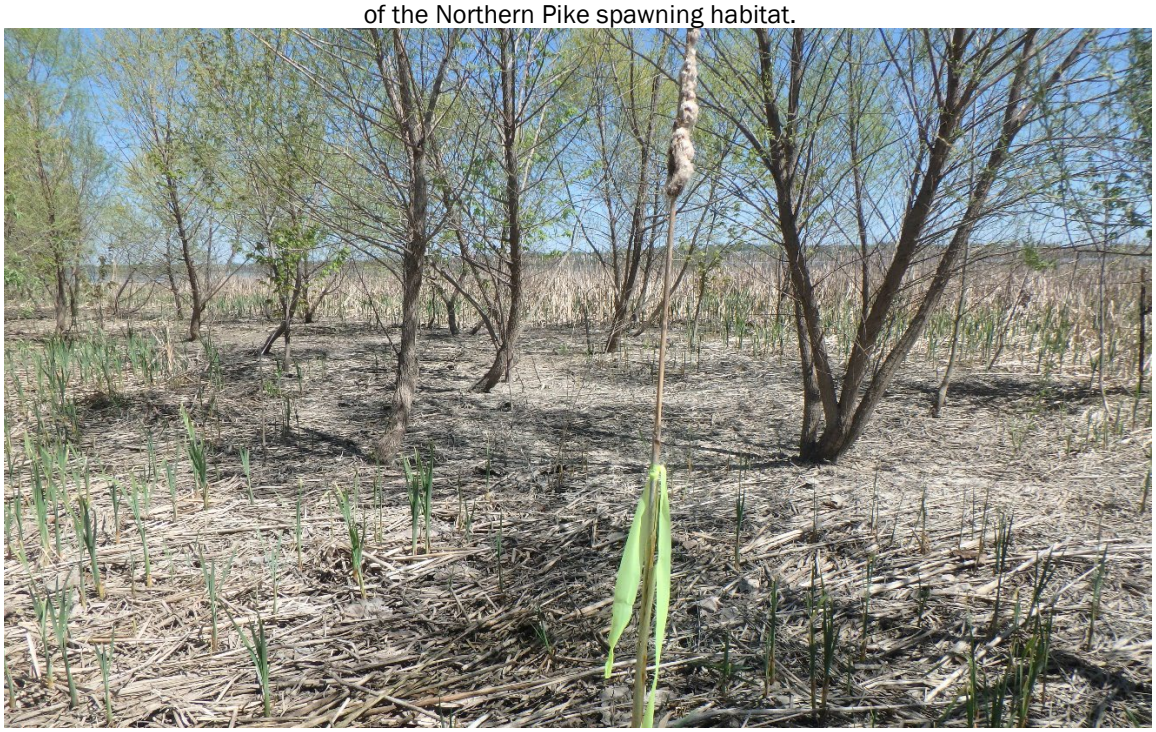
Variable 7: Temperature (Lacustrine HSI Model for Northern Pike, Inskip 1982)

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APPENDIX 2E.A 2022 SPRING VEGETATION SURVEY WASTEBED B/HARBOR BROOK OUTBOARD AREA PHOTOGRAPHIC LOG



Photograph 1 – Looking east. The yellow ribbon marks the seasonally inundated shoreward boundary of the Northern Pike spawning habitat.



Photograph 2 – Looking northeast at the Northern Pike spawning habitat. Broadleaf cattail (*Typha latifolia*) and black willow (*Salix nigra*) are common.



Photograph 3 – Looking north at extremely dense broadleaf cattail extending from the shoreward boundary to the lakeward boundary of the Northern Pike spawning habitat.



Photograph 4 – Looking west from the lakeward boundary of the Northern Pike spawning habitat. The shoreward portion is dominated by black willow and the lakeward portion is dominated by broadleaf cattail.



Photograph 5 – Looking northwest from the lakeward boundary of the Northern Pike spawning habitat. The lakeward portion is dominated by softstem bulrush (*Schoenoplectus tabernaemontani*), and the shoreward portion is dominated by broadleaf cattail.



Photograph 6 – Looking southwest from the lakeward boundary of the Northern Pike spawning habitat. The lakeward portion is dominated by pickerelweed (*Pontederia cordata*) and the shoreward portion is dominated by broadleaf cattail and black willow.



Photograph 7 – Looking southwest from the lakeward boundary of the Northern Pike spawning habitat. The shoreward portion is dominated by dense broadleaf cattail and the lakeward portion is dominated by softstem bullrush and pickerelweed.



Photograph 8 – Looking southwest from the lakeward boundary of the Northern Pike spawning habitat. The shoreward portion is dominated by extremely dense broadleaf cattail and the lakeward portion is dominated by floating aquatic and emergent vegetation.



Photograph 9 –Looking southwest from the lakeward boundary of the Northern Pike spawning habitat. The shoreward portion is dominated by dense broadleaf cattail and the lakeward portion is dominated by softstem bulrush and pickerelweed.



Photograph 10 – Looking northeast at broadleaf cattail along the Harbor Brook channel. The yellow ribbon shows the shoreward boundary of the Northern Pike spawning habitat.



Photograph 11 – Looking southwest from the lakeward boundary of the Northern Pike spawning habitat. The shoreward portion is dominated by black willow broadleaf cattail. The lakeward portion is dominated by dormant stems of pickerelweed.

APPENDIX 3A - DATA USABILITY AND SUMMARY REPORT: ONONDAGA LAKE 2022 TISSUE MONITORING

APPENDIX 3A:

DATA USABILITY SUMMARY REPORT

2022 ONONDAGA LAKE TISSUE MONITORING ONONDAGA COUNTY, NEW YORK

Prepared For:

Honeywell

301 Plainfield Road, Suite 330
Syracuse, New York 13212

Prepared By:

PARSONS

301 Plainfield Road, Suite 350
Syracuse, New York 13212

MAY 2023 (REVISED DECEMBER 2025)

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LIST OF ATTACHMENTS

Attachment A Validated Laboratory Data
Attachment A-1 Validated Laboratory Data for Fish Samples
Attachment A-2 Validated Laboratory Data for Zooplankton Samples
Attachment B LCS SRM and Duplicate Results
Attachment C Supplemental QC Summary Results

SECTION 3A1 DATA USABILITY SUMMARY

Fish and zooplankton samples were collected as part of the 2022 tissue monitoring efforts at Onondaga Lake from April 8, 2022 through November 15, 2022. Analytical results from these samples were validated and reviewed by Parsons for usability with respect to the following requirements:

- Work Plan
- QAPP
- USEPA Region II Standard Operating Procedures (SOPs) for organic and inorganic data review

The fish samples were collected by Parsons and the zooplankton samples were collected by Upstate Freshwater Institute (UFI).

The analytical laboratories for this project were SGS – Dayton and SGS – Wilmington (SGS) for the fish samples and Eurofins – Lancaster and Eurofins – Frontier (Eurofins) for the zooplankton samples. These laboratories are certified by the State of New York to conduct laboratory analyses for this project through the National Environmental Laboratory Accreditation Conference (NELAC) and New York Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP).

3A1.1 Laboratory Data Packages

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 9 to 35 days for the project samples.

The data packages received from the laboratories were paginated, complete, and overall were of good quality. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report which is summarized in Section 2.

3A1.2 Sampling and Chain-of-Custody

The project samples were collected, shipped under a COC record, and received at the laboratory within one day of sampling. All samples were received intact and in good condition at Eurofins and SGS.

3A1.3 Laboratory Analytical Methods

The fish samples were collected from the site and analyzed for hexachlorobenzene, 4,4'-DDT and metabolites, polychlorinated biphenyls (PCBs), dioxins and furans, mercury, percent lipids, and/or percent moisture. The zooplankton samples were collected from the site and analyzed for low level mercury and methyl mercury. Summaries of deviations from the Work Plan, QAPP, or USEPA Region II SOPs concerning these laboratory analyses are presented in Subsections 3A1.3.1 through 3A1.3.5. The data qualifications resulting from the data validation review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) are discussed for each analytical method by matrix in Section 2. The laboratory data were reviewed and may be qualified with the following validation flags:

"U" - not detected at the value given

"UJ" - estimated and not detected at the value given

"J" - estimated at the value given
"J+" - estimated biased high at the value given
"J-" - estimated biased low at the value given
"N" - presumptive evidence at the value given
"R" - unusable value

The validated laboratory data were tabulated and are presented in Attachment A.

3A1.3.1 Mercury and Methyl Mercury Analysis

Fish samples collected from the site were analyzed for mercury using the USEPA SW846 7471B analytical method. Zooplankton samples collected from the site were analyzed for low level mercury using the USEPA 1631E analytical method; and methyl mercury using the USEPA 1630 analytical method. Certain reported results for these samples were considered estimated based upon instrument calibrations, laboratory control sample (LCS) recoveries, and matrix spike/matrix spike duplicate (MS/MSD) recoveries; and qualified as not detected based upon blank contamination. The reported low level mercury and methyl mercury analytical results were considered 100% complete (i.e., usable) for the data presented by SGS and Eurofins. PARCCS requirements were met.

3A1.3.2 PCB Analysis

Fish samples collected from the site were analyzed for PCBs using the USEPA SW846 8082A analytical method. Certain reported results for the PCB samples were considered estimated based upon matrix spike/matrix spike duplicate (MS/MSD) recoveries, LCS standard reference material (SRM) recoveries, sample result identifications, and duplicate precision. The reported PCB analytical results were considered 100% complete with all data considered usable and valid as reported by SGS. PARCCS requirements were met.

3A1.3.3 Hexachlorobenzene, 4,4'-DDT, and Metabolites Analysis

Fish samples collected from the site were analyzed for hexachlorobenzene, 4,4'-DDT, and metabolites using the USEPA SW846 8081B analytical method. Certain reported results for these samples were qualified as estimated based upon sample surrogate recoveries, MS/MSD recoveries, LCS SRM recoveries, sample result identifications, and duplicate precision. The reported analytical results for these samples were considered 100% complete with all data considered usable and valid as reported by SGS. PARCCS requirements were met.

3A1.3.4 Dioxins and Furans Analysis

Fish samples collected from the site were analyzed for dioxins and furans using the USEPA SW846 8290A analytical method. Certain reported results for these samples were qualified as estimated based upon sample surrogate recoveries, LCS SRM recoveries, and duplicate precision; and qualified as not detected based upon blank contamination. Certain reported results for these samples were considered unusable and qualified "R" based upon poor sample surrogate recoveries and LCS SRM recoveries. The reported analytical results for these samples were considered 98% complete (i.e., usable) as reported by SGS. PARCCS requirements were met overall.

3A1.3.5 Percent Lipids and Percent Moisture

Fish samples collected from the site were analyzed for percent lipids and percent moisture using the USEPA SW-846 3550 and the ASTM D2216 analytical methods, respectively. Certain reported results for percent lipids and percent moisture were qualified as estimated based upon LCS SRM recoveries and duplicate precision. The reported analytical results for these samples were considered 100% complete (i.e., usable) as reported by SGS. PARCCS requirements were met.

SECTION 3A2 DATA VALIDATION REPORT

3A2.1 Fish Samples

Data review has been completed for data packages generated by SGS containing fish samples collected from the site. The specific samples contained in these data packages, the analyses performed, and validated laboratory data are tabulated and presented in Attachment A-1. This attachment presents the fish samples in the following sample delivery group (SDG) order to include preyfish first followed by sport fish: JD89955, B6703, JD94044, B6978, JD94533, B6929, JD95098, B6704, JD95592, B6705, JD95922, B6724, JD91626, B6737, JD96515, and B6772. All of these samples were shipped under a COC record and received intact by the analytical laboratory. A summary of fish groupings and associated SDGs are included below.

Fish Grouping Name	Fish Type	Lab SDG	
		SGS Wilmington	SGS Dayton
Prey 01	Large Prey	B6703	JD89955
Prey 02	Small Prey	B6978	JD94044
Prey 03	Small and Large Prey	B6929	JD94533
Sport 01	Sport	B6704	JD95098
Sport 02	Sport	B6705	JD95592
Sport 03	Sport	B6724	JD95922
Sport 04	Sport	B6737	JD91626
Sport 05	Sport	B6772	JD96515

Data validation was performed for all samples in accordance with the project work plan and QAPP as well as the USEPA Region II SOPs HW-36, Revision 4 "Pesticide Data Validation"; HW-37, Revision 3 "Polychlorinated Biphenyl (PCB) Aroclor Data Validation"; and HW-2c, Revision 15 "Mercury and Cyanide Data Validation." This data validation and usability report is presented by analysis type.

3A2.1.1 Mercury

The following items were reviewed for compliancy in the mercury analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration, and laboratory preparation blank contamination
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) and LCS standard reference material (SRM) recoveries
- Interference check sample recoveries

- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of MS/MSD recoveries as discussed below.

MS/MSD Recoveries

All MS/MSD recoveries were considered acceptable and within the 80-120%R QC limit for designated spiked project samples with the exception of the MS/MSD mercury recoveries associated with samples OL-3808-06F (122%R), OL-3802-07F (135.8%R), OL-3801-20F (67.3%R), OL-3807-03F (72.4%R), and OL-3815-02F (74.1%R, 74.4%R). The associated LCS recovered within criteria. Therefore, the mercury results were considered estimated and qualified "J" for the affected samples.

Usability

All mercury sample results for the fish samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The mercury data presented by SGS were 100% complete (i.e., usable). The validated mercury laboratory data are tabulated and presented in Attachment A-1.

Attachment B presents the LCS SRM recovery and duplicate precision results for mercury. A table summary of mercury QC results are provided in Attachment C.

3A2.1.2 PCBs

The following items were reviewed for compliancy in the PCB analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- MS/MSD precision and accuracy
- LCS and LCS SRM recoveries
- Laboratory method blank contamination
- Initial calibrations
- Verification calibrations
- Chromatogram quality
- Sample result verification and identification
- Duplicate precision
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of surrogate recoveries, MS/MSD precision and accuracy, LCS SRM recoveries, sample result identifications, and duplicate precision as discussed below.

Surrogate Recoveries

All sample surrogate recoveries were considered acceptable and within QC limits with the exception of the low surrogate recoveries for tetrachloro-m-xylenes (QC limit 42-159%R) in samples OL-3814-02F (35%R, 38%R), -03F (41%R), OL-3815-01F (40%R), and -03F (35%R, 37%R). Validation qualification was not required for the affected samples.

MS/MSD Precision and Accuracy

All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable and within the 70-130%R QAPP QC limit for designated spiked project samples with the exception of the following:

1. For sample group Prey-01, a high MS accuracy result was noted for PCB-1254 (140%R) during the spiked analyses of sample OL-3800-12. Validation qualification was not required for the affected parent sample.
2. For sample group Prey-02, low MS/MSD accuracy results were noted for PCB-1254 (39%R/41%R) during the spiked analyses of sample OL-3822-03. Therefore, the PCB-1254 result was considered estimated and qualified "J" for the affected parent sample.
3. For sample group Prey-03, low MS/MSD accuracy results were noted for PCB-1254 (37%R/52%R) during the spiked analyses of sample OL-3824-01. Therefore, the PCB-1254 result was considered estimated and qualified "J" for the affected parent sample.
4. For sample group Sport-01, low MS/MSD accuracy results were noted for PCB-1254 (43%R/11%R) during the spiked analyses of sample OL-3803-04F. Therefore, the PCB-1254 result was considered estimated and qualified "J" for the affected parent sample.
5. For sample group Sport-03, low MS/MSD accuracy results were noted for PCB-1254 (62%R/42%R) during the spiked analyses of sample OL-3807-03F. Therefore, the PCB-1254 result was considered estimated and qualified "J" for the affected parent sample.
6. For sample group Sport-04, low MS/MSD accuracy results were noted for PCB-1254 (56%R/55%R) during the spiked analyses of sample OL-3808-06F. Therefore, the PCB-1254 result was considered estimated and qualified "J" for the affected parent sample
7. For sample group Sport-05, a low MSD accuracy result was noted for PCB-1254 (53%R) during the spiked analyses of sample OL-3815-02F. Validation qualification was not required for the affected parent sample.

It is worth noting that the standard spiking compound used for the PCB MS and MSD at SGS Dayton is a mixture of Aroclor 1016 and 1260. Aroclor 1016 is rarely detected in Onondaga Lake fish tissue samples, resulting in high MS/MSD recoveries for Aroclor 1016. Aroclor 1260, while detected frequently in Onondaga Lake fish tissue samples, was being spiked at a concentration too low relative to the sample concentration. As a result, the laboratory has changed their procedure for Onondaga Lake fish, and samples are now spiked with a higher concentration of Aroclor 1254, which is detected more frequently in Onondaga Lake fish.

LCS SRM Recoveries

All LCS SRM recoveries were considered acceptable and within the 70-130%R QC limit with the exception of the low LCS SRM recoveries for total PCBs associated with samples in SDG JD95098 (62.6%R). Therefore, all results were considered estimated, possibly biased low, with positive results qualified "J-" and nondetected results qualified "UJ" for the affected samples.

Sample Result Identifications

All positive PCB sample results were within retention time windows and verified present using secondary column confirmation. The precision (%RPD) between the PCB results on the quantitation and confirmation columns were less than 40% with the exception of PCB-1248 in samples OL-3802-09F (68.8%RPD) and OL-3801-05F

(44.8%RPD); PCB-1254 in samples OL-3822-07 (50%RPD), -12 (55.7%RPD), -13 (60.3%RPD), -14 (40.8%RPD), -15 (63.4%RPD), -16 (60.5%RPD), -20 (57.4%RPD), OL-3823-01 (88.9%RPD), OL-3801-18F (48.4%RPD), OL-3807-04F (115.6%RPD), OL-3808-08F (91.4%RPD), and OL-3816-06F (55.3%RPD); PCB-1260 in sample OL-3803-05F (41.5%RPD); and total PCBs in samples OL-3800-09 (52.5%RPD), OL-3822-07 (50%RPD), -12 (45.6%RPD), -13 (60.3%RPD), -14 (40.8%RPD), -15 (63.4%RPD), -16 (47.2%RPD), OL-3802-10F (50.7%RPD, OL-3803-05F (41.5%RPD), OL-3811-04F (46.9%RPD), and OL-3816-06F (55.3%RPD). The results for these compounds were considered estimated and qualified "J" for the affected samples. Results for those compounds where precision exceeded 90%RPD were considered estimated, tentatively identified, and qualified "JN" for the affected samples.

Duplicate Precision

All duplicate precision results were considered acceptable with the exception of the precision results for PCB-1254, PCB-1260, and total PCBs associated with sample OL-3822-03 and its duplicate OL-3822-03-DUP; PCB-PCB-1248, PCB-1254, PCB-1260, and total PCBs associated with sample OL-3824-01 and its duplicate OL-3824-01-DUP; PCB-1254, PCB-1260, and total PCBs associated with sample OL-3807-03F and its duplicate OL-3807-03F-DUP; and PCB-1248, PCB-1254, PCB-1260, and total PCBs associated with sample OL-3815-02F and its duplicate OL-3815-02F-DUP. Therefore, the results for these compounds were considered estimated and qualified "J" for the affected parent samples.

Usability

All PCB sample results for the fish samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The PCB data presented by SGS were 100% complete with all data considered usable and valid. The validated data are tabulated and presented in Attachment A-1.

Attachment B presents the LCS SRM recovery and duplicate precision results for PCBs. A table summary of PCB QC results are provided in Attachment C.

3A2.1.3 Hexachlorobenzene, 4,4'-DDT, and Metabolites

The following items were reviewed for compliancy in the hexachlorobenzene, 4,4'-DDT, and metabolites analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- MS/MSD precision and accuracy
- LCS and LCS SRM recoveries
- Laboratory method blank contamination
- Initial calibrations
- Verification calibrations
- 4,4'-DDT breakdown
- Chromatogram quality
- Sample result verification and identification
- Duplicate precision

- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exceptions of surrogate recoveries, MS/MSD precision and accuracy, LCS SRM recoveries, verification calibrations, sample result identifications, and duplicate precision as discussed below.

Surrogate Recoveries

All sample surrogate recoveries were considered acceptable and within QC limits with the exception of the surrogate recoveries for decachlorobiphenyl (QC limit 29-163%R) in samples OL-3811-05F (178%R, 219%R), OL-3822-02 (28%R), -08 (28%R), -09 (27%R), and -20 (27%R); and tetrachloro-m-xylene (QC limit 46-145%R) in samples OL-3809-05F (45%R), -06F (43%R, 42%R), OL-3822-09 (45%R), -20 (45%R), OL-3807-04F (45%R), and OL-3815-03F (42%R). Validation qualification was not required for the affected samples with the exception of OL-3822-09 and -20. The 4,4'-DDD and 4,4'-DDT sample results were considered estimated, possibly biased low, with positive results qualified "J-" and nondetected results qualified "UJ" for these affected samples.

MS/MSD Precision and Accuracy

All MS/MSD precision and accuracy measurements for spiked compounds were considered acceptable and within the QAPP 70-130%R QC limit for designated spiked project samples with the exception of the high MS/MSD accuracy result for 4,4'-DDT (231%R/260%R) during the spiked analyses of sample OL-3800-12; the low MS/MSD accuracy results for 4,4'-DDE (-4%R/17%R) and the high MS/MSD accuracy results for 4,4'-DDT (233%R/264%R) during the spiked analyses of sample OL-3824-01; the low MS/MSD accuracy results for hexachlorobenzene (61%R/61%R) during the spiked analyses of sample OL-3803-04F; the low MS/MSD accuracy results for hexachlorobenzene (53%R/58%R) during the spiked analyses of sample OL-3801-20F; the low MS/MSD accuracy results for hexachlorobenzene (53%R/66%R) during the spiked analyses of sample OL-3807-03F; and the low MS/MSD accuracy results for hexachlorobenzene (49%R/66%R) during the spiked analyses of sample OL-3815-02F. Therefore, results for these compounds were considered estimated and qualified "J" for the affected parent samples.

LCS SRM Recoveries

All LCS SRM recoveries were considered acceptable and within the 70-130%R QC limit with the exception of the low LCS SRM recoveries for hexchlorobenzene (62.8%R) and 4,4'-DDD (67.5%R) associated with samples in SDG JD89955. Therefore, results for these compounds were considered estimated, possibly biased low, with positive results qualified "J-" and nondetected results qualified "UJ" for the affected samples.

Verification Calibrations

For pesticide analysis, the lab chooses results from either the primary or secondary column to report based upon QC results and column performance. Either column can be used to quantitate results, depending on performance. All continuing calibration verifications were considered acceptable with percent differences (%Ds) within ±20% with the exception of 4,4'-DDE on the first column in the continuing calibration associated with samples OL-3822-01, -02, -04 through -07, and -17; 4,4'-DDE on the second column in the continuing calibration associated with samples OL-3800-04, -06, and -12; and 4,4'-DDT on the first column in the continuing calibration associated with samples OL-3800-01, -02, -05, and -07. Validation qualification was not required for the affected samples since results for these compounds were reported from the alternate column.

Sample Result Identifications

All positive pesticide sample results were within retention time windows and verified present using secondary column confirmation. The precision (%RPD) between the pesticide results on the quantitation and confirmation

columns were less than 40% with the exception of hexachlorobenzene in samples OL-3800-01, -03, OL-3813-01, OL-3823-01, OL-3801-05F, OL-3812-03F, OL-3814-01F, and OL-3815-01F; 4,4'-DDD in samples OL-3800-01, OL-3822-02, -04, -12, -16, OL-3821-01, and OL-3823-03; and 4,4'-DDT in all samples in SDGs JD89955, JD94044, and JD94533. Therefore, the results for these compounds were considered estimated and qualified "J" for the affected samples.

It was noted that the precision between the quantitation and confirmation columns exceeded 90% for hexachlorobenzene in sample OL-3814-01F; and 4,4'-DDT in all samples in SDGs JD89955, JD94044, and JD94533 except OL-3800-09. Therefore, the results for these compounds were considered estimated, tentatively identified, and qualified "JN" for the affected samples.

Duplicate Precision

All duplicate precision results were considered acceptable with the exception of the precision results for 4,4'-DDT associated with sample OL-3800-12 and its duplicate OL-3800-12-DUP; 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT associated with sample OL-3824-01 and its duplicate OL-3824-01-DUP; and hexachlorobenzene associated with sample OL-3807-03F and its duplicate OL-3807-03F-DUP. Therefore, the results for these compounds were considered estimated and qualified "J" for the affected parent samples.

Usability

All hexachlorobenzene, 4,4'-DDT, and metabolite sample results for the fish samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The hexachlorobenzene, 4,4'-DDT, and metabolite data presented by SGS were 100% complete with all data considered usable and valid. The validated data are tabulated and presented in Attachment A-1.

Attachment B presents the LCS SRM recovery and duplicate precision results for hexachlorobenzene, 4,4'-DDT, and metabolites.

3A2.1.4 Dioxins and Furans

The following items were reviewed for compliancy in the dioxin and furan analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- MS/MSD precision and accuracy
- LCS and LCS SRM recoveries
- Laboratory method blank contamination
- Initial calibrations
- Verification calibrations
- Internal standard recoveries
- Chromatogram quality
- Sample result verification and identification
- Duplicate precision
- Quantitation limits

- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of surrogate recoveries, LCS SRM recoveries, blank contamination, and duplicate precision as discussed below.

Surrogate Recoveries

All sample surrogate recoveries were considered acceptable and within QC limits with the exception of the low surrogate recoveries for 1,2,3,7,8,9-HxCDD, OCDD, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, and OCDF in sample OL-3802-13F; 2,3,4,6,7,8-HxCDF and 1,2,3,7,8,9-HxCDF in sample OL-3805-02F; 1,2,3,4,6,7,8-HpCDD and 1,2,3,4,6,7,8-HpCDF in sample OL-3801-07F; 1,2,3,7,8,9-HxCDF and 1,2,3,4,6,7,8-HpCDF in sample OL-3801-10F; OCDD, OCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, and 1,2,3,4,6,7,8-HpCDF in sample OL-3801-15F; and 1,2,3,7,8-PeCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,7,8,9-HxCDF, and 1,2,3,4,6,7,8-HpCDF in sample OL-3816-05F. Therefore, associated results were considered estimated, possibly biased low with positive results qualified "J-" and nondetected results qualified "UJ" for the affected samples.

It was noted that surrogates OCDD and OCDF recovered less than 10% in samples OL-3801-07F, -08F, -10F, -11F, and OL-3816-05F due to florisil clean-up. Therefore, the results for these compounds which were nondetects were considered unusable and qualified "R" for the affected samples.

LCS SRM Recoveries

All LCS SRM recoveries were considered acceptable and within the 70-130%R QC limit with the exception of the LCS SRM recoveries for 2,3,7,8-TCDD (69.2%R), 1,2,3,7,8-PeCDD (64.3%R), 1,2,3,4,6,7,8-HpCDD (160.9%R), and OCDD (742.6%R) associated with samples in SDG B6737; 1,2,3,7,8-PeCDD (68.3%R) and 1,2,3,4,7,8-HxCDD (131.9%R) associated with samples in SDG B6704; and 1,2,3,7,8-PeCDD (67.2%R), 1,2,3,4,7,8-HxCDD (207.5%R), and 1,2,3,7,8,9-HxCDD (0%R) associated with samples in SDG B6772. Therefore, positive results for those compounds where associated LCS SRM recoveries exceeded the QC limit were considered estimated, possibly biased high, and qualified "J+" for the affected samples. Results for those compounds where associated LCS SRM recoveries fell below the QC limit were considered estimated, possibly biased low, with positive results qualified "J-" and nondetected results qualified "UJ" for the affected samples. However, nondetected results for those compounds where associated LCS SRM recoveries fell below 10% were considered unusable and qualified "R" for the affected samples.

Blank Contamination

The laboratory method blank associated with samples in SDG B6737 contained 1,2,3,4,7,8-HxCDD and total HxCDD below the reporting limit at a concentration of 0.289 pg/g. Sample OL-3811-01F had comparable concentrations of these compounds. Therefore, results for these compounds were considered not detected and qualified "U" for this affected sample.

The laboratory method blank associated with samples in SDG B6704 contained 1,2,3,4,6,7,8-HpCDD below the reporting limit at a concentration of 0.133 pg/g. Validation qualification was not required for the affected samples.

Duplicate Precision

All duplicate precision results were considered acceptable and within the 30%RPD QC limit with the exception of 2,3,7,8-TCDD and total TCDD (32.9%RPD) associated with sample OL-3803-04F and its duplicate sample OL-3803-04F-DUP; and total TCDF (34.2%RPD) associated with sample OL-3814-02F and its duplicate sample OL-

3814-02F-DUP. Therefore, results for these compounds were considered estimated and qualified "J" for the affected parent sample.

Usability

All dioxin and furan sample results for the fish samples were considered usable following data validation with the exception of certain nondetected results based upon poor surrogate recoveries and LCS SRM recoveries.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The dioxin and furan data presented by SGS were 98% complete (i.e, usable). The validated data are tabulated and presented in Attachment A-1.

Attachment B presents the LCS SRM recovery and duplicate precision results for the dioxin and furan data.

3A2.1.5 Percent Lipids and Percent Moisture

The following items were reviewed for compliancy in the percent lipids and percent moisture analysis:

- Custody documentation
- Holding times
- Laboratory blank contamination
- Duplicate precision
- LCS SRM recoveries (%lipids only)
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of LCS SRM recoveries and duplicate precision as discussed below.

LCS SRM Recoveries

CARP-2 is used as the LCS SRM for percent lipids. All LCS SRM recoveries were considered acceptable and within the 70-130%R QC limit with the exception of the low LCS SRM recovery for percent lipids (58%R) associated with samples OL-3801-04F, -05F, -06F, -07F, -08F, -09F, -10F, -13F, and -14F. Therefore, the percent lipids results were considered estimated, possibly biased low, and qualified "J-" for the affected samples.

Duplicate Precision

All duplicate precision results were considered acceptable and within the 0-30%RPD QC criteria with the exception of the duplicate precision result for percent lipids associated with sample OL-3800-12 (37.4%RPD). Therefore, the percent lipids result was considered estimated and qualified "J" for the affected sample.

Usability

All percent lipids and percent moisture sample results for the fish samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The percent lipids and percent moisture data

presented by SGS were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A-1.

Attachment B presents the LCS SRM recovery results for percent lipids and duplicate precision results for percent lipids and percent moisture.

Following receipt of data, the 2022 lipid results were reviewed in detail and compared to the long-term historic dataset. A low outlier lipid result of 0.402% was noted in the Common Carp dataset. This sample (OL-3801-18F) had been analyzed for lipid twice previously (0.374%, 0.514%). These previous results were associated with low LCS SRM recovery. Although these three sets of results were all relatively similar, an additional confirmatory reanalysis was requested and performed. This reanalysis yielded a similar lipid result of 0.460%, confirming the lipid result of 0.402%."

3A2.2 Zooplankton Samples

Data review has been completed for data packages generated by Eurofins containing zooplankton samples collected from the site. The specific samples contained in these data packages, the analyses performed, and the validated laboratory data were tabulated and are presented in Attachment A-2. All of these samples were shipped under a COC record and received intact by the analytical laboratory.

Data validation was performed for all samples in accordance with the project work plan and QAPP as well as the USEPA Region II SOP HW-2c, Revision 15 "Mercury and Cyanide Data Validation". This data validation and usability report is presented by analysis type.

3A2.2.1 Low Level Mercury

The following items were reviewed for compliancy in the low level mercury analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration, and laboratory preparation blank contamination
- Matrix spike / matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of blank contamination as discussed below.

Blank Contamination

The laboratory preparation blanks associated with project samples contained low level mercury below the reporting limit at concentrations ranging 0.119-0.374 ng/g; the laboratory initial calibration blanks associated with project samples contained low level mercury below the reporting limit at concentrations ranging 0.0793-0.323 ng/L; and laboratory continuing calibration blanks associated with project samples contained low level mercury below the reporting limit at concentrations ranging 0.0884-0.257 ng/L. Therefore, low level mercury

results less than validation action concentrations were considered not detected and qualified "U" for the affected samples.

Usability

All low level mercury sample results for the zooplankton samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The low level mercury data presented by Eurofins were 100% complete (i.e., usable). The validated low level mercury laboratory data are tabulated and presented in Attachment A-2.

3A2.2.2 Methyl Mercury

The following items were reviewed for compliancy in the methyl mercury analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Initial and continuing calibration verifications
- Initial and continuing calibration, and laboratory preparation blank contamination
- Matrix spike / matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of continuing calibration verifications, blank contamination, and LCS recoveries as discussed below.

Initial Calibration Verifications

All continuing calibration verifications were analyzed at the appropriate frequency with recoveries within the 67-133%R QC limit with the exception of the low continuing calibration verification recovery for methyl mercury (65%R) associated with sample OL-3904-01. Therefore, the methyl mercury result was considered estimated, possibly biased low, and qualified "J-" for the affected sample.

Blank Contamination

The laboratory initial calibration blanks associated with project samples contained methyl mercury below the reporting limit at concentrations ranging 0.0235-0.0409 ng/L; the laboratory continuing calibration blank associated with sample OL-3933-01 contained methyl mercury below the reporting limit at a concentration of 0.0302 ng/L; and the laboratory preparation blanks associated with project samples contained methyl mercury below the reporting limit at concentrations ranging 0.514-0.657 ng/g. Validation qualification was not required for the affected samples.

LCS Recoveries

All LCS recoveries were considered acceptable and within the 50-150%R QC limit with the exception of the low LCS recoveries for methyl mercury (38%R, 47%R) associated with samples OL-3952-01, OL-3980-01, and OL-3984-01. Therefore, the methyl mercury results were considered estimated, possibly biased low, and qualified "J-" for the affected samples.

Usability

All methyl mercury sample results for the zooplankton samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The methyl mercury data presented by Eurofins were 100% complete (i.e., usable). The validated methyl mercury laboratory data are tabulated and presented in Attachment A-2.

ATTACHMENT A – VALIDATED LABORATORY DATA

ATTACHMENT A-1 – VALIDATED LABORATORY DATA FOR FISH SAMPLES[1]

Notes:

1. Following review of the 2021-2022 PCB and lipid results that were analyzed by SGS for Honeywell,compared to split sample results analyzed by NYSDEC, it was determined that many of the results from SGS were likely biased low. Therefore, the PCB and lipid results in the following validated data tables are likely biased low. Further details are provided in the main text of this report.

Honeywell

PARSONS

			Location ID	OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A	
			Field Sample ID	OL-3800-01		OL-3800-01		OL-3800-01		OL-3800-04		OL-3800-04	
			Sample Name	OL-F-1A-22-WHS-01		OL-F-1A-22-WHS-01		OL-F-1A-22-WHS-01		OL-F-1A-22-WHS-02		OL-F-1A-22-WHS-02	
			Sampled	4/8/2022		4/8/2022		4/8/2022		5/27/2022		5/27/2022	
			Lab Sample ID	B6703_001		B6703_21183_001		JD89955-1		B6703_004		B6703_21183_004	
			Taxonomic	WHS		WHS		WHS		WHS		WHS	
			Age (yrs)	--		--		--		--		--	
			Gender	M		M		M		M		M	
			Length (mm)	299		299		299		500		500	
			Weight (g)	326		326		326		1404		1404	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%	74.4						75.99			
SW3550	LIPIDS	%Lipids Determination	%			0.468						1.255	
SW7471	7439-97-6	Mercury	mg/kg					0.037					
SW8081	72-54-8	4,4'-DDD	ug/kg					0.4	J				
SW8081	72-55-9	4,4'-DDE	ug/kg					1.7					
SW8081	50-29-3	4,4'-DDT	ug/kg					3.7	JN				
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.068	J				
SW8082	12674-11-2	Aroclor-1016	ug/kg					10	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg					10	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg					10	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg					10	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg					12.3					
SW8082	11097-69-1	Aroclor-1254	ug/kg					22.2					
SW8082	11096-82-5	Aroclor-1260	ug/kg					30.9					
SW8082	11100-14-4	Aroclor-1268	ug/kg					10	U				
SW8082	PCB	Total PCBs	ug/kg					65.4					

			Location ID	OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A	
			Field Sample ID	OL-3800-04		OL-3800-05		OL-3800-05		OL-3800-05		OL-3822-07	
			Sample Name	OL-F-1A-22-WHS-02		OL-F-1A-22-WHS-03		OL-F-1A-22-WHS-03		OL-F-1A-22-WHS-03		OL-F-1A-22-MIN-01	
			Sampled	5/27/2022		5/27/2022		5/27/2022		5/27/2022		8/3/2022	
			Lab Sample ID	JD89955-4		B6703_005		B6703_21183_005		JD89955-5		B6978_007	
			Taxonomic	WHS		WHS		WHS		WHS		MIN	
			Age (yrs)	--		--		--		--		--	
			Gender	M		M		M		M		--	
			Length (mm)	500		457		457		457		68	
			Weight (g)	1404		958		958		958		110	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%			76.42						71.56	
SW3550	LIPIDS	%Lipids Determination	%					0.592					
SW7471	7439-97-6	Mercury	mg/kg	0.23						0.12			
SW8081	72-54-8	4,4'-DDD	ug/kg	1.6	J-					0.57	J-		
SW8081	72-55-9	4,4'-DDE	ug/kg	11.1						2			
SW8081	50-29-3	4,4'-DDT	ug/kg	3	JN					1.9	JN		
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.19	J-					0.066	J		
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.4	U					9.6	U		
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.4	U					9.6	U		
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.4	U					9.6	U		
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.4	U					9.6	U		
SW8082	12672-29-6	Aroclor-1248	ug/kg	27.5						4.2	J		
SW8082	11097-69-1	Aroclor-1254	ug/kg	60.9						9	J		
SW8082	11096-82-5	Aroclor-1260	ug/kg	93.6						16.7			
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.4	U					9.6	U		
SW8082	PCB	Total PCBs	ug/kg	182						29.9			

			Location ID	OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A	
			Field Sample ID	OL-3822-07		OL-3822-07		OL-3823-03		OL-3823-03		OL-3823-03	
			Sample Name	OL-F-1A-22-MIN-01		OL-F-1A-22-MIN-01		OL-F-1A-22-RG-01		OL-F-1A-22-RG-01		OL-F-1A-22-RG-01	
			Sampled	8/3/2022		8/3/2022		8/10/2022		8/10/2022		8/10/2022	
			Lab Sample ID	B6978_21371_007		JD94044-7		B6929_004		B6929_21389_004		JD94533-4	
			Taxonomic	MIN		MIN		RG		RG		RG	
			Age (yrs)	--		--		--		--		--	
			Gender	--		--		--		--		--	
			Length (mm)	68		68		72		72		72	
			Weight (g)	110		110		112		112		112	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%					75.39					
SW3550	LIPIDS	%Lipids Determination	%	1.222						2.48			
SW7471	7439-97-6	Mercury	mg/kg			0.074						0.035	
SW8081	72-54-8	4,4'-DDD	ug/kg			0.17	J					0.31	J
SW8081	72-55-9	4,4'-DDE	ug/kg			0.63						1.6	
SW8081	50-29-3	4,4'-DDT	ug/kg			0.12	JN					0.52	JN
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.19	U					0.083	J
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.4	U					9.8	U
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.4	U					9.8	U
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.4	U					9.8	U
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.4	U					9.8	U
SW8082	12672-29-6	Aroclor-1248	ug/kg			9.4	U					9.8	U
SW8082	11097-69-1	Aroclor-1254	ug/kg			2.4	J					10.7	
SW8082	11096-82-5	Aroclor-1260	ug/kg			9.4	U					8.4	J
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.4	U					9.8	U
SW8082	PCB	Total PCBs	ug/kg			2.4	J					19.1	

			Location ID	OL-F-1A		OL-F-1A		OL-F-1A		OL-F-2A		OL-F-2A	
			Field Sample ID	OL-3823-04		OL-3823-04		OL-3823-04		OL-3800-09		OL-3800-09	
			Sample Name	OL-F-1A-22-MIN-02		OL-F-1A-22-MIN-02		OL-F-1A-22-MIN-02		OL-F-2A-22-WHS-01		OL-F-2A-22-WHS-01	
			Sampled	8/10/2022		8/10/2022		8/10/2022		5/30/2022		5/30/2022	
			Lab Sample ID	B6929_005		B6929_21389_005		JD94533-5		B6703_009		B6703_21183_009	
			Taxonomic	MIN		MIN		MIN		WHS		WHS	
			Age (yrs)	--		--		--		--		--	
			Gender	--		--		--		F		F	
			Length (mm)	93		93		93		461		461	
			Weight (g)	222		222		222		1100		1100	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%	76.34						77.49			
SW3550	LIPIDS	%Lipids Determination	%			1.194						1.145	
SW7471	7439-97-6	Mercury	mg/kg					0.092					
SW8081	72-54-8	4,4'-DDD	ug/kg					0.095	J				
SW8081	72-55-9	4,4'-DDE	ug/kg					0.39					
SW8081	50-29-3	4,4'-DDT	ug/kg					0.14	JN				
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.2	U				
SW8082	12674-11-2	Aroclor-1016	ug/kg					10	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg					10	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg					10	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg					10	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg					10	U				
SW8082	11097-69-1	Aroclor-1254	ug/kg					10	U				
SW8082	11096-82-5	Aroclor-1260	ug/kg					10	U				
SW8082	11100-14-4	Aroclor-1268	ug/kg					10	U				
SW8082	PCB	Total PCBs	ug/kg					10	U				

			Location ID	OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A	
			Field Sample ID	OL-3800-09		OL-3820-01		OL-3820-01		OL-3820-01		OL-3821-01	
			Sample Name	OL-F-2A-22-WHS-01		OL-F-2A-22-SHRH-01		OL-F-2A-22-SHRH-01		OL-F-2A-22-SHRH-01		OL-F-2A-22-SHRH-02	
			Sampled	5/30/2022		7/25/2022		7/25/2022		7/25/2022		7/29/2022	
			Lab Sample ID	JD89955-9		B6703_019		B6703_21183_019		JD89955-19		B6929_001	
			Taxonomic	WHS		SHRH		SHRH		SHRH		SHRH	
			Age (yrs)	--		--		--		--		--	
			Gender	F		M		M		M		M	
			Length (mm)	461		471		471		471		445	
			Weight (g)	1100		1161		1161		1161		975	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%			69.14						69.42	
SW3550	LIPIDS	%Lipids Determination	%					2.986					
SW7471	7439-97-6	Mercury	mg/kg	0.21						0.14			
SW8081	72-54-8	4,4'-DDD	ug/kg	0.28	J-					1.3	J-		
SW8081	72-55-9	4,4'-DDE	ug/kg	1						19.1			
SW8081	50-29-3	4,4'-DDT	ug/kg	0.42	J					4	JN		
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.13	J					0.2	J-		
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.8	U					9.6	U		
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.8	U					9.6	U		
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.8	U					9.6	U		
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.8	U					9.6	U		
SW8082	12672-29-6	Aroclor-1248	ug/kg	11.2						49.2			
SW8082	11097-69-1	Aroclor-1254	ug/kg	14.8						102			
SW8082	11096-82-5	Aroclor-1260	ug/kg	9.8	U					201			
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.8	U					9.6	U		
SW8082	PCB	Total PCBs	ug/kg	26	J					353			

			Location ID	OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A	
			Field Sample ID	OL-3821-01		OL-3821-01		OL-3822-12		OL-3822-12		OL-3822-12	
			Sample Name	OL-F-2A-22-SHRH-02		OL-F-2A-22-SHRH-02		OL-F-2A-22-RG-01		OL-F-2A-22-RG-01		OL-F-2A-22-RG-01	
			Sampled	7/29/2022		7/29/2022		8/5/2022		8/5/2022		8/5/2022	
			Lab Sample ID	B6929_21389_001		JD94533-1		B6978_012		B6978_21371_012		JD94044-12	
			Taxonomic	SHRH		SHRH		RG		RG		RG	
			Age (yrs)	--		--		--		--		--	
			Gender	M		M		--		--		--	
			Length (mm)	445		445		88		88		88	
			Weight (g)	975		975		105		105		105	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%					69.65					
SW3550	LIPIDS	%Lipids Determination	%	6.938						1.182			
SW7471	7439-97-6	Mercury	mg/kg			0.17						0.03	
SW8081	72-54-8	4,4'-DDD	ug/kg			3.1	J					0.22	J
SW8081	72-55-9	4,4'-DDE	ug/kg			22.4						1.3	
SW8081	50-29-3	4,4'-DDT	ug/kg			8.7	JN					0.36	JN
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.21						0.17	J
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.6	U					10	U
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.6	U					10	U
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.6	U					10	U
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.6	U					10	U
SW8082	12672-29-6	Aroclor-1248	ug/kg			72.4						11.6	
SW8082	11097-69-1	Aroclor-1254	ug/kg			218						18.9	J
SW8082	11096-82-5	Aroclor-1260	ug/kg			154						10	U
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.6	U					10	U
SW8082	PCB	Total PCBs	ug/kg			444						30.5	J

			Location ID	OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A	
			Field Sample ID	OL-3822-13		OL-3822-13		OL-3822-13		OL-3822-14		OL-3822-14	
			Sample Name	OL-F-2A-22-RG-02		OL-F-2A-22-RG-02		OL-F-2A-22-RG-02		OL-F-2A-22-RG-03		OL-F-2A-22-RG-03	
			Sampled	8/5/2022		8/5/2022		8/5/2022		8/8/2022		8/8/2022	
			Lab Sample ID	B6978_013		B6978_21371_013		JD94044-13		B6978_014		B6978_21371_014	
			Taxonomic	RG		RG		RG		RG		RG	
			Age (yrs)	--		--		--		--		--	
			Gender	--		--		--		--		--	
			Length (mm)	74		74		74		68		68	
			Weight (g)	103		103		103		105		105	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%	70.3						71.03			
SW3550	LIPIDS	%Lipids Determination	%			1.441						1.322	
SW7471	7439-97-6	Mercury	mg/kg					0.043					
SW8081	72-54-8	4,4'-DDD	ug/kg					0.098	J				
SW8081	72-55-9	4,4'-DDE	ug/kg					0.47					
SW8081	50-29-3	4,4'-DDT	ug/kg					0.17	JN				
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.19	U				
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.6	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.6	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.6	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.6	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg					9.6	U				
SW8082	11097-69-1	Aroclor-1254	ug/kg					8	J				
SW8082	11096-82-5	Aroclor-1260	ug/kg					9.6	U				
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.6	U				
SW8082	PCB	Total PCBs	ug/kg					8	J				

			Location ID	OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-3A	
			Field Sample ID	OL-3822-14		OL-3824-01		OL-3824-01		OL-3824-01		OL-3800-08	
			Sample Name	OL-F-2A-22-RG-03		OL-F-2A-22-WHS-02		OL-F-2A-22-WHS-02		OL-F-2A-22-WHS-02		OL-F-3A-22-WHS-01	
			Sampled	8/8/2022		8/12/2022		8/12/2022		8/12/2022		5/30/2022	
			Lab Sample ID	JD94044-14		B6929_006		B6929_21389_006		JD94533-6		B6703_008	
			Taxonomic	RG		WHS		WHS		WHS		WHS	
			Age (yrs)	--		--		--		--		--	
			Gender	--		M		M		M		M	
			Length (mm)	68		503		503		503		466	
			Weight (g)	105		1457		1457		1457		1276	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%			75.74						76.5	
SW3550	LIPIDS	%Lipids Determination	%					3.817					
SW7471	7439-97-6	Mercury	mg/kg	0.051						0.072			
SW8081	72-54-8	4,4'-DDD	ug/kg	0.2						2.6	J		
SW8081	72-55-9	4,4'-DDE	ug/kg	1.7						11.6	J		
SW8081	50-29-3	4,4'-DDT	ug/kg	0.4	JN					3.9	JN		
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.12	J					0.28			
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.8	U					9.6	U		
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.8	U					9.6	U		
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.8	U					9.6	U		
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.8	U					9.6	U		
SW8082	12672-29-6	Aroclor-1248	ug/kg	9.8	U					63	J		
SW8082	11097-69-1	Aroclor-1254	ug/kg	20.3	J					87.8	J		
SW8082	11096-82-5	Aroclor-1260	ug/kg	9.8	U					101	J		
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.8	U					9.6	U		
SW8082	PCB	Total PCBs	ug/kg	20.3	J					251	J		

			Location ID	OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A	
			Field Sample ID	OL-3800-08		OL-3800-08		OL-3800-11		OL-3800-11		OL-3800-11	
			Sample Name	OL-F-3A-22-WHS-01		OL-F-3A-22-WHS-01		OL-F-3A-22-WHS-02		OL-F-3A-22-WHS-02		OL-F-3A-22-WHS-02	
			Sampled	5/30/2022		5/30/2022		5/31/2022		5/31/2022		5/31/2022	
			Lab Sample ID	B6703_21183_008		JD89955-8		B6703_011		B6703_21183_011		JD89955-11	
			Taxonomic	WHS		WHS		WHS		WHS		WHS	
			Age (yrs)	--		--		--		--		--	
			Gender	M		M		M		M		M	
			Length (mm)	466		466		499		499		499	
			Weight (g)	1276		1276		1584		1584		1584	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%					72.45					
SW3550	LIPIDS	%Lipids Determination	%	1.704						0.513			
SW7471	7439-97-6	Mercury	mg/kg			0.12						0.083	
SW8081	72-54-8	4,4'-DDD	ug/kg			2.2	J-					3.1	J-
SW8081	72-55-9	4,4'-DDE	ug/kg			18						17.4	
SW8081	50-29-3	4,4'-DDT	ug/kg			4.4	JN					3	JN
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.23	J-					0.53	J-
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.8	U					9.4	U
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.8	U					9.4	U
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.8	U					9.4	U
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.8	U					9.4	U
SW8082	12672-29-6	Aroclor-1248	ug/kg			56.4						95.6	
SW8082	11097-69-1	Aroclor-1254	ug/kg			155						127	
SW8082	11096-82-5	Aroclor-1260	ug/kg			306						81.3	
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.8	U					9.4	U
SW8082	PCB	Total PCBs	ug/kg			517						304	

			Location ID	OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A	
			Field Sample ID	OL-3800-12		OL-3800-12		OL-3800-12		OL-3822-15		OL-3822-15	
			Sample Name	OL-F-3A-22-WHS-03		OL-F-3A-22-WHS-03		OL-F-3A-22-WHS-03		OL-F-3A-22-RG-01		OL-F-3A-22-RG-01	
			Sampled	5/31/2022		5/31/2022		5/31/2022		8/9/2022		8/9/2022	
			Lab Sample ID	B6703_012		B6703_21183_012		JD89955-12		B6978_015		B6978_21371_015	
			Taxonomic	WHS		WHS		WHS		RG		RG	
			Age (yrs)	--		--		--		--		--	
			Gender	M		M		M		--		--	
			Length (mm)	530		530		530		84		84	
			Weight (g)	1718		1718		1718		127		127	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%	71.01						70.34			
SW3550	LIPIDS	%Lipids Determination	%			3.746	J					1.189	
SW7471	7439-97-6	Mercury	mg/kg					0.13					
SW8081	72-54-8	4,4'-DDD	ug/kg					5.8	J-				
SW8081	72-55-9	4,4'-DDE	ug/kg					33.7					
SW8081	50-29-3	4,4'-DDT	ug/kg					4.8	JN				
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.48	J-				
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.6	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.6	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.6	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.6	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg					68.2					
SW8082	11097-69-1	Aroclor-1254	ug/kg					99.8					
SW8082	11096-82-5	Aroclor-1260	ug/kg					85.1					
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.6	U				
SW8082	PCB	Total PCBs	ug/kg					253					

			Location ID	OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A			
			Field Sample ID	OL-3822-15		OL-3822-16		OL-3822-16		OL-3822-16		OL-3822-17			
			Sample Name	OL-F-3A-22-RG-01		OL-F-3A-22-RG-02		OL-F-3A-22-RG-02		OL-F-3A-22-RG-02		OL-F-3A-22-MIN-01			
			Sampled	8/9/2022		8/9/2022		8/9/2022		8/9/2022		8/9/2022			
			Lab Sample ID	JD94044-15		B6978_016		B6978_21371_016		JD94044-16		B6978_017			
			Taxonomic	RG		RG		RG		RG		MIN			
			Age (yrs)	--		--		--		--		--			
			Gender	--		--		--		--		--			
			Length (mm)	84		70		70		70		77			
			Weight (g)	127		137		137		137		143			
Method	Parameter Code	Parameter Name	Units												
ASTM D2216	MOISTURE-%	Percent Moisture	%			70.23						70.39			
SW3550	LIPIDS	%Lipids Determination	%					1.893							
SW7471	7439-97-6	Mercury	mg/kg	0.028						0.034					
SW8081	72-54-8	4,4'-DDD	ug/kg	0.27						0.23	J				
SW8081	72-55-9	4,4'-DDE	ug/kg	0.74						0.92					
SW8081	50-29-3	4,4'-DDT	ug/kg	0.24	JN					0.24	JN				
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.19	U					0.19	U				
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.4	U					9.4	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.4	U					9.4	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.4	U					9.4	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.4	U					9.4	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg	9.4	U					8.3	J				
SW8082	11097-69-1	Aroclor-1254	ug/kg	11	J					11.3	J				
SW8082	11096-82-5	Aroclor-1260	ug/kg	9.4	U					9.4	U				
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.4	U					9.4	U				
SW8082	PCB	Total PCBs	ug/kg	11	J					19.6	J				

			Location ID	OL-F-3A		OL-F-3A		OL-F-4A		OL-F-4A		OL-F-4A	
			Field Sample ID	OL-3822-17		OL-3822-17		OL-3800-02		OL-3800-02		OL-3800-02	
			Sample Name	OL-F-3A-22-MIN-01		OL-F-3A-22-MIN-01		OL-F-4A-22-WHS-01		OL-F-4A-22-WHS-01		OL-F-4A-22-WHS-01	
			Sampled	8/9/2022		8/9/2022		5/20/2022		5/20/2022		5/20/2022	
			Lab Sample ID	B6978_21371_017		JD94044-17		B6703_002		B6703_21183_002		JD89955-2	
			Taxonomic	MIN		MIN		WHS		WHS		WHS	
			Age (yrs)	--		--		--		--		--	
			Gender	--		--		M		M		M	
			Length (mm)	77		77		372		372		372	
			Weight (g)	143		143		617		617		617	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%					78.52					
SW3550	LIPIDS	%Lipids Determination	%	1.956						0.51			
SW7471	7439-97-6	Mercury	mg/kg			0.063						0.045	
SW8081	72-54-8	4,4'-DDD	ug/kg			0.25						1	J-
SW8081	72-55-9	4,4'-DDE	ug/kg			1.3						6.2	
SW8081	50-29-3	4,4'-DDT	ug/kg			0.23	JN					4	JN
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.19	U					0.14	J
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.4	U					10	U
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.4	U					10	U
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.4	U					10	U
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.4	U					10	U
SW8082	12672-29-6	Aroclor-1248	ug/kg			6.2	J					26.2	
SW8082	11097-69-1	Aroclor-1254	ug/kg			9.7						34.5	
SW8082	11096-82-5	Aroclor-1260	ug/kg			6.5	J					16	
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.4	U					10	U
SW8082	PCB	Total PCBs	ug/kg			22.4						76.7	

			Location ID	OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A	
			Field Sample ID	OL-3800-03		OL-3800-03		OL-3800-03		OL-3817-01		OL-3817-01	
			Sample Name	OL-F-4A-22-WHS-02		OL-F-4A-22-WHS-02		OL-F-4A-22-WHS-02		OL-F-4A-22-SHRH-01		OL-F-4A-22-SHRH-01	
			Sampled	5/26/2022		5/26/2022		5/26/2022		7/8/2022		7/8/2022	
			Lab Sample ID	B6703_003		B6703_21183_003		JD89955-3		B6703_016		B6703_21183_016	
			Taxonomic	WHS		WHS		WHS		SHRH		SHRH	
			Age (yrs)	--		--		--		--		--	
			Gender	F		F		F		M		M	
			Length (mm)	506		506		506		562		562	
			Weight (g)	1512		1512		1512		1846		1846	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%	74.13						65.79			
SW3550	LIPIDS	%Lipids Determination	%			2.148						7.675	
SW7471	7439-97-6	Mercury	mg/kg					0.081					
SW8081	72-54-8	4,4'-DDD	ug/kg					2.8	J-				
SW8081	72-55-9	4,4'-DDE	ug/kg					11.9					
SW8081	50-29-3	4,4'-DDT	ug/kg					3.6	JN				
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.33	J				
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.6	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.6	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.6	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.6	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg					70.3					
SW8082	11097-69-1	Aroclor-1254	ug/kg					93.8					
SW8082	11096-82-5	Aroclor-1260	ug/kg					97.7					
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.6	U				
SW8082	PCB	Total PCBs	ug/kg					262					

			Location ID	OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A			
			Field Sample ID	OL-3817-01		OL-3822-04		OL-3822-04		OL-3822-04		OL-3822-05			
			Sample Name	OL-F-4A-22-SHRH-01		OL-F-4A-22-MIN-01		OL-F-4A-22-MIN-01		OL-F-4A-22-MIN-01		OL-F-4A-22-MIN-02			
			Sampled	7/8/2022		8/2/2022		8/2/2022		8/2/2022		8/2/2022			
			Lab Sample ID	JD89955-16		B6978_004		B6978_21371_004		JD94044-4		B6978_005			
			Taxonomic	SHRH		MIN		MIN		MIN		MIN			
			Age (yrs)	--		--		--		--		--			
			Gender	M		--		--		--		--			
			Length (mm)	562		64		64		64		54			
			Weight (g)	1846		111		111		111		105			
Method	Parameter Code	Parameter Name	Units												
ASTM D2216	MOISTURE-%	Percent Moisture	%			71.9						72			
SW3550	LIPIDS	%Lipids Determination	%					1.046							
SW7471	7439-97-6	Mercury	mg/kg	0.13						0.075					
SW8081	72-54-8	4,4'-DDD	ug/kg	9.1	J-					0.055	J				
SW8081	72-55-9	4,4'-DDE	ug/kg	27						0.65					
SW8081	50-29-3	4,4'-DDT	ug/kg	5.7	JN					0.12	JN				
SW8081	118-74-1	Hexachlorobenzene	ug/kg	1	J-					0.2	U				
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.3	U					9.8	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.3	U					9.8	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.3	U					9.8	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.3	U					9.8	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg	144						9.8	U				
SW8082	11097-69-1	Aroclor-1254	ug/kg	237						9.8	U				
SW8082	11096-82-5	Aroclor-1260	ug/kg	149						9.8	U				
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.3	U					9.8	U				
SW8082	PCB	Total PCBs	ug/kg	530						9.8	U				

			Location ID	OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A	
			Field Sample ID	OL-3822-05		OL-3822-05		OL-3822-06		OL-3822-06		OL-3822-06	
			Sample Name	OL-F-4A-22-MIN-02		OL-F-4A-22-MIN-02		OL-F-4A-22-MIN-03		OL-F-4A-22-MIN-03		OL-F-4A-22-MIN-03	
			Sampled	8/2/2022		8/2/2022		8/2/2022		8/2/2022		8/2/2022	
			Lab Sample ID	B6978_21371_005		JD94044-5		B6978_006		B6978_21371_006		JD94044-6	
			Taxonomic	MIN		MIN		MIN		MIN		MIN	
			Age (yrs)	--		--		--		--		--	
			Gender	--		--		--		--		--	
			Length (mm)	54		54		67		67		67	
			Weight (g)	105		105		124		124			
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%					72.93					
SW3550	LIPIDS	%Lipids Determination	%	1.169						1.072			
SW7471	7439-97-6	Mercury	mg/kg			0.065						0.088	
SW8081	72-54-8	4,4'-DDD	ug/kg			0.085	J					0.069	J
SW8081	72-55-9	4,4'-DDE	ug/kg			0.89						0.87	
SW8081	50-29-3	4,4'-DDT	ug/kg			0.13	JN					0.17	JN
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.19	U					0.2	U
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.4	U					10	U
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.4	U					10	U
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.4	U					10	U
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.4	U					10	U
SW8082	12672-29-6	Aroclor-1248	ug/kg			9.4	U					10	U
SW8082	11097-69-1	Aroclor-1254	ug/kg			4.6	J					4.6	J
SW8082	11096-82-5	Aroclor-1260	ug/kg			9.4	U					10	U
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.4	U					10	U
SW8082	PCB	Total PCBs	ug/kg			4.6	J					4.6	J

			Location ID	OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A	
			Field Sample ID	OL-3800-10		OL-3800-10		OL-3800-10		OL-3819-01		OL-3819-01	
			Sample Name	OL-F-5A-22-WHS-01		OL-F-5A-22-WHS-01		OL-F-5A-22-WHS-01		OL-F-5A-22-SHRH-01		OL-F-5A-22-SHRH-01	
			Sampled	5/31/2022		5/31/2022		5/31/2022		7/15/2022		7/15/2022	
			Lab Sample ID	B6703_010		B6703_21183_010		JD89955-10		B6703_017		B6703_21183_017	
			Taxonomic	WHS		WHS		WHS		SHRH		SHRH	
			Age (yrs)	--		--		--		--		--	
			Gender	M		M		M		F		F	
			Length (mm)	520		520		520		510		510	
			Weight (g)	1529		1529		1529		1618		1618	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%	72.76						70.29			
SW3550	LIPIDS	%Lipids Determination	%			2.344						2.686	
SW7471	7439-97-6	Mercury	mg/kg					0.12					
SW8081	72-54-8	4,4'-DDD	ug/kg					2.6	J-				
SW8081	72-55-9	4,4'-DDE	ug/kg					7.3					
SW8081	50-29-3	4,4'-DDT	ug/kg					1.6	JN				
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.33	J-				
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.4	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.4	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.4	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.4	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg					52					
SW8082	11097-69-1	Aroclor-1254	ug/kg					63.3					
SW8082	11096-82-5	Aroclor-1260	ug/kg					54.3					
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.4	U				
SW8082	PCB	Total PCBs	ug/kg					170					

			Location ID	OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A	
			Field Sample ID	OL-3819-01		OL-3819-02		OL-3819-02		OL-3819-02		OL-3822-01	
			Sample Name	OL-F-5A-22-SHRH-01		OL-F-5A-22-SHRH-02		OL-F-5A-22-SHRH-02		OL-F-5A-22-SHRH-02		OL-F-5A-22-MIN-01	
			Sampled	7/15/2022		7/15/2022		7/15/2022		7/15/2022		8/1/2022	
			Lab Sample ID	JD89955-17		B6703_018		B6703_21183_018		JD89955-18		B6978_001	
			Taxonomic	SHRH		SHRH		SHRH		SHRH		MIN	
			Age (yrs)	--		--		--		--		--	
			Gender	F		F		F		F		--	
			Length (mm)	510		486		486		486		52	
			Weight (g)	1618		1256		1256		1256		103	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%			69.6						71.55	
SW3550	LIPIDS	%Lipids Determination	%					5.189					
SW7471	7439-97-6	Mercury	mg/kg	0.38						0.18			
SW8081	72-54-8	4,4'-DDD	ug/kg	2.2	J-					4.9	J-		
SW8081	72-55-9	4,4'-DDE	ug/kg	25.2						27.1			
SW8081	50-29-3	4,4'-DDT	ug/kg	1.4	JN					3.7	JN		
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.15	J					0.46	J-		
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.6	U					9.8	U		
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.6	U					9.8	U		
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.6	U					9.8	U		
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.6	U					9.8	U		
SW8082	12672-29-6	Aroclor-1248	ug/kg	7.5	J					66.1			
SW8082	11097-69-1	Aroclor-1254	ug/kg	28.8						124			
SW8082	11096-82-5	Aroclor-1260	ug/kg	44.9						104			
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.6	U					9.8	U		
SW8082	PCB	Total PCBs	ug/kg	81.2						293			

			Location ID	OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A	
			Field Sample ID	OL-3822-01		OL-3822-01		OL-3822-02		OL-3822-02		OL-3822-02	
			Sample Name	OL-F-5A-22-MIN-01		OL-F-5A-22-MIN-01		OL-F-5A-22-MIN-02		OL-F-5A-22-MIN-02		OL-F-5A-22-MIN-02	
			Sampled	8/1/2022		8/1/2022		8/1/2022		8/1/2022		8/1/2022	
			Lab Sample ID	B6978_21371_001		JD94044-1		B6978_002		B6978_21371_002		JD94044-2	
			Taxonomic	MIN		MIN		MIN		MIN		MIN	
			Age (yrs)	--		--		--		--		--	
			Gender	--		--		--		--		--	
			Length (mm)	52		52		46		46		46	
			Weight (g)	103		103		110		110		110	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%					73.06					
SW3550	LIPIDS	%Lipids Determination	%	1.234						1.198			
SW7471	7439-97-6	Mercury	mg/kg			0.081						0.05	
SW8081	72-54-8	4,4'-DDD	ug/kg			0.068	J					0.1	J
SW8081	72-55-9	4,4'-DDE	ug/kg			0.36						0.54	
SW8081	50-29-3	4,4'-DDT	ug/kg			0.072	JN					0.096	JN
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.18	U					0.2	U
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.1	U					10	U
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.1	U					10	U
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.1	U					10	U
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.1	U					10	U
SW8082	12672-29-6	Aroclor-1248	ug/kg			9.1	U					10	U
SW8082	11097-69-1	Aroclor-1254	ug/kg			9.1	U					2.4	J
SW8082	11096-82-5	Aroclor-1260	ug/kg			9.1	U					10	U
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.1	U					10	U
SW8082	PCB	Total PCBs	ug/kg			9.1	U					2.4	J

			Location ID	OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5B		OL-F-5B	
			Field Sample ID	OL-3822-03		OL-3822-03		OL-3822-03		OL-3800-07		OL-3800-07	
			Sample Name	OL-F-5A-22-RG-01		OL-F-5A-22-RG-01		OL-F-5A-22-RG-01		OL-F-5B-22-WHS-01		OL-F-5B-22-WHS-01	
			Sampled	8/1/2022		8/1/2022		8/1/2022		5/28/2022		5/28/2022	
			Lab Sample ID	B6978_003		B6978_21371_003		JD94044-3		B6703_007		B6703_21183_007	
			Taxonomic	RG		RG		RG		WHS		WHS	
			Age (yrs)	--		--		--		--		--	
			Gender	--		--		--		F		F	
			Length (mm)	63		63		63		502		502	
			Weight (g)	214		214		214		1427		1427	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%	71.2						73.4			
SW3550	LIPIDS	%Lipids Determination	%			1.435						3.782	
SW7471	7439-97-6	Mercury	mg/kg					0.048					
SW8081	72-54-8	4,4'-DDD	ug/kg					0.19	J				
SW8081	72-55-9	4,4'-DDE	ug/kg					0.88					
SW8081	50-29-3	4,4'-DDT	ug/kg					0.16	JN				
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.2	U				
SW8082	12674-11-2	Aroclor-1016	ug/kg					10	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg					10	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg					10	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg					10	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg					10	U				
SW8082	11097-69-1	Aroclor-1254	ug/kg					4.4	J				
SW8082	11096-82-5	Aroclor-1260	ug/kg					4.7	J				
SW8082	11100-14-4	Aroclor-1268	ug/kg					10	U				
SW8082	PCB	Total PCBs	ug/kg					9.1	J				

			Location ID	OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B	
			Field Sample ID	OL-3800-07		OL-3810-01		OL-3810-01		OL-3810-01		OL-3822-20	
			Sample Name	OL-F-5B-22-WHS-01		OL-F-5B-22-SHRH-01		OL-F-5B-22-SHRH-01		OL-F-5B-22-SHRH-01		OL-F-5B-22-RG-01	
			Sampled	5/28/2022		6/16/2022		6/16/2022		6/16/2022		8/9/2022	
			Lab Sample ID	JD89955-7		B6703_014		B6703_21183_014		JD89955-14		B6978_020	
			Taxonomic	WHS		SHRH		SHRH		SHRH		RG	
			Age (yrs)	--		--		--		--		--	
			Gender	F		M		M		M		--	
			Length (mm)	502		406		406		406		73	
			Weight (g)	1427		652		652		652		89	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%			74.44						71.07	
SW3550	LIPIDS	%Lipids Determination	%					1.635					
SW7471	7439-97-6	Mercury	mg/kg	0.064						0.088			
SW8081	72-54-8	4,4'-DDD	ug/kg	2.2	J-					1.3	J-		
SW8081	72-55-9	4,4'-DDE	ug/kg	9.5						6.4			
SW8081	50-29-3	4,4'-DDT	ug/kg	7.5	JN					1.7	JN		
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.31	J-					0.13	J		
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.8	U					9.6	U		
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.8	U					9.6	U		
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.8	U					9.6	U		
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.8	U					9.6	U		
SW8082	12672-29-6	Aroclor-1248	ug/kg	39						46.2			
SW8082	11097-69-1	Aroclor-1254	ug/kg	46.7						72.2			
SW8082	11096-82-5	Aroclor-1260	ug/kg	49.6						90.7			
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.8	U					9.6	U		
SW8082	PCB	Total PCBs	ug/kg	135						209			

			Location ID	OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B	
			Field Sample ID	OL-3822-20		OL-3822-20		OL-3823-01		OL-3823-01		OL-3823-01	
			Sample Name	OL-F-5B-22-RG-01		OL-F-5B-22-RG-01		OL-F-5B-22-RG-02		OL-F-5B-22-RG-02		OL-F-5B-22-RG-02	
			Sampled	8/9/2022		8/9/2022		8/10/2022		8/10/2022		8/10/2022	
			Lab Sample ID	B6978_21371_020		JD94044-20		B6929_002		B6929_21389_002		JD94533-2	
			Taxonomic	RG		RG		RG		RG		RG	
			Age (yrs)	--		--		--		--		--	
			Gender	--		--		--		--		--	
			Length (mm)	73		73		69		69		69	
			Weight (g)	89		89		103		103		103	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%					76.52					
SW3550	LIPIDS	%Lipids Determination	%	1.7						1.709			
SW7471	7439-97-6	Mercury	mg/kg			0.075						0.07	
SW8081	72-54-8	4,4'-DDD	ug/kg			0.19	J-					0.29	
SW8081	72-55-9	4,4'-DDE	ug/kg			1						0.92	
SW8081	50-29-3	4,4'-DDT	ug/kg			0.23	JN					0.37	J
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.22						0.056	J
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.6	U					9.8	U
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.6	U					9.8	U
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.6	U					9.8	U
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.6	U					9.8	U
SW8082	12672-29-6	Aroclor-1248	ug/kg			9.6	U					9.8	U
SW8082	11097-69-1	Aroclor-1254	ug/kg			13.3	J					6	J
SW8082	11096-82-5	Aroclor-1260	ug/kg			9.9						5.7	J
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.6	U					9.8	U
SW8082	PCB	Total PCBs	ug/kg			23.2						11.7	

			Location ID	OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B	
			Field Sample ID	OL-3823-02		OL-3823-02		OL-3823-02		OL-3825-01		OL-3825-01	
			Sample Name	OL-F-5B-22-RG-03		OL-F-5B-22-RG-03		OL-F-5B-22-RG-03		OL-F-5B-22-WHS-02		OL-F-5B-22-WHS-02	
			Sampled	8/10/2022		8/10/2022		8/10/2022		9/2/2022		9/2/2022	
			Lab Sample ID	B6929_003		B6929_21389_003		JD94533-3		B6929_007		B6929_21389_007	
			Taxonomic	RG		RG		RG		WHS		WHS	
			Age (yrs)	--		--		--		--		--	
			Gender	--		--		--		F		F	
			Length (mm)	67		67		67		509		509	
			Weight (g)	104		104		104		1211		1211	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%	76.21						75.85			
SW3550	LIPIDS	%Lipids Determination	%			1.822						4.128	
SW7471	7439-97-6	Mercury	mg/kg					0.086					
SW8081	72-54-8	4,4'-DDD	ug/kg					0.26					
SW8081	72-55-9	4,4'-DDE	ug/kg					0.63					
SW8081	50-29-3	4,4'-DDT	ug/kg					0.23	JN				
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.2	U				
SW8082	12674-11-2	Aroclor-1016	ug/kg					10	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg					10	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg					10	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg					10	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg					10	U				
SW8082	11097-69-1	Aroclor-1254	ug/kg					10	U				
SW8082	11096-82-5	Aroclor-1260	ug/kg					4.2	J				
SW8082	11100-14-4	Aroclor-1268	ug/kg					10	U				
SW8082	PCB	Total PCBs	ug/kg					4.2	J				

			Location ID	OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-6A	
			Field Sample ID	OL-3825-01		OL-3826-01		OL-3826-01		OL-3826-01		OL-3813-01	
			Sample Name	OL-F-5B-22-WHS-02		OL-F-5B-22-SHRH-02		OL-F-5B-22-SHRH-02		OL-F-5B-22-SHRH-02		OL-F-6A-22-WHS-01	
			Sampled	9/2/2022		9/22/2022		9/22/2022		9/22/2022		6/23/2022	
			Lab Sample ID	JD94533-7		B6929_008		B6929_21389_008		JD94533-8		B6703_015	
			Taxonomic	WHS		SHRH		SHRH		SHRH		WHS	
			Age (yrs)	--		--		--		--		--	
			Gender	F		M		M		M		F	
			Length (mm)	509		489		489		489		322	
			Weight (g)	1211		1261		1261		1261		416	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%			70.3						72.99	
SW3550	LIPIDS	%Lipids Determination	%					6.134					
SW7471	7439-97-6	Mercury	mg/kg	0.14						0.31			
SW8081	72-54-8	4,4'-DDD	ug/kg	1.4						3.4			
SW8081	72-55-9	4,4'-DDE	ug/kg	4.9						32.1			
SW8081	50-29-3	4,4'-DDT	ug/kg	1.8	JN					5.4	JN		
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.21						0.26			
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.6	U					9.1	U		
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.6	U					9.1	U		
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.6	U					9.1	U		
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.6	U					9.1	U		
SW8082	12672-29-6	Aroclor-1248	ug/kg	35.2						44.8			
SW8082	11097-69-1	Aroclor-1254	ug/kg	29.5						129			
SW8082	11096-82-5	Aroclor-1260	ug/kg	65.8						132			
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.6	U					9.1	U		
SW8082	PCB	Total PCBs	ug/kg	131						305			

			Location ID	OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A	
			Field Sample ID	OL-3813-01		OL-3813-01		OL-3820-02		OL-3820-02		OL-3820-02	
			Sample Name	OL-F-6A-22-WHS-01		OL-F-6A-22-WHS-01		OL-F-6A-22-SHRH-01		OL-F-6A-22-SHRH-01		OL-F-6A-22-SHRH-01	
			Sampled	6/23/2022		6/23/2022		7/28/2022		7/28/2022		7/28/2022	
			Lab Sample ID	B6703_21183_015		JD89955-15		B6703_020		B6703_21183_020		JD89955-20	
			Taxonomic	WHS		WHS		SHRH		SHRH		SHRH	
			Age (yrs)	--		--		--		--		--	
			Gender	F		F		M		M		M	
			Length (mm)	322		322		491		491		491	
			Weight (g)	416		416		1323		1323		1323	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%					68.29					
SW3550	LIPIDS	%Lipids Determination	%	2.919						6.661			
SW7471	7439-97-6	Mercury	mg/kg			0.038						0.11	
SW8081	72-54-8	4,4'-DDD	ug/kg			2.1	J-					4.5	J-
SW8081	72-55-9	4,4'-DDE	ug/kg			5.5						23.6	
SW8081	50-29-3	4,4'-DDT	ug/kg			0.99	JN					4.5	JN
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.42	J					0.46	J-
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.8	U					9.6	U
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.8	U					9.6	U
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.8	U					9.6	U
SW8082	53469-21-9	Aroclor-1242	ug/kg			209						9.6	U
SW8082	12672-29-6	Aroclor-1248	ug/kg			9.8	U					124	
SW8082	11097-69-1	Aroclor-1254	ug/kg			58.1						172	
SW8082	11096-82-5	Aroclor-1260	ug/kg			27.1						129	
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.8	U					9.6	U
SW8082	PCB	Total PCBs	ug/kg			295						426	

			Location ID	OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A	
			Field Sample ID	OL-3822-09		OL-3822-09		OL-3822-09		OL-3822-10		OL-3822-10	
			Sample Name	OL-F-6A-22-MIN-01		OL-F-6A-22-MIN-01		OL-F-6A-22-MIN-01		OL-F-6A-22-MIN-02		OL-F-6A-22-MIN-02	
			Sampled	8/4/2022		8/4/2022		8/4/2022		8/4/2022		8/4/2022	
			Lab Sample ID	B6978_009		B6978_21371_009		JD94044-9		B6978_010		B6978_21371_010	
			Taxonomic	MIN		MIN		MIN		MIN		MIN	
			Age (yrs)	--		--		--		--		--	
			Gender	--		--		--		--		--	
			Length (mm)	73		73		73		68		68	
			Weight (g)	110		110		110		110		110	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%	71.24						70.82			
SW3550	LIPIDS	%Lipids Determination	%			0.887						0.955	
SW7471	7439-97-6	Mercury	mg/kg					0.074					
SW8081	72-54-8	4,4'-DDD	ug/kg					0.26					
SW8081	72-55-9	4,4'-DDE	ug/kg					0.81					
SW8081	50-29-3	4,4'-DDT	ug/kg					0.31	JN				
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.2	U				
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.8	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.8	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.8	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.8	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg					174					
SW8082	11097-69-1	Aroclor-1254	ug/kg					26.7					
SW8082	11096-82-5	Aroclor-1260	ug/kg					10.1					
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.8	U				
SW8082	PCB	Total PCBs	ug/kg					211					

			Location ID	OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-7A	
			Field Sample ID	OL-3822-10		OL-3822-11		OL-3822-11		OL-3822-11		OL-3800-06	
			Sample Name	OL-F-6A-22-MIN-02		OL-F-6A-22-MIN-03		OL-F-6A-22-MIN-03		OL-F-6A-22-MIN-03		OL-F-7A-22-SHRH-01	
			Sampled	8/4/2022		8/4/2022		8/4/2022		8/4/2022		5/27/2022	
			Lab Sample ID	JD94044-10		B6978_011		B6978_21371_011		JD94044-11		B6703_006	
			Taxonomic	MIN		MIN		MIN		MIN		SHRH	
			Age (yrs)	--		--		--		--		--	
			Gender	--		--		--		--		M	
			Length (mm)	68		74		74		74		482	
			Weight (g)	110		189		189		189		1018	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%			71.36						73.98	
SW3550	LIPIDS	%Lipids Determination	%					1.27					
SW7471	7439-97-6	Mercury	mg/kg	0.052						0.058			
SW8081	72-54-8	4,4'-DDD	ug/kg	0.4						0.33			
SW8081	72-55-9	4,4'-DDE	ug/kg	1.2						0.96			
SW8081	50-29-3	4,4'-DDT	ug/kg	0.45	JN					0.36	JN		
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.2	U					0.19	U		
SW8082	12674-11-2	Aroclor-1016	ug/kg	10	U					9.4	U		
SW8082	11104-28-2	Aroclor-1221	ug/kg	10	U					9.4	U		
SW8082	11141-16-5	Aroclor-1232	ug/kg	10	U					9.4	U		
SW8082	53469-21-9	Aroclor-1242	ug/kg	10	U					9.4	U		
SW8082	12672-29-6	Aroclor-1248	ug/kg	258						200			
SW8082	11097-69-1	Aroclor-1254	ug/kg	43						30.4			
SW8082	11096-82-5	Aroclor-1260	ug/kg	15.2						10.9			
SW8082	11100-14-4	Aroclor-1268	ug/kg	10	U					9.4	U		
SW8082	PCB	Total PCBs	ug/kg	316						241			

			Location ID	OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A	
			Field Sample ID	OL-3800-06		OL-3800-06		OL-3804-01		OL-3804-01		OL-3804-01	
			Sample Name	OL-F-7A-22-SHRH-01		OL-F-7A-22-SHRH-01		OL-F-7A-22-SHRH-02		OL-F-7A-22-SHRH-02		OL-F-7A-22-SHRH-02	
			Sampled	5/27/2022		5/27/2022		6/7/2022		6/7/2022		6/7/2022	
			Lab Sample ID	B6703_21183_006		JD89955-6		B6703_013		B6703_21183_013		JD89955-13	
			Taxonomic	SHRH		SHRH		SHRH		SHRH		SHRH	
			Age (yrs)	--		--		--		--		--	
			Gender	M		M		M		M		M	
			Length (mm)	482		482		484		484		484	
			Weight (g)	1018		1018		1006		1006		1006	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%					73.48					
SW3550	LIPIDS	%Lipids Determination	%	0.611						0.67			
SW7471	7439-97-6	Mercury	mg/kg			0.15						0.27	
SW8081	72-54-8	4,4'-DDD	ug/kg			2.9	J-					3.2	J-
SW8081	72-55-9	4,4'-DDE	ug/kg			18.1						26	
SW8081	50-29-3	4,4'-DDT	ug/kg			4.1	JN					2.7	JN
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.45	J-					0.96	J-
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.8	U					9.8	U
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.8	U					9.8	U
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.8	U					9.8	U
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.8	U					9.8	U
SW8082	12672-29-6	Aroclor-1248	ug/kg			34.6						40.8	
SW8082	11097-69-1	Aroclor-1254	ug/kg			63.9						95.9	
SW8082	11096-82-5	Aroclor-1260	ug/kg			90.3						144	
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.8	U					9.8	U
SW8082	PCB	Total PCBs	ug/kg			189						281	

			Location ID	OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A	
			Field Sample ID	OL-3822-08		OL-3822-08		OL-3822-08		OL-3822-18		OL-3822-18	
			Sample Name	OL-F-7A-22-RG-01		OL-F-7A-22-RG-01		OL-F-7A-22-RG-01		OL-F-7A-22-RG-02		OL-F-7A-22-RG-02	
			Sampled	8/4/2022		8/4/2022		8/4/2022		8/9/2022		8/9/2022	
			Lab Sample ID	B6978_008		B6978_21371_008		JD94044-8		B6978_018		B6978_21371_018	
			Taxonomic	RG		RG		RG		RG		RG	
			Age (yrs)	--		--		--		--		--	
			Gender	--		--		--		--		--	
			Length (mm)	68		68		68		68		68	
			Weight (g)	98		98		98		107		107	
Method	Parameter Code	Parameter Name	Units										
ASTM D2216	MOISTURE-%	Percent Moisture	%	70.47						72.27			
SW3550	LIPIDS	%Lipids Determination	%			1.802						1.285	
SW7471	7439-97-6	Mercury	mg/kg					0.09					
SW8081	72-54-8	4,4'-DDD	ug/kg					0.71					
SW8081	72-55-9	4,4'-DDE	ug/kg					0.9					
SW8081	50-29-3	4,4'-DDT	ug/kg					0.22	JN				
SW8081	118-74-1	Hexachlorobenzene	ug/kg					2.3					
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.8	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.8	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.8	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.8	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg					17.3					
SW8082	11097-69-1	Aroclor-1254	ug/kg					17.4					
SW8082	11096-82-5	Aroclor-1260	ug/kg					9.7	J				
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.8	U				
SW8082	PCB	Total PCBs	ug/kg					44.4					

			Location ID	OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A	
			Field Sample ID	OL-3822-18		OL-3822-19		OL-3822-19		OL-3822-19	
			Sample Name	OL-F-7A-22-RG-02		OL-F-7A-22-RG-03		OL-F-7A-22-RG-03		OL-F-7A-22-RG-03	
			Sampled	8/9/2022		8/9/2022		8/9/2022		8/9/2022	
			Lab Sample ID	JD94044-18		B6978_019		B6978_21371_019		JD94044-19	
			Taxonomic	RG		RG		RG		RG	
			Age (yrs)	--		--		--		--	
			Gender	--		--		--		--	
			Length (mm)	68		54		54		54	
			Weight (g)	107		106		106		106	
Method	Parameter Code	Parameter Name	Units								
ASTM D2216	MOISTURE-%	Percent Moisture	%			72.08					
SW3550	LIPIDS	%Lipids Determination	%					1.584			
SW7471	7439-97-6	Mercury	mg/kg	0.082						0.069	
SW8081	72-54-8	4,4'-DDD	ug/kg	1.4						1	
SW8081	72-55-9	4,4'-DDE	ug/kg	3.3						1.8	
SW8081	50-29-3	4,4'-DDT	ug/kg	0.79	JN					0.5	JN
SW8081	118-74-1	Hexachlorobenzene	ug/kg	3.7						4.3	
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.8	U					9.4	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.8	U					9.4	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.8	U					9.4	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.8	U					9.4	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	32.6						24.6	
SW8082	11097-69-1	Aroclor-1254	ug/kg	58.4						34.2	
SW8082	11096-82-5	Aroclor-1260	ug/kg	30.3						17.3	
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.8	U					9.4	U
SW8082	PCB	Total PCBs	ug/kg	121						76.1	

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			Location ID	OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A	
			Field Sample ID	OL-3801-01F		OL-3801-01F		OL-3801-01F		OL-3801-01F		OL-3801-04F		OL-3801-04F		OL-3801-05F		OL-3801-05F		OL-3801-05F		OL-3801-06F		OL-3801-06F							
			Sample Name	OL-F-1A-22-CCP-01		OL-F-1A-22-CCP-01		OL-F-1A-22-CCP-01		OL-F-1A-22-CCP-01		OL-F-1A-22-PKSD-01		OL-F-1A-22-PKSD-01		OL-F-1A-22-PKSD-02		OL-F-1A-22-PKSD-02		OL-F-1A-22-PKSD-02		OL-F-1A-22-PKSD-03		OL-F-1A-22-PKSD-03							
			Sampled	4/22/2022		4/22/2022		4/22/2022		4/22/2022		5/5/2022		5/5/2022		5/5/2022		5/5/2022		5/5/2022		5/5/2022		5/5/2022							
			Lab Sample ID	B6705_001		B6705_21483_DF_001-RJ2		B6705_21524_001-R2		JD95592-1		B6705_21437_004		JD95592-4		B6705_21437_005		B6705_21483_DF_005		JD95592-5		B6705_006		B6705_21437_006							
			Taxonomic	CCP		CCP		CCP		CCP		PKSD		PKSD		PKSD		PKSD		PKSD		PKSD		PKSD							
			Age (yrs)	3+		3+		3+		3+		3+		3+		3+		3+		3+		4+		4+							
			Gender	F		F		F		F		M		M		M		M		M		M		M							
			Length (mm)	590		590		590		590		134		134		165		165		165		168		168							
			Weight (g)	3804		3804		3804		3804		48		48		84		84		84		99		99							
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%	69.98																		77.17									
SW3550	LIPIDS	%Lipids Determination	%					6.1				0.804	J-			0.445	J-							0.695	J-						
SW7471	7439-97-6	Mercury	mg/kg							0.35				0.13						0.12											
SW8081	118-74-1	Hexachlorobenzene	ug/kg							0.71				0.16	J					0.076	J										
SW8082	12674-11-2	Aroclor-1016	ug/kg							9.8	U			10	U					9.8	U										
SW8082	11104-28-2	Aroclor-1221	ug/kg							9.8	U			10	U					9.8	U										
SW8082	11141-16-5	Aroclor-1232	ug/kg							9.8	U			10	U					9.8	U										
SW8082	53469-21-9	Aroclor-1242	ug/kg							9.8	U			10	U					9.8	U										
SW8082	12672-29-6	Aroclor-1248	ug/kg							355				7.3	J					4.5	J										
SW8082	11097-69-1	Aroclor-1254	ug/kg							608				7.8	J					4.2	J										
SW8082	11096-82-5	Aroclor-1260	ug/kg							427				10	U					4	J										
SW8082	11100-14-4	Aroclor-1268	ug/kg							9.8	U			10	U					9.8	U										
SW8082	PCB	Total PCBs	ug/kg							1390				15.1						12.7											
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g			3.9	J											0.436	U												
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g			0.602	U											0.525	U												
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g			0.728	U											0.62	U												
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g			0.381	U											0.35	J												
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g			0.355	J											0.234	U												
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g			2.84												0.228	U												
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g			1.55	J											0.203	U												
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g			0.777	J											0.236	U												
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g			0.42	U											0.309	U												
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g			1.07	J											0.226	U												
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g			0.406	U											0.247	U												
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g			0.573	J											0.228	U												
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g			3.25												0.244	U												
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g			0.792												0.276	U												
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g			2.82												0.215	U												
SW8290	3268-87-9	OCDD	pg/g			3.78	J											0.99	U												
SW8290	39001-02-0	OCDF	pg/g			0.735	U											0.756	U												
SW8290	HpCDD	Total Hepta-Dixons	pg/g			3.9	J											0.436	U												
SW8290	HpCDF	Total HPCDF	pg/g			0.661	U											0.57	U												
SW8290	HxCDD	Total HxCDD	pg/g			3.62												0.35													
SW8290	HxCDF	Total HxCDF	pg/g			3.18	J											0.239	U												
SW8290	PeCDD	Total PECDD	pg/g			1.07	J											0.226	U												
SW8290	PeCDF	Total PECDF	pg/g			3.25												0.245	U												
SW8290	TCDD	Total TCDD	pg/g			0.792												0.276	U												
SW8290	TCDF	Total TCDF	pg/g			4.63	J											0.215	U												

			Location ID	OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A	
			Field Sample ID	OL-3801-06F		OL-3801-06F		OL-3801-07F		OL-3801-07F		OL-3801-07F		OL-3801-07F		OL-3801-11F		OL-3801-11F		OL-3801-11F		OL-3801-11F		OL-3801-11F		OL-3801-12F	
			Sample Name	OL-F-1A-22-PKSD-03		OL-F-1A-22-PKSD-03		OL-F-1A-22-PKSD-04		OL-F-1A-22-PKSD-04		OL-F-1A-22-PKSD-04		OL-F-1A-22-PKSD-04		OL-F-1A-22-CCP-02		OL-F-1A-22-CCP-02		OL-F-1A-22-CCP-02		OL-F-1A-22-CCP-02		OL-F-1A-22-CCP-02		OL-F-1A-22-CCP-03	
			Sampled	5/5/2022		5/5/2022		5/5/2022		5/5/2022		5/5/2022		5/5/2022		5/27/2022		5/27/2022		5/27/2022		5/27/2022		5/27/2022		5/27/2022	
			Lab Sample ID	B6705_21483_DF_006		JD95592-6		B6705_007		B6705_21437_007		B6705_21483_DF_007		JD95592-7		B6705_011		B6705_21483_DF_011		B6705_21524_011-R2		JD95592-11		B6705_012			
			Taxonomic	PKSD		PKSD		PKSD		PKSD		PKSD		PKSD		CCP		CCP		CCP		CCP		CCP			
			Age (yrs)	4+		4+		3+		3+		3+		3+		4		4		4		4		3			
			Gender	M		M		F		F		F		F		F		F		F		F		F			
			Length (mm)	168		168		164		164		164		164		516		516		516		516		499			
			Weight (g)	99		99		97		97		97		97		1823		1823		1823		1823		1959			
Method	Code	Parameter Name	Units																										
ASTM D2216	MOISTURE-%	Percent Moisture	%					76.3								78.02								72.71			
SW3550	LIPIDS	%Lipids Determination	%							0.491	J-									1.271							
SW7471	7439-97-6	Mercury	mg/kg			0.13								0.17								0.013	U				
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.09	J							0.11	J							0.2					
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.4	U							10	U							9.6	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.4	U							10	U							9.6	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.4	U							10	U							9.6	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.4	U							10	U							9.6	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg			5.9	J							6.7	J							40.9					
SW8082	11097-69-1	Aroclor-1254	ug/kg			12.4								6.4	J							30.4					
SW8082	11096-82-5	Aroclor-1260	ug/kg			16.4								5.1	J							15.3					
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.4	U							10	U							9.6	U				
SW8082	PCB	Total PCBs	ug/kg			34.7								18.2								86.6					
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g	0.442	U							1.28	UJ					0.333	U								
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g	0.291	U							0.91	UJ					0.572	U								
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g	0.331	U							0.517	U					0.373	U								
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g	0.309	U							0.374	U					0.225	U								
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g	0.17	U							0.153	U					0.129	U								
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g	0.305	U							0.396	U					0.252	U								
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g	0.17	U							0.149	U					0.15	U								
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g	0.331	U							0.633	U					0.313	U								
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g	0.233	U							0.262	U					0.217	U								
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g	0.282	U							0.233	U					0.165	U								
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g	0.194	U							0.211	U					0.108	U								
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g	0.185	U							0.188	U					0.155	U								
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g	0.183	U							0.192	U					0.109	U								
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g	0.385	U							0.288	U					0.191	U								
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g	0.229	U							0.199	U					0.16	U								
SW8290	3268-87-9	OCDD	pg/g	0.842	U								R						R								
SW8290	39001-02-0	OCDF	pg/g	0.562	U								R						R								
SW8290	HpCDD	Total Hepta-Dixons	pg/g	0.442	U							1.28	U					0.333	U								
SW8290	HpCDF	Total HPCDF	pg/g	0.31	U							0.666	U					0.446	U								
SW8290	HxCDD	Total HxCDD	pg/g	0.315	U							0.45	U					0.261	U								
SW8290	HxCDF	Total HxCDF	pg/g	0.187	U							0.18	U					0.159	U								
SW8290	PeCDD	Total PECDD	pg/g	0.282	U							0.233	U					0.165	U								
SW8290	PeCDF	Total PECDF	pg/g	0.189	U							0.201	U					0.108	U								
SW8290	TCDD	Total TCDD	pg/g	0.385	U							0.288	U					0.191	U								
SW8290	TCDF	Total TCDF	pg/g	0.229	U							0.199	U					0.16	U								

			Location ID	OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A	
			Field Sample ID	OL-3801-12F		OL-3801-12F		OL-3801-12F		OL-3806-05F		OL-3806-05F		OL-3806-05F		OL-3806-06F		OL-3806-06F		OL-3806-06F		OL-3806-07F		OL-3806-07F					
			Sample Name	OL-F-1A-22-CCP-03		OL-F-1A-22-CCP-03		OL-F-1A-22-CCP-03		OL-F-1A-22-SMB-01		OL-F-1A-22-SMB-01		OL-F-1A-22-SMB-01		OL-F-1A-22-SMB-02		OL-F-1A-22-SMB-02		OL-F-1A-22-SMB-02		OL-F-1A-22-SMB-03		OL-F-1A-22-SMB-03					
			Sampled	5/27/2022		5/27/2022		5/27/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022					
			Lab Sample ID	B6705_21483_DF_01R		B6705_21524_012-R2		JD95592-12		B6724_005		B6724_21460_005		JD95922-5		B6724_006		B6724_21460_006		JD95922-6		B6724_007		B6724_21460_007					
			Taxonomic	CCP		CCP		CCP		SMB		SMB		SMB		SMB		SMB		SMB		SMB		SMB					
			Age (yrs)	3		3		3		8		8		8		8+		8+		8+		12		12					
			Gender	F		F		F		F		F		F		F		F		F		F		F					
			Length (mm)	499		499		499		478		478		478		489		489		489		476		476					
			Weight (g)	1959		1959		1959		1522		1522		1522		1547		1547		1547		1289		1289					
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%							77.26						77.8						79.41							
SW3550	LIPIDS	%Lipids Determination	%			5.275						1.832						1.078						0.206					
SW7471	7439-97-6	Mercury	mg/kg					0.014	U					0.81						1.1									
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.37						0.19	J					0.21									
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.8	U					9.8	U					10	U								
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.8	U					9.8	U					10	U								
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.8	U					9.8	U					10	U								
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.8	U					9.8	U					10	U								
SW8082	12672-29-6	Aroclor-1248	ug/kg					79.2						42.7						47									
SW8082	11097-69-1	Aroclor-1254	ug/kg					52						93.1						108									
SW8082	11096-82-5	Aroclor-1260	ug/kg					25.9						71.9						102									
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.8	U					9.8	U					10	U								
SW8082	PCB	Total PCBs	ug/kg					157						208						257									
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g	0.78	J																								
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g	0.251	U																								
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g	0.27	U																								
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g	0.346	U																								
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g	0.214	U																								
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g	0.331	U																								
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g	0.194	U																								
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g	0.365	U																								
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g	0.254	U																								
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g	0.345	U																								
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g	0.214	U																								
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g	0.205	U																								
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g	0.235	U																								
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g	0.283	U																								
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g	0.668	J																								
SW8290	3268-87-9	OCDD	pg/g	0.508	U																								
SW8290	39001-02-0	OCDF	pg/g	0.472	U																								
SW8290	HpCDD	Total Hepta-Dixons	pg/g	0.78																									
SW8290	HpCDF	Total HPCDF	pg/g	0.26	U																								
SW8290	HxCDD	Total HxCDD	pg/g	0.346	U																								
SW8290	HxCDF	Total HxCDF	pg/g	0.215	U																								
SW8290	PeCDD	Total PECDD	pg/g	0.345	U																								
SW8290	PeCDF	Total PECDF	pg/g	0.224	U																								
SW8290	TCDD	Total TCDD	pg/g	0.283	U																								
SW8290	TCDF	Total TCDF	pg/g	0.668	J																								

			Location ID	OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-1A		OL-F-2A	
			Field Sample ID	OL-3806-07F		OL-3806-08F		OL-3806-08F		OL-3806-08F		OL-3806-09F		OL-3806-09F		OL-3806-09F		OL-3806-10F		OL-3806-10F		OL-3806-10F		OL-3801-08F	
			Sample Name	OL-F-1A-22-SMB-03		OL-F-1A-22-WALL-01		OL-F-1A-22-WALL-01		OL-F-1A-22-WALL-01		OL-F-1A-22-WALL-02		OL-F-1A-22-WALL-02		OL-F-1A-22-WALL-02		OL-F-1A-22-WALL-03		OL-F-1A-22-WALL-03		OL-F-1A-22-WALL-03		OL-F-2A-22-PKSD-01	
			Sampled	6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		5/17/2022	
			Lab Sample ID	JD95922-7		B6724_008		B6724_21460_008		JD95922-8		B6724_009		B6724_21460_009		JD95922-9		B6724_010		B6724_21460_010		JD95922-10		B6705_008	
			Taxonomic	SMB		WALL		WALL		WALL		WALL		WALL		WALL		WALL		WALL		WALL		PKSD	
			Age (yrs)	12		13		13		13		5		5		5		4		4		4		4+	
			Gender	F		M		M		M		F		F		F		M		M		M		M	
			Length (mm)	476		543		543		543		557		557		557		532		532		532		186	
			Weight (g)	1289		1863		1863		1863		1775		1775		1775		1860		1860		1860		160	
Method	Code	Parameter Name	Units																										
ASTM D2216	MOISTURE-%	Percent Moisture	%			75.64						76.16						74.48						76.96	
SW3550	LIPIDS	%Lipids Determination	%					3.847						2.049						3.609					
SW7471	7439-97-6	Mercury	mg/kg	1.2						2.1						1						0.52			
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.19	U					1						0.29						0.5			
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.6	U					9.6	U					9.3	U					10	U		
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.6	U					9.6	U					9.3	U					10	U		
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.6	U					9.6	U					9.3	U					10	U		
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.6	U					9.6	U					9.3	U					10	U		
SW8082	12672-29-6	Aroclor-1248	ug/kg	9.6	U					319						56.5						103			
SW8082	11097-69-1	Aroclor-1254	ug/kg	66.3						677						82.7						117			
SW8082	11096-82-5	Aroclor-1260	ug/kg	54.6						294						46.9						48			
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.6	U					9.6	U					9.3	U					10	U		
SW8082	PCB	Total PCBs	ug/kg	121						1290						186						268			
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g																						
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g																						
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g																						
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g																						
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g																						
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g																						
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g																						
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g																						
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g																						
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g																						
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g																						
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g																						
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g																						
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g																						
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g																						
SW8290	3268-87-9	OCDD	pg/g																						
SW8290	39001-02-0	OCDF	pg/g																						
SW8290	HpCDD	Total Hepta-Dixons	pg/g																						
SW8290	HpCDF	Total HPCDF	pg/g																						
SW8290	HxCDD	Total HxCDD	pg/g																						
SW8290	HxCDF	Total HxCDF	pg/g																						
SW8290	PeCDD	Total PECDD	pg/g																						
SW8290	PeCDF	Total PECDF	pg/g																						
SW8290	TCDD	Total TCDD	pg/g																						
SW8290	TCDF	Total TCDF	pg/g																						

			Location ID	OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A	
			Field Sample ID	OL-3801-08F		OL-3801-08F		OL-3801-08F		OL-3801-09F		OL-3801-09F		OL-3801-15F		OL-3801-15F		OL-3801-15F		OL-3801-15F		OL-3801-16F		OL-3801-16F			
			Sample Name	OL-F-2A-22-PKSD-01		OL-F-2A-22-PKSD-01		OL-F-2A-22-PKSD-01		OL-F-2A-22-PKSD-02		OL-F-2A-22-PKSD-02		OL-F-2A-22-CCP-01		OL-F-2A-22-CCP-01		OL-F-2A-22-CCP-01		OL-F-2A-22-CCP-01		OL-F-2A-22-CCP-02		OL-F-2A-22-CCP-02			
			Sampled	5/17/2022		5/17/2022		5/17/2022		5/17/2022		5/17/2022		5/30/2022		5/30/2022		5/30/2022		5/30/2022		5/30/2022		5/30/2022			
			Lab Sample ID	B6705_21437_008		B6705_21483_DF_008		JD95592-8		B6705_21437_009		JD95592-9		B6705_015		B6705_21483_DF_015		B6705_21524_015-R2		JD95592-15		B6705_016		B6705_21483_DF_016			
			Taxonomic	PKSD		PKSD		PKSD		PKSD		PKSD		CCP		CCP		CCP		CCP		CCP		CCP			
			Age (yrs)	4+		4+		4+		3+		3+		3+		3+		3+		3+		3+		3+			
			Gender	M		M		M		F		F		M		M		M		M		M		M			
			Length (mm)	186		186		186		136		136		433		433		433		433		390		390			
			Weight (g)	160		160		160		53		53		1082		1082		1082		1082		880		880			
Method	Code	Parameter Name	Units																								
ASTM D2216	MOISTURE-%	Percent Moisture	%											75.72								77.93					
SW3550	LIPIDS	%Lipids Determination	%	0.451	J-					0.852	J-							2.055									
SW7471	7439-97-6	Mercury	mg/kg					0.13				0.36								0.013	U						
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.2	U			0.27								0.16	J						
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.8	U			9.6	U							9.3	U						
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.8	U			9.6	U							9.3	U						
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.8	U			9.6	U							9.3	U						
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.8	U			9.6	U							9.3	U						
SW8082	12672-29-6	Aroclor-1248	ug/kg					9.8	U			19.2								12.5							
SW8082	11097-69-1	Aroclor-1254	ug/kg					9.8	U			27								10.4							
SW8082	11096-82-5	Aroclor-1260	ug/kg					9.8	U			9.6	U							9.3	U						
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.8	U			9.6	U							9.3	U						
SW8082	PCB	Total PCBs	ug/kg					9.8	U			46.2								22.9							
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g			0.474	U									0.665	U							0.254	U		
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g			0.899	U									0.448	UJ							0.348	U		
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g			0.753	U									0.321	U							0.401	U		
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g			0.269	U									0.533	U							0.3	U		
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g			0.158	U									0.378	UJ							0.218	U		
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g			0.257	U									0.511	U							0.331	U		
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g			0.154	U									0.418	U							0.217	U		
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g			0.354	U									0.557	U							0.323	U		
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g			0.263	U									0.428	U							0.315	U		
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g			0.256	U									0.349	U							0.331	U		
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g			0.259	U									0.396	U							0.32	U		
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g			0.177	U									0.467	UJ							0.237	U		
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g			0.248	U									0.394	UJ							0.28	U		
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g			0.244	U									0.538	U							0.409	U		
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g			0.226	U									0.367	U							0.261	U		
SW8290	3268-87-9	OCDD	pg/g				R									1.5	UJ							0.959	J		
SW8290	39001-02-0	OCDF	pg/g				R									1.42	UJ							0.56	U		
SW8290	HpCDD	Total Hepta-Dixons	pg/g			0.474	U									0.665	U							0.254	U		
SW8290	HpCDF	Total HPCDF	pg/g			0.82	U									0.375	U							0.373	U		
SW8290	HxCDD	Total HxCDD	pg/g			0.29	U									0.532	U							0.318	U		
SW8290	HxCDF	Total HxCDF	pg/g			0.18	U									0.422	U							0.244	U		
SW8290	PeCDD	Total PECDD	pg/g			0.256	U									0.349	U							0.331	U		
SW8290	PeCDF	Total PECDF	pg/g			0.253	U									0.395	U							0.3	U		
SW8290	TCDD	Total TCDD	pg/g			0.244	U									0.538	U							0.409	U		
SW8290	TCDF	Total TCDF	pg/g			0.226	U									0.367	U							0.261	U		

			Location ID	OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A	
			Field Sample ID	OL-3801-16F		OL-3801-16F		OL-3805-01F		OL-3805-01F		OL-3805-01F		OL-3805-01F		OL-3805-02F		OL-3805-02F		OL-3805-02F		OL-3805-02F		OL-3805-02F		OL-3806-01F			
			Sample Name	OL-F-2A-22-CCP-02		OL-F-2A-22-CCP-02		OL-F-2A-22-SMB-01		OL-F-2A-22-SMB-01		OL-F-2A-22-SMB-01		OL-F-2A-22-SMB-01		OL-F-2A-22-SMB-02		OL-F-2A-22-SMB-02		OL-F-2A-22-SMB-02		OL-F-2A-22-SMB-02		OL-F-2A-22-SMB-02		OL-F-2A-22-SMB-03			
			Sampled	5/30/2022		5/30/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022			
			Lab Sample ID	B6705_21524_016-R2		JD95592-16		B6704_019		B6704_21409_019		B6704_21450_DF_019		JD95098-19		B6704_020		B6704_21409_020		B6704_21450_DF_020		JD95098-20		B6724_001			
			Taxonomic	CCP		CCP		SMB		SMB		SMB		SMB		SMB		SMB		SMB		SMB		SMB			
			Age (yrs)	3+		3+		9		9		9		9		5		5		5		5		3+			
			Gender	M		M		F		F		F		F		F		F		F		F		F			
			Length (mm)	390		390		464		464		464		464		410		410		410		410		423			
			Weight (g)	880		880		1404		1404		1404		1404		1164		1164		1164		1164		1256			
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%					77.14								75.76								76.6			
SW3550	LIPIDS	%Lipids Determination	%	1.12						1.258								1.707									
SW7471	7439-97-6	Mercury	mg/kg			0.014	U							0.94								0.8					
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.1	J							0.092	J							0.34					
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.8	U							10	UJ							10	UJ				
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.8	U							10	UJ							10	UJ				
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.8	U							10	UJ							10	UJ				
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.8	U							10	UJ							10	UJ				
SW8082	12672-29-6	Aroclor-1248	ug/kg			15.8								20.9	J-							64.9	J-				
SW8082	11097-69-1	Aroclor-1254	ug/kg			9.8								46.4	J-							106	J-				
SW8082	11096-82-5	Aroclor-1260	ug/kg			9.8	U							40.5	J-							69.1	J-				
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.8	U							10	UJ							10	UJ				
SW8082	PCB	Total PCBs	ug/kg			25.6								108	J-							240	J-				
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g									0.703	J							0.28	U						
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g									0.739	J							0.271	U						
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g									0.215	U							0.294	U						
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g									0.235	J							0.252	U						
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g									0.153	U							0.169	U						
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g									0.142	U							0.256	U						
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g									0.16	U							0.182	U						
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g									0.143	U							0.268	U						
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g									0.179	U							0.218	UJ						
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g									0.189	UJ							0.308	J						
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g									0.203	U							0.198	U						
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g									0.152	U							0.184	UJ						
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g									0.533	J							1.03	J						
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g									0.0768	J							0.128	U						
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g									0.333	J							0.625							
SW8290	3268-87-9	OCDD	pg/g									2.46	J							1.39	J						
SW8290	39001-02-0	OCDF	pg/g									0.242	U							0.276	U						
SW8290	HpCDD	Total Hepta-Dixons	pg/g									1.12	J							0.28	U						
SW8290	HpCDF	Total HPCDF	pg/g									1.18								0.281	U						
SW8290	HxCDD	Total HxCDD	pg/g									0.235	J							0.258	U						
SW8290	HxCDF	Total HxCDF	pg/g									0.16	U							0.187	U						
SW8290	PeCDD	Total PECDD	pg/g									0.189	U							0.308	J						
SW8290	PeCDF	Total PECDF	pg/g									0.533								1.44	J						
SW8290	TCDD	Total TCDD	pg/g									0.0768	J							0.128	U						
SW8290	TCDF	Total TCDF	pg/g									0.63	J							0.625							

			Location ID	OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A	
			Field Sample ID	OL-3806-01F		OL-3806-01F		OL-3806-01F		OL-3806-02F		OL-3806-02F		OL-3806-02F		OL-3806-03F		OL-3806-03F		OL-3806-03F		OL-3806-04F		OL-3806-04F							
			Sample Name	OL-F-2A-22-SMB-03		OL-F-2A-22-SMB-03		OL-F-2A-22-SMB-03		OL-F-2A-22-WALL-01		OL-F-2A-22-WALL-01		OL-F-2A-22-WALL-01		OL-F-2A-22-WALL-02		OL-F-2A-22-WALL-02		OL-F-2A-22-WALL-02		OL-F-2A-22-WALL-03		OL-F-2A-22-WALL-03							
			Sampled	6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022		6/8/2022							
			Lab Sample ID	B6724_21460_001		B6724_21557_DF_001		JD95922-1		B6724_002		B6724_21460_002		JD95922-2		B6724_003		B6724_21460_003		JD95922-3		B6724_004		B6724_21460_004							
			Taxonomic	SMB		SMB		SMB		WALL		WALL		WALL		WALL		WALL		WALL		WALL		WALL							
			Age (yrs)	3+		3+		3+		2+		2+		2+		5+		5+		5+		7+		7+							
			Gender	F		F		F		M		M		M		M		M		M		M		M							
			Length (mm)	423		423		423		510		510		510		500		500		500		534		534							
			Weight (g)	1256		1256		1256		1547		1547		1547		1637		1637		1637		1714		1714							
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%							76.38						71.64						76.03									
SW3550	LIPIDS	%Lipids Determination	%	0.958								2.67						5.091						2.641							
SW7471	7439-97-6	Mercury	mg/kg					0.38						0.53						0.71											
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.18	J					0.28						0.88											
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.4	U					9.6	U					9.6	U										
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.4	U					9.6	U					9.6	U										
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.4	U					9.6	U					9.6	U										
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.4	U					9.6	U					9.6	U										
SW8082	12672-29-6	Aroclor-1248	ug/kg					26.9						54.2						199											
SW8082	11097-69-1	Aroclor-1254	ug/kg					46.5						71						248											
SW8082	11096-82-5	Aroclor-1260	ug/kg					34.6						33.7						108											
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.4	U					9.6	U					9.6	U										
SW8082	PCB	Total PCBs	ug/kg					108						159						555											
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g			0.214	U																								
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g			0.297	U																								
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g			0.301	U																								
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g			0.165	U																								
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g			0.13	U																								
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g			0.149	U																								
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g			0.137	U																								
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g			0.163	U																								
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g			0.185	U																								
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g			0.276	U																								
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g			0.269	U																								
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g			0.147	U																								
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g			0.258	U																								
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g			0.265	U																								
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g			0.231	U																								
SW8290	3268-87-9	OCDD	pg/g			0.45	U																								
SW8290	39001-02-0	OCDF	pg/g			0.241	U																								
SW8290	HpCDD	Total Hepta-Dixons	pg/g			0.214	U																								
SW8290	HpCDF	Total HPCDF	pg/g			0.299	U																								
SW8290	HxCDD	Total HxCDD	pg/g			0.158	U																								
SW8290	HxCDF	Total HxCDF	pg/g			0.148	U																								
SW8290	PeCDD	Total PECDD	pg/g			0.276	U																								
SW8290	PeCDF	Total PECDF	pg/g			0.263	U																								
SW8290	TCDD	Total TCDD	pg/g			0.265	U																								
SW8290	TCDF	Total TCDF	pg/g			0.231	U																								

			Location ID	OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-2A		OL-F-3A		OL-F-3A		OL-F-3A	
			Field Sample ID	OL-3806-04F		OL-3816-03F		OL-3816-03F		OL-3816-03F		OL-3816-06F		OL-3816-06F		OL-3816-06F		OL-3816-06F		OL-3801-10F		OL-3801-10F		OL-3801-10F	
			Sample Name	OL-F-2A-22-WALL-03		OL-F-2A-22-CCP-03		OL-F-2A-22-CCP-03		OL-F-2A-22-CCP-03		OL-F-2A-22-PKSD-03		OL-F-2A-22-PKSD-03		OL-F-2A-22-PKSD-03		OL-F-2A-22-PKSD-03		OL-F-3A-22-PKSD-01		OL-F-3A-22-PKSD-01		OL-F-3A-22-PKSD-01	
			Sampled	6/8/2022		6/30/2022		6/30/2022		6/30/2022		7/1/2022		7/1/2022		7/1/2022		7/1/2022		5/20/2022		5/20/2022		5/20/2022	
			Lab Sample ID	JD95922-4		B6772_014		B6772_21474_014		JD96515-14		B6772_017		B6772_21474_017		B6772_21562_DF_017		JD96515-17		B6705_010		B6705_21437_010		B6705_21483_DF_010	
			Taxonomic	WALL		CCP		CCP		CCP		PKSD		PKSD		PKSD		PKSD		PKSD		PKSD		PKSD	
			Age (yrs)	7+		5+		5+		5+		5		5		5		5		3+		3+		3+	
			Gender	M		M		M		M		M		M		M		M		F		F		F	
			Length (mm)	534		650		650		650		157		157		157		157		183		183		183	
			Weight (g)	1714		3948		3948		3948		82		82		82		82		150		150		150	
Method	Code	Parameter Name	Units																						
ASTM D2216	MOISTURE-%	Percent Moisture	%			67.07						79.63								77.37					
SW3550	LIPIDS	%Lipids Determination	%					9.913						0.198								0.34	J-		
SW7471	7439-97-6	Mercury	mg/kg	0.66						0.25								0.11							
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.26						0.67								0.2	U						
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.6	U					10	U							10	U						
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.6	U					10	U							10	U						
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.6	U					10	U							10	U						
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.6	U					10	U							10	U						
SW8082	12672-29-6	Aroclor-1248	ug/kg	38.2						28.5								10	U						
SW8082	11097-69-1	Aroclor-1254	ug/kg	68.6						122								3.4	J						
SW8082	11096-82-5	Aroclor-1260	ug/kg	44.4						64								10	U						
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.6	U					10	U							10	U						
SW8082	PCB	Total PCBs	ug/kg	151						215								3.4	J						
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g													0.251	U							1.01	U
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g													0.176	U							1.31	UJ
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g													0.186	U							1.07	U
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g													0.18	J							0.646	U
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g													0.112	U							0.349	U
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g													0.103	U							0.644	U
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g													0.0973	U							0.324	U
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g														R							0.908	U
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g													0.136	U							0.647	UJ
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g													0.134	UJ							0.757	U
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g													0.104	U							0.673	U
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g													0.106	U							0.393	U
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g													0.1	U							0.546	U
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g													0.0953	U							0.579	U
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g													0.132	J							2.06	
SW8290	3268-87-9	OCDD	pg/g													0.299	U								R
SW8290	39001-02-0	OCDF	pg/g													0.208	U								R
SW8290	HpCDD	Total Hepta-Dixons	pg/g													0.251	U							1.01	U
SW8290	HpCDF	Total HPCDF	pg/g													0.18	U							1.18	U
SW8290	HxCDD	Total HxCDD	pg/g													0.18	J							0.72	U
SW8290	HxCDF	Total HxCDF	pg/g													0.111	U							0.4	U
SW8290	PeCDD	Total PECDD	pg/g													0.134	U							0.757	U
SW8290	PeCDF	Total PECDF	pg/g													0.102	U							0.61	U
SW8290	TCDD	Total TCDD	pg/g													0.0953	U							0.579	U
SW8290	TCDF	Total TCDF	pg/g													1.08								2.06	

			Location ID	OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A	
			Field Sample ID	OL-3801-10F		OL-3802-04F		OL-3802-04F		OL-3802-04F		OL-3802-04F		OL-3802-05F		OL-3802-05F		OL-3802-05F		OL-3802-05F		OL-3802-06F		OL-3802-06F			
			Sample Name	OL-F-3A-22-PKSD-01		OL-F-3A-22-WALL-01		OL-F-3A-22-WALL-01		OL-F-3A-22-WALL-01		OL-F-3A-22-WALL-01		OL-F-3A-22-WALL-02		OL-F-3A-22-WALL-02		OL-F-3A-22-WALL-02		OL-F-3A-22-WALL-02		OL-F-3A-22-WALL-03		OL-F-3A-22-WALL-03			
			Sampled	5/20/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022			
			Lab Sample ID	JD95592-10		B6704_004		B6704_21409_004		B6704_21450_DF_004		JD95098-4		B6704_005		B6704_21409_005		B6704_21450_DF_005		JD95098-5		B6704_006		B6704_21409_006			
			Taxonomic	PKSD		WALL		WALL		WALL		WALL		WALL		WALL		WALL		WALL		WALL		WALL			
			Age (yrs)	3+		5		5		5		5		8		8		8		8		3		3			
			Gender	F		F		F		F		F		M		M		M		M		F		F			
			Length (mm)	183		537		537		537		537		564		564		564		564		534		534			
			Weight (g)	150		1912		1912		1912		1912		2458		2458		2458		2458		1851		1851			
Method	Code	Parameter Name	Units																										
ASTM D2216	MOISTURE-%	Percent Moisture	%			74.46										73.27						76.03					
SW3550	LIPIDS	%Lipids Determination	%					3.271										3.581						1.377			
SW7471	7439-97-6	Mercury	mg/kg	0.18								0.57								1.2							
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.19	U							0.36								0.71							
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.3	U							9.8	UJ							9.8	UJ						
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.3	U							9.8	UJ							9.8	UJ						
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.3	U							9.8	UJ							9.8	UJ						
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.3	U							9.8	UJ							9.8	UJ						
SW8082	12672-29-6	Aroclor-1248	ug/kg	9.3	U							48.1	J-							190	J-						
SW8082	11097-69-1	Aroclor-1254	ug/kg	9.3	U							58.8	J-							278	J-						
SW8082	11096-82-5	Aroclor-1260	ug/kg	9.3	U							27.3	J-							125	J-						
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.3	U							9.8	UJ							9.8	UJ						
SW8082	PCB	Total PCBs	ug/kg	9.3	U							134	J-							593	J-						
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g							0.141	J							0.349	J								
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g							0.116	U							0.156	U								
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g							0.164	U							0.166	U								
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g							0.218	J							0.264	J								
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g							0.123	U							0.145	U								
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g							0.153	J							0.191	U								
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g							0.132	U							0.155	U								
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g							0.103	J							0.198	U								
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g							0.163	U							0.192	U								
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g							0.353	J							0.377	J								
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g							0.188	U							0.172	U								
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g							0.206	J							0.165	U								
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g							0.592	J							0.631	J								
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g							0.111	U							0.205	U								
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g							0.563	J							1.03									
SW8290	3268-87-9	OCDD	pg/g							0.421	J							1.04	J								
SW8290	39001-02-0	OCDF	pg/g							0.166	U							0.261	U								
SW8290	HpCDD	Total Hepta-Dixons	pg/g							0.141	J							0.349	J								
SW8290	HpCDF	Total HPCDF	pg/g							0.136	U							0.16	U								
SW8290	HxCDD	Total HxCDD	pg/g							0.474	J							0.264	J								
SW8290	HxCDF	Total HxCDF	pg/g							0.206								0.163	U								
SW8290	PeCDD	Total PECDD	pg/g							0.353	J							0.377	J								
SW8290	PeCDF	Total PECDF	pg/g							0.592								0.631									
SW8290	TCDD	Total TCDD	pg/g							0.111	U							0.205	U								
SW8290	TCDF	Total TCDF	pg/g							0.563	J							1.03									

			Location ID	OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A	
			Field Sample ID	OL-3802-06F		OL-3802-06F		OL-3802-12F		OL-3802-12F		OL-3802-12F		OL-3802-12F		OL-3802-13F		OL-3802-13F		OL-3802-13F		OL-3802-13F		OL-3815-01F			
			Sample Name	OL-F-3A-22-WALL-03		OL-F-3A-22-WALL-03		OL-F-3A-22-PKSD-02		OL-F-3A-22-PKSD-02		OL-F-3A-22-PKSD-02		OL-F-3A-22-PKSD-02		OL-F-3A-22-PKSD-03		OL-F-3A-22-PKSD-03		OL-F-3A-22-PKSD-03		OL-F-3A-22-PKSD-03		OL-F-3A-22-CCP-01			
			Sampled	5/31/2022		5/31/2022		6/3/2022		6/3/2022		6/3/2022		6/3/2022		6/3/2022		6/3/2022		6/3/2022		6/3/2022		6/28/2022			
			Lab Sample ID	B6704_21450_DF_006		JD95098-6		B6704_012		B6704_21409_012		B6704_21450_DF_012		JD95098-12		B6704_013		B6704_21409_013		B6704_21450_DF_013		JD95098-13		B6772_007			
			Taxonomic	WALL		WALL		PKSD		PKSD		PKSD		PKSD		PKSD		PKSD		PKSD		PKSD		CCP			
			Age (yrs)	3		3		3		3		3		3		4+		4+		4+		4+		4+			
			Gender	F		F		F		F		F		F		F		F		F		F		F			
			Length (mm)	534		534		181		181		181		181		152		152		152		152		439			
			Weight (g)	1851		1851		138		138		138		138		81		81		81		81		1150			
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%					77.45								75.25								74.75			
SW3550	LIPIDS	%Lipids Determination	%							0.174								0.496									
SW7471	7439-97-6	Mercury	mg/kg			0.52								0.15								0.099					
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.23								0.2	U							0.2	U				
SW8082	12674-11-2	Aroclor-1016	ug/kg			10	UJ							10	UJ							10	UJ				
SW8082	11104-28-2	Aroclor-1221	ug/kg			10	UJ							10	UJ							10	UJ				
SW8082	11141-16-5	Aroclor-1232	ug/kg			10	UJ							10	UJ							10	UJ				
SW8082	53469-21-9	Aroclor-1242	ug/kg			10	UJ							10	UJ							10	UJ				
SW8082	12672-29-6	Aroclor-1248	ug/kg			28.1	J-							10	UJ							10	UJ				
SW8082	11097-69-1	Aroclor-1254	ug/kg			35.8	J-							10	UJ							10	UJ				
SW8082	11096-82-5	Aroclor-1260	ug/kg			17.4	J-							10	UJ							10	UJ				
SW8082	11100-14-4	Aroclor-1268	ug/kg			10	UJ							10	UJ							10	UJ				
SW8082	PCB	Total PCBs	ug/kg			81.3	J-							10	UJ							10	UJ				
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g	0.184	U							0.172	U							0.334	U						
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g	0.124	U							0.084	U							0.214	U						
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g	0.152	U							0.0851	U							0.182	U						
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g	0.125	U							0.27	J							0.283	U						
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g	0.0877	U							0.109	U							0.177	UJ						
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g	0.118	U							0.111	U							0.254	U						
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g	0.091	U							0.111	U							0.183	UJ						
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g	0.125	U							0.152	J							0.281	UJ						
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g	0.106	U							0.131	U							0.225	UJ						
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g	0.131	UJ							0.161	UJ							0.257	UJ						
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g	0.101	U							0.21	U							0.205	U						
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g	0.0892	U							0.122	U							0.199	UJ						
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g	0.273	J							0.203	U							0.196	U						
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g	0.131	U							0.177	U							0.294	U						
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g	0.505	J							0.114	U							0.205	U						
SW8290	3268-87-9	OCDD	pg/g	0.55	J							0.618	J							1.61	J						
SW8290	39001-02-0	OCDF	pg/g	0.245	U							0.275	J							0.744	UJ						
SW8290	HpCDD	Total Hepta-Dixons	pg/g	0.317	J							0.172	U							0.471							
SW8290	HpCDF	Total HPCDF	pg/g	0.137	U							0.0845	U							0.197	U						
SW8290	HxCDD	Total HxCDD	pg/g	0.122	U							0.422	J							0.272	U						
SW8290	HxCDF	Total HxCDF	pg/g	0.093	U							0.118	U							0.195	U						
SW8290	PeCDD	Total PECDD	pg/g	0.131	U							0.161	U							0.257	U						
SW8290	PeCDF	Total PECDF	pg/g	0.273	J							0.206	U							0.2	U						
SW8290	TCDD	Total TCDD	pg/g	0.131	U							0.177	U							0.294	U						
SW8290	TCDF	Total TCDF	pg/g	0.505	J							0.114	U							0.205	U						

			Location ID	OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A	
			Field Sample ID	OL-3815-01F		OL-3815-01F		OL-3815-02F		OL-3815-02F		OL-3815-02F		OL-3815-02F		OL-3815-03F		OL-3815-03F		OL-3815-03F		OL-3815-03F		OL-3815-03F		OL-3815-04F		OL-3815-04F	
			Sample Name	OL-F-3A-22-CCP-01		OL-F-3A-22-CCP-01		OL-F-3A-22-SMB-01		OL-F-3A-22-SMB-01		OL-F-3A-22-SMB-01		OL-F-3A-22-SMB-01		OL-F-3A-22-SMB-02		OL-F-3A-22-SMB-02		OL-F-3A-22-SMB-02		OL-F-3A-22-SMB-02		OL-F-3A-22-SMB-02		OL-F-3A-22-SMB-03		OL-F-3A-22-SMB-03	
			Sampled	6/28/2022		6/28/2022		6/28/2022		6/28/2022		6/28/2022		6/28/2022		6/28/2022		6/28/2022		6/28/2022		6/28/2022		6/28/2022		6/28/2022		6/28/2022	
			Lab Sample ID	B6772_21474_007		JD96515-7		B6772_008		B6772_21474_008		B6772_21562_DF_008		JD96515-8		B6772_009		B6772_21474_009		B6772_21562_DF_009		JD96515-9		B6772_010		B6772_010	
			Taxonomic	CCP		CCP		SMB		SMB		SMB		SMB		SMB		SMB		SMB		SMB		SMB		SMB	
			Age (yrs)	4+		4+		8		8		8		8		5+		5+		5+		5+		9		9	
			Gender	F		F		M		M		M		M		M		M		M		M		M		M	
			Length (mm)	439		439		457		457		457		457		435		435		435		435		455		455	
			Weight (g)	1150		1150		1390		1390		1390		1390		1290		1290		1290		1290		1325		1325	
Method	Code	Parameter Name	Units																										
ASTM D2216	MOISTURE-%	Percent Moisture	%					74.75								75.36										75.9			
SW3550	LIPIDS	%Lipids Determination	%	3.812						2.397								1.862											
SW7471	7439-97-6	Mercury	mg/kg			0.076								0.86	J							0.37							
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.37	J							0.3	J							0.13	J						
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.6	U							9.8	U							9.4	U						
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.6	U							9.8	U							9.4	U						
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.6	U							9.8	U							9.4	U						
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.6	U							9.8	U							9.4	U						
SW8082	12672-29-6	Aroclor-1248	ug/kg			171								60.5	J							11.5							
SW8082	11097-69-1	Aroclor-1254	ug/kg			73.4								123	J							23.7							
SW8082	11096-82-5	Aroclor-1260	ug/kg			25.9								78.9	J							9.4	U						
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.6	U							9.8	U							9.4	U						
SW8082	PCB	Total PCBs	ug/kg			270								262	J							35.2							
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g									0.52	U							0.423	U								
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g									1.31	U							0.814	U								
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g									1.21	U							0.934	U								
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g									0.256	U							0.29	J								
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g									0.198	U							0.106	U								
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g									0.248	U							0.185	U								
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g									0.194	U							0.11	U								
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g										R								R								
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g									0.22	U							0.139	U								
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g									0.273	J							0.22	J								
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g									0.179	U							0.154	U								
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g									0.198	U							0.111	U								
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g									0.887	J							0.393	J								
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g									0.227	J							0.119	U								
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g									1.3								0.593	J								
SW8290	3268-87-9	OCDD	pg/g									0.515	U							0.32	U								
SW8290	39001-02-0	OCDF	pg/g									0.226	U							0.302	J								
SW8290	HpCDD	Total Hepta-Dixons	pg/g									0.52	U							0.423	U								
SW8290	HpCDF	Total HPCDF	pg/g									1.26	U							0.87	U								
SW8290	HxCDD	Total HxCDD	pg/g									0.252	U							0.29									
SW8290	HxCDF	Total HxCDF	pg/g									0.202	U							0.115	U								
SW8290	PeCDD	Total PECDD	pg/g									0.749	J							0.22	J								
SW8290	PeCDF	Total PECDF	pg/g									13.1								0.393	J								
SW8290	TCDD	Total TCDD	pg/g									0.227	J							0.119	U								
SW8290	TCDF	Total TCDF	pg/g									5.48								2.67	J								

			Location ID	OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-3A		OL-F-4A		OL-F-4A							
			Field Sample ID	OL-3815-04F		OL-3815-04F		OL-3815-04F		OL-3816-01F		OL-3816-01F		OL-3816-01F		OL-3816-07F		OL-3816-07F		OL-3816-07F		OL-3803-01F		OL-3803-01F							
			Sample Name	OL-F-3A-22-SMB-03		OL-F-3A-22-SMB-03		OL-F-3A-22-SMB-03		OL-F-3A-22-CCP-02		OL-F-3A-22-CCP-02		OL-F-3A-22-CCP-02		OL-F-3A-22-CCP-03		OL-F-3A-22-CCP-03		OL-F-3A-22-CCP-03		OL-F-4A-22-CCP-01		OL-F-4A-22-CCP-01							
			Sampled	6/28/2022		6/28/2022		6/28/2022		6/29/2022		6/29/2022		6/29/2022		7/7/2022		7/7/2022		7/7/2022		6/6/2022		6/6/2022							
			Lab Sample ID	B6772_21474_010		B6772_21562_DF_010		JD96515-10		B6772_012		B6772_21474_012		JD96515-12		B6772_018		B6772_21474_018		JD96515-18		B6704_014		B6704_21409_014							
			Taxonomic	SMB		SMB		SMB		CCP		CCP		CCP		CCP		CCP		CCP		CCP		CCP							
			Age (yrs)	9		9		9		3+		3+		3+		6+		6+		6+		4+		4+							
			Gender	M		M		M		M		M		M		F		F		F		F		F							
			Length (mm)	455		455		455		679		679		679		668		668		668		608		608							
			Weight (g)	1325		1325		1325		4848		4848		4848		5313		5313		5313		2829		2829							
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%							68.46						75.61						72.97									
SW3550	LIPIDS	%Lipids Determination	%	1.447								9.89						2.634						4.772							
SW7471	7439-97-6	Mercury	mg/kg					0.49						0.14						0.19											
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.15	J					0.69						0.24											
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.8	U					10	U					9.6	U										
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.8	U					10	U					9.6	U										
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.8	U					10	U					9.6	U										
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.8	U					10	U					9.6	U										
SW8082	12672-29-6	Aroclor-1248	ug/kg					18.4						39.4						9.6	U										
SW8082	11097-69-1	Aroclor-1254	ug/kg					46.7						77.9						26.8											
SW8082	11096-82-5	Aroclor-1260	ug/kg					9.8	U					44						9.6	U										
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.8	U					10	U					9.6	U										
SW8082	PCB	Total PCBs	ug/kg					65.1						161						26.8											
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g			0.405	U																								
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g			0.836	U																								
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g			0.849	U																								
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g			0.34	J																								
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g			0.113	U																								
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g			0.293	J																								
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g			0.297	J																								
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g				R																								
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g			0.132	U																								
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g			0.334	J																								
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g			0.299	J																								
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g			0.113	U																								
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g			0.589	J																								
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g			0.149	U																								
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g			0.744																									
SW8290	3268-87-9	OCDD	pg/g			0.29	U																								
SW8290	39001-02-0	OCDF	pg/g			0.216	U																								
SW8290	HpCDD	Total Hepta-Dixons	pg/g			0.405	U																								
SW8290	HpCDF	Total HPCDF	pg/g			0.842	U																								
SW8290	HxCDD	Total HxCDD	pg/g			0.633																									
SW8290	HxCDF	Total HxCDF	pg/g			0.529	J																								
SW8290	PeCDD	Total PECDD	pg/g			0.334	J																								
SW8290	PeCDF	Total PECDF	pg/g			16.8	J																								
SW8290	TCDD	Total TCDD	pg/g			0.149	U																								
SW8290	TCDF	Total TCDF	pg/g			3.54																									

			Location ID	OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A	
			Field Sample ID	OL-3803-01F		OL-3803-02F		OL-3803-02F		OL-3803-02F		OL-3803-02F		OL-3803-03F		OL-3803-03F		OL-3803-03F		OL-3803-03F		OL-3811-01F		OL-3811-01F		OL-3811-01F		OL-3811-01F	
			Sample Name	OL-F-4A-22-CCP-01		OL-F-4A-22-WALL-01		OL-F-4A-22-WALL-01		OL-F-4A-22-WALL-01		OL-F-4A-22-WALL-01		OL-F-4A-22-WALL-02		OL-F-4A-22-WALL-02		OL-F-4A-22-WALL-02		OL-F-4A-22-WALL-02		OL-F-4A-22-WALL-03		OL-F-4A-22-WALL-03		OL-F-4A-22-WALL-03		OL-F-4A-22-WALL-03	
			Sampled	6/6/2022		6/6/2022		6/6/2022		6/6/2022		6/6/2022		6/6/2022		6/6/2022		6/6/2022		6/6/2022		6/20/2022		6/20/2022		6/20/2022		6/20/2022	
			Lab Sample ID	JD95098-14		B6704_015		B6704_21409_015		B6704_21450_DF_015		JD95098-15		B6704_016		B6704_21409_016		B6704_21450_DF_016		JD95098-16		B6737_015		B6737_21238_015		B6737_21238_015		B6737_21238_015	
			Taxonomic	CCP		WALL		WALL		WALL		WALL		WALL		WALL		WALL		WALL		WALL		WALL		WALL		WALL	
			Age (yrs)	4+		4		4		4		4		3+		3+		3+		3+		4		4		4		4	
			Gender	F		M		M		M		M		F		F		F		F		M		M		M		M	
			Length (mm)	608		532		532		532		532		534		534		534		534		563		563		563		563	
			Weight (g)	2829		1741		1741		1741		1741		1995		1995		1995		1995		2090		2090		2090		2090	
Method	Code	Parameter Name	Units																										
ASTM D2216	MOISTURE-%	Percent Moisture	%			75.42										73.07						75.19							
SW3550	LIPIDS	%Lipids Determination	%					3.172										2.519						1.551					
SW7471	7439-97-6	Mercury	mg/kg	0.11										0.6						0.62									
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.33										0.18						0.19									
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.8	UJ									9.6	UJ					9.8	UJ								
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.8	UJ									9.6	UJ					9.8	UJ								
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.8	UJ									9.6	UJ					9.8	UJ								
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.8	UJ									9.6	UJ					9.8	UJ								
SW8082	12672-29-6	Aroclor-1248	ug/kg	28.3	J-									32.5	J-					47.3	J-								
SW8082	11097-69-1	Aroclor-1254	ug/kg	44	J-									46.7	J-					63.4	J-								
SW8082	11096-82-5	Aroclor-1260	ug/kg	26.7	J-									24.1	J-					30.2	J-								
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.8	UJ									9.6	UJ					9.8	UJ								
SW8082	PCB	Total PCBs	ug/kg	99	J-									103	J-					141	J-								
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g							0.148	U							0.175	U										
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g							0.324	J							0.245	J										
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g							0.13	U							0.18	U										
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g							0.14	U							0.149	U										
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g							0.123	U							0.15	U										
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g							0.153	U							0.142	U										
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g							0.117	U							0.142	U										
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g							0.152	U							0.143	U										
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g							0.153	U							0.172	U										
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g							0.193	J							0.199	UJ										
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g							0.161	U							0.146	U										
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g							0.198	J							0.146	U										
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g							0.586	J							0.138	U										
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g							0.187	U							0.129	U										
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g							1.07								0.589											
SW8290	3268-87-9	OCDD	pg/g							0.299	J							0.477	J										
SW8290	39001-02-0	OCDF	pg/g							0.154	U							0.146	U										
SW8290	HpCDD	Total Hepta-Dixons	pg/g							0.148	U							0.175	U										
SW8290	HpCDF	Total HPCDF	pg/g							0.553	J							0.245	J										
SW8290	HxCDD	Total HxCDD	pg/g							0.148	U							0.144	U										
SW8290	HxCDF	Total HxCDF	pg/g							0.864	J							0.152	U										
SW8290	PeCDD	Total PECDD	pg/g							0.193	J							0.199	U										
SW8290	PeCDF	Total PECDF	pg/g							1.21								0.142	U										
SW8290	TCDD	Total TCDD	pg/g							0.187	U							0.129	U										
SW8290	TCDF	Total TCDF	pg/g							1.07								0.589											

			Location ID	OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A	
			Field Sample ID	OL-3811-01F		OL-3811-01F		OL-3811-02F		OL-3811-02F		OL-3811-02F		OL-3811-03F		OL-3811-03F		OL-3811-04F		OL-3811-04F		OL-3811-04F		OL-3814-02F							
			Sample Name	OL-F-4A-22-WALL-03		OL-F-4A-22-WALL-03		OL-F-4A-22-WALL-04		OL-F-4A-22-WALL-04		OL-F-4A-22-WALL-04		OL-F-4A-22-PKSD-01		OL-F-4A-22-PKSD-01		OL-F-4A-22-SMB-01		OL-F-4A-22-SMB-01		OL-F-4A-22-SMB-01		OL-F-4A-22-SMB-02							
			Sampled	6/20/2022		6/20/2022		6/20/2022		6/20/2022		6/20/2022		6/21/2022		6/21/2022		6/21/2022		6/21/2022		6/21/2022		6/23/2022							
			Lab Sample ID	B6737_21347_DF_015-R1		JD91626-15		B6737_016		B6737_21238_016		JD91626-16		B6737_21238_017		JD91626-17		B6737_018		B6737_21238_018		JD91626-18		B6772_005							
			Taxonomic	WALL		WALL		WALL		WALL		WALL		PKSD		PKSD		SMB		SMB		SMB		SMB							
			Age (yrs)	4		4		7+		7+		7+		4		4		4		4		4		5+							
			Gender	M		M		M		M		M		M		M		M		M		M		F							
			Length (mm)	563		563		552		552		552		150		150		436		436		436		456							
			Weight (g)	2090		2090		2268		2268		2268		71		71		1300		1300		1300		1481							
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%					74.47										73.93						74.8							
SW3550	LIPIDS	%Lipids Determination	%							0.947				0.131						1.198											
SW7471	7439-97-6	Mercury	mg/kg			0.55						1.6				0.067						0.48									
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.25						0.23				0.2	U					0.13	J								
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.6	U					9.8	U			10	U					9.4	U								
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.6	U					9.8	U			10	U					9.4	U								
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.6	U					9.8	U			10	U					9.4	U								
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.6	U					9.8	U			10	U					9.4	U								
SW8082	12672-29-6	Aroclor-1248	ug/kg			45.8						51				10	U					18.2									
SW8082	11097-69-1	Aroclor-1254	ug/kg			55.8						97.9				10	U					36.3									
SW8082	11096-82-5	Aroclor-1260	ug/kg			37.9						88				10	U					9.4	U								
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.6	U					9.8	U			10	U					9.4	U								
SW8082	PCB	Total PCBs	ug/kg			139						237				10	U					54.5	J								
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g	0.282	J																										
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g	0.0994	U																										
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g	0.111	U																										
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g	0.248	UJ																										
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g	0.139	U																										
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g	0.163	U																										
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g	0.192	J																										
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g	0.197	U																										
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g	0.173	U																										
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g	0.32	UJ																										
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g	0.344	J																										
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g	0.135	U																										
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g	0.148	U																										
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g	0.273	UJ																										
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g	0.71																											
SW8290	3268-87-9	OCDD	pg/g	0.287	U																										
SW8290	39001-02-0	OCDF	pg/g	0.179	U																										
SW8290	HpCDD	Total Hepta-Dixons	pg/g	0.577	J																										
SW8290	HpCDF	Total HPCDF	pg/g	0.105	U																										
SW8290	HxCDD	Total HxCDD	pg/g	0.177	UJ																										
SW8290	HxCDF	Total HxCDF	pg/g	0.192	J																										
SW8290	PeCDD	Total PECDD	pg/g	0.32	U																										
SW8290	PeCDF	Total PECDF	pg/g	0.344																											
SW8290	TCDD	Total TCDD	pg/g	0.273	U																										
SW8290	TCDF	Total TCDF	pg/g	0.71																											

			Location ID	OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A	
			Field Sample ID	OL-3814-02F		OL-3814-02F		OL-3814-02F		OL-3814-03F		OL-3814-03F		OL-3814-03F		OL-3814-03F		OL-3815-05F		OL-3815-05F		OL-3815-05F		OL-3816-04F							
			Sample Name	OL-F-4A-22-SMB-02		OL-F-4A-22-SMB-02		OL-F-4A-22-SMB-02		OL-F-4A-22-SMB-03		OL-F-4A-22-SMB-03		OL-F-4A-22-SMB-03		OL-F-4A-22-SMB-03		OL-F-4A-22-PKSD-02		OL-F-4A-22-PKSD-02		OL-F-4A-22-PKSD-02		OL-F-4A-22-CCP-02							
			Sampled	6/23/2022		6/23/2022		6/23/2022		6/23/2022		6/23/2022		6/23/2022		6/23/2022		6/29/2022		6/29/2022		6/29/2022		7/1/2022							
			Lab Sample ID	B6772_21474_005		B6772_21562_DF_005		JD96515-5		B6772_006		B6772_21474_006		B6772_21562_DF_006		JD96515-6		B6772_011		B6772_21474_011		JD96515-11		B6772_015							
			Taxonomic	SMB		SMB		SMB		SMB		SMB		SMB		SMB		PKSD		PKSD		PKSD		CCP							
			Age (yrs)	5+		5+		5+		4+		4+		4+		4+		3+		3+		3+		4+							
			Gender	F		F		F		F		F		F		F		F		F		F		M							
			Length (mm)	456		456		456		428		428		428		428		141		141		141		682							
			Weight (g)	1481		1481		1481		1338		1338		1338		1338		59		59		59		4071							
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%							75.33								75.56						70.38							
SW3550	LIPIDS	%Lipids Determination	%	2.601								2.808								1.054											
SW7471	7439-97-6	Mercury	mg/kg					0.5								0.7						0.069									
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.15	J							0.28						0.056	J								
SW8082	12674-11-2	Aroclor-1016	ug/kg					10	U							10	U					9.6	U								
SW8082	11104-28-2	Aroclor-1221	ug/kg					10	U							10	U					9.6	U								
SW8082	11141-16-5	Aroclor-1232	ug/kg					10	U							10	U					9.6	U								
SW8082	53469-21-9	Aroclor-1242	ug/kg					10	U							10	U					9.6	U								
SW8082	12672-29-6	Aroclor-1248	ug/kg					14.8								54.9						9.6	U								
SW8082	11097-69-1	Aroclor-1254	ug/kg					26								91.6						9.6	U								
SW8082	11096-82-5	Aroclor-1260	ug/kg					23.7								65.4						9.6	U								
SW8082	11100-14-4	Aroclor-1268	ug/kg					10	U							10	U					9.6	U								
SW8082	PCB	Total PCBs	ug/kg					64.5								212						9.6	U								
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g			0.443	U							0.331	U																
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g			0.957	U							0.85	U																
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g			1.06	U							0.955	U																
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g			0.2	J							0.298	U																
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g			0.137	U							0.182	U																
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g			0.228	U							0.286	U																
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g			0.14	U							0.192	U																
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g				R								R																
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g			0.182	U							0.252	U																
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g			0.25	J							0.307	J																
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g			0.146	U							0.342	J																
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g			0.134	U							0.185	U																
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g			0.632	J							0.828	J																
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g			0.124	U							0.153	U																
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g			0.918								1.28																	
SW8290	3268-87-9	OCDD	pg/g			1.79	J							1.76	J																
SW8290	39001-02-0	OCDF	pg/g			0.71	J							0.742	J																
SW8290	HpCDD	Total Hepta-Dixons	pg/g			0.443	U							0.331	U																
SW8290	HpCDF	Total HPCDF	pg/g			1	U							0.898	U																
SW8290	HxCDD	Total HxCDD	pg/g			0.2								0.292	U																
SW8290	HxCDF	Total HxCDF	pg/g			0.147	U							0.122	J																
SW8290	PeCDD	Total PECDD	pg/g			0.25	J							0.557	J																
SW8290	PeCDF	Total PECDF	pg/g			8.57								10.9																	
SW8290	TCDD	Total TCDD	pg/g			0.124	U							0.153	U																
SW8290	TCDF	Total TCDF	pg/g			2.17	J							4.07	J																

			Location ID	OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-4A		OL-F-5A		OL-F-5A	
			Field Sample ID	OL-3816-04F		OL-3816-04F		OL-3816-05F		OL-3816-05F		OL-3816-05F		OL-3816-05F		OL-3816-08F		OL-3816-08F		OL-3816-08F		OL-3801-19F		OL-3801-19F	
			Sample Name	OL-F-4A-22-CCP-02		OL-F-4A-22-CCP-02		OL-F-4A-22-PKSD-03		OL-F-4A-22-PKSD-03		OL-F-4A-22-PKSD-03		OL-F-4A-22-PKSD-03		OL-F-4A-22-CCP-03		OL-F-4A-22-CCP-03		OL-F-4A-22-CCP-03		OL-F-5A-22-CCP-01		OL-F-5A-22-CCP-01	
			Sampled	7/1/2022		7/1/2022		7/1/2022		7/1/2022		7/1/2022		7/1/2022		7/8/2022		7/8/2022		7/8/2022		5/31/2022		5/31/2022	
			Lab Sample ID	B6772_21474_015		JD96515-15		B6772_016		B6772_21474_016		B6772_21562_DF_016		JD96515-16		B6772_019		B6772_21474_019		JD96515-19		B6705_019		B6705_21483_DF_019	
			Taxonomic	CCP		CCP		PKSD		PKSD		PKSD		PKSD		CCP		CCP		CCP		CCP		CCP	
			Age (yrs)	4+		4+		7+		7+		7+		7+		7		7		7		4+		4+	
			Gender	M		M		F		F		F		F		M		M		M		M		M	
			Length (mm)	682		682		187		187		187		187		678		678		678		607		607	
			Weight (g)	4071		4071		158		158		158		158		4175		4175		4175		3313		3313	
Method	Code	Parameter Name	Units																								
ASTM D2216	MOISTURE-%	Percent Moisture	%					77.69								66.67						65.34			
SW3550	LIPIDS	%Lipids Determination	%	6.742						0.473								12.128							
SW7471	7439-97-6	Mercury	mg/kg			0.21								0.14						0.21					
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.54								0.2	U					1.7					
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.6	U							10	U					9.6	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.6	U							10	U					9.6	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.6	U							10	U					9.6	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.6	U							10	U					9.6	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg			44.7								10	U					160					
SW8082	11097-69-1	Aroclor-1254	ug/kg			91.8								10	U					276					
SW8082	11096-82-5	Aroclor-1260	ug/kg			46.6								10	U					164					
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.6	U							10	U					9.6	U				
SW8082	PCB	Total PCBs	ug/kg			183								10	U					600					
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g									1.21	U											1.35	J
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g									0.82	UJ											0.279	U
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g									0.799	U											0.297	U
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g									0.524	U											0.311	U
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g									0.632	U											0.198	U
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g									0.554	U											0.429	J
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g									0.751	U											0.193	U
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g										R											0.352	U
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g									1.42	UJ											0.247	U
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g									0.414	UJ											0.289	U
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g									0.254	U											0.35	U
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g									1.02	U											0.188	U
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g									0.24	U											0.945	J
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g									0.251	U											0.331	U
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g									0.174	U											2.54	
SW8290	3268-87-9	OCDD	pg/g										R											0.54	U
SW8290	39001-02-0	OCDF	pg/g										R											0.582	U
SW8290	HpCDD	Total Hepta-Dixons	pg/g									1.21	U											1.35	
SW8290	HpCDF	Total HPCDF	pg/g									0.808	U											0.287	U
SW8290	HxCDD	Total HxCDD	pg/g									0.662	U											0.429	J
SW8290	HxCDF	Total HxCDF	pg/g									0.893	U											0.205	U
SW8290	PeCDD	Total PECDD	pg/g									0.414	U											0.289	U
SW8290	PeCDF	Total PECDF	pg/g									0.246	U											0.945	
SW8290	TCDD	Total TCDD	pg/g									0.251	U											0.331	U
SW8290	TCDF	Total TCDF	pg/g									0.174	U											2.54	

			Location ID	OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A	
			Field Sample ID	OL-3801-19F		OL-3801-19F		OL-3801-20F		OL-3801-20F		OL-3801-20F		OL-3801-20F		OL-3802-01F		OL-3802-01F		OL-3802-01F		OL-3802-01F		OL-3802-02F			
			Sample Name	OL-F-5A-22-CCP-01		OL-F-5A-22-CCP-01		OL-F-5A-22-WALL-01		OL-F-5A-22-WALL-01		OL-F-5A-22-WALL-01		OL-F-5A-22-WALL-01		OL-F-5A-22-SMB-01		OL-F-5A-22-SMB-01		OL-F-5A-22-SMB-01		OL-F-5A-22-SMB-01		OL-F-5A-22-SMB-02			
			Sampled	5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022			
			Lab Sample ID	B6705_21524_019-R2		JD95592-19		B6705_020		B6705_21483_DF_02		B6705_21524_020-R2		JD95592-20		B6704_001		B6704_21409_001		B6704_21450_DF_00		JD95098-1		B6704_002			
			Taxonomic	CCP		CCP		WALL		WALL		WALL		WALL		SMB		SMB		SMB		SMB		SMB			
			Age (yrs)	4+		4+		7		7		7		7		12+		12+		12+		12+		7			
			Gender	M		M		F		F		F		F		F		F		F		F		F			
			Length (mm)	607		607		565		565		565		565		502		502		502		502		472			
			Weight (g)	3313		3313		2345		2345		2345		2345		1731		1731		1731		1731		1352			
Method	Code	Parameter Name	Units																										
ASTM D2216	MOISTURE-%	Percent Moisture	%					74.96								77.88								76.81			
SW3550	LIPIDS	%Lipids Determination	%	9.411								3.495						1.898									
SW7471	7439-97-6	Mercury	mg/kg			0.046								0.73	J							1.2					
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.76								0.39	J							0.26					
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.6	U							10	U							9.6	UJ				
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.6	U							10	U							9.6	UJ				
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.6	U							10	U							9.6	UJ				
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.6	U							10	U							9.6	UJ				
SW8082	12672-29-6	Aroclor-1248	ug/kg			97.5								73.8								59	J-				
SW8082	11097-69-1	Aroclor-1254	ug/kg			105								111								149	J-				
SW8082	11096-82-5	Aroclor-1260	ug/kg			9.6	U							57.2								149	J-				
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.6	U							10	U							9.6	UJ				
SW8082	PCB	Total PCBs	ug/kg			202								242								357	J-				
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g							0.359	U									0.342	U						
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g							0.468	U									1.54	J						
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g							0.555	U									0.312	U						
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g							0.314	U									0.264	U						
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g							0.255	U									0.13	U						
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g							0.306	U									0.263	U						
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g							0.238	U									0.139	U						
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g							0.32	U									0.269	U						
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g							0.349	U									0.162	U						
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g							0.334	J									0.577	J						
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g							0.402	U									0.25	U						
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g							0.246	U									0.365	J						
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g							0.379	U									1.86	J						
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g							0.268	U									0.299	J						
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g							0.821	J									1.27							
SW8290	3268-87-9	OCDD	pg/g							0.55	U									0.592	J						
SW8290	39001-02-0	OCDF	pg/g							0.441	U									0.19	U						
SW8290	HpCDD	Total Hepta-Dixons	pg/g							0.359	U									0.342	U						
SW8290	HpCDF	Total HPCDF	pg/g							0.507	U									1.96	J						
SW8290	HxCDD	Total HxCDD	pg/g							0.312	U									0.265	U						
SW8290	HxCDF	Total HxCDF	pg/g							0.267	U									1.27	J						
SW8290	PeCDD	Total PECDD	pg/g							0.334	J									0.577	J						
SW8290	PeCDF	Total PECDF	pg/g							0.391	U									3.48	J						
SW8290	TCDD	Total TCDD	pg/g							0.268	U									0.299							
SW8290	TCDF	Total TCDF	pg/g							0.821	J									2.05							

			Location ID	OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A	
			Field Sample ID	OL-3802-02F		OL-3802-02F		OL-3802-02F		OL-3802-03F		OL-3802-03F		OL-3802-03F		OL-3802-03F		OL-3802-07F		OL-3802-07F		OL-3802-07F		OL-3802-07F		OL-3802-07F	
			Sample Name	OL-F-5A-22-SMB-02		OL-F-5A-22-SMB-02		OL-F-5A-22-SMB-02		OL-F-5A-22-WALL-02		OL-F-5A-22-WALL-02		OL-F-5A-22-WALL-02		OL-F-5A-22-WALL-02		OL-F-5A-22-PKSD-01		OL-F-5A-22-PKSD-01		OL-F-5A-22-PKSD-01		OL-F-5A-22-PKSD-01		OL-F-5A-22-PKSD-01	
			Sampled	5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		5/31/2022		6/2/2022		6/2/2022		6/2/2022		6/2/2022		6/2/2022	
			Lab Sample ID	B6704_21409_002		B6704_21450_DF_002		JD95098-2		B6704_003		B6704_21409_003		B6704_21450_DF_003		JD95098-3		B6704_007		B6704_21409_007		B6704_21450_DF_007		JD95098-7			
			Taxonomic	SMB		SMB		SMB		WALL		WALL		WALL		WALL		PKSD		PKSD		PKSD		PKSD			
			Age (yrs)	7		7		7		6+		6+		6+		6+		5		5		5		5			
			Gender	F		F		F		F		F		F		F		F		F		F		F			
			Length (mm)	472		472		472		525		525		525		525		194		194		194		194			
			Weight (g)	1352		1352		1352		1568		1568		1568		1568		153		153		153		153			
Method	Code	Parameter Name	Units																								
ASTM D2216	MOISTURE-%	Percent Moisture	%							75.87								78.92									
SW3550	LIPIDS	%Lipids Determination	%	1.111								2.157								0.374							
SW7471	7439-97-6	Mercury	mg/kg					1.1								0.43								0.42	J		
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.18	J							0.15	J							0.2	U		
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.6	UJ							10	UJ							10	UJ		
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.6	UJ							10	UJ							10	UJ		
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.6	UJ							10	UJ							10	UJ		
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.6	UJ							10	UJ							10	UJ		
SW8082	12672-29-6	Aroclor-1248	ug/kg					36.9	J-							15.3	J-							10	UJ		
SW8082	11097-69-1	Aroclor-1254	ug/kg					82.9	J-							20.6	J-							10	UJ		
SW8082	11096-82-5	Aroclor-1260	ug/kg					60.3	J-							13.3	J-							10	UJ		
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.6	UJ							10	UJ							10	UJ		
SW8082	PCB	Total PCBs	ug/kg					180	J-							49.2	J-							10	UJ		
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g			1.23	J							0.203	J							0.243	J				
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g			0.383	J							0.251	J							0.337	J				
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g			0.204	U							0.139	U							0.12	U				
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g			0.176	J							0.286	J							0.199	J				
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g			0.103	U							0.135	U							0.131	U				
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g			0.219	J							0.223	J							0.165	U				
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g			0.108	U							0.126	U							0.125	U				
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g			0.147	U							0.165	J							0.17	U				
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g			0.137	U							0.171	U							0.158	U				
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g			0.326	J							0.232	J							0.157	UJ				
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g			0.127	U							0.156	J							0.154	U				
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g			0.236	J							0.211	J							0.135	U				
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g			0.681	J							0.343	J							0.142	U				
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g			0.238	U							0.126	U							0.153	U				
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g			0.624								0.687	J							0.104	U				
SW8290	3268-87-9	OCDD	pg/g			9.11								0.813	J							0.571	J				
SW8290	39001-02-0	OCDF	pg/g			0.898	J							0.408	J							0.194	U				
SW8290	HpCDD	Total Hepta-Dixons	pg/g			2.38								0.567	J							0.527	J				
SW8290	HpCDF	Total HPCDF	pg/g			1.2	J							0.251								0.337					
SW8290	HxCDD	Total HxCDD	pg/g			0.396	J							0.674								0.199	J				
SW8290	HxCDF	Total HxCDF	pg/g			0.884	J							0.614	J							0.136	U				
SW8290	PeCDD	Total PECDD	pg/g			0.326	J							0.232	J							0.157	U				
SW8290	PeCDF	Total PECDF	pg/g			1.16	J							0.869	J							0.148	U				
SW8290	TCDD	Total TCDD	pg/g			0.238	U							0.126	U							0.153	U				
SW8290	TCDF	Total TCDF	pg/g			0.801	J							0.687	J							0.104	U				

			Location ID	OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A	
			Field Sample ID	OL-3802-08F		OL-3802-08F		OL-3802-08F		OL-3802-09F		OL-3802-09F		OL-3802-09F		OL-3802-09F		OL-3802-10F		OL-3802-10F		OL-3802-10F		OL-3802-10F		OL-3802-10F		OL-3802-10F	
			Sample Name	OL-F-5A-22-PKSD-02		OL-F-5A-22-PKSD-02		OL-F-5A-22-PKSD-02		OL-F-5A-22-PKSD-03		OL-F-5A-22-PKSD-03		OL-F-5A-22-PKSD-03		OL-F-5A-22-PKSD-03		OL-F-5A-22-SMB-03		OL-F-5A-22-SMB-03		OL-F-5A-22-SMB-03		OL-F-5A-22-SMB-03		OL-F-5A-22-SMB-03		OL-F-5A-22-SMB-03	
			Sampled	6/2/2022		6/2/2022		6/2/2022		6/2/2022		6/2/2022		6/2/2022		6/2/2022		6/2/2022		6/2/2022		6/2/2022		6/2/2022		6/2/2022		6/2/2022	
			Lab Sample ID	B6704_008		B6704_21409_008		JD95098-8		B6704_009		B6704_21409_009		36704_21450_DF_009		JD95098-9		B6704_010		B6704_21409_010		36704_21450_DF_010		JD95098-10					
			Taxonomic	PKSD		PKSD		PKSD		PKSD		PKSD		PKSD		PKSD		SMB		SMB		SMB		SMB					
			Age (yrs)	5+		5+		5+		4		4		4		4		11+		11+		11+		11+					
			Gender	F		F		F		M		M		M		M		F		F		F		F					
			Length (mm)	142		142		142		167		167		167		167		473		473		473		473					
			Weight (g)	66		66		66		110		110		110		110		1212		1212		1212		1212					
Method	Code	Parameter Name	Units																										
ASTM D2216	MOISTURE-%	Percent Moisture	%	76						76								77.67											
SW3550	LIPIDS	%Lipids Determination	%			1.027						0.464								0.416									
SW7471	7439-97-6	Mercury	mg/kg					0.1								0.27								1.3					
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.2	U							0.057	J							0.052	J				
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.8	UJ							10	UJ							9.8	UJ				
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.8	UJ							10	UJ							9.8	UJ				
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.8	UJ							10	UJ							9.8	UJ				
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.8	UJ							10	UJ							9.8	UJ				
SW8082	12672-29-6	Aroclor-1248	ug/kg					9.8	UJ							8.2	J							14.8	J-				
SW8082	11097-69-1	Aroclor-1254	ug/kg					9.8	UJ							10.3	J-							30.3	J-				
SW8082	11096-82-5	Aroclor-1260	ug/kg					9.8	UJ							8.7	J							9.8	UJ				
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.8	UJ							10	UJ							9.8	UJ				
SW8082	PCB	Total PCBs	ug/kg					9.8	UJ							27.2	J-							45.1	J				
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g											0.334	J							0.355	U						
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g											0.482	J							1.87	J						
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g											0.123	U							0.207	U						
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g											0.149	J							0.187	J						
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g											0.13	J							0.102	U						
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g											0.116	U							0.138	U						
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g											0.122	J							0.105	U						
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g											0.139	J							0.144	U						
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g											0.117	J							0.12	U						
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g											0.111	UJ							0.215	J						
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g											0.0848	U							0.0969	U						
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g											0.131	J							0.113	U						
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g											0.0866	U							0.268	J						
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g											0.103	U							0.122	U						
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g											0.197	J							0.44	J						
SW8290	3268-87-9	OCDD	pg/g											1.83	J							0.2	U						
SW8290	39001-02-0	OCDF	pg/g											0.363	J							0.203	J						
SW8290	HpCDD	Total Hepta-Dixons	pg/g											0.917								0.355	U						
SW8290	HpCDF	Total HPCDF	pg/g											0.662								1.87							
SW8290	HxCDD	Total HxCDD	pg/g											0.287	J							0.187	J						
SW8290	HxCDF	Total HxCDF	pg/g											0.499	J							0.11	U						
SW8290	PeCDD	Total PECDD	pg/g											0.111	U							0.215	J						
SW8290	PeCDF	Total PECDF	pg/g											0.0857	U							0.907	J						
SW8290	TCDD	Total TCDD	pg/g											0.103	U							0.122	U						
SW8290	TCDF	Total TCDF	pg/g											0.197								1	J						

			Location ID	OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5A	
			Field Sample ID	OL-3802-11F		OL-3802-11F		OL-3802-11F		OL-3802-11F		OL-3811-05F		OL-3811-05F		OL-3811-05F		OL-3811-05F		OL-3811-06F		OL-3811-06F		OL-3811-06F		OL-3811-06F		OL-3811-06F		OL-3811-06F	
			Sample Name	OL-F-5A-22-WALL-03		OL-F-5A-22-WALL-03		OL-F-5A-22-WALL-03		OL-F-5A-22-WALL-03		OL-F-5A-22-CCP-02		OL-F-5A-22-CCP-02		OL-F-5A-22-CCP-02		OL-F-5A-22-CCP-02		OL-F-5A-22-CCP-03		OL-F-5A-22-CCP-03		OL-F-5A-22-CCP-03		OL-F-5A-22-CCP-03		OL-F-5A-22-CCP-03		OL-F-5A-22-CCP-03	
			Sampled	6/2/2022		6/2/2022		6/2/2022		6/2/2022		6/21/2022		6/21/2022		6/21/2022		6/21/2022		6/21/2022		6/21/2022		6/21/2022		6/21/2022		6/21/2022		6/21/2022	
			Lab Sample ID	B6704_011		B6704_21409_011		B6704_21450_DF_011		JD95098-11		B6737_019		B6737_21238_019		737_21347_DF_019-		JD91626-19		B6737_020		B6737_21238_020		JD91626-20							
			Taxonomic	WALL		WALL		WALL		WALL		CCP		CCP		CCP		CCP		CCP		CCP		CCP							
			Age (yrs)	8		8		8		8		5+		5+		5+		5+		4+		4+		4+							
			Gender	F		F		F		F		F		F		F		F		M		M		M							
			Length (mm)	561		561		561		561		650		650		650		650		601		601		601							
			Weight (g)	2267		2267		2267		2267		3958		3958		3958		3958		2900		2900		2900							
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%	76.64								60.22								67.75											
SW3550	LIPIDS	%Lipids Determination	%			1.465								11.072								9.745									
SW7471	7439-97-6	Mercury	mg/kg							0.86								0.21								0.087					
SW8081	118-74-1	Hexachlorobenzene	ug/kg							0.25								1.5								0.55					
SW8082	12674-11-2	Aroclor-1016	ug/kg							10	UJ							10	U							10	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg							10	UJ							10	U							10	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg							10	UJ							10	U							10	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg							10	UJ							10	U							10	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg							31.4	J-							45.6								41.4					
SW8082	11097-69-1	Aroclor-1254	ug/kg							47.1	J-							133								56.1					
SW8082	11096-82-5	Aroclor-1260	ug/kg							25.6	J-							95.5								30.9					
SW8082	11100-14-4	Aroclor-1268	ug/kg							10	UJ							10	U							10	U				
SW8082	PCB	Total PCBs	ug/kg							104	J-							274								128					
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g					0.161	U							2.71	J														
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g					0.652	J							1.1	J														
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g					0.17	U							0.0781	U														
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g					0.236	J							0.378	J														
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g					0.188	U							0.308	J														
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g					0.202	J							0.63	J														
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g					0.188	U							0.28	J														
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g					0.129	J							0.26	J														
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g					0.223	U							0.141	U														
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g					0.225	J							0.426	J														
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g					0.144	U							0.307	J														
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g					0.193	U							0.296	J														
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g					0.555	J							0.999	J														
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g					0.196	J							0.242	J														
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g					0.706	J							2.71															
SW8290	3268-87-9	OCDD	pg/g					0.413	J							2.95	J														
SW8290	39001-02-0	OCDF	pg/g					0.266	U							0.192	U														
SW8290	HpCDD	Total Hepta-Dixons	pg/g					0.161	U							2.71	J														
SW8290	HpCDF	Total HPCDF	pg/g					0.652								1.1															
SW8290	HxCDD	Total HxCDD	pg/g					0.567	J							1.27	J														
SW8290	HxCDF	Total HxCDF	pg/g					0.197	U							1.16	J														
SW8290	PeCDD	Total PECDD	pg/g					0.225	J							0.426															
SW8290	PeCDF	Total PECDF	pg/g					1.08	J							1.7	J														
SW8290	TCDD	Total TCDD	pg/g					0.196	J							0.242	J														
SW8290	TCDF	Total TCDF	pg/g					0.706	J							3.38	J														

			Location ID	OL-F-5A		OL-F-5A		OL-F-5A		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B	
			Field Sample ID	OL-3812-01F		OL-3812-01F		OL-3812-01F		OL-3807-01F		OL-3807-01F		OL-3807-01F		OL-3807-02F		OL-3807-02F		OL-3807-02F		OL-3807-03F		OL-3807-03F			
			Sample Name	OL-F-5A-22-CCP-04		OL-F-5A-22-CCP-04		OL-F-5A-22-CCP-04		OL-F-5B-22-SMB-01		OL-F-5B-22-SMB-01		OL-F-5B-22-SMB-01		OL-F-5B-22-WALL-01		OL-F-5B-22-WALL-01		OL-F-5B-22-WALL-01		OL-F-5B-22-WALL-02		OL-F-5B-22-WALL-02			
			Sampled	6/21/2022		6/21/2022		6/21/2022		6/13/2022		6/13/2022		6/13/2022		6/13/2022		6/13/2022		6/13/2022		6/13/2022		6/13/2022			
			Lab Sample ID	B6772_001		B6772_21474_001		JD96515-1		B6724_011		B6724_21460_011		JD95922-11		B6724_012		B6724_21460_012		JD95922-12		B6724_013		B6724_21460_013			
			Taxonomic	CCP		CCP		CCP		SMB		SMB		SMB		WALL		WALL		WALL		WALL		WALL			
			Age (yrs)	6		6		6		9		9		9		4+		4+		4+		8		8			
			Gender	M		M		M		M		M		M		F		F		F		F		F			
			Length (mm)	685		685		685		471		471		471		536		536		536		576		576			
			Weight (g)	4588		4588		4588		1522		1522		1522		2154		2154		2154		2495		2495			
Method	Code	Parameter Name	Units																										
ASTM D2216	MOISTURE-%	Percent Moisture	%	72.17						75.68						74.5						73.85					
SW3550	LIPIDS	%Lipids Determination	%			5.64						1.157						3.931						3.88			
SW7471	7439-97-6	Mercury	mg/kg					0.27						0.94						0.9							
SW8081	118-74-1	Hexachlorobenzene	ug/kg					1						0.19	J					0.54							
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.8	U					9.8	U					10	U						
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.8	U					9.8	U					10	U						
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.8	U					9.8	U					10	U						
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.8	U					9.8	U					10	U						
SW8082	12672-29-6	Aroclor-1248	ug/kg					190						64.1						109							
SW8082	11097-69-1	Aroclor-1254	ug/kg					508						182						151							
SW8082	11096-82-5	Aroclor-1260	ug/kg					335						130						69.2							
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.8	U					9.8	U					10	U						
SW8082	PCB	Total PCBs	ug/kg					1030						376						329							
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g																								
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g																								
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g																								
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g																								
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g																								
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g																								
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g																								
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g																								
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g																								
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g																								
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g																								
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g																								
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g																								
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g																								
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g																								
SW8290	3268-87-9	OCDD	pg/g																								
SW8290	39001-02-0	OCDF	pg/g																								
SW8290	HpCDD	Total Hepta-Dixons	pg/g																								
SW8290	HpCDF	Total HPCDF	pg/g																								
SW8290	HxCDD	Total HxCDD	pg/g																								
SW8290	HxCDF	Total HxCDF	pg/g																								
SW8290	PeCDD	Total PECDD	pg/g																								
SW8290	PeCDF	Total PECDF	pg/g																								
SW8290	TCDD	Total TCDD	pg/g																								
SW8290	TCDF	Total TCDF	pg/g																								

			Location ID	OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B	
			Field Sample ID	OL-3807-03F		OL-3807-04F		OL-3807-04F		OL-3807-04F		OL-3809-01F		OL-3809-01F		OL-3809-01F		OL-3809-02F		OL-3809-02F		OL-3809-02F		OL-3809-03F					
			Sample Name	OL-F-5B-22-WALL-02		OL-F-5B-22-PKSD-01		OL-F-5B-22-PKSD-01		OL-F-5B-22-PKSD-01		OL-F-5B-22-CCP-01		OL-F-5B-22-CCP-01		OL-F-5B-22-CCP-01		OL-F-5B-22-CCP-02		OL-F-5B-22-CCP-02		OL-F-5B-22-CCP-02		OL-F-5B-22-SMB-02					
			Sampled	6/13/2022		6/14/2022		6/14/2022		6/14/2022		6/15/2022		6/15/2022		6/15/2022		6/15/2022		6/15/2022		6/15/2022		6/15/2022					
			Lab Sample ID	JD95922-13		B6724_014		B6724_21460_014		JD95922-14		B6737_009		B6737_21238_009		JD91626-9		B6737_010		B6737_21238_010		JD91626-10		B6737_011					
			Taxonomic	WALL		PKSD		PKSD		PKSD		CCP		CCP		CCP		CCP		CCP		CCP		SMB					
			Age (yrs)	8		4+		4+		4+		4+		4+		4+		4+		4+		4+		5+					
			Gender	F		F		F		F		F		F		F		F		F		F		M					
			Length (mm)	576		150		150		150		676		676		676		658		658		658		446					
			Weight (g)	2495		80		80		80		4428		4428		4428		3811		3811		3811		1503					
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%			76.03								69.92				69.82						74.27					
SW3550	LIPIDS	%Lipids Determination	%					0.525								4.998				3.796									
SW7471	7439-97-6	Mercury	mg/kg	1	J					0.085						0.16						0.097							
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.32	J					0.19	U					0.43						1.2							
SW8082	12674-11-2	Aroclor-1016	ug/kg	10	U					9.6	U					10	U					9.4	U						
SW8082	11104-28-2	Aroclor-1221	ug/kg	10	U					9.6	U					10	U					9.4	U						
SW8082	11141-16-5	Aroclor-1232	ug/kg	10	U					9.6	U					10	U					9.4	U						
SW8082	53469-21-9	Aroclor-1242	ug/kg	10	U					9.6	U					10	U					275							
SW8082	12672-29-6	Aroclor-1248	ug/kg	57.8						9.6	U					34.1						9.4	U						
SW8082	11097-69-1	Aroclor-1254	ug/kg	81.7	J					2.3	JN					101						157							
SW8082	11096-82-5	Aroclor-1260	ug/kg	46.3	J					4.2	J					87.1						73.1							
SW8082	11100-14-4	Aroclor-1268	ug/kg	10	U					9.6	U					10	U					9.4	U						
SW8082	PCB	Total PCBs	ug/kg	186	J					6.5	J					222						505							
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g																										
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g																										
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g																										
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g																										
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g																										
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g																										
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g																										
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g																										
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g																										
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g																										
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g																										
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g																										
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g																										
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g																										
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g																										
SW8290	3268-87-9	OCDD	pg/g																										
SW8290	39001-02-0	OCDF	pg/g																										
SW8290	HpCDD	Total Hepta-Dixons	pg/g																										
SW8290	HpCDF	Total HPCDF	pg/g																										
SW8290	HxCDD	Total HxCDD	pg/g																										
SW8290	HxCDF	Total HxCDF	pg/g																										
SW8290	PeCDD	Total PECDD	pg/g																										
SW8290	PeCDF	Total PECDF	pg/g																										
SW8290	TCDD	Total TCDD	pg/g																										
SW8290	TCDF	Total TCDF	pg/g																										

			Location ID	OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B	
			Field Sample ID	OL-3809-03F		OL-3809-03F		OL-3809-04F		OL-3809-04F		OL-3809-04F		OL-3809-04F		OL-3809-05F		OL-3809-05F		OL-3809-05F		OL-3809-06F		OL-3809-06F							
			Sample Name	OL-F-5B-22-SMB-02		OL-F-5B-22-SMB-02		OL-F-5B-22-SMB-03		OL-F-5B-22-SMB-03		OL-F-5B-22-SMB-03		OL-F-5B-22-SMB-03		OL-F-5B-22-SMB-04		OL-F-5B-22-SMB-04		OL-F-5B-22-SMB-04		OL-F-5B-22-WALL-03		OL-F-5B-22-WALL-03							
			Sampled	6/15/2022		6/15/2022		6/15/2022		6/15/2022		6/15/2022		6/15/2022		6/15/2022		6/15/2022		6/15/2022		6/15/2022		6/15/2022							
			Lab Sample ID	B6737_21238_011		JD91626-11		B6737_012		B6737_21238_012		737_21347_DF_012-		JD91626-12		B6737_013		B6737_21238_013		JD91626-13		B6737_014		B6737_21238_014							
			Taxonomic	SMB		SMB		SMB		SMB		SMB		SMB		SMB		SMB		SMB		WALL		WALL							
			Age (yrs)	5+		5+		8+		8+		8+		8+		7		7		7		7+		7+							
			Gender	M		M		M		M		M		M		M		M		M		M		M							
			Length (mm)	446		446		452		452		452		452		457		457		457		550		550							
			Weight (g)	1503		1503		1224		1224		1224		1224		1535		1535		1535		1918		1918							
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%					78.13								75.15						73.96									
SW3550	LIPIDS	%Lipids Determination	%	1.561						0.788								1.005						1.671							
SW7471	7439-97-6	Mercury	mg/kg			0.45								0.62						0.62											
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.22								0.17	J					0.11	J										
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.8	U							9.6	U					10	U										
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.8	U							9.6	U					10	U										
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.8	U							9.6	U					10	U										
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.8	U							9.6	U					10	U										
SW8082	12672-29-6	Aroclor-1248	ug/kg			41.7								80.5						48.7											
SW8082	11097-69-1	Aroclor-1254	ug/kg			96.5								159						72.8											
SW8082	11096-82-5	Aroclor-1260	ug/kg			94.6								105						75.2											
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.8	U							9.6	U					10	U										
SW8082	PCB	Total PCBs	ug/kg			233								344						197											
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g									0.306	J																		
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g									0.323	J																		
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g									0.13	U																		
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g									0.15	U																		
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g									0.23	J																		
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g									0.209	J																		
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g									0.222	J																		
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g									0.159	U																		
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g									0.145	U																		
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g									0.45	J																		
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g									0.259	J																		
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g									0.315	J																		
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g									0.93	J																		
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g									0.236	J																		
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g									1.05	J																		
SW8290	3268-87-9	OCDD	pg/g									0.766	J																		
SW8290	39001-02-0	OCDF	pg/g									0.144	U																		
SW8290	HpCDD	Total Hepta-Dixons	pg/g									0.455	J																		
SW8290	HpCDF	Total HPCDF	pg/g									0.323	J																		
SW8290	HxCDD	Total HxCDD	pg/g									0.209	J																		
SW8290	HxCDF	Total HxCDF	pg/g									0.766	J																		
SW8290	PeCDD	Total PECDD	pg/g									0.45																			
SW8290	PeCDF	Total PECDF	pg/g									1.19	J																		
SW8290	TCDD	Total TCDD	pg/g									0.236	J																		
SW8290	TCDF	Total TCDF	pg/g									1.05	J																		

			Location ID	OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B		OL-F-5B	
			Field Sample ID	OL-3809-06F		OL-3809-06F		OL-3812-02F		OL-3812-02F		OL-3812-02F		OL-3812-03F		OL-3812-03F		OL-3812-03F		OL-3818-01F		OL-3818-01F		OL-3818-01F		OL-3818-01F		OL-3818-01F		OL-3818-01F	
			Sample Name	OL-F-5B-22-WALL-03		OL-F-5B-22-WALL-03		OL-F-5B-22-PKSD-02		OL-F-5B-22-PKSD-02		OL-F-5B-22-PKSD-02		OL-F-5B-22-PKSD-03		OL-F-5B-22-PKSD-03		OL-F-5B-22-PKSD-03		OL-F-5B-22-CCP-03		OL-F-5B-22-CCP-03		OL-F-5B-22-CCP-03		OL-F-5B-22-CCP-03		OL-F-5B-22-CCP-03		OL-F-5B-22-CCP-03	
			Sampled	6/15/2022		6/15/2022		6/22/2022		6/22/2022		6/22/2022		6/22/2022		6/22/2022		6/22/2022		7/15/2022		7/15/2022		7/15/2022		7/15/2022		7/15/2022		7/15/2022	
			Lab Sample ID	737_21347_DF_014-		JD91626-14		B6772_002		B6772_21474_002		JD96515-2		B6772_003		B6772_21474_003		JD96515-3		B6772_020		B6772_21474_020		JD96515-20							
			Taxonomic	WALL		WALL		PKSD		PKSD		PKSD		PKSD		PKSD		PKSD		CCP		CCP		CCP							
			Age (yrs)	7+		7+		4		4		4		3		3		3		5		5		5							
			Gender	M		M		M		M		M		F		F		F		M		M		M							
			Length (mm)	550		550		147		147		147		138		138		138		499		499		499							
			Weight (g)	1918		1918		76		76		76		69		69		69		1884		1884		1884							
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%					75.8						75.05						75.05											
SW3550	LIPIDS	%Lipids Determination	%							0.567						0.565						4.681									
SW7471	7439-97-6	Mercury	mg/kg			0.66						0.065						0.16						0.085							
SW8081	118-74-1	Hexachlorobenzene	ug/kg			0.19	J					0.082	J					0.064	J					0.2							
SW8082	12674-11-2	Aroclor-1016	ug/kg			10	U					9.8	U					9.4	U					9.6	U						
SW8082	11104-28-2	Aroclor-1221	ug/kg			10	U					9.8	U					9.4	U					9.6	U						
SW8082	11141-16-5	Aroclor-1232	ug/kg			10	U					9.8	U					9.4	U					9.6	U						
SW8082	53469-21-9	Aroclor-1242	ug/kg			10	U					9.8	U					9.4	U					9.6	U						
SW8082	12672-29-6	Aroclor-1248	ug/kg			45.2						13.9						9.4	U					48.4							
SW8082	11097-69-1	Aroclor-1254	ug/kg			72.9						15.4						9.4	U					23.6							
SW8082	11096-82-5	Aroclor-1260	ug/kg			46.9						11.5						10.5						13.1							
SW8082	11100-14-4	Aroclor-1268	ug/kg			10	U					9.8	U					9.4	U					9.6	U						
SW8082	PCB	Total PCBs	ug/kg			165						40.8						10.5						85.1							
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g	0.159	J																										
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g	0.11	U																										
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g	0.114	U																										
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g	0.191	U																										
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g	0.107	U																										
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g	0.229	U																										
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g	0.117	U																										
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g	0.235	J																										
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g	0.16	U																										
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g	0.163	J																										
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g	0.125	U																										
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g	0.105	U																										
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g	0.398	J																										
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g	0.172	J																										
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g	0.611	J																										
SW8290	3268-87-9	OCDD	pg/g	0.902	J																										
SW8290	39001-02-0	OCDF	pg/g	0.195	J																										
SW8290	HpCDD	Total Hepta-Dixons	pg/g	0.159	J																										
SW8290	HpCDF	Total HPCDF	pg/g	0.112	U																										
SW8290	HxCDD	Total HxCDD	pg/g	0.235	J																										
SW8290	HxCDF	Total HxCDF	pg/g	0.12	U																										
SW8290	PeCDD	Total PECDD	pg/g	0.163	J																										
SW8290	PeCDF	Total PECDF	pg/g	0.398	J																										
SW8290	TCDD	Total TCDD	pg/g	0.172	J																										
SW8290	TCDF	Total TCDF	pg/g	0.611	J																										

			Location ID	OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A	
			Field Sample ID	OL-3801-17F		OL-3801-17F		OL-3801-17F		OL-3801-17F		OL-3801-18F		OL-3801-18F		OL-3801-18F		OL-3801-18F		OL-3808-01F		OL-3808-01F		OL-3808-01F		OL-3808-01F		OL-3808-01F	
			Sample Name	OL-F-6A-22-CCP-01		OL-F-6A-22-CCP-01		OL-F-6A-22-CCP-01		OL-F-6A-22-CCP-01		OL-F-6A-22-CCP-02		OL-F-6A-22-CCP-02		OL-F-6A-22-CCP-02		OL-F-6A-22-CCP-02		OL-F-6A-22-CCP-03		OL-F-6A-22-CCP-03		OL-F-6A-22-CCP-03		OL-F-6A-22-CCP-03		OL-F-6A-22-CCP-03	
			Sampled	5/30/2022		5/30/2022		5/30/2022		5/30/2022		5/30/2022		5/30/2022		5/30/2022		5/30/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022	
			Lab Sample ID	B6705_017		B6705_21483_DF_01		B6705_21524_017-R2		JD95592-17		B6705_018		B6705_21483_DF_018		B6705_21524_018-R2		JD95592-18		B6737_001		B6737_21238_001		JD91626-1					
			Taxonomic	CCP		CCP		CCP		CCP		CCP		CCP		CCP		CCP		CCP		CCP		CCP					
			Age (yrs)	3+		3+		3+		3+		5+		5+		5+		5+		5+		5+		5+					
			Gender	M		M		M		M		F		F		F		F		F		F		F					
			Length (mm)	446		446		446		446		618		618		618		618		642		642		642					
			Weight (g)	1382		1382		1382		1382		3719		3719		3719		3719		3436		3436		3436					
Method	Code	Parameter Name	Units																										
ASTM D2216	MOISTURE-%	Percent Moisture	%	75.47								78.88								71.06									
SW3550	LIPIDS	%Lipids Determination	%					3.382								0.402						5.422							
SW7471	7439-97-6	Mercury	mg/kg							0.014	U							0.012	U					0.12					
SW8081	118-74-1	Hexachlorobenzene	ug/kg							0.26								0.2	U					0.77					
SW8082	12674-11-2	Aroclor-1016	ug/kg							9.6	U							9.8	U					10	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg							9.6	U							9.8	U					10	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg							9.6	U							9.8	U					10	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg							9.6	U							9.8	U					109					
SW8082	12672-29-6	Aroclor-1248	ug/kg							40.2								9.8	U					10	U				
SW8082	11097-69-1	Aroclor-1254	ug/kg							27.2								3.6	J					126					
SW8082	11096-82-5	Aroclor-1260	ug/kg							32.2								9.7	J					70.5					
SW8082	11100-14-4	Aroclor-1268	ug/kg							9.6	U							9.8	U					10	U				
SW8082	PCB	Total PCBs	ug/kg							99.6								13.3						306					
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g			0.664	J							0.619	J														
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g			0.282	U							1.32	J														
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g			0.298	U							0.555	U														
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g			0.377	U							0.261	U														
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g			0.194	U							0.185	U														
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g			0.423	U							0.272	U														
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g			0.199	U							0.178	U														
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g			0.446	U							0.282	U														
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g			0.281	U							0.215	U														
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g			0.382	U							0.307	U														
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g			0.225	U							0.261	U														
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g			0.221	U							0.194	U														
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g			0.238	U							0.345	J														
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g			0.392	U							0.298	U														
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g			0.2	U							0.227	U														
SW8290	3268-87-9	OCDD	pg/g			0.891	J							0.565	J														
SW8290	39001-02-0	OCDF	pg/g			0.613	U							0.406	U														
SW8290	HpCDD	Total Hepta-Dixons	pg/g			0.664	J							0.619	J														
SW8290	HpCDF	Total HPCDF	pg/g			0.29	U							1.32															
SW8290	HxCDD	Total HxCDD	pg/g			0.416	U							0.271	U														
SW8290	HxCDF	Total HxCDF	pg/g			0.22	U							0.191	U														
SW8290	PeCDD	Total PECDD	pg/g			0.382	U							0.307	U														
SW8290	PeCDF	Total PECDF	pg/g			0.231	U							0.345	J														
SW8290	TCDD	Total TCDD	pg/g			0.392	U							0.298	U														
SW8290	TCDF	Total TCDF	pg/g			0.2	U							0.709	J														

			Location ID	OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A	
			Field Sample ID	OL-3808-02F		OL-3808-02F		OL-3808-02F		OL-3808-03F		OL-3808-03F		OL-3808-03F		OL-3808-04F		OL-3808-04F		OL-3808-04F		OL-3808-05F		OL-3808-05F							
			Sample Name	OL-F-6A-22-SMB-01		OL-F-6A-22-SMB-01		OL-F-6A-22-SMB-01		OL-F-6A-22-SMB-02		OL-F-6A-22-SMB-02		OL-F-6A-22-SMB-02		OL-F-6A-22-SMB-03		OL-F-6A-22-SMB-03		OL-F-6A-22-SMB-03		OL-F-6A-22-WALL-01		OL-F-6A-22-WALL-01							
			Sampled	6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022							
			Lab Sample ID	B6737_002		B6737_21238_002		JD91626-2		B6737_003		B6737_21238_003		JD91626-3		B6737_004		B6737_21238_004		JD91626-4		B6737_005		B6737_21238_005							
			Taxonomic	SMB		SMB		SMB		SMB		SMB		SMB		SMB		SMB		SMB		WALL		WALL							
			Age (yrs)	4+		4+		4+		8+		8+		8+		6		6		6		3+		3+							
			Gender	F		F		F		M		M		M		M		M		M		M		M							
			Length (mm)	441		441		441		486		486		486		467		467		467		546		546							
			Weight (g)	1325		1325		1325		1885		1885		1885		1487		1487		1487		1954		1954							
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%	77.2						77.16						74.71						70.83									
SW3550	LIPIDS	%Lipids Determination	%			1.053						1.078						2.863						2.008							
SW7471	7439-97-6	Mercury	mg/kg					0.99						1.2						0.87											
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.18	J					0.18	J					0.13	J										
SW8082	12674-11-2	Aroclor-1016	ug/kg					10	U					10	U					9.8	U										
SW8082	11104-28-2	Aroclor-1221	ug/kg					10	U					10	U					9.8	U										
SW8082	11141-16-5	Aroclor-1232	ug/kg					10	U					10	U					9.8	U										
SW8082	53469-21-9	Aroclor-1242	ug/kg					10	U					10	U					9.8	U										
SW8082	12672-29-6	Aroclor-1248	ug/kg					61.4						67						48.4											
SW8082	11097-69-1	Aroclor-1254	ug/kg					102						142						79.9											
SW8082	11096-82-5	Aroclor-1260	ug/kg					109						137						53											
SW8082	11100-14-4	Aroclor-1268	ug/kg					10	U					10	U					9.8	U										
SW8082	PCB	Total PCBs	ug/kg					272						346						181											
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g																												
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g																												
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g																												
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g																												
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g																												
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g																												
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g																												
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g																												
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g																												
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g																												
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g																												
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g																												
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g																												
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g																												
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g																												
SW8290	3268-87-9	OCDD	pg/g																												
SW8290	39001-02-0	OCDF	pg/g																												
SW8290	HpCDD	Total Hepta-Dixons	pg/g																												
SW8290	HpCDF	Total HPCDF	pg/g																												
SW8290	HxCDD	Total HxCDD	pg/g																												
SW8290	HxCDF	Total HxCDF	pg/g																												
SW8290	PeCDD	Total PECDD	pg/g																												
SW8290	PeCDF	Total PECDF	pg/g																												
SW8290	TCDD	Total TCDD	pg/g																												
SW8290	TCDF	Total TCDF	pg/g																												

			Location ID	OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A	
			Field Sample ID	OL-3808-05F		OL-3808-06F		OL-3808-06F		OL-3808-06F		OL-3808-06F		OL-3808-07F		OL-3808-07F		OL-3808-07F		OL-3808-07F		OL-3808-08F		OL-3808-08F		OL-3808-08F		OL-3808-08F	
			Sample Name	OL-F-6A-22-WALL-01		OL-F-6A-22-WALL-02		OL-F-6A-22-WALL-02		OL-F-6A-22-WALL-02		OL-F-6A-22-WALL-02		OL-F-6A-22-WALL-03		OL-F-6A-22-WALL-03		OL-F-6A-22-WALL-03		OL-F-6A-22-WALL-03		OL-F-6A-22-PKSD-01		OL-F-6A-22-PKSD-01		OL-F-6A-22-PKSD-01		OL-F-6A-22-PKSD-01	
			Sampled	6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/15/2022		6/15/2022		6/15/2022		6/15/2022	
			Lab Sample ID	JD91626-5		B6737_006		B6737_21238_006		737_21347_DF_006-		JD91626-6		B6737_007		B6737_21238_007		737_21347_DF_007-		JD91626-7		B6737_21238_008		JD91626-8		JD91626-8		JD91626-8	
			Taxonomic	WALL		WALL		WALL		WALL		WALL		WALL		WALL		WALL		WALL		PKSD		PKSD		PKSD		PKSD	
			Age (yrs)	3+		5		5		5		5		6		6		6		6		4		4		4		4	
			Gender	M		M		M		M		M		M		M		M		M		F		F		F		F	
			Length (mm)	546		536		536		536		536		566		566		566		566		170		170		170		170	
			Weight (g)	1954		1801		1801		1801		1801		2321		2321		2321		2321		103		103		103		103	
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%			74.15										74.46															
SW3550	LIPIDS	%Lipids Determination	%					1.589										1.497						0.229							
SW7471	7439-97-6	Mercury	mg/kg	0.62								0.54	J							0.98				0.11							
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.24								0.26								0.38				0.073	J						
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.4	U							10	U							10	U			9.4	U						
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.4	U							10	U							10	U			9.4	U						
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.4	U							10	U							10	U			9.4	U						
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.4	U							10	U							10	U			7.8	J						
SW8082	12672-29-6	Aroclor-1248	ug/kg	54.6								50.7								105				9.4	U						
SW8082	11097-69-1	Aroclor-1254	ug/kg	68.6								68.9	J							136				1.9	JN						
SW8082	11096-82-5	Aroclor-1260	ug/kg	35.7								35.7								87.3				4.4	J						
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.4	U							10	U							10	U			9.4	U						
SW8082	PCB	Total PCBs	ug/kg	159								155								329				14							
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g							0.264	J							0.368	J												
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g							0.213	J							0.359	J												
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g							0.0846	U							0.129	U												
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g							0.332	J							0.353	J												
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g							0.092	U							0.278	J												
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g							0.123	U							0.346	J												
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g							0.0885	U							0.202	J												
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g							0.215	J							0.317	J												
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g							0.13	U							0.388	J												
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g							0.355	J							0.302	J												
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g							0.205	J							0.17	U												
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g							0.0921	U							0.258	J												
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g							0.37	J							0.687	J												
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g							0.12	UJ							0.15	UJ												
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g							1.18	J							1.08													
SW8290	3268-87-9	OCDD	pg/g							0.656	J							0.985	J												
SW8290	39001-02-0	OCDF	pg/g							0.373	J							0.907	J												
SW8290	HpCDD	Total Hepta-Dixons	pg/g							0.424								0.368	J												
SW8290	HpCDF	Total HPCDF	pg/g							0.213								0.359													
SW8290	HxCDD	Total HxCDD	pg/g							0.547	J							1.02	J												
SW8290	HxCDF	Total HxCDF	pg/g							0.0987	U							1.13	J												
SW8290	PeCDD	Total PECDD	pg/g							0.355								0.302	J												
SW8290	PeCDF	Total PECDF	pg/g							0.575	J							0.687													
SW8290	TCDD	Total TCDD	pg/g							0.12	U							0.15	U												
SW8290	TCDF	Total TCDF	pg/g							1.18	J							1.08													

			Location ID	OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-6A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A							
			Field Sample ID	OL-3814-01F		OL-3814-01F		OL-3814-01F		OL-3816-02F		OL-3816-02F		OL-3816-02F		OL-3801-02F		OL-3801-02F		OL-3801-02F		OL-3801-02F		OL-3801-03F							
			Sample Name	OL-F-6A-22-PKSD-02		OL-F-6A-22-PKSD-02		OL-F-6A-22-PKSD-02		OL-F-6A-22-PKSD-03		OL-F-6A-22-PKSD-03		OL-F-6A-22-PKSD-03		OL-F-7A-22-CCP-01		OL-F-7A-22-CCP-01		OL-F-7A-22-CCP-01		OL-F-7A-22-CCP-01		OL-F-7A-22-CCP-02							
			Sampled	6/23/2022		6/23/2022		6/23/2022		6/30/2022		6/30/2022		6/30/2022		4/22/2022		4/22/2022		4/22/2022		4/22/2022		4/22/2022							
			Lab Sample ID	B6772_004		B6772_21474_004		JD96515-4		B6772_013		B6772_21474_013		JD96515-13		B6705_002		6705_21483_DF_002-		B6705_21524_002-R2		JD95592-2		B6705_003							
			Taxonomic	PKSD		PKSD		PKSD		PKSD		PKSD		PKSD		CCP		CCP		CCP		CCP		CCP							
			Age (yrs)	4+		4+		4+		5		5		5		5+		5+		5+		5+		4+							
			Gender	F		F		F		M		M		M		M		M		M		M		F							
			Length (mm)	137		137		137		154		154		154		541		541		541		541		631							
			Weight (g)	65		65		65		74		74		74		2048		2048		2048		2048		4242							
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%	73.8						77.76						76.23								70.49							
SW3550	LIPIDS	%Lipids Determination	%			1.069						0.362								3.228											
SW7471	7439-97-6	Mercury	mg/kg					0.039						0.095								0.37									
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.18	JN					0.11	J							0.19	J								
SW8082	12674-11-2	Aroclor-1016	ug/kg					10	U					9.8	U							10	U								
SW8082	11104-28-2	Aroclor-1221	ug/kg					10	U					9.8	U							10	U								
SW8082	11141-16-5	Aroclor-1232	ug/kg					10	U					9.8	U							10	U								
SW8082	53469-21-9	Aroclor-1242	ug/kg					10	U					9.8	U							10	U								
SW8082	12672-29-6	Aroclor-1248	ug/kg					137						34.7								30.3									
SW8082	11097-69-1	Aroclor-1254	ug/kg					87.1						23								132									
SW8082	11096-82-5	Aroclor-1260	ug/kg					34.6						7	J							146									
SW8082	11100-14-4	Aroclor-1268	ug/kg					10	U					9.8	U							10	U								
SW8082	PCB	Total PCBs	ug/kg					259						64.7								308									
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g															0.6	U												
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g															0.762	U												
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g															0.829	U												
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g															0.27	U												
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g															0.215	U												
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g															0.266	U												
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g															0.244	U												
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g															0.28	U												
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g															0.342	U												
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g															0.463	U												
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g															0.331	U												
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g															0.255	U												
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g															0.589	J												
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g															0.288	U												
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g															0.205	U												
SW8290	3268-87-9	OCDD	pg/g															1.19	U												
SW8290	39001-02-0	OCDF	pg/g															1.23	U												
SW8290	HpCDD	Total Hepta-Dixons	pg/g															0.6	U												
SW8290	HpCDF	Total HPCDF	pg/g															0.795	U												
SW8290	HxCDD	Total HxCDD	pg/g															0.271	U												
SW8290	HxCDF	Total HxCDF	pg/g															0.259	U												
SW8290	PeCDD	Total PECDD	pg/g															0.463	U												
SW8290	PeCDF	Total PECDF	pg/g															0.589	J												
SW8290	TCDD	Total TCDD	pg/g															0.288	U												
SW8290	TCDF	Total TCDF	pg/g															2.24													

			Location ID	OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A	
			Field Sample ID	OL-3801-03F		OL-3801-03F		OL-3801-03F		OL-3801-13F		OL-3801-13F		OL-3801-14F		OL-3801-14F		OL-3801-14F		OL-3801-14F		OL-3803-04F		OL-3803-04F	
			Sample Name	OL-F-7A-22-CCP-02		OL-F-7A-22-CCP-02		OL-F-7A-22-CCP-02		OL-F-7A-22-PKSD-01		OL-F-7A-22-PKSD-01		OL-F-7A-22-PKSD-02		OL-F-7A-22-PKSD-02		OL-F-7A-22-PKSD-02		OL-F-7A-22-PKSD-02		OL-F-7A-22-CCP-03		OL-F-7A-22-CCP-03	
			Sampled	4/22/2022		4/22/2022		4/22/2022		5/27/2022		5/27/2022		5/27/2022		5/27/2022		5/27/2022		5/27/2022		6/7/2022		6/7/2022	
			Lab Sample ID	705_21483_DF_003-R		B6705_21524_003-R2		JD95592-3		B6705_21437_013		JD95592-13		B6705_014		B6705_21437_014		6705_21483_DF_014		JD95592-14		B6704_017		B6704_21409_017	
			Taxonomic	CCP		CCP		CCP		PKSD		PKSD		PKSD		PKSD		PKSD		PKSD		CCP		CCP	
			Age (yrs)	4+		4+		4+		3		3		6		6		6		6		5		5	
			Gender	F		F		F		M		M		F		F		F		F		M		M	
			Length (mm)	631		631		631		130		130		201		201		201		201		639		639	
			Weight (g)	4242		4242		4242		46		46		184		184		184		184		3482		3482	
Method	Code	Parameter Name	Units																						
ASTM D2216	MOISTURE-%	Percent Moisture	%											78								70.51			
SW3550	LIPIDS	%Lipids Determination	%			6.806				0.36	J-					0.262	J-							6.645	
SW7471	7439-97-6	Mercury	mg/kg					0.18				0.014	U							0.015	J				
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.79				0.14	J							0.2	U				
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.8	U			9.6	U							9.8	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.8	U			9.6	U							9.8	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.8	U			9.6	U							9.8	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.8	U			9.6	U							9.8	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg					72.6				9.6	U							9.8	U				
SW8082	11097-69-1	Aroclor-1254	ug/kg					67.9				9.6	U							9.8	U				
SW8082	11096-82-5	Aroclor-1260	ug/kg					38.5				3.7	J							9.8	U				
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.8	U			9.6	U							9.8	U				
SW8082	PCB	Total PCBs	ug/kg					179				3.7	J							9.8	U				
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g	1.41	J													0.205	U						
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g	0.539	U													0.273	U						
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g	0.466	U													0.342	U						
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g	0.582	J													0.293	U						
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g	0.191	U													0.232	U						
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g	0.563	J													0.312	U						
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g	0.222	U													0.242	U						
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g	0.305	U													0.36	U						
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g	0.245	U													0.309	U						
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g	0.596	J													0.342	U						
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g	0.478	J													0.339	U						
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g	0.197	U													0.255	U						
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g	0.77	J													0.345	U						
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g	0.318	U													0.356	U						
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g	2.01														0.238	U						
SW8290	3268-87-9	OCDD	pg/g	1.18	U													0.983	U						
SW8290	39001-02-0	OCDF	pg/g	0.813	U													0.472	U						
SW8290	HpCDD	Total Hepta-Dixons	pg/g	1.41														0.205	U						
SW8290	HpCDF	Total HPCDF	pg/g	0.502	U													0.306	U						
SW8290	HxCDD	Total HxCDD	pg/g	1.14	J													0.322	U						
SW8290	HxCDF	Total HxCDF	pg/g	0.212	U													0.257	U						
SW8290	PeCDD	Total PECDD	pg/g	0.596	J													0.342	U						
SW8290	PeCDF	Total PECDF	pg/g	1.25	J													0.342	U						
SW8290	TCDD	Total TCDD	pg/g	0.318	U													0.356	U						
SW8290	TCDF	Total TCDF	pg/g	2.33	J													0.238	U						

				Location ID	OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A	
				Field Sample ID	OL-3803-04F		OL-3803-04F		OL-3803-05F		OL-3803-05F		OL-3803-05F		OL-3807-05F		OL-3807-05F		OL-3807-05F		OL-3807-06F		OL-3807-06F		OL-3807-06F	
				Sample Name	OL-F-7A-22-CCP-03		OL-F-7A-22-CCP-03		OL-F-7A-22-PKSD-03		OL-F-7A-22-PKSD-03		OL-F-7A-22-PKSD-03		OL-F-7A-22-SMB-01		OL-F-7A-22-SMB-01		OL-F-7A-22-SMB-01		OL-F-7A-22-SMB-02		OL-F-7A-22-SMB-02		OL-F-7A-22-SMB-02	
				Sampled	6/7/2022		6/7/2022		6/7/2022		6/7/2022		6/7/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022	
				Lab Sample ID	B6704_21450_DF_01		JD95098-17		B6704_018		B6704_21409_018		JD95098-18		B6724_015		B6724_21460_015		JD95922-15		B6724_016		B6724_21460_016		JD95922-16	
				Taxonomic	CCP		CCP		PKSD		PKSD		PKSD		SMB		SMB		SMB		SMB		SMB		SMB	
				Age (yrs)	5		5		3+		3+		3+		5		5		5		4+		4+		4+	
				Gender	M		M		F		F		F		F		F		F		F		F		F	
				Length (mm)	639		639		136		136		136		465		465		465		425		425		425	
				Weight (g)	3482		3482		58		58		58		1581		1581		1581		1296		1296		1296	
Method	Code	Parameter Name	Units																							
ASTM D2216	MOISTURE-%	Percent Moisture	%						75.8						76.64						76.66					
SW3550	LIPIDS	%Lipids Determination	%								0.701						1.433						1.425			
SW7471	7439-97-6	Mercury	mg/kg			0.21						0.056						0.77						0.42	
SW8081	118-74-1	Hexachlorobenzene	ug/kg			2.2	J					0.27						0.27						0.18	J
SW8082	12674-11-2	Aroclor-1016	ug/kg			9.8	UJ					10	UJ					9.4	U					9.8	U
SW8082	11104-28-2	Aroclor-1221	ug/kg			9.8	UJ					10	UJ					9.4	U					9.8	U
SW8082	11141-16-5	Aroclor-1232	ug/kg			9.8	UJ					10	UJ					9.4	U					9.8	U
SW8082	53469-21-9	Aroclor-1242	ug/kg			9.8	UJ					10	UJ					9.4	U					9.8	U
SW8082	12672-29-6	Aroclor-1248	ug/kg			249	J-					10	UJ					65.9						24.8	
SW8082	11097-69-1	Aroclor-1254	ug/kg			484	J					10	UJ					120						57.9	
SW8082	11096-82-5	Aroclor-1260	ug/kg			320	J-					4.2	J					87.5						49.2	
SW8082	11100-14-4	Aroclor-1268	ug/kg			9.8	UJ					10	UJ					9.4	U					9.8	U
SW8082	PCB	Total PCBs	ug/kg			1050	J-					4.2	J					273						132	
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g	5.17																						
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g	1.68	J																					
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g	0.163	U																					
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g	1.11	J																					
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g	0.741	J																					
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g	3.02																						
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g	1.11	J																					
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g	0.638	J																					
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g	0.148	U																					
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g	2.09	J																					
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g	0.641	J																					
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g	0.828	J																					
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g	11.1																						
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g	0.79	J																					
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g	0.757	J																					
SW8290	3268-87-9	OCDD	pg/g	3.19	J																					
SW8290	39001-02-0	OCDF	pg/g	0.421	J																					
SW8290	HpCDD	Total Hepta-Dixons	pg/g	5.17																						
SW8290	HpCDF	Total HPCDF	pg/g	1.82	J																					
SW8290	HxCDD	Total HxCDD	pg/g	4.77	J																					
SW8290	HxCDF	Total HxCDF	pg/g	3.07	J																					
SW8290	PeCDD	Total PECDD	pg/g	2.09	J																					
SW8290	PeCDF	Total PECDF	pg/g	12.1	J																					
SW8290	TCDD	Total TCDD	pg/g	0.79	J																					
SW8290	TCDF	Total TCDF	pg/g	1.29	J																					

			Location ID	OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A		OL-F-7A	
			Field Sample ID	OL-3807-07F		OL-3807-07F		OL-3807-07F		OL-3807-08F		OL-3807-08F		OL-3807-08F		OL-3807-09F		OL-3807-09F		OL-3807-09F		OL-3807-10F		OL-3807-10F					
			Sample Name	OL-F-7A-22-SMB-03		OL-F-7A-22-SMB-03		OL-F-7A-22-SMB-03		OL-F-7A-22-WALL-01		OL-F-7A-22-WALL-01		OL-F-7A-22-WALL-01		OL-F-7A-22-WALL-02		OL-F-7A-22-WALL-02		OL-F-7A-22-WALL-02		OL-F-7A-22-WALL-03		OL-F-7A-22-WALL-03					
			Sampled	6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022		6/14/2022					
			Lab Sample ID	B6724_017		B6724_21460_017		JD95922-17		B6724_018		B6724_21460_018		JD95922-18		B6724_019		B6724_21460_019		JD95922-19		B6724_020		B6724_21460_020					
			Taxonomic	SMB		SMB		SMB		WALL		WALL		WALL		WALL		WALL		WALL		WALL		WALL					
			Age (yrs)	7		7		7		5+		5+		5+		7		7		7		10+		10+					
			Gender	M		M		M		F		F		F		F		F		F		F		F					
			Length (mm)	475		475		475		555		555		555		508		508		508		554		554					
			Weight (g)	1443		1443		1443		2442		2442		2442		1908		1908		1908		1461		1461					
Method	Code	Parameter Name	Units																												
ASTM D2216	MOISTURE-%	Percent Moisture	%	77.62						71.96						72.22						77.44							
SW3550	LIPIDS	%Lipids Determination	%			1.523						5.513						4.46						3.339					
SW7471	7439-97-6	Mercury	mg/kg					0.62						1.2						0.88									
SW8081	118-74-1	Hexachlorobenzene	ug/kg					0.31						1						0.79									
SW8082	12674-11-2	Aroclor-1016	ug/kg					9.8	U					9.6	U					9.8	U								
SW8082	11104-28-2	Aroclor-1221	ug/kg					9.8	U					9.6	U					9.8	U								
SW8082	11141-16-5	Aroclor-1232	ug/kg					9.8	U					9.6	U					9.8	U								
SW8082	53469-21-9	Aroclor-1242	ug/kg					9.8	U					9.6	U					9.8	U								
SW8082	12672-29-6	Aroclor-1248	ug/kg					36.6						177						149									
SW8082	11097-69-1	Aroclor-1254	ug/kg					146						334						288									
SW8082	11096-82-5	Aroclor-1260	ug/kg					102						150						152									
SW8082	11100-14-4	Aroclor-1268	ug/kg					9.8	U					9.6	U					9.8	U								
SW8082	PCB	Total PCBs	ug/kg					285						661						589									
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g																										
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g																										
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g																										
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g																										
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g																										
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g																										
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g																										
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g																										
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g																										
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g																										
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g																										
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g																										
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g																										
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g																										
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g																										
SW8290	3268-87-9	OCDD	pg/g																										
SW8290	39001-02-0	OCDF	pg/g																										
SW8290	HpCDD	Total Hepta-Dixons	pg/g																										
SW8290	HpCDF	Total HPCDF	pg/g																										
SW8290	HxCDD	Total HxCDD	pg/g																										
SW8290	HxCDF	Total HxCDF	pg/g																										
SW8290	PeCDD	Total PECDD	pg/g																										
SW8290	PeCDF	Total PECDF	pg/g																										
SW8290	TCDD	Total TCDD	pg/g																										
SW8290	TCDF	Total TCDF	pg/g																										

			Location ID	OL-F-7A	
			Field Sample ID	OL-3807-10F	
			Sample Name	OL-F-7A-22-WALL-03	
			Sampled	6/14/2022	
			Lab Sample ID	JD95922-20	
			Taxonomic	WALL	
			Age (yrs)	10+	
			Gender	F	
			Length (mm)	554	
			Weight (g)	1461	
Method	Code	Parameter Name	Units		
ASTM D2216	MOISTURE-%	Percent Moisture	%		
SW3550	LIPIDS	%Lipids Determination	%		
SW7471	7439-97-6	Mercury	mg/kg	0.75	
SW8081	118-74-1	Hexachlorobenzene	ug/kg	0.72	
SW8082	12674-11-2	Aroclor-1016	ug/kg	9.8	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	9.8	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	9.8	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	9.8	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	106	
SW8082	11097-69-1	Aroclor-1254	ug/kg	209	
SW8082	11096-82-5	Aroclor-1260	ug/kg	119	
SW8082	11100-14-4	Aroclor-1268	ug/kg	9.8	U
SW8082	PCB	Total PCBs	ug/kg	434	
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g		
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g		
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g		
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g		
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g		
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g		
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g		
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g		
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g		
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g		
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g		
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g		
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g		
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g		
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g		
SW8290	3268-87-9	OCDD	pg/g		
SW8290	39001-02-0	OCDF	pg/g		
SW8290	HpCDD	Total Hepta-Dixons	pg/g		
SW8290	HpCDF	Total HPCDF	pg/g		
SW8290	HxCDD	Total HxCDD	pg/g		
SW8290	HxCDF	Total HxCDF	pg/g		
SW8290	PeCDD	Total PECDD	pg/g		
SW8290	PeCDF	Total PECDF	pg/g		
SW8290	TCDD	Total TCDD	pg/g		
SW8290	TCDF	Total TCDF	pg/g		

ATTACHMENT A-2 – VALIDATED LABORATORY DATA FOR ZOOPLANKTON SAMPLES

Honeywell

PARSONS

ONONDAGA LAKE 2022 MONITORING - ZOOPLANKTON SAMPLES

							Parameter Method Fraction Units	Mercury E1631 T mg/kg		Methyl Mercury E1630 T ng/g	
Location ID	Field Sample ID	Depth (ft)	Sampled	SDG	Matrix	Purpose	Sample Type				
W1	0L-3904-01	6.6 - 6.6	05/24/2022	580-114155-1	Tissue	REG	T-ZP	0.016		2.8	J-
W1	0L-3910-01	6.6 - 6.6	06/13/2022	580-114852-1	Tissue	REG	T-ZP	0.013		4.2	
W1	0L-3918-01	6.6 - 6.6	07/05/2022	580-115580-1	Tissue	REG	T-ZP	0.0092		3.0	
W1	0L-3925-01	6.6 - 6.6	07/19/2022	580-116111-1	Tissue	REG	T-ZP	0.0085		2.8	
W1	0L-3930-01	6.6 - 6.6	07/19/2022	580-116176-1	Tissue	REG	T-DAPH	0.00078	U	0.46	U
W1	0L-3933-01	6.6 - 6.6	08/02/2022	580-116552-2	Tissue	REG	T-ZP	0.033		7.4	
W1	0L-3940-01	6.6 - 6.6	08/16/2022	580-117007-1	Tissue	REG	T-ZP	0.0050		3.6	
W1	0L-3947-01	6.6 - 6.6	08/30/2022	580-117497-1	Tissue	REG	T-ZP	0.019		2.9	
W1	0L-3952-01	6.6 - 6.6	09/07/2022	580-117661-1	Tissue	REG	T-ZP	0.024		4.1	J-
W1	0L-3956-01	6.6 - 6.6	09/13/2022	580-117883-1	Tissue	REG	T-ZP	0.022		4.3	
W1	0L-3960-01	6.6 - 6.6	09/20/2022	580-118097-1	Tissue	REG	T-ZP	0.030		4.3	
W1	0L-3964-01	6.6 - 6.6	09/27/2022	580-118339-1	Tissue	REG	T-ZP	0.018		3.2	
W1	0L-3968-01	6.6 - 6.6	10/04/2022	580-118597-1	Tissue	REG	T-ZP	0.018		4.1	
W1	0L-3972-01	6.6 - 6.6	10/11/2022	580-118742-1	Tissue	REG	T-ZP	0.032		5.1	
W1	0L-3976-01	6.6 - 6.6	10/18/2022	580-118954-1	Tissue	REG	T-ZP	0.0097		4.6	
W1	0L-3980-01	6.6 - 6.6	10/25/2022	580-119238-1	Tissue	REG	T-ZP	0.017		2.7	J-
W1	0L-3984-01	6.6 - 6.6	10/31/2022	580-119475-1	Tissue	REG	T-ZP	0.014		73	J-
W1	0L-3989-01	6.6 - 6.6	11/15/2022	580-120087-1	Tissue	REG	T-ZP	0.013		4.1	

ATTACHMENT B – LCS SRM AND DUPLICATE RESULTS

SDG	Fish Grouping	Analytical Method	Analytical Parameter	LCS SRM Result	LCS SRM True Value	LCS SRM Units	LCS SRM %R	Lower LCS SRM QC Limit (%R)	Upper LCS SRM QC Limit (%R)
JD89955	Prey 01	SW7471	Mercury	0.34	0.316	mg/kg	107.6	80	120
JD94044	Prey 02	SW7471	Mercury	0.3	0.316	mg/kg	94.9	80	120
JD94533	Prey 03	SW7471	Mercury	0.36	0.316	mg/kg	113.9	80	120
JD95098	Sport 01	SW7471	Mercury	0.3	0.316	mg/kg	94.9	80	120
JD95098	Sport 01	SW7471	Mercury	0.34	0.316	mg/kg	107.6	80	120
JD95592	Sport 02	SW7471	Mercury	0.26	0.316	mg/kg	82.3	80	120
JD95922	Sport 03	SW7471	Mercury	0.33	0.316	mg/kg	104.4	80	120
JD91626	Sport 04	SW7471	Mercury	0.32	0.316	mg/kg	101.3	80	120
JD96515	Sport 05	SW7471	Mercury	0.34	0.316	mg/kg	107.6	80	120
JD89955	Prey 01	SW8082	Total PCBs	2200	2093	ug/kg	105.1	70	130
JD95098	Sport 01	SW8082	Total PCBs	1310	2093	ug/kg	62.6	70	130
JD89955	Prey 01	SW8081	Hexachlorobenzene	4.7	7.48	ug/kg	62.8	70	130
JD95098	Sport 01	SW8081	Hexachlorobenzene	5.6	7.48	ug/kg	74.9	70	130
B6703	Prey 01	SW3550	%Lipids Determination	8.585	7*	%	122.6	70	130
B6978	Prey 02	SW3550	%Lipids Determination	7.076	7*	%	101.1	70	130
B6929	Prey 03	SW3550	%Lipids Determination	5.724	7*	%	81.8	70	130
B6704	Sport 01	SW3550	%Lipids Determination	5.361	7*	%	76.6	70	130
B6705	Sport 02	SW3550	%Lipids Determination	4.091	7*	%	58.0	70	130
B6705	Sport 02	SW3550	%Lipids Determination	5.176	7*	%	73.9	70	130
B6724	Sport 03	SW3550	%Lipids Determination	5.011	7*	%	71.6	70	130
B6737	Sport 04	SW3550	%Lipids Determination	5.435	7*	%	77.6	70	130
B6772	Sport 05	SW3550	%Lipids Determination	5.248	7*	%	75.0	70	130
B6704	Sport 01	SW8290	1,2,3,4,6,7,8-HpCDD	7.23	6.4	pg/g	113.0	70	130
B6705	Sport 02	SW8290	1,2,3,4,6,7,8-HpCDD	6.15	6.4	pg/g	96.1	70	130
B6724	Sport 03	SW8290	1,2,3,4,6,7,8-HpCDD	7.14	6.4	pg/g	111.6	70	130
B6737	Sport 04	SW8290	1,2,3,4,6,7,8-HpCDD	10.3	6.4	pg/g	160.9	70	130
B6772	Sport 05	SW8290	1,2,3,4,6,7,8-HpCDD	6.41	6.4	pg/g	100.2	70	130
B6704	Sport 01	SW8290	1,2,3,4,7,8-HxCDD	2.11	1.6	pg/g	131.9	70	130
B6705	Sport 02	SW8290	1,2,3,4,7,8-HxCDD	1.61	1.6	pg/g	100.6	70	130
B6724	Sport 03	SW8290	1,2,3,4,7,8-HxCDD	1.8	1.6	pg/g	112.5	70	130
B6737	Sport 04	SW8290	1,2,3,4,7,8-HxCDD	1.36	1.6	pg/g	85.0	70	130
B6772	Sport 05	SW8290	1,2,3,4,7,8-HxCDD	3.32	1.6	pg/g	207.5	70	130
B6704	Sport 01	SW8290	1,2,3,6,7,8-HxCDD	4.25	5.8	pg/g	73.3	70	130
B6705	Sport 02	SW8290	1,2,3,6,7,8-HxCDD	4.6	5.8	pg/g	79.3	70	130
B6724	Sport 03	SW8290	1,2,3,6,7,8-HxCDD	4.88	5.8	pg/g	84.1	70	130
B6737	Sport 04	SW8290	1,2,3,6,7,8-HxCDD	4.17	5.8	pg/g	71.9	70	130
B6772	Sport 05	SW8290	1,2,3,6,7,8-HxCDD	4.34	5.8	pg/g	74.8	70	130
B6704	Sport 01	SW8290	1,2,3,7,8,9-HxCDD	0.553	0.78	pg/g	70.9	70	130
B6705	Sport 02	SW8290	1,2,3,7,8,9-HxCDD	0.713	0.78	pg/g	91.4	70	130
B6724	Sport 03	SW8290	1,2,3,7,8,9-HxCDD	0.794	0.78	pg/g	101.8	70	130
B6737	Sport 04	SW8290	1,2,3,7,8,9-HxCDD	0.767	0.78	pg/g	98.3	70	130
B6772	Sport 05	SW8290	1,2,3,7,8,9-HxCDD	ND	0.78	pg/g	0.0	70	130
B6704	Sport 01	SW8290	1,2,3,7,8-PeCDD	3.62	5.3	pg/g	68.3	70	130
B6705	Sport 02	SW8290	1,2,3,7,8-PeCDD	3.72	5.3	pg/g	70.2	70	130
B6724	Sport 03	SW8290	1,2,3,7,8-PeCDD	3.82	5.3	pg/g	72.1	70	130
B6737	Sport 04	SW8290	1,2,3,7,8-PeCDD	3.41	5.3	pg/g	64.3	70	130

SDG	Fish Grouping	Analytical Method	Analytical Parameter	LCS SRM Result	LCS SRM True Value	LCS SRM Units	LCS SRM %R	Lower LCS SRM QC Limit (%R)	Upper LCS SRM QC Limit (%R)
B6772	Sport 05	SW8290	1,2,3,7,8-PeCDD	3.56	5.3	pg/g	67.2	70	130
B6704	Sport 01	SW8290	1,2,3,7,8-PeCDF	6.67	5.6	pg/g	119.1	70	130
B6705	Sport 02	SW8290	1,2,3,7,8-PeCDF	6.89	5.6	pg/g	123.0	70	130
B6724	Sport 03	SW8290	1,2,3,7,8-PeCDF	7.14	5.6	pg/g	127.5	70	130
B6737	Sport 04	SW8290	1,2,3,7,8-PeCDF	6	5.6	pg/g	107.1	70	130
B6772	Sport 05	SW8290	1,2,3,7,8-PeCDF	7.23	5.6	pg/g	129.1	70	130
B6704	Sport 01	SW8290	2,3,7,8-TCDD	6.72	7.4	pg/g	90.8	70	130
B6705	Sport 02	SW8290	2,3,7,8-TCDD	6.8	7.4	pg/g	91.9	70	130
B6724	Sport 03	SW8290	2,3,7,8-TCDD	7.77	7.4	pg/g	105.0	70	130
B6737	Sport 04	SW8290	2,3,7,8-TCDD	5.12	7.4	pg/g	69.2	70	130
B6772	Sport 05	SW8290	2,3,7,8-TCDD	6.96	7.4	pg/g	94.1	70	130
B6704	Sport 01	SW8290	2,3,7,8-Tcdf	15.7	18.2	pg/g	86.3	70	130
B6705	Sport 02	SW8290	2,3,7,8-Tcdf	15.4	18.2	pg/g	84.6	70	130
B6724	Sport 03	SW8290	2,3,7,8-Tcdf	17	18.2	pg/g	93.4	70	130
B6737	Sport 04	SW8290	2,3,7,8-Tcdf	13.8	18.2	pg/g	75.8	70	130
B6772	Sport 05	SW8290	2,3,7,8-Tcdf	15	18.2	pg/g	82.4	70	130
JD89955	Prey 01	SW8081	4,4'-DDD	31	45.9	ug/kg	67.5	70	130
JD89955	Prey 01	SW8081	4,4'-DDE	638	720	ug/kg	88.6	70	130
JD89955	Prey 01	SW8081	4,4'-DDT	61.2	59.5	ug/kg	102.9	70	130
B6704	Sport 01	SW8290	OCDD	10.2	9.4	pg/g	108.5	70	130
B6705	Sport 02	SW8290	OCDD	6.67	9.4	pg/g	71.0	70	130
B6724	Sport 03	SW8290	OCDD	9.51	9.4	pg/g	101.2	70	130
B6737	Sport 04	SW8290	OCDD	69.8	9.4	pg/g	742.6	70	130
B6772	Sport 05	SW8290	OCDD	7.52	9.4	pg/g	80.0	70	130

NOTES:

SDG - Sample Delivery Group
LCS - Laboratory Control Sample
SRM - Standard Reference Material
%R - Percent Recovery

					2022_Prey 01																	
				Location ID	OL-F-3A		OL-F-3A			OL-F-3A		OL-F-3A			OL-F-3A		OL-F-3A					
				Field Sample ID	OL-3800-12		OL-3800-12-DUP			OL-3800-12		OL-3800-12-DUP			OL-3800-12		OL-3800-12-DUP					
				Sample Name	OL-F-3A-22-WHS-03		OL-F-3A-22-WHS-03			OL-F-3A-22-WHS-03		OL-F-3A-22-WHS-03			OL-F-3A-22-WHS-03		OL-F-3A-22-WHS-03					
				Sampled	5/31/2022		5/31/2022			5/31/2022		5/31/2022			5/31/2022		5/31/2022					
				SDG	B6703		B6703			B6703		B6703			JD89955		JD89955					
				Lab Sample ID	B6703_012		B6703_012-DUP			B6703_21183_012		B6703_21183_012DUP			JD89955-12		JD89955-21					
				Medium	Tissue		Tissue			Tissue		Tissue			Tissue		Tissue					
				Sample Type	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)			
				Matrix	T-FT		TQ			T-FT		TQ			T-FT		TQ					
Method	Parameter Code	Parameter Name	Units	Fraction																		
ASTM D2216	MOISTURE-%	Percent Moisture	%	NA	71.01		71.08		0.10													
SW3550	LIPIDS	%Lipids Determination	%	NA						3.746	J	5.468		37.38								
SW7471	7439-97-6	Mercury	mg/kg	T											0.13		0.13		0.00			
SW8081	72-54-8	4,4'-DDD	ug/kg	T											5.8	J-	5.3		9.01			
SW8081	72-55-9	4,4'-DDE	ug/kg	T											33.7		27.2		21.35			
SW8081	50-29-3	4,4'-DDT	ug/kg	T											4.8	JN	3.2		40.00			
SW8081	118-74-1	Hexachlorobenzene	ug/kg	T											0.48	J-	0.51		6.06			
SW8082	12674-11-2	Aroclor-1016	ug/kg	T											9.6	U	9.4	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg	T											9.6	U	9.4	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg	T											9.6	U	9.4	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg	T											9.6	U	9.4	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg	T											68.2		60.9		11.31			
SW8082	11097-69-1	Aroclor-1254	ug/kg	T											99.8		85.9		14.97			
SW8082	11096-82-5	Aroclor-1260	ug/kg	T											85.1		73.6		14.49			
SW8082	11100-14-4	Aroclor-1268	ug/kg	T											9.6	U	9.4	U				
SW8082	PCB	Total PCBs	ug/kg	T											253		220		13.95			

Honeywell

PARSONS

					2022_Prey 02																	
				Location ID	OL-F-6A		OL-F-6A			OL-F-6A		OL-F-6A			OL-F-5A		OL-F-5A					
				Field Sample ID	OL-3822-11		OL-3822-11-DUP			OL-3822-11		OL-3822-11-DUP			OL-3822-03		OL-3822-03-DUP					
				Sample Name	OL-F-6A-22-MIN-03		OL-F-6A-22-MIN-03			OL-F-6A-22-MIN-03		OL-F-6A-22-MIN-03			OL-F-5A-22-RG-01		OL-F-5A-22-RG-01					
				Sampled	8/4/2022		8/4/2022			8/4/2022		8/4/2022			8/1/2022		8/1/2022					
				SDG	B6978		B6978			B6978		B6978			JD94044		JD94044					
				Lab Sample ID	B6978_011		B6978_011Dup			B6978_21371_011		B6978_21371_011DUP			JD94044-3		JD94044-21					
				Medium	Tissue		Tissue			Tissue		Tissue			Tissue		Tissue					
				Sample Type	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)			
				Matrix	T-FT		TISSUE			T-FT		TISSUE			T-FT		TQ					
Method	Parameter Code	Parameter Name	Units	Fraction																		
ASTM D2216	MOISTURE-%	Percent Moisture	%	NA	71.36		71.32		0.06													
SW3550	LIPIDS	%Lipids Determination	%	NA						1.27		1.33		4.62								
SW7471	7439-97-6	Mercury	mg/kg	T											0.048		0.047		2.11			
SW8081	72-54-8	4,4'-DDD	ug/kg	T											0.19	J	0.15	J	23.53			
SW8081	72-55-9	4,4'-DDE	ug/kg	T											0.88		0.72		20.00			
SW8081	50-29-3	4,4'-DDT	ug/kg	T											0.16	JN	0.12	J	28.57			
SW8081	118-74-1	Hexachlorobenzene	ug/kg	T											0.2	U	0.2	U				
SW8082	12674-11-2	Aroclor-1016	ug/kg	T											10	U	9.8	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg	T											10	U	9.8	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg	T											10	U	9.8	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg	T											10	U	9.8	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg	T											10	U	9.8	U				
SW8082	11097-69-1	Aroclor-1254	ug/kg	T											4.4	J	3	J	37.84			
SW8082	11096-82-5	Aroclor-1260	ug/kg	T											4.7	J	3.5	J	29.27			
SW8082	11100-14-4	Aroclor-1268	ug/kg	T											10	U	9.8	U				
SW8082	PCB	Total PCBs	ug/kg	T											9.1	J	6.5	J	33.33			

					2022_Prey 03																
				Location ID	OL-F-2A		OL-F-2A			OL-F-2A		OL-F-2A			OL-F-2A		OL-F-2A			OL-F-2A		
				Field Sample ID	OL-3824-01		OL-3824-01-DUP			OL-3824-01		OL-3824-01-DUP			OL-3824-01		OL-3824-01-DUP					
				Sample Name	OL-F-2A-22-WHS-02		OL-F-2A-22-WHS-02			OL-F-2A-22-WHS-02		OL-F-2A-22-WHS-02			OL-F-2A-22-WHS-02		OL-F-2A-22-WHS-02					
				Sampled	8/12/2022		8/12/2022			8/12/2022		8/12/2022			8/12/2022		8/12/2022					
				SDG	B6929		B6929			B6929		B6929			JD94533		JD94533					
				Lab Sample ID	B6929_006		B6929_006-DUP			B6929_21389_006		B6929_21389_006DUP			JD94533-6		JD94533-9					
				Medium	Tissue		Tissue			Tissue		Tissue			Tissue		Tissue					
				Sample Type	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)			
				Matrix	T-FT		TQ			T-FT		TQ			T-FT		TQ					
Method	Parameter Code	Parameter Name	Units	Fraction																	
ASTM D2216	MOISTURE-%	Percent Moisture	%	NA	75.74		75.8		0.08												
SW3550	LIPIDS	%Lipids Determination	%	NA						3.817		3.621		5.27							
SW7471	7439-97-6	Mercury	mg/kg	T											0.072		0.069		4.26		
SW8081	72-54-8	4,4'-DDD	ug/kg	T											2.6	J	1.4		60.00		
SW8081	72-55-9	4,4'-DDE	ug/kg	T											11.6	J	7.6		41.67		
SW8081	50-29-3	4,4'-DDT	ug/kg	T											3.9	JN	2.4		47.62		
SW8081	118-74-1	Hexachlorobenzene	ug/kg	T											0.28		0.3		6.90		
SW8082	12674-11-2	Aroclor-1016	ug/kg	T											9.6	U	9.1	U			
SW8082	11104-28-2	Aroclor-1221	ug/kg	T											9.6	U	9.1	U			
SW8082	11141-16-5	Aroclor-1232	ug/kg	T											9.6	U	9.1	U			
SW8082	53469-21-9	Aroclor-1242	ug/kg	T											9.6	U	9.1	U			
SW8082	12672-29-6	Aroclor-1248	ug/kg	T											63	J	41.4		41.38		
SW8082	11097-69-1	Aroclor-1254	ug/kg	T											87.8	J	55.3		45.42		
SW8082	11096-82-5	Aroclor-1260	ug/kg	T											101	J	65.2		43.08		
SW8082	11100-14-4	Aroclor-1268	ug/kg	T											9.6	U	9.1	U			
SW8082	PCB	Total PCBs	ug/kg	T											251	J	162		43.10		

					2022_Sport 01																							
				Location ID	OL-F-7A		OL-F-7A			OL-F-7A		OL-F-7A			OL-F-7A		OL-F-7A			OL-F-7A		OL-F-7A			OL-F-7A		OL-F-7A		
				Field Sample ID	OL-3803-04F		OL-3803-04F-DUP			OL-3803-04F		OL-3803-04F-DUP			OL-3803-04F		OL-3803-04F-DUP			OL-3803-04F		OL-3803-04F-DUP			OL-3803-04F		OL-3803-04F-DUP		
				Sample Name	OL-F-7A-22-CCP-03		OL-F-7A-22-CCP-03			OL-F-7A-22-CCP-03		OL-F-7A-22-CCP-03			OL-F-7A-22-CCP-03		OL-F-7A-22-CCP-03			OL-F-7A-22-CCP-03		OL-F-7A-22-CCP-03			OL-F-7A-22-CCP-03		OL-F-7A-22-CCP-03		
				Sampled	6/7/2022		6/7/2022			6/7/2022		6/7/2022			6/7/2022		6/7/2022			6/7/2022		6/7/2022			6/7/2022		6/7/2022		
				SDG	B6704		B6704			B6704		B6704			JD95098		JD95098			B6704		B6704			B6704		B6704		
				Lab Sample ID	B6704_017		B6704_017DUP			B6704_21409_017		B6704_21409_017DUP			JD95098-17		JD95098-21			B6704_21450_DF_017		B6704_21450_DF_017DUP							
				Medium	Tissue		Tissue			Tissue		Tissue			Tissue		Tissue			Tissue		Tissue							
				Sample Type	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)					
				Matrix	T-FT		TQ			T-FT		TQ			T-FT		TQ			T-FT		TQ							
Method	Parameter Code	Parameter Name	Units	Fraction																								
ASTM D2216	MOISTURE-%	Percent Moisture	%	NA	70.51		72.17		2.33																			
SW3550	LIPIDS	%Lipids Determination	%	NA						6.645		6.45		2.98														
SW7471	7439-97-6	Mercury	mg/kg	T											0.21		0.2		4.88									
SW8081	118-74-1	Hexachlorobenzene	ug/kg	T											2.2	J	2.7		20.41									
SW8082	12674-11-2	Aroclor-1016	ug/kg	T											9.8	UJ	9.6	U										
SW8082	11104-28-2	Aroclor-1221	ug/kg	T											9.8	UJ	9.6	U										
SW8082	11141-16-5	Aroclor-1232	ug/kg	T											9.8	UJ	9.6	U										
SW8082	53469-21-9	Aroclor-1242	ug/kg	T											9.8	UJ	9.6	U										
SW8082	12672-29-6	Aroclor-1248	ug/kg	T											249	J-	316		23.72									
SW8082	11097-69-1	Aroclor-1254	ug/kg	T											484	J	510		5.23									
SW8082	11096-82-5	Aroclor-1260	ug/kg	T											320	J-	336		4.88									
SW8082	11100-14-4	Aroclor-1268	ug/kg	T											9.8	UJ	9.6	U										
SW8082	PCB	Total PCBs	ug/kg	T											1050	J-	1160		9.95									
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g	NA																5.17		4.43		15.42				
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g	NA																1.68	J	1.18	J	34.97				
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g	NA																0.163	U	0.123	U					
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g	NA																1.11	J	0.897	J	21.23				
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g	NA																0.741	J	0.656	J	12.17				
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g	NA																3.02		2.58		15.71				
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g	NA																1.11	J	0.92	J	18.72				
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g	NA																0.638	J	0.497	J	24.85				
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g	NA																0.148	U	0.154	U					
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g	NA																2.09	J	2.02	J	3.41				
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g	NA																0.641	J	0.526	J	19.71				
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g	NA																0.828	J	0.765	J	7.91				
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g	NA																11.1		9.72		13.26				
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g	NA																0.79	J	0.566	J	33.04				
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g	NA																0.757	J	0.471	J	46.58				
SW8290	3268-87-9	OCDD	pg/g	NA																3.19	J	2.28	J	33.27				
SW8290	39001-02-0	OCDF	pg/g	NA																0.421	J	0.23	U	58.68				
SW8290	HpCDD	Total Hepta-Dixons	pg/g	NA																5.17		4.43		15.42				
SW8290	HpCDF	Total HPCDF	pg/g	NA																1.82	J	1.46	J	21.95				
SW8290	HxCDD	Total HxCDD	pg/g	NA																4.77	J	3.98	J	18.06				
SW8290	HxCDF	Total HxCDF	pg/g	NA																3.07	J	2.7	J	12.82				
SW8290	PeCDD	Total PECDD	pg/g	NA																2.09	J	2.02	J	3.41				
SW8290	PeCDF	Total PECDF	pg/g	NA																12.1	J	10.6	J	13.22				
SW8290	TCDD	Total TCDD	pg/g	NA																0.79	J	0.566	J	33.04				
SW8290	TCDF	Total TCDF	pg/g	NA																1.29	J	0.471	J	93.02				

					2022_Sport 02																					
				Location ID	OL-F-5A		OL-F-5A			OL-F-5A		OL-F-5A			OL-F-5A		OL-F-5A			OL-F-5A		OL-F-5A			OL-F-5A		
				Field Sample ID	OL-3801-20F		OL-3801-20F-DUP			OL-3801-20F		OL-3801-20F-DUP			OL-3801-20F		OL-3801-20F-DUP			OL-3801-20F		OL-3801-20F-DUP			OL-3801-20F		OL-3801-20F-DUP		
				Sample Name	OL-F-5A-22-WALL-01		OL-F-5A-22-WALL-01			OL-F-5A-22-WALL-01		OL-F-5A-22-WALL-01			OL-F-5A-22-WALL-01		OL-F-5A-22-WALL-01			OL-F-5A-22-WALL-01		OL-F-5A-22-WALL-01			OL-F-5A-22-WALL-01		OL-F-5A-22-WALL-01		
				Sampled	5/31/2022		5/31/2022			5/31/2022		5/31/2022			5/31/2022		5/31/2022			5/31/2022		5/31/2022			5/31/2022		5/31/2022		
				SDG	B6705		B6705			B6705		B6705			JD95592		JD95592			B6705		B6705			B6705			
				Lab Sample ID	B6705_020		B6705_020-DUP			B6705_21524_020-R2		B6705_21524_020DUP-R2			JD95592-20		JD95592-21			B6705_21483_DF_020		B6705_21483_DF_020DUP						
				Medium	Tissue		Tissue			Tissue		Tissue			Tissue		Tissue			Tissue		Tissue						
				Sample Type	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)				
				Matrix	T-FT		TQ			T-FT		TQ			T-FT		TQ			T-FT		TQ						
Method	Parameter Code	Parameter Name	Units	Fraction																								
ASTM D2216	MOISTURE-%	Percent Moisture	%	NA	74.96		74.4		0.75																			
SW3550	LIPIDS	%Lipids Determination	%	NA	3.368		3.31		1.74	3.495		3.024		14.45														
SW7471	7439-97-6	Mercury	mg/kg	T											0.73	J	0.85		15.19									
SW8081	118-74-1	Hexachlorobenzene	ug/kg	T											0.39	J	0.42		7.41									
SW8082	12674-11-2	Aroclor-1016	ug/kg	T											10	U	9.8	U										
SW8082	11104-28-2	Aroclor-1221	ug/kg	T											10	U	9.8	U										
SW8082	11141-16-5	Aroclor-1232	ug/kg	T											10	U	9.8	U										
SW8082	53469-21-9	Aroclor-1242	ug/kg	T											10	U	9.8	U										
SW8082	12672-29-6	Aroclor-1248	ug/kg	T											73.8		78.7		6.43									
SW8082	11097-69-1	Aroclor-1254	ug/kg	T											111		118		6.11									
SW8082	11096-82-5	Aroclor-1260	ug/kg	T											57.2		59.8		4.44									
SW8082	11100-14-4	Aroclor-1268	ug/kg	T											10	U	9.8	U										
SW8082	PCB	Total PCBs	ug/kg	T											242		257		6.01									
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g	NA																0.359	U	0.284	U					
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g	NA																0.468	U	0.196	U					
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g	NA																0.555	U	0.249	U					
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g	NA																0.314	U	0.279	U					
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g	NA																0.255	U	0.173	U					
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g	NA																0.306	U	0.275	U					
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g	NA																0.238	U	0.156	U					
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g	NA																0.32	U	0.3	U					
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g	NA																0.349	U	0.254	U					
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g	NA																0.334	J	0.243	U					
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g	NA																0.402	U	0.237	U					
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g	NA																0.246	U	0.168	U					
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g	NA																0.379	U	0.36	J					
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g	NA																0.268	U	0.362	U					
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g	NA																0.821	J	0.721	J	12.97				
SW8290	3268-87-9	OCDD	pg/g	NA																0.55	U	0.707	U					
SW8290	39001-02-0	OCDF	pg/g	NA																0.441	U	0.517	U					
SW8290	HpCDD	Total Hepta-Dixons	pg/g	NA																0.359	U	0.284	U					
SW8290	HpCDF	Total HPCDF	pg/g	NA																0.507	U	0.218	U					
SW8290	HxCDD	Total HxCDD	pg/g	NA																0.312	U	0.284	U					
SW8290	HxCDF	Total HxCDF	pg/g	NA																0.267	U	0.182	U					
SW8290	PeCDD	Total PECDD	pg/g	NA																0.334	J	0.243	U					
SW8290	PeCDF	Total PECDF	pg/g	NA																0.391	U	0.36	J					
SW8290	TCDD	Total TCDD	pg/g	NA																0.268	U	0.362	U					
SW8290	TCDF	Total TCDF	pg/g	NA																0.821	J	0.721	J	12.97				

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				Location ID	OL-F-7A		OL-F-7A			OL-F-5B		OL-F-5B			OL-F-5B		OL-F-5B			OL-F-2A		OL-F-2A		
				Field Sample ID	OL-3807-10F		OL-3807-10F-DUP			OL-3807-03F		OL-3807-03F-DUP			OL-3807-03F		OL-3807-03F DUP			OL-3806-01F		OL-3806-01F-DUP		
				Sample Name	OL-F-7A-22-WALL-03		OL-F-7A-22-WALL-03			OL-F-5B-22-WALL-02		OL-F-5B-22-WALL-02			OL-F-5B-22-WALL-02		OL-F-5B-22-WALL-02			OL-F-2A-22-SMB-03		OL-F-2A-22-SMB-03		
				Sampled	6/14/2022		6/14/2022			6/13/2022		6/13/2022			6/13/2022		6/13/2022			6/8/2022		6/8/2022		
				SDG	B6724		B6724			B6724		B6724			JD95922		JD95922			B6724		B6724		
				Lab Sample ID	B6724_020		B6724_020-DUP			B6724_21460_013		B6724_21460_013DUP			JD95922-13		JD95922-21			B6724_21557_DF_001		B6724_21557_DF_001DUP		
				Medium	Tissue		Tissue			Tissue		Tissue			Tissue		Tissue			Tissue		Tissue		
				Sample Type	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)
				Matrix	T-FT		TISSUE			T-FT		TISSUE			T-FT		TQ			T-FT		TISSUE		
Method	Parameter Code	Parameter Name	Units	Fraction																				
ASTM D2216	MOISTURE-%	Percent Moisture	%	NA	77.44		76.15		1.68																
SW3550	LIPIDS	%Lipids Determination	%	NA						3.88		3.667		5.64											
SW7471	7439-97-6	Mercury	mg/kg	T											1	J	1		0.00						
SW8081	118-74-1	Hexachlorobenzene	ug/kg	T											0.32	J	0.46		35.90						
SW8082	12674-11-2	Aroclor-1016	ug/kg	T											10	U	10	U							
SW8082	11104-28-2	Aroclor-1221	ug/kg	T											10	U	10	U							
SW8082	11141-16-5	Aroclor-1232	ug/kg	T											10	U	10	U							
SW8082	53469-21-9	Aroclor-1242	ug/kg	T											10	U	10	U							
SW8082	12672-29-6	Aroclor-1248	ug/kg	T											57.8		71.9		21.74						
SW8082	11097-69-1	Aroclor-1254	ug/kg	T											81.7	J	134		48.49						
SW8082	11096-82-5	Aroclor-1260	ug/kg	T											46.3	J	67.8		37.69						
SW8082	11100-14-4	Aroclor-1268	ug/kg	T											10	U	10	U							
SW8082	PCB	Total PCBs	ug/kg	T											186	J	274		38.26						
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g	NA																0.214	U	0.152	U		
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g	NA																0.297	U	0.489	U		
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g	NA																0.301	U	0.554	U		
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g	NA																0.165	U	0.206	U		
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g	NA																0.13	U	0.128	U		
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g	NA																0.149	U	0.2	U		
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g	NA																0.137	U	0.132	U		
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g	NA																0.163	U	0.209	U		
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g	NA																0.185	U	0.168	U		
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g	NA																0.276	U	0.253	U		
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g	NA																0.269	U	0.297	U		
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g	NA																0.147	U	0.133	U		
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g	NA																0.258	U	0.357	J		
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g	NA																0.265	U	0.271	U		
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g	NA																0.231	U	0.459	J		
SW8290	3268-87-9	OCDD	pg/g	NA																0.45	U	0.468	U		
SW8290	39001-02-0	OCDF	pg/g	NA																0.241	U	0.308	U		
SW8290	HpCDD	Total Hepta-Dixons	pg/g	NA																0.214	U	0.152	U		
SW8290	HpCDF	Total HPCDF	pg/g	NA																0.299	U	0.519	U		
SW8290	HxCDD	Total HxCDD	pg/g	NA																0.158	U	0.204	U		
SW8290	HxCDF	Total HxCDF	pg/g	NA																0.148	U	0.139	U		
SW8290	PeCDD	Total PECDD	pg/g	NA																0.276	U	0.253	U		
SW8290	PeCDF	Total PECDF	pg/g	NA																0.263	U	0.357	J		
SW8290	TCDD	Total TCDD	pg/g	NA																0.265	U	0.271	U		
SW8290	TCDF	Total TCDF	pg/g	NA																0.231	U	0.459	J		

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				Location ID	OL-F-5A		OL-F-5A			OL-F-6A		OL-F-6A			OL-F-6A		OL-F-6A			OL-F-6A		OL-F-6A			OL-F-6A		
				Field Sample ID	OL-3811-05F		OL-3811-05F-DUP			OL-3808-06F		OL-3808-06F-DUP			OL-3808-06F		OL-3808-06F-DUP			OL-3808-06F		OL-3808-06F-DUP			OL-3808-06F		OL-3808-06F-DUP		
				Sample Name	OL-F-5A-22-CCP-02		OL-F-5A-22-CCP-02			OL-F-6A-22-WALL-02		OL-F-6A-22-WALL-02			OL-F-6A-22-WALL-02		OL-F-6A-22-WALL-02			OL-F-6A-22-WALL-02		OL-F-6A-22-WALL-02			OL-F-6A-22-WALL-02		OL-F-6A-22-WALL-02		
				Sampled	6/21/2022		6/21/2022			6/14/2022		6/14/2022			6/14/2022		6/14/2022			6/14/2022		6/14/2022			6/14/2022		6/14/2022		
				SDG	B6737		B6737			B6737		B6737			JD91626		JD91626			B6737		B6737			B6737		B6737		
				Lab Sample ID	B6737_019		B6737_019DUP			B6737_21238_006		B6737_21238_006DUP			JD91626-6		JD91626-21			B6737_21347_DF_006-R1		6737_21347_DF_006DUP-F			B6737_21347_DF_006-R1		6737_21347_DF_006DUP-F		
				Medium	Tissue		Tissue			Tissue		Tissue			Tissue		Tissue			Tissue		Tissue			Tissue		Tissue		
				Sample Type	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)
				Matrix	T-FT		TISSUE			T-FT		TQ			T-FT		TQ			T-FT		TQ			T-FT		TQ		
Method	Parameter Code	Parameter Name	Units	Fraction																								
ASTM D2216	MOISTURE-%	Percent Moisture	%	NA	60.22		61.42		1.97																			
SW3550	LIPIDS	%Lipids Determination	%	NA						1.589		1.583		0.38														
SW7471	7439-97-6	Mercury	mg/kg	T											0.54	J	0.65		18.49									
SW8081	118-74-1	Hexachlorobenzene	ug/kg	T											0.26		0.27		3.77									
SW8082	12674-11-2	Aroclor-1016	ug/kg	T											10	U	9.3	U										
SW8082	11104-28-2	Aroclor-1221	ug/kg	T											10	U	9.3	U										
SW8082	11141-16-5	Aroclor-1232	ug/kg	T											10	U	9.3	U										
SW8082	53469-21-9	Aroclor-1242	ug/kg	T											10	U	9.3	U										
SW8082	12672-29-6	Aroclor-1248	ug/kg	T											50.7		49.8		1.79									
SW8082	11097-69-1	Aroclor-1254	ug/kg	T											68.9	J	70.6		2.44									
SW8082	11096-82-5	Aroclor-1260	ug/kg	T											35.7		44.3		21.50									
SW8082	11100-14-4	Aroclor-1268	ug/kg	T											10	U	9.3	U										
SW8082	PCB	Total PCBs	ug/kg	T											155		165		6.25									
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g	NA																0.264	J	0.189	J	33.11				
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g	NA																0.213	J	0.189	J	11.94				
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g	NA																0.0846	U	0.127	U					
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g	NA																0.332	J	0.203	J	48.22				
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g	NA																0.092	U	0.11	U					
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g	NA																0.123	U	0.159	U					
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g	NA																0.0885	U	0.106	U					
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g	NA																0.215	J	0.175	J	20.51				
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g	NA																0.13	U	0.353	J					
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g	NA																0.355	J	0.122	U					
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g	NA																0.205	J	0.0894	U					
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g	NA																0.0921	U	0.106	U					
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g	NA																0.37	J	0.398	J	7.29				
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g	NA																0.12	UJ	0.133	U					
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g	NA																1.18	J	1.19		0.84				
SW8290	3268-87-9	OCDD	pg/g	NA																0.656	J	0.547	J	18.12				
SW8290	39001-02-0	OCDF	pg/g	NA																0.373	J	0.203	U					
SW8290	HpCDD	Total Hepta-Dixons	pg/g	NA																0.424		0.314	J	29.81				
SW8290	HpCDF	Total HPCDF	pg/g	NA																0.213		0.189	J	11.94				
SW8290	HxCDD	Total HxCDD	pg/g	NA																0.547	J	0.378	J	36.54				
SW8290	HxCDF	Total HxCDF	pg/g	NA																0.0987	U	0.353	J					
SW8290	PeCDD	Total PECDD	pg/g	NA																0.355		0.122	U					
SW8290	PeCDF	Total PECDF	pg/g	NA																0.575	J	0.398	J	36.38				
SW8290	TCDD	Total TCDD	pg/g	NA																0.12	U	0.133	U					
SW8290	TCDF	Total TCDF	pg/g	NA																1.18	J	1.28	J	8.13				

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				Location ID	OL-F-3A		OL-F-3A			OL-F-3A		OL-F-3A			OL-F-3A		OL-F-3A			OL-F-4A		OL-F-4A										
				Field Sample ID	OL-3815-02F		OL-3815-02F-DUP			OL-3815-02F		OL-3815-02F-DUP			OL-3815-02F		OL-3815-02F DUP			OL-3814-02F		OL-3814-02F-DUP										
				Sample Name	OL-F-3A-22-SMB-01		OL-F-3A-22-SMB-01			OL-F-3A-22-SMB-01		OL-F-3A-22-SMB-01			OL-F-3A-22-SMB-01		OL-F-3A-22-SMB-01			OL-F-4A-22-SMB-02		OL-F-4A-22-SMB-02										
				Sampled	6/28/2022		6/28/2022			6/28/2022		6/28/2022			6/28/2022		6/28/2022			6/23/2022		6/23/2022										
				SDG	B6772		B6772			B6772		B6772			JD96515		JD96515			B6772		B6772										
				Lab Sample ID	B6772_008		B6772_008			B6772_21474_008		B6772_21474_008DUP			JD96515-8		JD96515-21			B6772_21562_DF_005		B6772_21562_DF_005DUP										
				Medium	Tissue		Tissue			Tissue		Tissue			Tissue		Tissue			Tissue		Tissue										
				Sample Type	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)	REG		LR		Relative Percent Difference (RPD)								
				Matrix	T-FT		TISSUE			T-FT		TISSUE			T-FT		TQ			T-FT		TISSUE										
Method	Parameter Code	Parameter Name	Units	Fraction																												
ASTM D2216	MOISTURE-%	Percent Moisture	%	NA	74.75		74.67		0.11																							
SW3550	LIPIDS	%Lipids Determination	%	NA						2.397		2.593		7.86																		
SW7471	7439-97-6	Mercury	mg/kg	T											0.86	J	0.76		12.35													
SW8081	118-74-1	Hexachlorobenzene	ug/kg	T											0.3	J	0.34		12.50													
SW8082	12674-11-2	Aroclor-1016	ug/kg	T											9.8	U	9.6	U														
SW8082	11104-28-2	Aroclor-1221	ug/kg	T											9.8	U	9.6	U														
SW8082	11141-16-5	Aroclor-1232	ug/kg	T											9.8	U	9.6	U														
SW8082	53469-21-9	Aroclor-1242	ug/kg	T											9.8	U	9.6	U														
SW8082	12672-29-6	Aroclor-1248	ug/kg	T											60.5	J	85.2		33.91													
SW8082	11097-69-1	Aroclor-1254	ug/kg	T											123	J	178		36.54													
SW8082	11096-82-5	Aroclor-1260	ug/kg	T											78.9	J	110		32.93													
SW8082	11100-14-4	Aroclor-1268	ug/kg	T											9.8	U	9.6	U														
SW8082	PCB	Total PCBs	ug/kg	T											262	J	373		34.96													
SW8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	pg/g	NA																0.443	U	0.468	U									
SW8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	pg/g	NA																0.957	U	0.941	U									
SW8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	pg/g	NA																1.06	U	1.07	U									
SW8290	39227-28-6	1,2,3,4,7,8-HxCDD	pg/g	NA																0.2	J	0.225	U									
SW8290	70648-26-9	1,2,3,4,7,8-HxCDF	pg/g	NA																0.137	U	0.107	U									
SW8290	57653-85-7	1,2,3,6,7,8-HxCDD	pg/g	NA																0.228	U	0.228	U									
SW8290	57117-44-9	1,2,3,6,7,8-HxCDF	pg/g	NA																0.14	U	0.109	U									
SW8290	19408-74-3	1,2,3,7,8,9-HxCDD	pg/g	NA																	R	0.223	U									
SW8290	72918-21-9	1,2,3,7,8,9-HxCDF	pg/g	NA																0.182	U	0.148	U									
SW8290	40321-76-4	1,2,3,7,8-PeCDD	pg/g	NA																0.25	J	0.199	J	22.72								
SW8290	57117-41-6	1,2,3,7,8-PeCDF	pg/g	NA																0.146	U	0.315	J									
SW8290	60851-34-5	2,3,4,6,7,8-HxCDF	pg/g	NA																0.134	U	0.115	U									
SW8290	57117-31-4	2,3,4,7,8-PeCDF	pg/g	NA																0.632	J	0.51	J	21.37								
SW8290	1746-01-6	2,3,7,8-TCDD	pg/g	NA																0.124	U	0.132	U									
SW8290	51207-31-9	2,3,7,8-Tcdf	pg/g	NA																0.918		1.02		10.53								
SW8290	3268-87-9	OCDD	pg/g	NA																1.79	J	1.27	J	33.99								
SW8290	39001-02-0	OCDF	pg/g	NA																0.71	J	0.333	J	72.29								
SW8290	HpCDD	Total Hepta-Dixons	pg/g	NA																0.443	U	0.468	U									
SW8290	HpCDF	Total HPCDF	pg/g	NA																1	U	0.998	U									
SW8290	HxCDD	Total HxCDD	pg/g	NA																0.2	J	0.224	U	11.32								
SW8290	HxCDF	Total HxCDF	pg/g	NA																0.147	U	0.118	U									
SW8290	PeCDD	Total PECDD	pg/g	NA																0.25	J	0.326	J	26.39								
SW8290	PeCDF	Total PECDF	pg/g	NA																8.57		9.21		7.20								
SW8290	TCDD	Total TCDD	pg/g	NA																0.124	U	0.132	U									
SW8290	TCDF	Total TCDF	pg/g	NA																2.17	J	3.07		34.35								

ATTACHMENT C – SUPPLEMENTAL QC SUMMARY RESULTS

Supplemental Laboratory QC Results - PCBs

SDG	Fish Grouping	LCS %R (Spiking Aroclor)	MS %R (Spiking Aroclor)	MSD %R (Spiking Aroclor)	MS/MSD RPD (Spiking Aroclor)	Duplicate RPD (Aroclor 1248)	Duplicate RPD (Aroclor 1254)	Duplicate RPD (Aroclor 1260)	Duplicate RPD (Total PCBs)
JD89955	Prey 01	87% (1254) 91% (1248)	140% (1254)	112% (1254)	17% (1254)	11%	15%	14%	14%
JD94044	Prey 02	77% (1254) 72% (1248)	39% (1254)	41% (1254)	2% (1254)	ND	38%	29%	33%
JD94533	Prey 03	77% (1254) 74% (1016) 70% (1260)	37% (1254)	52% (1254)	23% (1254)	41%	45%	43%	43%
JD95098	Sport 01	76% (1254) 75% (1242)	43% (1254)	11% (1254)	20% (1254)	24%	5%	5%	10%
JD95592	Sport 02	83% (1254) 85% (1016) 93% (1260)	78% (1254)	72% (1254)	6% (1254)	6%	6%	4%	6%
JD95922	Sport 03	76% (1254) 85% (1242)	62% (1254)	42% (1254)	27% (1254)	22%	48%	37%	38%
JD91626	Sport 04	85% (1254) 78% (1242)	56% (1254)	55% (1254)	1% (1254)	2%	2%	22%	6%
JD96515	Sport 05	79% (1254) 85% (1242)	74% (1254)	53% (1254)	26% (1254)	34%	37%	33%	35%

NOTES:

SDG - Sample Delivery Group
LCS - Laboratory Control Sample
MS - Matrix Spike
MSD - Matrix Spike Duplicate
%R - Percent Recovery
RPD - Relative Percent Difference
ND - Non-detect

Supplemental Laboratory QC Results - Mercury

SDG	Fish Grouping	LCS %R	MS %R	MSD %R	MS/MSD RPD	Duplicate RPD
JD89955	Prey 01	105%	110%	100%	7%	0%
JD94044	Prey 02	102%	107%	99%	12%	2%
JD94533	Prey 03	96%	88%	90%	3%	4%
JD95098	Sport 01	111%	100%	82%	11%	5%
		105%	119%	136%	4%	2%
JD95592	Sport 02	102%	67%	116%	9%	15%
JD95922	Sport 03	86%	103%	72%	8%	0%
JD91626	Sport 04	111%	110%	122%	3%	19%
JD96515	Sport 05	108%	74%	74%	0%	12%

NOTES:

SDG - Sample Delivery Group

LCS - Laboratory Control Sample

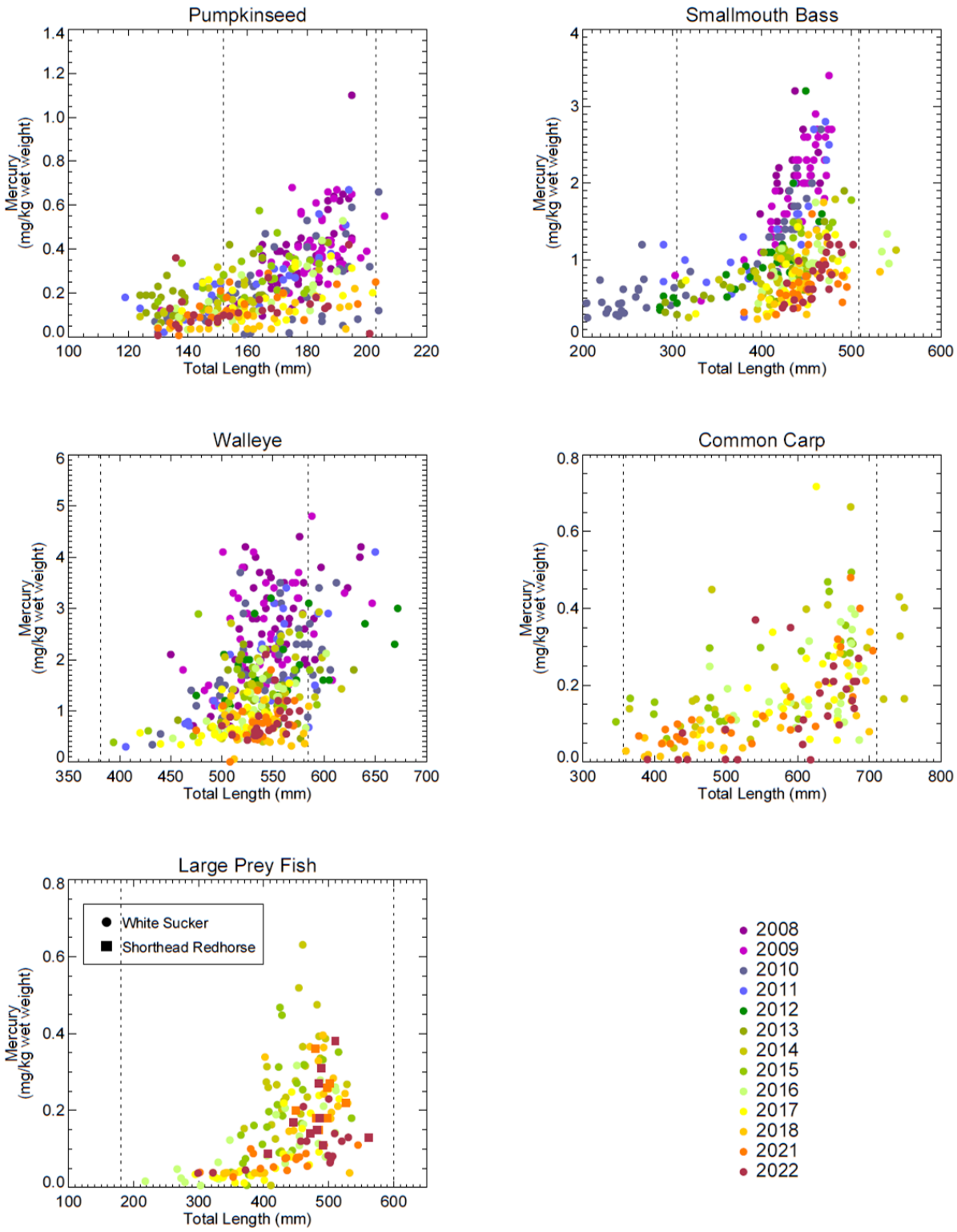
MS - Matrix Spike

MSD - Matrix Spike Duplicate

%R - Percent Recovery

RPD - Relative Percent Difference

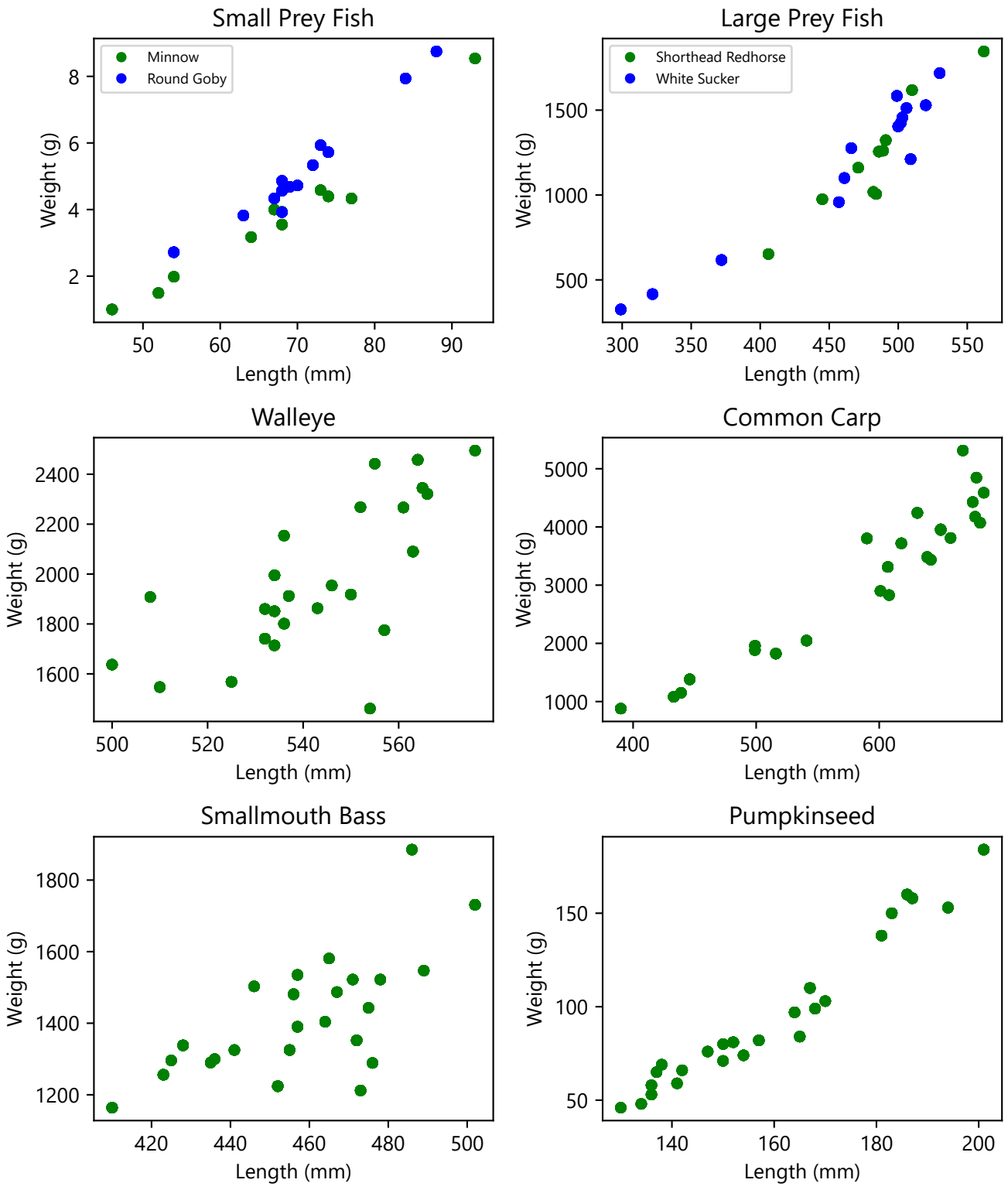
APPENDIX 3B – ADDITIONAL BIOTA INFORMATION



Notes: Dashed lines represent range of lengths targeted for collection.
Nitrate addition began in 2011. 2019 and 2020 data are not reported.

Filepath: \\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Plots\PLOTS_IDL

Figure 3B.1
Mercury Concentrations versus Length: 2008 - 2022



Small prey fish are whole-body composites; values shown are the average length and average weight of the individuals in each composite.
Large prey fish are whole-body samples. All other species are standard fillets.
The lengths and weights of these species are based on individual fish measurements.

Publish Date: 04/10/2025 14:48 PM | User: BAL-CWRI2
\\wcl-fs1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\FISH\2022_OMM\Python\Length_Weight_bySpecies_plot.py

Figure 3B.2
Weight versus Length for Onondaga Lake Fish (2022)

Honeywell PARSONS

TABLE 3B.1
CALCULATED DIOXIN/FURAN HUMAN MAMMALIAN TEQs in 2022 FISH TISSUE SAMPLES

Location ID	Field Sample ID	Fish Species	Date Sampled	TEQ (full dl) (ng/kg)	TEQ (half dl) (ng/kg)	TEQ (ND=0) (ng/kg)
OL-F-1A	OL-3801-01F	CCP	4/22/2022	3.87	3.82	3.77
OL-F-1A	OL-3801-11F**	CCP	5/27/2022	0.56	0.28	0.00
OL-F-1A	OL-3801-12F	CCP	5/27/2022	0.98	0.53	0.07
OL-F-2A	OL-3801-15F	CCP	5/30/2022	1.40	0.70	0.00
OL-F-2A	OL-3801-16F	CCP	5/30/2022	1.06	0.53	0.00
OL-F-5A	OL-3801-19F	CCP	5/31/2022	1.38	0.99	0.59
OL-F-5A	OL-3811-05F	CCP	6/21/2022	1.52	1.51	1.50
OL-F-6A	OL-3801-17F	CCP	5/30/2022	1.10	0.55	0.01
OL-F-6A	OL-3801-18F	CCP	5/30/2022	0.92	0.52	0.12
OL-F-7A	OL-3801-02F	CCP	4/22/2022	1.17	0.67	0.18
OL-F-7A	OL-3801-03F	CCP	4/22/2022	1.62	1.39	1.17
OL-F-7A	OL-3803-04F	CCP	6/7/2022	7.14	7.13	7.12
OL-F-1A	OL-3801-05F	PKSD	5/5/2022	0.80	0.42	0.04
OL-F-1A	OL-3801-06F	PKSD	5/5/2022	0.93	0.47	0.00
OL-F-1A	OL-3801-07F**	PKSD	5/5/2022	0.85	0.42	0.00
OL-F-2A	OL-3801-08F**	PKSD	5/17/2022	0.79	0.39	0.00
OL-F-2A	OL-3816-06F*	PKSD	7/1/2022	0.36	0.19	0.03
OL-F-3A	OL-3801-10F**	PKSD	5/20/2022	2.15	1.18	0.21
OL-F-3A	OL-3802-12F	PKSD	6/3/2022	0.52	0.28	0.04
OL-F-3A	OL-3802-13F	PKSD	6/3/2022	0.80	0.40	0.00
OL-F-4A	OL-3816-05F***	PKSD	7/1/2022	1.28	0.64	0.00
OL-F-5A	OL-3802-07F	PKSD	6/2/2022	0.48	0.25	0.03
OL-F-5A	OL-3802-09F	PKSD	6/2/2022	0.36	0.23	0.11
OL-F-7A	OL-3801-14F	PKSD	5/27/2022	1.04	0.52	0.00

Notes:

Rejected results not included in total TEQ calculation. Per standard guidance from ATSDR, to confirm that the exclusion of rejected results do not have an unacceptably large influence on the total TEQ, total TEQs were calcualted for effected samples both with and without the rejected results. The relative percent difference (RPD) between total TEQs with and without unusable results were minimal, ranging from 0.2% to 8.3%. ATSDR recommends calculating TEQs without rejected data if RPDs are less than 50%

*Rejected result for 1,2,3,7,8,9,HxCDD

**Rejected result for OCDD and OCDF

***Rejected result for 1,2,3,7,8,9,HxCDD, OCDD, and OCDF

Acronyms:

TEQ = toxicity equivalent quotient (calculated using human and mammalian toxic equivalency factors)

dl = detection limit ND = non-detect ng/kg = nanograms per kilogram

CCP = Common Carp SMB = Smallmouth Bass

PKSD = Pumpkinseed WALL = Walleye

TABLE 3B.1
CALCULATED DIOXIN/FURAN HUMAN MAMMALIAN TEQs in 2022 FISH TISSUE SAMPLES

Location ID	Field Sample ID	Fish Species	Date Sampled	TEQ (full dl) (ng/kg)	TEQ (half dl) (ng/kg)	TEQ (ND=0) (ng/kg)
OL-F-2A	OL-3805-01F	SMB	6/8/2022	0.60	0.45	0.31
OL-F-2A	OL-3805-02F	SMB	6/8/2022	0.98	0.83	0.68
OL-F-2A	OL-3806-01F	SMB	6/8/2022	0.77	0.38	0.00
OL-F-3A	OL-3815-02F*	SMB	6/28/2022	1.06	0.98	0.90
OL-F-3A	OL-3815-03F*	SMB	6/28/2022	0.64	0.53	0.43
OL-F-3A	OL-3815-04F*	SMB	6/28/2022	0.89	0.79	0.69
OL-F-4A	OL-3814-02F*	SMB	6/23/2022	0.79	0.67	0.55
OL-F-4A	OL-3814-03F*	SMB	6/23/2022	1.01	0.85	0.69
OL-F-5A	OL-3802-01F	SMB	5/31/2022	1.75	1.68	1.61
OL-F-5A	OL-3802-02F	SMB	5/31/2022	0.97	0.82	0.67
OL-F-5A	OL-3802-10F	SMB	6/2/2022	0.58	0.48	0.38
OL-F-5B	OL-3809-04F	SMB	6/15/2022	1.23	1.21	1.18
OL-F-3A	OL-3802-04F	WALL	5/31/2022	0.82	0.74	0.66
OL-F-3A	OL-3802-05F	WALL	5/31/2022	1.02	0.86	0.70
OL-F-3A	OL-3802-06F	WALL	5/31/2022	0.48	0.30	0.13
OL-F-4A	OL-3803-02F	WALL	6/6/2022	0.78	0.64	0.50
OL-F-4A	OL-3803-03F	WALL	6/6/2022	0.54	0.30	0.06
OL-F-4A	OL-3811-01F	WALL	6/20/2022	0.85	0.48	0.10
OL-F-5A	OL-3801-20F	WALL	5/31/2022	1.03	0.72	0.42
OL-F-5A	OL-3802-03F	WALL	5/31/2022	0.67	0.59	0.50
OL-F-5A	OL-3802-11F	WALL	6/2/2022	0.81	0.76	0.72
OL-F-5B	OL-3809-06F	WALL	6/15/2022	0.64	0.59	0.54
OL-F-6A	OL-3808-06F	WALL	6/14/2022	0.82	0.74	0.65
OL-F-6A	OL-3808-07F	WALL	6/14/2022	0.99	0.92	0.84

Notes:

Rejected results not included in total TEQ calculation. Per standard guidance from ATSDR, to confirm that the exclusion of rejected results do not have an unacceptably large influence on the total TEQ, total TEQs were calcualted for effected samples both with and without the rejected results. The relative percent difference (RPD) between total TEQs with and without unusable results were minimal, ranging from 0.2% to 8.3%. ATSDR recommends calculating TEQs without rejected data if RPDs are less than 50%

*Rejected result for 1,2,3,7,8,9,HxCDD

**Rejected result for OCDD and OCDF

***Rejected result for 1,2,3,7,8,9,HxCDD, OCDD, and OCDF

Acronyms:

TEQ = toxicity equivalent quotient (calculated using human and mammalian toxic equivalency factors)

dl = detection limit | ND = non-detect | ng/kg = nanograms per kilogram

CCP = Common Carp | SMB = Smallmouth Bass

PKSD = Pumpkinseed | WALL = Walleye

TABLE 3B.2 LARGE PREY FISH - SPECIES COMPARISON EVALUATION

Parameter	Species	Sample Size[1]	Mean[2]	Median[2]	Standard Deviation[2,3]	Variance[2,4]	Classical ANOVA p-value[5,6,8]	Non-parametric ANOVA p-value[5,7,8]
Mercury (mg/kg)	Shorthead Redhorse	18	0.21	0.18	0.084	0.0070	N/A	9.7E-07
	White Sucker	30	0.088	0.079	0.047	0.0022		
Length-Normalized Mercury (mg/kg/mm)	Shorthead Redhorse	18	0.00043	0.00038	0.00017	2.8E-08	N/A	1.5E-06
	White Sucker	30	0.00019	0.00017	0.000090	8.1E-09		
Total PCBs (ug/kg)	Shorthead Redhorse	18	384	299	300	90181	N/A	0.030
	White Sucker	30	230	176	198	39243		
Lipid Content (%)	Shorthead Redhorse	17 [9]	3.9	3.0	2.9	8.6	N/A	0.069
	White Sucker	30	2.2	1.9	1.5	2.3		
Lipid Normalized Total PCBs (ug/kg/lipid)	Shorthead Redhorse	17 [9]	151	69	186	34604	N/A	0.64
	White Sucker	30	140	77	146	21400		
Length (mm)	Shorthead Redhorse	18	486	486	33	1067	N/A	0.049
	White Sucker	30	459	456	67	4472		
Weight (grams)	Shorthead Redhorse	18	1200	1209	287	82212	0.090	N/A
	White Sucker	30	1009	1029	411	169273		

Notes:

1. Sample size based off number of Shorthead Redhorse and White Sucker collected in 2021 and 2022.
2. Mean, median, standard deviation, and variance calculated using ProUCL version 5.2.
3. Standard deviation is an estimate of the variability of the data points used to calculate the mean.
4. Variance is a measurement of the spread or disperson witin a set of data.
5. ProUCL version 5.2 was used to determine normality and perform statistical analyses
6. Classical Oneway ANOVA was used for data displaying normality
7. Non-parametric ANOVA (Kruskal-Wallis Test) was used for data not displaying normality
8. A p-value $\leq$0.05 suggests that there are significant differences in the mean/median characteristics of the various groups at a significance level of 0.05
9. Reduced sample size for lipids due to rejected lipid result for a Shorthead Redhorse sample in 2021 as discussed in the 2021 Data Usability Assessment Report

Acronyms:

PCB = polychlorinated biphenyl
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
mm = millimeters
ug/kg = micrograms per kilogram
mg/kg/mm = milligrams per kilogram per millimeter

Reference:

USEPA, 2022. ProUCL Version 5.2 User Guide. https://www.epa.gov/land-research/proucl-software Accessed October 1, 2024.

APPENDIX 4A - DATA USABILITY AND SUMMARY REPORT ONONDAGA LAKE 2022 MONITORED NATURAL RECOVERY

APPENDIX 4A:

DATA USABILITY SUMMARY REPORT

2022 MONITORED NATURAL RECOVERY
ONONDAGA LAKE
ONONDAGA COUNTY, NEW YORK

Prepared For:

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MAY 2023 (REVISED JULY 2024)

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LIST OF ATTACHMENTS

ATTACHMENT A – VALIDATED LABORATORY DATA

SECTION 4A1 DATA USABILITY SUMMARY

Sediment trap and sediment samples were collected as part of the Monitored Natural Recovery efforts at Onondaga Lake from May 9, 2022 through November 15, 2022. Analytical results from these samples were validated and reviewed by Parsons for usability with respect to the following requirements:

- Onondaga Lake Natural Recovery Monitoring Work Plan for 2022 (Parsons and Anchor QEA 2022);
- Quality Assurance Project Plan (QAPP) for Onondaga Lake Construction and Post-Construction Media Monitoring (Surface Water, Biota and Sediment) (Parsons. Anchor QEA and Upstate Freshwater Institute [UFI] 2022); and
- USEPA Region II Standard Operating Procedures (SOPs) for inorganic data review.

The analytical laboratories for this project were Eurofins – Environment Testing America (Eurofins) and Upstate Freshwater Institute (UFI). These laboratories are certified by the State of New York to conduct laboratory analyses for this project through the National Environmental Laboratory Accreditation Conference (NELAC) and the New State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP).

4A1.1 Laboratory Data Packages

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 9 to 15 days for the samples.

The data packages received from the laboratories were paginated, complete, and overall were of good quality. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report which is summarized by sample media in Section 4A2.

4A1.2 Sampling and Chain-of-Custody

The samples were collected, properly preserved, shipped under a chain-of-custody (COC) record, and received at the laboratories within one day of sampling. All samples were received intact and in good condition at the laboratories.

4A1.3 Laboratory Analytical Methods

The sediment trap samples were collected from the site and analyzed for low level mercury, total suspended solids (TSS), and total fixed solids (TFS). The sediment samples were collected from the site and analyzed for mercury. Summaries of deviations from the Work Plan, QAPP, or USEPA Region II SOPs concerning these laboratory analyses are presented in Subsections 4A1.3.1 through 4A1.3.2. The data qualifications resulting from the data validation review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) are discussed for each analytical method by media in Section 4A2. The laboratory data were reviewed and may be qualified with the following validation flags:

"U" - not detected at the value given
"UJ" - estimated and not detected at the value given
"J" - estimated at the value given

"J+" - estimated biased high at the value given
"J-" - estimated biased low at the value given
"N" - presumptive evidence at the value given
"R" - unusable value

The validated laboratory data were tabulated and are presented in Attachment A.

4A1.3.1 Mercury Analysis

Sediment trap samples were analyzed for low level mercury using the USEPA 1631E analytical method. Sediment samples were analyzed for mercury using the USEPA SW-846 7471B analytical method. Certain reported results for the mercury samples were qualified as not detected based upon blank contamination; and qualified as estimated based upon matrix spike/matrix spike duplicate (MS/MSD) recoveries and sample moisture content. The reported mercury analytical results were considered 100% complete (i.e., usable) for the data presented by Eurofins. PARCCS requirements were met.

4A1.3.2 Other Sediment Trap Analyses

Sediment trap samples were also analyzed TSS and TFS using the SM2540D and SM2540E analytical methods, respectively. The reported results for these samples did not require qualification resulting from data validation. The reported analytical results for these parameters were considered 100% complete (i.e., usable) for the data presented by UFI. PARCCS requirements were met.

SECTION 4A2 DATA VALIDATION REPORT

4A2.1 Sediment Trap Samples

Data review has been completed for data packages generated by Eurofins and UFI containing results for sediment trap samples collected from the site. The specific samples contained in these data packages, the analyses performed, and the validated laboratory data were tabulated and are presented in Attachment A-1. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory.

Data validation was performed for all samples in accordance with the project work plan and QAPP as well as the USEPA Region II SOP HW-2c, Revision 15 "Mercury and Cyanide Data Validation". This data validation and usability report is presented by analysis type.

4A2.1.1 Low Level Mercury

The following items were reviewed for compliancy in the low level mercury analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration, and laboratory preparation blank contamination
- Matrix spike / matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of blank contamination as discussed below.

Blank Contamination

The laboratory preparation blank associated with samples in SDG 580-117662-1 contained low level mercury below the reporting limit at a concentration of 0.117 µg/L. Therefore, results for this analyte less than validation action concentrations were considered not detected and qualified "U" for the affected samples.

Usability

All low level mercury results for the sediment trap samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The low level mercury data presented by Eurofins were 100% complete (i.e., usable). The validated low level mercury laboratory data are tabulated and presented in Attachment A-1.

4A2.1.2 TSS and TFS

All custody documentation, holding times, matrix spike recoveries, laboratory duplicate precision, laboratory control sample recoveries, laboratory method blank contamination, initial and continuing calibration verifications, field duplicate precision, and quantitation limits were reviewed for compliance. Validation qualification of the sample results for these parameters was not required. The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The data for these parameters presented by UFI were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A-1.

4A2.2 Sediment Samples

Data review has been completed for data packages generated by Eurofins containing results for sediment samples collected from the site. The specific samples contained in these data packages, the analyses performed, and the validated laboratory data were tabulated and are presented in Attachment A-2. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory.

Data validation was performed for all samples in accordance with the project work plan and QAPP as well as the USEPA Region II SOP HW-2c, Revision 15 "Mercury and Cyanide Data Validation". This data validation and usability report is presented by analysis type.

4A2.2.1 Mercury

The following items were reviewed for compliancy in the mercury analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration, laboratory preparation blank, and equipment blank contamination
- Matrix spike / matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of blank contamination and MS/MSD recoveries as discussed below.

Blank Contamination

The laboratory preparation blank associated with equipment blank samples collected on 5/24/22 contained mercury below the reporting limit at a concentration of 0.0000801 mg/L; and the initial calibration blank associated with samples in SDGs 410-85460-1 and 410-85461-1 contained mercury below the reporting limit at a concentration of 0.152 µg/L. Validation qualification was not required for the affected samples.

MS/MSD Recoveries

All MS/MSD recoveries were considered acceptable and within the 80-120%R QC limit with the exception of the high MSD recovery for mercury (130%R) associated with sample OL-3737-12; the low MSD recovery for mercury (71%R) associated with sample OL-3738-09; and the high MS recovery for mercury (124%R) associated with

sample OL-3740-05. Therefore, mercury results were considered estimated and qualified "J" for the affected samples.

Usability

All mercury results for the sediment samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The mercury data presented by Eurofins were 100% complete (i.e., usable). The validated mercury laboratory data are tabulated and presented in Attachment A-2.

It was noted that all sediment samples except for samples OL-3740-13, OL-3743-01, and -02 contained less than 50% solids. Therefore, results were considered estimated and qualified "J" for the affected samples.

ATTACHMENT A – VALIDATED LABORATORY DATA

ATTACHMENT A-1 – VALIDATED LABORATORY DATA FOR SEDIMENT TRAP SAMPLES

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PARSONS

ONONDAGA LAKE 2022 SEDIMENT TRAP MONITORING - SLURRY

							Parameter	Mercury		Total Fixed Solids		Total Suspended Solids	
							Method	E1631		SM2540E		SM2540D	
							Fraction	T		T		T	
							Units	ug/l		mg/L		mg/L	
Location ID	Field Sample ID	Depth (ft)	Sampled	SDG	Matrix	Purpose	Sample Type						
DEEP_S	OL-3949-01	33 - 33	05/09/2022	580-117662-1	Liquid	REG	SLURRY	0.19	J				
DEEP_S	OL-3949-02	33 - 33	05/24/2022	580-117662-1	Liquid	REG	SLURRY	0.27	J				
DEEP_S	OL-3949-03	33 - 33	06/06/2022	580-117662-1	Liquid	REG	SLURRY	0.5	U				
DEEP_S	OL-3949-04	33 - 33	06/21/2022	580-117662-1	Liquid	REG	SLURRY	0.18	J				
DEEP_S	OL-3949-05	33 - 33	07/05/2022	580-117662-1	Liquid	REG	SLURRY	0.12	J				
DEEP_S	OL-3949-06	33 - 33	07/19/2022	580-117662-1	Liquid	REG	SLURRY	0.12	J				
DEEP_S	OL-3949-07	33 - 33	08/02/2022	580-117662-1	Liquid	REG	SLURRY	0.5	U				
DEEP_S	OL-3949-08	33 - 33	08/16/2022	580-117662-1	Liquid	REG	SLURRY	0.17	J				
DEEP_S	OL-3949-09	33 - 33	08/23/2022	580-117662-1	Liquid	REG	SLURRY	0.19	J				
DEEP_S	OL-3949-10	33 - 33	08/30/2022	580-117662-1	Liquid	REG	SLURRY	0.36	J				
DEEP_S	OL-3991-01	33 - 33	09/07/2022	580-120596-1	Liquid	REG	SLURRY	0.39	J				
DEEP_S	OL-3991-02	33 - 33	09/13/2022	580-120596-1	Liquid	REG	SLURRY	0.11	J				
DEEP_S	OL-3991-03	33 - 33	09/20/2022	580-120596-1	Liquid	REG	SLURRY	0.17	J				
DEEP_S	OL-3991-04	33 - 33	09/27/2022	580-120596-1	Liquid	REG	SLURRY	0.28	J				
DEEP_S	OL-3991-05	33 - 33	10/04/2022	580-120596-1	Liquid	REG	SLURRY	0.16	J				
DEEP_S	OL-3991-06	33 - 33	10/11/2022	580-120596-1	Liquid	REG	SLURRY	0.2	J				
DEEP_S	OL-3991-07	33 - 33	10/18/2022	580-120596-1	Liquid	REG	SLURRY	0.2	J				
DEEP_S	OL-3991-08	33 - 33	10/25/2022	580-120596-1	Liquid	REG	SLURRY	0.19	J				
DEEP_S	OL-3991-09	33 - 33	10/31/2022	580-120596-1	Liquid	REG	SLURRY	0.33	J				
DEEP_S	OL-3991-10	33 - 33	11/15/2022	580-120596-1	Liquid	REG	SLURRY	0.66					
DEEP_S	OL-3900-01	33 - 33	05/09/2022	UFI CHM 2022-042	Liquid	REG	SLURRY			548		716	
DEEP_S	OL-3900-02	33 - 33	05/09/2022	UFI CHM 2022-042	Liquid	FD	SLURRY			532		688	
DEEP_S	OL-3900-03	33 - 33	05/09/2022	UFI CHM 2022-042	Liquid	FD2	SLURRY			516		668	
DEEP_S	OL-3901-01	10 - 10	05/17/2022	UFI CHM 2022-042	Liquid	REG	SLURRY			916		1084	
DEEP_S	OL-3901-02	10 - 10	05/17/2022	UFI CHM 2022-042	Liquid	FD	SLURRY			880		1060	
DEEP_S	OL-3901-03	10 - 10	05/17/2022	UFI CHM 2022-042	Liquid	FD	SLURRY			880		1028	
DEEP_S	OL-3903-01	33 - 33	05/24/2022	UFI CHM 2022-042	Liquid	REG	SLURRY			2048		2404	
DEEP_S	OL-3903-02	33 - 33	05/24/2022	UFI CHM 2022-042	Liquid	FD	SLURRY			2172		2536	
DEEP_S	OL-3903-03	33 - 33	05/24/2022	UFI CHM 2022-042	Liquid	FD	SLURRY			4200		2756	
DEEP_S	OL-3906-01	33 - 33	05/31/2022	UFI CHM 2022-053	Liquid	REG	SLURRY			1972		2380	
DEEP_S	OL-3906-02	33 - 33	05/31/2022	UFI CHM 2022-053	Liquid	FD	SLURRY			1700		2004	
DEEP_S	OL-3906-03	33 - 33	05/31/2022	UFI CHM 2022-053	Liquid	FD	SLURRY			1876		2148	
DEEP_S	OL-3907-01	33 - 33	06/06/2022	UFI CHM 2022-053	Liquid	REG	SLURRY			1664		1876	
DEEP_S	OL-3907-02	33 - 33	06/06/2022	UFI CHM 2022-053	Liquid	FD	SLURRY			2300		2608	
DEEP_S	OL-3907-03	33 - 33	06/06/2022	UFI CHM 2022-053	Liquid	FD	SLURRY			2356		2656	
DEEP_S	OL-3909-01	33 - 33	06/13/2022	UFI CHM 2022-053	Liquid	REG	SLURRY			728		924	

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ONONDAGA LAKE 2022 SEDIMENT TRAP MONITORING - SLURRY

							Parameter	Mercury		Total Fixed Solids		Total Suspended Solids	
							Method	E1631		SM2540E		SM2540D	
							Fraction	T		T		T	
							Units	ug/l		mg/L		mg/L	
Location ID	Field Sample ID	Depth (ft)	Sampled	SDG	Matrix	Purpose	Sample Type						
DEEP_S	OL-3909-02	33 - 33	06/13/2022	UFI CHM 2022-053	Liquid	FD	SLURRY			976		1228	
DEEP_S	OL-3909-03	33 - 33	06/13/2022	UFI CHM 2022-053	Liquid	FD	SLURRY			1260		1592	
DEEP_S	OL-3912-01	33 - 33	06/21/2022	UFI CHM 2022-069	Liquid	REG	SLURRY			1108		1384	
DEEP_S	OL-3912-02	33 - 33	06/21/2022	UFI CHM 2022-069	Liquid	FD	SLURRY			1704		2076	
DEEP_S	OL-3912-03	33 - 33	06/21/2022	UFI CHM 2022-069	Liquid	FD2	SLURRY			1408		1704	
DEEP_S	OL-3914-01	33 - 33	06/28/2022	UFI CHM 2022-069	Liquid	REG	SLURRY			3304		3768	
DEEP_S	OL-3914-02	33 - 33	06/28/2022	UFI CHM 2022-069	Liquid	FD	SLURRY			2432		2800	
DEEP_S	OL-3914-03	33 - 33	06/28/2022	UFI CHM 2022-069	Liquid	FD2	SLURRY			2224		2568	
DEEP_S	OL-3917-01	33 - 33	07/05/2022	UFI CHM 2022-069	Liquid	REG	SLURRY			1360		1636	
DEEP_S	OL-3917-02	33 - 33	07/05/2022	UFI CHM 2022-069	Liquid	FD	SLURRY			1180		1420	
DEEP_S	OL-3917-03	33 - 33	07/05/2022	UFI CHM 2022-069	Liquid	FD2	SLURRY			1332		1588	
DEEP_S	OL-3921-01	33 - 33	07/12/2022	UFI CHM 2022-082	Liquid	REG	SLURRY			4464		4848	
DEEP_S	OL-3921-02	33 - 33	07/12/2022	UFI CHM 2022-082	Liquid	FD	SLURRY			4928		5348	
DEEP_S	OL-3921-03	33 - 33	07/12/2022	UFI CHM 2022-082	Liquid	FD2	SLURRY			4340		4688	
DEEP_S	OL-3924-01	33 - 33	07/19/2022	UFI CHM 2022-082	Liquid	REG	SLURRY			196		23	
DEEP_S	OL-3924-02	33 - 33	07/19/2022	UFI CHM 2022-082	Liquid	FD	SLURRY			1704		2020	
DEEP_S	OL-3924-03	33 - 33	07/19/2022	UFI CHM 2022-082	Liquid	FD2	SLURRY			1792		2104	
DEEP_S	OL-3928-01	33 - 33	07/26/2022	UFI CHM 2022-096	Liquid	REG	SLURRY			1052		1372	
DEEP_S	OL-3928-02	33 - 33	07/26/2022	UFI CHM 2022-096	Liquid	FD	SLURRY			1028		1364	
DEEP_S	OL-3928-03	33 - 33	07/26/2022	UFI CHM 2022-096	Liquid	FD2	SLURRY			1192		1568	
DEEP_S	OL-3932-01	33 - 33	08/02/2022	UFI CHM 2022-096	Liquid	REG	SLURRY			824		1104	
DEEP_S	OL-3932-02	33 - 33	08/02/2022	UFI CHM 2022-096	Liquid	FD	SLURRY			940		1228	
DEEP_S	OL-3932-03	33 - 33	08/02/2022	UFI CHM 2022-096	Liquid	FD2	SLURRY			792		1056	
DEEP_S	OL-3936-01	33 - 33	08/09/2022	UFI CHM 2022-117	Liquid	REG	SLURRY			2256		2656	
DEEP_S	OL-3936-02	33 - 33	08/09/2022	UFI CHM 2022-117	Liquid	FD	SLURRY			1700		2076	
DEEP_S	OL-3936-03	33 - 33	08/09/2022	UFI CHM 2022-117	Liquid	FD2	SLURRY			1800		2200	
DEEP_S	OL-3939-01	33 - 33	08/16/2022	UFI CHM 2022-117	Liquid	REG	SLURRY			1740		2140	
DEEP_S	OL-3939-02	33 - 33	08/16/2022	UFI CHM 2022-117	Liquid	FD	SLURRY			1740		2172	
DEEP_S	OL-3939-03	33 - 33	08/16/2022	UFI CHM 2022-117	Liquid	FD2	SLURRY			1544		1956	
DEEP_S	OL-3943-01	33 - 33	08/23/2022	UFI CHM 2022-131	Liquid	REG	SLURRY			1140		1484	
DEEP_S	OL-3943-02	33 - 33	08/23/2022	UFI CHM 2022-131	Liquid	FD	SLURRY			1424		1832	
DEEP_S	OL-3943-03	33 - 33	08/23/2022	UFI CHM 2022-131	Liquid	FD2	SLURRY			1056		1348	
DEEP_S	OL-3946-01	33 - 33	08/30/2022	UFI CHM 2022-131	Liquid	REG	SLURRY			2004		2396	
DEEP_S	OL-3946-02	33 - 33	08/30/2022	UFI CHM 2022-131	Liquid	FD	SLURRY			2576		3020	
DEEP_S	OL-3946-03	33 - 33	08/30/2022	UFI CHM 2022-131	Liquid	FD2	SLURRY			2200		2560	
DEEP_S	OL-3951-01	33 - 33	09/07/2022	UFI CHM 2022-145	Liquid	REG	SLURRY			1832		2400	
DEEP_S	OL-3951-02	33 - 33	09/07/2022	UFI CHM 2022-145	Liquid	FD	SLURRY			1592		2068	

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ONONDAGA LAKE 2022 SEDIMENT TRAP MONITORING - SLURRY

							Parameter	Mercury		Total Fixed Solids		Total Suspended Solids	
							Method	E1631		SM2540E		SM2540D	
							Fraction	T		T		T	
							Units	ug/l		mg/L		mg/L	
Location ID	Field Sample ID	Depth (ft)	Sampled	SDG	Matrix	Purpose	Sample Type						
DEEP_S	OL-3951-03	33 - 33	09/07/2022	UFI CHM 2022-145	Liquid	FD2	SLURRY			1700		2208	
DEEP_S	OL-3955-01	33 - 33	09/13/2022	UFI CHM 2022-145	Liquid	REG	SLURRY			556		800	
DEEP_S	OL-3955-02	33 - 33	09/13/2022	UFI CHM 2022-145	Liquid	FD	SLURRY			504		712	
DEEP_S	OL-3955-03	33 - 33	09/13/2022	UFI CHM 2022-145	Liquid	FD2	SLURRY			544		800	
DEEP_S	OL-3959-01	33 - 33	09/24/2022	UFI CHM 2022-151	Liquid	REG	SLURRY			860		1160	
DEEP_S	OL-3959-02	33 - 33	09/24/2022	UFI CHM 2022-151	Liquid	FD	SLURRY			852		1160	
DEEP_S	OL-3959-03	33 - 33	09/24/2022	UFI CHM 2022-151	Liquid	FD2	SLURRY			1072		1436	
DEEP_S	OL-3963-01	33 - 33	09/27/2022	UFI CHM 2022-151	Liquid	REG	SLURRY			1064		1404	
DEEP_S	OL-3963-02	33 - 33	09/27/2022	UFI CHM 2022-151	Liquid	FD	SLURRY			1104		1468	
DEEP_S	OL-3963-03	33 - 33	09/27/2022	UFI CHM 2022-151	Liquid	FD2	SLURRY			1116		1476	
DEEP_S	OL-3967-01	33 - 33	10/04/2022	UFI CHM 2022-164	Liquid	REG	SLURRY			776		1116	
DEEP_S	OL-3967-02	33 - 33	10/04/2022	UFI CHM 2022-164	Liquid	FD	SLURRY			872		1224	
DEEP_S	OL-3967-03	33 - 33	10/04/2022	UFI CHM 2022-164	Liquid	FD2	SLURRY			1020		1392	
DEEP_S	OL-3971-01	33 - 33	10/11/2022	UFI CHM 2022-171	Liquid	REG	SLURRY			1000		1448	
DEEP_S	OL-3971-02	33 - 33	10/11/2022	UFI CHM 2022-171	Liquid	FD	SLURRY			1172		1596	
DEEP_S	OL-3971-03	33 - 33	10/11/2022	UFI CHM 2022-171	Liquid	FD2	SLURRY			900		1244	
DEEP_S	OL-3975-01	33 - 33	10/18/2022	UFI CHM 2022-171	Liquid	REG	SLURRY			848		1160	
DEEP_S	OL-3975-02	33 - 33	10/18/2022	UFI CHM 2022-171	Liquid	FD	SLURRY			652		888	
DEEP_S	OL-3975-03	33 - 33	10/18/2022	UFI CHM 2022-171	Liquid	FD2	SLURRY			728		1016	
DEEP_S	OL-3979-01	33 - 33	10/25/2022	UFI CHM 2022-179	Liquid	REG	SLURRY			1204		1504	
DEEP_S	OL-3979-02	33 - 33	10/25/2022	UFI CHM 2022-179	Liquid	FD	SLURRY			1156		1428	
DEEP_S	OL-3979-03	33 - 33	10/25/2022	UFI CHM 2022-179	Liquid	FD2	SLURRY			1160		1416	
DEEP_S	OL-3983-01	33 - 33	10/31/2022	UFI CHM 2022-189	Liquid	REG	SLURRY			1432		1788	
DEEP_S	OL-3983-02	33 - 33	10/31/2022	UFI CHM 2022-189	Liquid	FD	SLURRY			1236		1532	
DEEP_S	OL-3983-03	33 - 33	10/31/2022	UFI CHM 2022-189	Liquid	FD2	SLURRY			1216		1516	
DEEP_S	OL-3986-01	33 - 33	11/09/2022	UFI CHM 2022-189	Liquid	REG	SLURRY			18		2160	
DEEP_S	OL-3986-02	33 - 33	11/09/2022	UFI CHM 2022-189	Liquid	FD	SLURRY			2028		2436	
DEEP_S	OL-3986-03	33 - 33	11/09/2022	UFI CHM 2022-189	Liquid	FD2	SLURRY			1864		2288	

ATTACHMENT A-2 – VALIDATED LABORATORY DATA FOR SEDIMENT SAMPLES

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ONONDAGA LAKE 2022 MNR SEDIMENT

						Parameter	MERCURY		Percent Moisture		Solids		MERCURY	
						Method	SW7471		ASTM D2216		ASTM D2216		SW7470	
						Units	mg/kg		%		%		mg/L	
Location ID	Field Sample ID	Depth (ft)	Sampled	SDG	Matrix	Sample Type								
OL-VC-80177-2022	OL-3736-01	0 - 0.13	05/24/2022	410-85264-1	SED	REG	0.43	J	65		35			
OL-VC-80177-2022	OL-3736-02	0.13 - 0.33	05/24/2022	410-85264-1	SED	REG	1.4	J	66.7		33.3			
OL-STA-80082-2022	OL-3736-03	0 - 0.13	05/24/2022	410-85264-1	SED	REG	0.58	J	74.2		25.8			
OL-STA-80082-2022	OL-3736-04	0.13 - 0.33	05/24/2022	410-85264-1	SED	REG	1.1	J	73.7		26.3			
OL-STA-80083-2022	OL-3736-05	0 - 0.13	05/24/2022	410-85264-1	SED	REG	0.31	J	71.5		28.5			
OL-STA-80083-2022	OL-3736-06	0.13 - 0.33	05/24/2022	410-85264-1	SED	REG	0.98	J	72.2		27.8			
OL-VC-80051-2022	OL-3736-07	0 - 0.13	05/24/2022	410-85264-1	SED	REG	0.46	J	65.5		34.5			
OL-VC-80051-2022	OL-3736-08	0.13 - 0.33	05/24/2022	410-85264-1	SED	REG	1.7	J	64.1		35.9			
OL-VC-80039-2022	OL-3736-09	0 - 0.13	05/24/2022	410-85264-1	SED	REG	0.14	J	64.2		35.8			
OL-VC-80039-2022	OL-3736-10	0.13 - 0.33	05/24/2022	410-85264-1	SED	REG	0.3	J	50.9		49.1			
OL-STA-80084-2022	OL-3736-11	0 - 0.13	05/24/2022	410-85264-1	SED	REG	0.4	J	70.1		29.9			
OL-STA-80084-2022	OL-3736-12	0.13 - 0.33	05/24/2022	410-85264-1	SED	REG	1	J	69.6		30.4			
OL-VC-80070-2022	OL-3736-13	0 - 0.13	05/24/2022	410-85264-1	SED	REG	0.51	J	66.9		33.1			
OL-VC-80070-2022	OL-3736-14	0.13 - 0.33	05/24/2022	410-85264-1	SED	REG	1.9	J	65.1		34.9			
OL-STA-80237-2022	OL-3736-15	0 - 0.13	05/24/2022	410-85264-1	SED	REG	0.22	J	52.9		47.1			
OL-STA-80237-2022	OL-3736-16	0.13 - 0.33	05/24/2022	410-85264-1	SED	REG	2	J	66.5		33.5			
OL-VC-80062-2022	OL-3736-17	0 - 0.13	05/24/2022	410-85264-1	SED	REG	0.44	J	66.7		33.3			
OL-VC-80062-2022	OL-3736-18	0.13 - 0.33	05/24/2022	410-85264-1	SED	REG	1.9	J	65.9		34.1			
OL-VC-80062-2022	OL-3736-19	0.13 - 0.33	05/24/2022	410-85264-1	SED	FD	1.6	J	66.5		33.5			
QC	OL-3736-20	--	05/24/2022	410-85264-1	WQ	EB							0.000079	U
OL-VC-80172-2022	OL-3737-01	0 - 0.13	05/24/2022	410-85266-1	SED	REG	0.42	J	66.7		33.3			
OL-VC-80172-2022	OL-3737-02	0.13 - 0.33	05/24/2022	410-85266-1	SED	REG	1.2	J	67.6		32.4			
OL-STA-80239-2022	OL-3737-03	0 - 0.13	05/24/2022	410-85266-1	SED	REG	0.26	J	65		35			
OL-STA-80239-2022	OL-3737-04	0.13 - 0.33	05/24/2022	410-85266-1	SED	REG	0.97	J	61.8		38.2			
OL-VC-80064-2022	OL-3737-05	0 - 0.13	05/24/2022	410-85266-1	SED	REG	0.22	J	67.4		32.6			
OL-VC-80064-2022	OL-3737-06	0.13 - 0.33	05/24/2022	410-85266-1	SED	REG	1	J	61.4		38.6			
OL-STA-80236-2022	OL-3737-07	0 - 0.13	05/24/2022	410-85266-1	SED	REG	0.63	J	68.4		31.6			
OL-STA-80236-2022	OL-3737-08	0.13 - 0.33	05/24/2022	410-85266-1	SED	REG	1.8	J	72.1		27.9			
OL-STA-80081-2022	OL-3737-09	0 - 0.13	05/24/2022	410-85266-1	SED	REG	0.6	J	71.8		28.2			
OL-STA-80081-2022	OL-3737-10	0.13 - 0.33	05/24/2022	410-85266-1	SED	REG	1.2	J	73.3		26.7			
OL-VC-80068-2022	OL-3737-11	0 - 0.13	05/24/2022	410-85266-1	SED	REG	0.24	J	67.9		32.1			
OL-VC-80068-2022	OL-3737-12	0.13 - 0.33	05/24/2022	410-85266-1	SED	REG	1.3	J	72.4		27.6			
OL-STA-80085-2022	OL-3737-13	0 - 0.13	05/24/2022	410-85266-1	SED	REG	0.28	J	68.7		31.3			
OL-STA-80085-2022	OL-3737-14	0.13 - 0.33	05/24/2022	410-85266-1	SED	REG	0.97	J	66.6		33.4			
OL-STA-80238-2022	OL-3737-15	0 - 0.13	05/24/2022	410-85266-1	SED	REG	0.32	J	65.1		34.9			
OL-STA-80238-2022	OL-3737-16	0.13 - 0.33	05/24/2022	410-85266-1	SED	REG	1.2	J	54.6		45.4			
OL-VC-80040-2022	OL-3737-17	0 - 0.13	05/24/2022	410-85266-1	SED	REG	0.14	J	63.8		36.2			
OL-VC-80040-2022	OL-3737-18	0.13 - 0.33	05/24/2022	410-85266-1	SED	REG	0.2	J	63.4		36.6			
OL-VC-80040-2022	OL-3737-19	0.13 - 0.33	05/24/2022	410-85266-1	SED	FD	0.22	J	60.9		39.1			
QC	OL-3737-20	--	05/24/2022	410-85266-1	WQ	EB							0.000079	U
OL-VC-80071-2022	OL-3738-01	0 - 0.13	05/24/2022	410-85268-1	SED	REG	0.26	J	66.4		33.6			
OL-VC-80071-2022	OL-3738-02	0.13 - 0.33	05/24/2022	410-85268-1	SED	REG	0.55	J	52.7		47.3			

Honeywell

PARSONS

ONONDAGA LAKE 2022 MNR SEDIMENT

						Parameter	MERCURY		Percent Moisture		Solids		MERCURY	
						Method	SW7471		ASTM D2216		ASTM D2216		SW7470	
						Units	mg/kg		%		%		mg/L	
Location ID	Field Sample ID	Depth (ft)	Sampled	SDG	Matrix	Sample Type								
ST-51-2022	OL-3738-03	0 - 0.13	05/24/2022	410-85268-1	SED	REG	0.47	J	72.2		27.8			
ST-51-2022	OL-3738-04	0.13 - 0.33	05/24/2022	410-85268-1	SED	REG	1.1	J	75.3		24.7			
OL-VC-80079-2022	OL-3738-05	0 - 0.13	05/24/2022	410-85268-1	SED	REG	0.33	J	71.2		28.8			
OL-VC-80079-2022	OL-3738-06	0.13 - 0.33	05/24/2022	410-85268-1	SED	REG	0.82	J	72.3		27.7			
OL-STA-80080-2022	OL-3738-07	0 - 0.13	05/24/2022	410-85268-1	SED	REG	0.75	J	73.2		26.8			
OL-STA-80080-2022	OL-3738-08	0 - 0.13	05/24/2022	410-85268-1	SED	FD	0.78	J	73.6		26.4			
OL-STA-80080-2022	OL-3738-09	0.13 - 0.33	05/24/2022	410-85268-1	SED	REG	1.8	J	73		27			
OL-VC-80044-2022	OL-3738-10	0 - 0.13	05/24/2022	410-85268-1	SED	REG	0.42	J	67.3		32.7			
OL-VC-80044-2022	OL-3738-11	0.13 - 0.33	05/24/2022	410-85268-1	SED	REG	1.1	J	65.2		34.8			
OL-VC-80045-2022	OL-3738-12	0 - 0.13	05/24/2022	410-85268-1	SED	REG	0.23	J	52.4		47.6			
OL-VC-80045-2022	OL-3738-13	0.13 - 0.33	05/24/2022	410-85268-1	SED	REG	1.3	J	63.9		36.1			
OL-STA-80077-2022	OL-3738-14	0 - 0.13	05/24/2022	410-85268-1	SED	REG	0.6	J	72.2		27.8			
OL-STA-80077-2022	OL-3738-15	0.13 - 0.33	05/24/2022	410-85268-1	SED	REG	1.3	J	70.5		29.5			
OL-STA-80075-2022	OL-3738-16	0 - 0.13	05/24/2022	410-85268-1	SED	REG	0.33	J	73.9		26.1			
OL-STA-80075-2022	OL-3738-17	0.13 - 0.33	05/24/2022	410-85268-1	SED	REG	0.81	J	70.6		29.4			
OL-STA-80078-2022	OL-3738-18	0 - 0.13	05/24/2022	410-85268-1	SED	REG	0.46	J	71.2		28.8			
OL-STA-80078-2022	OL-3738-19	0.13 - 0.33	05/24/2022	410-85268-1	SED	REG	1.3	J	73.4		26.6			
QC	OL-3738-20	--	05/24/2022	410-85268-1	WQ	EB							0.000079	U
OL-STA-80227-2022	OL-3739-01	0 - 0.13	05/24/2022	410-85269-1	SED	REG	0.8	J	72.1		27.9			
OL-STA-80227-2022	OL-3739-02	0.13 - 0.33	05/24/2022	410-85269-1	SED	REG	1.3	J	68.7		31.3			
OL-STA-80071-2022	OL-3739-03	0 - 0.13	05/24/2022	410-85269-1	SED	REG	0.47	J	74.5		25.5			
OL-STA-80071-2022	OL-3739-04	0.13 - 0.33	05/24/2022	410-85269-1	SED	REG	1	J	73.7		26.3			
OL-STA-80070-2022	OL-3739-05	0 - 0.13	05/24/2022	410-85269-1	SED	REG	0.57	J	77.2		22.8			
OL-STA-80070-2022	OL-3739-06	0.13 - 0.33	05/24/2022	410-85269-1	SED	REG	0.82	J	74.9		25.1			
OL-VC-80157-2022	OL-3740-01	0 - 0.13	05/25/2022	410-85452-1	SED	REG	0.53	J	77.4		22.6			
OL-VC-80157-2022	OL-3740-02	0.13 - 0.33	05/25/2022	410-85452-1	SED	REG	1.2	J	75.5		24.5			
OL-STA-80226-2022	OL-3740-03	0 - 0.13	05/25/2022	410-85452-1	SED	REG	0.68	J	73.7		26.3			
OL-STA-80226-2022	OL-3740-04	0.13 - 0.33	05/25/2022	410-85452-1	SED	REG	1.3	J	70.6		29.4			
OL-STA-80073-2022	OL-3740-05	0 - 0.13	05/25/2022	410-85452-1	SED	REG	0.41	J	74.6		25.4			
OL-STA-80073-2022	OL-3740-06	0.13 - 0.33	05/25/2022	410-85452-1	SED	REG	1	J	70.4		29.6			
OL-SS-80002-SS-2022	OL-3740-07	0 - 0.13	05/25/2022	410-85452-1	SED	REG	1.1	J	77		23			
OL-SS-80002-SS-2022	OL-3740-08	0 - 0.13	05/25/2022	410-85452-1	SED	FD	0.92	J	76.6		23.4			
OL-SS-80002-SS-2022	OL-3740-09	0.13 - 0.33	05/25/2022	410-85452-1	SED	REG	2	J	71.5		28.5			
OL-STA-80072-2022	OL-3740-10	0 - 0.13	05/25/2022	410-85452-1	SED	REG	0.46	J	74.9		25.1			
OL-STA-80072-2022	OL-3740-11	0.13 - 0.33	05/25/2022	410-85452-1	SED	REG	1.2	J	77.4		22.6			
OL-VC-80048-2022	OL-3740-12	0 - 0.13	05/25/2022	410-85452-1	SED	REG	0.16	J	55.1		44.9			
OL-VC-80048-2022	OL-3740-13	0.13 - 0.33	05/25/2022	410-85452-1	SED	REG	0.059		19.8		80.2			
OL-STA-80225-2022	OL-3740-14	0 - 0.13	05/25/2022	410-85452-1	SED	REG	0.45	J	79.1		20.9			
OL-STA-80225-2022	OL-3740-15	0.13 - 0.33	05/25/2022	410-85452-1	SED	REG	1.1	J	74.4		25.6			
OL-STA-80091-2022	OL-3740-16	0 - 0.13	05/25/2022	410-85452-1	SED	REG	0.57	J	65.3		34.7			
OL-STA-80091-2022	OL-3740-17	0.13 - 0.33	05/25/2022	410-85452-1	SED	REG	1.1	J	66.5		33.5			
OL-VC-80046-2022	OL-3740-18	0 - 0.13	05/25/2022	410-85452-1	SED	REG	0.31	J	58.1		41.9			

Honeywell

PARSONS

ONONDAGA LAKE 2022 MNR SEDIMENT

						Parameter Method Units	MERCURY SW7471 mg/kg		Percent Moisture ASTM D2216 %		Solids ASTM D2216 %		MERCURY SW7470 mg/L	
Location ID	Field Sample ID	Depth (ft)	Sampled	SDG	Matrix	Sample Type								
OL-VC-80046-2022	OL-3740-19	0.13 - 0.33	05/25/2022	410-85452-1	SED	REG	0.88	J	53.6		46.4			
QC	OL-3740-20	--	05/25/2022	410-85452-1	WQ	EB							0.000079	U
OL-STA-80069-2022	OL-3741-01	0 - 0.13	05/25/2022	410-85460-1	SED	REG	0.48	J	74.3		25.7			
OL-STA-80069-2022	OL-3741-02	0.13 - 0.33	05/25/2022	410-85460-1	SED	REG	1.2	J	72.9		27.1			
OL-VC-80047-2022	OL-3741-03	0 - 0.13	05/25/2022	410-85460-1	SED	REG	0.32	J	63.2		36.8			
OL-VC-80047-2022	OL-3741-04	0 - 0.13	05/25/2022	410-85460-1	SED	FD	0.3	J	62.3		37.7			
OL-VC-80047-2022	OL-3741-05	0.13 - 0.33	05/25/2022	410-85460-1	SED	REG	0.63	J	50.5		49.5			
OL-STA-80068-2022	OL-3741-06	0 - 0.13	05/25/2022	410-85460-1	SED	REG	0.46	J	77.6		22.4			
OL-STA-80068-2022	OL-3741-07	0.13 - 0.33	05/25/2022	410-85460-1	SED	REG	1.1	J	74.2		25.8			
OL-STA-80229-2022	OL-3741-08	0 - 0.13	05/25/2022	410-85460-1	SED	REG	0.41	J	69.9		30.1			
OL-STA-80229-2022	OL-3741-09	0.13 - 0.33	05/25/2022	410-85460-1	SED	REG	1.1	J	74.9		25.1			
OL-VC-80024-2022	OL-3741-10	0 - 0.13	05/25/2022	410-85460-1	SED	REG	0.53	J	69.2		30.8			
OL-VC-80024-2022	OL-3741-11	0.13 - 0.33	05/25/2022	410-85460-1	SED	REG	1.1	J	73.9		26.1			
OL-STA-80076-2022	OL-3741-12	0 - 0.13	05/25/2022	410-85460-1	SED	REG	0.4	J	76.2		23.8			
OL-STA-80076-2022	OL-3741-13	0.13 - 0.33	05/25/2022	410-85460-1	SED	REG	1.8	J	74.6		25.4			
OL-STA-80103-2022	OL-3741-14	0 - 0.13	05/25/2022	410-85460-1	SED	REG	0.34	J	71.9		28.1			
OL-STA-80103-2022	OL-3741-15	0.13 - 0.33	05/25/2022	410-85460-1	SED	REG	1.1	J	72.6		27.4			
OL-STA-80067-2022	OL-3741-16	0 - 0.13	05/25/2022	410-85460-1	SED	REG	0.79	J	72.2		27.8			
OL-STA-80067-2022	OL-3741-17	0.13 - 0.33	05/25/2022	410-85460-1	SED	REG	1.3	J	66.9		33.1			
OL-STA-80234-2022	OL-3741-18	0 - 0.13	05/25/2022	410-85460-1	SED	REG	0.55	J	76.4		23.6			
OL-STA-80234-2022	OL-3741-19	0.13 - 0.33	05/25/2022	410-85460-1	SED	REG	1.3	J	74.2		25.8			
QC	OL-3741-20	--	05/25/2022	410-85460-1	WQ	EB							0.000079	U
OL-STA-80074-2022	OL-3742-01	0 - 0.13	05/25/2022	410-85461-1	SED	REG	0.55	J	63.8		36.2			
OL-STA-80074-2022	OL-3742-02	0.13 - 0.33	05/25/2022	410-85461-1	SED	REG	1.1	J	64.5		35.5			
S112-2022	OL-3743-01	0 - 0.5	08/11/2022	410-94540-1	SED	REG	2.6		42.6		57.4			
S373-2022	OL-3743-02	0 - 0.5	08/11/2022	410-94540-1	SED	REG	0.43		43.9		56.1			
QC	OL-3743-03	--	08/11/2022	410-94540-1	WQ	EB							0.000079	U

APPENDIX 4B - BORING LOGS FOR 2022 MONITORED NATURAL RECOVERY

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-SS-80002-SS-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1130160.347
Easting: 914507.907
Mud Line: 297.3 Ft
Surface Water Depth: 65.5 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.02 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3740-07 and OL-3740-08 (FD)	0.0	ML	Wet, very soft, brown and black, SILT, slight petroleum-like odor	Gravity Corer	
0.2		OL-3740-09	0.0	ML	Wet, very soft, gray and black, SILT, trace fine sand, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80067-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1133304.271
Easting: 913030.561
Mud Line: 321.8 Ft
Surface Water Depth: 41 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.26 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3741-16	0.0	ML	Wet, very soft, brown and gray, SILT, trace fine sand	Gravity Corer	
0.2		OL-3741-17	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT, trace fine sand, trace organics, trace microbeads, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80068-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1131962.593
Easting: 914013.763
Mud Line: 308.8 Ft
Surface Water Depth: 54 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.21 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3741-06	0.0	ML	Wet, very soft, gray and black, SILT	Gravity Corer	
0.2		OL-3741-07	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80069-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1130481.137
Easting: 916887.79
Mud Line: 306.8 Ft
Surface Water Depth: 56 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.98 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3741-01	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT, trace microbeads	Gravity Corer	
0.2		OL-3741-02	0.0	ML	Wet, very soft, brown and black, SILT, trace microbeads		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80070-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1129682.084
Easting: 914726.955
Mud Line: 296.8 Ft
Surface Water Depth: 66 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.53 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3739-05	0.0	ML	Wet, very soft, gray and black, SILT	Gravity Corer	
0.2		OL-3739-06	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80071-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1129431.5
Easting: 915564.7901
Mud Line: 299.8 Ft
Surface Water Depth: 63 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.58 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3739-03	0.0	ML	Wet, very soft, gray, SILT, slight petroleum-like odor	Gravity Corer	
0.2		OL-3739-04	0.0	ML	Wet, very soft, mottled black-gray and brown, SILT, trace microbeads		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80072-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1128952.404
Easting: 917503.433
Mud Line: 300.8 Ft
Surface Water Depth: 62 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.41 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3740-10	0.0	ML	Wet, very soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3740-11	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80073-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1127852.281
Easting: 915613.151
Mud Line: 303.8 Ft
Surface Water Depth: 59 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.33 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3740-05	0.0	ML	Wet, very soft, brown to gray, SILT	Gravity Corer	
0.2		OL-3740-06	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT, trace fine sand		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80074-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1127483.871
Easting: 916887.409
Mud Line: 318.8 Ft
Surface Water Depth: 44 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.15 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3742-01	0.0	ML	Wet, very soft, brown and gray, SILT, trace fine sand	Gravity Corer	
0.2		OL-3742-02	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT, trace fine sand		

PARSONS

SHEET 1 of 1

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80075-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1127254.062
Easting: 918763.812
Mud Line: 308.8 Ft
Surface Water Depth: 54 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 4.0 Ft
Core Recovery Depth: 2.23 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3738-16	0.0	ML	Wet, very soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3738-17	0.0	ML	Wet, very soft, gray and black, SILT		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80076-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1126093.637
Easting: 920195.137
Mud Line: 294.8 Ft
Surface Water Depth: 68 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.79 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY (20 40 60 80)	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3741-12	0.0	ML	Wet, very soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3741-13	0.0	ML	Wet, very soft, gray and black, SILT, trace fine sand, trace organics, slight petroleum-like odor		

PARSONS

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80077-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1126201.405
Easting: 922809.897
Mud Line: 316.4 Ft
Surface Water Depth: 46.4 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.90 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3738-14	0.0	ML	Wet, very soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3738-15	0.0	ML	Wet, very soft, brown and gray, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80078-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1124582.733
Easting: 921424.263
Mud Line: 294.8 Ft
Surface Water Depth: 68 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.0 Ft
Core Recovery Depth: 1.83 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3738-18	0.0	ML	Wet, very soft, gray, SILT	Gravity Corer	
0.2		OL-3738-19	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80080-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1123752.983
Easting: 923742.007
Mud Line: 290.8 Ft
Surface Water Depth: 72 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.93 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3738-07 and OL-3738-08 (FD)	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT, trace microbeads, slight petroleum-like odor	Gravity Corer	
0.2		OL-3738-09	0.0	ML	Wet, very soft, gray and black, SILT, trace microbeads, slight petroleum-like odor		

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

PARSONS

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80081-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1123150.534
Easting: 922885.866
Mud Line: 296.9 Ft
Surface Water Depth: 66 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.26 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3737-09	0.0	ML	Wet, very soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3737-10	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80082-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1122146.947
Easting: 921463.016
Mud Line: 300.9 Ft
Surface Water Depth: 62 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.04 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3736-03	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor	Gravity Corer	
0.2		OL-3736-04	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80083-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1123214.339
Easting: 924898.012
Mud Line: 306.9 Ft
Surface Water Depth: 56 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.10 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3736-05	0.0	ML	Wet, very soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3736-06	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80084-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1121958.957
Easting: 923868.503
Mud Line: 299.9 Ft
Surface Water Depth: 63 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.98 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3736-11	0.0	ML	Wet, very soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3736-12	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80085-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1121766.708
Easting: 926310.879
Mud Line: 302.2 Ft
Surface Water Depth: 60.7 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.13 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3737-13	0.0	ML	Wet, very soft, brown to gray, SILT, slight petroleum-like odor	Gravity Corer	
0.2		OL-3737-14	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80091-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1127308.322
Easting: 915328.224
Mud Line: 319.8 Ft
Surface Water Depth: 43 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.10 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3740-16	0.0	ML	Wet, very soft, brown and black, SILT, trace fine sand	Gravity Corer	
0.2		OL-3740-17	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80103-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1127752.595
Easting: 918764.696
Mud Line: 304.8 Ft
Surface Water Depth: 58 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.10 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3741-14	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT, trace fine sand	Gravity Corer	
0.2		OL-3741-15	0.0	ML	Wet, very soft, gray and black, SILT, trace fine sand, trace organics		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80225-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1131819.279
Easting: 912401.337
Mud Line: 305.8 Ft
Surface Water Depth: 57 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.98 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3740-14	0.0	ML	Wet, very soft, gray and black, SILT	Gravity Corer	
0.2		OL-3740-15	0.0	ML	Wet, very soft, brown and black, SILT, trace fine sand, slight petroleum-like odor		

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

PARSONS

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80226-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1128244.96
Easting: 914591.34
Mud Line: 314.8 Ft
Surface Water Depth: 48 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.23 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3740-03	0.0	ML	Wet, very soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3740-04	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT, trace fine sand		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80227-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1128130.573
Easting: 914925.029
Mud Line: 310.8 Ft
Surface Water Depth: 52 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.18 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3739-01	0.0	ML	Wet, soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3739-02	0.0	ML	Wet, very soft, mottled brown-black and gray, SILT, trace fine sand, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80229-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1124300.888
Easting: 919841.832
Mud Line: 300.8 Ft
Surface Water Depth: 62 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.92 Ft

Water Elev.: 362.82 Ft
Attempts: 2
Depth Units: Ft

Depth (ft)	% RECOVERY (20 40 60 80)	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3741-08	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT	Gravity Corer	
0.2		OL-3741-09	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80234-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1128963.252
Easting: 918728.308
Mud Line: 308.8 Ft
Surface Water Depth: 54 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.3 Ft
Core Recovery Depth: 2.26 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3741-18	0.0	ML	Wet, very soft, brown and black, SILT, trace fine sand	Gravity Corer	
0.2		OL-3741-19	0.0	ML	Wet, very soft, gray and black, SILT, trace fine sand, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80236-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1120070.252
Easting: 922999.075
Mud Line: 315.2 Ft
Surface Water Depth: 47.7 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 4.0 Ft
Core Recovery Depth: 0.88 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3737-07	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT, slight petroleum-like odor	Gravity Corer	
0.2		OL-3737-08	0.0	ML	Wet, very soft, gray to black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80237-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1119539.268
Easting: 922778.871
Mud Line: 328.9 Ft
Surface Water Depth: 34 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.0 Ft
Core Recovery Depth: 1.68 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3736-15	0.0	ML	Wet, very soft, brown to gray, SILT, trace fine sand	Gravity Corer	
0.2		OL-3736-16	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80238-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1118762.89
Easting: 926196.683
Mud Line: 318.8 Ft
Surface Water Depth: 44 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.19 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3737-15	0.0	ML	Wet, very soft, brown and gray, SILT, trace organics	Gravity Corer	
0.2		OL-3737-16	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT, trace fine sand, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-STA-80239-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1120094.659
Easting: 926255.289
Mud Line: 313.1 Ft
Surface Water Depth: 49.8 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.21 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3737-03	0.0	ML	Wet, very soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3737-04	0.0	ML	Wet, very soft, gray and black, SILT		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80024-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1123470.997
Easting: 920314.258
Mud Line: 305.9 Ft
Surface Water Depth: 56.9 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.79 Ft

Water Elev.: 362.82 Ft
Attempts: 3
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3741-10	0.0	ML	Wet, very soft, gray and black, SILT, trace fine sand	Gravity Corer	
0.2		OL-3741-11	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT, trace fine sand, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80039-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1119444.556
Easting: 926889.91
Mud Line: 333.1 Ft
Surface Water Depth: 29.8 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.71 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3736-09	0.0	ML	Wet, very soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3736-10	0.0	ML	Wet, very soft, gray and black, SILT, trace fine sand		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80040-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1119060.9
Easting: 926712.739
Mud Line: 303.2 Ft
Surface Water Depth: 59.6 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.0 Ft
Core Recovery Depth: 1.90 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3737-17	0.0	ML	Wet, very soft, brown to gray, SILT	Gravity Corer	
0.2		OL-3737-18 and OL-3737-19 (FD)	0.0	ML	Wet, very soft, mottled brown-gray and black, SILT, trace fine sand, trace organics		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80044-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1123840.528
Easting: 919637.91
Mud Line: 312.4 Ft
Surface Water Depth: 50.4 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.0 Ft
Core Recovery Depth: 2.75 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3738-10	0.0	ML	Wet, very soft, mottled brown-black and gray, SILT, trace fine sand	Gravity Corer	
0.2		OL-3738-11	0.0	ML	Wet, very soft, brown and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80045-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1124834.552
Easting: 918861.491
Mud Line: 324.2 Ft
Surface Water Depth: 38.6 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.4 Ft
Core Recovery Depth: 1.74 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3738-12	0.0	ML	Wet, very soft, brown and gray, SILT, little fine sand	Gravity Corer	
0.2		OL-3738-13	0.0	ML	Wet, very soft, brown and black, SILT, trace fine sand		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80046-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1127249.049
Easting: 914922.372
Mud Line: 326.8 Ft
Surface Water Depth: 36 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.13 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3740-18	0.0	ML	Wet, very soft, brown and gray, SILT, trace fine sand	Gravity Corer	
0.2		OL-3740-19	0.0	ML	Wet, very soft, brown and gray, SILT, trace fine sand		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80047-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1127128.016
Easting: 915477.357
Mud Line: 326.8 Ft
Surface Water Depth: 36 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.85 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3741-03 and OL-3741-04 (FD)	0.0	ML	Wet, very soft, brown and gray, SILT, trace fine sand, trace chironomids	Gravity Corer	
0.2		OL-3741-05	0.0	ML	Wet, very soft, brown and gray, SILT, trace fine sand, trace organics		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80048-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1127199.197
Easting: 915962.998
Mud Line: 326.8 Ft
Surface Water Depth: 36 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.44 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY (20 40 60 80)	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3740-12	0.0	ML	Wet, soft, brown and black, SILT, little fine sand, little gravel, trace chironomids	Gravity Corer	
				GW	Wet, loose, black, SAND and GRAVEL		
0.2		OL-3740-13	0.0	SW	Wet, loose, brown, SAND, little gravel, trace silt		
				SP	Wet, soft, brown, SILT, little fine sand		

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

PARSONS

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80051-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1119152.449
Easting: 925421.584
Mud Line: 314.3 Ft
Surface Water Depth: 48.6 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.92 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3736-07	0.0	ML	Wet, very soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3736-08	0.0	ML	Wet, very soft, gray to black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80062-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1119363.506
Easting: 925504.248
Mud Line: 311.7 Ft
Surface Water Depth: 51.2 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.71 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3736-17	0.0	ML	Wet, very soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3736-18 and OL-3736-19 (FD)	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80064-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1119038.775
Easting: 926075.842
Mud Line: 320.4 Ft
Surface Water Depth: 42.5 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.23 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3737-05	0.0	ML	Wet, very soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3737-06	0.0	ML	Wet, very soft, mottled gray-brown to black, SILT, trace organics		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80068-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1119360.418
Easting: 924800.666
Mud Line: 310.5 Ft
Surface Water Depth: 52.4 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.08 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3737-11	0.0	ML	Wet, very soft, brown and gray, SILT	Gravity Corer	
0.2		OL-3737-12	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80070-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1118963.352
Easting: 925286.416
Mud Line: 323.1 Ft
Surface Water Depth: 39.8 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.75 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3736-13	0.0	ML	Wet, very soft, brown and gray, SILT, trace chironomids, slight petroleum-like odor	Gravity Corer	
0.2		OL-3736-14	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80071-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1118689.624
Easting: 926477.558
Mud Line: 318.8 Ft
Surface Water Depth: 44 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.0 Ft
Core Recovery Depth: 1.53 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3738-01	0.0	ML	Wet, very soft, brown and gray, SILT, trace organics	Gravity Corer	
0.2		OL-3738-02	0.0	ML	Wet, very soft, mottled gray-brown, SILT, little fine sand, trace organics, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80079-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1123487.308
Easting: 920633.275
Mud Line: 295.4 Ft
Surface Water Depth: 67.4 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 1.94 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3738-05	0.0	ML	Wet, very soft, gray and black, SILT, trace fine sand	Gravity Corer	
0.2		OL-3738-06	0.0	ML	Wet, very soft, gray and black, SILT, trace microbeads, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80157-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1130031.995
Easting: 914167.146
Mud Line: 294.8 Ft
Surface Water Depth: 68 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.46 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3740-01	0.0	ML	Wet, very soft, gray and black, SILT	Gravity Corer	
0.2		OL-3740-02	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80172-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1120972.934
Easting: 925573.395
Mud Line: 307.0 Ft
Surface Water Depth: 55.9 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.17 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3737-01	0.0	ML	Wet, very soft, brown and gray, SILT, trace chironomids	Gravity Corer	
0.2		OL-3737-02	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: OL-VC-80177-2022
Date: 5/23/2022
Weather: Sunny, high of 64; wind 5-10 mph NW

Northing: 1120172.659
Easting: 924688.252
Mud Line: 302.7 Ft
Surface Water Depth: 60.2 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 4.0 Ft
Core Recovery Depth: 2.25 Ft

Water Elev.: 362.94 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3736-01	0.0	ML	Wet, very soft, brown and gray, SILT, slight petroleum-like odor	Gravity Corer	
0.2		OL-3736-02	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: S112-2022
Date: 8/11/2022
Weather: Partly cloudy, high of 72; wind 3 mph WSW

Northing: 1133089.7
Easting: 910901.659
Mud Line: 338.0 Ft
Surface Water Depth: 24.6 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: P. Whittaker, R. Inclima
Penetration Depth: 5.0 Ft Core Recovery Depth: 3.5 Ft

Water Elev.: 362.58 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY (20 40 60 80)	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0				SM	Wet, soft, black to gray, fine SAND, little silt, little zebra mussels, trace gravel, slight sulfuric-like odor	Vibracore	
0.2		OL-3743-01	0.0				
0.4				SM	Wet, loose, gray, fine to medium SAND, little silt, trace gravel, trace organics, slight sulfuric-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: S373-2022
Date: 8/11/2022
Weather: Partly cloudy, high of 72; wind 3 mph WSW

Northing: 1133773
Easting: 914570.764
Mud Line: 344.3 Ft
Surface Water Depth: 18.3 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: P. Whittaker, R. Inclima
Penetration Depth: 5.0 Ft Core Recovery Depth: 4.08 Ft

Water Elev.: 362.58 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY (20, 40, 60, 80)	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0							
				ML	Wet, soft, black, SILT, little fine sand, little zebra mussels, slight organic odor		
0.2		OL-3743-02	0.0			Vibracore	
				SM	Wet, loose, gray, SILT and fine SAND, trace rounded gravel, trace organics, slight organic odor		
0.4							

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

BORING LOG

Honeywell

Site: Onondaga Lake (Syracuse NY)
Boring No: ST-51-2022
Date: 5/24/2022
Weather: Sunny, high of 72; wind 5-10 mph E/NE

Northing: 1123867.745
Easting: 923008.378
Mud Line: 295.8 Ft
Surface Water Depth: 67 Ft

Drilling Company: Atlantic Testing
Logging Company: Parsons
Geologist: Z. Cornish
Penetration Depth: 3.5 Ft
Core Recovery Depth: 2.13 Ft

Water Elev.: 362.82 Ft
Attempts: 1
Depth Units: Ft

Depth (ft)	% RECOVERY 20 40 60 80	Sample ID	PID (ppm)	USCS Code	Soil Description	Sample Method	Stratum
0		OL-3738-03	0.0	ML	Wet, very soft, brown and gray, SILT, trace fine sand, slight petroleum-like odor	Gravity Corer	
0.2		OL-3738-04	0.0	ML	Wet, very soft, gray and black, SILT, slight petroleum-like odor		

PARSONS

HONEYWELL LOG OL_MNR BOREHOLE LOGS_2022.GPJ OL DATA TEMPLATE.GDT 11/29/22

APPENDIX 4C - SEDIMENT AREA-WEIGHTED AVERAGE MERCURY CONCENTRATION CALCULATIONS

APPENDIX 4C-1 SURFACE SEDIMENT AREA-WEIGHTED AVERAGE MERCURY CONCENTRATIONS

Zone	Location ID	Year	Notes About Mercury Concentration	Mercury Concentration (mg/kg)	Qualifer[1]	Thiessen Polygon Area (ft^2)	Concentration * Area (mg/kg * ft^2)	Sum of (Concentration * Area) (mg/kg * ft2)	Total Area (ft2)	Surface Sediment Area-Weighted Average Mercury Concentration (mg/kg)
Ninemile Creek Outlet Area										
Profundal Zone	OL-STA-80071	2022		0.47	J	308,771	145,122			
Profundal Zone	OL-STA-80072	2022		0.46	J	155,966	71,744			
Profundal Zone	OL-STA-80073	2022		0.41	J	1,087,672	445,945			
Profundal Zone	OL-STA-80074	2022		0.55	J	1,401,234	770,679			
Profundal Zone	OL-STA-80091	2022		0.57	J	227,559	129,709			
Profundal Zone	OL-STA-80226	2022		0.68	J	450,187	306,127			
Profundal Zone	OL-STA-80227	2022		0.80	J	627,669	502,135			
Profundal Zone	OL-VC-80046	2022		0.31	J	335,072	103,872			
Profundal Zone	OL-VC-80047	2022		0.32	J	122,426	39,176			
Profundal Zone	OL-VC-80048	2022		0.16	J	377,319	60,371			
Littoral Zone (non-Cap)	S306	2021		0.11		618,183	68,000			
Littoral Zone (non-Cap)	S358	2000		0.045	UJ	179,925	8,097			
Littoral Zone (non-Cap)	S74	1992		0.84		87,893	73,830			
Littoral Zone (non-Cap)	S87	1992		1.0		239,033	239,033			
Cap Area A1	OL-RAA-CAP-0001	2022		0.0080	U	331,976	2,656			
Cap Area A1	OL-RAA-CAP-0002	2022		0.048		325,033	15,602			
Cap Area A1	OL-RAA-CAP-0003	2022		0.03		301,233	8,736			
Cap Area A1	OL-RAA-CAP-0004	2022		0.0090	U	305,496	2,749			
Cap Area A1	OL-RAA-CAP-0005	2022		0.047		385,889	18,137	4,647,607	9,874,167	0.47
Cap Area A1	OL-RAA-CAP-0007	2022		0.01	J	224,293	2,243			
Cap Area A1	OL-RAA-CAP-0009	2022	2022 measured porewater concentration converted to sorbed phase concentration	4.66	U	272,840	1,271,162			
Cap Area A1	OL-RAA-CAP-0015	2022		0.054		150,527	8,128			
Cap Area A1	OL-RAA-CAP-0019	2022		0.09		80,378	6,832			
Cap Area A1	OL-RAA-CAP-0020	2022		0.21		13,735	2,898			
Cap Area A1	OL-RAA-CAP-0021	2022		0.067		97,815	6,554			
Cap Area A1	OL-RAA-CAP-0030	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.93	U	46,419	43,253			
Cap Area A1	OL-RAA-CAP-0031	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.93	U	10,776	10,041			
Cap Area A2	OL-RAA-CAP-0006	2022		0.0080	U	259,134	2,073			
Cap Area A2	OL-RAA-CAP-0008	2022	2022 measured porewater concentration converted to sorbed phase concentration	1.32	U	174,583	229,697			
Cap Area A2	OL-RAA-CAP-0010	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.26	U	69,596	18,313			
Cap Area A2	OL-RAA-CAP-0011	2022		0.057		120,902	6,891			
Cap Area A2	OL-RAA-CAP-0012	2022		0.075		148,317	11,124			
Cap Area A2	OL-RAA-CAP-0016	2022		0.044		107,524	4,731			
Cap Area A2	OL-RAA-CAP-0017	2022		0.060		47,036	2,822			
Cap Area A2	OL-RAA-CAP-0018	2022		0.053		78,597	4,166			
Cap Area RA-A40197	OL-RAA-CAP-0013	2022		0.051		59,875	3,054			
Cap Area RA-A40197	OL-RAA-CAP-0014	2022		0.044		43,284	1,905			

APPENDIX 4C-1 SURFACE SEDIMENT AREA-WEIGHTED AVERAGE MERCURY CONCENTRATIONS

Zone	Location ID	Year	Notes About Mercury Concentration	Mercury Concentration (mg/kg)	Qualifer[1]	Thiessen Polygon Area (ft^2)	Concentration * Area (mg/kg * ft^2)	Sum of (Concentration * Area) (mg/kg * ft2)	Total Area (ft2)	Surface Sediment Area-Weighted Average Mercury Concentration (mg/kg)
North Basin										
Profundal Zone	OL-SS-80002-SS	2022		1.1	J	1,604,331	1,764,764			
Profundal Zone	OL-STA-80067	2022		0.79	J	4,021,258	3,176,794			
Profundal Zone	OL-STA-80068	2022		0.46	J	4,352,566	2,002,181			
Profundal Zone	OL-STA-80069	2022		0.48	J	3,257,180	1,563,447			
Profundal Zone	OL-STA-80070	2022		0.57	J	965,015	550,059			
Profundal Zone	OL-STA-80071	2022		0.47	J	1,805,829	848,740			
Profundal Zone	OL-STA-80072	2022		0.46	J	2,239,689	1,030,257			
Profundal Zone	OL-STA-80074	2022		0.55	J	13,350	7,342			
Profundal Zone	OL-STA-80225	2022		0.45	J	3,869,450	1,741,253			
Profundal Zone	OL-STA-80226	2022		0.68	J	1,446,656	983,726			
Profundal Zone	OL-STA-80227	2022		0.80	J	10,247	8,197			
Profundal Zone	OL-STA-80234	2022		0.55	J	1,093,287	601,308			
Profundal Zone	OL-VC-80157	2022		0.53	J	3,094,845	1,640,268			
Littoral Zone (non-Cap)	OL-VC-50003	2006		1.7		593,020	1,008,134			
Littoral Zone (non-Cap)	OL-VC-50004	2010		2.1	J	18,807	39,494			
Littoral Zone (non-Cap)	OL-VC-50005	2010		0.59		14,170	8,360			
Littoral Zone (non-Cap)	OL-VC-50006	2006		2.1		5,769	12,116			
Littoral Zone (non-Cap)	OL-VC-50007	2006		0.67		141,080	94,524			
Littoral Zone (non-Cap)	OL-VC-50008	2006		0.78		6,220	4,851			
Littoral Zone (non-Cap)	OL-VC-50009	2010		0.016	U	195,432	3,127			
Littoral Zone (non-Cap)	OL-VC-50010	2006		0.060		371,321	22,279	26,615,214	39,729,248	0.67
Littoral Zone (non-Cap)	S100	2021		0.057	J	463,589	26,425			
Littoral Zone (non-Cap)	S101	1992		0.87		712,424	619,809			
Littoral Zone (non-Cap)	S104	1992		1.4		323,703	453,185			
Littoral Zone (non-Cap)	S105	1992		1.6		265,167	424,268			
Littoral Zone (non-Cap)	S110	1992		2.2		647,934	1,425,456			
Littoral Zone (non-Cap)	S112	2022		2.6		1,291,275	3,357,316			
Littoral Zone (non-Cap)	S113	1992		0.17		346,226	58,858			
Littoral Zone (non-Cap)	S357	2000		1.2	JW	255,132	306,159			
Littoral Zone (non-Cap)	S370	2000		0.61	J	109,095	66,712			
Littoral Zone (non-Cap)	S371	2021		0.32	J	1,031,072	329,943			
Littoral Zone (non-Cap)	S372	2000		1.5		671,871	974,213			
Littoral Zone (non-Cap)	S373	2022		0.43		616,286	265,003			
Littoral Zone (non-Cap)	S374	2000		0.34	JW	1,886,447	641,392			
Littoral Zone (non-Cap)	S87	1992		1.0		78,528	78,528			
Littoral Zone (non-Cap)	S92	1992		0.54		591,856	319,602			
Littoral Zone (non-Cap)	S93	2021		0.20		593,265	118,653			
Littoral Zone (non-Cap)	S94	2021		0.057	J	638,416	36,390			
Cap Area A1	OL-RAA-CAP-0001	2022		0.0080	U	59,766	478			
Cap Area RAF	OL-RAF-CAP-0001	2022		0.1950		6,845	1,335			
Cap Area RAF	OL-RAF-CAP-0002	2022		0.0130	U	20,826	271			

APPENDIX 4C-1 SURFACE SEDIMENT AREA-WEIGHTED AVERAGE MERCURY CONCENTRATIONS

Zone	Location ID	Year	Notes About Mercury Concentration	Mercury Concentration (mg/kg)	Qualifer[1]	Thiessen Polygon Area (ft^2)	Concentration * Area (mg/kg * ft^2)	Sum of (Concentration * Area) (mg/kg * ft2)	Total Area (ft2)	Surface Sediment Area-Weighted Average Mercury Concentration (mg/kg)
Saddle										
Profundal Zone	OL-STA-80072	2022		0.46	J	92,181	42,403			
Profundal Zone	OL-STA-80074	2022		0.55	J	289,683	159,326			
Profundal Zone	OL-STA-80075	2022		0.33	J	1,563,126	515,831			
Profundal Zone	OL-STA-80103	2022		0.34	J	1,740,316	591,707			
Profundal Zone	OL-STA-80234	2022		0.55	J	1,356,731	746,202			
Profundal Zone	OL-VC-80045	2022		0.23	J	144,507	33,237			
Littoral Zone (non-Cap)	OL-VC-30034	2006		0.44	J	106,941	47,054			
Littoral Zone (non-Cap)	OL-VC-30144	2009		1.6	J	47,478	74,066			
Littoral Zone (non-Cap)	OL-VC-30145	2009		1.0	J	50,291	51,297			
Littoral Zone (non-Cap)	OL-VC-30148	2009		0.13	J	580	76			
Littoral Zone (non-Cap)	S361	2021		0.18	J	407,252	73,305			
Littoral Zone (non-Cap)	S362	2000		0.09	J	277,782	23,889	2,879,976	7,461,897	0.39
Littoral Zone (non-Cap)	S370	2000		0.61	J	182,314	111,485			
Littoral Zone (non-Cap)	S371	2021		0.32	J	97,156	31,090			
Littoral Zone (non-Cap)	S67	2021		0.31	J	408,839	126,740			
Littoral Zone (non-Cap)	S71	1992		0.14	U	185,257	25,936			
Littoral Zone (non-Cap)	S72	1992		0.79		153,988	121,650			
Littoral Zone (non-Cap)	S73	1992		0.16	U	222,728	35,636			
Littoral Zone (non-Cap)	S74	1992		0.84		71,680	60,211			
Cap Area A1	OL-RAA-CAP-0004	2022		0.0090	U	30,765	277			
Cap Area B1/C1	OL-RAB-CAP-0018	2022	2022 measured porewater concentration converted to sorbed phase concentration	3.0	U	2,800	8,275			
Cap Area B2	OL-RAB-CAP-0002	2022		0.010	J	14,927	149			
Cap Area RA-B-1A	OL-RAB-CAP-0001	2022		0.0090	U	14,577	131			
South Basin										
Profundal Zone	OL-RAB-CAP-0011	2022		0.01	J	34,546	449			
Profundal Zone	OL-STA-80075	2022		0.33	J	785,160	259,103			
Profundal Zone	OL-STA-80076	2022		0.40	J	4,690,982	1,876,393			
Profundal Zone	OL-STA-80077	2022		0.60	J	3,316,487	1,989,892			
Profundal Zone	OL-STA-80078	2022		0.46	J	2,928,581	1,347,147			
Profundal Zone	OL-STA-80080	2022		0.78	J	2,121,534	1,654,796			
Profundal Zone	OL-STA-80081	2022		0.60	J	1,936,490	1,161,894			
Profundal Zone	OL-STA-80082	2022		0.58	J	3,198,906	1,855,365			
Profundal Zone	OL-STA-80083	2022		0.31	J	2,291,262	710,291			
Profundal Zone	OL-STA-80084	2022		0.40	J	2,466,495	986,598			
Profundal Zone	OL-STA-80085	2022		0.28	J	221,171	61,928			
Profundal Zone	OL-STA-80103	2022		0.34	J	608,198	206,787			
Profundal Zone	OL-STA-80229	2022		0.41	J	1,294,742	530,844			
Profundal Zone	OL-STA-80234	2022		0.55	J	10,764	5,920			
Profundal Zone	OL-STA-80236	2022		0.63	J	77,751	48,983			
Profundal Zone	OL-VC-80024	2022		0.53	J	557,684	295,572			
Profundal Zone	OL-VC-80044	2022		0.42	J	368,120	154,610			
Profundal Zone	OL-VC-80045	2022		0.23	J	1,315,940	302,666			
Profundal Zone	OL-VC-80079	2022		0.33	J	1,387,669	457,931			
Profundal Zone	OL-VC-80172	2022		0.42	J	35,054	14,723			
Profundal Zone	ST51	2022		0.47	J	1,783,683	838,331			

APPENDIX 4C-1 SURFACE SEDIMENT AREA-WEIGHTED AVERAGE MERCURY CONCENTRATIONS

Zone	Location ID	Year	Notes About Mercury Concentration	Mercury Concentration (mg/kg)	Qualifer[1]	Thiessen Polygon Area (ft^2)	Concentration * Area (mg/kg * ft^2)	Sum of (Concentration * Area) (mg/kg * ft2)	Total Area (ft2)	Surface Sediment Area-Weighted Average Mercury Concentration (mg/kg)
Littoral Zone (non-Cap)	OL-VC-30034	2006		0.44	J	82,617	36,351			
Littoral Zone (non-Cap)	OL-VC-30148	2009		0.13	J	277,829	36,396			
Littoral Zone (non-Cap)	OL-VC-30153	2009		0.20	J	71,970	14,250			
Littoral Zone (non-Cap)	OL-VC-50018	2006		0.18		322,218	57,999			
Littoral Zone (non-Cap)	OL-VC-50019	2006		0.064		68,667	4,395			
Littoral Zone (non-Cap)	OL-VC-50020	2006		0.086		510	44			
Littoral Zone (non-Cap)	OL-VC-50021	2006		0.10		403,851	40,385			
Littoral Zone (non-Cap)	OL-VC-50022	2006		0.091		201,601	18,346			
Littoral Zone (non-Cap)	S324	2000		0.33	W	188,104	62,074			
Littoral Zone (non-Cap)	S364	2021		0.13	J	548,675	71,328			
Littoral Zone (non-Cap)	S365	2000		0.65	W	214,298	139,294			
Littoral Zone (non-Cap)	S367	2021		0.26		285,505	74,231	16,635,506	39,281,682	0.42
Littoral Zone (non-Cap)	S368	2000		0.22	W	1,001,294	220,285			
Littoral Zone (non-Cap)	S369	2000		0.055	J	705,466	38,801			
Littoral Zone (non-Cap)	S45	1992		0.66		327,786	216,339			
Littoral Zone (non-Cap)	S46	1992		0.39	J	195,869	76,389			
Littoral Zone (non-Cap)	S61	2021		0.19		1,346,197	255,777			
Littoral Zone (non-Cap)	S62	1992		0.94		84,391	79,327			
Littoral Zone (non-Cap)	S66	1992		0.21		510	107			
Littoral Zone (non-Cap)	S67	2021		0.31	J	46,595	14,445			
Littoral Zone (non-Cap)	S71	1992		0.14	U	142,911	20,008			
Littoral Zone (non-Cap)	S72	1992		0.79		78,686	62,162			
Littoral Zone (non-Cap)	S73	1992		0.16	U	184,896	29,583			
Cap Area B1/C1	OL-RAB-CAP-0012A	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.12	U	54,121	6,398			
Cap Area B1/C1	OL-RAB-CAP-0015	2022		0.0080	U	19,176	153			
Cap Area B1/C1	OL-RAB-CAP-0017	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.59	U	63,730	37,670			
Cap Area B1/C1	OL-RAB-CAP-0018	2022	2022 measured porewater concentration converted to sorbed phase concentration	3.0	U	38,256	113,065			
Cap Area B1/C1	OL-RAC-CAP-0001	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.12	U	63,643	7,524			
Cap Area B1/C1	OL-RAC-CAP-0002	2022		0.0080	U	69,737	558			
Cap Area B2	OL-RAB-CAP-0002	2022		0.010	J	133,768	1,338			
Cap Area C2	OL-RAC-CAP-0003	2022		0.0080	J	37,898	303			
Cap Area RA-B-1A	OL-RAB-CAP-0001	2022		0.0090	U	57,839	521			
Cap Area RA-B-1A	OL-RAB-CAP-0003	2022		0.0090	U	49,884	449			
Cap Area RA-B-1B	OL-RAB-CAP-0004	2022		0.0090	U	31,920	287			
Cap Area RA-B-1C	OL-RAB-CAP-0005	2022		0.41		40,138	16,296			
Cap Area RA-B-1C	OL-RAB-CAP-0007	2022		0.02	J	41,141	987			
Cap Area RA-B-1C	OL-RAB-CAP-0008	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.12	U	39,640	4,686			
Cap Area RA-B-1C	OL-RAB-CAP-0010	2022		0.0080	U	51,588	413			
Cap Area RA-B-1D	OL-RAB-CAP-0013	2022		0.012	J	34,483	414			
Cap Area RA-B-1E	OL-RAB-CAP-0014	2022		0.017	J	60,619	1,031			
Cap Area RA-B-1E	OL-RAB-CAP-0016	2022	2022 measured porewater concentration converted to sorbed phase concentration	3.0	U	36,280	107,226			
Cap Area WB 1-8	OL-RAB-CAP-0006	2022		0.060		33,110	1,987			
Cap Area WB 1-8	OL-RAB-CAP-0009	2022		0.045		49,406	2,223			
Cap Area WB 1-8	OL-RAB-CAP-0019	2022		0.054	J	63,639	3,437			

APPENDIX 4C-1 SURFACE SEDIMENT AREA-WEIGHTED AVERAGE MERCURY CONCENTRATIONS

Zone	Location ID	Year	Notes About Mercury Concentration	Mercury Concentration (mg/kg)	Qualifer[1]	Thiessen Polygon Area (ft^2)	Concentration * Area (mg/kg * ft^2)	Sum of (Concentration * Area) (mg/kg * ft2)	Total Area (ft2)	Surface Sediment Area-Weighted Average Mercury Concentration (mg/kg)
South Corner										
Profundal Zone	OL-STA-80082	2022		0.58	J	176,608	102,433			
Profundal Zone	OL-STA-80084	2022		0.40	J	657,056	262,823			
Profundal Zone	OL-STA-80085	2022		0.28	J	1,803,164	504,886			
Profundal Zone	OL-STA-80236	2022		0.63	J	2,461,476	1,550,730			
Profundal Zone	OL-STA-80237	2022		0.22	J	1,115,759	245,467			
Profundal Zone	OL-STA-80238	2022		0.32	J	232,102	74,273			
Profundal Zone	OL-STA-80239	2022		0.26	J	1,201,636	312,425			
Profundal Zone	OL-VC-80039	2022		0.14	J	437,926	61,310			
Profundal Zone	OL-VC-80040	2022		0.14	J	226,570	31,720			
Profundal Zone	OL-VC-80051	2022		0.46	J	159,918	73,562			
Profundal Zone	OL-VC-80062	2022		0.44	J	534,039	234,977			
Profundal Zone	OL-VC-80064	2022		0.22	J	396,537	87,238			
Profundal Zone	OL-VC-80068	2022		0.24	J	559,093	134,182			
Profundal Zone	OL-VC-80070	2022		0.51	J	194,325	99,106			
Profundal Zone	OL-VC-80071	2022		0.26	J	168,362	43,774			
Profundal Zone	OL-VC-80172	2022		0.42	J	1,716,727	721,025			
Profundal Zone	OL-VC-80177	2022		0.43	J	1,740,718	748,509			
Littoral Zone (non-Cap)	S16	1992		0.25	J	214,242	53,561			
Littoral Zone (non-Cap)	S17	1992		0.18		426,349	76,743			
Littoral Zone (non-Cap)	S26	2021		0.11		560,228	61,625			
Littoral Zone (non-Cap)	S328	2000		0.72	J	57,458	41,370			
Littoral Zone (non-Cap)	S329	2021		0.12		93,768	11,252			
Littoral Zone (non-Cap)	S330	2000		0.43		89,190	38,352			
Littoral Zone (non-Cap)	S34	1992		0.15		845,256	126,788			
Littoral Zone (non-Cap)	S365	2000		0.65	W	41,955	27,271			
Littoral Zone (non-Cap)	S366	2000		0.05	U	315,223	16,707			
Littoral Zone (non-Cap)	S367	2021		0.26		158,821	41,294			
Littoral Zone (non-Cap)	S37	1992		0.49		30,227	14,811			
Littoral Zone (non-Cap)	S400	2000		0.37		27,407	10,141			
Littoral Zone (non-Cap)	S434	2000		0.056	J	41,525	2,325			
Cap Area C2	OL-RAC-CAP-0003	2022		0.0080	J	20,903	167			
Cap Area C2	OL-RAC-CAP-0004	2022		0.0080	U	123,986	992			
Cap Area C3	OL-RAC-CAP-0023	2022		0.0090	U	108,167	974			
Cap Area C3	OL-RAC-CAP-0020	2022		0.0080	U	177,931	1,423			
Cap Area C3	OL-RAC-CAP-0021	2022		0.0090	U	118,841	1,070			
Cap Area C3	OL-RAC-CAP-0022	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.59	U	38,688	22,868			
Cap Area D-Addendum East	OL-RAD-CAP-0007	2022		0.11	J	145,492	15,568			
Cap Area D-Center	OL-RAD-CAP-0012	2022		0.0080	J	77,445	620			
Cap Area D-Center	OL-RAD-CAP-0013	2022		0.012	J	95,627	1,148			
Cap Area D-Center	OL-RAD-CAP-0017	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.57	U	94,525	53,778			
Cap Area D-Center	OL-RAD-CAP-0018	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.57	U	136,394	77,599			
Cap Area D-Center	OL-RAD-CAP-0024	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.57	U	104,379	59,384			
Cap Area D-Center	OL-RAD-CAP-0026	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.57	U	163,542	93,044			
Cap Area D-Center	OL-RAD-CAP-0029	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.57	U	169,420	96,388			
Cap Area D-Center	OL-RAD-CAP-0034	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.57	U	92,403	52,571			
Cap Area D-East	OL-RAD-CAP-0014	2022		0.015	U	210,418	3,156			
Cap Area D-East	OL-RAD-CAP-0021	2022		0.014	U	309,204	4,329			
Cap Area D-East	OL-RAD-CAP-0025	2022		0.015	U	211,043	3,166			
Cap Area D-East	OL-RAD-CAP-0028	2022		0.015	U	176,921	2,654			

APPENDIX 4C-1 SURFACE SEDIMENT AREA-WEIGHTED AVERAGE MERCURY CONCENTRATIONS

Zone	Location ID	Year	Notes About Mercury Concentration	Mercury Concentration (mg/kg)	Qualifer[1]	Thiessen Polygon Area (ft^2)	Concentration * Area (mg/kg * ft^2)	Sum of (Concentration * Area) (mg/kg * ft2)	Total Area (ft2)	Surface Sediment Area-Weighted Average Mercury Concentration (mg/kg)
Cap Area D-East	OL-RAD-CAP-0031	2022		0.014	U	206,654	2,893			
Cap Area D-East	OL-RAD-CAP-0032	2022		0.015	U	140,715	2,111			
Cap Area D-East	OL-RAD-CAP-0033	2022		0.022		171,018	3,762			
Cap Area D-East	OL-RAD-CAP-0036	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.57	U	109,576	62,341			
Cap Area D-East	OL-RAD-CAP-0038	2022		0.015	U	181,204	2,718			
Cap Area D-East	OL-RAD-CAP-0040	2022		0.014	U	160,454	2,246			
Cap Area D-SMU-2	OL-RAD-CAP-0001	2022		0.011	J	86,827	955			
Cap Area D-SMU-2	OL-RAD-CAP-0006	2022		0.014	J	88,460	1,238			
Cap Area D-SMU-2	OL-RAD-CAP-0009	2022		0.011	J	87,807	966			
Cap Area D-SMU-2	OL-RAD-CAP-0016	2022		0.014	J	54,066	757			
Cap Area D-West	OL-RAD-CAP-0010	2022		0.0090	J	115,320	1,038			
Cap Area D-West	OL-RAD-CAP-0015	2022		0.0080	U	107,907	863			
Cap Area D-West	OL-RAD-CAP-0020	2022		0.015	U	58,808	882			
Cap Area D-West	OL-RAD-CAP-0022	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.57	U	116,433	66,242			
Cap Area E-1	OL-RAE-CAP-0017	2022		0.010	J	186,759	1,868			
Cap Area E-1	OL-RAE-CAP-0018	2022		0.010	U	214,214	2,142			
Cap Area E-1	OL-RAE-CAP-0019	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.90	U	166,072	149,202			
Cap Area E-1	OL-RAE-CAP-0020	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.90	U	306,188	275,085			
Cap Area E-1	OL-RAE-CAP-0021	2022		0.011	J	228,686	2,516			
Cap Area E-1	OL-RAE-CAP-0022	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.90	U	254,421	228,576			
Cap Area E-1	OL-RAE-CAP-0028	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.45	U	711,503	319,613			
Cap Area E-1	OL-RAE-CAP-0034	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.90	U	277,111	248,962			
Cap Area E-1	OL-RAE-CAP-0037	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.45	U	424,400	190,644			
Cap Area E-1	OL-RAE-CAP-0042	2022		1.0		59,268	59,268			
Cap Area E-2	OL-RAE-CAP-0031	2022		0.011	J	125,914	1,385			
Cap Area E-2	OL-RAE-CAP-0033	2022		0.0080	U	111,654	893			
Cap Area E-2	OL-RAE-CAP-0036	2022		0.10		85,734	8,573			
Cap Area E-2	OL-RAE-CAP-0039	2022	2022 measured porewater concentration converted to sorbed phase concentration	2.7	U	72,386	191,859			
Cap Area E-2	OL-RAE-CAP-0040	2022	2022 measured porewater concentration converted to sorbed phase concentration	1.3	U	99,217	131,486			
Cap Area E-2	OL-RAE-CAP-0041	2022	2022 measured porewater concentration converted to sorbed phase concentration	2.7	U	204,566	542,199			
Cap Area E-2	OL-RAE-CAP-0043	2022	2022 measured porewater concentration converted to sorbed phase concentration	2.7	U	518,512	1,374,310			
Cap Area E-2	OL-RAE-CAP-0044	2022	2022 measured porewater concentration converted to sorbed phase concentration	2.7	U	181,581	481,278			
Cap Area E-3	OL-RAE-CAP-0023	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.37	U	257,774	96,106			
Cap Area E-3	OL-RAE-CAP-0024	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.37	U	848,704	316,421			
Cap Area E-3	OL-RAE-CAP-0025	2022		0.01	J	246,923	2,222	12,909,859	33,137,349	0.39
Cap Area E-3	OL-RAE-CAP-0026	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.37	U	448,276	167,130			
Cap Area E-3	OL-RAE-CAP-0027	2022		0.015	J	301,256	4,519			
Cap Area E-3	OL-RAE-CAP-0029	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.37	U	293,393	109,385			
Cap Area E-3	OL-RAE-CAP-0030	2022		0.019	J	168,376	3,199			
Cap Area E-3	OL-RAE-CAP-0032	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.15	U	357,782	53,357			
Cap Area E-3	OL-RAE-CAP-0035	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.37	U	251,581	93,797			
Cap Area E-3	OL-RAE-CAP-0038	2022		0.83		110,040	91,223			
Cap Area OL-VC-10138/40	OL-RAD-CAP-0023	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.57	U	111,563	63,471			
Cap Area Outboard Center	OL-RAD-CAP-0037	2022		0.05		112,223	5,499			
Cap Area Outboard Center	OL-RAD-CAP-0039	2022		0.06		83,442	5,090			
Cap Area Outboard Center	OL-RAD-CAP-0041	2022		0.15		138,720	21,363			
Cap Area Outboard East	OL-RAD-CAP-0042	2022		0.067		137,305	9,199			
Cap Area Outboard East	OL-RAD-CAP-0043	2022		0.061		55,598	3,391			
Cap Area Outboard East	OL-RAD-CAP-0044	2022		0.075	J	59,403	4,455			
Cap Area Outboard East	OL-RAD-CAP-0045	2022		0.063		42,462	2,675			

APPENDIX 4C-1 SURFACE SEDIMENT AREA-WEIGHTED AVERAGE MERCURY CONCENTRATIONS

Zone	Location ID	Year	Notes About Mercury Concentration	Mercury Concentration (mg/kg)	Qualifer[1]	Thiessen Polygon Area (ft^2)	Concentration * Area (mg/kg * ft^2)	Sum of (Concentration * Area) (mg/kg * ft2)	Total Area (ft2)	Surface Sediment Area-Weighted Average Mercury Concentration (mg/kg)
Cap Area Outboard East	OL-RAD-CAP-0046	2022		0.12	J	193,994	24,055			
Cap Area Outboard West	OL-RAD-CAP-0027	2022		0.049		79,913	3,916			
Cap Area Outboard West	OL-RAD-CAP-0030	2022		0.059		140,806	8,308			
Cap Area Outboard West	OL-RAD-CAP-0035	2022		0.049		85,482	4,189			
Cap Area RA-C-1A	OL-RAC-CAP-0016	2022		0.010	J	16,492	165			
Cap Area RA-C-1A	OL-RAC-CAP-0017	2022		0.015	J	15,554	233			
Cap Area RA-C-1B	OL-RAC-CAP-0014	2022		0.033		13,575	448			
Cap Area RA-C-1B	OL-RAC-CAP-0018	2022		0.017	J	23,308	396			
Cap Area RA-C-1C	OL-RAC-CAP-0015	2022		0.026		21,311	554			
Cap Area RA-C-1D	OL-RAC-CAP-0019	2022		0.009	J	23,916	215			
Cap Area RA-C-2A	OL-RAC-CAP-0005	2022		0.009	U	36,903	332			
Cap Area RA-C-2A	OL-RAC-CAP-0007	2022	2022 measured porewater concentration converted to sorbed phase concentration	0.12	U	35,861	4,239			
Cap Area RA-C-2A	OL-RAC-CAP-0009	2022		0.008	U	30,619	245			
Cap Area RA-C-2B	OL-RAC-CAP-0006	2022		0.017	U	7,303	124			
Cap Area RA-C-2B	OL-RAC-CAP-0008	2022		0.023	J	8,833	203			
Cap Area RA-C-2C	OL-RAC-CAP-0011	2022		0.009	J	14,070	127			
Cap Area RA-C-2C	OL-RAC-CAP-0013	2022		0.008	U	15,054	120			
Cap Area RA-C-2D	OL-RAC-CAP-0010	2022		0.016	U	6,466	103			
Cap Area RA-C-2D	OL-RAC-CAP-0012	2022		0.016	U	6,846	110			
Cap Area RA-C-TLC	OL-SMU8-CAP-0004	2022		0.19	J	23,624	4,559			
Cap Area RA-C-TLC	OL-SMU8-CAP-0005	2022		0.18		22,130	4,028			
Cap Area RA-C-TLC	OL-SMU8-CAP-0001	2022		0.014	U	114,219	1,599			
Cap Area RA-C-TLC	OL-SMU8-CAP-0002	2022		0.029		64,889	1,882			
Cap Area RA-C-TLC	OL-SMU8-CAP-0003	2022		0.088	J	63,756	5,611			
Cap Area RA-C-TLC	OL-SMU8-CAP-0006	2022		0.060		17,997	1,080			
Cap Area RA-C-TLC	OL-SMU8-CAP-0007	2022		0.093		17,346	1,613			
Cap Area RA-D-1A	OL-RAD-CAP-0002	2022		0.046		74,792	3,440			
Cap Area RA-D-1A	OL-RAD-CAP-0003	2022		0.014	U	107,249	1,501			
Cap Area RA-D-1A	OL-RAD-CAP-0004	2022		0.013	U	116,624	1,516			
Cap Area RA-D-1A	OL-RAD-CAP-0057	2022		0.021	J	30,241	635			
Cap Area RA-D-1B	OL-RAD-CAP-0005	2022		0.039		30,326	1,183			
Cap Area RA-D-1B	OL-RAD-CAP-0011	2022		0.037		20,414	755			
Cap Area RA-D-2	OL-RAD-CAP-0008	2022		0.029		72,327	2,097			
Cap Area RA-D-2	OL-RAD-CAP-0019	2022		0.009	U	30,057	271			

APPENDIX 4C-1 SURFACE SEDIMENT AREA-WEIGHTED AVERAGE MERCURY CONCENTRATIONS

Zone	Location ID	Year	Notes About Mercury Concentration	Mercury Concentration (mg/kg)	Qualifer[1]	Thiessen Polygon Area (ft^2)	Concentration * Area (mg/kg * ft^2)	Sum of (Concentration * Area) (mg/kg * ft2)	Total Area (ft2)	Surface Sediment Area-Weighted Average Mercury Concentration (mg/kg)
Cap Area RA-D-Amended TLC	OL-SMU8-CAP-0008	2022		0.22	J	123,851	26,628			
Cap Area RA-D-Amended TLC	OL-SMU8-CAP-0009	2022		0.15	J	102,541	15,586			
Cap Area RA-D-Amended TLC	OL-SMU8-CAP-0010	2022		0.13	J	77,818	9,961			
Cap Area RA-D-Amended TLC	OL-SMU8-CAP-0011	2022		0.040		119,795	4,792			
Cap Area RA-D-Amended TLC	OL-SMU8-CAP-0012	2022		0.063		92,653	5,837			
Cap Area RA-D-Amended TLC	OL-SMU8-CAP-0013	2022		0.069		92,755	6,400			
Cap Area RA-D-Amended TLC	OL-SMU8-CAP-0014	2022		0.11	J	120,263	12,868			
Cap Area RA-D-Amended TLC	OL-SMU8-CAP-0015	2022		0.025		68,774	1,719			
Cap Area RA-D-Amended TLC	OL-SMU8-CAP-0016	2022		0.033	J	57,442	1,896			
Cap Area RA-D-TLC	OL-SMU8-CAP-0017	2022		0.15	J	77,020	11,784			
Cap Area RA-D-TLC	OL-SMU8-CAP-0018	2022		0.035		101,089	3,538			
Cap Area RA-D-TLC	OL-SMU8-CAP-0019	2022		0.27	J	75,699	20,742			
Cap Area RA-D-TLC	OL-SMU8-CAP-0020	2022		0.74		77,862	57,773			
Cap Area RA-E-TLC	OL-SMU8-CAP-0021	2022		0.13	J	115,933	15,535			
Cap Area RA-E-TLC	OL-SMU8-CAP-0022	2022		0.18	J	83,601	14,881			
Cap Area RA-E-TLC	OL-SMU8-CAP-0023	2022		0.18	J	95,600	17,112			
Cap Area RA-E-TLC	OL-SMU8-CAP-0024	2022		0.19	J	91,574	17,582			
Cap Area RA-E-TLC	OL-SMU8-CAP-0025	2022		0.15	J	122,358	18,721			
Sediment - CSX Area	OL-RAE-CAP-0001	2019		7.3		57,967	423,157			
Sediment - CSX Area	OL-RAE-CAP-0002	2019		4.3		19,376	83,315			
Sediment - CSX Area	OL-RAE-CAP-0003	2019		2.0		27,294	54,589			
Sediment - CSX Area	OL-RAE-CAP-0004	2019		5.1		14,995	76,477			
Sediment - CSX Area	OL-RAE-CAP-0005	2019		0.88		19,875	17,470			
Sediment - CSX Area	OL-RAE-CAP-0006	2019		0.96		29,640	28,307			
Sediment - CSX Area	OL-RAE-CAP-0007	2019		1.1		29,681	32,649			
Sediment - CSX Area	OL-RAE-CAP-0008	2019		0.05		42,104	2,021			
Sediment - CSX Area	OL-RAE-CAP-0009	2019		0.53		38,565	20,324			
Sediment - CSX Area	OL-RAE-CAP-0010	2019		0.35		56,901	20,143			
Sediment - CSX Area	OL-RAE-CAP-0011	2019		0.37		29,572	11,030			
Sediment - CSX Area	OL-RAE-CAP-0012	2019		0.32		39,229	12,475			
Sediment - CSX Area	OL-RAE-CAP-0013	2019		0.49		31,035	15,176			
Sediment - CSX Area	OL-RAE-CAP-0014	2019		0.31		34,677	10,611			
Sediment - CSX Area	OL-RAE-CAP-0015	2019		0.21		43,281	8,916			
Sediment - CSX Area	OL-RAE-CAP-0016	2019		0.25		146,981	37,039			

Notes:

1. Detection limits used in SWAC calculations for measured or calculated (from measured porewater) mercrury sediment concentrations for samples reported as non-detect

U: not detected at reporting limit specified

J: estimated concentration

APPENDIX 5A SUMMARY OF 2022 APPLICATIONS OF NITRATE IN ONONDAGA LAKE

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APPENDIX 5A SUMMARY OF 2022 APPLICATIONS OF NITRATE IN ONONDAGA LAKE

*buoy used

Date		06-Jul-2022	12-Jul-2022	13-Jul-2022	19-Jul-2022	20-Jul-2022	26-Jul-2022	27-Jul-2022	01-Aug-2022	03-Aug-2022	04-Aug-2022	08-Aug-2022	10-Aug-2022	11-Aug-2022
Location		South 1	South 1	South 2	South 1	North	South 1	South 1	South 1	North	South 2	South 1	North	South 2
Dilution Factor (epilimnion water flow divided by nitrate flow)		379	365	355	293	302	273	277	254	297	286	267	267	270
Nitrate Flow_gauge	gpm	10	10	10.5	12.5	12	13.5	13.5	13.5	12.5	13	14	14	13.5
Nitrate Flow_correction factor		0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Nitrate Flow_actual	gpm	8.00	8.00	8.40	10.00	9.60	10.80	10.80	10.80	10.00	10.40	11.20	11.20	10.80
Epilimion Water Flow_System A	gpm	3031	3029	3027	3029	3022	3034	3030	2952	3025	3028	3031	3025	3031
Epilimion Water Flow_System B	gpm	0	2809	2943	2835	2770	2859	2957	2544	2909	2921	2952	2961	2810
Water temperature_epilimnion	degrees C	23.6	24.6	24.5	24.5	25.6	25.3	25.1	25.4	24.8	25.3	27.7	25.7	25.8
Conductance_epilimnion (field)	uS/cm	1800	1800	1800	1840	1810	1860	1670	1950	1900	1930	1930	1900	1960
Specific conductance_epilimnion (calc)	uS/cm	1849	1814	1817	1858	1789	1849	1667	1935	1907	1919	1835	1875	1931
Total Water Depth at Application Location	feet	63.5	63	63.4	62.5	58.5	63.5	63.5	63.5	58.5	64.7	63.5	58.5	63.6
Target Water Depth for Adding Nitrate	feet	60	60	60	60	55	60	60	60	55	60	60	55	60
Water Temperature _target depth	degrees C	9.8	10.1	9.9	9.9	10.5	10.3	10	10.1	10.5	10.1	10.4	10.5	10.1
Conductance _target depth (field)	uS/cm	1700	1700	1720	1700	1710	1720	1720	1750	1730	1750	1750	1720	1770
Specific Conductance _target depth (calc)	uS/cm	2395	2376	2417	2389	2365	2391	2411	2446	2393	2446	2427	2379	2474
Start time_dosing	24-hour clock	09:30	10:55	10:20	08:05	08:00	08:22	08:15	11:50	08:05	08:10	12:20	08:30	08:42
Start Volume_Tank A	gallons	2569	2569	2569	2569	2569	2569	2569	2569	2569	2569	2569	2569	2569
Start Volume_Tank B	gallons	2569	2569	2569	2569	2569	2569	2569	2569	2569	2569	2569	2569	2569
End Volume_Tank A	gallons	376	376	376	345	63	376	376	376	376	376	376	345	376
End Volume_Tank B	gallons	376	376	376	345	251	376	376	376	376	376	376	313	376
Total Volume of CN-8 Applied	gallons	4386	4386	4386	4449	4825	4386	4386	4386	4386	4386	4386	4480	4386
Total Mass of CN-8 Applied	lbs as nitrogen	4605	4605	4605	4671	5066	4605	4605	4605	4605	4605	4605	4704	4605
Comments (nitrate flows are based on gauge readings)		Started CN8 flowrate at 10 gpm, then adjusted to final. Applied both tanks throug Port System due to mechanical issue with Starboard Pump.	CN8 flowrate of 10 gpm for entire application.	Started CN8 flowrate at 10.5 gpm, then adjusted to 12 gpm for remainder of application.	Started CN8 flowrate at 12.5 gpm, then adjusted to 12 gpm for remainder of application.	Started CN8 flowrate at 12 gpm, then adjusted 13.5 gpm for remainder of application.	Started CN8 flowrate at 13.5 gpm, then adjusted to final	Started CN8 flowrate at 13.5 gpm, then adjusted to 13 gpm for remainder of application.	Started CN8 flowrate at 13.5 gpm, then adjusted to 13 gpm for remainder of application.	CN8 flowrate of 12.5 gpm at start and finsh of application.	Started CN8 flowrate at 13 gpm, then adjusted to 13.5 for remainder of application.	CN8 flowrate of 14 gpm for entire application.	Started CN8 flowrate at 14 gpm, then adjusted to 13.5 gpm for remainder of application.	CN8 flowrate of 13.5 gpm for entire application.
End Time_dosing	24-hour clock	14:00	15:20	14:12	11:59	12:02	11:51	11:46	15:23	11:45	11:36	15:32	12:10	12:07

Notes:

1. Data in this table include initial setup readings of pumps and meters as well as final application readings. Comments include changes during run time and variations from final CN-8 flow.

2. CN8 flow rate in the table is represented as an average for two chemical pumps with differing flow rates.

Definitions:

1 CN-8: Liquid calcium nitrate provided by Univar Solutions. The density of CN-8 is 1.47 times the density of water.

2 Dilution factor is the ratio of dilution water flow from the lake epilimnion to flow of CN-8. The density of the water:CN-8 mixture varies daily with lake water temperature and salinity. Specific conductance values were measured to quantify salinity.

3 gpm: gallons per minute

4 uS/cm: Microsiemens per centimeter, or the unit of measure of specific conductance.

5 Start Volume and End Volume: Applies to CN-8.

6 Target Depth: The specific depth of release of the CN-8 as controlled by the length of individual hoses which were manually connected to the manifold prior to each application. Early on in the season the target depth identified by a height of 2-3m off of the bottom depending on what the specific water depth was at N, S1 or S2 on a given day. Where the target depths are not consistent with being 2 to 3 meters above the lake bottom, the target depths were based on monitoring within the hypolimnion at the N, S1 or S2 application locations and recent nitrate demand at each location.

7 MT NO3-N: Metric tons of nitrate-nitrogen. One metric ton is 1,000 kilograms or 2,204.6 pounds.

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APPENDIX 5A SUMMARY OF 2022 APPLICATIONS OF NITRATE IN ONONDAGA LAKE (CONTINUED)

Date		15-Aug-2022	17-Aug-2022	18-Aug-2022	22-Aug-2022	23-Aug-2022	24-Aug-2022	25-Aug-2022	26-Aug-2022	29-Aug-2022	31-Aug-2022	01-Sep-2022	02-Sep-2022	06-Sep-2022	08-Sep-2022
Location		South 1	North	South 2	South 1	South 1	North	North	South 2	South 1	North	South 2	South 1	South 1	North
Dilution Factor (epilimnion water flow divided by nitrate flow)		275	278	291	296	308	318	331	322	309	340	340	356	354	379
Nitrate Flow_gauge	gpm	13.5	13	12.5	12.5	12	11.5	11	11.5	12	11	11	10.5	10.5	9.5
Nitrate Flow_correction factor		0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Nitrate Flow_actual	gpm	10.80	10.40	10.00	10.00	9.60	9.20	8.80	9.20	9.60	8.80	8.80	8.40	8.40	7.60
Epilimion Water Flow_System A	gpm	3015	3028	3024	3017	3017	3027	3024	3027	3028	3026	3027	3024	3022	3030
Epilimion Water Flow_System B	gpm	2927	2747	2794	2898	2898	2815	2800	2901	2911	2954	2960	2959	2929	2735
Water temperature_epilimnion	degrees C	25.2	24.8	24.6	24.41	24.2	24.2	24.4	24.6	25	24.8	24	23.3	23.4	22.9
Conductance_epilimnion (field)	uS/cm	2080	1890	1920	1881	1900	1890	1890	1880	1860	2340	1990	1800	1890	1930
Specific conductance_epilimnion (calc)	uS/cm	2072	1897	1935	1902	1929	1919	1912	1894	1860	2349	2029	1860	1950	2011
Total Water Depth at Application Location	feet	63.5	58.8	63.5	63.5	63.5	60	59	63	63	59	63.4	63	65	59
Target Water Depth for Adding Nitrate	feet	60	55	60	60	60	55	55	60	60	55	60	60	60	55
Water Temperature _target depth	degrees C	10.4	10.6	10.3	10.2	10.4	10.7	11	10.3	10.5	10.9	10.6	11.1	10.6	10.9
Conductance _target depth (field)	uS/cm	1800	1790	1760	2110	2110	1766	1750	1780	1790	1760	1750	1740	1770	1770
Specific Conductance _target depth (calc)	uS/cm	2496	2469	2447	2942	2926	2430	2389	2475	2476	2409	2414	2369	2442	2422
Start time_dosing	24-hour clock	13:33	08:20	08:22	11:51	08:38	08:14	08:45	08:12	12:45	09:57	08:25	08:40	11:42	08:38
Start Volume_Tank A	gallons	2569	2600	2569	2569	376	2569	2569	2569	2569	2569	2569	2569	2569	2600
Start Volume_Tank B	gallons	2600	2600	2569	2569	1003	2569	2600	2569	2569	2569	2569	2569	2569	2632
End Volume_Tank A	gallons	376	407	376	376	376	376	376	376	376	376	376	376	376	376
End Volume_Tank B	gallons	407	407	376	32	376	376	376	376	376	376	376	376	376	376
Total Volume of CN-8 Applied	gallons	4386	4386	4386	4730	627	4386	4418	4386	4386	4386	4386	4386	4386	4480
Total Mass of CN-8 Applied	lbs as nitrogen	4605	4605	4605	4967	658	4605	4638	4605	4605	4605	4605	4605	4605	4704
Comments (nitrate flows are based on gauge readings)		CN8 flowrate of 13.5 gpm for entire application.	Started CN8 flowrate at 13 gpm, then adjusted to 12.5 gpm for remainder of application.	Started CN8 flowrate at 12.5 gpm, then adjusted to 13 gpm for remainder of application.	Started CN8 flowrate at 12.5 gpm, then adjusted to final. Partial applicatrion due to thunderstorms.	Started CN8 flowrate at 12 gpm, then adjusted to final. Finish application from previous day.	Started CN8 flowrate at 11.5 gpm, then adjusted to final	Started CN8 flowrate at 11 gpm, then adjusted to 11.5 gpm for remainder of application.	Started CN8 flowrate at 11.5 gpm, then adjusted to final.	CN8 flowrate of 12 gpm for entire application.	Started CN8 flowrate at 11 gpm, then adjusted to 12 gpm for remainder of application.	CN8 flowrate of 11 gpm for entire application.	CN8 flowrate of 10.5 gpm for entire application.	CN8 flowrate of 10.5 gpm for entire application.	CN8 flowrate of 9.5 gpm for enitre application.
End Time_dosing	24-hour clock	17:05	12:05	11:59	15:40	09:44	12:16	12:42	12:06	14:46	12:50	12:37	13:00	16:23	13:12

Notes:

1. Data in this table include initial setup readings of pumps and meters as well as final application readings. Comments include changes during run time and variations from final CN-8 flow.

2. CN8 flow rate in the table is represented as an average for two chemical pumps with differing flow rates.

Definitions:

1 CN-8: Liquid calcium nitrate provided by Univar Solutions. The density of CN-8 is 1.47 times the density of water.

2 Dilution factor is the ratio of dilution water flow from the lake epilimnion to flow of CN-8. The density of the water:CN-8 mixture varies daily with lake water temperature and salinity. Specific conductance values were measured to quantify salinity.

3 gpm: gallons per minute

4 uS/cm: Microsiemens per centimeter, or the unit of measure of specific conductance.

5 Start Volume and End Volume: Applies to CN-8.

6 Target Depth: The specific depth of release of the CN-8 as controlled by the length of individual hoses which were manually connected to the manifold prior to each application. Early on in the season the target depth identified by a height of 2-3m off of the bottom depending on what the specific water depth was at N, S1 or S2 on a given day. Where the target depths are not consistent with being 2 to 3 meters above the lake bottom, the target depths were based on monitoring within the hypolimnion at the N, S1 or S2 application locations and recent nitrate demand at each location.

7 MT NO3-N: Metric tons of nitrate-nitrogen. One metric ton is 1,000 kilograms or 2,204.6 pounds.

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APPENDIX 5A SUMMARY OF 2022 APPLICATIONS OF NITRATE IN ONONDAGA LAKE (CONTINUED)

Date		09-Sep-2022	12-Sep-2022	14-Sep-2022	15-Sep-2022	16-Sep-2022	19-Sep-2022	21-Sep-2022	22-Sep-2022	23-Sep-2022	26-Sep-2022	28-Sep-2022	29-Sep-2022	03-Oct-2022	05-Oct-2022
Location		South 2	South 1	North	North	South 2	South 1	North	North	South 2	South 2	North	South 1	South 2	North
Dilution Factor (epilimnion water flow divided by nitrate flow)		388	393	388	386	431	419	419	434	323	581	750	735	750	737
Nitrate Flow_gauge	gpm	9.5	9.5	9.5	9.5	8.5	9	9	8.5	8	5.5	5	5	5	5
Nitrate Flow_correction factor		0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Nitrate Flow_actual	gpm	7.60	7.60	7.60	7.60	6.80	7.20	7.20	6.80	6.40	4.40	4.00	4.00	4.00	4.00
Epilimion Water Flow_System A	gpm	3029	3028	3031	3021	3030	3030	3028	3013	3028	3013	3031	3028	3030	3031
Epilimion Water Flow_System B	gpm	2864	2938	2868	2845	2825	2997	3006	2895	1100	2098	2970	2851	2967	2866
Water temperature_epilimnion	degrees C	23	23	22.5	21.7	21.5	21.6	20.8	21.2	20.2	19	17.9	17.5	16.8	16.4
Conductance_epilimnion (field)	uS/cm	1920	1950	1930	1990	1960	1980	2010	2030	1950	1770	2050	1970	1960	1930
Specific conductance_epilimnion (calc)	uS/cm	1996	2027	2027	2124	2100	2118	2185	2189	2147	1999	2372	2299	2324	2309
Total Water Depth at Application Location	feet	64	63	58.9	58.6	64	63	58.8	59	64	63.4	58	64	63.3	68.9
Target Water Depth for Adding Nitrate	feet	60	60	55	55	60	60	55	55	60	60	55	60	60	55
Water Temperature _target depth	degrees C	10.3	10.3	10.8	10.8	10.5	10.4	11	10.9	10.3	11.7	10.9	10.4	10.6	10.9
Conductance _target depth (field)	uS/cm	1800	1820	1790	1790	1780	1810	1790	1780	1800	1910	1800	1830	1780	1800
Specific Conductance _target depth (calc)	uS/cm	2503	2530	2456	2456	2462	2510	2443	2436	2503	2560	2463	2538	2455	2463
Start time_dosing	24-hour clock	08:30	11:06	08:38	08:15	08:30	10:55	08:27	08:02	08:25	10:55	08:08	10:13	10:32	08:30
Start Volume_Tank A	gallons	2569	2569	2569	2569	2600	2569	2569	2569	2569	2475	2569	2569	2569	2569
Start Volume_Tank B	gallons	2569	2569	2569	2569	2632	2569	2569	2569	2600	2444	2632	2569	2569	2788
End Volume_Tank A	gallons	376	376	345	376	407	407	376	376	2444	533	376	689	846	376
End Volume_Tank B	gallons	376	376	360	376	439	376	376	376	2412	721	376	689	846	595
Total Volume of CN-8 Applied	gallons	4386	4386	4433	4386	4386	4355	4386	4386	313	3666	4449	3760	3446	4386
Total Mass of CN-8 Applied	lbs as nitrogen	4605	4605	4655	4605	4605	4572	4605	4605	329	3849	4671	3947	3619	4605
Comments (nitrate flows are based on gauge readings)		Started CN8 flowrate at 9.5 gpm, then adjusted to 10 gpm for remainder of application.	Started CN8 flowrate at 9.5 gpm, then adjusted to 10 gpm for remainder of application.	CN8 flowrate of 9.5 gpm for enitre application.	CN8 flowrate of 9.5 gpm for enitre application.	CN8 flowrate of 8.5 gpm for entire application.	CN8 flowrate of 9 gpm for entire application.	Started CN8 flowrate at 9 gpm, then adjusted to 8.5 gpm for remainder of application.	Started CN8 flowrate at 8.5 gpm, then adjusted to 8 gpm for remainder of application.	Started CN8 flowrate at 8 gpm, then adjusted to final. Partial application due to high winds.	CN8 flowrate of 5.5 gpm for enite application.	CN8 flowrate of 5 gpm for entire application.	Started CN8 flowrate at 5 gpm. Partial application due to approaching sunset.	CN8 flowrate of 5 gpm for entire application.	CN8 flowrate of 5 gpm for entire application.
End Time_dosing	24-hour clock	13:19	15:50	13:32	13:04	14:03	18:36	13:59	13:40	08:51	18:11	17:33	18:25	18:00	18:05

Notes:

1. Data in this table include initial setup readings of pumps and meters as well as final application readings. Comments include changes during run time and variations from final CN-8 flow.

2. CN8 flow rate in the table is represented as an average for two chemical pumps with differing flow rates.

Definitions:

1 CN-8: Liquid calcium nitrate provided by Univar Solutions. The density of CN-8 is 1.47 times the density of water.

2 Dilution factor is the ratio of dilution water flow from the lake epilimnion to flow of CN-8. The density of the water:CN-8 mixture varies daily with lake water temperature and salinity. Specific conductance values were measured to quantify salinity.

3 gpm: gallons per minute

4 uS/cm: Microsiemens per centimeter, or the unit of measure of specific conductance.

5 Start Volume and End Volume: Applies to CN-8.

6 Target Depth: The specific depth of release of the CN-8 as controlled by the length of individual hoses which were manually connected to the manifold prior to each application. Early on in the season the target depth identified by a height of 2-3m off of the bottom depending on what the specific water depth was at N, S1 or S2 on a given day. Where the target depths are not consistent with being 2 to 3 meters above the lake bottom, the target depths were based on monitoring within the hypolimnion at the N, S1 or S2 application locations and recent nitrate demand at each location.

7 MT NO3-N: Metric tons of nitrate-nitrogen. One metric ton is 1,000 kilograms or 2,204.6 pounds.

APPENDIX 5A SUMMARY OF 2022 APPLICATIONS OF NITRATE IN ONONDAGA LAKE (CONTINUED)

Date		06-Oct-2022	10-Oct-2022	11-Oct-2022
Location		South 1	South 2	South 1
Dilution Factor (epilimnion water flow divided by nitrate flow)		614	702	927
Nitrate Flow_gauge	gpm	5	4.5	4
Nitrate Flow_correction factor		0.8	0.8	0.8
Nitrate Flow_actual	gpm	4.00	3.60	3.20
Epilimion Water Flow_System A	gpm	3030	3029	3031
Epilimion Water Flow_System B	gpm	1881	2028	2899
Water temperature_epilimnion	degrees C	16.2	15.2	15
Conductance_epilimnion (field)	uS/cm	2080	1990	1950
Specific conductance_epilimnion (calc)	uS/cm	2500	2448	2410
Total Water Depth at Application Location	feet	63.1	64	62.8
Target Water Depth for Adding Nitrate	feet	60	60	60
Water Temperature _target depth	degrees C	10.4	10.7	12
Conductance _target depth (field)	uS/cm	1860	2090	2270
Specific Conductance _target depth (calc)	uS/cm	2579	2875	3020
Start time_dosing	24-hour clock	10:00	10:50	08:56
Start Volume_Tank A	gallons	2569	2569	1159
Start Volume_Tank B	gallons	2569	2569	1410
End Volume_Tank A	gallons	721	1191	94
End Volume_Tank B	gallons	721	1191	188
Total Volume of CN-8 Applied	gallons	3697	2757	2287
Total Mass of CN-8 Applied	lbs as nitrogen	3882	2895	2401
Comments (nitrate flows are based on gauge readings)		CN8 flowrate of 5 gpm for entire application.	Started CN8 flowrate at 4.5 gpm, then adjusted to 4 gpm. Partial application due to approaching sunset.	CN8 flowrate of 4 gpm for entire application.
End Time_dosing	24-hour clock	18:15	18:10	15:16

Notes:

1. Data in this table include initial setup readings of pumps and meters as well as final application readings. Comments include changes during run time and variations from final CN-8 flow.
2. CN8 flow rate in the table is represented as an average for two chemical pumps with differing flow rates.

Definitions:

1 CN-8: Liquid calcium nitrate provided by Univar Solutions. The density of CN-8 is 1.47 times the density of water.

2 Dilution factor is the ratio of dilution water flow from the lake epilimnion to flow of CN-8. The density of the water:CN-8 mixture varies daily with lake water temperature and salinity. Specific conductance values were measured to quantify salinity.

3 gpm: gallons per minute

4 uS/cm: Microsiemens per centimeter, or the unit of measure of specific conductance.

5 Start Volume and End Volume: Applies to CN-8.

6 Target Depth: The specific depth of release of the CN-8 as controlled by the length of individual hoses which were manually connected to the manifold prior to each application. Early on in the season the target depth identified by a height of 2-3m off of the bottom depending on what the specific water depth was at N, S1 or S2 on a given day. Where the target depths are not consistent with being 2 to 3 meters above the lake bottom, the target depths were based on monitoring within the hypolimnion at the N, S1 or S2 application locations and recent nitrate demand at each location.

7 MT NO3-N: Metric tons of nitrate-nitrogen. One metric ton is 1,000 kilograms or 2,204.6 pounds.

APPENDIX 5B - EXAMPLE 2022 SUNA ONE-DAY DATA REPORT – SEPTEMBER 12, 2022

Onondaga Lake Nitrate Monitoring Summary: Current Status of Nitrate Conditions in Onondaga Lake

Full Scale Nitrate Addition, 2022 Monitoring

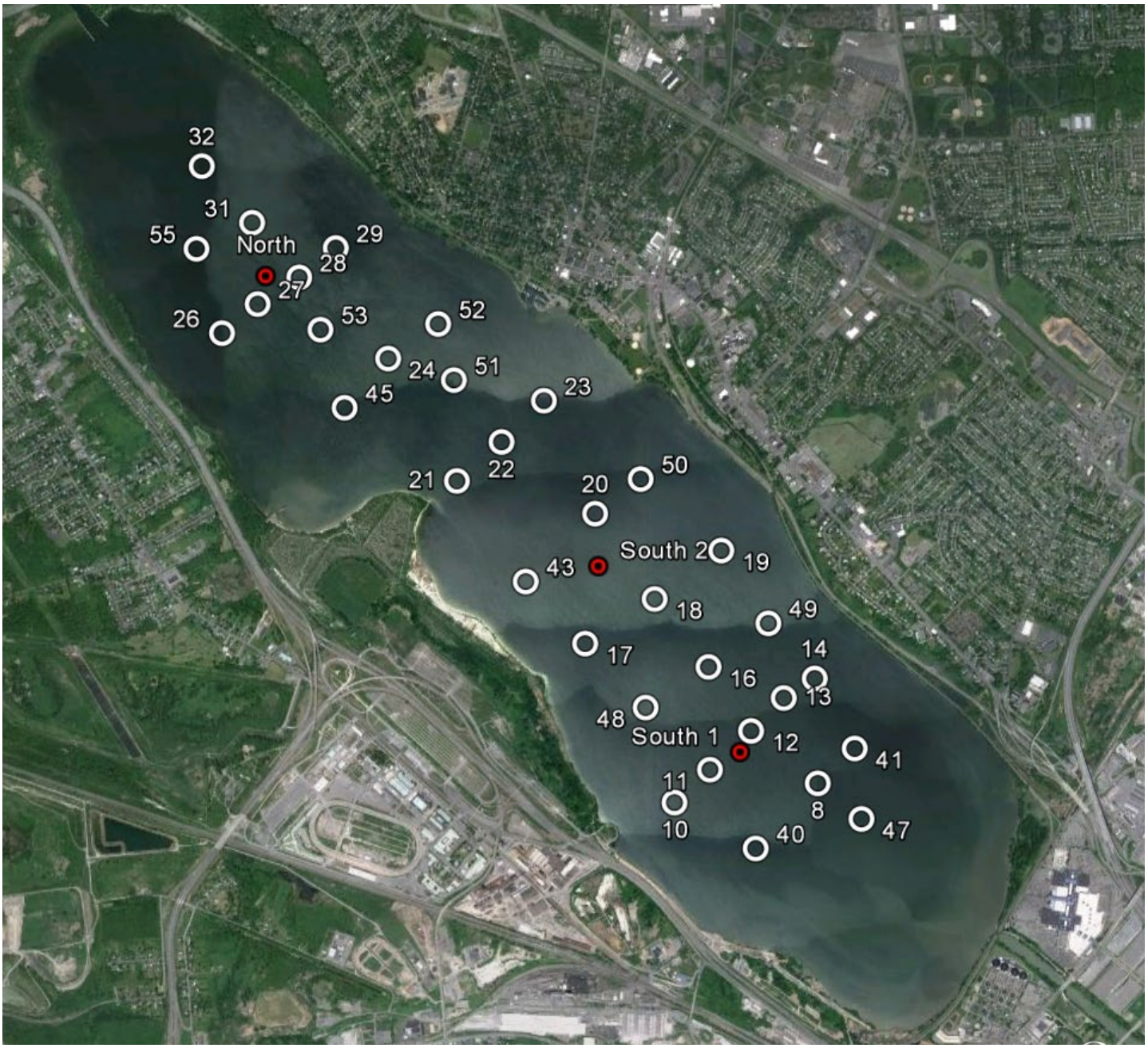
September 12, 2022

UPSTATE FRESHWATER INSTITUTE

Provisional Data Summary
for discussion purposes only

Submitted: for internal use only

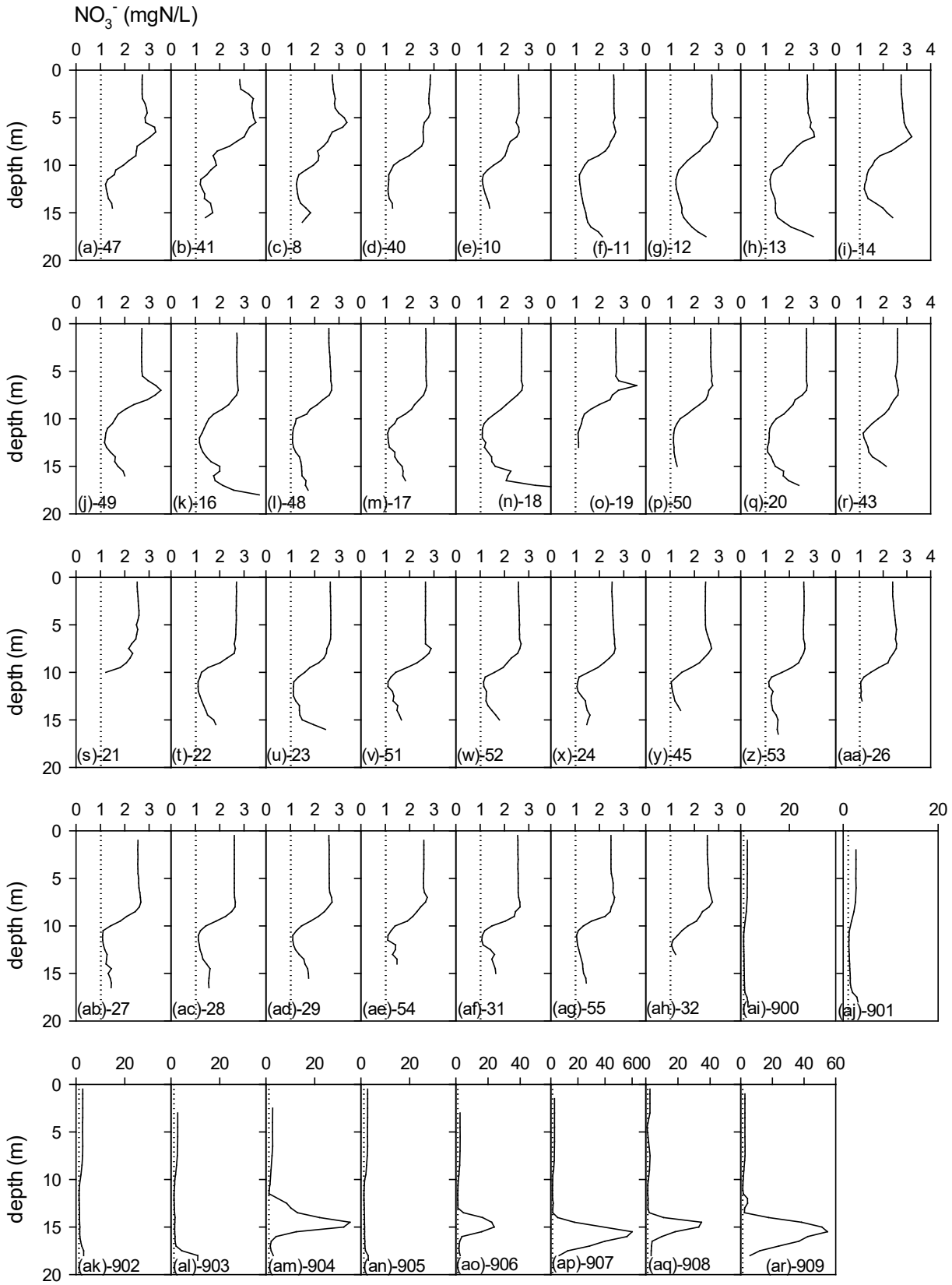
Gridding Locations



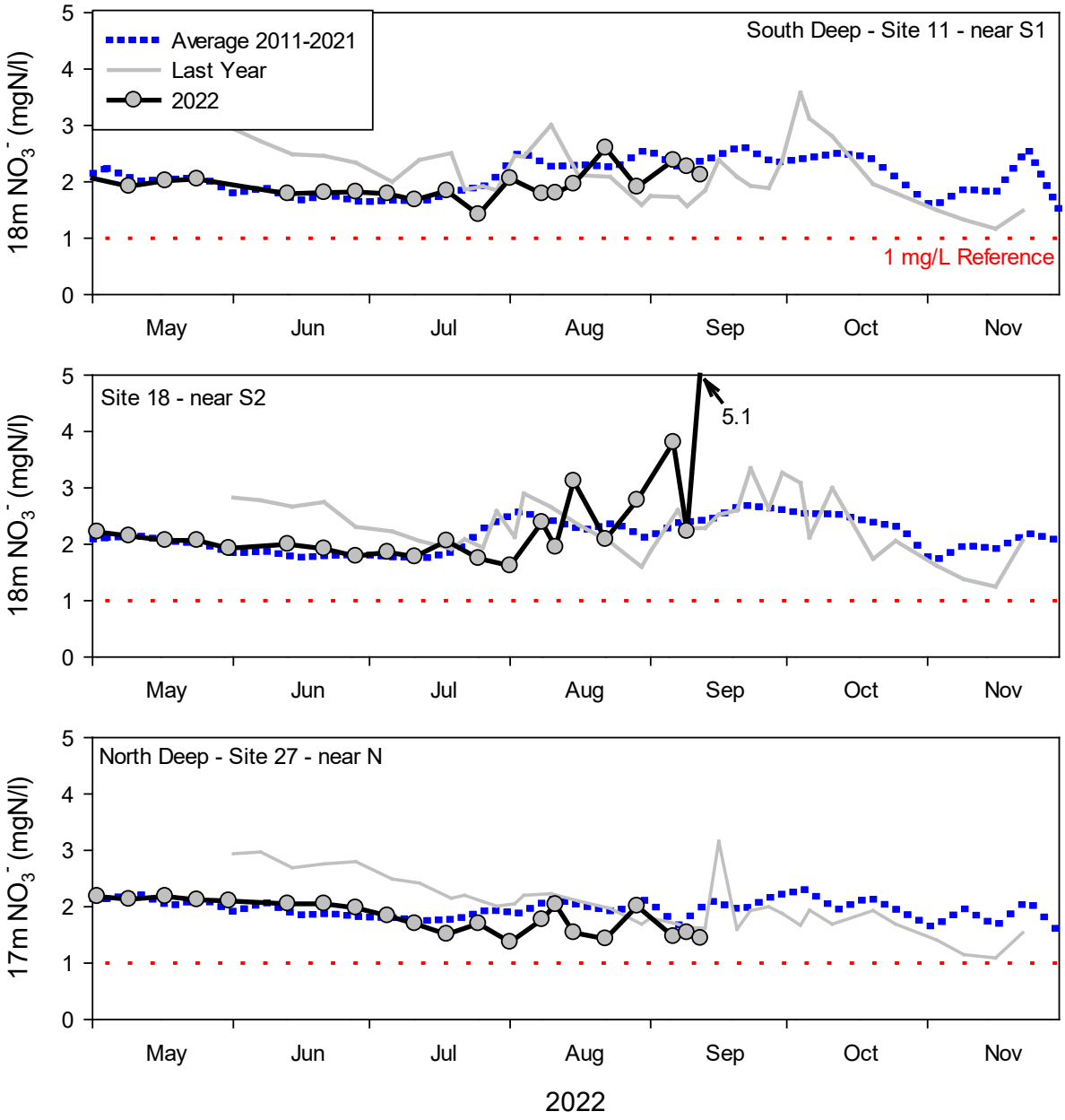
Today's injection: S1

white circle: gridding loocation
red circle: injection site

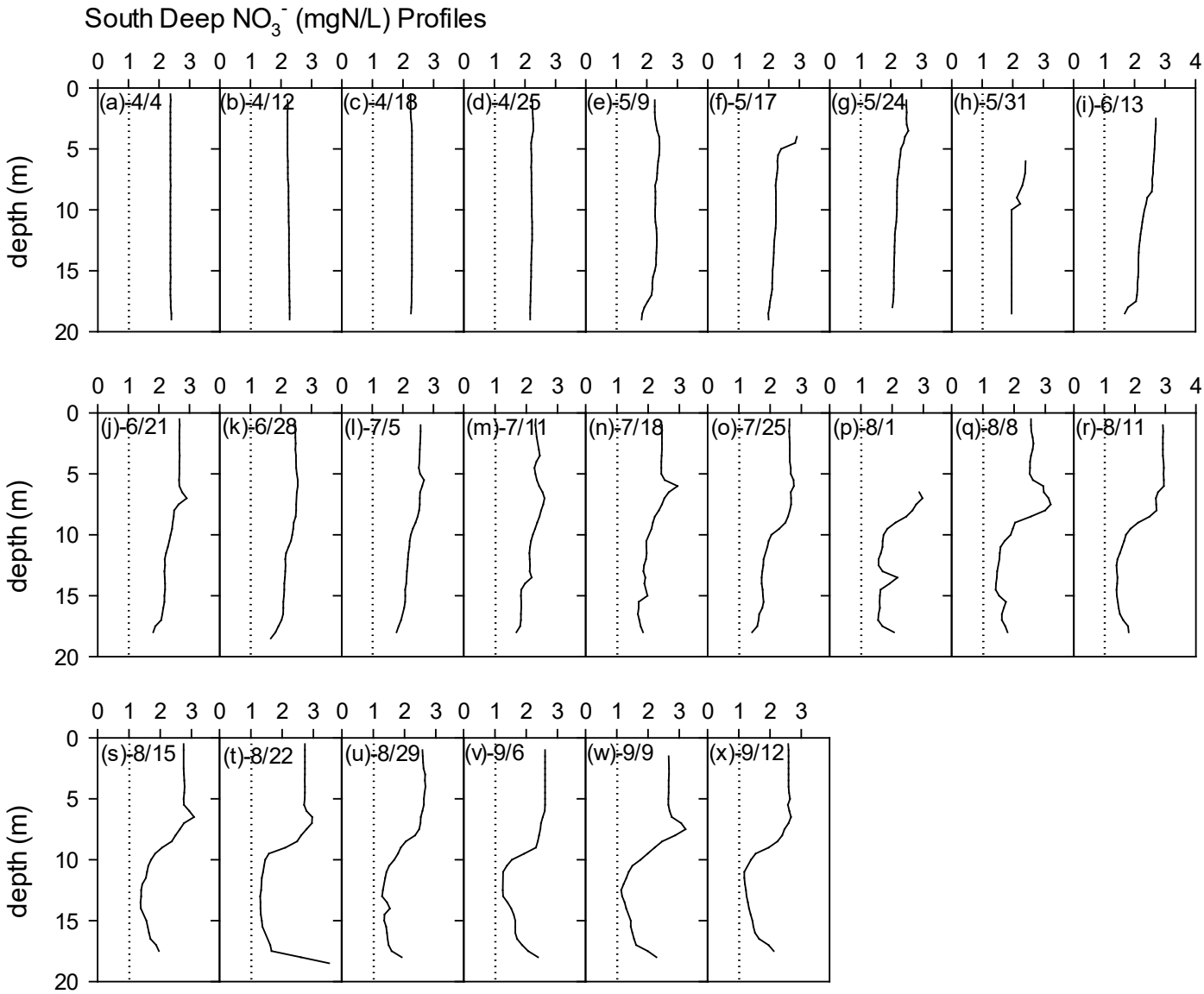
Nitrate Profiles at Each Gridding Location (mgN/L)



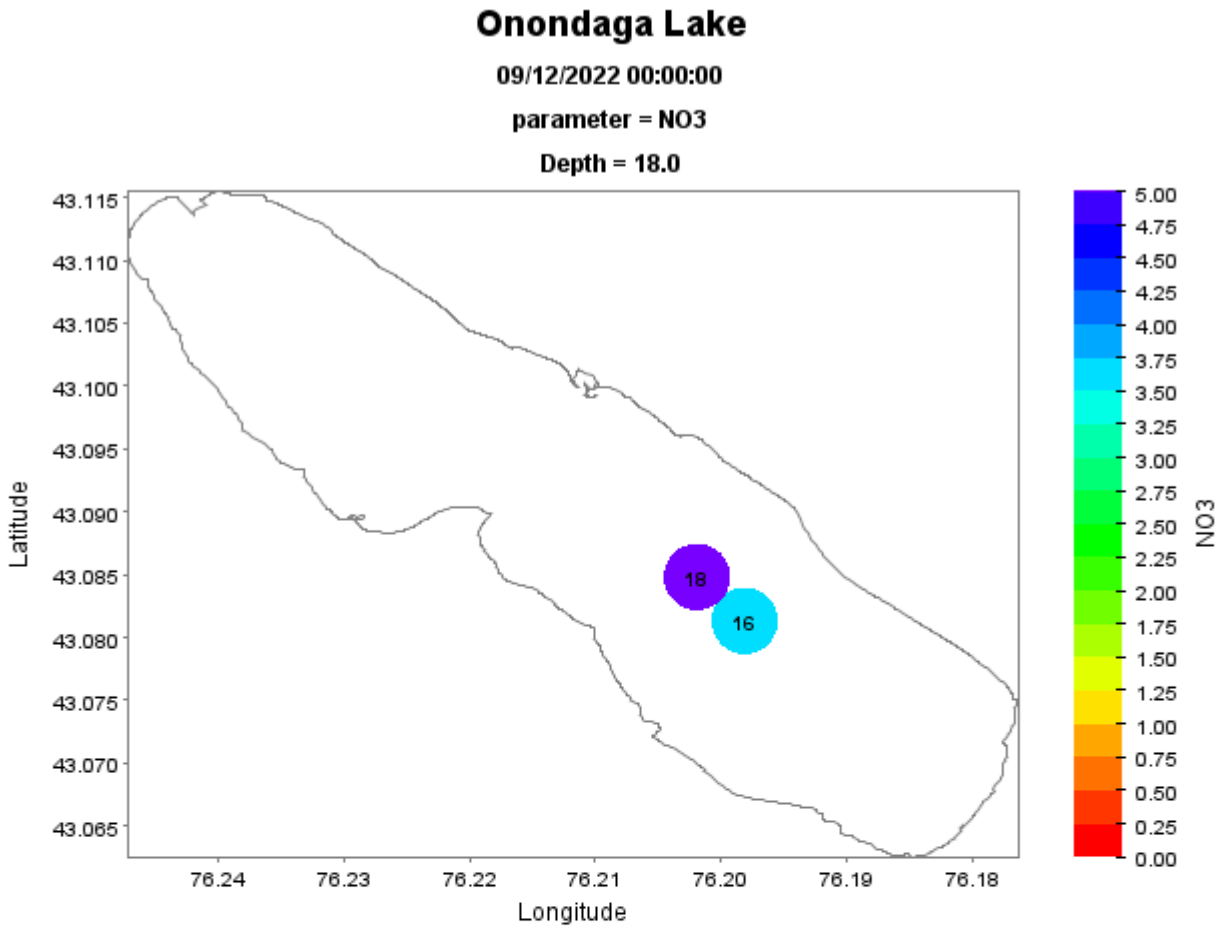
Nitrate Time Series at South Deep - 18m, Site 18 - 18m, North Deep - 17m



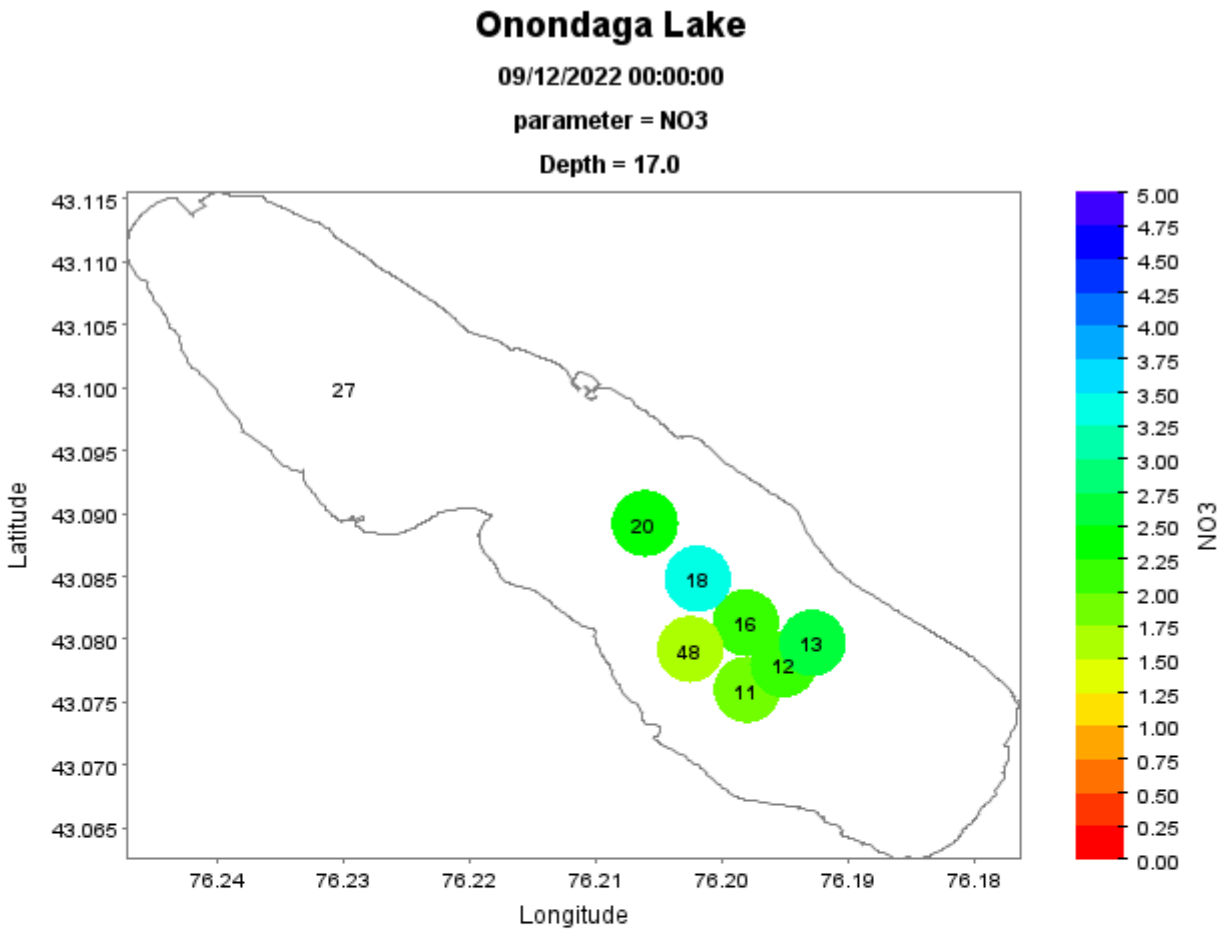
Nitrate Profiles at South Deep



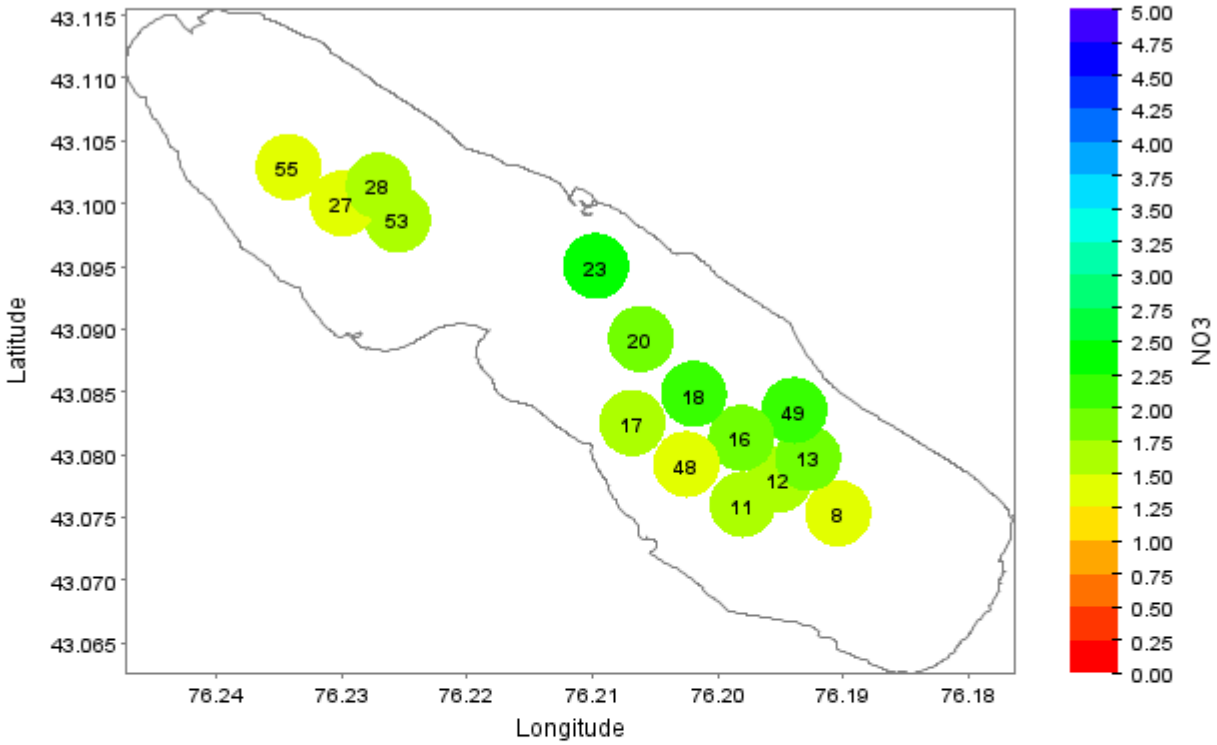
Spatial variations in Nitrate at selected depths



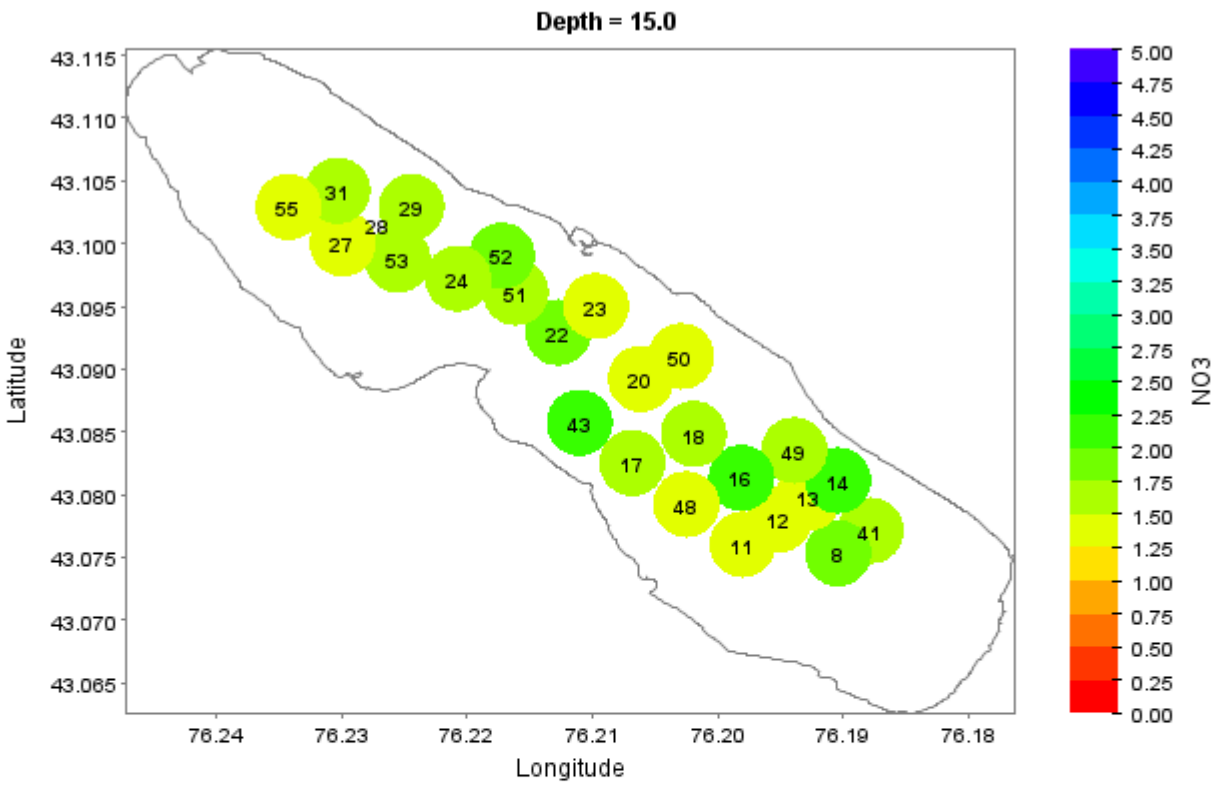
September 12, 2022



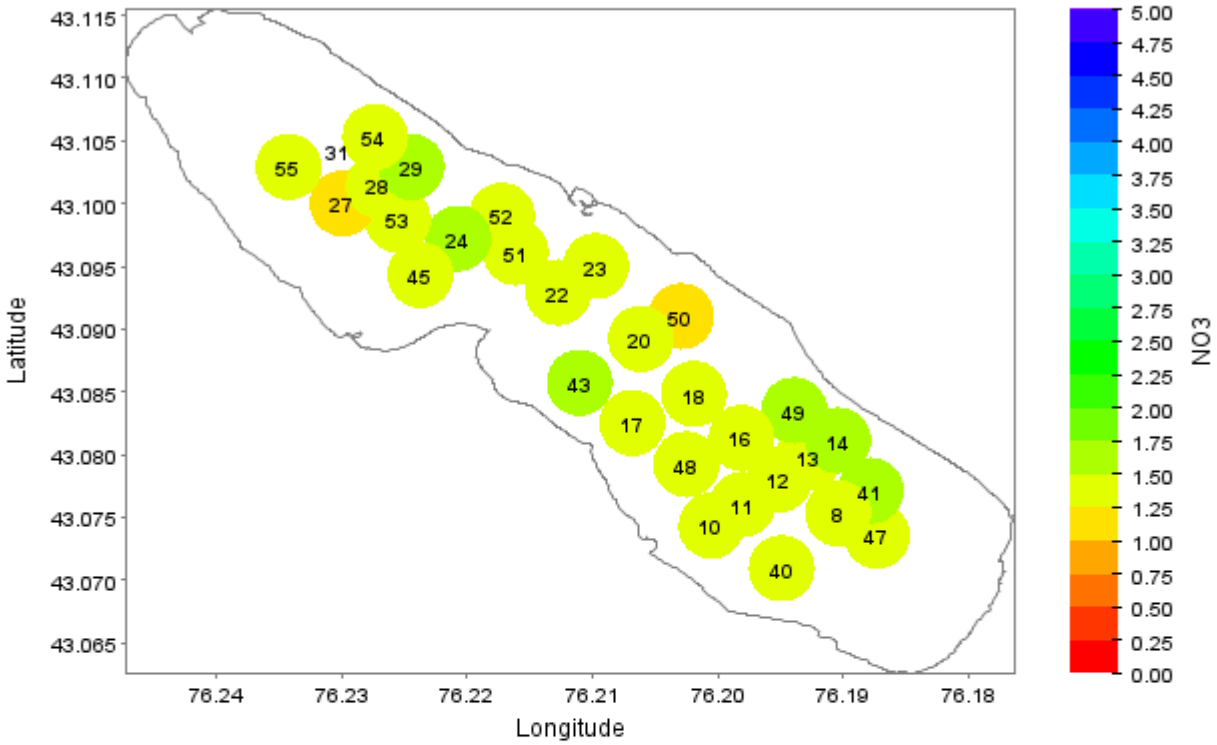
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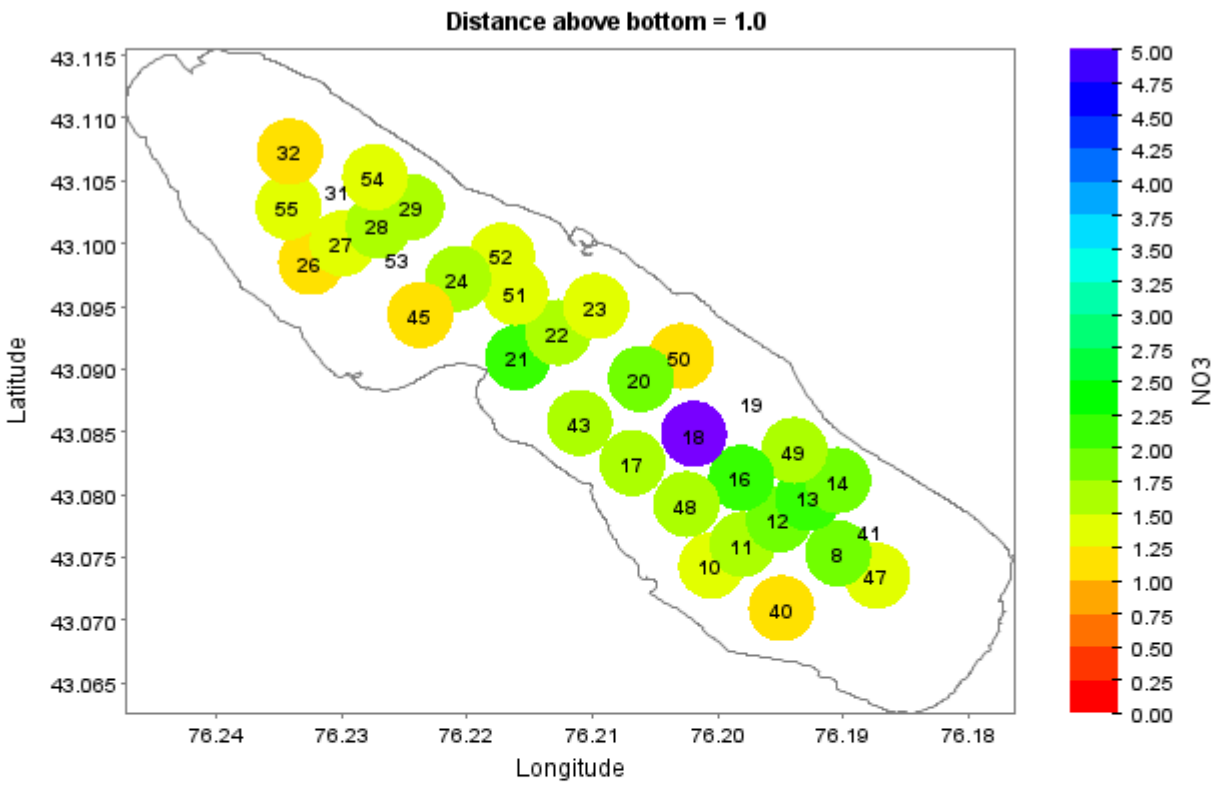
September 12, 2022



September 12, 2022



September 12, 2022



September 12, 2022

APPENDIX 5C - ONONDAGA LAKE GRIDDING SUMMARY USING A SUBMERSIBLE ULTRAVIOLET NITRATE ANALYZER – ONE METER OFF BOTTOM WEEKLY SUMMARY – JUNE 6 THROUGH NOVEMBER 15, 2022

Onondaga Lake Nitrate Monitoring Summary: Current Status of Nitrate Conditions in Onondaga Lake

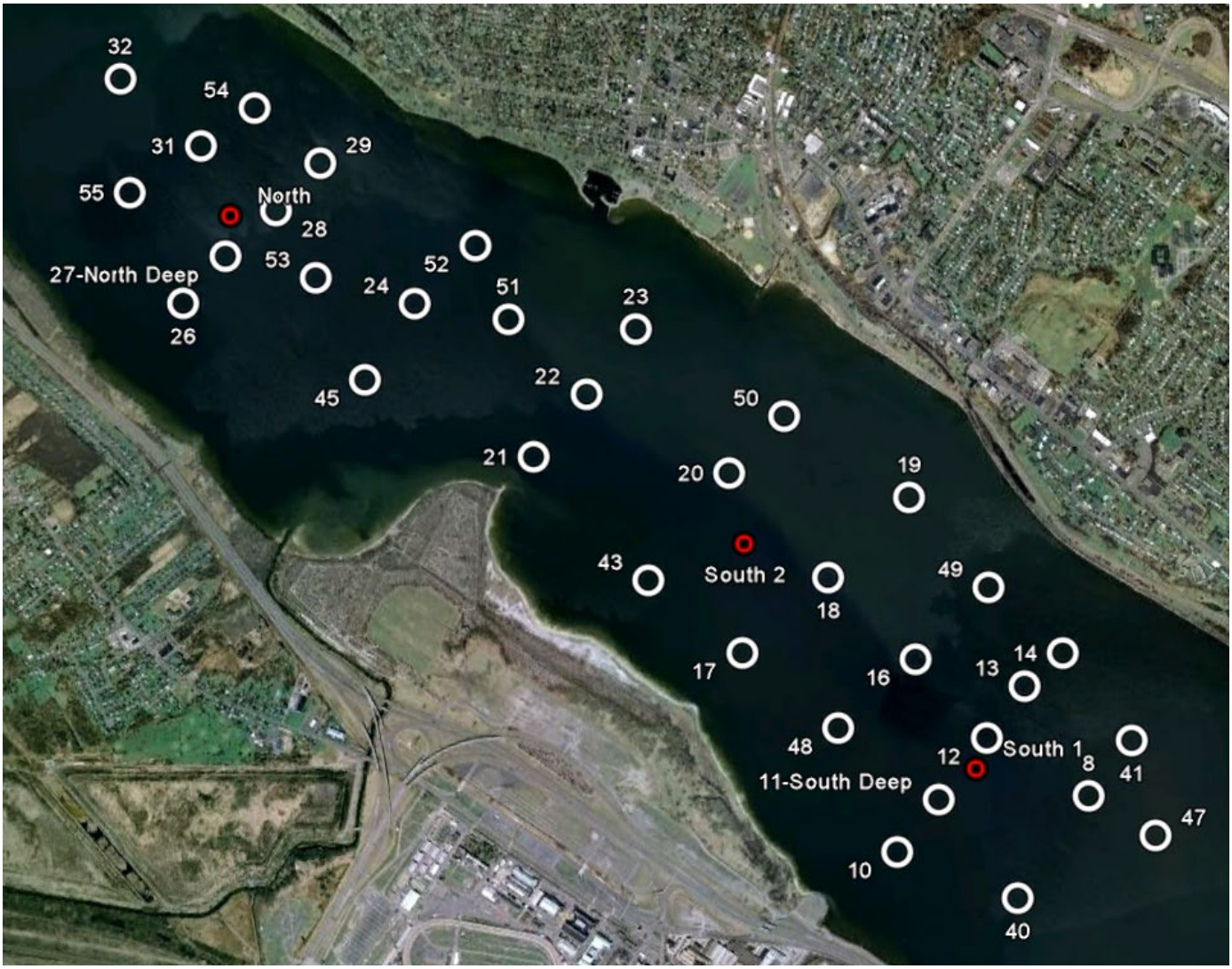
Full Scale Nitrate Addition, 2022 Monitoring

One Meter Off Bottom Weekly Summary:

June 06 through November 15, 2022



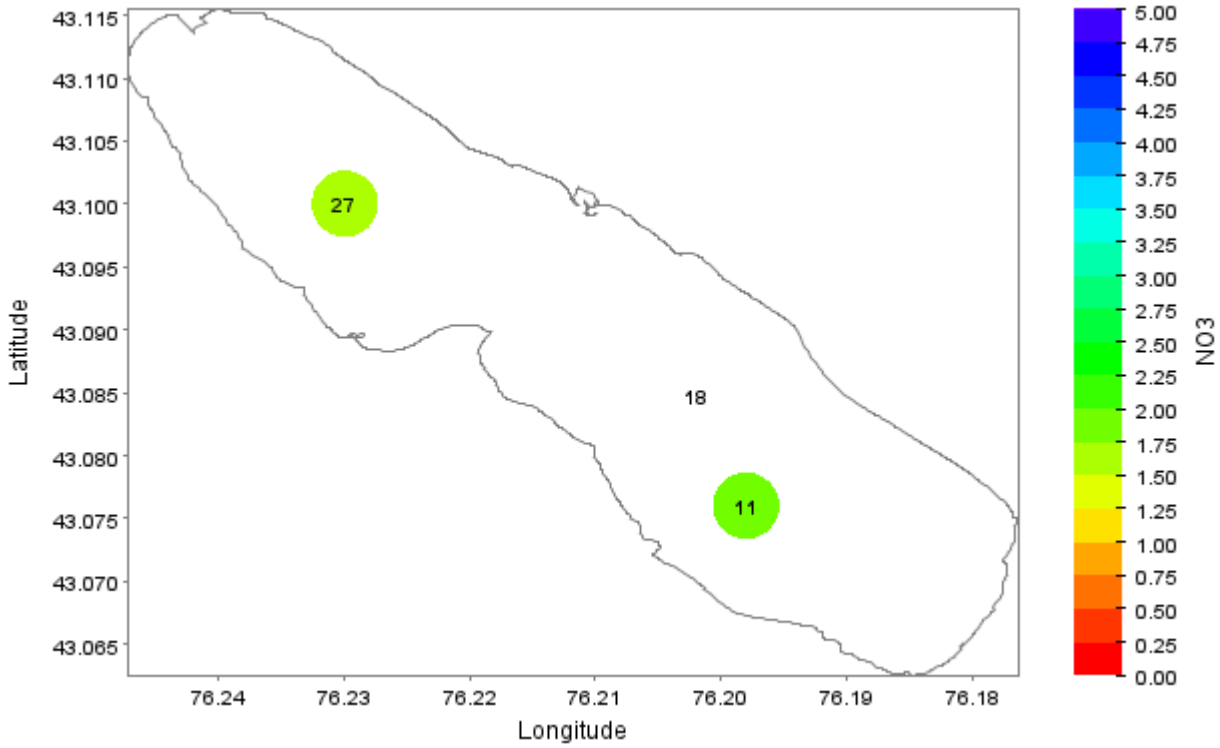
Monitoring Survey Locations



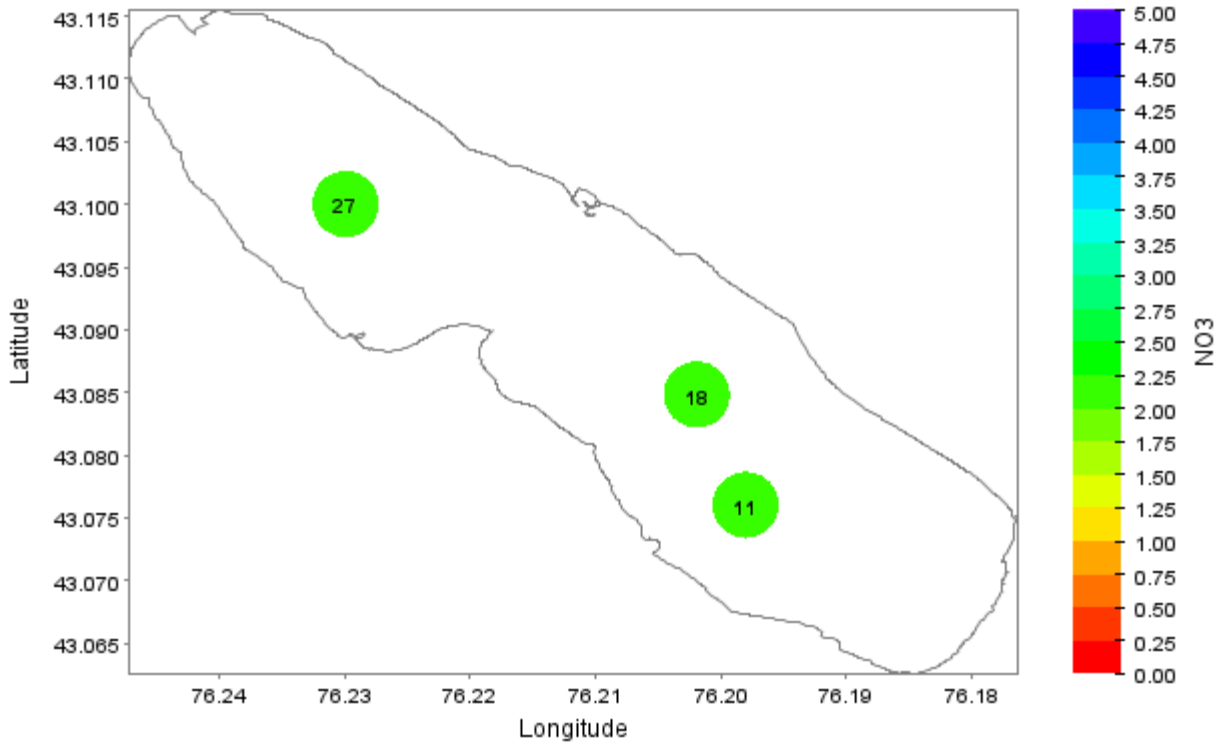
white circle: survey location
red circle: injection site

Color Bubble Plots at ~1.0 m off Bottom, Nitrate (mgN/L)

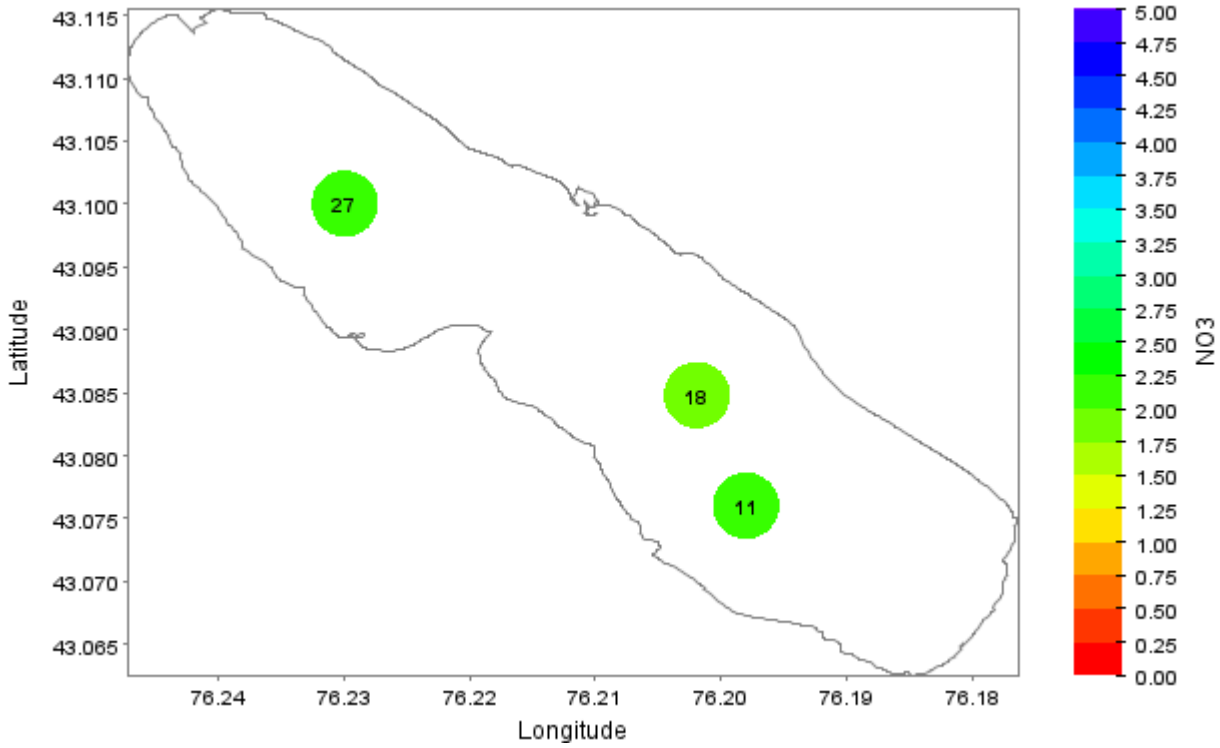
June 6, 2022



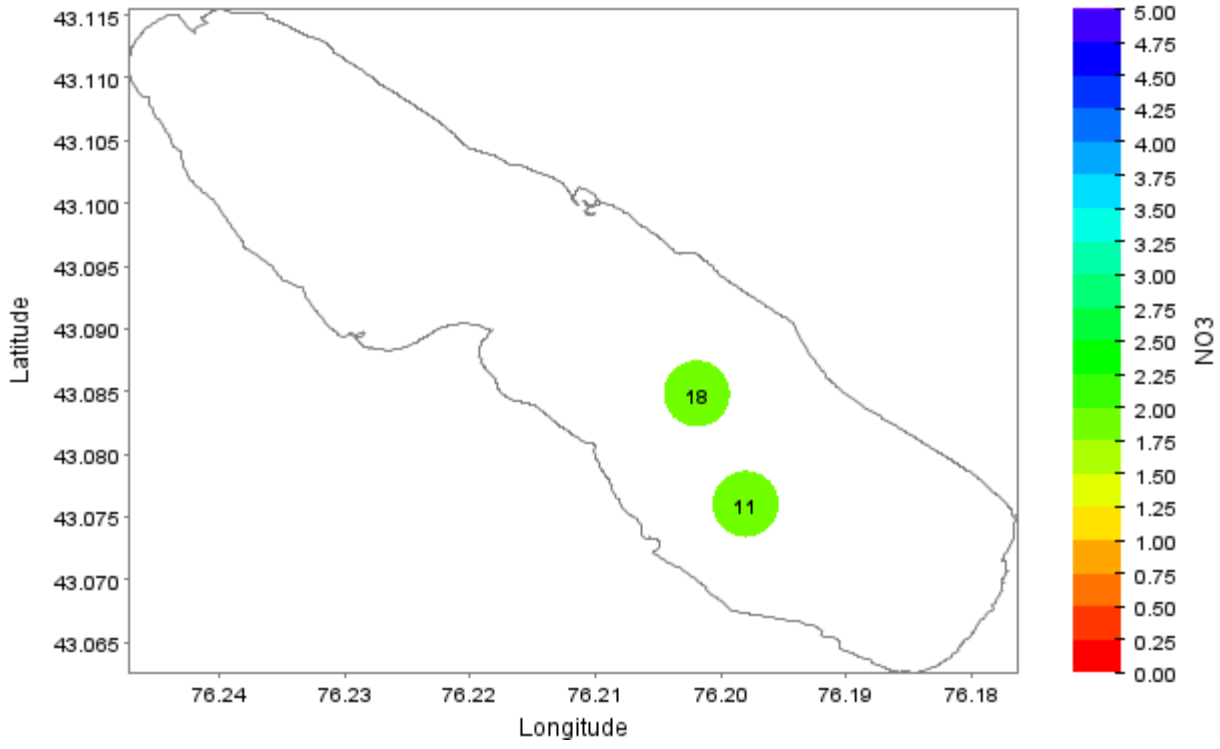
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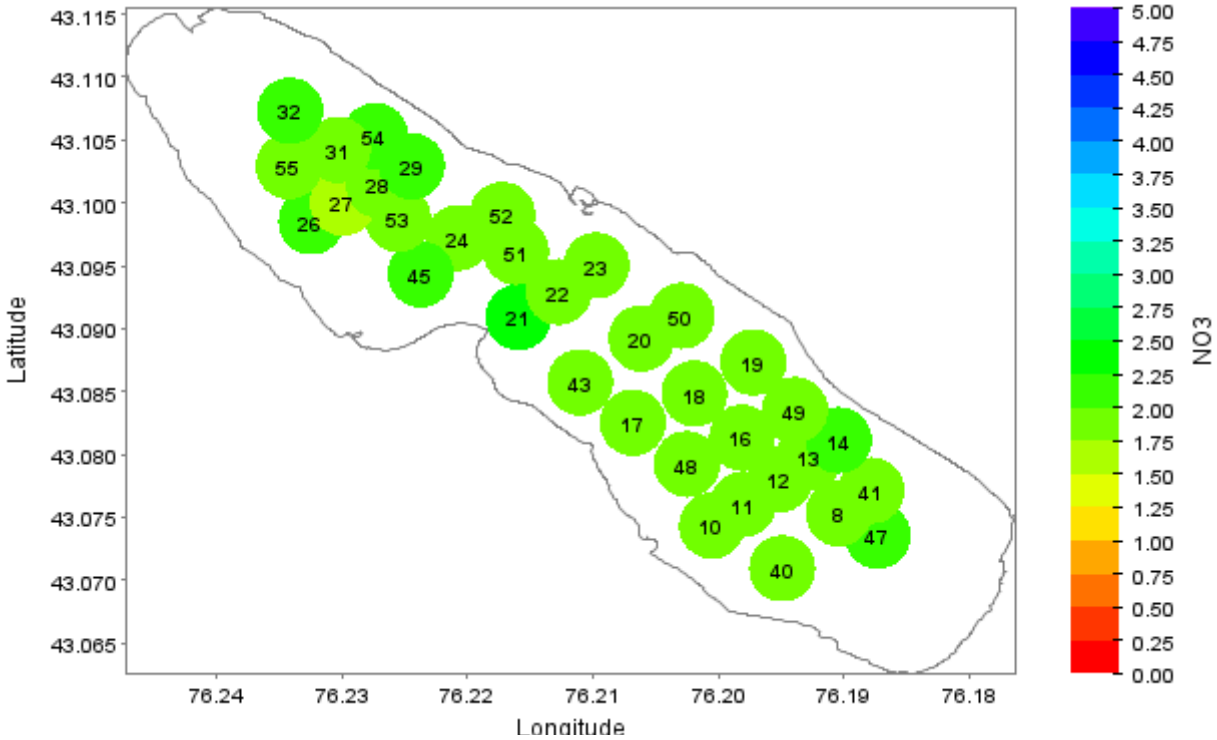
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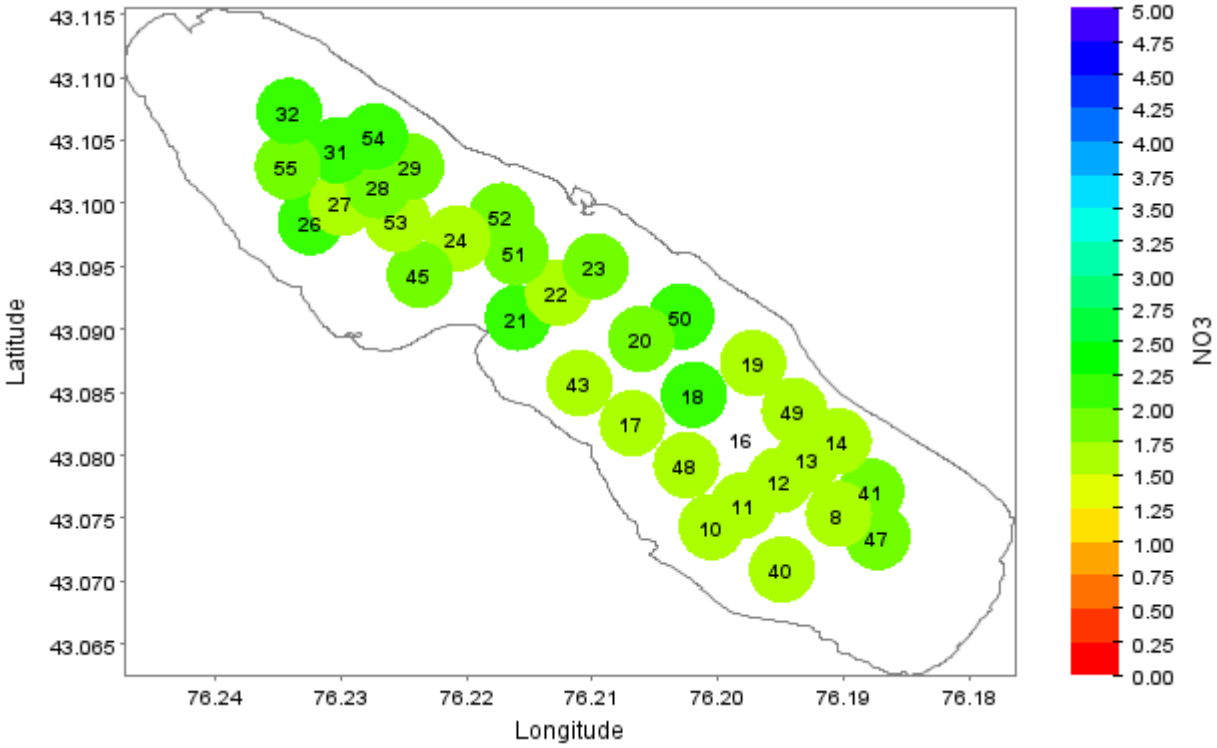
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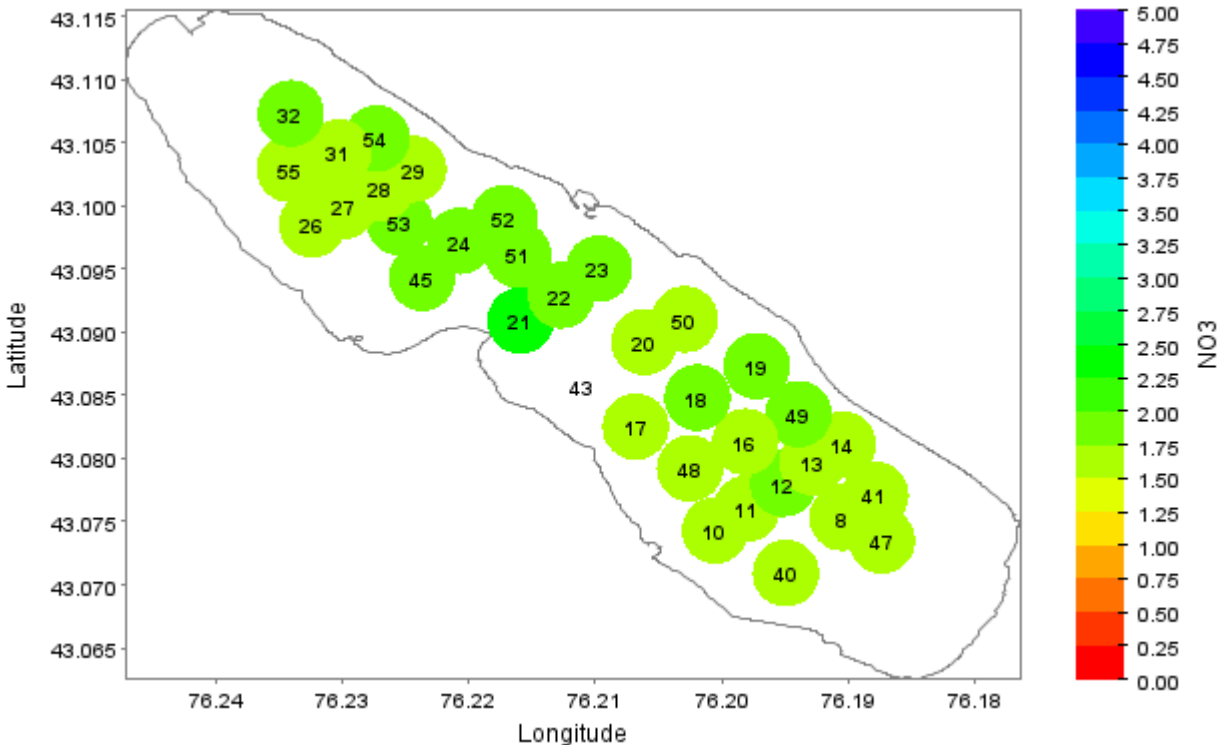
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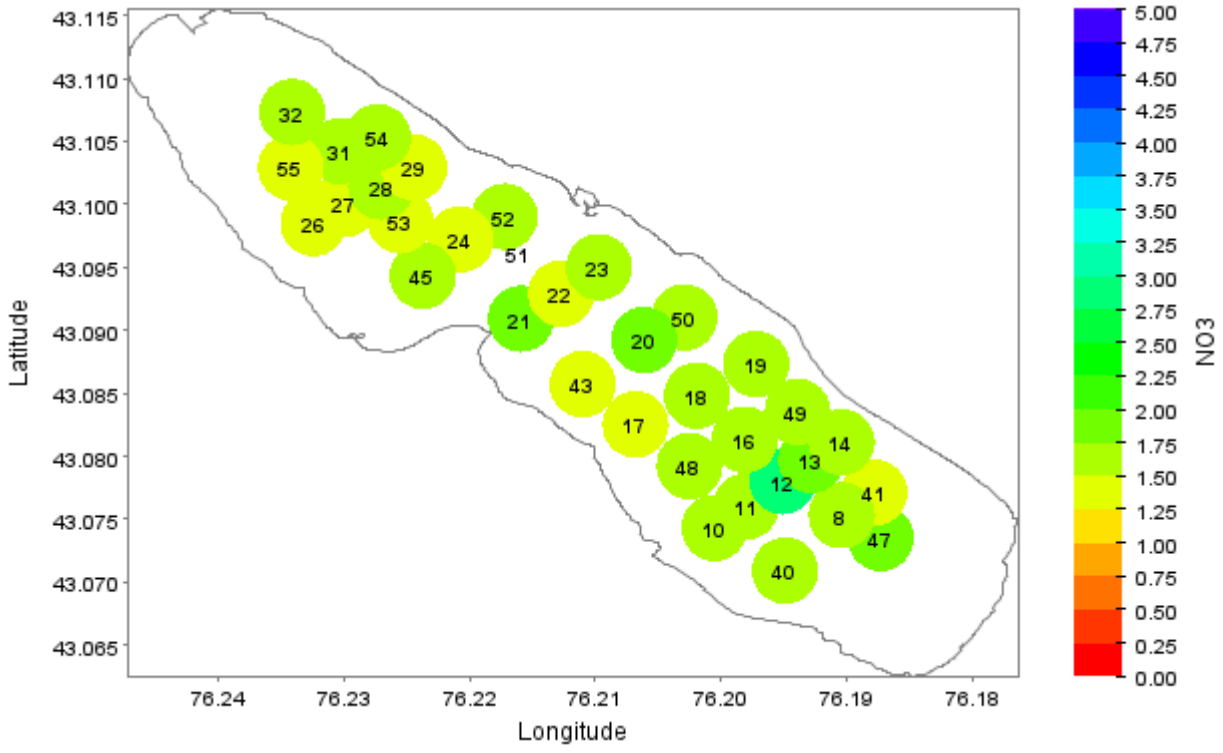
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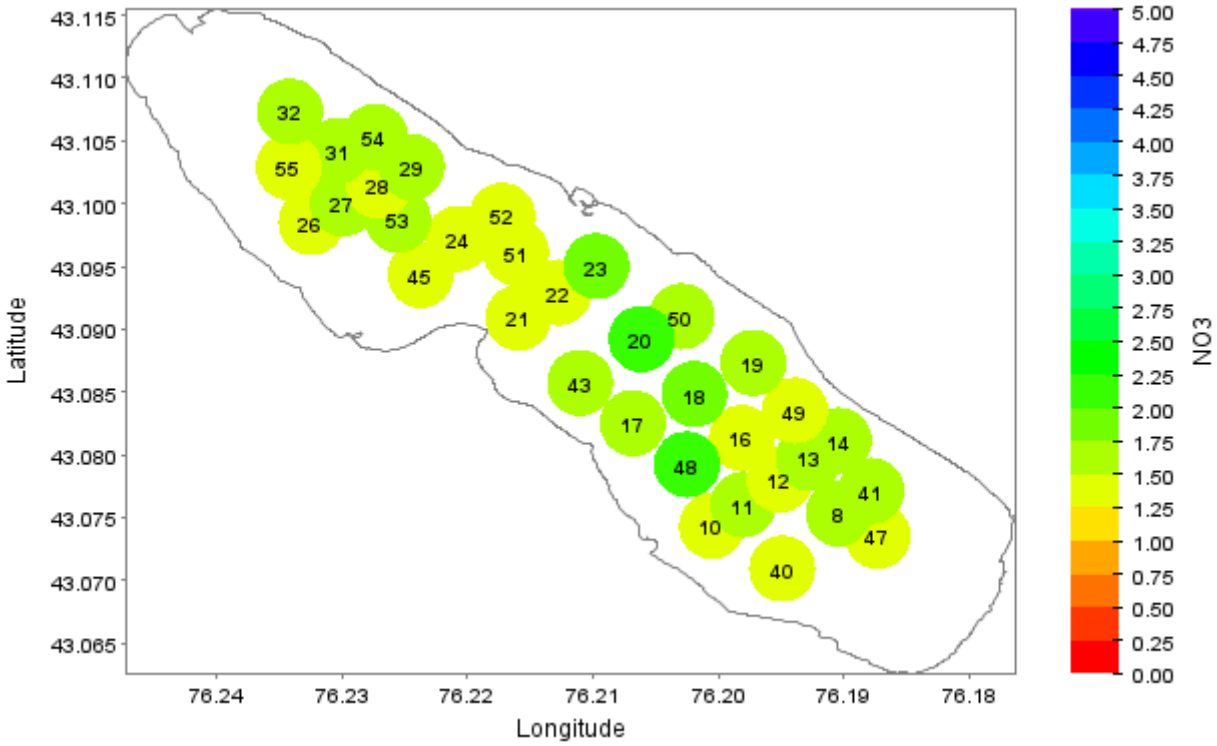
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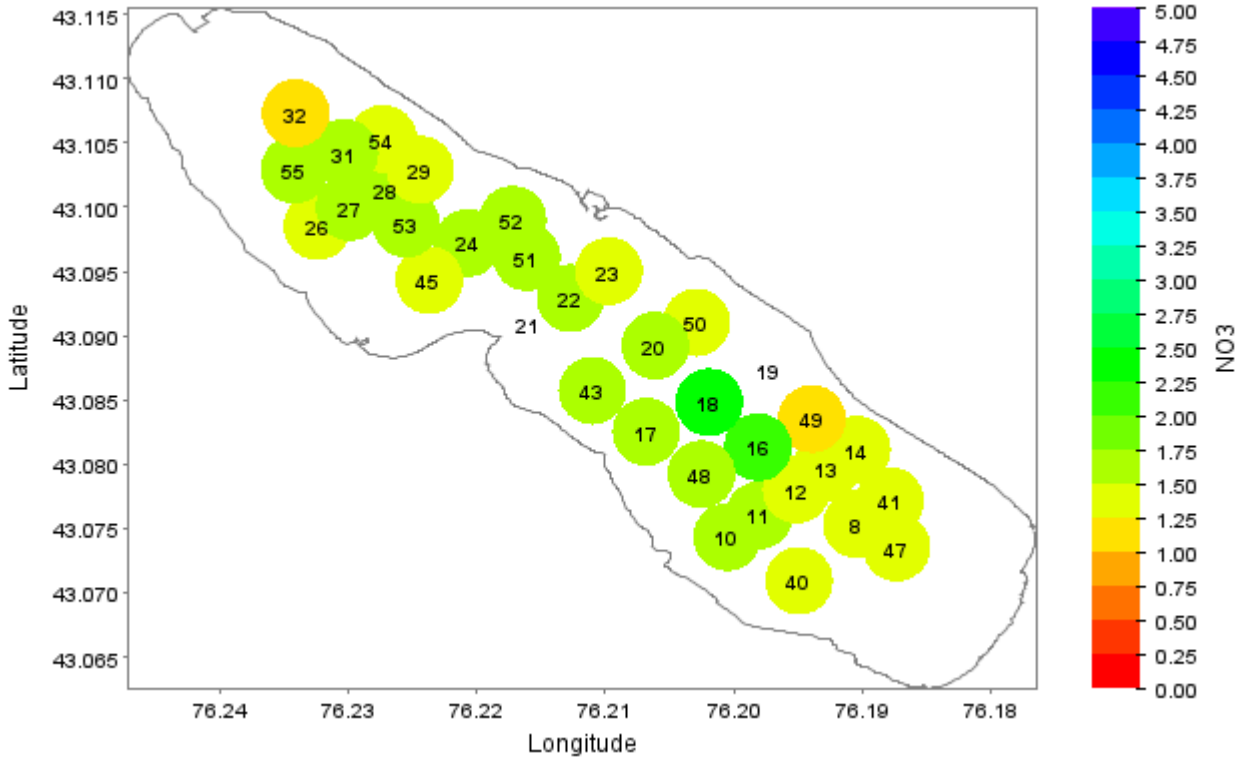
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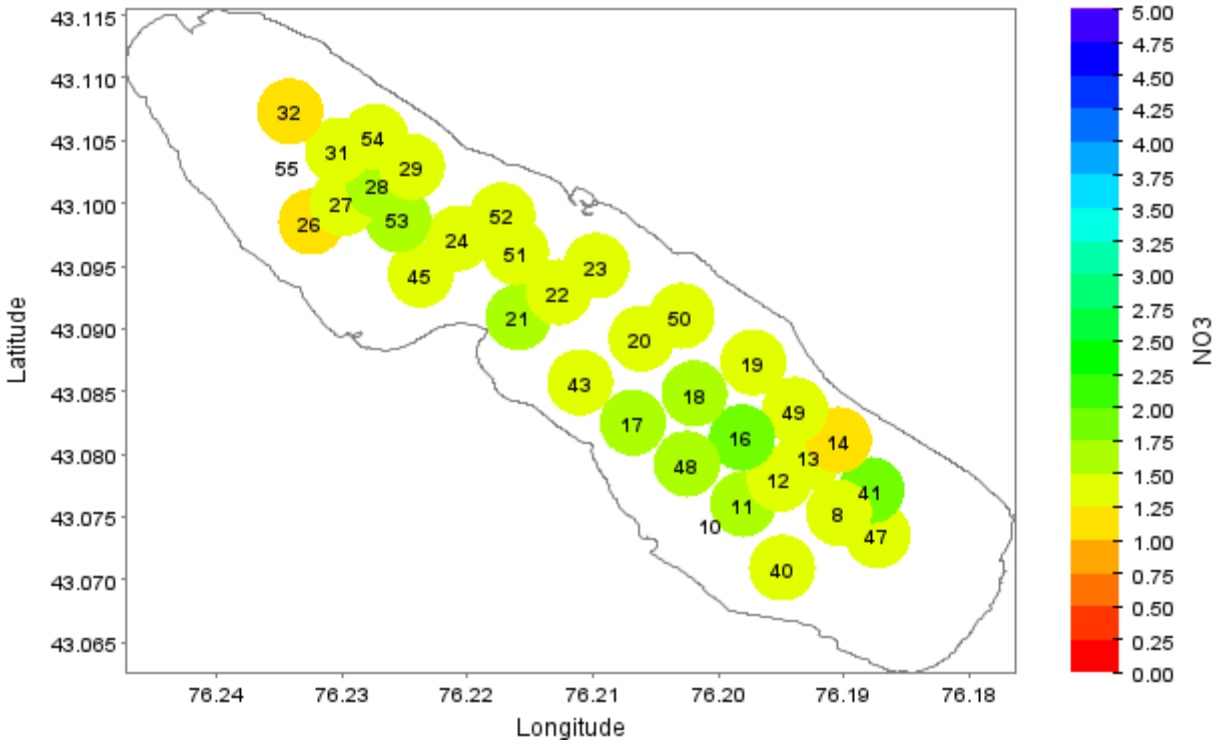
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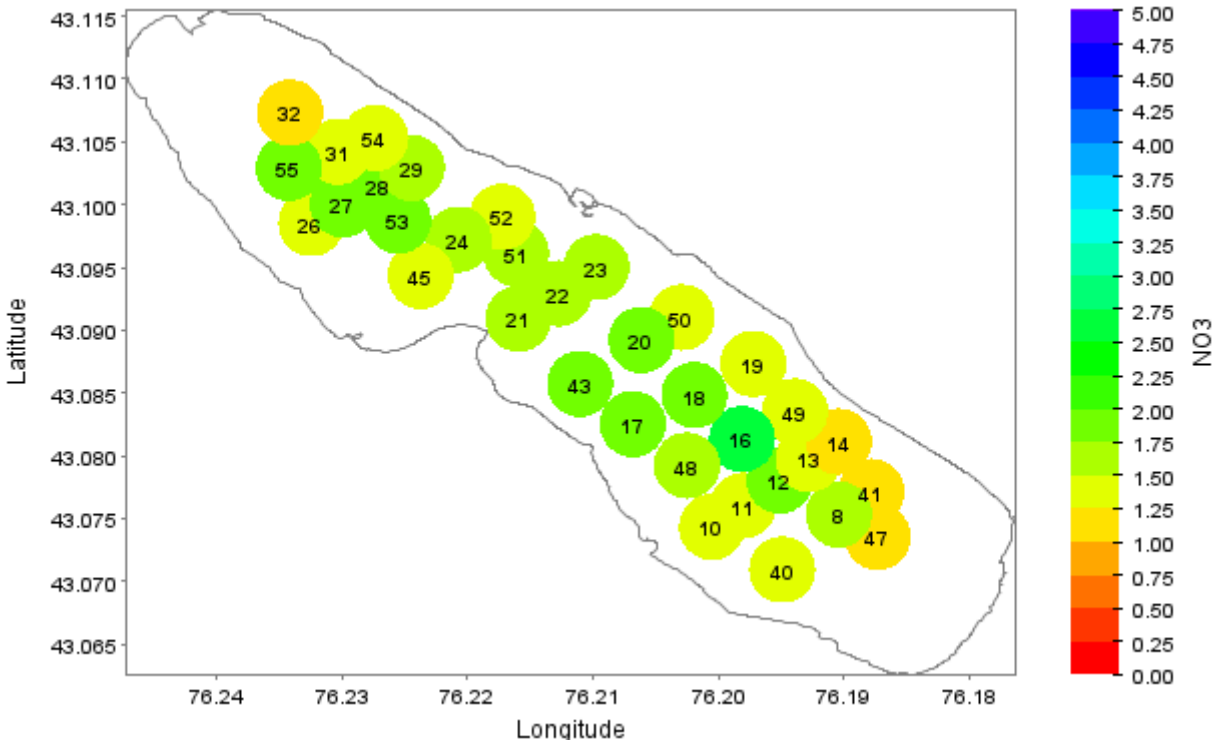
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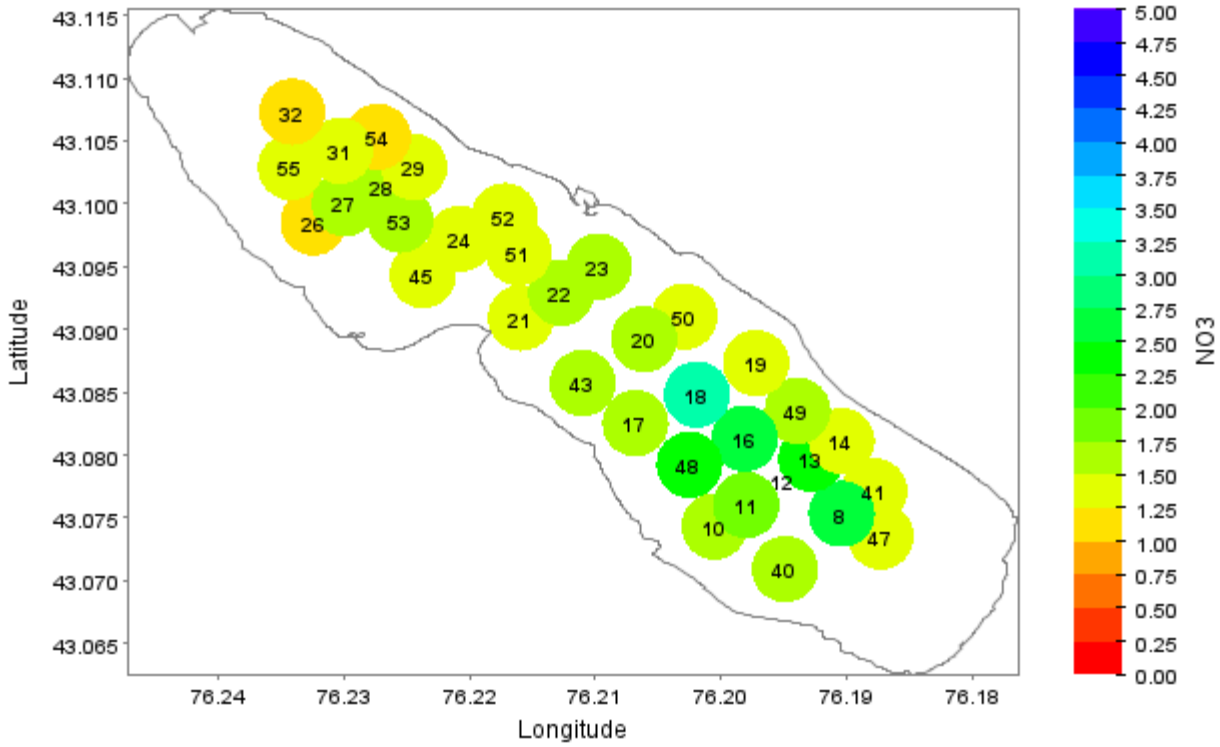
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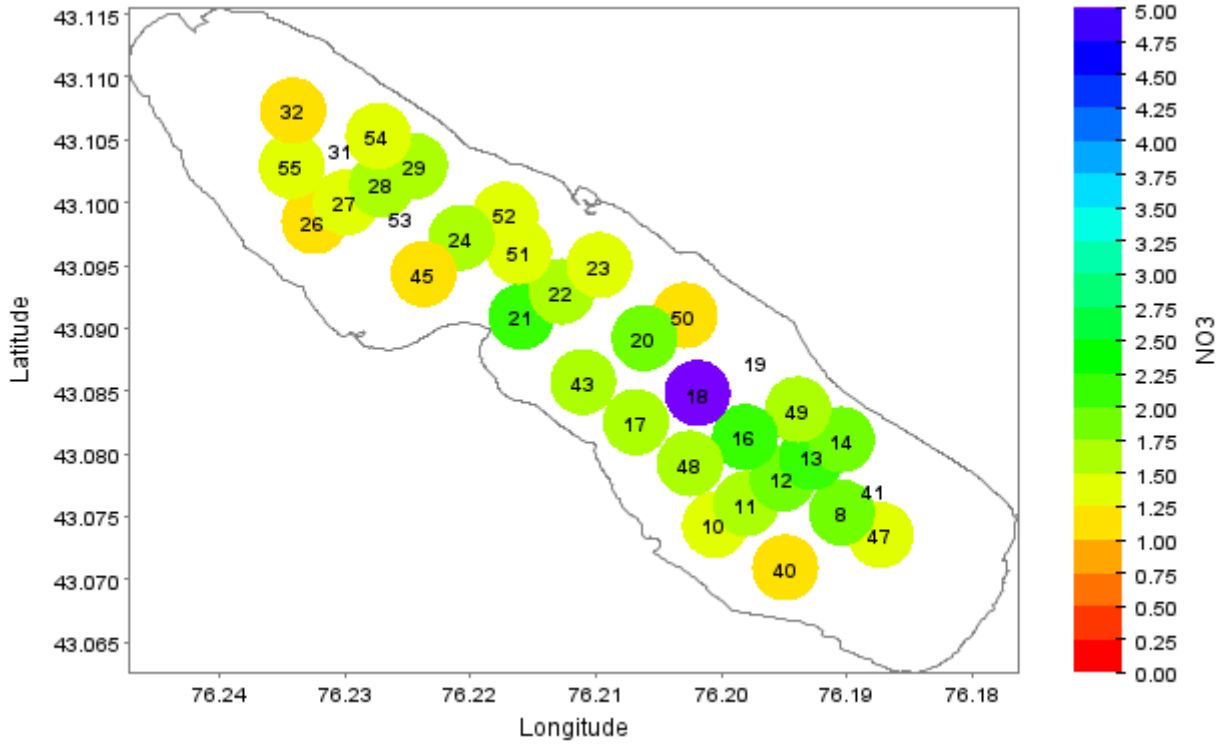
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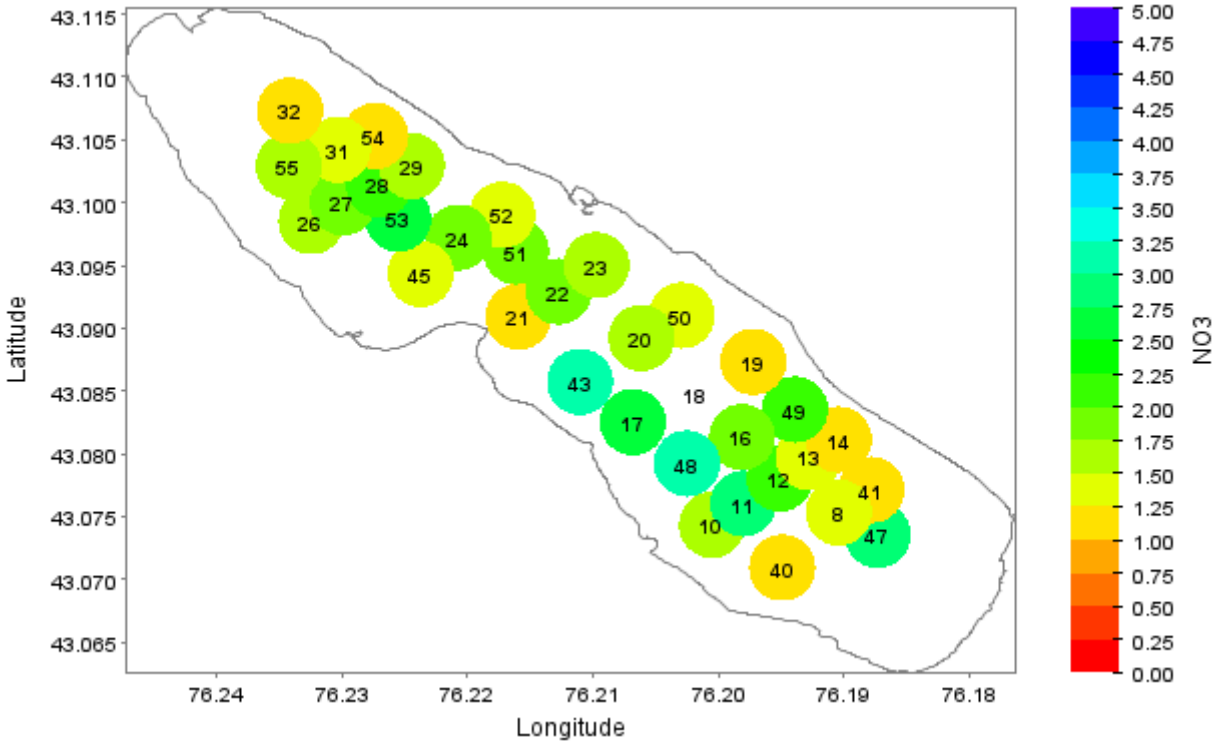
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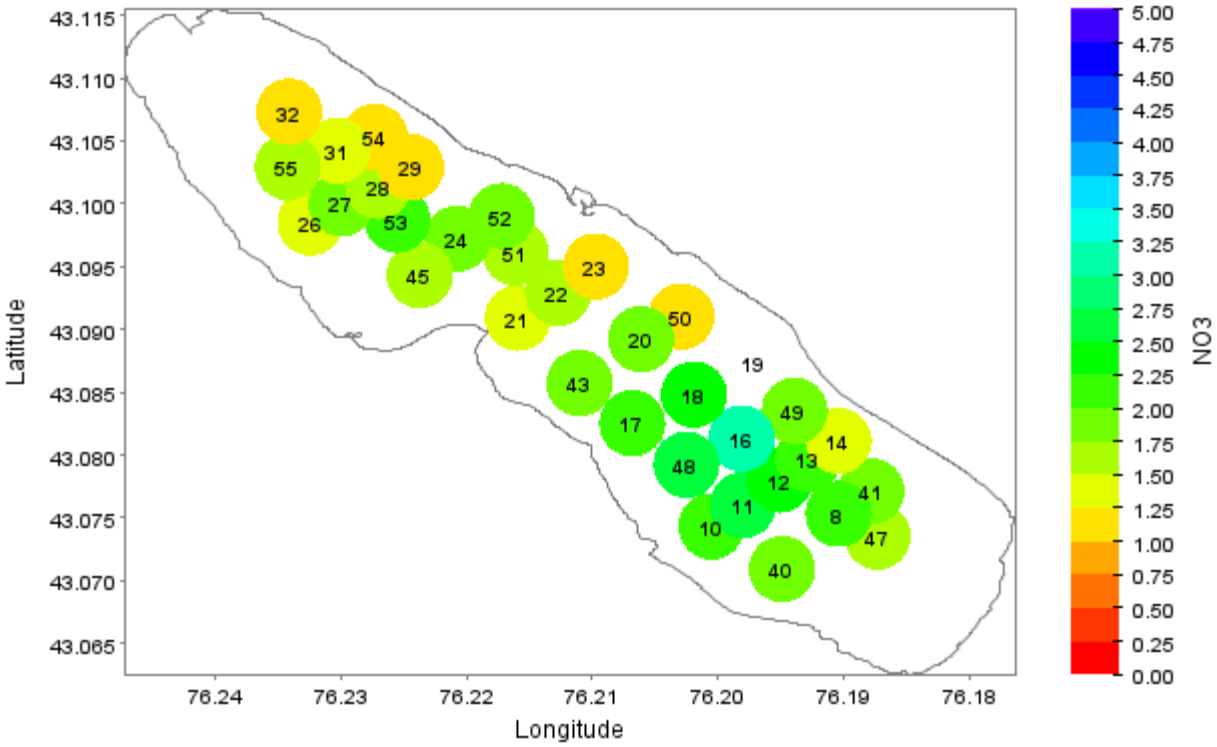
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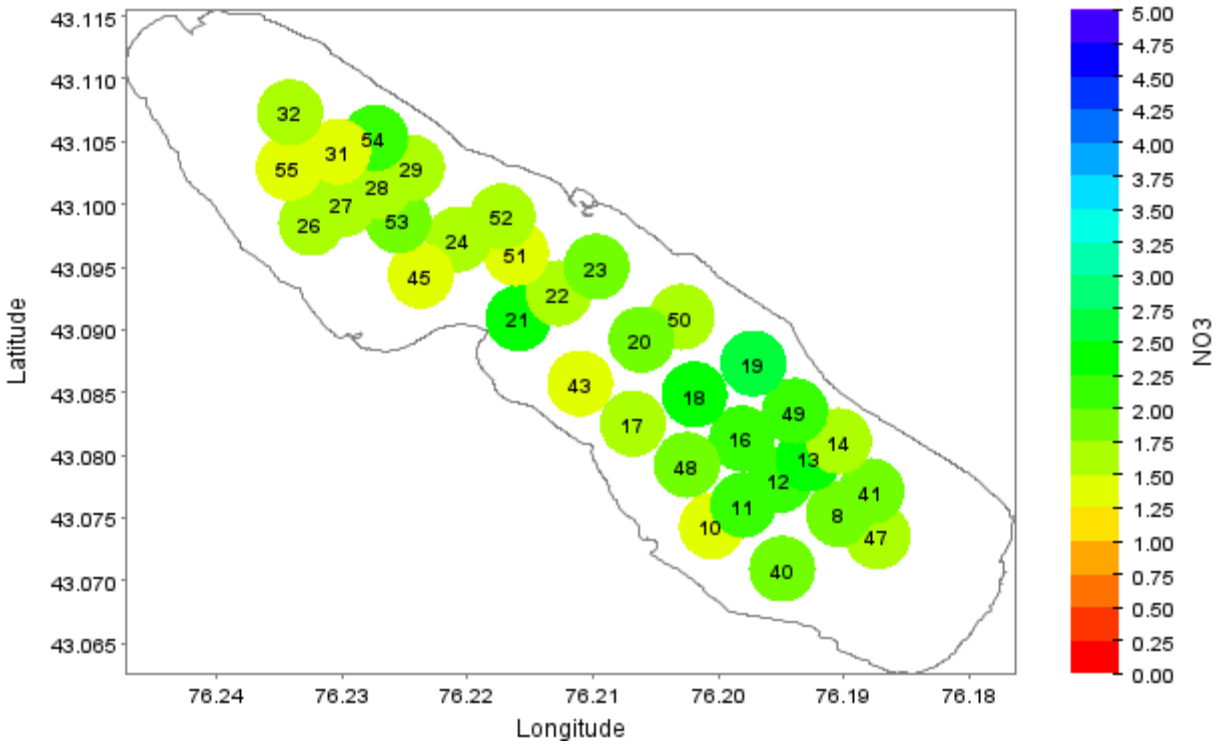
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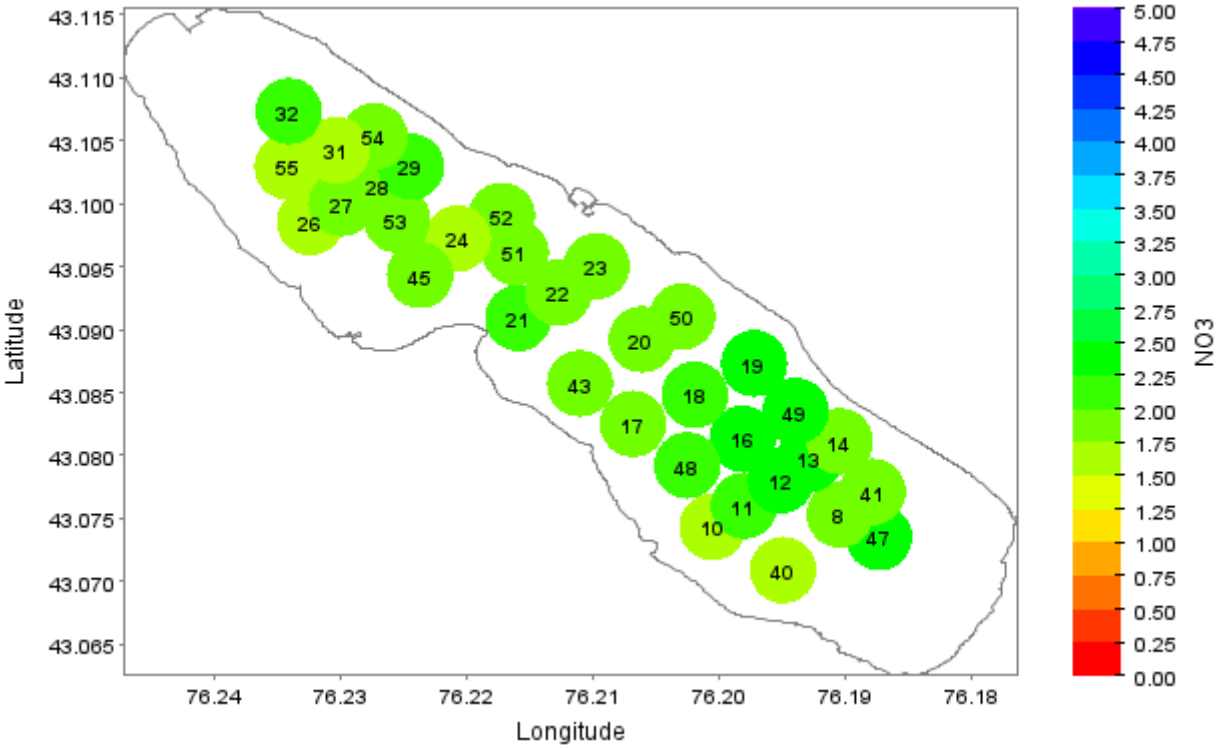
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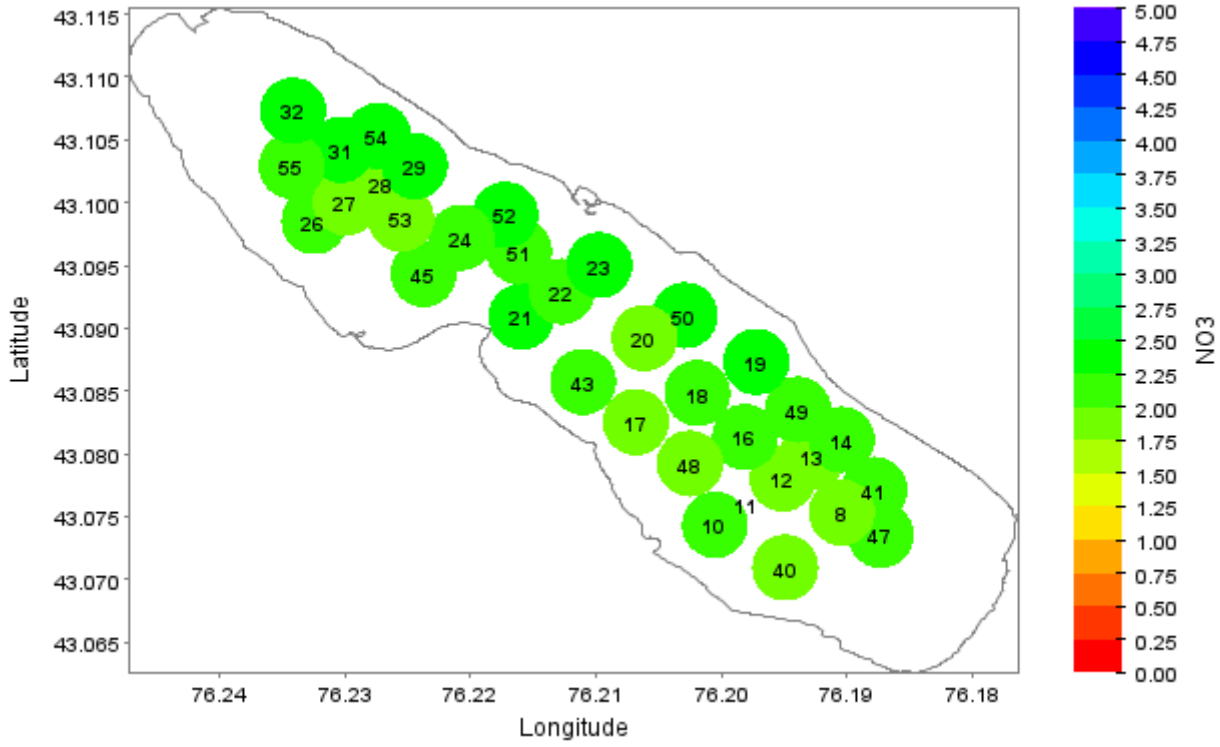
October 3, 2022



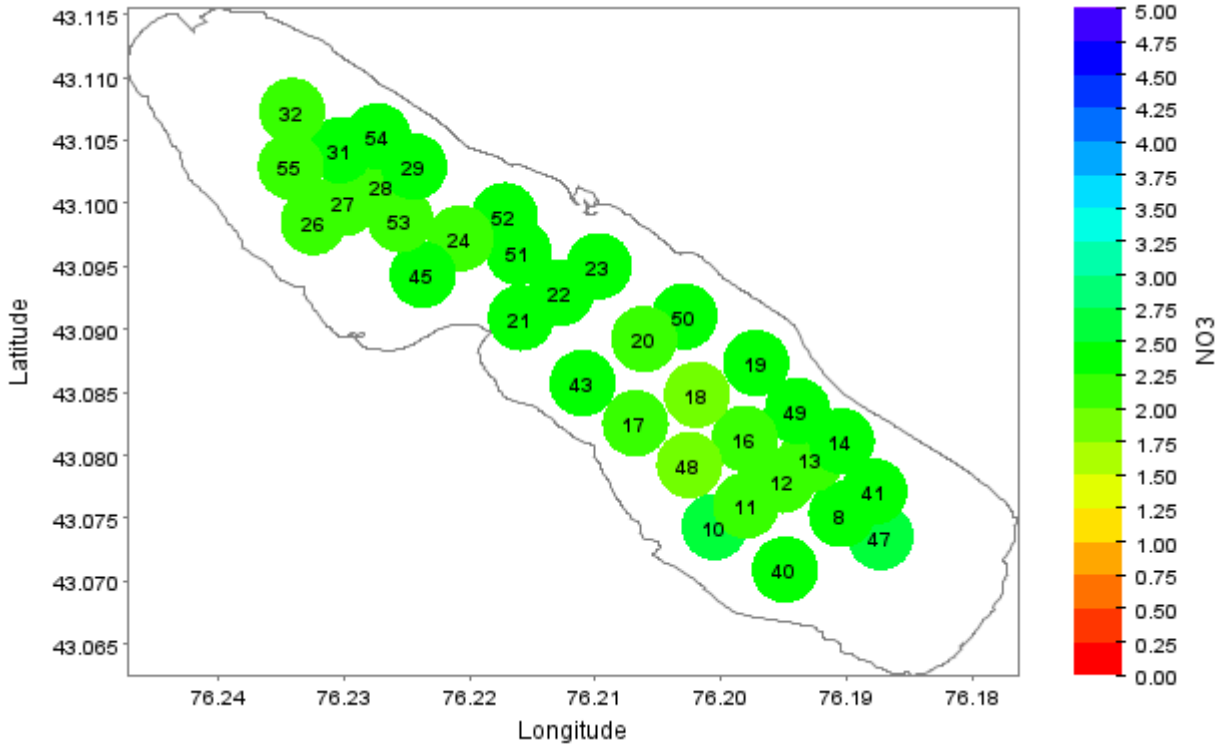
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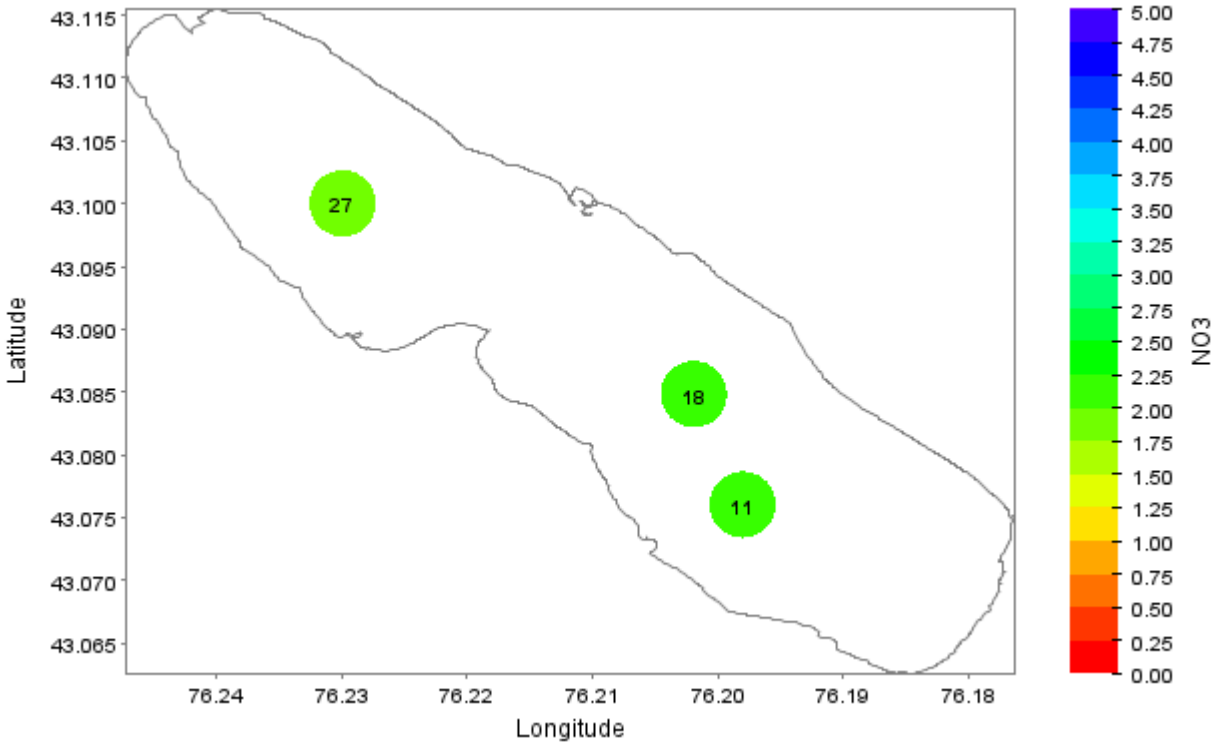
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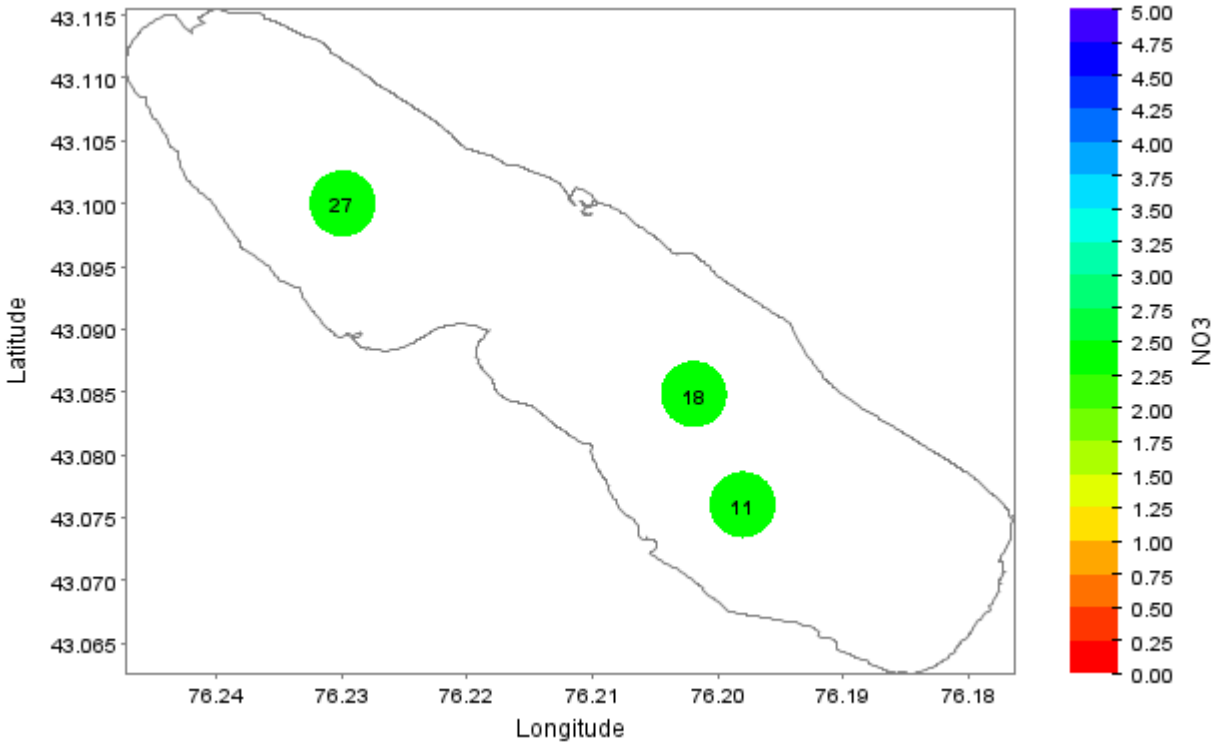
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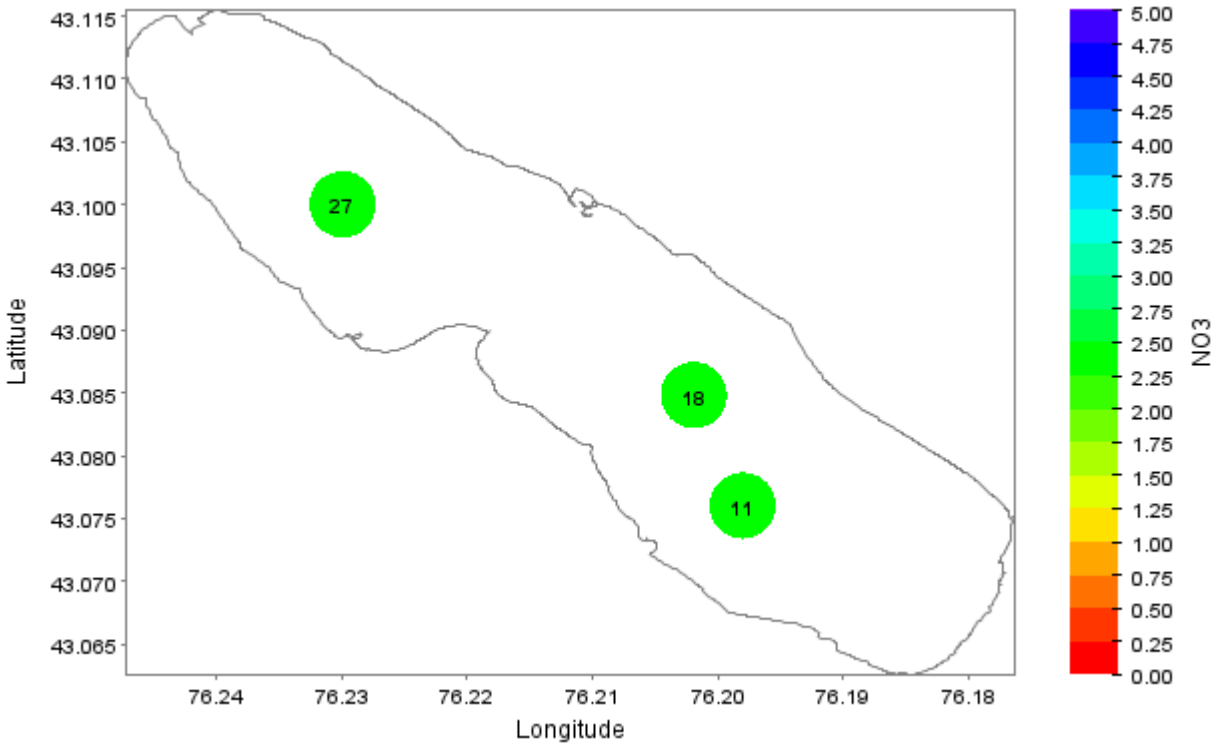
October 31, 2022



November 9, 2022



November 15, 2022



APPENDIX 5D - DATA USABILITY SUMMARY REPORT: ONONDAGA LAKE 2022 SURFACE WATER MONITORING ASSOCIATED WITH NITRATE ADDITION

APPENDIX 5D

DATA USABILITY SUMMARY REPORT

ONONDAGA LAKE 2022 SURFACE WATER MONITORING ASSOCIATED WITH NITRATE ADDITION ONONDAGA COUNTY, NEW YORK

Prepared For:

Honeywell

301 Plainfield Road, Suite 330
Syracuse, New York 13212

Prepared By:

PARSONS

301 Plainfield Road, Suite 350
Syracuse, New York 13212

JUNE 2023

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5D1.3.3 Other Surface Water Analyses 5D1-2
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LIST OF ATTACHMENTS

ATTACHMENT A – VALIDATED LABORATORY DATA

SECTION 5D1 DATA USABILITY SUMMARY

Surface water samples were collected as part of the 2022 nitrate addition sampling in the hypolimnion efforts for Onondaga Lake from May 24, 2022 through November 15, 2022. Analytical results from these samples were validated and reviewed by Parsons for usability with respect to the following requirements:

- Operations and Monitoring Plan for Adding Nitrate Full Scale to the Hypolimnion of Onondaga Lake (Parsons and UFI);
- Quality Assurance Project Plan (QAPP) for Onondaga Lake Construction and Post-Construction Media Monitoring (Surface Water, Biota and Sediment) (Parsons. Anchor QEA and Upstate Freshwater Institute [UFI]); and
- USEPA Region II Standard Operating Procedures (SOPs) for inorganic data review (see Section 5D2 for citations).

Upstate Freshwater Institute (UFI) in Syracuse, New York collected all the samples reported herein.

The analytical laboratories for this project were Eurofins – Frontier and UFI. These laboratories are certified by the State of New York to conduct laboratory analyses for this project through the National Environmental Laboratory Accreditation Conference (NELAC) and the New State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP).

5D1.1 Laboratory Data Packages

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 8-78 days for the samples.

The data packages received from the laboratories were paginated, complete, and overall were of good quality. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report which is summarized by sample media in Section 5D2.

5D1.2 Sampling and Chain-of-Custody

The samples were collected, shipped under a chain-of-custody (COC) record, and received at the laboratories within one to two days of sampling. All samples were received intact and in good condition at the laboratories.

5D1.3 Laboratory Analytical Methods

The surface water samples were collected from the site and analyzed for total and/or dissolved low level mercury, methyl mercury, nitrite, nitrate-nitrite, reactive phosphate, and/or ammonia. Summaries of deviations from the Work Plan, QAPP, or USEPA Region II SOPs concerning these laboratory analyses are presented in Subsections 5D1.3.1 through 5D1.3.3. The data qualifications resulting from the data validation review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) are discussed for each analytical method by media in Section 5D2. The laboratory data were reviewed and may be qualified with the following validation flags:

"U" - not detected at the value given

"UJ" - estimated and not detected at the value given

"J" - estimated at the value given
"J+" - estimated biased high at the value given
"J-" - estimated biased low at the value given
"N" - presumptive evidence at the value given
"R" - unusable value

The validated laboratory data were tabulated and are presented in Attachment A.

5D1.3.1 Low Level Mercury Analysis

Surface water sample results reported herein were analyzed by Eurofins for low level mercury using the USEPA 1631E analytical method. Certain reported results for the low level mercury samples were qualified as not detected based upon blank contamination. The reported low level mercury analytical results were considered 100% complete (i.e., usable) for the data presented by Eurofins. PARCCS requirements were met.

5D1.3.2 Methyl Mercury Analysis

Surface water sample results reported herein were analyzed by Eurofins for methyl mercury using the USEPA 1630 analytical method. Certain reported results for the methyl mercury samples were qualified as estimated based upon matrix spike recoveries and field duplicate precision; and qualified as not detected based upon blank contamination. The reported methyl mercury analytical results were considered 100% complete (i.e., usable) for the data presented by Eurofins. PARCCS requirements were met.

5D1.3.3 Other Surface Water Analyses

Surface water sample results for other parameters reported herein were analyzed by UFI for nitrite, nitrate-nitrite, reactive phosphate, and/or ammonia using the SM4500 analytical method. Certain reported results for these parameters were qualified as estimated based upon instrument calibrations and field duplicate precision; and qualified as not detected based upon blank contamination. The reported analytical results for these parameters were considered 100% complete (i.e., usable) for the data presented by UFI. PARCCS requirements were met.

SECTION 5D2 DATA VALIDATION REPORT

5D2.1 Surface Water Samples

Data review has been completed for data packages generated by Eurofins and UFI containing surface water sample results collected from the site. The specific samples contained in these data packages, the analyses performed, and the validated laboratory data were tabulated and are presented in Attachment A. All of these samples were shipped under a COC record and received intact by the analytical laboratory.

Data validation was performed for all samples in accordance with the project work plan and QAPP as well as the USEPA Region II SOP HW-2c, Revision 15 "Mercury and Cyanide Data Validation". This data validation and usability report is presented by analysis type.

5D2.1.1 Total and Dissolved Low Level Mercury

The following items were reviewed for compliancy in the low level mercury analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration, laboratory preparation blank, and field/equipment blank contamination
- Matrix spike / matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of blank contamination as discussed below.

Blank Contamination

The QC equipment blanks associated with samples collected on 5/24/22, 8/16/22, and 11/15/22 contained total mercury below the reporting limit at concentrations of 0.21, 0.23, and 0.088 ng/L, respectively; the QC field blanks associated with samples collected on 5/24/22, 6/13/22, 7/26/22, 8/9/22, 8/23/22, 8/30/22, 9/7/22, 9/13/22, 10/11/22, and 10/25/22 contained total mercury below the reporting limit at concentrations of 0.18, 0.13, 0.15, 0.28, 0.11, 0.33, 0.10, 0.43, 0.34, and 0.11 ng/L, respectively; laboratory preparation blanks associated with samples collected on 8/9/22, 8/16/22, 8/30/22, 9/7/22, 9/13/22, and 9/27/22 contained total mercury below the reporting limit at concentrations ranging 0.0791-0.246 ng/L; laboratory initial calibration blanks associated with project samples contained total mercury at concentrations ranging 0.0797-1.08 ng/L; laboratory continuing calibration blanks associated with project samples contained total mercury below the reporting limit at concentrations ranging 0.0876-0.223 ng/L; and laboratory filtration blanks associated with dissolved mercury samples collected on 5/24/22, 6/13/22, 8/23/22, and 9/7/22 contained dissolved mercury at concentrations of 0.64, 0.224, 0.351, and 0.214 ng/L, respectively. Therefore, associated mercury results less than validation action concentrations were considered not detected and qualified "U" for the affected samples.

Usability

All total and dissolved mercury sample results were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The total and dissolved low level mercury data presented by Eurofins were 100% complete (i.e., usable). The validated low level mercury laboratory data are tabulated and presented in Attachment A.

5D2.1.2 Methyl Mercury

The following items were reviewed for compliancy in the methyl mercury analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Initial and continuing calibration verifications
- Initial and continuing calibration, laboratory preparation blank, and field/equipment blank contamination
- Matrix spike / matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of blank contamination, matrix spike recoveries, LCS recoveries, and field duplicate precision as discussed below.

Blank Contamination

The laboratory initial calibration blanks associated with project samples contained methyl mercury below the reporting limit at a concentration ranging 0.0274-0.0506 ng/L; laboratory continuing calibration blank associated with samples collected 8/9/22 contained methyl mercury below the reporting limit at concentrations ranging 0.0268-0.0356 ng/L; and laboratory preparation blanks associated with samples collected on 6/13/22, 6/28/22, 7/5/22, 7/12/22, 7/26/22, 8/2/22, 8/9/22, 8/23/22, 9/13/22, 9/20/22, 9/27/22, 10/4/22, 10/11/22, 10/18/22, and 10/31/22 contained methyl mercury below the reporting limit at concentrations of 0.0292, 0.0325, 0.0328, 0.0375, 0.0436, 0.0436, 0.0278, 0.0603, 0.0463, 0.0463, 0.0434, 0.0434, 0.0298, 0.0466, and 0.0619 ng/L. Therefore, methyl mercury results less than validation action concentrations were considered not detected and qualified “U” for the affected samples.

Matrix Spike Recoveries

All matrix spike recoveries were considered acceptable and within the 65-135%R QC limit with the exception of the high matrix spike recoveries for methyl mercury associated with samples OL-3969-01 (137%R) and OL-3973-05 (267%R). Therefore, methyl mercury results were considered estimated and qualified “J” for the affected samples.

LCS Recoveries

All LCS recoveries were considered acceptable and within the 65-135%R QC limit with the exception of the high LCS recovery for methyl mercury (136%R) associated with sample OL-3965-06. Validation qualification was not required for the affected sample.

Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the precision for methyl mercury associated with the parent samples/field duplicate samples OL-3911-01/-02 (65%RPD), OL-3919-01/-02 (55%RPD), and OL-3929-01/-02 (0.09 ng/L and nondetect). Therefore, the methyl mercury results were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the affected parent sample and field duplicate.

Usability

All methyl mercury sample results were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The methyl mercury data presented by Eurofins were 100% complete (i.e., usable). The validated methyl mercury laboratory data are tabulated and presented in Attachment A.

5D2.1.3 Nitrite, Nitrate-Nitrite, Reactive Phosphate, and Ammonia

All custody documentation, holding times, matrix spike recoveries, laboratory duplicate precision, laboratory control sample recoveries, laboratory method blank contamination, QC field blank contamination, initial and continuing calibration verifications, field duplicate precision, and quantitation limits were reviewed for compliance. Validation qualification of the sample results for these parameters was not required with the exception of the following:

- Ammonia results for sample OL-3902-01 and its field duplicate OL-3902-02 were considered estimated and qualified "J" based upon poor field duplicate precision (73.3%RPD).
- Ammonia results for sample OL-3923-01 and its field duplicate OL-3923-02 were considered estimated and qualified "J" based upon poor field duplicate precision (48%RPD).
- Ammonia results for sample OL-3945-01 and its field duplicate OL-3945-02 were considered estimated and qualified "J" based upon poor field duplicate precision (58%RPD).
- Ammonia results for sample OL-3950-01 and its field duplicate OL-3950-02 were considered estimated and qualified "J" based upon poor field duplicate precision (47%RPD).
- Ammonia results for sample OL-3954-01 and its field duplicate OL-3954-02 were considered estimated and qualified "J" based upon poor field duplicate precision (32%RPD).
- Ammonia results for sample OL-3962-01 and its field duplicate OL-3962-02 were considered estimated and qualified "J" based upon poor field duplicate precision (50%RPD).
- The nitrite results for samples collected on 7/5/22 were considered estimated, possibly biased low, with positive results qualified "J-" and nondetected results qualified "UJ" based upon a low continuing calibration verification recovery (80%R; QC limit 90-110%R).
- Ammonia results for samples collected on 6/28/22, 7/5/22, 7/12/22, 7/19/22, 7/26/22, 8/2/22, 8/9/22, 8/16/22, 8/23/22, 9/7/22, and 9/13/22 that were less than validation action concentrations were considered not detected and qualified "U" based upon field blank contamination (22.1, 16.6, 35.3, 83.7, 100.8, 59.4, 101.4, 28.7, 75.5, 12.8, and 119.5 µg/L, respectively).

- The nitrite and nitrate-nitrite results for samples collected on 7/5/22 that were less than validation action concentrations were considered not detected and qualified "U" based upon field blank contamination (3.8 and 16.5 µg/L, respectively).
- The orthophosphate results for samples collected on 8/16/22 and 8/23/22 that were less than validation action concentrations were considered not detected and qualified "U" based upon field blank contamination (1.6 and 0.6 µg/L, respectively).

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The data for these parameters presented by UFI were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

ATTACHMENT A – VALIDATED LABORATORY DATA

Onondaga Lake
2022 Nitrate Monitoring - Surface Water

							Parameter	Mercury		Mercury		Methyl Mercury		Nitrogen, Nitrite		Nitrogen, Ammonia (As N)		Nitrogen, Nitrate-Nitrite		Reactive Phosphorous	
							Method	E1631		E1631		E1630		SM4500NO3-F		SM4500NH3-H		SM4500NO3-F		SM4500P-E	
							Fraction	T		D		T		T		T		T		D	
							Units	ug/l		ug/l		ug/l		mg/L		mg/L		mg/L		mg/L	
Location ID	**Field Sample ID**	**Depth (ft)**	**Sampled**	**SDG**	**Matrix**	**Purpose**	**Sample Type**														
DEEP_S	OL-3902-01	6.6 - 6.6	05/24/2022	UFI CHM 2022-042	Water	REG	SW							0.0371		0.0645	J	2.665			
DEEP_S	OL-3902-02	6.6 - 6.6	05/24/2022	UFI CHM 2022-042	Water	FD	SW							0.039		0.0299	J	2.678			
DEEP_S	OL-3902-03	39.6 - 39.6	05/24/2022	UFI CHM 2022-042	Water	REG	SW							0.0337		0.097		2.315			
DEEP_S	OL-3902-04	59.4 - 59.4	05/24/2022	UFI CHM 2022-042	Water	REG	SW							0.0349		0.1314		2.17			
QC	OL-3902-05		05/24/2022	UFI CHM 2022-042	Water	FB	WQ							0.006	U	0.0217	J	0.03	U		
DEEP_S	OL-3905-01	6.6 - 6.6	05/24/2022	580-114154-1	Water	REG	SW	0.00087		0.0005	U	0.000073									
DEEP_S	OL-3905-02	6.6 - 6.6	05/24/2022	580-114154-1	Water	FD	SW	0.00088		0.0005	U	0.000060									
DEEP_S	OL-3905-03	39.6 - 39.6	05/24/2022	580-114154-1	Water	REG	SW	0.00062				0.000027	J								
DEEP_S	OL-3905-04	59.4 - 59.4	05/24/2022	580-114154-1	Water	REG	SW	0.00063				0.000026	U								
QC	OL-3905-05		05/24/2022	580-114154-1	Water	FB	WQ	0.00018	J			0.000026	U								
QC	OL-3905-06		05/24/2022	580-114154-1	Water	EB	WQ	0.00021	J			0.000026	U								
DEEP_S	OL-3908-01	6.6 - 6.6	06/13/2022	UFI CHM 2022-053	Water	REG	SW							0.0307		0.0355	J	2.4866			
DEEP_S	OL-3908-02	6.6 - 6.6	06/13/2022	UFI CHM 2022-053	Water	FD	SW							0.031		0.0411		2.5152			
DEEP_S	OL-3908-03	39.6 - 39.6	06/13/2022	UFI CHM 2022-053	Water	REG	SW							0.0352		0.1537		2.161			
DEEP_S	OL-3908-04	59.4 - 59.4	06/13/2022	UFI CHM 2022-053	Water	REG	SW							0.0403		0.2223		1.9756			
QC	OL-3908-05		06/13/2022	UFI CHM 2022-053	Water	FB	WQ							0.006	U	0.0298	J	0.03	U		
DEEP_S	OL-3911-01	6.6 - 6.6	06/13/2022	580-114806-1	Water	REG	SW	0.00080		0.00044	J	0.000032	J								
DEEP_S	OL-3911-02	6.6 - 6.6	06/13/2022	580-114806-1	Water	FD	SW	0.00087		0.00037	J	0.000063	J								
DEEP_S	OL-3911-03	39.6 - 39.6	06/13/2022	580-114806-1	Water	REG	SW	0.00074				0.000026	U								
DEEP_S	OL-3911-04	59.4 - 59.4	06/13/2022	580-114806-1	Water	REG	SW	0.0041				0.000026	U								
QC	OL-3911-05		06/13/2022	580-114806-1	Water	FB	WQ	0.00013	J			0.000026	U								
DEEP_S	OL-3913-01	6.6 - 6.6	06/28/2022	UFI CHM 2022-069	Water	REG	SW							0.032	J-	0.0257	J	2.329			
DEEP_S	OL-3913-02	6.6 - 6.6	06/28/2022	UFI CHM 2022-069	Water	FD	SW							0.0348	J-	0.03	U	2.292			
DEEP_S	OL-3913-03	39.6 - 39.6	06/28/2022	UFI CHM 2022-069	Water	REG	SW							0.0915	J-	0.0722		2.144			
DEEP_S	OL-3913-04	59.4 - 59.4	06/28/2022	UFI CHM 2022-069	Water	REG	SW							0.0496	J-	0.054		1.947			
QC	OL-3913-05		06/28/2022	UFI CHM 2022-069	Water	FB	WQ							0.006	UJ	0.0221	J	0.03	U		
DEEP_S	OL-3915-01	6.6 - 6.6	06/28/2022	580-115389-1	Water	REG	SW	0.00063		0.00025	J	0.00005	U								
DEEP_S	OL-3915-02	6.6 - 6.6	06/28/2022	580-115389-1	Water	FD	SW	0.00061		0.00037	J	0.00005	U								
DEEP_S	OL-3915-03	39.6 - 39.6	06/28/2022	580-115389-1	Water	REG	SW	0.00051				0.000026	U								
DEEP_S	OL-3915-04	59.4 - 59.4	06/28/2022	580-115389-1	Water	REG	SW	0.00089				0.000026	U								
QC	OL-3915-05		06/28/2022	580-115389-1	Water	FB	WQ	0.000079	U			0.000026	U								
DEEP_S	OL-3916-01	6.6 - 6.6	07/05/2022	UFI CHM 2022-069	Water	REG	SW							0.0335		0.0291	J	2.371			
DEEP_S	OL-3916-02	6.6 - 6.6	07/05/2022	UFI CHM 2022-069	Water	FD	SW							0.034		0.0344		2.401			
DEEP_S	OL-3916-03	39.6 - 39.6	07/05/2022	UFI CHM 2022-069	Water	REG	SW							0.0077		0.03	U	2.062			
DEEP_S	OL-3916-04	46.2 - 46.2	07/05/2022	UFI CHM 2022-069	Water	REG	SW													0.0012	J
DEEP_S	OL-3916-05	52.8 - 52.8	07/05/2022	UFI CHM 2022-069	Water	REG	SW							0.0071		0.03	U	1.949		0.0012	J
DEEP_S	OL-3916-06	59.4 - 59.4	07/05/2022	UFI CHM 2022-069	Water	REG	SW							0.034		0.1112		1.622		0.0012	J
DEEP_S	OL-3916-07	59.4 - 59.4	07/05/2022	UFI CHM 2022-069	Water	FD	SW													0.0019	
QC	OL-3916-08		07/05/2022	UFI CHM 2022-069	Water	FB	WQ							0.0038	J	0.0166	J	0.0165	J	0.0018	U
DEEP_S	OL-3919-01	6.6 - 6.6	07/05/2022	580-115573-1	Water	REG	SW	0.00055				0.000076	J								
DEEP_S	OL-3919-02	6.6 - 6.6	07/05/2022	580-115573-1	Water	FD	SW	0.00070				0.000043	J								
DEEP_S	OL-3919-03	39.6 - 39.6	07/05/2022	580-115573-1	Water	REG	SW	0.00057				0.000026	U								
DEEP_S	OL-3919-04	52.8 - 52.8	07/05/2022	580-115573-1	Water	REG	SW	0.00063				0.000026	U								
DEEP_S	OL-3919-05	59.4 - 59.4	07/05/2022	580-115573-1	Water	REG	SW	0.00085				0.000026	U								
QC	OL-3919-06		07/05/2022	580-115573-1	Water	FB	WQ	0.000079	U			0.000026	U								
DEEP_S	OL-3920-01	6.6 - 6.6	07/12/2022	UFI CHM 2022-082	Water	REG	SW							0.039377		0.033135	U	2.33919			
DEEP_S	OL-3920-02	6.6 - 6.6	07/12/2022	UFI CHM 2022-082	Water	FD	SW							0.039739		0.03687	J	2.33336			
DEEP_S	OL-3920-03	39.6 - 39.6	07/12/2022	UFI CHM 2022-082	Water	REG	SW							0.007118		0.042985		2.12056			
DEEP_S	OL-3920-04	52.8 - 52.8	07/12/2022	UFI CHM 2022-082	Water	REG	SW							0.012426		0.1189		1.82042			
DEEP_S	OL-3920-05	59.4 - 59.4	07/12/2022	UFI CHM 2022-082	Water	REG	SW							0.011106		0.258741		1.48697			
QC	OL-3920-06		07/12/2022	UFI CHM 2022-082	Water	FB	WQ							0.006	U	0.035252	J	0.03	U		
DEEP_S	OL-3922-01	6.6 - 6.6	07/12/2022	580-115855-1	Water	REG	SW	0.00044	J	0.00042	J	0.000026	U								
DEEP_S	OL-3922-02	6.6 - 6.6	07/12/2022	580-115855-1	Water	FD	SW	0.00057		0.00021	J	0.000050									
DEEP_S	OL-3922-03	39.6 - 39.6	07/12/2022	580-115855-1	Water	REG	SW	0.00036	J			0.00005	U								

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								Parameter	Mercury		Mercury		Methyl Mercury		Nitrogen, Nitrite		Nitrogen, Ammonia (As N)		Nitrogen, Nitrate-Nitrite		Reactive Phosphorous	
								Method	E1631		E1631		E1630		SM4500NO3-F		SM4500NH3-H		SM4500NO3-F		SM4500P-E	
								Fraction	T		D		T		T		T		T		D	
								Units	ug/l		ug/l		ug/l		mg/L		mg/L		mg/L		mg/L	
Location ID	Field Sample ID	Depth (ft)	Sampled	SDG	Matrix	Purpose	Sample Type															
DEEP_S	OL-3922-04	52.8 - 52.8	07/12/2022	580-115855-1	Water	REG	SW		0.00046	J			0.000026	U								
DEEP_S	OL-3922-05	59.4 - 59.4	07/12/2022	580-115855-1	Water	REG	SW		0.0016				0.000026	U								
QC	OL-3922-06		07/12/2022	580-115855-1	Water	FB	WQ		0.000079	U			0.000026	U								
DEEP_S	OL-3923-01	6.6 - 6.6	07/19/2022	UFI CHM 2022-082	Water	REG	SW								0.040576		0.091368	J	2.44996			
DEEP_S	OL-3923-02	6.6 - 6.6	07/19/2022	UFI CHM 2022-082	Water	FD	SW								0.045613		0.056144	UJ	2.44653			
DEEP_S	OL-3923-03	39.6 - 39.6	07/19/2022	UFI CHM 2022-082	Water	REG	SW								0.061579		0.039284	U	1.96276			
DEEP_S	OL-3923-04	46.2 - 46.2	07/19/2022	UFI CHM 2022-082	Water	REG	SW														0.0007423	J
DEEP_S	OL-3923-05	52.8 - 52.8	07/19/2022	UFI CHM 2022-082	Water	REG	SW								0.012709		0.159591		1.8231		0.0008603	J
DEEP_S	OL-3923-06	59.4 - 59.4	07/19/2022	UFI CHM 2022-082	Water	REG	SW								0.01261		0.363853		1.65824		0.0015688	J
DEEP_S	OL-3923-07	59.4 - 59.4	07/19/2022	UFI CHM 2022-082	Water	FD	SW														0.0011762	J
QC	OL-3923-08		07/19/2022	UFI CHM 2022-082	Water	FB	WQ								0.006	U	0.083722		0.03	U	0.0018	U
DEEP_S	OL-3926-01	6.6 - 6.6	07/19/2022	580-116109-1	Water	REG	SW		0.00052				0.000026	U								
DEEP_S	OL-3926-02	6.6 - 6.6	07/19/2022	580-116109-1	Water	FD	SW		0.00051				0.000026	U								
DEEP_S	OL-3926-03	39.6 - 39.6	07/19/2022	580-116109-1	Water	REG	SW		0.00044	J			0.000026	U								
DEEP_S	OL-3926-04	52.8 - 52.8	07/19/2022	580-116109-1	Water	REG	SW		0.00060				0.000026	U								
DEEP_S	OL-3926-05	59.4 - 59.4	07/19/2022	580-116109-1	Water	REG	SW		0.00088				0.000066									
QC	OL-3926-06		07/19/2022	580-116109-1	Water	FB	WQ		0.000079	U			0.000026	U								
DEEP_S	OL-3927-01	6.6 - 6.6	07/26/2022	UFI CHM 2022-096	Water	REG	SW								0.046766		0.094436	U	2.67957			
DEEP_S	OL-3927-02	6.6 - 6.6	07/26/2022	UFI CHM 2022-096	Water	FD	SW								0.045958		0.079245	U	2.64476			
DEEP_S	OL-3927-03	39.6 - 39.6	07/26/2022	UFI CHM 2022-096	Water	REG	SW								0.126476		0.093273	U	1.93915			
DEEP_S	OL-3927-04	52.8 - 52.8	07/26/2022	UFI CHM 2022-096	Water	REG	SW								0.049879		0.140105		1.67527			
DEEP_S	OL-3927-05	59.4 - 59.4	07/26/2022	UFI CHM 2022-096	Water	REG	SW								0.03065		0.165132		1.72941			
QC	OL-3927-06		07/26/2022	UFI CHM 2022-096	Water	FB	WQ								0.006	U	0.100803		0.03	U		
DEEP_S	OL-3929-01	6.6 - 6.6	07/26/2022	580-116352-1	Water	REG	SW		0.0011		0.00045	J	0.000090	J								
DEEP_S	OL-3929-02	6.6 - 6.6	07/26/2022	580-116352-1	Water	FD	SW		0.00091		0.00050		0.00005	UJ								
DEEP_S	OL-3929-03	39.6 - 39.6	07/26/2022	580-116352-1	Water	REG	SW		0.00071				0.000026	U								
DEEP_S	OL-3929-04	52.8 - 52.8	07/26/2022	580-116352-1	Water	REG	SW		0.00045	J			0.00005	U								
DEEP_S	OL-3929-05	59.4 - 59.4	07/26/2022	580-116352-1	Water	REG	SW		0.00073				0.00005	U								
QC	OL-3929-06		07/26/2022	580-116352-1	Water	FB	WQ		0.00015	J			0.000026	U								
DEEP_S	OL-3931-01	7 - 7	08/02/2022	UFI CHM 2022-096	Water	REG	SW								0.052149		0.066745		2.67147			
DEEP_S	OL-3931-02	7 - 7	08/02/2022	UFI CHM 2022-096	Water	FD	SW								0.052459		0.069844		2.71356			
DEEP_S	OL-3931-03	4 - 4	08/02/2022	UFI CHM 2022-096	Water	REG	SW								0.102594		0.073806		1.97186			
DEEP_S	OL-3931-04	46 - 46	08/02/2022	UFI CHM 2022-096	Water	REG	SW														0.00111	J
DEEP_S	OL-3931-05	53 - 53	08/02/2022	UFI CHM 2022-096	Water	REG	SW								0.031809		0.218358		4.56109		0.0021865	
DEEP_S	OL-3931-06	59 - 59	08/02/2022	UFI CHM 2022-096	Water	REG	SW								0.021423		0.350274		2.05868		0.0033929	
DEEP_S	OL-3931-07	59 - 59	08/02/2022	UFI CHM 2022-096	Water	FD	SW														0.002578	
QC	OL-3931-08		08/02/2022	UFI CHM 2022-096	Water	FB	WQ								0.006	U	0.059414		0.03	U	0.0018	U
DEEP_S	OL-3934-01	6.6 - 6.6	08/02/2022	580-116552-1	Water	REG	SW		0.00089				0.000026	U								
DEEP_S	OL-3934-02	6.6 - 6.6	08/02/2022	580-116552-1	Water	FD	SW		0.00079				0.00005	U								
DEEP_S	OL-3934-03	39.6 - 39.6	08/02/2022	580-116552-1	Water	REG	SW		0.00062				0.000026	U								
DEEP_S	OL-3934-04	52.8 - 52.8	08/02/2022	580-116552-1	Water	REG	SW		0.00057				0.00005	U								
DEEP_S	OL-3934-05	59.4 - 59.4	08/02/2022	580-116552-1	Water	REG	SW		0.00084				0.000054									
QC	OL-3934-06		08/02/2022	580-116552-1	Water	FB	WQ		0.000079	U			0.000026	U								
DEEP_S	OL-3935-01	7 - 7	08/09/2022	UFI CHM 2022-117	Water	REG	SW								0.050508		0.037434	U	3.02065			
DEEP_S	OL-3935-02	7 - 7	08/09/2022	UFI CHM 2022-117	Water	FD	SW								0.05059		0.036492	U	3.03901			
DEEP_S	OL-3935-03	4 - 4	08/09/2022	UFI CHM 2022-117	Water	REG	SW								0.088294		0.08307	U	1.8576			
DEEP_S	OL-3935-04	53 - 53	08/09/2022	UFI CHM 2022-117	Water	REG	SW								0.028832		0.214962		1.72289			
DEEP_S	OL-3935-05	59 - 59	08/09/2022	UFI CHM 2022-117	Water	REG	SW								0.03243		0.488465		2.30978			
QC	OL-3935-06		08/09/2022	UFI CHM 2022-117	Water	FB	WQ								0.006	U	0.101393		0.03	U		
DEEP_S	OL-3937-01	6.6 - 6.6	08/09/2022	580-116807-1	Water	REG	SW		0.00056		0.00033	J	0.00013									
DEEP_S	OL-3937-02	6.6 - 6.6	08/09/2022	580-116807-1	Water	FD	SW		0.00047	J	0.00029	J	0.000090									
DEEP_S	OL-3937-03	39.6 - 39.6	08/09/2022	580-116807-1	Water	REG	SW		0.00054				0.00005	U								
DEEP_S	OL-3937-04	52.8 - 52.8	08/09/2022	580-116807-1	Water	REG	SW		0.00051		0.00025	J	0.000064									
DEEP_S	OL-3937-05	59.4 - 59.4	08/09/2022	580-116807-1	Water	REG	SW		0.00065				0.00012									

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								Parameter	Mercury		Mercury		Methyl Mercury		Nitrogen, Nitrite		Nitrogen, Ammonia (As N)		Nitrogen, Nitrate-Nitrite		Reactive Phosphorous	
								Method	E1631		E1631		E1630		SM4500NO3-F		SM4500NH3-H		SM4500NO3-F		SM4500P-E	
								Fraction	T		D		T		T		T		T		D	
								Units	ug/l		ug/l		ug/l		mg/L		mg/L		mg/L		mg/L	
Location ID	Field Sample ID	Depth (ft)	Sampled	SDG	Matrix	Purpose	Sample Type															
QC	OL-3937-06		08/09/2022	580-116807-1	Water	FB	WQ		0.00028	J			0.000026	U								
DEEP_S	OL-3938-01	6.6 - 6.6	08/16/2022	UFI CHM 2022-117	Water	REG	SW								0.052056		0.03	U	2.763			
DEEP_S	OL-3938-02	6.6 - 6.6	08/16/2022	UFI CHM 2022-117	Water	FD	SW								0.053737		0.03	U	2.728428			
DEEP_S	OL-3938-03	39.6 - 39.6	08/16/2022	UFI CHM 2022-117	Water	REG	SW								0.05507		0.094431		1.496268			
DEEP_S	OL-3938-04	46.2 - 46.2	08/16/2022	UFI CHM 2022-117	Water	REG	SW														0.0018	U
DEEP_S	OL-3938-05	52.8 - 52.8	08/16/2022	UFI CHM 2022-117	Water	REG	SW								0.023702		0.253197		1.540964		0.0031565	J
DEEP_S	OL-3938-06	59.4 - 59.4	08/16/2022	UFI CHM 2022-117	Water	REG	SW								0.048732		0.623745		3.106768		0.004845	
DEEP_S	OL-3938-07	59.4 - 59.4	08/16/2022	UFI CHM 2022-117	Water	FD	SW														0.0048506	
QC	OL-3938-08		08/16/2022	UFI CHM 2022-117	Water	FB	WQ								0.006	U	0.028735	J	0.03	U	0.0015664	J
DEEP_S	OL-3941-01	6.6 - 6.6	08/16/2022	580-117013-1	Water	REG	SW		0.00034	J			0.000028	J								
DEEP_S	OL-3941-02	6.6 - 6.6	08/16/2022	580-117013-1	Water	FD	SW		0.00038	J			0.000041	J								
DEEP_S	OL-3941-03	39.6 - 39.6	08/16/2022	580-117013-1	Water	REG	SW		0.00051				0.000058									
DEEP_S	OL-3941-04	52.8 - 52.8	08/16/2022	580-117013-1	Water	REG	SW		0.00057				0.000082									
DEEP_S	OL-3941-05	59.4 - 59.4	08/16/2022	580-117013-1	Water	REG	SW		0.00082				0.00011									
QC	OL-3941-06		08/16/2022	580-117013-1	Water	FB	WQ		0.000079	U			0.000026	U								
QC	OL-3941-07		08/16/2022	580-117013-1	Water	EB	WQ		0.00023	J			0.000026	U								
DEEP_S	OL-3942-01	6.6 - 6.6	08/23/2022	UFI CHM 2022-131	Water	REG	SW								0.058007		0.062546	U	2.83784			
DEEP_S	OL-3942-02	6.6 - 6.6	08/23/2022	UFI CHM 2022-131	Water	FD	SW								0.057389		0.055474	U	2.84782			
DEEP_S	OL-3942-03	39.6 - 39.6	08/23/2022	UFI CHM 2022-131	Water	REG	SW								0.0305		0.193171		1.44414			
DEEP_S	OL-3942-04	52.8 - 52.8	08/23/2022	UFI CHM 2022-131	Water	REG	SW								0.020775		0.425099		2.54747			
DEEP_S	OL-3942-05	59.4 - 59.4	08/23/2022	UFI CHM 2022-131	Water	REG	SW								0.026848		0.815448		2.66602			
QC	OL-3942-06		08/23/2022	UFI CHM 2022-131	Water	FB	WQ								0.006	U	0.075509		0.03	U		
DEEP_S	OL-3944-01	6.6 - 6.6	08/23/2022	580-117236-1	Water	REG	SW		0.00094		0.00065		0.00005	U								
DEEP_S	OL-3944-02	6.6 - 6.6	08/23/2022	580-117236-1	Water	FD	SW		0.00075		0.00045	J	0.00005	U								
DEEP_S	OL-3944-03	39.6 - 39.6	08/23/2022	580-117236-1	Water	REG	SW		0.00072				0.000066									
DEEP_S	OL-3944-04	52.8 - 52.8	08/23/2022	580-117236-1	Water	REG	SW		0.0010		0.00049	J	0.000086									
DEEP_S	OL-3944-05	59.4 - 59.4	08/23/2022	580-117236-1	Water	REG	SW		0.0012				0.00014									
QC	OL-3944-06		08/23/2022	580-117236-1	Water	FB	WQ		0.00011	J			0.000026	U								
DEEP_S	OL-3945-01	6.6 - 6.6	08/30/2022	UFI CHM 2022-131	Water	REG	SW								0.052931		0.04524	J	2.73204			
DEEP_S	OL-3945-02	6.6 - 6.6	08/30/2022	UFI CHM 2022-131	Water	FD	SW								0.05404		0.025047	J	2.73437			
DEEP_S	OL-3945-03	39.6 - 39.6	08/30/2022	UFI CHM 2022-131	Water	REG	SW								0.0658		0.257466		1.42631			
DEEP_S	OL-3945-04	46.2 - 46.2	08/30/2022	UFI CHM 2022-131	Water	REG	SW														0.0024471	J
DEEP_S	OL-3945-05	52.8 - 52.8	08/30/2022	UFI CHM 2022-131	Water	REG	SW								0.012632		0.620694		1.78021		0.0033215	J
DEEP_S	OL-3945-06	59.4 - 59.4	08/30/2022	UFI CHM 2022-131	Water	REG	SW								0.012934		0.731874		1.81286		0.002862	
DEEP_S	OL-3945-07	59.4 - 59.4	08/30/2022	UFI CHM 2022-131	Water	FD	SW														0.0032429	
QC	OL-3945-08		08/30/2022	UFI CHM 2022-131	Water	FB	WQ								0.006	U	0.03	U	0.03	U	0.0006078	J
DEEP_S	OL-3948-01	6.6 - 6.6	08/30/2022	580-117496-1	Water	REG	SW		0.00042	J			0.000026	U								
DEEP_S	OL-3948-02	6.6 - 6.6	08/30/2022	580-117496-1	Water	FD	SW		0.00055				0.000026	U								
DEEP_S	OL-3948-03	39.6 - 39.6	08/30/2022	580-117496-1	Water	REG	SW		0.00059				0.000083									
DEEP_S	OL-3948-04	52.8 - 52.8	08/30/2022	580-117496-1	Water	REG	SW		0.00066				0.00013									
DEEP_S	OL-3948-05	59.4 - 59.4	08/30/2022	580-117496-1	Water	REG	SW		0.00068				0.00018									
QC	OL-3948-06		08/30/2022	580-117496-1	Water	FB	WQ		0.00033	J			0.000026	U								
DEEP_S	OL-3950-01	6.6 - 6.6	09/07/2022	UFI CHM 2022-145	Water	REG	SW								0.055447		0.066781	J	2.8717			
DEEP_S	OL-3950-02	6.6 - 6.6	09/07/2022	UFI CHM 2022-145	Water	FD	SW								0.055977		0.107398	J	2.88939			
DEEP_S	OL-3950-03	39.6 - 39.6	09/07/2022	UFI CHM 2022-145	Water	REG	SW								0.080548		0.234622		1.31297			
DEEP_S	OL-3950-04	52.8 - 52.8	09/07/2022	UFI CHM 2022-145	Water	REG	SW								0.031929		0.817692		2.01014			
DEEP_S	OL-3950-05	59.4 - 59.4	09/07/2022	UFI CHM 2022-145	Water	REG	SW								0.028862		0.452018		4.02277			
QC	OL-3950-06		09/07/2022	UFI CHM 2022-145	Water	FB	WQ								0.006	U	0.012756	J	0.03	U		
DEEP_S	OL-3953-01	6.6 - 6.6	09/07/2022	580-117659-1	Water	REG	SW		0.00063		0.00026	J	0.000054									
DEEP_S	OL-3953-02	6.6 - 6.6	09/07/2022	580-117659-1	Water	FD	SW		0.00047	J	0.000079	U	0.00005	U								
DEEP_S	OL-3953-03	39.6 - 39.6	09/07/2022	580-117659-1	Water	REG	SW		0.00058				0.00005	U								
DEEP_S	OL-3953-04	52.8 - 52.8	09/07/2022	580-117659-1	Water	REG	SW		0.00073		0.00023	J	0.000086									
DEEP_S	OL-3953-05	59.4 - 59.4	09/07/2022	580-117659-1	Water	REG	SW		0.0052				0.00010									
QC	OL-3953-06		09/07/2022	580-117659-1	Water	FB	WQ		0.00010	J			0.000026	U								

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								Parameter	Mercury		Mercury		Methyl Mercury		Nitrogen, Nitrite		Nitrogen, Ammonia (As N)		Nitrogen, Nitrate-Nitrite		Reactive Phosphorous	
								Method	E1631		E1631		E1630		SM4500NO3-F		SM4500NH3-H		SM4500NO3-F		SM4500P-E	
								Fraction	T		D		T		T		T		T		D	
								Units	ug/l		ug/l		ug/l		mg/L		mg/L		mg/L		mg/L	
Location ID	**Field Sample ID**	**Depth (ft)**	**Sampled**	**SDG**	**Matrix**	**Purpose**	**Sample Type**															
DEEP_S	OL-3954-01	6.6 - 6.6	09/13/2022	UFI CHM 2022-145	Water	REG	SW								0.056509		0.047727	UJ	2.91777			
DEEP_S	OL-3954-02	6.6 - 6.6	09/13/2022	UFI CHM 2022-145	Water	FD	SW								0.057703		0.065972	UJ	2.9068			
DEEP_S	OL-3954-03	39.6 - 39.6	09/13/2022	UFI CHM 2022-145	Water	REG	SW								0.043696		0.298197		1.26211			
DEEP_S	OL-3954-04	46.2 - 46.2	09/13/2022	UFI CHM 2022-145	Water	REG	SW														0.0023604	
DEEP_S	OL-3954-05	52.8 - 52.8	09/13/2022	UFI CHM 2022-145	Water	REG	SW								0.017436		0.554727		1.8666		0.0047095	
DEEP_S	OL-3954-06	59.4 - 59.4	09/13/2022	UFI CHM 2022-145	Water	REG	SW								0.024888		0.708983		2.28181		0.0031653	
DEEP_S	OL-3954-07	59.4 - 59.4	09/13/2022	UFI CHM 2022-145	Water	FD	SW														0.0042991	
QC	OL-3954-08		09/13/2022	UFI CHM 2022-145	Water	FB	WQ								0.006	U	0.119517		0.03	U	0.0018	U
DEEP_S	OL-3957-01	6.6 - 6.6	09/13/2022	580-117874-1	Water	REG	SW		0.0005	U			0.000026	U								
DEEP_S	OL-3957-02	6.6 - 6.6	09/13/2022	580-117874-1	Water	FD	SW		0.00046	J			0.000048	J								
DEEP_S	OL-3957-03	39.6 - 39.6	09/13/2022	580-117874-1	Water	REG	SW		0.00065				0.000052									
DEEP_S	OL-3957-04	52.8 - 52.8	09/13/2022	580-117874-1	Water	REG	SW		0.00082				0.00011									
DEEP_S	OL-3957-05	59.4 - 59.4	09/13/2022	580-117874-1	Water	REG	SW		0.00089				0.00010									
QC	OL-3957-06		09/13/2022	580-117874-1	Water	FB	WQ		0.00043	J			0.000026	U								
DEEP_S	OL-3958-01	6.6 - 6.6	09/24/2022	UFI CHM 2022-151	Water	REG	SW								0.051064		0.029744	J	2.94551			
DEEP_S	OL-3958-02	6.6 - 6.6	09/24/2022	UFI CHM 2022-151	Water	FD	SW								0.052503		0.022022	J	2.92948			
DEEP_S	OL-3958-03	39.6 - 39.6	09/24/2022	UFI CHM 2022-151	Water	REG	SW								0.006192		0.250605		1.35376			
DEEP_S	OL-3958-04	52.8 - 52.8	09/24/2022	UFI CHM 2022-151	Water	REG	SW								0.007464		0.59953		2.72158			
DEEP_S	OL-3958-05	59.4 - 59.4	09/24/2022	UFI CHM 2022-151	Water	REG	SW								0.008359		1.34655		3.14098			
QC	OL-3958-06		09/24/2022	UFI CHM 2022-151	Water	FB	WQ								0.006	U	0.01905	J	0.012259	J		
DEEP_S	OL-3961-01	6.6 - 6.6	09/20/2022	580-118093-1	Water	REG	SW		0.00059		0.00016	J	0.000052									
DEEP_S	OL-3961-02	6.6 - 6.6	09/20/2022	580-118093-1	Water	FD	SW		0.00046	J	0.00039	J	0.000026	U								
DEEP_S	OL-3961-03	39.6 - 39.6	09/20/2022	580-118093-1	Water	REG	SW		0.00052				0.000089									
DEEP_S	OL-3961-04	52.8 - 52.8	09/20/2022	580-118093-1	Water	REG	SW		0.00078		0.00019	J	0.00017									
DEEP_S	OL-3961-05	59.4 - 59.4	09/20/2022	580-118093-1	Water	REG	SW		0.0012				0.000093									
QC	OL-3961-06		09/20/2022	580-118093-1	Water	FB	WQ		0.000079	U			0.000026	U								
DEEP_S	OL-3962-01	6.6 - 6.6	09/27/2022	UFI CHM 2022-151	Water	REG	SW								0.047984		0.082948	J	2.8949			
DEEP_S	OL-3962-02	6.6 - 6.6	09/27/2022	UFI CHM 2022-151	Water	FD	SW								0.04868		0.137735	J	2.87289			
DEEP_S	OL-3962-03	39.6 - 39.6	09/27/2022	UFI CHM 2022-151	Water	REG	SW								0.025982		0.24363		1.91821			
DEEP_S	OL-3962-04	46.2 - 46.2	09/27/2022	UFI CHM 2022-151	Water	REG	SW														0.0016693	J
DEEP_S	OL-3962-05	52.8 - 52.8	09/27/2022	UFI CHM 2022-151	Water	REG	SW								0.012105		0.585125		2.17482		0.0018646	
DEEP_S	OL-3962-06	59.4 - 59.4	09/27/2022	UFI CHM 2022-151	Water	REG	SW								0.009649		0.753662		2.5503		0.0022794	
DEEP_S	OL-3962-07	59.4 - 59.4	09/27/2022	UFI CHM 2022-151	Water	FD	SW														0.002346	
QC	OL-3962-08		09/27/2022	UFI CHM 2022-151	Water	FB	WQ								0.006	U	0.036725		0.03	U	0.000797	J
DEEP_S	OL-3965-01	6.6 - 6.6	09/27/2022	580-118308-1	Water	REG	SW		0.00056				0.000026	U								
DEEP_S	OL-3965-02	6.6 - 6.6	09/27/2022	580-118308-1	Water	FD	SW		0.00045	J			0.000026	U								
DEEP_S	OL-3965-03	39.6 - 39.6	09/27/2022	580-118308-1	Water	REG	SW		0.00049	J			0.00005	U								
DEEP_S	OL-3965-04	52.8 - 52.8	09/27/2022	580-118308-1	Water	REG	SW		0.00083				0.00011									
DEEP_S	OL-3965-05	59.4 - 59.4	09/27/2022	580-118308-1	Water	REG	SW		0.0010				0.00010									
QC	OL-3965-06		09/27/2022	580-118308-1	Water	FB	WQ		0.000079	U			0.000026	U								
DEEP_S	OL-3966-01	6.6 - 6.6	10/04/2022	UFI CHM 2022-164	Water	REG	SW								0.044648		0.068553		2.65311			
DEEP_S	OL-3966-02	6.6 - 6.6	10/04/2022	UFI CHM 2022-164	Water	FD	SW								0.045246		0.082743		2.66198			
DEEP_S	OL-3966-03	39.6 - 39.6	10/04/2022	UFI CHM 2022-164	Water	REG	SW								0.034178		0.39533		1.57922			
DEEP_S	OL-3966-04	46.2 - 46.2	10/04/2022	UFI CHM 2022-164	Water	REG	SW								0.011645		0.888765		2.15539			
DEEP_S	OL-3966-05	52.8 - 52.8	10/04/2022	UFI CHM 2022-164	Water	REG	SW								0.012391		1.181		3.56007			
QC	OL-3966-06	59.4 - 59.4	10/04/2022	UFI CHM 2022-164	Water	FB	WQ								0.006	U	0.042722		0.03	U		
DEEP_S	OL-3969-01	6.6 - 6.6	10/04/2022	580-118574-1	Water	REG	SW		0.00040	J	0.00012	J	0.000044	J								
DEEP_S	OL-3969-02	6.6 - 6.6	10/04/2022	580-118574-1	Water	FD	SW		0.00040	J	0.00020	J	0.000048	J								
DEEP_S	OL-3969-03	39.6 - 39.6	10/04/2022	580-118574-1	Water	REG	SW		0.00058				0.000060									
DEEP_S	OL-3969-04	52.8 - 52.8	10/04/2022	580-118574-1	Water	REG	SW		0.00091		0.00038	J	0.000092									
DEEP_S	OL-3969-05	59.4 - 59.4	10/04/2022	580-118574-1	Water	REG	SW		0.0014				0.000081									
QC	OL-3969-06		10/04/2022	580-118574-1	Water	FB	WQ		0.000079	U			0.000026	U								
DEEP_S	OL-3970-01	6.6 - 6.6	10/11/2022	UFI CHM 2022-171	Water	REG	SW								0.031101		0.092324		2.58966			
DEEP_S	OL-3970-02	6.6 - 6.6	10/11/2022	UFI CHM 2022-171	Water	FD	SW								0.030929		0.100292		2.60277			

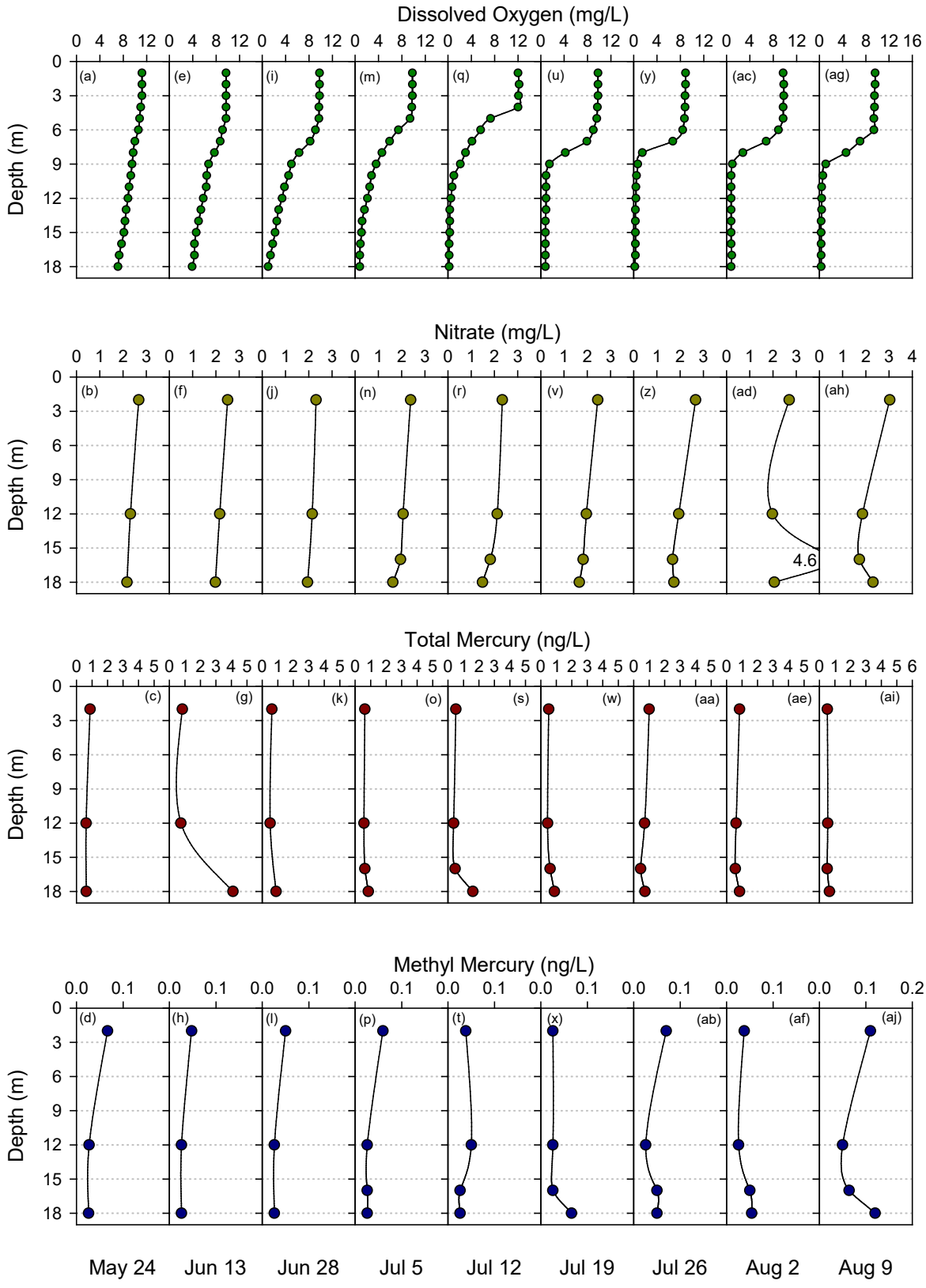
Onondaga Lake
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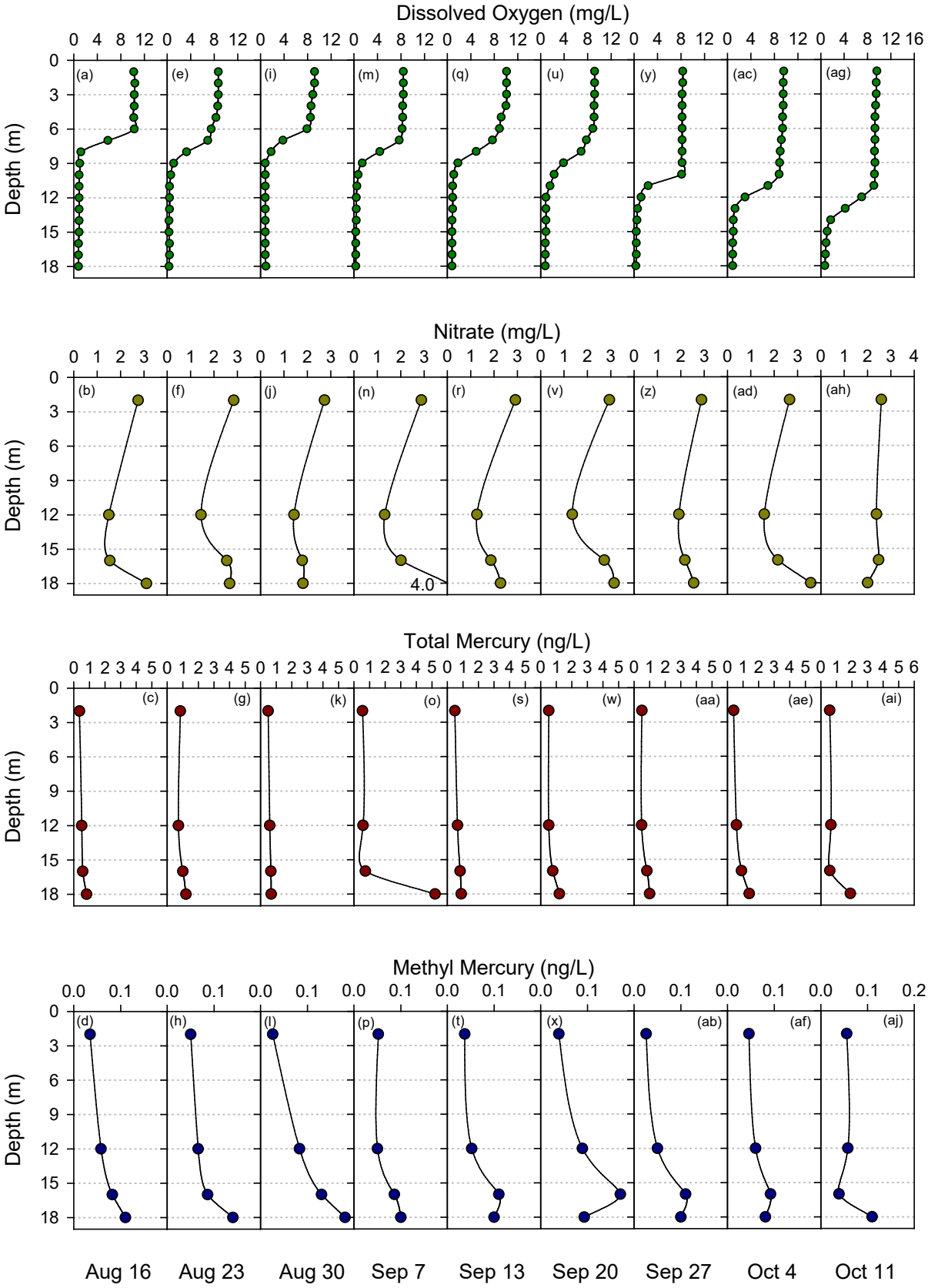
								Mercury		Mercury		Methyl Mercury		Nitrogen, Nitrite		Nitrogen, Ammonia (As N)		Nitrogen, Nitrate-Nitrite		Reactive Phosphorous	
							Parameter	E1631		E1631		E1630		SM4500NO3-F		SM4500NH3-H		SM4500NO3-F		SM4500P-E	
							Method	T		D		T		T		T		T		D	
							Fraction														
							Units	ug/l		ug/l		ug/l		mg/L		mg/L		mg/L		mg/L	
Location ID	Field Sample ID	Depth (ft)	Sampled	SDG	Matrix	Purpose	Sample Type														
DEEP_S	OL-3970-03	39.6 - 39.6	10/11/2022	UFI CHM 2022-171	Water	REG	SW							0.037583		0.22071		2.38598			
DEEP_S	OL-3970-04	46.2 - 46.2	10/11/2022	UFI CHM 2022-171	Water	REG	SW													0.0008286	J
DEEP_S	OL-3970-05	52.8 - 52.8	10/11/2022	UFI CHM 2022-171	Water	REG	SW							0.040146		0.154346		2.4774		0.0009303	J
DEEP_S	OL-3970-06	59.4 - 59.4	10/11/2022	UFI CHM 2022-171	Water	REG	SW							0.016656		0.892925		2.0059		0.0014501	J
DEEP_S	OL-3970-07	59.4 - 59.4	10/11/2022	UFI CHM 2022-171	Water	FD	SW													0.001996	J
QC	OL-3970-08		10/11/2022	UFI CHM 2022-171	Water	FB	WQ							0.006	U	0.050127		0.03	U	0.0018	U
DEEP_S	OL-3973-01	6.6 - 6.6	10/11/2022	580-118740-1	Water	REG	SW	0.00053				0.000054									
DEEP_S	OL-3973-02	6.6 - 6.6	10/11/2022	580-118740-1	Water	FD	SW	0.00061				0.000057									
DEEP_S	OL-3973-03	39.6 - 39.6	10/11/2022	580-118740-1	Water	REG	SW	0.00065				0.000058									
DEEP_S	OL-3973-04	52.8 - 52.8	10/11/2022	580-118740-1	Water	REG	SW	0.00058				0.000039	J								
DEEP_S	OL-3973-05	59.4 - 59.4	10/11/2022	580-118740-1	Water	REG	SW	0.0019				0.00011	J								
QC	OL-3973-06		10/11/2022	580-118740-1	Water	FB	WQ	0.00034	J			0.000026	U								
DEEP_S	OL-3974-01	6.6 - 6.6	10/18/2022	UFI CHM 2022-171	Water	REG	SW							0.042627		0.14116		2.44476			
DEEP_S	OL-3974-02	6.6 - 6.6	10/18/2022	UFI CHM 2022-171	Water	FD	SW							0.043532		0.151955		2.38464			
DEEP_S	OL-3974-03	39.6 - 39.6	10/18/2022	UFI CHM 2022-171	Water	REG	SW							0.041062		0.14907		2.51435			
DEEP_S	OL-3974-04	52.8 - 52.8	10/18/2022	UFI CHM 2022-171	Water	REG	SW							0.055353		0.569235		2.03042			
DEEP_S	OL-3974-05	59.4 - 59.4	10/18/2022	UFI CHM 2022-171	Water	REG	SW							0.037522		0.654479		2.03852			
QC	OL-3974-06		10/18/2022	UFI CHM 2022-171	Water	FB	WQ							0.006	U	0.036955		0.03	U		
DEEP_S	OL-3977-01	6.6 - 6.6	10/18/2022	580-118952-1	Water	REG	SW	0.00060		0.00017	J	0.000026	U								
DEEP_S	OL-3977-02	6.6 - 6.6	10/18/2022	580-118952-1	Water	FD	SW	0.00055		0.00025	J	0.00005	U								
DEEP_S	OL-3977-03	39.6 - 39.6	10/18/2022	580-118952-1	Water	REG	SW	0.00044	J			0.00005	U								
DEEP_S	OL-3977-04	52.8 - 52.8	10/18/2022	580-118952-1	Water	REG	SW	0.00089		0.00020	J	0.00005	U								
DEEP_S	OL-3977-05	59.4 - 59.4	10/18/2022	580-118952-1	Water	REG	SW	0.0025				0.000051									
QC	OL-3977-06		10/18/2022	580-118952-1	Water	FB	WQ	0.000079	U			0.000026	U								
DEEP_S	OL-3978-01	6.6 - 6.6	10/25/2022	UFI CHM 2022-179	Water	REG	SW							0.045016		0.226476		2.84813			
DEEP_S	OL-3978-02	6.6 - 6.6	10/25/2022	UFI CHM 2022-179	Water	FD	SW							0.045688		0.200922		2.8297			
DEEP_S	OL-3978-03	39.6 - 39.6	10/25/2022	UFI CHM 2022-179	Water	REG	SW							0.04475		0.239053		2.47595			
DEEP_S	OL-3978-04	46.2 - 46.2	10/25/2022	UFI CHM 2022-179	Water	REG	SW													0.0016353	J
DEEP_S	OL-3978-05	52.8 - 52.8	10/25/2022	UFI CHM 2022-179	Water	REG	SW							0.049861		0.383576		2.40508		0.0020516	
DEEP_S	OL-3978-06	59.4 - 59.4	10/25/2022	UFI CHM 2022-179	Water	REG	SW							0.05476		0.488889		2.10897		0.0046809	
DEEP_S	OL-3978-07	59.4 - 59.4	10/25/2022	UFI CHM 2022-179	Water	FD	SW													0.0048863	
QC	OL-3978-08		10/25/2022	UFI CHM 2022-179	Water	FB	WQ							0.006	U	0.117676		0.03	U	0.0018	U
DEEP_S	OL-3981-01	6.6 - 6.6	10/25/2022	580-119237-1	Water	REG	SW	0.00081				0.000041	J								
DEEP_S	OL-3981-02	6.6 - 6.6	10/25/2022	580-119237-1	Water	FD	SW	0.00084				0.000027	J								
DEEP_S	OL-3981-03	39.6 - 39.6	10/25/2022	580-119237-1	Water	REG	SW	0.00075				0.000031	J								
DEEP_S	OL-3981-04	52.8 - 52.8	10/25/2022	580-119237-1	Water	REG	SW	0.00058				0.000036	J								
DEEP_S	OL-3981-05	59.4 - 59.4	10/25/2022	580-119237-1	Water	REG	SW	0.0015				0.000026	U								
QC	OL-3981-06		10/25/2022	580-119237-1	Water	FB	WQ	0.00011	J			0.000026	U								
DEEP_S	OL-3982-01	6.6 - 6.6	10/31/2022	UFI CHM 2022-189	Water	REG	SW							0.0401		0.1848		2.525			
DEEP_S	OL-3982-02	6.6 - 6.6	10/31/2022	UFI CHM 2022-189	Water	FD	SW							0.0400		0.2164		2.523			
DEEP_S	OL-3982-03	39.6 - 39.6	10/31/2022	UFI CHM 2022-189	Water	REG	SW							0.0567		0.4402		2.015			
DEEP_S	OL-3982-04	59.4 - 59.4	10/31/2022	UFI CHM 2022-189	Water	REG	SW							0.0407		0.1879		2.597			
QC	OL-3982-05		10/31/2022	UFI CHM 2022-189	Water	FB	WQ							0.006	U	0.0582		0.0158	J		
DEEP_S	OL-3985-01	6.6 - 6.6	10/31/2022	580-119473-1	Water	REG	SW	0.00077	U	0.00030	J	0.000022	U								
DEEP_S	OL-3985-02	6.6 - 6.6	10/31/2022	580-119473-1	Water	FD	SW	0.00046	J	0.00017	J	0.000022	U								
DEEP_S	OL-3985-03	39.6 - 39.6	10/31/2022	580-119473-1	Water	REG	SW	0.0013				0.000022	U								
DEEP_S	OL-3985-04	59.4 - 59.4	10/31/2022	580-119473-1	Water	REG	SW	0.00057				0.000022	U								
QC	OL-3985-05		10/31/2022	580-119473-1	Water	FB	WQ	0.000079	U			0.000022	U								
DEEP_S	OL-3987-01	6.6 - 6.6	11/15/2022	UFI CHM 2022-189	Water	REG	SW							0.0575		0.243		2.607			
DEEP_S	OL-3987-02	6.6 - 6.6	11/15/2022	UFI CHM 2022-189	Water	FD	SW							0.0589		0.284		2.605			
DEEP_S	OL-3987-03	39.6 - 39.6	11/15/2022	UFI CHM 2022-189	Water	REG	SW							0.0590		0.247		2.611			
DEEP_S	OL-3987-04	59.4 - 59.4	11/15/2022	UFI CHM 2022-189	Water	REG	SW							0.0606		0.239		2.592			
QC	OL-3987-05		11/15/2022	UFI CHM 2022-189	Water	FB	WQ							0.006	U	0.03	U	0.03	U		
DEEP_S	OL-3990-01	6.6 - 6.6	11/15/2022	580-120072-1	Water	REG	SW	0.0013		0.00043	J	0.000059									

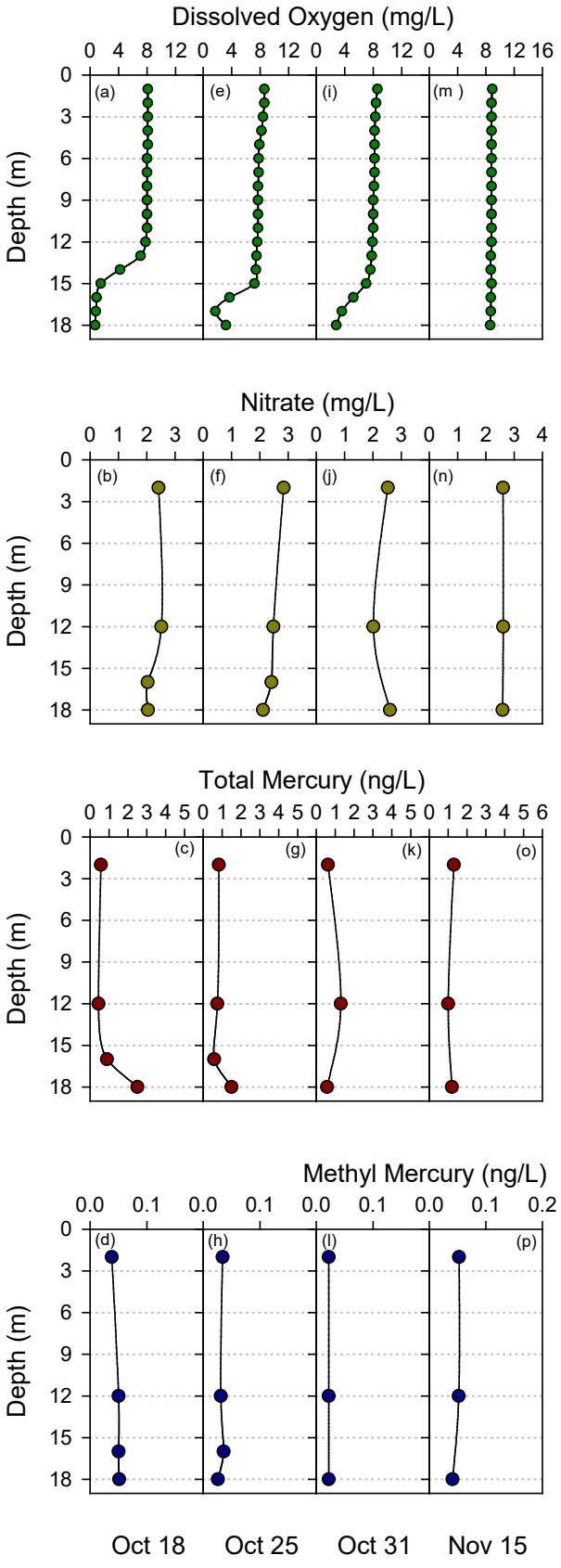
Onondaga Lake
2022 Nitrate Monitoring - Surface Water

							Parameter	Mercury		Mercury		Methyl Mercury		Nitrogen, Nitrite		Nitrogen, Ammonia (As N)		Nitrogen, Nitrate-Nitrite		Reactive Phosphorous	
							Method	E1631		E1631		E1630		SM4500NO3-F		SM4500NH3-H		SM4500NO3-F		SM4500P-E	
							Fraction	T		D		T		T		T		T		D	
							Units	ug/l		ug/l		ug/l		mg/L		mg/L		mg/L		mg/L	
Location ID	**Field Sample ID**	**Depth (ft)**	**Sampled**	**SDG**	**Matrix**	**Purpose**	**Sample Type**														
DEEP_S	OL-3990-02	6.6 - 6.6	11/15/2022	580-120072-1	Water	FD	SW	0.0013		0.00036	J	0.000046	J								
DEEP_S	OL-3990-03	39.6 - 39.6	11/15/2022	580-120072-1	Water	REG	SW	0.0010				0.000052									
DEEP_S	OL-3990-04	59.4 - 59.4	11/15/2022	580-120072-1	Water	REG	SW	0.0012				0.000041	J								
QC	OL-3990-05		11/15/2022	580-120072-1	Water	FB	WQ	0.000079	U			0.000022	U								
QC	OL-3990-06		11/15/2022	580-120072-1	Water	EB	WQ	0.000088	J			0.000022	U								

APPENDIX 5E - PLOTS OF DISSOLVED OXYGEN, NITRATE, TOTAL MERCURY AND METHYLMERCURY CONCENTRATIONS WITH DEPTH AT SOUTH DEEP FOR 2022


Dissolved Oxygen (mg/L)
Nitrate (mg/L)
Total Mercury (ng/L)
Methyl Mercury (ng/L)
Depth (m)
4.6
May 24
Jun 13
Jun 28
Jul 5
Jul 12
Jul 19
Jul 26
Aug 2
Aug 9


Dissolved Oxygen (mg/L)
Nitrate (mg/L)
Total Mercury (ng/L)
Methyl Mercury (ng/L)
Depth (m)
4.0
Aug 16
Aug 23
Aug 30
Sep 7
Sep 13
Sep 20
Sep 27
Oct 4
Oct 11


Dissolved Oxygen (mg/L)
Nitrate (mg/L)
Total Mercury (ng/L)
Methyl Mercury (ng/L)
Depth (m)
(a)
(e)
(i)
(m)
(b)
(f)
(j)
(n)
(c)
(g)
(k)
(o)
(d)
(h)
(l)
(p)
Oct 18
Oct 25
Oct 31
Nov 15

APPENDIX 6A - MEMORANDUM: ONONDAGA LAKE SEDIMENT CAP MONITORING- EVENT- BASED MONITORING EVALUATION

290 Elwood Davis Road, Suite 340
Liverpool, New York 13088
315.453.9009

ANCHOR QEA

Memorandum

June 20, 2023

To: Edward Glaza, PE, Parsons

From: Matt Henderson, PE, and Abagayle Hilton, Anchor QEA, LLC

cc: Paul LaRosa, PE, and Deirdre Reidy, Anchor QEA

Re: Onondaga Lake Sediment Cap Monitoring: Event-Based Monitoring Evaluation

In accordance with Section 6.3.2 (Event-Based Monitoring of the Sediment Cap) of the *Onondaga Lake Monitoring and Maintenance Plan* (OLMMP; Parsons 2018), the following three extreme event conditions are being used to trigger required event-based monitoring of the cap:

- A 50-year or greater wind-generated wave event
- A 50-year or greater tributary flow event
- A seismic event measuring 5.5 or larger on the Richter scale within 30 miles of Onondaga Lake

Publicly available data obtained from January 1, 2022, through May 7, 2023, were analyzed to determine if event-based monitoring of the cap has been triggered by one or more of these events. Based on the summary of 2022 and 2023 data presented and described in this memorandum, event-based physical monitoring of the cap was not triggered during this time period.

Wind-Generated Wave Event Evaluation

In accordance with the OLMMP, the occurrence of a wind-generated wave event may warrant monitoring in certain remediation areas, depending on the wave direction (e.g., from the northwest). Because wave measurements are not collected in Onondaga Lake, wind data reported from the meteorological station at Hancock International Airport (located approximately 5 miles east of Onondaga Lake) were reviewed and analyzed to determine if a 50-year wind event may have occurred in the directions affecting the remediation areas. This analysis is based on wind speed, assuming that a 50-year wind event corresponds to a 50-year wind-generated wave event.

The wind speed data were grouped by the recorded wind direction, and the maximum recorded wind speed for each direction was compared to the 50-year event threshold value (as presented in Table 6.4A of the OLMMP). Table 1 summarizes the comparison between the threshold 50-year return-interval wind speeds and maximum recorded wind speeds for January 1, 2022, through May 7, 2023.

Table 1
50-Year Event Wind Speeds Compared to Maximum Recorded Wind Speeds for January 1, 2022, Through May 7, 2023

Remediation Area	Wind Direction (degrees from north)[1]	50-Year Event Wind Speed (mph)	Maximum Recorded Wind Speed for January 1, 2022, to May 7, 2023 (mph)	Date of Measured Maximum Wind Speed
RA-A and RA-F1	330 to 100	45	34.0	1/17/2022
RA-B	330 to 130	45	34.0	1/17/2022
RA-C	0 to 130	42	34.0	1/17/2022
RA-D	320 to 30	44	24.0	3/3/2022
RA-E	280 to 340	56	36.0	3/12/2022
RA-F2	130 to 220	55	38.0	5/16/2022

Notes:
1. Wind directions are reported using the "blowing from" convention (e.g., winds from 45° are blowing from the northeast).
mph: mile per hour

The highest recorded wind speeds affecting each remediation area (RA) did not exceed the threshold that would trigger monitoring. Figures 1a and 1b present the wind speed data and highlight the peak measured wind speeds in relation to the 50-year return-interval wind speed for 2022 (January to December 2022) and early 2023 (January to May 2023) data, respectively.

Tributary Flow Event Evaluation

During periods of high precipitation or snowmelt, the tributaries to the lake could potentially produce erosive forces on the cap at the mouths of the tributaries due to increased flow velocity. For prior monitoring periods, the lake tributaries included Ninemile Creek, which discharges into RA-A; Harbor Brook, which discharges through the Outboard Area into RA-D and RA-E; and Onondaga Creek, which discharges into RA-E.

The U.S. Geological Survey (USGS) gage 04230300, Ninemile Creek at Lakeland, New York, was discontinued effective October 1, 2019. The discontinuation of the gage came as a result of the Onondaga County Department of Water and Environment Protection's decision that they are no longer funding this station due to the needs of their program changing. Similarly, USGS gage 04240100, Harbor Brook at Syracuse, New York, was discontinued on October 1, 2020. The USGS gage 04240010, Onondaga Creek at Spencer Street, Syracuse, New York, continues to operate.

Due to the discontinuation of two of the three tributary gages, a regression analysis was performed in 2021 using the remaining operating gage, and the last full year of available data from the discontinued gages were used to evaluate if a high-flow event was likely to have occurred in one of the tributaries. This approach was similar to the approach presented in Honeywell's

February 10, 2020, letter to the New York State Department of Environmental Conservation regarding the Ninemile Creek USGS Gauge Station Discontinuation (Honeywell 2020) to determine if a 50-year flow event occurred in any of these tributaries. Daily averaged flow rate data were downloaded from the following gage websites maintained by USGS through April 17, 2022 (all available data):

- USGS 04240010, Onondaga Creek at Spencer Street, Syracuse, New York (USGS 2021a; January 1, 2022, to May 7, 2023)
- USGS 04240300, Ninemile Creek at Lakeland, New York (USGS 2021b; discontinued)
- USGS 04240100, Harbor Brook at Syracuse, New York (USGS 2021c; discontinued)

The regression analysis was performed using the daily averaged flow data to determine the flows in Ninemile Creek and Harbor Brook for the periods when these gages were not operational. For the regression analysis to determine Ninemile Creek flows, the daily averaged flow rate dataset for 2018 was used (because it was the last complete dataset), which were then compared to Onondaga Creek daily averaged flow from the same year. Similarly, the last full year of daily mean flow data (2019) were used in the computation of the Harbor Brook flow data after the discontinuation of the gage.

Using the regression analysis and daily averaged flows rates obtained from the USGS Onondaga Creek at Spencer Street gage from January 1, 2022, to May 7, 2023, the maximum daily averaged flow rates from the measured data and computed flow rates were compared to the 50-year return-interval flow rates for each tributary (as presented in Table 6.4B of the OLMMP). Table 2 summarizes the comparison of the measured and computed flow rate data to the computed 50-year return-interval flow rates.

Table 2
50-Year Event Flow Rates Compared to Maximum Recorded and Computed Flow Rates for January 1, 2022, Through May 7, 2023

Tributary and RA	50-Year Event Flow Rate (cfs)	Maximum Flow Rate for January 1, 2022, to May 7, 2023 (cfs)	Date of Maximum Flow Rate
Onondaga Creek (RA-E)	4,400	1,190.0	4/6/2023
Ninemile Creek (RA-A)	3,300	1,111.7	4/6/2023
Harbor Brook (Outboard Area, RA-D, RA-E)	800	42.8	4/6/2023

Note:
cfs: cubic feet per second

The threshold extreme flow rates were not exceeded within the monitoring period based on the average daily flow rates recorded at the USGS gage; therefore, cap monitoring was not performed as a result of an event-based trigger. Figures 2a and 2b present the daily average flow rate data and

highlight the maximum flow rate events for each of the tributaries for 2022 and early 2023 data, respectively.

Seismic Event Evaluation

Although a significant earthquake in Central New York State is not common, a large magnitude occurrence could disrupt the cap stability and potentially damage the integrity of the cap layers. An earthquake could also cause differential settlement of the armor layer and layer mixing, resulting in lost integrity of the chemical isolation layer. The USGS Earthquake Hazards Program website data (USGS 2022) were reviewed to determine if a seismic event of 5.5 or larger on the Richter scale occurred within 30 miles of Onondaga Lake between January 1, 2022, and May 7, 2023. It was determined that there were no seismic events of magnitude 5.5 or larger within 30 miles of Onondaga Lake during this time period.

References

Honeywell, 2020. Letter to: Timothy J. Larson, New York State Department of Environmental Conservation. Regarding: Ninemile Creek USGS Gauge Station Discontinuation. February 10, 2020.

Parsons, 2018. *Onondaga Lake Monitoring and Maintenance Plan*. Prepared for Honeywell International Inc. June 2018.

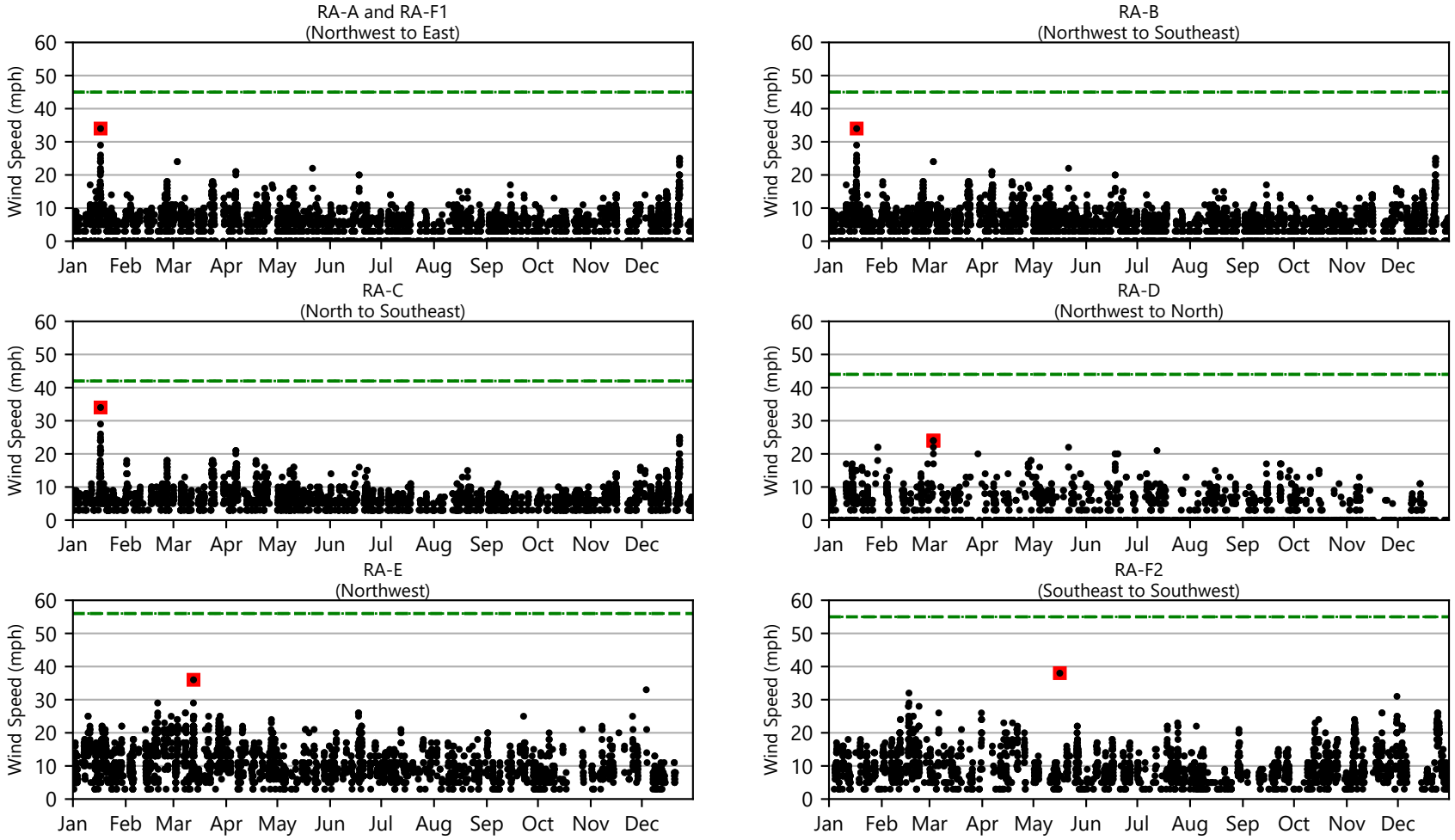
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USGS, 2021b. "USGS 04240300 Ninemile Creek at Lakeland NY." *National Water Information System: Web Interface*. Last modified: May 1, 2021; accessed May 1, 2021. Available at: https://waterdata.usgs.gov/nwis/uv?site_no=04240300.

USGS, 2021c. "USGS 04240100 Harbor Brook at Syracuse NY." *National Water Information System: Web Interface*. Last modified: May 1, 2021; accessed May 1, 2021. Available at: https://waterdata.usgs.gov/nwis/uv?site_no=04240100.

USGS, 2022. "Earthquakes." *Earthquake Hazards Program*. Last modified: May 8, 2023; accessed May 10, 2023. Available at: https://earthquake.usgs.gov/earthquakes/.

Figures



Notes:
1. Wind data are from Hancock International Airport from January 1, 2022, to December 31, 2022.
2. Wind speeds and direction data were reported hourly from the National Climatic Data Center.
3. Calm winds are excluded from the directional wind speed plotting shown.
4. The maximum recorded hourly wind speed for the monitoring period is highlighted in red.
5. mph: mile per hour

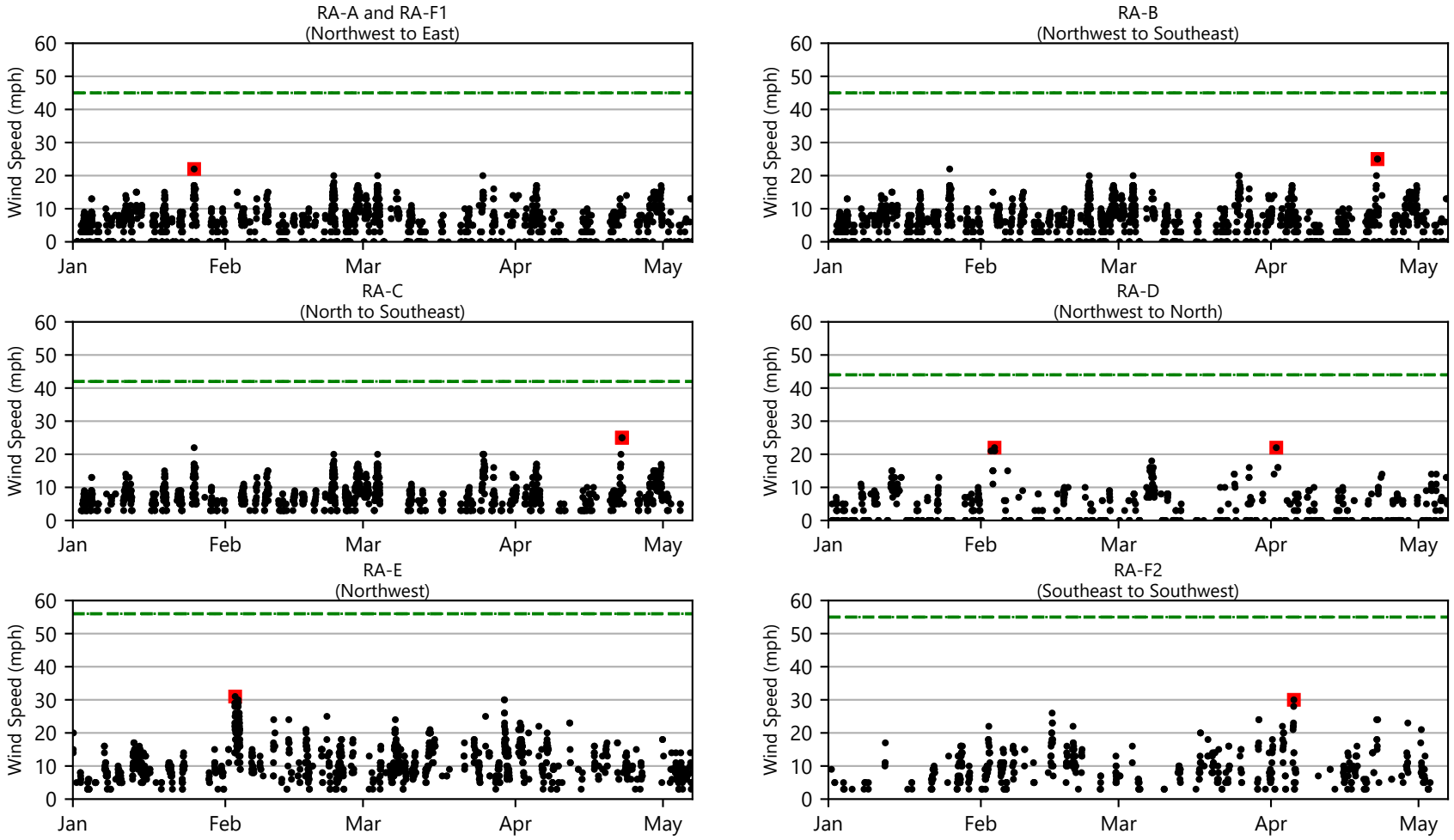
Maximum Recorded Wind Speed
50-Year Event Wind Speed

Publish Date: 06/16/2023 15:54 PM | User: AH
File Path: \\wcl-fs1\Syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Wind_and_Wave\results\Monitoring_2023_Memo\NCDC_winddata_processing_Year2020_AH.py

Prepared By: A. Hilton
Reviewed By: M. Henderson

ANCHOR QEA

Figure 1a
Wind Speed Evaluation January 2022 to December 2022
Event-Based Monitoring Evaluation
Onondaga Lake Sediment Cap Monitoring



Notes:
1. Wind data are from Hancock International Airport from January 1, 2023, to May 7, 2023.
2. Wind speeds and direction data were reported hourly from the National Climatic Data Center.
3. Calm winds are excluded from the directional wind speed plotting shown.
4. The maximum recorded hourly wind speed for the monitoring period is highlighted in red.
5. mph: mile per hour

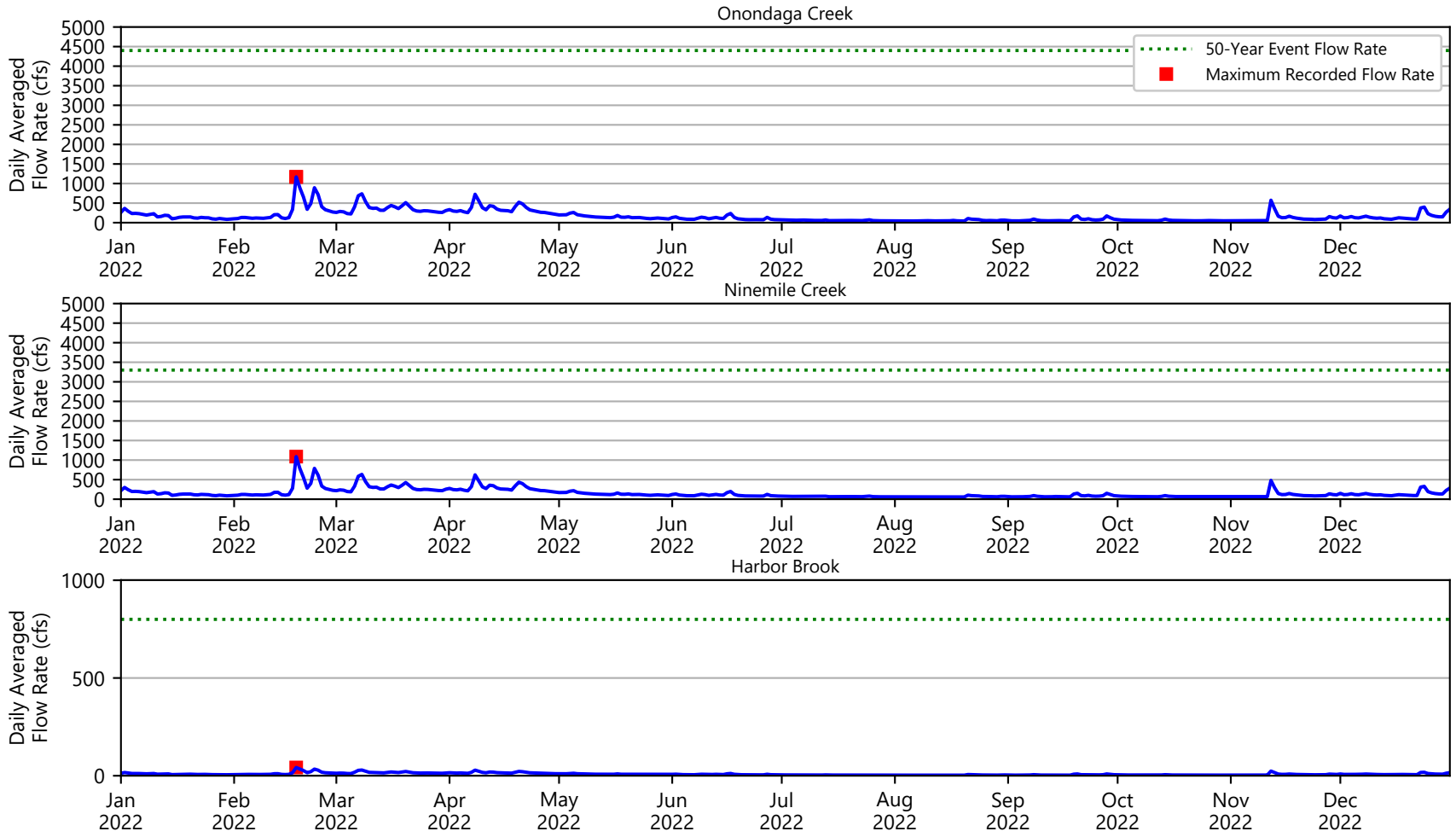
Maximum Recorded Wind Speed
50-Year Event Wind Speed

Publish Date: 06/16/2023 16:17 PM | User: AH
File Path: \\wcl-fs1\Syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Wind_and_Wave\results\Monitoring_2023_Memo\NCDC_winddata_processing_Year2020_AH.py

Prepared By: A. Hilton
Reviewed By: M. Henderson

ANCHOR QEA

Figure 1b
Wind Speed Evaluation January 2023 to May 2023
Event-Based Monitoring Evaluation
Onondaga Lake Sediment Cap Monitoring



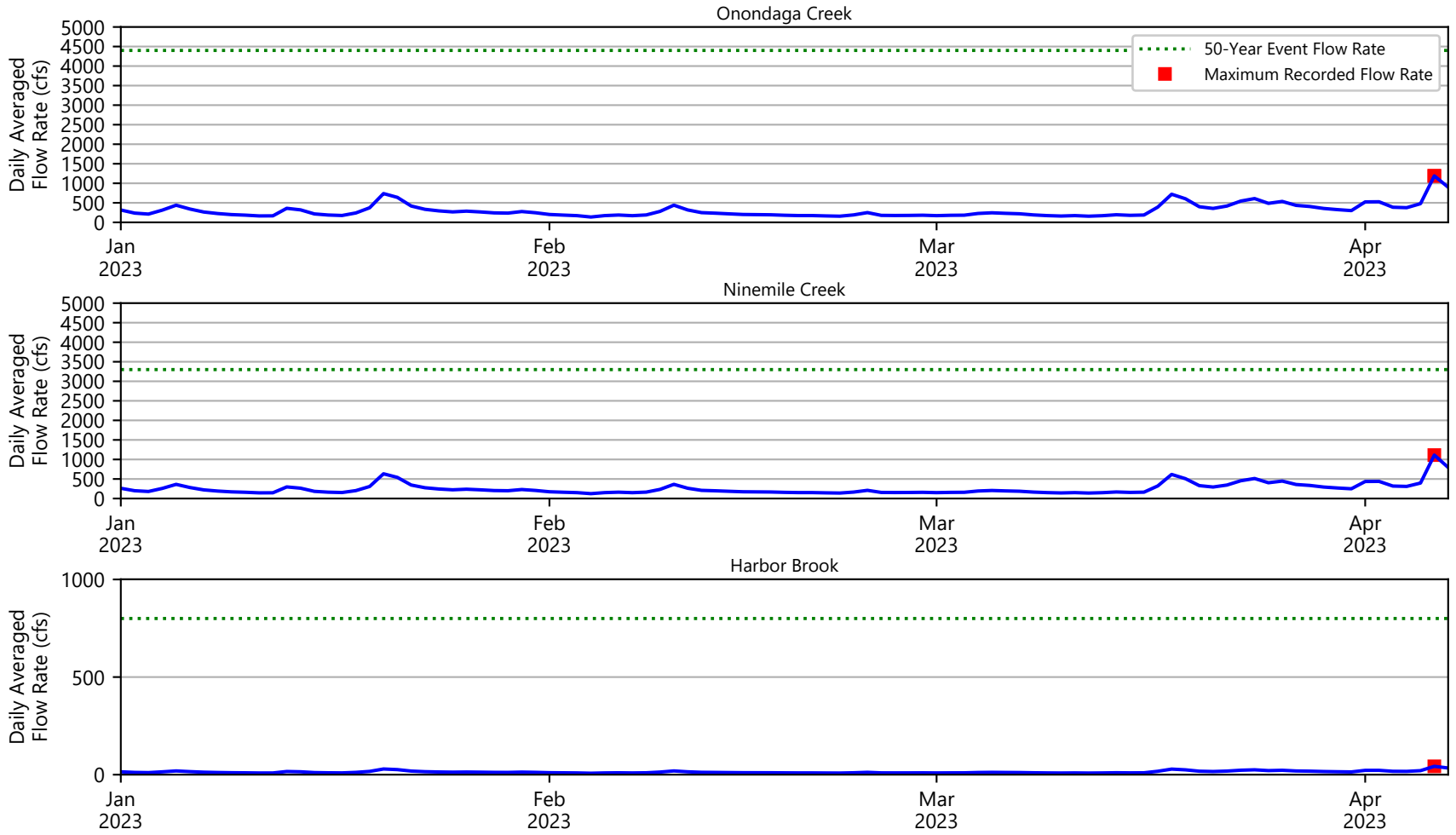
Notes:
1. Flow data are reported as average daily flow rates from each U.S. Geological Survey (USGS) gage station from January 1, 2022, to December 31, 2022.
2. Data sources: Onondaga Creek: USGS Gage No. 04240010; Ninemile Creek: Based on regression analysis; Harbor Brook: Based on regression analysis
3. The maximum daily averaged flow rates for the monitoring period are highlighted in red.
4. The Ninemile Creek USGS gage was discontinued in October 2019, and the Harbor Brook USGS gage was discontinued in October 2020. See the monitoring report for more information.
5. cfs: cubic foot per second

Publish Date: 06/16/2023 17:22 PM | User: AH
File Path: \\wcl-fs1\Syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Wind_and_Wave\results\Monitoring_2023_Memo\USGS_flowrate_processing_DailyAvg_2023update.py

Prepared By: A. Hilton
Reviewed By: M. Henderson

ANCHOR QEA

Figure 2a
Tributary Flow Rate Evaluation: January 2022 to December 2022
Event-Based Monitoring Evaluation
Onondaga Lake Sediment Cap Monitoring



Notes:
1. Flow data are reported as average daily flow rates from each U.S. Geological Survey (USGS) gage station from January 1, 2023, to May 7, 2023.
2. Data sources: Onondaga Creek: USGS Gage No. 04240010; Ninemile Creek: Based on regression analysis; Harbor Brook: Based on regression analysis
3. The maximum daily averaged flow rates for the monitoring period are highlighted in red.
4. The Ninemile Creek USGS gage was discontinued in October 2019, and the Harbor Brook USGS gage was discontinued in October 2020. See the monitoring report for more information.
5. cfs: cubic foot per second

Publish Date: 06/16/2023 17:14 PM | User: AH
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Prepared By: A. Hilton
Reviewed By: M. Henderson

ANCHOR QEA

Figure 2b
Tributary Flow Rate Evaluation: January 2023 to May 2023
Event-Based Monitoring Evaluation
Onondaga Lake Sediment Cap Monitoring

APPENDIX 6B - SHORELINE PHOTOS

Shoreline Inspection Area
Pre-Remediation Shoreline (Elev. 362.5')
Shoreline Stabilization
Cap Boundaries

Inspection Date: May 18th, 2022
Water Elevation at Time of Inspection: 362.6'

0 0.25 0.5 1 Miles

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, U

Figure 1

Honeywell

2022 Shoreline Inspection Area

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

Plot Date: 6/13/2022 Plotted By: Domanski, Joshua

File Name: Q:\GIS\Hon_Syracuse\OLMMS\MXDs\Shoreline Inspection\2022\2022 Shoreline Inspection Photos_Fig1.mxd



Staining due to calcium carbonate precipitation along the base of WB 1-8 revetment



Staining due to calcium carbonate precipitation along the base of WB 1-8 revetment



Calcium carbonate precipitation mixed with black staining.



Calcium carbonate staining tapering off approaching the RAA cap.



Staining due to calcium carbonate precipitation along the base of WB 1-8 revetment

Shoreline Inspection Area
Pre-Remediation Shoreline (Elev. 362.5')
Shoreline Stabilization
Cap Boundaries

Inspection Date: May 18th, 2022
Water Elevation at Time of Inspection: 362.6'

0 0.04 0.08 0.16 Miles

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, U

Plotted By: Domanski, Joshua
Plot Date: 6/5/2023

Figure 2

Honeywell

2022 Shoreline Inspection RAA

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\MXDs\Shoreline Inspection\2022\2022 Shoreline Inspection Photos_Fig2.mxd



Ditch A outlet, completed as part of upland site activities in 2019 and 2020.



Tibutary 5A outlet after construction work on the tributary was completed and the area returned to pre-construction conditions.



Public boat launch for small craft, between Ditch A and the Visitor's Center.



Area of shoreline repair after nearby construction work disturbed a portion of the cap.



Public boat launch and dock near the Visitor's Center.

Shoreline Inspection Area
Pre-Remediation Shoreline (Elev. 362.5')
Shoreline Stabilization
Cap Boundaries

Inspection Date: May 18th, 2022
Water Elevation at Time of Inspection: 362.6'

0 0.02 0.04 0.08
Miles

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, U

Figure 3

Honeywell

2022 Shoreline Inspection
RAC

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

Plotted By: Domanski, Joshua
Plot Date: 6/5/2023

File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\MXDs\Shoreline Inspection\2022\2022 Shoreline Inspection Photos_Fig3.mxd



Deposition of fine gravel material along the northern face of Berm A.



Location where loss of vegetation was noted in previous inspections. No additional vegatation or shoreline material loss was noted in 2022.



Erosion of fine gravel habitat material along the RAD shoreline. Material was placed along this area in 2019 to address prior material loss. Nearly all new fine gravel placed below the high water line has eroded away or was pushed further onshore.



Location where minor damage to vegetation was noted in 2021. No lasting damage was found in 2022.



Location flagged for observation after minor material loss was noted in previous inspections. No additional vegetation or material loss was noted in 2022.

Shoreline Inspection Area
Pre-Remediation Shoreline (Elev. 362.5')
Shoreline Stabilization
Cap Boundaries

Inspection Date: May 18th, 2022
Water Elevation at Time of Inspection: 362.6'

0 0.04 0.08 0.16 Miles

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, US

Figure 4

Honeywell

2022 Shoreline Inspection
RAD

PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

Plotted By: Domanski, Joshua
Plot Date: 6/5/2023

File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\MXDs\Shoreline Inspection\2022\2022 Shoreline Inspection Photos_Fig4.mxd



Light gray substrate along the CSX Shoreline, outside of the remediation area. It appears as if the high wave action in these areas eroded sediment that originally covered the material.



Solidified patch of tar-like material along the CSX Shoreline.



Light gray substrate along the CSX Shoreline, outside of the remediation area. It appears as if the high wave action in these areas eroded sediment that originally covered the material.



Light gray substrate along the CSX Shoreline, outside of the remediation area. It appears as if the high wave action in these areas eroded sediment that originally covered the material.

Shoreline Inspection Area

Pre-Remediation Shoreline (Elev. 362.5')

Shoreline Stabilization

Cap Boundaries

Inspection Date: May 18th, 2022
Water Elevation at Time of Inspection: 362.6'

0 0.04 0.08 0.16
Miles

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, US

Figure 5

Honeywell

2022 Shoreline Inspection
RAE

PARSONS

301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

Plotted By: Domanski, Joshua

Plot Date: 6/6/2023

File Name: \\nysyr04fs01\PrjData\GIS\Hon_Syracuse\OLMMS\MXDs\Shoreline Inspection\2022\2022 Shoreline Inspection Photos_Fig5.mxd

APPENDIX 6C – BERM AND WAVE DAMPER CROSS-SECTIONS

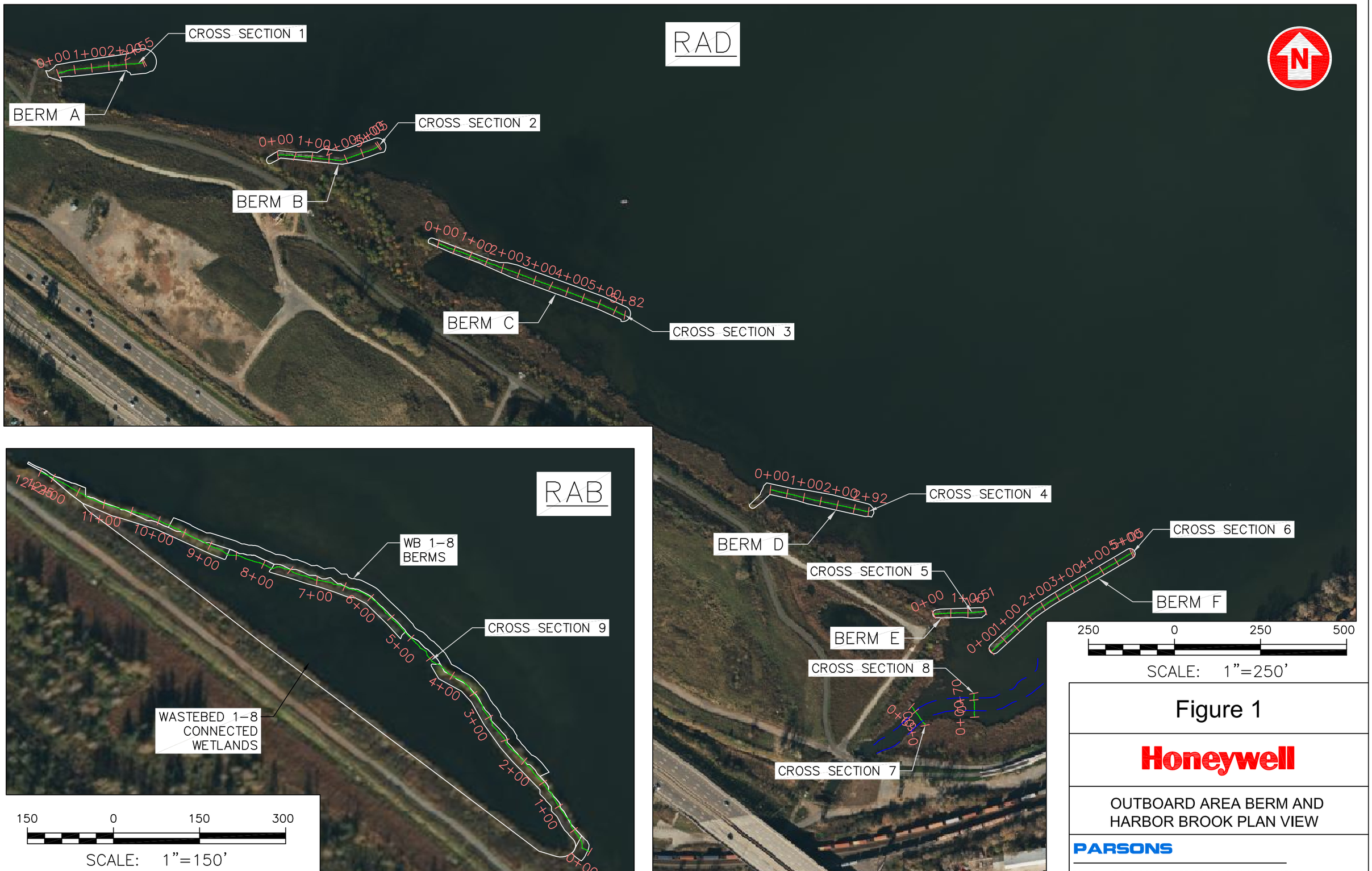


Figure 1

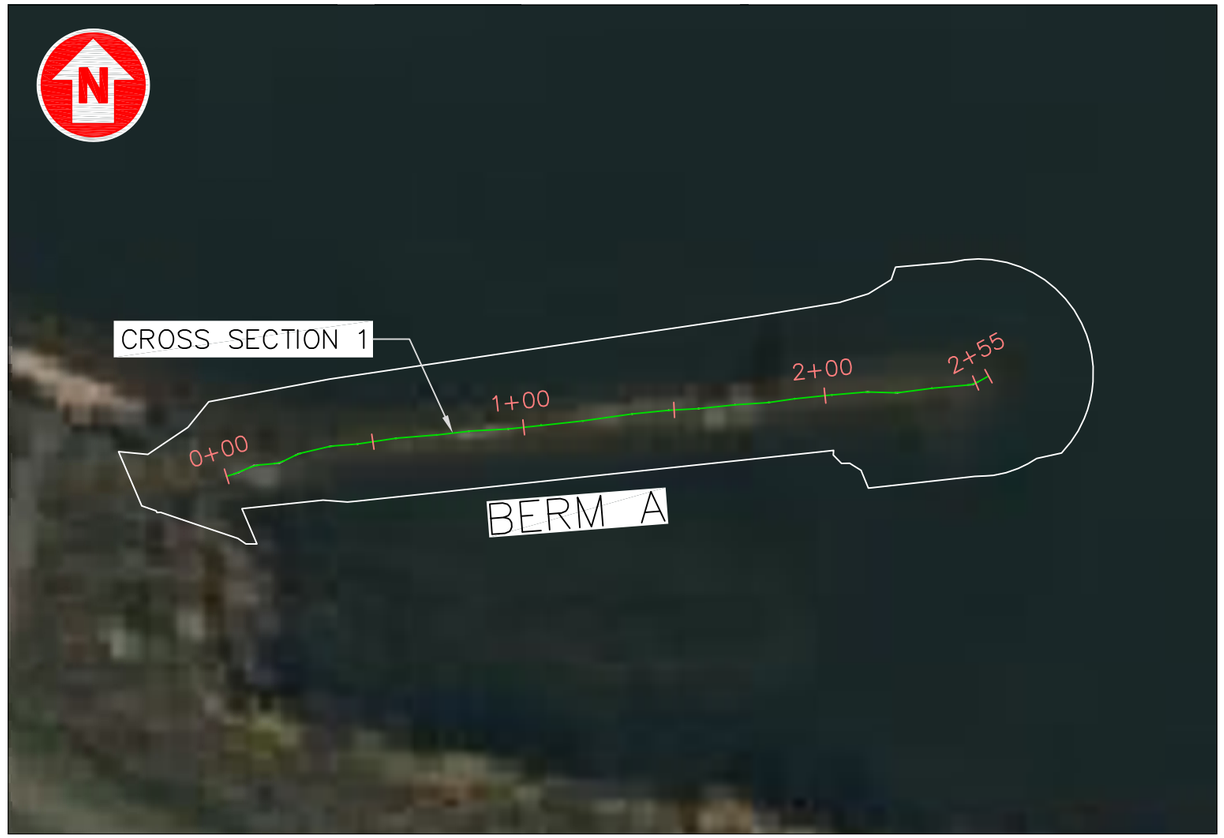
Honeywell

OUTBOARD AREA BERM AND HARBOR BROOK PLAN VIEW

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212

FILE NAME: \\WSYR04FS01\PROJDATA\GIS\HON_SYRACUSE\OLMMS\OMM SURVEY\2022 SURVEY\CAD\BERM SURVEY\OLMMP_2022_BERM CROSS SECTIONS.DWG
PLOT DATE: 6/7/2023 10:43 AM PLOTTED BY: DOMANSKI, JOSHUA [US-NS]



50 25 0 50 100

SCALE: 1"=50'

NOTES:

1) During the post–construction asbuilt survey, a full survey was conducted on the berms. Survey in 2018 consisted of a single transect of points across the centerline of the berm. A full survey of the berm was conducted in 2019 and 2022.
2) The cross section follows the 2018 transect

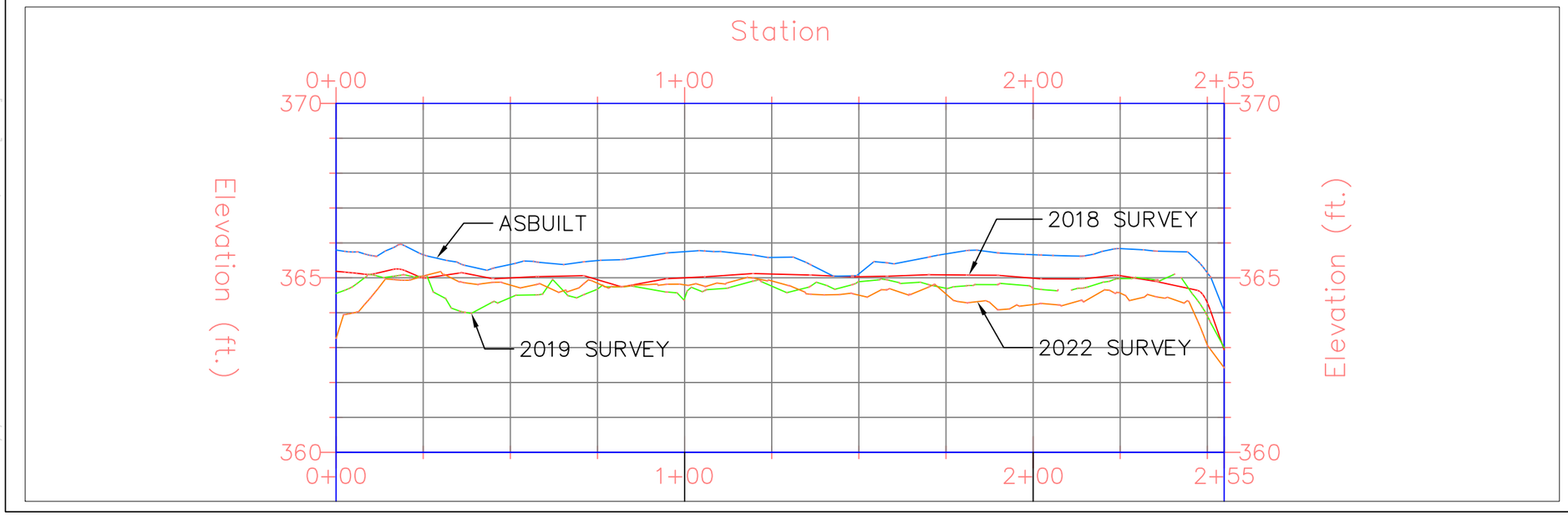


Figure 2

Honeywell

BERM A CROSS SECTION

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212

FILE NAME: \\NYSYR04FS01\PRJDATA\GIS\HON_SYRACUSE\OLMMS\OMM SURVEY\2022 SURVEY\CAD\BERM SURVEY\OLMMP_2022_BERM CROSS SECTIONS.DWG
PLOT DATE: 6/7/2023 11:23 AM PLOTTED BY: DOMANSKI, JOSHUA [US-HS]



50 25 0 50 100

SCALE: 1"=50'

NOTES:

1) During the post-construction asbuilt survey, a full survey was conducted on the berms. Survey in 2018 consisted of a single transect of points across the centerline of the berm. A full survey of the berm was conducted in 2019 and 2022.
2) The cross section follows the 2018 transect.

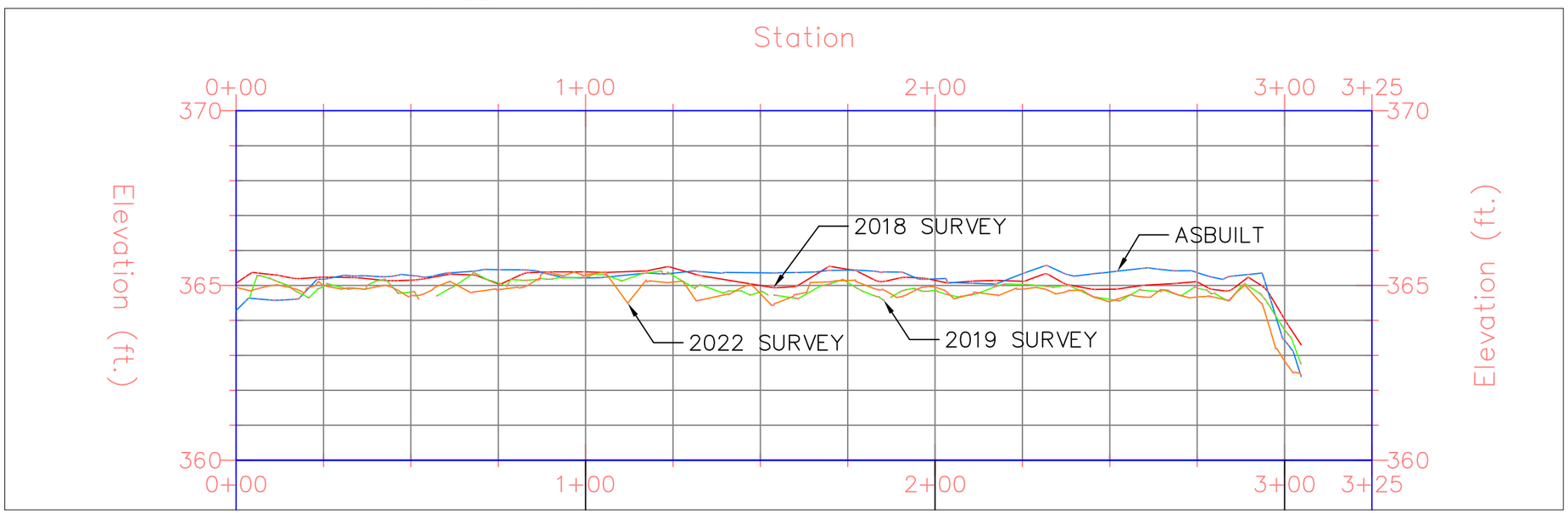


Figure 3

Honeywell

BERM B CROSS SECTION

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212

FILE NAME: \\NYSYR04FS01\PRJDATA\GIS\HON_SYRACUSE\OLMMS\OMM SURVEY\2022 SURVEY\CAD\BERM SURVEY\OLMMP_2022_BERM CROSS SECTIONS.DWG
PLOT DATE: 6/7/2023 11:35 AM PLOTTED BY: DOMANSKI, JOSHUA [US-US]



80 40 0 80 160

SCALE: 1"=80'

NOTES:

1) During the post–construction asbuilt survey, a full survey was conducted on the berms. Survey in 2018 consisted of a single transect of points across the centerline of the berm. A full survey of the berm was conducted in 2019 and 2022.
2) The cross section follows the 2018 transect.

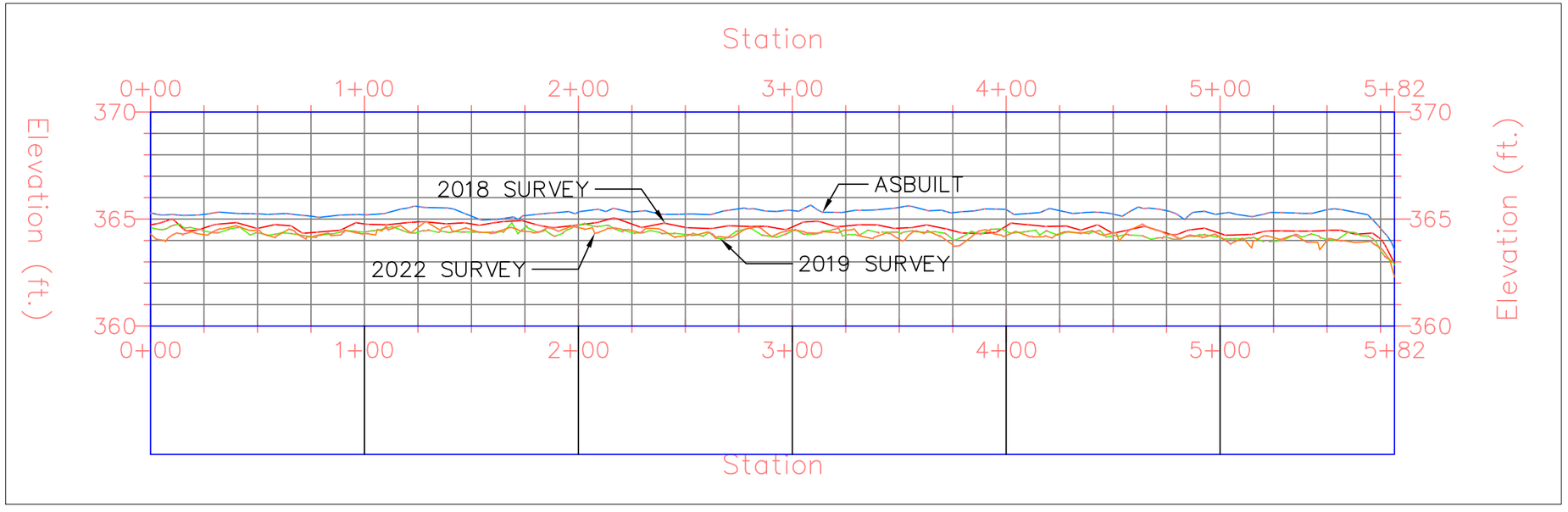


Figure 4

Honeywell

BERM C CROSS SECTION

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212

FILE NAME: \\NYSYR04FS01\PRJDATA\GIS\HON_SYRACUSE\OLMMS\OMM SURVEY\2022 SURVEY\CAD\BERM SURVEY\OLMMP_2022_BERM CROSS SECTIONS.DWG
PLOT DATE: 6/7/2023 1:32 PM PLOTTED BY: DOMANSKI, JOSHUA [US-LIS]



50 25 0 50 100

SCALE: 1"=50'

NOTES:

1) During the post–construction asbuilt survey, a full survey was conducted on the berms. Survey in 2018 consisted of a single transect of points across the centerline of the berm. A full survey of the berm was conducted in 2019 and 2022.
2) The cross section follows the 2018 transect.

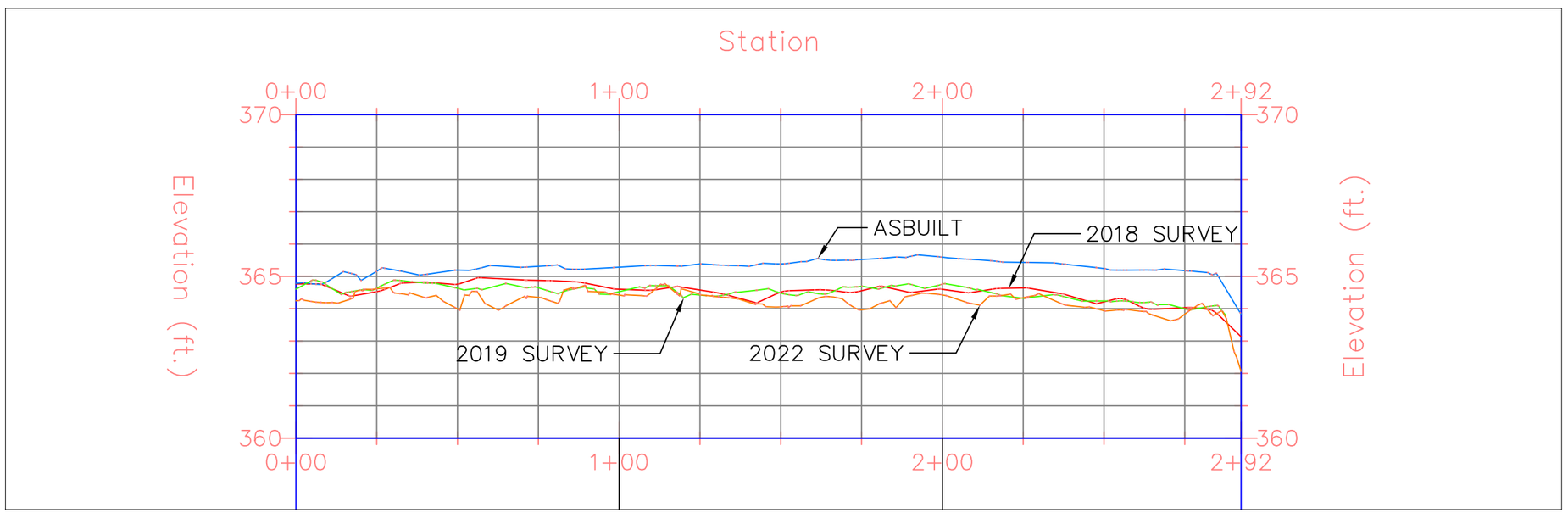


Figure 5

Honeywell

BERM D CROSS SECTION

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212

FILE NAME: \\NYSYR04FS01\PRJDATA\GIS\HON_SYRACUSE\OLMMS\OMM SURVEY\2022 SURVEY\CAD\BERM SURVEY\OLMMP_2022_BERM CROSS SECTIONS.DWG
PLOT DATE: 6/7/2023 1:41 PM PLOTTED BY: DOMANSKI, JOSHUA [US-LIS]



SCALE: 1"=50'

NOTES:

1) During the post-construction asbuilt survey, a full survey was conducted on the berms. Survey in 2018 consisted of a single transect of points across the centerline of the berm. A full survey of the berm was conducted in 2019 and 2022.
2) The cross section follows the 2018 transect.

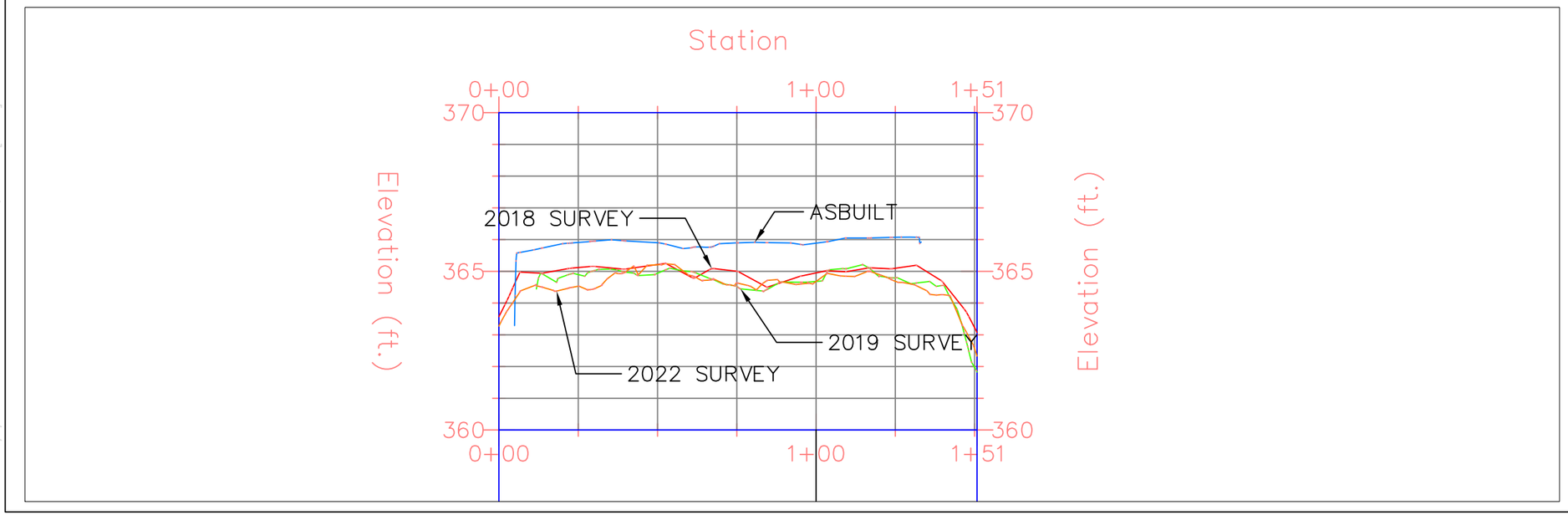


Figure 6

Honeywell

BERM E CROSS SECTION

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212

FILE NAME: \\NYSYR04FS01\PRJDATA\GIS\HON_SYRACUSE\OU-MMS\OMM SURVEY\2022 SURVEY\CAD\BERM SURVEY\OLMMP_2022_BERM CROSS SECTIONS.DWG
PLOT DATE: 6/7/2023 2:04 PM PLOTTED BY: DOMANSKI, JOSHUA [US-LIS]



SCALE: 1"=80'

NOTES:

1) During the post-construction asbuilt survey, a full survey was conducted on the berms. Survey in 2018 consisted of a single transect of points across the centerline of the berm. A full survey of the berm was conducted in 2019 and 2022.
2) The cross section follows the 2018 transect.

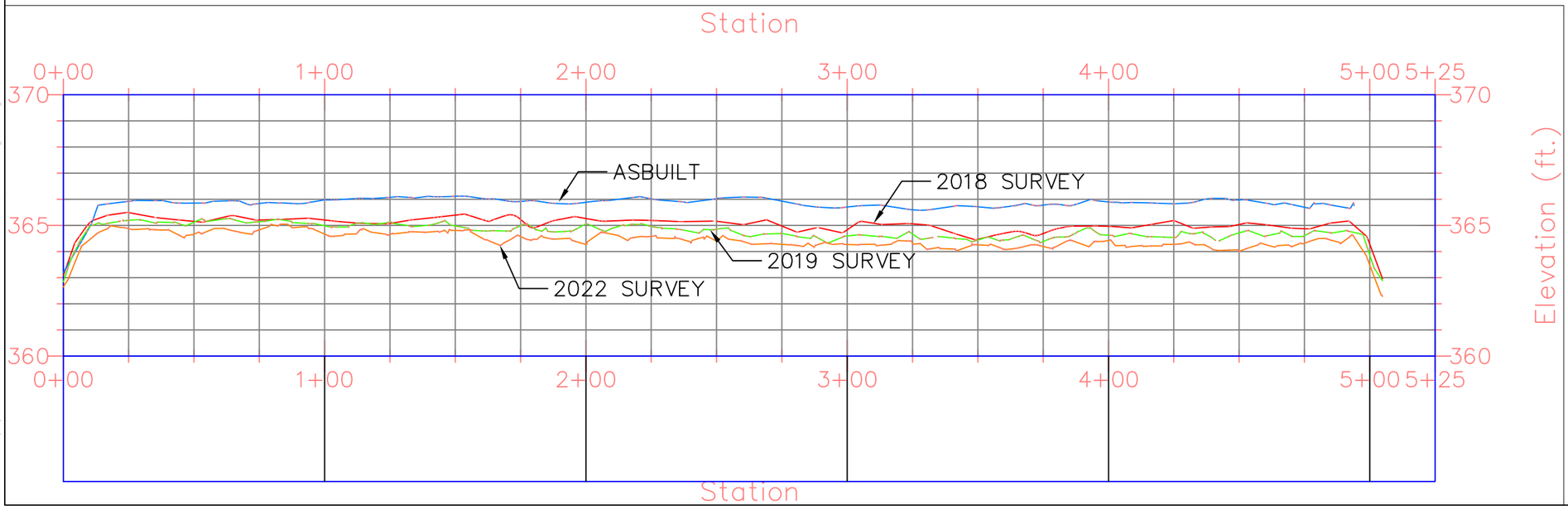


Figure 7

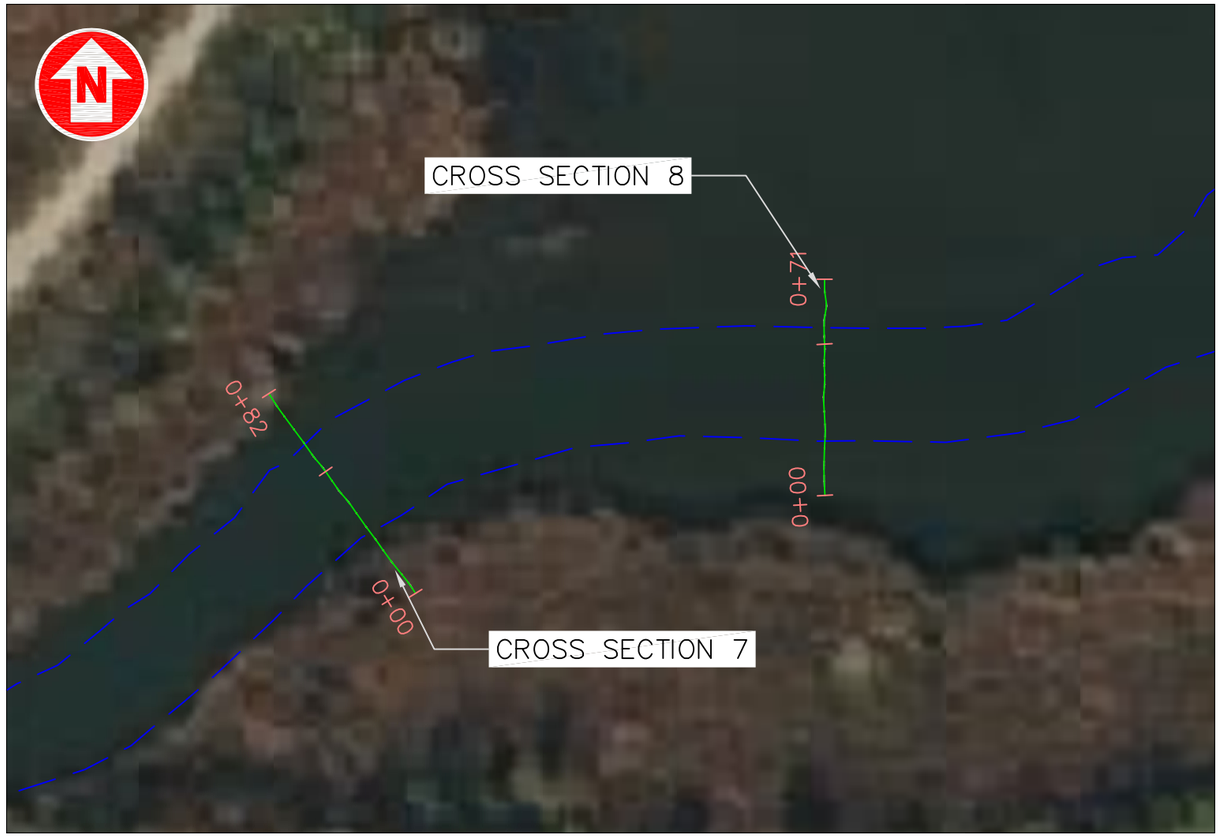
Honeywell

BERM F CROSS SECTION

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212

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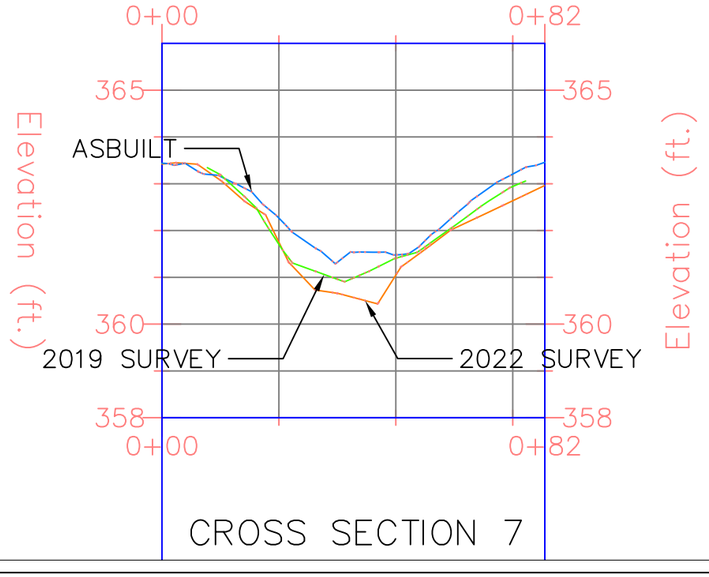


50 25 0 50 100

SCALE: 1”=50’

NOTES:

1) The transects surveyed in Harbor Brook in 2019 and 2022 are consistent with what was specified in the OLMMP.



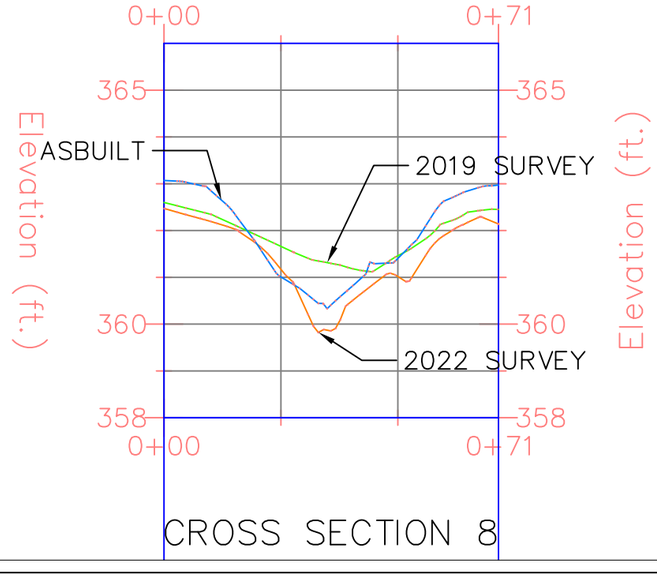


Figure 8

Honeywell

HARBOR BROOK CROSS SECTIONS

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212

FILE NAME: \\NYSYR04FS01\PRJDATA\GIS\HON_SYRACUSE\OLMMS\OMM_SURVEY\2022_SURVEY\CAD\BERM_SURVEY\OLMMP_2022_BERM_CROSS_SECTIONS.DWG
PLOT DATE: 6/8/2023 10:13 AM PLOTTED BY: DOMANSKI, JOSHUA [US-US]



SCALE: 1"=150'

NOTES:

1) The cross section follows the survey points taken along the centerline of the berm in 2019.

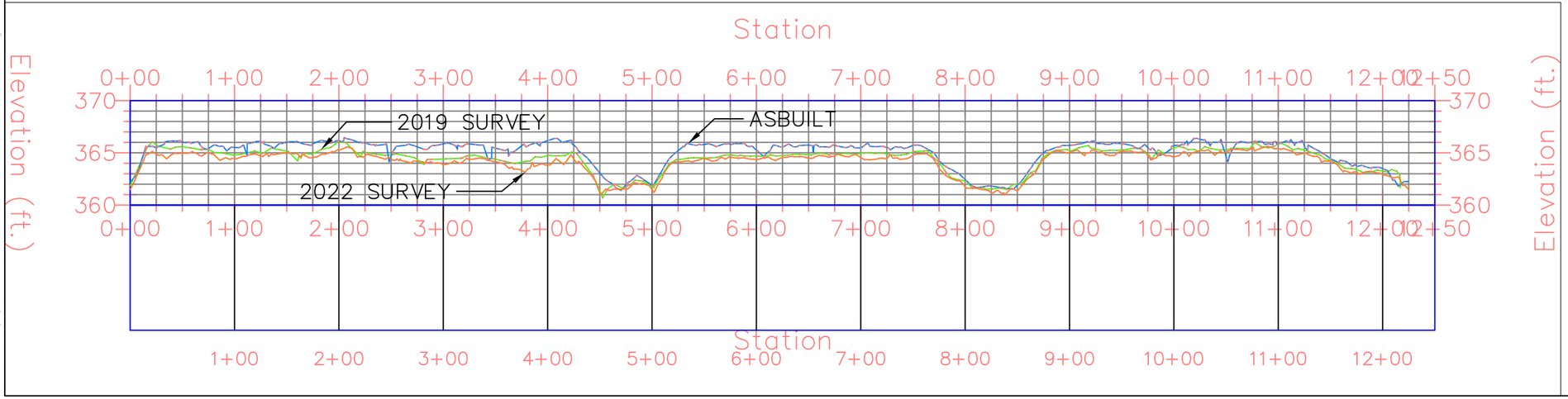


Figure 9

Honeywell

WASTEBED 1-8 BERM CROSS SECTIONS

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212

FILE NAME: \\NYSYR04FSO1\PRJDATA\GIS\HON_SYRACUSE\OLMMS\OMM_SURVEY\2022_SURVEY\CAD\BERM_SURVEY\OLMMP_2022_BERM_CROSS_SECTIONS.DWG
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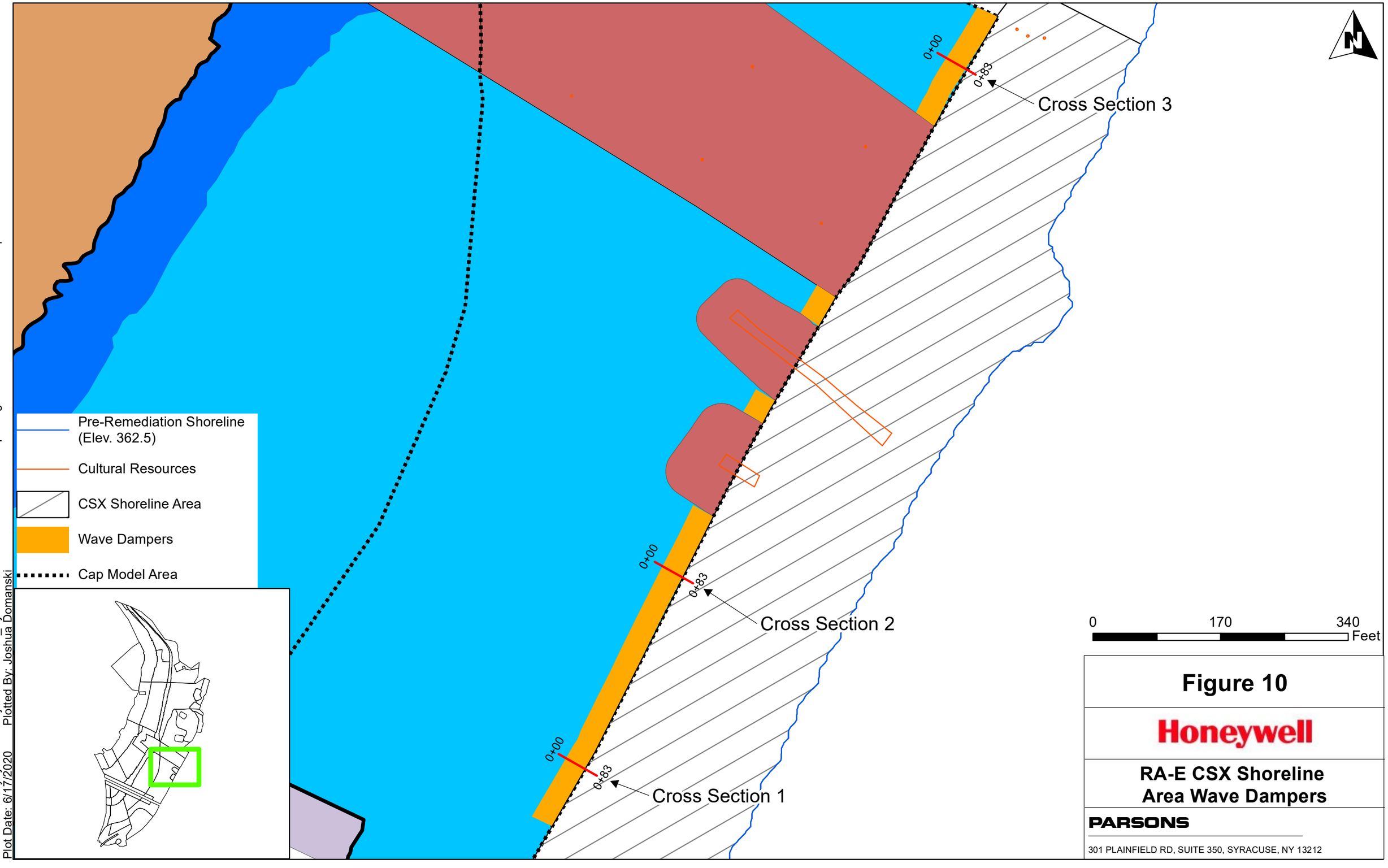


Figure 10

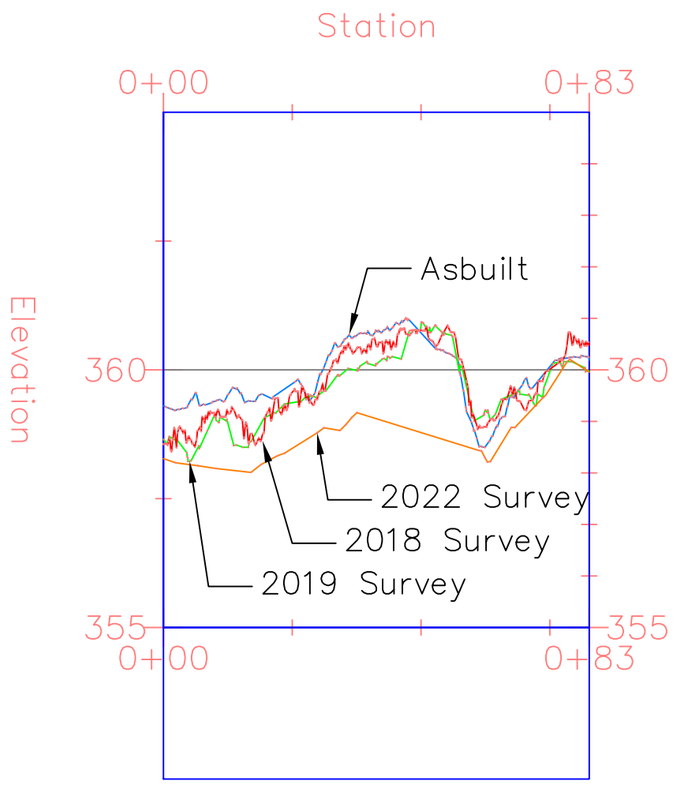
Honeywell

RA-E CSX Shoreline Area Wave Dampers

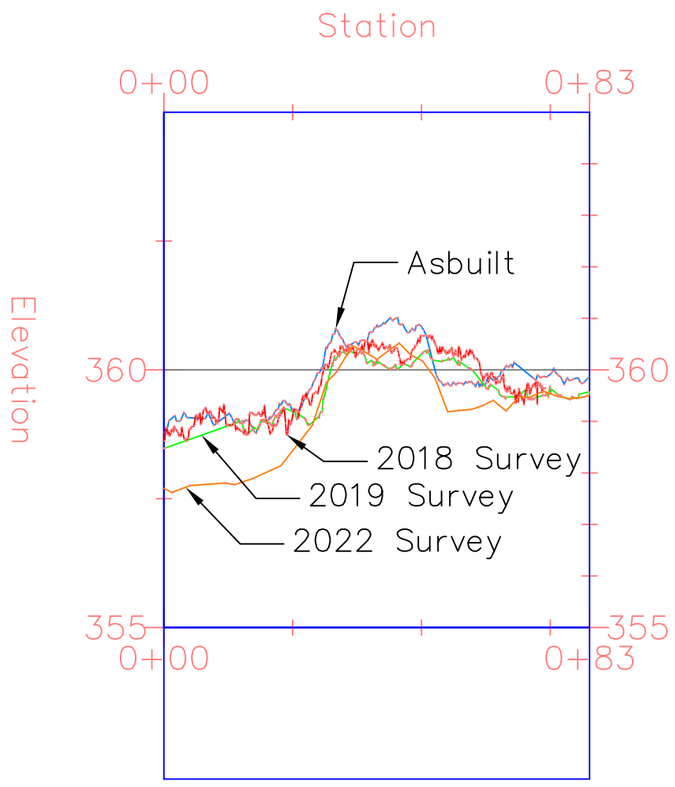
PARSONS
301 PLAINFIELD RD, SUITE 350, SYRACUSE, NY 13212

File Name: \\nysyr04fs01\Prj\Data\GIS\Hon_Syracuse\OLMMS\RAE Wave Damper\Figure 10 - 2019 RAE Wave Dampers.mxd
Plot Date: 6/17/2020 Plotted By: Joshua Domanski

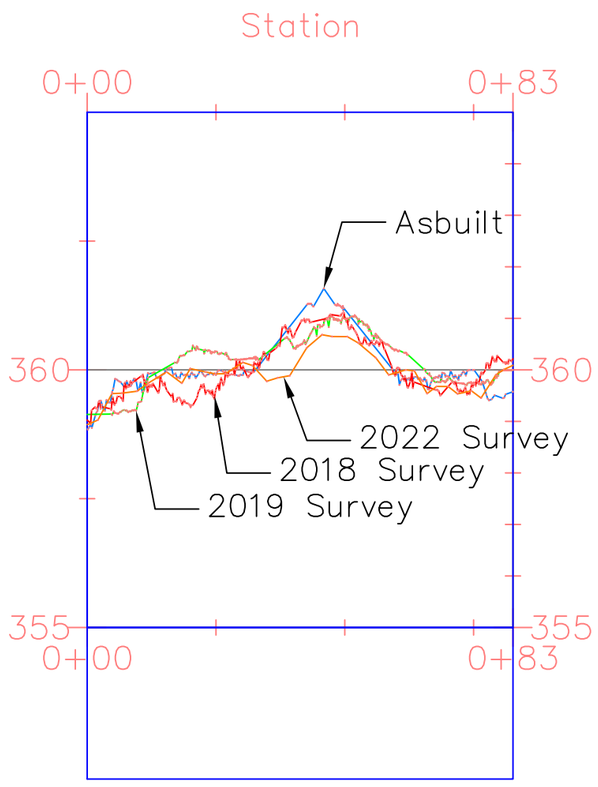
Cross Section 1 PROFILE



Cross Section 2 PROFILE



Cross Section 3 PROFILE



NOTES:

1) The wave dampers in RAE fall within a suspected area of anomalous survey data in 2022, so the results shown may not be indicative of the actual cap elevation. Additional survey will be conducted in 2023 in this area to confirm elevations.

Figure 11

Honeywell

RAE CSX SHORELINE AREA WAVE DAMPER CROSS SECTIONS

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212

FILE NAME: \\NYSYR04FS01\PRJDATA\GIS\HON_SYRACUSE\OU_MS\RAE WAVE DAMPER\RAE WAVE DAMPER.DWG
PLOT DATE: 6/8/2023 11:54 AM PLOTTED BY: DOMANSKI, JOSHUA [US-US]

APPENDIX 6D – DATA USABILITY AND SUMMARY REPORT

DATA USABILITY SUMMARY REPORT

ONONDAGA LAKE CAP MONITORING

Prepared For:

Honeywell

101 Columbia Road
Morristown, New Jersey 07962

Prepared By:

PARSONS

301 Plainfield Road, Suite 330
Syracuse, New York 13212

JUNE 2023 (REVISED DECEMBER 2025)

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LIST OF ATTACHMENTS

ATTACHMENT A – VALIDATED LABORATORY DATA

SECTION 1 DATA USABILITY SUMMARY

Sediment and porewater samples were collected as part of the Onondaga Lake Cap Monitoring sampling on June 9, 2022 through November 18, 2022. Analytical results from these samples were validated and reviewed by Parsons for usability with respect to the following requirements:

- Onondaga Lake Cap Monitoring Work Plan;
- Onondaga Lake Cap Monitoring QAPP; and
- USEPA Region II Standard Operating Procedures (SOPs) for organic and inorganic data review.

The analytical laboratory for this project was ALS in Rochester, New York. This laboratory is certified to conduct project analyses through the New York State Department of Health (NYSDOH) and the National Environmental Laboratory Accreditation Program (NELAP).

1.1 Laboratory Data Packages

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 10-61 days for the samples.

The laboratory data packages were paginated, complete, and overall were of good quality. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report summarized in Section 2.

1.2 Sampling and Chain-of-Custody

The samples were collected, shipped under a chain-of-custody (COC) record, and received at the laboratory within one to three days of sampling. All samples were received intact and in good condition at the laboratory.

1.3 Laboratory Analytical Methods

Sediment samples were collected and analyzed for the chemical parameters of interest (CPOI) volatile organic compounds (VOCs), CPOI semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), mercury, total organic carbon (TOC) and pH. Porewater samples were collected and analyzed for the CPOI VOCs including naphthalene, phenol, light polynuclear aromatic hydrocarbons (LPAHs), mercury, and pH. Summaries of issues concerning these laboratory analyses are presented in Subsections 1.3.1 through 1.3.5. The data qualifications resulting from the data validation review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) are discussed for each analytical method in Section 2 of this Data Usability Summary Report (DUSR). A USEPA Stage 4 data validation (i.e., full data validation) was conducted by Parsons on 10% of the project samples with the remaining 90% of the project samples undergoing a USEPA Stage 2B data validation which provides data defensibility. The laboratory data were reviewed and may be qualified with the following validation flags:

"U" - not detected at the value given,
"UJ" - estimated and not detected at the value given,
"J" - estimated at the value given,
"J+" - estimated biased high at the value given,
"J-" - estimated biased low at the value given,

"N" - presumptive evidence at the value given, and

"R" - unusable value.

The validated laboratory data were tabulated and are presented in Attachment A.

1.3.1 Volatile Organic Analysis

The project samples collected from the site were analyzed for CPOI VOCs (sediment) or CPOI VOCs including naphthalene (porewater) using the USEPA SW-846 8260C analytical method. Certain reported results for these samples were qualified as estimated based upon surrogate recoveries, instrument calibrations, internal standard responses, field duplicate precision, analytical certification, sample integrity, and percent solids content; and qualified as not detected based upon blank contamination. The reported volatile analytical results were 100% complete (i.e., usable) for the data presented by the laboratory. PARCCS requirements were met.

1.3.2 Semivolatile Organic Analysis

The project samples collected from the site were analyzed for CPOI SVOCs (sediment) or phenol and LPAHs (porewater) using the USEPA SW-846 8270D analytical method. Certain reported results for these samples were qualified as estimated based upon holding times, surrogate recoveries, laboratory control sample (LCS) recoveries, matrix spike/matrix spike duplicate (MS/MSD) recoveries, instrument calibrations, field duplicate precision, percent solids content, and dissolved concentrations greater than total concentrations. Certain reported results for these samples were considered unusable and qualified “R” based upon holding times and surrogate recoveries. The reported semivolatile analytical results were 99.5% to 99.9% complete (i.e., usable) for the data presented by the laboratory. PARCCS requirements were met overall.

1.3.3 PCB Organic Analysis

The sediment samples collected from the site were analyzed for PCBs using the USEPA SW-846 8082A analytical method. Certain reported results for these samples were qualified as estimated based upon surrogate recoveries, LCS recoveries, and percent solids content. The reported PCB analytical results were 100% complete (i.e., usable) for the data presented by the laboratory. PARCCS requirements were met.

1.3.4 Mercury Analysis

The project samples collected from the site were analyzed for mercury using the USEPA SW-846 7470A (porewater) and USEPA SW-846 7471B (sediment) analytical methods. Certain reported results for these samples were qualified as estimated based upon field duplicate precision and percent solids content. The reported mercury results were considered 100% complete (i.e., usable) for the data presented by the laboratory. PARCCS requirements were met.

1.3.5 General Chemistry Analysis

The project samples collected from the site were analyzed for TOC (sediment) using the USEPA approved Lloyd Kahn analytical method; and pH using the USEPA SW-846 9040 (porewater) and USEPA SW-846 9045D (sediment) analytical methods. Certain reported results for these samples were qualified as estimated based upon MS/MSD recoveries, laboratory duplicate precision, field duplicate precision, and percent solids content. The general chemistry results were considered 100% complete (i.e., usable) for the data presented by the laboratory. PARCCS requirements were met.

SECTION 2 DATA VALIDATION REPORT

2.1 Sediment Samples

Data review has been completed for data packages generated by the laboratory containing sediment samples collected from the site. The specific samples contained in these data packages, the analyses performed, and validated laboratory data are tabulated and presented in Attachment A-1. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory.

Data validation was performed for all samples in accordance with the project work plan, QAPP, and the USEPA Region II SOPs for organic and inorganic data review. This data validation and usability report is presented by analysis type.

2.1.1 CPOI VOCs

The following items were reviewed for compliancy in the volatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank contamination
- GC/MS instrument performance
- Sample result verification and identification
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of surrogate recoveries, blank contamination, continuing calibrations, and internal standard responses as discussed below.

Surrogate Recoveries

All sample surrogate recoveries were considered acceptable and within QC limits with the exception of the surrogate recoveries for dibromofluoromethane (QC limit 63-138%R) in samples OL-4009-06 (151%R), OL-4010-10 (307%R), -11 (341%R), OL-4022-12 (323%R), OL-4024-04 (231%R), -08 (153%R), and OL-4033-01 (328%R); toluene-d8 (QC limit 66-138%R) in sample OL-4033-01 (157%R); and 4-bromofluorobenzene (QC limit 31-154%R) in sample OL-4009-06 (30%R). Therefore, positive results where surrogate recoveries exceeded the QC limit were considered estimated, possibly biased high, and qualified "J+" for the affected samples. Results where surrogate recoveries fell below the QC limit were considered estimated, possibly biased low, with positive results qualified "J-" and nondetected results qualified "UJ" for the affected samples.

Blank Contamination

The QC equipment blank associated with samples in SDG R2207825 contained toluene at a concentration of 1.1 µg/L. Validation qualification was not required for the affected samples.

Continuing Calibrations

All continuing calibration compounds were compliant with minimum relative response factors (RRFs) of 0.05 and percent differences (%Ds) within ±20% with the exception of 1,3,5-trichlorobenzene (27.1%D) in the continuing calibration associated with samples in SDG R2206128 and samples OL-4012-01, -02, -03, -04, and -06 through -10; 1,3,5-trichlorobenzene (25.8%D) and 1,2,4-trichlorobenzene (23.2%D) in the continuing calibration associated with samples OL-4012-05 and -11 through -14; and 1,3,5-trichlorobenzene (21.0%D) in the continuing calibration associated with samples in SDG R2206504. Therefore, results for these compounds which were nondetects were considered estimated and qualified "UJ" for the affected samples.

Internal Standard Responses

All internal standard responses were considered acceptable and within QC limits with the exception of the low internal standard responses for 1,4-dichlorobenzene-d4 in samples OL-4009-06, OL-4011-02, OL-4023-04, OL-4032-04, and OL-4033-04; chlorobenzene-d5 in samples OL-4009-06 and OL-4032-04; and all low internal standard responses in samples OL-4010-10, -11, OL-4024-04, and OL-4033-01. Therefore, associated positive results were considered estimated, possibly biased high, and qualified "J+" while nondetected results qualified "UJ" for the affected samples.

Usability

All volatile results for the sediment samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The volatile sediment data presented by the laboratory were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A-1.

The 1,3,5-trichlorobenzene results were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the project samples since this compound is not certifiable using analytical method SW-846 8260C.

It was noted that samples OL-4033-01 and OL-4035-03 contained less than 30% solids. Therefore, the volatile results were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the affected samples.

It was noted that the QC trip blank sample OL-4035-12 was analyzed from a sample container with headspace. Therefore, results which were nondetects were considered estimated and qualified "UJ" for the affected sample.

2.1.2 CPOI SVOCs

The following items were reviewed for compliancy in the semivolatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank contamination

- GC/MS instrument performance
- Sample result verification and identification
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of holding times, surrogate recoveries, LCS recoveries, MS/MSD precision and accuracy, blank contamination, continuing calibrations, and field duplicate precision as discussed below.

Holding Times

Samples OL-4006-01, OL-4010-10, and OL-4033-07 exceeded the 14-day extraction holding time requirement by five to 14 days. Therefore, results were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the affected samples.

Surrogate Recoveries

All sample surrogate recoveries were considered acceptable and within QC limits with the exception of the low surrogate recoveries for 2,4,6-tribromophenol (QC limit 19-107%R) in samples OL-4009-04 (12%R), -06 (10%R), OL-4010-13 (2%R), OL-4011-10 (11%R), OL-4022-03 (16%R), OL-4024-06 (18%R), OL-4033-03 (17%R), and OL-4035-02 (14%R); 2-fluorophenol (QC limit 10-97%R) in samples OL-4009-04 (6%R), -06 (7%R), OL-4010-13 (2%R), OL-4011-10 (7%R), and OL-4033-08 (9%R); phenol-d6 (QC limit 17-135%R) in samples OL-4009-04 (9%R), -06 (9%R), OL-4008-18 (11%R), OL-4010-13 (2%R), OL-4011-10 (6%R), OL-4022-03 (16%R), and OL-4033-08 (15%R); p-terphenyl-d14 (QC limit 10-130%R) in samples OL-4004-03 (6%R), OL-4009-04 (8%R), -06 (6%R), OL-4010-13 (3%R), OL-4033-09 (7%R), and OL-4035-02 (7%R); 2-fluorobiphenyl (QC limit 10-115%R) in samples OL-4011-10 (7%R), OL-4033-01 (6%R), -03 (3%R), -08 (0%R), OL-4035-01 (8%R), and -02 (0%R); and nitrobenzene-d5 (QC limit 10-130%R) in samples OL-4011-10 (9%R), OL-4033-08 (7%R), OL-4035-01 (9%R), and -02 (9%R). Therefore, the nondetected base-neutral results were considered estimated and qualified "UJ" for sample OL-4011-10. Positive results were considered estimated, possibly biased low, and qualified "J" for sample OL-4033-08 while nondetected base-neutral results were considered unusable and qualified "R" for the affected sample. Base-neutral results were considered estimated, possibly biased low, with positive results qualified "J-" and nondetected results qualified "UJ" for samples OL-4035-01 and -02. Validation qualification was not required for the remaining affected samples.

LCS Recoveries

All LCS recoveries were considered acceptable and within QC limits with the exception of the low LCS recoveries for benzo(a)anthracene (36%R; QC limit 39-105%R), benzo(g,h,i)perylene (35%R; QC limit 36-140%R), chrysene (39%R; QC limit 40-120%R), fluoranthene (38%R; QC limit 41-110%R), indeno(1,2,3-cd)pyrene (34%R; QC limit 41-137%R), and phenanthrene (36%R; QC limit 37-112%R) associated with samples OL-4030-01 through -06; and phenanthrene (36%R; QC limit 37-112%R) associated with samples in SDG R2210383. Therefore, results for these compounds were considered estimated, possibly biased low, with positive results qualified "J-" and nondetected results qualified "UJ" for the affected samples.

MS/MSD Precision and Accuracy

All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable, within QC limits, and did not require qualification for designated spiked project samples with the exception of the low MS/MSD accuracy results for benzo(g,h,i)perylene during the spiked analyses of sample OL-4005-11. Therefore, the result for this compound was considered estimated and qualified "J" for the affected parent sample.

Blank Contamination

The QC equipment blank associated with samples in SDG R2207825 contained phenol below the reporting limit at a concentration of 0.084 µg/L. Validation qualification was not required for the affected samples.

Continuing Calibrations

All continuing calibration compounds were compliant with minimum relative response factors (RRFs) of 0.05 and percent differences (%Ds) within ±20% with the exception of indeno(1,2,3-cd)pyrene (21.4%D, 21.0%D) in the continuing calibrations associated with samples OL-4009-01 through -05, OL-4008-13 through -20, OL-4010-11 through -14, -17, and all samples in SDG R2206128 except OL-4011-03, -09, and -10. Therefore, results for this compound were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the affected samples.

Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the precision for naphthalene (91%RPD) associated with sample OL-4010-09 and its field duplicate OL-4010-11; all positive results associated with sample OL-4031-07 and its field duplicate OL-4031-08; and fluoranthene (70%RPD), naphthalene (115%RPD), phenanthrene (70%RPD), and pyrene (66%RPD) associated with sample OL-4033-10 and its field duplicate OL-4033-11. Therefore, results for these compounds were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the affected parent samples and field duplicates.

Usability

All semivolatile results for the sediment samples were considered usable following data validation with the exception of certain nondetected results based upon poor surrogate recoveries.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The semivolatile sediment data presented by laboratory were 99.9% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A-1.

It was noted that samples OL-4033-01 and OL-4035-03 contained less than 30% solids. Therefore, the volatile results were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the affected samples.

It was noted that naphthalene exceeded instrument calibration ranges in sample OL-4033-08. Therefore, this result was considered estimated and qualified "J" for the affected sample.

2.1.3 PCBs

The following items were reviewed for compliancy in the PCB analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank contamination
- Initial calibrations
- Verification calibrations

- Chromatogram quality
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of surrogate recoveries and LCS recoveries as discussed below.

Surrogate Recoveries

All sample surrogate recoveries were considered acceptable and within QC limits with the exception of the low surrogate recoveries for tetrachloro-m-xylene (QC limit 14-119%R) in samples OL-4009-04 (12%R), OL-4008-12 (13%R), -19 (4%R), OL-4022-13 (3%R), OL-4024-04 (6%R), and OL-4030-09 (13%R); and decachlorobiphenyl (QC limit 22-128%R) in samples OL-4008-19 (10%R), OL-4022-01 (13%R), -05 (19%R), -13 (6%R), OL-4023-02 (19%R), and OL-4032-10 (11%R). Therefore, results were considered estimated, possibly biased low, with positive results qualified "J-" and nondetected results qualified "UJ" for samples OL-4008-19 and OL-4022-13. Validation qualification was not required for the remaining affected samples.

LCS Recoveries

All LCS recoveries were considered acceptable and within QC limits with the exception of the low LCS recovery for PCB-1016 (40%R; QC limit 41-127%R) associated with samples in SDG R2208784. Therefore, associated results for this compound which were nondetects were considered estimated and qualified "UJ" for the affected samples.

Usability

All PCB results for the sediment samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The PCB data presented by the laboratory were 100% complete with all data considered usable and valid. The validated data are tabulated and presented in Attachment A-1.

It was noted that samples OL-4033-01 and OL-4035-03 contained less than 30% solids. Therefore, the PCB results which were nondetects were considered estimated and qualified "UJ" for the affected samples.

It should be noted that PCB sample detection limits may be higher than the detection limits defined in the QAPP for many samples. In order to avoid adverse impacts on instrumentation due to matrix interferences, it was necessary for the laboratory to use a smaller aliquot volume or dilute the sample even after sample clean-up. As a result, elevated detection limits were reported in some samples..

2.1.4 Mercury

The following items were reviewed for compliancy in the mercury analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration blank, and laboratory preparation blank contamination
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries

- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of MS/MSD recoveries and field duplicate precision as discussed below.

MS/MSD Recoveries

All MS/MSD recoveries were considered acceptable and within the 80-120%R QC limit with the exception of the MS/MSD recoveries for mercury associated with sample OL-4012-12 (126%R) and OL-4035-06 (126%R, 123%R). Validation qualification was not required for the affected samples.

Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the precision for mercury associated with sample OL-4035-07 and its field duplicate sample OL-4035-08. Therefore, the mercury results were considered estimated with the positive result qualified "J" and the nondetected result qualified "UJ" for the affected parent sample and field duplicate.

Usability

All mercury results for the sediment samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The mercury data for the sediment samples presented by the laboratory were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A-1.

It was noted that samples OL-4004-03, OL-4005-03, -07, OL-4032-05, -07, -10, OL-4034-01, OL-4033-01, -03, -06, -09, -12, -16, -18, OL-4035-01, -03, and OL-4046-04 contained less than 50% solids. Therefore, the mercury results were considered estimated and qualified "J" for the affected samples.

2.1.5 General Chemistry

The following items were reviewed for compliancy in the general chemistry analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Laboratory blank contamination
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of MS/MSD recoveries, laboratory duplicate precision, and field duplicate precision as discussed below.

MS/MSD Recoveries

All MS/MSD recoveries were considered acceptable and within QC limits with the exception of the high MS recovery for TOC (166%R; QC limit 27-162%R) associated with sample OL-4035-06. Therefore, the TOC result was considered estimated and qualified "J" for the affected sample.

Laboratory Duplicate Precision

All laboratory duplicate precision results were considered acceptable with the exception of the laboratory duplicate precision for TOC (49%RPD; QC limit 0-30%RPD) associated with sample OL-4010-10. Therefore, the TOC results were considered estimated and qualified "J" for the affected sample.

Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the precision for TOC (82%RPD, 121%RPD) associated with samples OL-4031-07 and OL-4035-07 and their field duplicate samples OL-4031-08 and OL-4035-08. Therefore, the TOC results were considered estimated and qualified "J" for the affected parent samples and field duplicates.

Usability

All general chemistry results for the sediment samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The general chemistry data for the sediment samples presented by the laboratory were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A-1.

It was noted that samples OL-4033-01 and OL-4035-03 contained less than 30% solids. Therefore, the TOC results were considered estimated and qualified "J" for the affected samples.

2.2 Porewater Samples

Data review has been completed for data packages generated by the laboratory containing porewater samples collected from the site. The specific samples contained in these data packages, the analyses performed, and validated laboratory data are tabulated and presented in Attachment A-2. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory.

Data validation was performed for all samples in accordance with the project work plan, QAPP, and the USEPA Region II SOPs for organic and inorganic data review. This data validation and usability report is presented by analysis type.

2.2.1 CPOI VOCs Including Naphthalene

The following items were reviewed for compliancy in the volatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank and trip/equipment blank contamination

- GC/MS instrument performance
- Sample result verification and identification
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of surrogate recoveries, LCS recoveries, and blank contamination as discussed below.

Surrogate Recoveries

All sample surrogate recoveries were considered acceptable and within QC limits with the exception of the low surrogate recoveries for 4-bromofluorobenzene (QC limit 85-122%R) in samples OL-4028-20 (83%R), -21 (80%R), OL-4029-01 (79%R), -09 (80%R), -11 (80%R), -12 (79%R); and dibromofluoromethane (QC limit 80-116%R) in samples OL-4029-11 (79%R), -12 (79%R). Therefore, results which were nondetects were considered estimated and qualified "UJ" for the affected samples.

LCS Recoveries

All LCS recoveries were considered acceptable and within QC limits with the exception of the high LCS recovery for benzene (120%R; QC limit 79-119%R) associated with samples OL-4028-17, -18, -21, OL-4029-01, -02, -03, -05, -06, -09, -11, and -12. Validation qualification was not required for the affected samples.

Blank Contamination

The laboratory method blank associated with samples OL-4028-17, -18, -21, OL-4029-01, -02, -03, -05, -06, -09, -11, and -12 contained 1,2,3-trichlorobenzene and 1,3,5-trichlorobenzene below the reporting limit at concentrations of 0.26 and 0.28 µg/L, respectively; the laboratory method blank associated with samples OL-4072-09, -11, -13, -14, -16, -18, -19, OL-4074-01, -03, -04, and samples in SDG R2210564 contained 1,2,3-trichlorobenzene below the reporting limit at a concentration of 0.26 µg/L; and the QC equipment blank associated with samples in SDG R2210382 contained 1,4-dichlorobenzene below the reporting limit at a concentration of 0.60 µg/L. Therefore, results for these compounds less than validation action concentrations were considered not detected and qualified "U" for the affected samples.

Usability

All volatile results for the porewater samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The volatile porewater data presented by the laboratory were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A-2.

The 1,3,5-trichlorobenzene results were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the project samples since this compound is not certifiable using analytical method SW-846 8260C.

It was noted that all samples were analyzed from sample containers with headspace in SDGs R2206272, R2208481, R2208526, R2210421, R2210454, R2210518, R2210519, R2210564, R2211048, R2211049, R2209872, R2210304, and R2210382; and samples OL-4016-01, -03, -04, OL-4017-01, -05, -06, -08, -10, -11, -13, -15, -16, OL-4018-01, -06, -08, OL-4020-03, -04, -06, -08, -09, OL-4027-01, -02, -03, -05, -07, -08, -10, -12, OL-4036-01, -03, -06, OL-4040-06, -08, -10, -13, -16, OL-4042-01, -03, OL-4044-01, -04, -09, -10, OL-4045-01, -03, -04, OL-4074-01, -03, -04, OL-4051-01, OL-4057-01, -02, OL-4061-01, -01DISS, OL-4062-01,

and -01DISS were analyzed from sample containers with headspace. This accounts for 140 samples out of a total of approximately 460 samples (30%). Therefore, all volatile results from samples with recorded headspace were considered estimated, possibly biased low, with positive results qualified "J-" and nondetected results qualified "UJ" for the affected samples.

It was noted that toluene exceeded the instrument calibration range in sample OL-4027-12. Therefore, this result was considered estimated and qualified "J" for the affected sample.

2.2.2 Phenol and LPAHs

The following items were reviewed for compliancy in the phenol and LPAH analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank and equipment blank contamination
- GC/MS instrument performance
- Sample result verification and identification
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of holding times, surrogate recoveries, LCS recoveries, blank contamination, and continuing calibrations as discussed below.

Holding Times

All samples in SDGs R2206271, R2208641, and samples OL-4068-02, and -03 exceeded the 7-day extraction holding time by two to 15 days. Therefore, results which were nondetects were considered estimated and qualified "UJ" for the affected samples. However, the nondetected results for samples OL-4014-02, -03, and -04 were considered unusable and qualified "R" based upon grossly exceeded holding times.

Surrogate Recoveries

All sample surrogate recoveries were considered acceptable and within QC limits with the exception of the surrogate recoveries for 2,4,6-tribromophenol (QC limit 37-117%R) in samples OL-4014-06 (124%R), -15 (178%R), OL-4020-13 (15%R), OL-4028-18 (31%R), OL-4037-02 (31%R), OL-4038-18 (36%R), OL-4040-16 (28%R), OL-4043-08 (26%R), OL-4044-08 (34%R), OL-4045-04 (31%R), OL-4047-11 (28%R), OL-4074-03 (23%R), OL-4075-08 (26%R), and OL-4057-01DISS (119%R); p-terphenyl-d14 (QC limit 25-151%R) in sample OL-4014-15 (175%R); 2-fluorophenol (QC limit 10-104%R) in samples OL-4020-13 (5%R) and OL-4081-08 (110%R); phenol-d6 (QC limit 10-83%R) in samples OL-4027-02 (88%R), -12 (87%R), -13 (89%R), OL-4028-03 (87%R), OL-4037-03 (85%R), -07 (86%R), -08 (86%R), -13 (88%R), -14 (86%R), -18 (92%R), OL-4082-15 (88%R), and OL-4057-01DISS (88%R); 2-fluorobiphenyl (QC limit 27-133%R) in sample OL-4028-18 (23%R); nitrobenzene-d5 (QC limit 31-167%R) in samples OL-4028-18 (26%R), OL-4037-02 (27%R), OL-4038-18 (29%R), OL-4040-16 (28%R), OL-4043-08 (25%R), OL-4044-08 (30%R), OL-4045-04 (28%R), and OL-4047-16 (27%R); the many high surrogate recoveries in samples OL-4014-11 and -12; and all low surrogate recoveries in samples OL-4013-13 and OL-4051-01. The nondetected phenol result for sample OL-4020-13 and the nondetected base-neutral results in sample OL-4028-18 were considered estimated and qualified "UJ". Positive phenol results for samples OL-4027-02, -12, -13, OL-4028-03, and OL-4057-01DISS were considered estimated,

possibly biased high, and qualified "J+". All results for sample OL-4051-01 which were nondetects were considered estimated and qualified "UJ".

LCS Recoveries

All LCS recoveries were considered acceptable and within QC limits with the exception of the low LCS recoveries for acenaphthene (46%R; QC limit 48-118%R) and phenanthrene (52%R; QC limit 54-116%R) associated with samples in SDGs R2208526 and R2208570; and the many low PAH LCS recoveries associated with samples in SDGs R2208641 and R2208712. Therefore, results for these compounds which were nondetects were considered estimated and qualified "UJ" for the affected samples.

Blank Contamination

The QC equipment blank associated with samples in SDG R2210382 contained phenol below the reporting limit at a concentration of 0.30 µg/L. Validation qualification was not required for the affected samples.

Continuing Calibrations

All continuing calibration compounds were compliant with minimum relative response factors (RRFs) of 0.05 and percent differences (%Ds) within ±20% with the exception of phenol (26%D) in the continuing calibration associated with samples OL-4037-02, -09, and -12. Therefore, results for this compound were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the affected samples.

Usability

All phenol and LPAH results for the porewater samples were considered usable following data validation with the exception of certain nondetected results based upon holding times.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The phenol and LPAH porewater data presented by laboratory were 99.5% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A-2.

It was noted that dissolved phenol results were significantly higher than total phenol results in samples OL-4051-01, OL-4052-01, OL-4054-01

2.2.3 Mercury

The following items were reviewed for compliancy in the mercury analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration blank, laboratory preparation blank, and equipment blank contamination
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols.

Usability

All mercury results for the porewater samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The mercury data for the porewater samples presented by the laboratory were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A-2.

ATTACHMENT A – VALIDATED LABORATORY DATA

ATTACHMENT A-1

VALIDATED LABORATORY DATA FOR SEDIMENT SAMPLES

				Location ID	OL-RAA-CAP-0011-H		OL-RAA-CAP-0011-H		OL-RAA-CAP-0013-H	
				Field Sample ID	OL-4000-07		OL-4000-08		OL-4000-09	
				Start Depth (ft)	0.25		1.167		0.25	
				End Depth (ft)	0.5		1.417		0.5	
				Sampled	6/8/2022		6/8/2022		6/8/2022	
				SDG	R2205304		R2205304		R2205304	
				Lab Sample ID	R2205304-007		R2205304-008		R2205304-009	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	74		74.7		72.4	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	20500		24700		20700	
SW7471	7439-97-6	Mercury	mg/kg	T	0.057		0.06		0.051	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	30	U	29	U	33	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	45	U	44	U	51	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	33	U	33	U	37	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	30	U	29	U	33	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	31	U	31	U	35	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	30	U	29	U	33	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	30	U	29	U	33	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	30	U	29	U	33	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	30	U	29	U	33	U
SW8082	PCB	Total PCBs	ug/kg	NA	45	U	44	U	51	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.66	U	0.65	U	0.95	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.53	U	0.52	U	0.77	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.26	U	0.25	U	0.37	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.39	UJ	0.39	UJ	0.57	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.26	U	0.25	U	0.37	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.28	U	0.28	U	0.48	J
SW8260	71-43-2	Benzene	ug/kg	NA	0.26	U	0.26	J	0.37	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.26	U	0.25	U	0.37	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.3	U	5.3	J	1.9	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.6	U	2.5	U	3.7	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.3	U	1.3	U	1.9	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.6	U	10		3.7	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.66	U	0.65	U	0.95	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.2	U	2.1	U	2.2	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.4	U	2.3	U	2.4	U
SW8270	120-12-7	Anthracene	ug/kg	NA	5.3	U	5	U	5.4	U

				Location ID	OL-RAA-CAP-0011-H		OL-RAA-CAP-0011-H		OL-RAA-CAP-0013-H	
				Field Sample ID	OL-4000-07		OL-4000-08		OL-4000-09	
				Start Depth (ft)	0.25		1.167		0.25	
				End Depth (ft)	0.5		1.417		0.5	
				Sampled	6/8/2022		6/8/2022		6/8/2022	
				SDG	R2205304		R2205304		R2205304	
				Lab Sample ID	R2205304-007		R2205304-008		R2205304-009	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	9.3		8.4		8.8	J
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	12		9.3		11	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	15		13		14	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	6.4	J	4.9	J	6.1	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	5.1	J	4.7	U	5.1	U
SW8270	218-01-9	Chrysene	ug/kg	NA	11		9.1		9.5	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.6	U	3.4	U	3.6	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	21		21		20	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.3	U	2.1	U	2.3	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	7.6	J	5.5	J	6.9	J
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.1	U	2.9	U	3.1	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	11		11		11	
SW8270	108-95-2	Phenol	ug/kg	NA	12	U	20	J	12	U
SW8270	129-00-0	Pyrene	ug/kg	NA	16		16		15	
SW9045	pH	pH	ph Units	NA	7.12		6.95		7.09	

				Location ID	OL-RAA-CAP-0013-H		OL-RAA-CAP-0014-H		OL-RAA-CAP-0014-H	
				Field Sample ID	OL-4000-10		OL-4000-05		OL-4000-06	
				Start Depth (ft)	0.75		0.25		0.833	
				End Depth (ft)	1		0.5		1.083	
				Sampled	6/8/2022		6/8/2022		6/8/2022	
				SDG	R2205304		R2205304		R2205304	
				Lab Sample ID	R2205304-010		R2205304-005		R2205304-006	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	72.3		74.9		75.6	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	29300		18700		26600	
SW7471	7439-97-6	Mercury	mg/kg	T	0.049		0.044		0.062	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	30	U	34	U	32	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	46	U	51	U	48	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	34	U	38	U	35	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	30	U	34	U	32	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	32	U	36	U	33	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	30	U	34	U	32	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	30	U	34	U	32	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	30	U	34	U	32	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	30	U	34	U	32	U
SW8082	PCB	Total PCBs	ug/kg	NA	46	U	51	U	48	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.75	U	0.64	U	0.6	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.61	U	0.52	U	0.48	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.29	U	0.25	U	0.23	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.45	UJ	0.39	UJ	0.36	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.29	U	0.25	U	0.23	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.32	U	0.38	J	0.26	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.29	U	0.25	U	0.23	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.29	U	0.25	U	0.23	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.5	U	1.6	J	10	
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.9	U	2.5	U	2.3	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.5	U	1.3	U	1.2	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.9	U	2.5	U	2.3	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.75	U	0.64	U	0.6	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.3	U	2.2	U	2.2	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.5	U	2.4	U	2.4	U
SW8270	120-12-7	Anthracene	ug/kg	NA	5.5	U	5.3	U	5.2	U

				Location ID	OL-RAA-CAP-0013-H		OL-RAA-CAP-0014-H		OL-RAA-CAP-0014-H	
				Field Sample ID	OL-4000-10		OL-4000-05		OL-4000-06	
				Start Depth (ft)	0.75		0.25		0.833	
				End Depth (ft)	1		0.5		1.083	
				Sampled	6/8/2022		6/8/2022		6/8/2022	
				SDG	R2205304		R2205304		R2205304	
				Lab Sample ID	R2205304-010		R2205304-005		R2205304-006	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	7.5	J	9.9		8.5	J
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	10		14		11	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	13		17		13	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	5	J	7.6	J	5.5	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	5.2	U	5.7	J	5.5	J
SW8270	218-01-9	Chrysene	ug/kg	NA	9		11		9.4	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.7	U	3.6	U	3.5	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	17		20		17	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.4	U	2.3	U	2.2	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	6.4	J	8.6		6.5	J
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.2	U	3	U	3	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	9.1		9.6		8.9	
SW8270	108-95-2	Phenol	ug/kg	NA	13	J	12	U	12	U
SW8270	129-00-0	Pyrene	ug/kg	NA	13		17		13	
SW9045	pH	pH	ph Units	NA	7.17		7.04		7.22	

				Location ID	OL-RAA-CAP-0017-H		OL-RAA-CAP-0017-H		OL-RAA-CAP-0018-H	
				Field Sample ID	OL-4000-01		OL-4000-02		OL-4000-03	
				Start Depth (ft)	0.25		1.167		0.25	
				End Depth (ft)	0.5		1.417		0.5	
				Sampled	6/8/2022		6/8/2022		6/8/2022	
				SDG	R2205304		R2205304		R2205304	
				Lab Sample ID	R2205304-001		R2205304-002		R2205304-003	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	73.4		75		70.5	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	21200		16300		24600	
SW7471	7439-97-6	Mercury	mg/kg	T	0.06		0.056		0.053	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	39	U	24	U	37	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	60	U	37	U	57	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	44	U	27	U	42	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	39	U	24	U	37	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	42	U	26	U	40	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	39	U	24	U	37	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	39	U	24	U	37	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	39	U	24	U	37	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	39	U	24	U	37	U
SW8082	PCB	Total PCBs	ug/kg	NA	60	U	37	U	57	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.61	U	0.58	U	0.72	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.5	U	0.47	U	0.58	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.24	U	0.23	U	0.28	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.37	UJ	0.35	UJ	0.43	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.24	U	0.23	U	0.28	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.26	U	0.25	U	0.31	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.24	U	0.23	U	0.28	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.24	U	0.23	U	0.28	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	1.2	U	1.4	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.4	U	2.3	U	2.8	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	1.2	U	1.4	U
SW8260	108-88-3	Toluene	ug/kg	NA	3.7	J	2.3	U	4	J
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.61	U	0.58	U	0.72	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.2	U	2.2	U	18	
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	7.9	J	4.3	J	2.4	U
SW8270	120-12-7	Anthracene	ug/kg	NA	9.3		5.3	U	19	

				Location ID	OL-RAA-CAP-0017-H		OL-RAA-CAP-0017-H		OL-RAA-CAP-0018-H	
				Field Sample ID	OL-4000-01		OL-4000-02		OL-4000-03	
				Start Depth (ft)	0.25		1.167		0.25	
				End Depth (ft)	0.5		1.417		0.5	
				Sampled	6/8/2022		6/8/2022		6/8/2022	
				SDG	R2205304		R2205304		R2205304	
				Lab Sample ID	R2205304-001		R2205304-002		R2205304-003	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	36		18		87	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	53		27		140	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	61		29		140	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	32		14		57	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	21		13		56	
SW8270	218-01-9	Chrysene	ug/kg	NA	43		22		99	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	7.3	J	4.6	J	18	
SW8270	206-44-0	Fluoranthene	ug/kg	NA	100		52		150	
SW8270	86-73-7	Fluorene	ug/kg	NA	5	J	2.7	J	10	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	36		16		69	
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.1	U	3.1	U	10	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	59		29		90	
SW8270	108-95-2	Phenol	ug/kg	NA	12	U	12	U	12	U
SW8270	129-00-0	Pyrene	ug/kg	NA	80		38		120	
SW9045	pH	pH	ph Units	NA	6.86		7.01		7.31	

				Location ID	OL-RAA-CAP-0018-H	
				Field Sample ID	OL-4000-04	
				Start Depth (ft)	1.167	
				End Depth (ft)	1.417	
				Sampled	6/8/2022	
				SDG	R2205304	
				Lab Sample ID	R2205304-004	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	70.9	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	11000	
SW7471	7439-97-6	Mercury	mg/kg	T	0.074	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	35	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	53	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	39	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	35	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	37	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	35	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	35	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	35	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	35	U
SW8082	PCB	Total PCBs	ug/kg	NA	53	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.72	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.59	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.28	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.43	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.34	J
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.31	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.28	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.29	J
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.4	J
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.8	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.4	U
SW8260	108-88-3	Toluene	ug/kg	NA	3.4	J
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.72	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.4	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.6	U
SW8270	120-12-7	Anthracene	ug/kg	NA	5.7	U

				Location ID	OL-RAA-CAP-0018-H	
				Field Sample ID	OL-4000-04	
				Start Depth (ft)	1.167	
				End Depth (ft)	1.417	
				Sampled	6/8/2022	
				SDG	R2205304	
				Lab Sample ID	R2205304-004	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	7	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	7.9	J
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	10	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	4.7	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	5.3	U
SW8270	218-01-9	Chrysene	ug/kg	NA	7.6	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.8	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	15	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.4	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	5.3	J
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.3	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	8.6	J
SW8270	108-95-2	Phenol	ug/kg	NA	13	U
SW8270	129-00-0	Pyrene	ug/kg	NA	11	
SW9045	pH	pH	ph Units	NA	7.25	

				Location ID	OL-RAA-CAP-0012-H		OL-RAA-CAP-0012-H		OL-RAA-CAP-0012-H	
				Field Sample ID	OL-4001-03		OL-4001-05		OL-4001-04	
				Start Depth (ft)	0.25		0.25		0.625	
				End Depth (ft)	0.5		0.5		0.875	
				Sampled	6/9/2022		6/9/2022		6/9/2022	
				SDG	R2205328		R2205328		R2205328	
				Lab Sample ID	R2205328-003		R2205328-005		R2205328-004	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		FD		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	68.7		71.1		69.2	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	25100		18600		20400	
SW7471	7439-97-6	Mercury	mg/kg	T	0.075		0.053		0.06	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	52	U	60	U	52	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	79	U	91	U	79	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	58	U	67	U	58	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	52	U	60	U	52	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	55	U	63	U	55	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	52	U	60	U	52	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	52	U	60	U	52	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	52	U	60	U	52	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	52	U	60	U	52	U
SW8082	PCB	Total PCBs	ug/kg	NA	79	U	91	U	79	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.63	U	0.83	U	0.82	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.51	U	0.67	U	0.66	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.24	U	0.32	U	0.32	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.38	UJ	0.5	UJ	0.49	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.24	U	0.32	U	0.32	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.27	U	0.35	U	0.35	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.24	U	0.32	U	0.32	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.24	U	0.32	U	0.32	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	1.8	J	1.6	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.4	U	3.2	U	3.2	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	1.6	U	1.6	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.4	U	3.2	U	3.2	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.63	U	0.83	U	0.82	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.4	U	2.4	U	2.3	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.6	U	2.6	U	2.5	U
SW8270	120-12-7	Anthracene	ug/kg	NA	5.7	U	5.7	U	5.5	U

				Location ID	OL-RAA-CAP-0012-H		OL-RAA-CAP-0012-H		OL-RAA-CAP-0012-H	
				Field Sample ID	OL-4001-03		OL-4001-05		OL-4001-04	
				Start Depth (ft)	0.25		0.25		0.625	
				End Depth (ft)	0.5		0.5		0.875	
				Sampled	6/9/2022		6/9/2022		6/9/2022	
				SDG	R2205328		R2205328		R2205328	
				Lab Sample ID	R2205328-003		R2205328-005		R2205328-004	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		FD		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	7.1	U	7.5	J	7.5	J
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	7.3	J	9.4		8.6	J
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	8.8	J	13		11	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	4.1	J	5.4	J	4.9	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	5.4	U	5.4	U	5.2	U
SW8270	218-01-9	Chrysene	ug/kg	NA	5.3	J	8.3	J	7.7	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.8	U	3.8	U	3.7	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	11		16		15	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.4	U	2.4	U	2.4	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	4.3	J	4.1	U	4	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.3	U	3.3	U	3.2	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	5.9	J	8.1	J	8.3	J
SW8270	108-95-2	Phenol	ug/kg	NA	13	U	13	U	13	U
SW8270	129-00-0	Pyrene	ug/kg	NA	8.5	J	12		12	
SW9045	pH	pH	ph Units	NA	6.84		6.94		6.85	

				Location ID	OL-RAA-CAP-0015-H	
				Field Sample ID	OL-4001-01	
				Start Depth (ft)	0.25	
				End Depth (ft)	0.5	
				Sampled	6/9/2022	
				SDG	R2205328	
				Lab Sample ID	R2205328-001	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	93	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	16200	
SW7471	7439-97-6	Mercury	mg/kg	T	0.054	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	24	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	37	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	27	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	24	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	26	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	24	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	24	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	24	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	24	U
SW8082	PCB	Total PCBs	ug/kg	NA	37	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.45	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.36	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.17	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.17	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.19	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.17	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.17	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	0.85	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	1.7	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	0.85	U
SW8260	108-88-3	Toluene	ug/kg	NA	1.7	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.45	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.3	J
SW8270	120-12-7	Anthracene	ug/kg	NA	4.2	U

				Location ID	OL-RAA-CAP-0015-H	
				Field Sample ID	OL-4001-01	
				Start Depth (ft)	0.25	
				End Depth (ft)	0.5	
				Sampled	6/9/2022	
				SDG	R2205328	
				Lab Sample ID	R2205328-001	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	19	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	25	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	31	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	14	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	10	
SW8270	218-01-9	Chrysene	ug/kg	NA	22	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	4	J
SW8270	206-44-0	Fluoranthene	ug/kg	NA	37	
SW8270	86-73-7	Fluorene	ug/kg	NA	1.8	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	15	
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.4	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	13	
SW8270	108-95-2	Phenol	ug/kg	NA	9.2	U
SW8270	129-00-0	Pyrene	ug/kg	NA	31	
SW9045	pH	pH	ph Units	NA		

					Location ID		OL-RAA-CAP-0015-H		OL-RAA-CAP-0019-H		OL-RAA-CAP-0019-H	
					Field Sample ID		OL-4001-02		OL-4001-06		OL-4001-07	
					Start Depth (ft)		0.75		0.25		0.917	
					End Depth (ft)		1		0.5		1.17	
					Sampled		6/9/2022		6/9/2022		6/9/2022	
					SDG		R2205328		R2205328		R2205328	
					Lab Sample ID		R2205328-002		R2205328-006		R2205328-007	
					Medium		Solid		Solid		Solid	
					Sample Type		REG		REG		REG	
					Matrix		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
E160.3	SOLIDS	Total Solids	%	NA	68.7		80.7		80			
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	12900		18200		15100			
SW7471	7439-97-6	Mercury	mg/kg	T	0.121		0.085		0.057			
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	30	U	45	U	48	U		
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	45	U	68	U	72	U		
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	33	U	50	U	53	U		
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	30	U	45	U	48	U		
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	31	U	47	U	50	U		
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	30	U	45	U	48	U		
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	30	U	45	U	48	U		
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	30	U	45	U	48	U		
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	30	U	45	U	48	U		
SW8082	PCB	Total PCBs	ug/kg	NA	45	U	68	U	72	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.6	U	0.51	U	0.68	U		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.48	U	0.42	U	0.55	U		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.23	U	0.2	U	0.26	U		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.36	UJ	0.31	UJ	0.41	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.23	U	0.2	U	0.26	U		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.25	U	0.22	U	0.29	U		
SW8260	71-43-2	Benzene	ug/kg	NA	0.23	U	0.2	U	0.26	U		
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.23	U	0.2	U	0.26	U		
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	0.98	U	1.3	U		
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.3	U	2	U	2.6	U		
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	0.98	U	1.3	U		
SW8260	108-88-3	Toluene	ug/kg	NA	2.3	U	2	U	2.6	U		
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.6	U	0.51	U	0.68	U		
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.3	U	1.8	U	2	U		
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.5	U	2	U	2.2	U		
SW8270	120-12-7	Anthracene	ug/kg	NA	5.5	U	4.4	U	4.9	U		

				Location ID	OL-RAA-CAP-0015-H		OL-RAA-CAP-0019-H		OL-RAA-CAP-0019-H		
				Field Sample ID	OL-4001-02		OL-4001-06		OL-4001-07		
				Start Depth (ft)	0.75		0.25		0.917		
				End Depth (ft)	1		0.5		1.17		
				Sampled	6/9/2022		6/9/2022		6/9/2022		
				SDG	R2205328		R2205328		R2205328		
				Lab Sample ID	R2205328-002		R2205328-006		R2205328-007		
				Medium	Solid		Solid		Solid		
				Sample Type	REG		REG		REG		
				Matrix	SED		SED		SED		
Method	Parameter Code	Parameter Name	Units	Fraction							
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	7.7	J	15		6	U	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	9.5		19		6.5	J	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	12		19		8.4		
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	5.7	J	12		4.2	J	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	5.2	U	15		4.6	U	
SW8270	218-01-9	Chrysene	ug/kg	NA	7.9	J	17		5.3	J	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.7	U	9.5		3.3	U	
SW8270	206-44-0	Fluoranthene	ug/kg	NA	14		14		9.9		
SW8270	86-73-7	Fluorene	ug/kg	NA	2.4	U	1.9	U	2.1	U	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	5.9	J	14		4.2	J	
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.2	U	2.5	U	2.8	U	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	7.1	J	4.8	J	5.4	J	
SW8270	108-95-2	Phenol	ug/kg	NA	12	U	9.6	U	11	U	
SW8270	129-00-0	Pyrene	ug/kg	NA	12		11		8.1		
SW9045	pH	pH	ph Units	NA			7.45		6.93		

				Location ID	OL-RAA-CAP-0016-H		OL-RAA-CAP-0016-H		OL-RAA-CAP-0020-H	
				Field Sample ID	OL-4002-01		OL-4002-02		OL-4002-05	
				Start Depth (ft)	0.25		0.625		0.25	
				End Depth (ft)	0.5		0.875		0.5	
				Sampled	6/13/2022		6/13/2022		6/13/2022	
				SDG	R2205425		R2205425		R2205425	
				Lab Sample ID	R2205425-001		R2205425-002		R2205425-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	74.7		69.3		64.6	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	19400		20200		11100	
SW7471	7439-97-6	Mercury	mg/kg	T	0.044		0.05		0.211	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	43	U	48	U	110	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	66	U	73	U	170	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	48	U	53	U	120	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	43	U	48	U	110	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	46	U	51	U	120	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	43	U	48	U	110	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	43	U	48	U	110	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	43	U	48	U	110	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	43	U	48	U	110	U
SW8082	PCB	Total PCBs	ug/kg	NA	66	U	73	U	170	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.65	U	1.1	U	0.79	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.53	U	0.82	U	0.64	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.25	U	0.39	U	0.31	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.39	UJ	0.61	UJ	0.48	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.25	U	0.39	U	0.31	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.28	U	0.43	U	0.78	J
SW8260	71-43-2	Benzene	ug/kg	NA	0.25	U	0.39	U	0.31	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.25	U	0.39	U	0.31	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.3	U	3.8	J	1.6	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.5	U	3.9	U	3.1	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.3	U	2	U	1.6	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.5	U	4.9	J	3.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.65	U	1.1	U	0.79	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.2	U	2.4	U	2.5	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.4	U	2.6	U	2.7	U
SW8270	120-12-7	Anthracene	ug/kg	NA	5.3	U	5.8	U	6.1	U

				Location ID	OL-RAA-CAP-0016-H		OL-RAA-CAP-0016-H		OL-RAA-CAP-0020-H	
				Field Sample ID	OL-4002-01		OL-4002-02		OL-4002-05	
				Start Depth (ft)	0.25		0.625		0.25	
				End Depth (ft)	0.5		0.875		0.5	
				Sampled	6/13/2022		6/13/2022		6/13/2022	
				SDG	R2205425		R2205425		R2205425	
				Lab Sample ID	R2205425-001		R2205425-002		R2205425-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	9.8		8.3	J	12	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	12		10		19	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	14		13		23	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	7.7	J	7.5	J	16	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	5	U	5.4	U	7.8	J
SW8270	218-01-9	Chrysene	ug/kg	NA	13		9.7		15	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.6	U	3.9	U	4.1	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	22		20		28	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.3	U	2.5	U	2.6	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	7.6	J	8.2	J	15	
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.1	U	3.3	U	3.5	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	15		12		8.9	J
SW8270	108-95-2	Phenol	ug/kg	NA	12	U	13	U	14	U
SW8270	129-00-0	Pyrene	ug/kg	NA	18		16		23	
SW9045	pH	pH	ph Units	NA	7.03		6.85			

				Location ID	OL-RAA-CAP-0020-H		OL-RAA-CAP-0021-H		OL-RAA-CAP-0021-H	
				Field Sample ID	OL-4002-06		OL-4002-03		OL-4002-04	
				Start Depth (ft)	1.04		0.25		0.792	
				End Depth (ft)	1.29		0.5		1.04	
				Sampled	6/13/2022		6/13/2022		6/13/2022	
				SDG	R2205425		R2205425		R2205425	
				Lab Sample ID	R2205425-006		R2205425-003		R2205425-004	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	73.4		80.7		81	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	15500		12000		12500	
SW7471	7439-97-6	Mercury	mg/kg	T	0.074		0.067		0.065	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	74	U	45	U	41	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	120	U	69	U	62	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	83	U	51	U	45	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	74	U	45	U	41	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	78	U	48	U	43	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	74	U	45	U	41	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	74	U	45	U	41	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	74	U	45	U	41	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	74	U	45	U	41	U
SW8082	PCB	Total PCBs	ug/kg	NA	120	U	69	U	62	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.73	U	0.44	U	0.52	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.59	U	0.36	U	0.42	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.29	U	0.17	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.44	UJ	0.27	UJ	0.31	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.29	U	0.17	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.31	U	0.19	U	0.22	U
SW8260	71-43-2	Benzene	ug/kg	NA	1.6	J	0.17	U	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.29	U	0.17	U	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.5	U	0.85	U	0.99	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.9	U	1.7	U	2	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.5	U	0.85	U	0.99	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.9	U	1.7	U	3.8	J
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.73	U	0.44	U	0.52	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.2	U	2.1	U	1.9	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.4	U	2.3	U	2.1	U
SW8270	120-12-7	Anthracene	ug/kg	NA	5.3	U	5	U	4.5	U

				Location ID	OL-RAA-CAP-0020-H		OL-RAA-CAP-0021-H		OL-RAA-CAP-0021-H	
				Field Sample ID	OL-4002-06		OL-4002-03		OL-4002-04	
				Start Depth (ft)	1.04		0.25		0.792	
				End Depth (ft)	1.29		0.5		1.04	
				Sampled	6/13/2022		6/13/2022		6/13/2022	
				SDG	R2205425		R2205425		R2205425	
				Lab Sample ID	R2205425-006		R2205425-003		R2205425-004	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	8.5	J	11		7.2	J
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	10		16		9.6	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	13		19		11	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	8.2	J	12		7	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	5	U	7.7	J	4.3	U
SW8270	218-01-9	Chrysene	ug/kg	NA	8.8		15		8.7	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.6	U	3.7	J	3.1	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	17		27		17	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.3	U	2.1	U	2	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	7.6	J	10		6.7	J
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.1	U	2.9	U	2.6	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	7.9	J	13		8.3	
SW8270	108-95-2	Phenol	ug/kg	NA	12	U	11	U	9.9	U
SW8270	129-00-0	Pyrene	ug/kg	NA	15		24		14	
SW9045	pH	pH	ph Units	NA						

				Location ID	OL-RAB-CAP-0006-H		OL-RAB-CAP-0006-H	
				Field Sample ID	OL-4002-07		OL-4002-08	
				Start Depth (ft)	0.25		0.792	
				End Depth (ft)	0.5		1.04	
				Sampled	6/13/2022		6/13/2022	
				SDG	R2205425		R2205425	
				Lab Sample ID	R2205425-007		R2205425-008	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
E160.3	SOLIDS	Total Solids	%	NA	68.9		68.6	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	18400		18600	
SW7471	7439-97-6	Mercury	mg/kg	T	0.06		0.087	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	72	U	47	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	110	U	71	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	81	U	52	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	72	U	47	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	76	U	49	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	72	U	47	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	72	U	47	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	72	U	47	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	72	U	47	U
SW8082	PCB	Total PCBs	ug/kg	NA	110	U	71	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.69	U	0.67	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.56	U	0.54	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.27	U	0.26	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.41	UJ	0.4	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.27	U	0.26	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.3	U	0.29	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.27	U	0.26	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.27	U	0.26	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.4	U	1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.7	U	2.6	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.4	U	1.3	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.7	U	2.6	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.69	U	0.67	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	6.4	J	3.2	J
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	10		10	
SW8270	120-12-7	Anthracene	ug/kg	NA	15		11	

				Location ID	OL-RAB-CAP-0006-H		OL-RAB-CAP-0006-H	
				Field Sample ID	OL-4002-07		OL-4002-08	
				Start Depth (ft)	0.25		0.792	
				End Depth (ft)	0.5		1.04	
				Sampled	6/13/2022		6/13/2022	
				SDG	R2205425		R2205425	
				Lab Sample ID	R2205425-007		R2205425-008	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	52		34	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	76		52	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	87		64	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	49		35	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	43		23	
SW8270	218-01-9	Chrysene	ug/kg	NA	65		43	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	13		9.7	
SW8270	206-44-0	Fluoranthene	ug/kg	NA	130		72	
SW8270	86-73-7	Fluorene	ug/kg	NA	7.2	J	5.7	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	54		39	
SW8270	91-20-3	Naphthalene	ug/kg	NA	19		13	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	99		43	
SW8270	108-95-2	Phenol	ug/kg	NA	13	U	13	U
SW8270	129-00-0	Pyrene	ug/kg	NA	110		63	
SW9045	pH	pH	ph Units	NA	7.28		7.56	

				Location ID	OL-RAC-CAP-0013-H	
				Field Sample ID	OL-4003-01	
				Start Depth (ft)	0	
				End Depth (ft)	0.5	
				Sampled	6/20/2022	
				SDG	R2205685	
				Lab Sample ID	R2205685-001	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	90.8	
SW7471	7439-97-6	Mercury	mg/kg	T	0.008	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	29	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	45	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	33	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	29	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	31	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	29	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	29	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	29	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	29	U
SW8082	PCB	Total PCBs	ug/kg	NA	45	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.3	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.9	U
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.7	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4	U
SW8270	218-01-9	Chrysene	ug/kg	NA	2.9	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.2	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.1	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.5	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.4	U

				Location ID	OL-RAB-CAP-0009-H		OL-RAB-CAP-0009-H		OL-RAB-CAP-0019-H		OL-RAB-CAP-0019-H	
				Field Sample ID	OL-4004-01		OL-4004-02		OL-4004-03		OL-4004-04	
				Start Depth (ft)	0.25		1.17		0.25		1.5	
				End Depth (ft)	0.5		1.42		0.5		1.75	
				Sampled	6/22/2022		6/22/2022		6/22/2022		6/22/2022	
				SDG	R2205714		R2205714		R2205714		R2205714	
				Lab Sample ID	R2205714-001		R2205714-002		R2205714-003		R2205714-004	
				Medium	Solid		Solid		Solid		Solid	
				Sample Type	REG		REG		REG		REG	
				Matrix	SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
E160.3	SOLIDS	Total Solids	%	NA	70.4		68.2		34		73.5	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	18100		18500		22100		15600	
SW7471	7439-97-6	Mercury	mg/kg	T	0.045		0.045		0.054	J	0.053	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	73	U	25	U	150	U	24	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	120	U	39	U	230	U	36	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	81	U	28	U	170	U	26	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	73	U	25	U	150	U	24	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	77	U	27	U	160	U	25	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	73	U	25	U	150	U	24	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	73	U	25	U	150	U	24	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	73	U	25	U	150	U	24	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	73	U	25	U	150	U	24	U
SW8082	PCB	Total PCBs	ug/kg	NA	120	U	39	U	230	U	36	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.82	U	0.71	U	1.5	U	0.58	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.67	U	0.57	U	1.3	U	0.47	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.32	U	0.27	U	0.58	U	0.23	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.49	UJ	0.42	UJ	0.9	UJ	0.35	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.32	U	0.27	U	0.58	U	0.23	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.35	U	0.3	U	0.64	U	0.25	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.32	U	0.27	U	0.58	U	0.23	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.32	U	0.27	U	0.58	U	0.23	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.6	U	1.4	U	2.9	U	1.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	3.2	U	2.7	U	5.8	U	2.3	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.6	U	1.4	U	2.9	U	1.2	U
SW8260	108-88-3	Toluene	ug/kg	NA	3.2	U	2.7	U	35		2.3	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.82	U	0.71	U	1.5	U	0.58	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.6	J	7.5	J	4.7	U	2.2	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	3.2	J	4	J	5.1	U	5.8	J
SW8270	120-12-7	Anthracene	ug/kg	NA	6.7	J	13		12	U	7.3	J
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	22		41		14	U	27	

				Location ID	OL-RAB-CAP-0009-H		OL-RAB-CAP-0009-H		OL-RAB-CAP-0019-H		OL-RAB-CAP-0019-H	
				Field Sample ID	OL-4004-01		OL-4004-02		OL-4004-03		OL-4004-04	
				Start Depth (ft)	0.25		1.17		0.25		1.5	
				End Depth (ft)	0.5		1.42		0.5		1.75	
				Sampled	6/22/2022		6/22/2022		6/22/2022		6/22/2022	
				SDG	R2205714		R2205714		R2205714		R2205714	
				Lab Sample ID	R2205714-001		R2205714-002		R2205714-003		R2205714-004	
				Medium	Solid		Solid		Solid		Solid	
				Sample Type	REG		REG		REG		REG	
				Matrix	SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	32		64		11	J	36	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	34		68		11	J	39	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	21		40		7.9	U	21	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	12		24		11	U	14	
SW8270	218-01-9	Chrysene	ug/kg	NA	23		45		7.6	U	30	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	5.7	J	11		7.6	U	6.7	J
SW8270	206-44-0	Fluoranthene	ug/kg	NA	39		78		14	U	53	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.9	J	5.9	J	4.8	U	2.3	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	22		44		8.2	U	23	
SW8270	91-20-3	Naphthalene	ug/kg	NA	5.3	J	7.1	J	6.5	U	3.8	J
SW8270	85-01-8	Phenanthrene	ug/kg	NA	21		47		9.9	U	27	
SW8270	108-95-2	Phenol	ug/kg	NA	12	U	13	U	25	U	12	U
SW8270	129-00-0	Pyrene	ug/kg	NA	39		68		12	J	48	
SW9045	pH	pH	ph Units	NA	7.09		7.05		7.3		7.07	

				Location ID	OL-RAD-CAP-0041-H		OL-RAD-CAP-0041-H		OL-RAD-CAP-0042-H	
				Field Sample ID	OL-4005-01		OL-4005-02		OL-4005-05	
				Start Depth (ft)	0.25		0.5		0.25	
				End Depth (ft)	0.5		0.75		0.5	
				Sampled	6/22/2022		6/22/2022		6/23/2022	
				SDG	R2205796		R2205796		R2205796	
				Lab Sample ID	R2205796-001		R2205796-002		R2205796-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	66.2		75.8		52	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	32300		16700		26800	
SW7471	7439-97-6	Mercury	mg/kg	T	0.154		0.03		0.067	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	72	U	65	U	87	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	120	U	100	U	140	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	81	U	73	U	98	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	72	U	65	U	87	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	77	U	69	U	93	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	72	U	65	U	87	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	72	U	65	U	87	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	72	U	65	U	87	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	72	U	65	U	87	U
SW8082	PCB	Total PCBs	ug/kg	NA	120	U	100	U	140	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.66	U	0.53	U	1.1	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.54	U	0.43	U	0.83	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.26	U	0.21	U	0.4	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.4	UJ	0.32	UJ	0.61	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.26	U	0.21	U	0.4	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.28	U	0.23	U	0.72	J
SW8260	71-43-2	Benzene	ug/kg	NA	0.26	U	0.21	U	0.5	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.26	U	0.21	U	0.67	J
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.3	U	1.1	U	2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.6	U	2.1	U	4	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.3	U	1.1	U	2	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.6	U	2.1	U	4	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.66	U	0.53	U	1.1	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.5	U	4.2	J	21	
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.7	U	2.2	U	28	
SW8270	120-12-7	Anthracene	ug/kg	NA	6	U	5	J	82	

				Location ID	OL-RAD-CAP-0041-H		OL-RAD-CAP-0041-H		OL-RAD-CAP-0042-H	
				Field Sample ID	OL-4005-01		OL-4005-02		OL-4005-05	
				Start Depth (ft)	0.25		0.5		0.25	
				End Depth (ft)	0.5		0.75		0.5	
				Sampled	6/22/2022		6/22/2022		6/23/2022	
				SDG	R2205796		R2205796		R2205796	
				Lab Sample ID	R2205796-001		R2205796-002		R2205796-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	8	J	14		280	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	11		17		440	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	14		20		520	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	8	J	12		260	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	5.7	U	6.8	J	170	
SW8270	218-01-9	Chrysene	ug/kg	NA	10		14		380	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	4.1	U	3.2	U	67	
SW8270	206-44-0	Fluoranthene	ug/kg	NA	17		28		660	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.6	U	2.3	J	41	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	7.5	J	13		290	
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.5	U	3	J	15	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	8.8	J	19		350	
SW8270	108-95-2	Phenol	ug/kg	NA	14	U	11	U	17	U
SW8270	129-00-0	Pyrene	ug/kg	NA	16		22		560	
SW9045	pH	pH	ph Units	NA	6.18		7.1			

				Location ID	OL-RAD-CAP-0042-H		OL-RAD-CAP-0043-H		OL-RAD-CAP-0043-H		OL-RAD-CAP-0044-H	
				Field Sample ID	OL-4005-06		OL-4005-09		OL-4005-10		OL-4005-07	
				Start Depth (ft)	0.958		0.25		0.833		0.25	
				End Depth (ft)	1.21		0.5		1.08		0.5	
				Sampled	6/23/2022		6/23/2022		6/23/2022		6/23/2022	
				SDG	R2205796		R2205796		R2205796		R2205796	
				Lab Sample ID	R2205796-006		R2205796-009		R2205796-010		R2205796-007	
				Medium	Solid		Solid		Solid		Solid	
				Sample Type	REG		REG		REG		REG	
				Matrix	SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
E160.3	SOLIDS	Total Solids	%	NA	70.6		68.1		70		45.2	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	32000		22400		23000		23200	
SW7471	7439-97-6	Mercury	mg/kg	T	0.05		0.061		0.057		0.075	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	42	U	75	U	60	U	94	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	65	U	120	U	92	U	150	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	47	U	83	U	67	U	110	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	42	U	75	U	60	U	94	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	45	U	79	U	64	U	99	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	42	U	75	U	60	U	94	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	42	U	75	U	60	U	94	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	42	U	75	U	60	U	94	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	42	U	75	U	60	U	94	U
SW8082	PCB	Total PCBs	ug/kg	NA	65	U	120	U	92	U	150	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.69	U	0.62	U	0.79	U	1.6	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.56	U	0.5	U	0.64	U	1.3	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.27	U	0.24	U	0.31	U	0.61	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.41	UJ	0.37	UJ	0.47	UJ	0.94	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.27	U	0.24	U	0.31	U	0.61	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.29	U	0.26	U	0.34	U	0.67	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.27	U	0.24	U	0.31	U	0.61	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.27	U	0.24	U	0.31	U	0.61	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.4	U	1.2	U	1.6	U	3.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.7	U	2.4	U	3.1	U	6.1	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.4	U	1.2	U	1.6	U	3.1	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.7	U	2.4	U	3.1	U	6.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.69	U	0.62	U	0.79	U	1.6	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	9.5	J	9.5	J	3.9	J	14	J
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	20	J	10	J	7.5	J	23	J
SW8270	120-12-7	Anthracene	ug/kg	NA	36		28	J	13		48	

				Location ID	OL-RAD-CAP-0042-H		OL-RAD-CAP-0043-H		OL-RAD-CAP-0043-H		OL-RAD-CAP-0044-H	
				Field Sample ID	OL-4005-06		OL-4005-09		OL-4005-10		OL-4005-07	
				Start Depth (ft)	0.958		0.25		0.833		0.25	
				End Depth (ft)	1.21		0.5		1.08		0.5	
				Sampled	6/23/2022		6/23/2022		6/23/2022		6/23/2022	
				SDG	R2205796		R2205796		R2205796		R2205796	
				Lab Sample ID	R2205796-006		R2205796-009		R2205796-010		R2205796-007	
				Medium	Solid		Solid		Solid		Solid	
				Sample Type	REG		REG		REG		REG	
				Matrix	SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	130		120		62		200	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	190		190		100		330	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	210		230		120		410	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	110		100		56		230	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	70		78		43		150	
SW8270	218-01-9	Chrysene	ug/kg	NA	150		170		88		310	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	33		31		17		63	
SW8270	206-44-0	Fluoranthene	ug/kg	NA	270		290		160		560	
SW8270	86-73-7	Fluorene	ug/kg	NA	14	J	9.6	J	4.6	J	17	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	130		120		65		260	
SW8270	91-20-3	Naphthalene	ug/kg	NA	12	J	19	J	3.7	J	15	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	130		110		60		200	
SW8270	108-95-2	Phenol	ug/kg	NA	37	U	38	U	13	U	55	U
SW8270	129-00-0	Pyrene	ug/kg	NA	230		250		130		440	
SW9045	pH	pH	ph Units	NA								

				Location ID	OL-RAD-CAP-0044-H		OL-RAD-CAP-0045-H		OL-RAD-CAP-0045-H	
				Field Sample ID	OL-4005-08		OL-4005-11		OL-4005-12	
				Start Depth (ft)	1		0.25		0.583	
				End Depth (ft)	1.25		0.5		0.833	
				Sampled	6/23/2022		6/23/2022		6/23/2022	
				SDG	R2205796		R2205796		R2205796	
				Lab Sample ID	R2205796-008		R2205796-011		R2205796-012	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	54		54.7		72	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	24600		43100		33200	
SW7471	7439-97-6	Mercury	mg/kg	T	0.077		0.063		0.06	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	83	U	93	U	79	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	130	U	150	U	120	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	93	U	110	U	88	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	83	U	93	U	79	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	88	U	98	U	83	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	83	U	93	U	79	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	83	U	93	U	79	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	83	U	93	U	79	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	83	U	93	U	79	U
SW8082	PCB	Total PCBs	ug/kg	NA	130	U	150	U	120	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.88	U	0.88	U	0.48	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.71	U	0.71	U	0.39	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.34	U	0.34	U	0.19	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.53	UJ	0.53	UJ	0.29	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.34	U	0.34	U	0.19	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.38	U	0.38	U	0.21	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.34	U	0.34	U	0.23	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.34	U	0.34	U	0.19	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.7	U	1.7	U	0.92	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	3.4	U	3.4	U	1.9	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.7	U	1.7	U	0.92	U
SW8260	108-88-3	Toluene	ug/kg	NA	3.4	U	3.4	U	1.9	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.88	U	0.88	U	0.48	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	12	J	52	J	23	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	20	J	60	J	72	J
SW8270	120-12-7	Anthracene	ug/kg	NA	46		170		110	

				Location ID	OL-RAD-CAP-0044-H		OL-RAD-CAP-0045-H		OL-RAD-CAP-0045-H	
				Field Sample ID	OL-4005-08		OL-4005-11		OL-4005-12	
				Start Depth (ft)	1		0.25		0.583	
				End Depth (ft)	1.25		0.5		0.833	
				Sampled	6/23/2022		6/23/2022		6/23/2022	
				SDG	R2205796		R2205796		R2205796	
				Lab Sample ID	R2205796-008		R2205796-011		R2205796-012	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	210		860		370	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	350		1200		550	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	440		1300		580	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	220		660	J	230	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	140		460		210	
SW8270	218-01-9	Chrysene	ug/kg	NA	340		1100		480	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	62		170		78	J
SW8270	206-44-0	Fluoranthene	ug/kg	NA	580		2200		870	
SW8270	86-73-7	Fluorene	ug/kg	NA	18	J	60	J	35	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	260		770		280	
SW8270	91-20-3	Naphthalene	ug/kg	NA	17	J	41	U	32	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	200		830		370	
SW8270	108-95-2	Phenol	ug/kg	NA	49	U	160	U	130	U
SW8270	129-00-0	Pyrene	ug/kg	NA	460		1700		700	
SW9045	pH	pH	ph Units	NA						

				Location ID	OL-RAD-CAP-0045-H		OL-RAD-CAP-0046-H		OL-RAD-CAP-0046-H	
				Field Sample ID	OL-4005-13		OL-4005-03		OL-4005-04	
				Start Depth (ft)	0.583		0.25		1.625	
				End Depth (ft)	0.833		0.5		1.875	
				Sampled	6/23/2022		6/23/2022		6/23/2022	
				SDG	R2205796		R2205796		R2205796	
				Lab Sample ID	R2205796-013		R2205796-003		R2205796-004	
				Medium	Solid		Solid		Solid	
				Sample Type	FD		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	61.7		42.9		68.8	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	31800		41400		21500	
SW7471	7439-97-6	Mercury	mg/kg	T	0.063		0.124	J	0.066	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	76	U	110	U	69	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	120	U	170	U	110	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	84	U	120	U	77	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	76	U	110	U	69	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	80	U	120	U	73	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	76	U	110	U	69	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	76	U	110	U	69	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	76	U	110	U	69	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	76	U	110	U	69	U
SW8082	PCB	Total PCBs	ug/kg	NA	120	U	170	U	110	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	1.5	U	0.77	U	0.74	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	1.2	U	0.62	U	0.6	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.55	U	0.3	U	0.29	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.85	UJ	0.46	UJ	0.44	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.55	U	0.3	U	0.29	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.61	U	0.47	J	0.32	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.55	U	0.44	J	0.29	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.55	U	0.74	J	0.29	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	2.8	U	1.5	U	1.5	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	5.5	U	3	U	2.9	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	2.8	U	1.5	U	1.5	U
SW8260	108-88-3	Toluene	ug/kg	NA	5.5	U	3	U	2.9	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	1.5	U	0.77	U	0.74	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	31	J	22	J	3.4	J
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	74	J	33	J	7.4	J
SW8270	120-12-7	Anthracene	ug/kg	NA	140		72		15	

				Location ID	OL-RAD-CAP-0045-H		OL-RAD-CAP-0046-H		OL-RAD-CAP-0046-H	
				Field Sample ID	OL-4005-13		OL-4005-03		OL-4005-04	
				Start Depth (ft)	0.583		0.25		1.625	
				End Depth (ft)	0.833		0.5		1.875	
				Sampled	6/23/2022		6/23/2022		6/23/2022	
				SDG	R2205796		R2205796		R2205796	
				Lab Sample ID	R2205796-013		R2205796-003		R2205796-004	
				Medium	Solid		Solid		Solid	
				Sample Type	FD		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	480		360		64	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	690		570		95	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	760		710		110	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	300		440		65	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	250		230		37	
SW8270	218-01-9	Chrysene	ug/kg	NA	610		530		83	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	87	J	100		16	
SW8270	206-44-0	Fluoranthene	ug/kg	NA	1200		960		140	
SW8270	86-73-7	Fluorene	ug/kg	NA	47	J	25	J	4.2	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	380		450		72	
SW8270	91-20-3	Naphthalene	ug/kg	NA	36	U	20	J	3.2	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	560		350		60	
SW8270	108-95-2	Phenol	ug/kg	NA	140	U	58	U	13	U
SW8270	129-00-0	Pyrene	ug/kg	NA	930		790		130	
SW9045	pH	pH	ph Units	NA						

				Location ID	OL-RAD-CAP-0027-H		OL-RAD-CAP-0027-H		OL-RAD-CAP-0030-H	
				Field Sample ID	OL-4006-07		OL-4006-08		OL-4006-09	
				Start Depth (ft)	0.25		1.25		0.25	
				End Depth (ft)	0.5		1.5		0.5	
				Sampled	6/24/2022		6/24/2022		6/24/2022	
				SDG	R2205835		R2205835		R2205835	
				Lab Sample ID	R2205835-007		R2205835-008		R2205835-009	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	73		73.2		73.2	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	17700		19700		18100	
SW7471	7439-97-6	Mercury	mg/kg	T	0.049		0.049		0.059	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	24	U	24	U	24	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	36	U	36	U	36	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	26	U	26	U	26	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	24	U	24	U	24	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	25	U	25	U	25	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	24	U	24	U	24	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	24	U	24	U	24	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	24	U	24	U	24	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	24	U	24	U	24	U
SW8082	PCB	Total PCBs	ug/kg	NA	36	U	36	U	36	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.56	U	0.77	U	0.66	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.45	U	0.62	U	0.53	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.25	J	0.3	U	0.26	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.34	UJ	0.46	UJ	0.39	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.22	U	0.3	U	0.26	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.36	J	0.33	U	0.28	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.22	U	0.3	U	0.26	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.23	J	0.3	U	0.26	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.1	U	1.5	U	1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.2	U	3	U	2.6	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.1	U	1.5	U	1.3	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.2	U	3	U	2.6	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.56	U	0.77	U	0.66	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.3	U	2.3	U	2.3	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.5	U	2.5	U	2.5	U
SW8270	120-12-7	Anthracene	ug/kg	NA	5.4	U	5.4	U	5.4	U

				Location ID	OL-RAD-CAP-0027-H		OL-RAD-CAP-0027-H		OL-RAD-CAP-0030-H	
				Field Sample ID	OL-4006-07		OL-4006-08		OL-4006-09	
				Start Depth (ft)	0.25		1.25		0.25	
				End Depth (ft)	0.5		1.5		0.5	
				Sampled	6/24/2022		6/24/2022		6/24/2022	
				SDG	R2205835		R2205835		R2205835	
				Lab Sample ID	R2205835-007		R2205835-008		R2205835-009	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	8.1	J	10		11	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	11		14		16	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	14		19		18	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	11		11		11	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	5.1	U	5.8	J	6.2	J
SW8270	218-01-9	Chrysene	ug/kg	NA	10		14		14	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.7	U	3.7	U	3.7	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	17		22		25	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.3	U	2.3	U	2.3	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	11		11		12	
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.1	U	3.1	U	3.1	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	8.9		9.4		11	
SW8270	108-95-2	Phenol	ug/kg	NA	12	U	12	U	12	U
SW8270	129-00-0	Pyrene	ug/kg	NA	14		17		21	
SW9045	pH	pH	ph Units	NA	7.16		7.01		7.35	

				Location ID	OL-RAD-CAP-0030-H		OL-RAD-CAP-0035-H		OL-RAD-CAP-0035-H	
				Field Sample ID	OL-4006-10		OL-4006-01		OL-4006-02	
				Start Depth (ft)	1.25		0.25		1.33	
				End Depth (ft)	1.5		0.5		1.58	
				Sampled	6/24/2022		6/24/2022		6/24/2022	
				SDG	R2205835		R2205835		R2205835	
				Lab Sample ID	R2205835-010		R2205835-001		R2205835-002	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	73.7		72.1		74.6	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	19500		21000		18900	
SW7471	7439-97-6	Mercury	mg/kg	T	0.059		0.049		0.053	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	24	U	24	U	23	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	36	U	37	U	35	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	26	U	27	U	26	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	24	U	24	U	23	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	25	U	26	U	25	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	24	U	24	U	23	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	24	U	24	U	23	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	24	U	24	U	23	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	24	U	24	U	23	U
SW8082	PCB	Total PCBs	ug/kg	NA	36	U	37	U	35	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.71	U	0.68	U	0.58	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.57	U	0.55	U	0.47	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.28	U	0.27	U	0.23	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.43	UJ	0.41	UJ	0.35	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.28	U	0.27	U	0.23	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.3	U	0.29	U	0.25	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.28	U	0.27	U	0.23	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.28	U	0.27	U	0.23	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.4	U	1.4	U	1.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.8	U	2.7	U	2.3	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.4	U	1.4	U	1.2	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.8	U	2.7	U	2.3	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.71	U	0.68	U	0.58	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.3	U	11	UJ	2.2	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.5	U	12	UJ	2.4	U
SW8270	120-12-7	Anthracene	ug/kg	NA	5.4	U	27	UJ	5.4	U

				Location ID	OL-RAD-CAP-0030-H		OL-RAD-CAP-0035-H		OL-RAD-CAP-0035-H	
				Field Sample ID	OL-4006-10		OL-4006-01		OL-4006-02	
				Start Depth (ft)	1.25		0.25		1.33	
				End Depth (ft)	1.5		0.5		1.58	
				Sampled	6/24/2022		6/24/2022		6/24/2022	
				SDG	R2205835		R2205835		R2205835	
				Lab Sample ID	R2205835-010		R2205835-001		R2205835-002	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	9.8		35	J	6.6	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	14		35	J	45	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	17		35	J	51	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	9.4		30	J	3.7	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	5.8	J	25	UJ	5	U
SW8270	218-01-9	Chrysene	ug/kg	NA	12		24	J	3.6	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.7	U	18	UJ	3.6	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	21		45	J	80	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.3	U	12	UJ	2.3	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	11		26	J	3.9	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.1	U	15	UJ	3.1	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	10		30	J	45	
SW8270	108-95-2	Phenol	ug/kg	NA	12	U	57	UJ	12	U
SW8270	129-00-0	Pyrene	ug/kg	NA	20		43	J	60	
SW9045	pH	pH	ph Units	NA	7.01		6.81		6.86	

				Location ID	OL-RAD-CAP-0037-H		OL-RAD-CAP-0037-H		OL-RAD-CAP-0039-H	
				Field Sample ID	OL-4006-03		OL-4006-04		OL-4006-05	
				Start Depth (ft)	0.25		1.42		0.25	
				End Depth (ft)	0.5		1.67		0.5	
				Sampled	6/24/2022		6/24/2022		6/24/2022	
				SDG	R2205835		R2205835		R2205835	
				Lab Sample ID	R2205835-003		R2205835-004		R2205835-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	70.2		75.3		67.2	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	25900		19900		19900	
SW7471	7439-97-6	Mercury	mg/kg	T	0.049		0.047		0.061	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	25	U	23	U	26	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	37	U	35	U	39	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	28	U	26	U	29	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	25	U	23	U	26	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	26	U	24	U	27	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	25	U	23	U	31	J
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	25	U	23	U	26	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	25	U	23	U	26	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	25	U	23	U	26	U
SW8082	PCB	Total PCBs	ug/kg	NA	37	U	35	U	31	J
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.72	U	0.62	U	0.65	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.59	U	0.5	U	0.52	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.28	U	0.24	U	0.25	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.43	UJ	0.37	UJ	0.39	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.28	U	0.24	U	0.25	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.31	U	0.27	U	0.28	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.28	U	0.24	U	0.25	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.28	U	0.24	U	0.25	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.4	U	1.2	U	1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.8	U	2.4	U	2.5	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.4	U	1.2	U	1.3	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.8	U	2.4	U	2.5	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.72	U	0.62	U	0.65	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.4	U	2.2	U	2.5	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.6	U	2.4	U	4	J
SW8270	120-12-7	Anthracene	ug/kg	NA	5.8	U	5.3	U	6	U

				Location ID	OL-RAD-CAP-0037-H		OL-RAD-CAP-0037-H		OL-RAD-CAP-0039-H	
				Field Sample ID	OL-4006-03		OL-4006-04		OL-4006-05	
				Start Depth (ft)	0.25		1.42		0.25	
				End Depth (ft)	0.5		1.67		0.5	
				Sampled	6/24/2022		6/24/2022		6/24/2022	
				SDG	R2205835		R2205835		R2205835	
				Lab Sample ID	R2205835-003		R2205835-004		R2205835-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	13		13		11	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	17		19		15	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	20		20		21	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	12		14		16	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	7.6	J	7.4	J	7.9	J
SW8270	218-01-9	Chrysene	ug/kg	NA	14		14		12	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.9	U	3.9	J	4.1	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	27		27		19	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.5	U	2.3	U	2.6	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	4.2	U	14		16	
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.3	U	3.1	U	3.5	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	14		14		8.9	J
SW8270	108-95-2	Phenol	ug/kg	NA	13	U	12	U	14	U
SW8270	129-00-0	Pyrene	ug/kg	NA	20		21		15	
SW9045	pH	pH	ph Units	NA	7.43		7.29		7.7	

				Location ID	OL-RAD-CAP-0039-H	
				Field Sample ID	OL-4006-06	
				Start Depth (ft)	0.792	
				End Depth (ft)	1.04	
				Sampled	6/24/2022	
				SDG	R2205835	
				Lab Sample ID	R2205835-006	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	68.4	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	20600	
SW7471	7439-97-6	Mercury	mg/kg	T	0.052	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	25	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	39	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	28	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	25	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	27	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	25	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	25	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	25	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	25	U
SW8082	PCB	Total PCBs	ug/kg	NA	39	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.64	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.52	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.25	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.39	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.25	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.28	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.25	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.25	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.5	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.3	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.5	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.64	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.4	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.9	J
SW8270	120-12-7	Anthracene	ug/kg	NA	5.8	U

				Location ID	OL-RAD-CAP-0039-H	
				Field Sample ID	OL-4006-06	
				Start Depth (ft)	0.792	
				End Depth (ft)	1.04	
				Sampled	6/24/2022	
				SDG	R2205835	
				Lab Sample ID	R2205835-006	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	17	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	22	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	27	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	15	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	9.1	J
SW8270	218-01-9	Chrysene	ug/kg	NA	20	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	41	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.5	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	16	
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.4	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	27	
SW8270	108-95-2	Phenol	ug/kg	NA	13	U
SW8270	129-00-0	Pyrene	ug/kg	NA	31	
SW9045	pH	pH	ph Units	NA	7.31	

				Location ID	OL-RAE-CAP-0017-H		OL-RAE-CAP-0017-H		OL-RAE-CAP-0017-I		OL-RAE-CAP-0018-H	
				Field Sample ID	OL-4007-01		OL-4007-02		OL-4007-03		OL-4007-04	
				Start Depth (ft)	0.25		0.75		1		0.25	
				End Depth (ft)	0.5		1		1.25		0.5	
				Sampled	6/28/2022		6/28/2022		6/28/2022		6/28/2022	
				SDG	R2205959		R2205959		R2205959		R2205959	
				Lab Sample ID	R2205959-001		R2205959-002		R2205959-003		R2205959-004	
				Medium	Solid		Solid		Solid		Solid	
				Sample Type	REG		REG		REG		REG	
				Matrix	SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
E160.3	SOLIDS	Total Solids	%	NA	91.6		87.7		91.7		80.4	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	690		1630				1780	
SW7471	7439-97-6	Mercury	mg/kg	T	0.01	J	0.009	J	0.009	J	0.01	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	19	U	20	U	19	U	22	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	29	U	30	U	29	U	33	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	21	U	22	U	21	U	24	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	19	U	20	U	19	U	22	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	20	U	21	U	20	U	23	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	19	U	20	U	19	U	22	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	19	U	20	U	19	U	22	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	19	U	20	U	19	U	22	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	19	U	20	U	19	U	22	U
SW8082	PCB	Total PCBs	ug/kg	NA	29	U	30	U	29	U	33	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.57	U	0.63	U	0.42	U	0.63	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.46	U	0.51	U	0.34	U	0.51	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.22	U	0.25	U	0.17	U	0.25	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.34	UJ	0.38	UJ	0.26	UJ	0.38	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.22	U	0.25	U	0.17	U	0.25	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.24	U	0.27	U	0.18	U	0.3	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.22	U	0.25	U	0.17	U	0.25	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.1	U	1.3	U	0.81	U	1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.2	U	2.5	U	1.7	U	2.5	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.1	U	1.3	U	0.81	U	1.3	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.57	U	0.63	U	0.42	U	0.63	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	1.9	U	1.8	U	2.1	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	2.1	U	2	U	2.2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.4	U	4.6	U	4.4	U	4.9	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.4	U	5.7	U	5.4	U	6.1	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3	U	6.4	J	2.9	U	4.1	J

					Location ID		OL-RAE-CAP-0017-H		OL-RAE-CAP-0017-H		OL-RAE-CAP-0017-I		OL-RAE-CAP-0018-H	
					Field Sample ID		OL-4007-01		OL-4007-02		OL-4007-03		OL-4007-04	
					Start Depth (ft)		0.25		0.75		1		0.25	
					End Depth (ft)		0.5		1		1.25		0.5	
					Sampled		6/28/2022		6/28/2022		6/28/2022		6/28/2022	
					SDG		R2205959		R2205959		R2205959		R2205959	
					Lab Sample ID		R2205959-001		R2205959-002		R2205959-003		R2205959-004	
					Medium		Solid		Solid		Solid		Solid	
					Sample Type		REG		REG		REG		REG	
					Matrix		SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.8	U	8.4		3.8	U	5.6	J
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.1	U	5.2	J	3.1	U	3.5	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.1	U	4.3	U	4.1	U	4.7	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3	U	5.8	J	2.9	U	3.3	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3	U	3.1	U	2.9	U	3.3	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.3	U	12		5.3	U	7.2	J
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	2	U	1.9	U	2.1	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.2	U	5	J	3.2	U	3.6	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.5	U	3.9	J	2.5	U	2.9	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.8	U	5.3	J	3.8	U	4.3	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.5	U	10		3.5	U	5.8	J

				Location ID	OL-RAE-CAP-0018-H		OL-RAE-CAP-0018-I		OL-RAE-CAP-0019-I		OL-RAE-CAP-0020-I	
				Field Sample ID	OL-4007-05		OL-4007-06		OL-4007-07		OL-4007-08	
				Start Depth (ft)	0.75		1		1		1.08	
				End Depth (ft)	1		1.25		1.25		1.33	
				Sampled	6/28/2022		6/28/2022		6/28/2022		6/28/2022	
				SDG	R2205959		R2205959		R2205959		R2205959	
				Lab Sample ID	R2205959-005		R2205959-006		R2205959-007		R2205959-008	
				Medium	Solid		Solid		Solid		Solid	
				Sample Type	REG		REG		REG		REG	
				Matrix	SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
E160.3	SOLIDS	Total Solids	%	NA	88.6		78.1		85		74.7	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	740							
SW7471	7439-97-6	Mercury	mg/kg	T	0.009	J	0.02	J	0.044		0.21	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	20	U	22	U	20	U	23	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	30	U	34	U	31	U	35	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	22	U	25	U	23	U	26	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	20	U	22	U	20	U	23	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	21	U	24	U	22	U	25	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	20	U	22	U	20	U	23	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	20	U	22	U	20	U	23	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	20	U	22	U	20	U	23	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	20	U	22	U	20	U	23	U
SW8082	PCB	Total PCBs	ug/kg	NA	30	U	34	U	31	U	35	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.63	U	0.77	U	0.65	U	0.65	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.51	U	0.62	U	0.53	U	0.52	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.24	U	0.3	U	0.25	U	1.2	J
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.38	UJ	0.46	UJ	0.39	UJ	0.39	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.24	U	0.3	U	0.25	U	0.25	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.27	U	0.46	J	0.28	U	1.7	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.24	U	0.3	U	0.25	U	0.88	J
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	1.5	U	1.3	U	1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.4	U	3	U	2.5	U	2.5	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	1.5	U	1.3	U	1.3	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.63	U	0.77	U	0.65	U	0.65	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U	2.1	U	4.4	J	19	
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.1	U	2.3	U	4.4	J	27	
SW8270	120-12-7	Anthracene	ug/kg	NA	4.5	U	5.2	U	8.2		43	
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.6	U	6.4	U	18		110	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.1	U	4.7	J	25		170	

				Location ID	OL-RAE-CAP-0018-H		OL-RAE-CAP-0018-I		OL-RAE-CAP-0019-I		OL-RAE-CAP-0020-I	
				Field Sample ID	OL-4007-05		OL-4007-06		OL-4007-07		OL-4007-08	
				Start Depth (ft)	0.75		1		1		1.08	
				End Depth (ft)	1		1.25		1.25		1.33	
				Sampled	6/28/2022		6/28/2022		6/28/2022		6/28/2022	
				SDG	R2205959		R2205959		R2205959		R2205959	
				Lab Sample ID	R2205959-005		R2205959-006		R2205959-007		R2205959-008	
				Medium	Solid		Solid		Solid		Solid	
				Sample Type	REG		REG		REG		REG	
				Matrix	SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4	U	6.3	J	35		210	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.2	U	3.8	J	19		130	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.3	U	4.8	U	11		67	
SW8270	218-01-9	Chrysene	ug/kg	NA	3.1	U	3.8	J	28		150	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.1	U	3.5	U	3.9	J	29	
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.5	U	8.2	J	57		260	
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	2.2	U	5.9	J	21	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.3	U	3.7	U	18		130	
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.6	U	3	U	12		84	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	4	U	4.5	U	30		130	
SW8270	129-00-0	Pyrene	ug/kg	NA	3.6	U	6.4	J	47		240	

				Location ID	OL-RAC-CAP-0020-H		OL-RAC-CAP-0020-H		OL-RAC-CAP-0021-H	
				Field Sample ID	OL-4008-17		OL-4008-18		OL-4008-19	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	6/30/2022		6/30/2022		6/30/2022	
				SDG	R2206018		R2206018		R2206018	
				Lab Sample ID	R2206018-017		R2206018-018		R2206018-019	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	84.7		81.4		86.2	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	390		810		1200	
SW7471	7439-97-6	Mercury	mg/kg	T	0.008	U	0.01	U	0.009	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	30	U	32	U	30	UJ
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	46	U	49	U	46	UJ
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	33	U	36	U	34	UJ
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	30	U	32	U	30	UJ
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	32	U	34	U	32	UJ
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	30	U	32	U	30	UJ
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	30	U	32	U	30	UJ
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	30	U	32	U	30	UJ
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	30	U	32	U	30	UJ
SW8082	PCB	Total PCBs	ug/kg	NA	46	U	49	U	46	UJ
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.57	U	0.55	U	0.55	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.46	U	0.45	U	0.45	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.22	U	0.22	U	0.22	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.34	UJ	0.33	UJ	0.33	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.22	U	0.22	U	0.22	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.24	U	0.24	U	0.24	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.22	U	0.22	U	0.22	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.1	U	1.1	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.2	U	2.2	U	2.2	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.1	U	1.1	U	1.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.57	U	0.55	U	0.55	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2	U	2.1	U	1.9	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.2	U	2.2	U	2.1	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.8	U	4.9	U	4.6	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.9	U	6.1	U	5.7	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.2	U	3.3	U	3.1	U

				Location ID	OL-RAC-CAP-0020-H		OL-RAC-CAP-0020-H		OL-RAC-CAP-0021-H		
				Field Sample ID	OL-4008-17		OL-4008-18		OL-4008-19		
				Start Depth (ft)	0.25		0.75		0.25		
				End Depth (ft)	0.5		1		0.5		
				Sampled	6/30/2022		6/30/2022		6/30/2022		
				SDG	R2206018		R2206018		R2206018		
				Lab Sample ID	R2206018-017		R2206018-018		R2206018-019		
				Medium	Solid		Solid		Solid		
				Sample Type	REG		REG		REG		
				Matrix	SED		SED		SED		
Method	Parameter Code	Parameter Name	Units	Fraction							
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4.2	U	4.3	U	4.1	J	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.3	U	3.5	U	3.2	U	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.5	U	4.7	U	4.3	U	
SW8270	218-01-9	Chrysene	ug/kg	NA	3.2	U	3.3	U	3.1	U	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.2	U	3.3	U	3.1	U	
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.8	U	6	U	6.3	J	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.1	U	2.1	U	2	U	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.5	UJ	3.6	UJ	3.3	UJ	
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.8	U	2.9	U	3.1	J	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	4.2	U	4.3	U	4	U	
SW8270	129-00-0	Pyrene	ug/kg	NA	3.8	U	3.9	U	5.5	J	
SW9045	pH	pH	ph Units	NA	8.22		8		8.05		

				Location ID	OL-RAC-CAP-0021-H		OL-RAC-CAP-0023-H		OL-RAC-CAP-0023-H	
				Field Sample ID	OL-4008-20		OL-4008-13		OL-4008-14	
				Start Depth (ft)	0.75		0.25		0.75	
				End Depth (ft)	1		0.5		1	
				Sampled	6/30/2022		6/30/2022		6/30/2022	
				SDG	R2206018		R2206018		R2206018	
				Lab Sample ID	R2206018-020		R2206018-013		R2206018-014	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	89.1		83.8		89.6	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	900		1350		2090	
SW7471	7439-97-6	Mercury	mg/kg	T	0.011	J	0.009	U	0.015	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	28	U	30	U	29	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	43	U	46	U	44	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	31	U	34	U	33	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	28	U	30	U	29	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	30	U	32	U	31	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	28	U	30	U	29	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	28	U	30	U	29	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	28	U	30	U	29	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	28	U	30	U	29	U
SW8082	PCB	Total PCBs	ug/kg	NA	43	U	46	U	44	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.54	U	0.52	U	0.54	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.43	U	0.42	U	0.44	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.21	U	0.2	U	0.21	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.32	UJ	0.31	UJ	0.32	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.21	U	0.2	U	0.21	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.23	U	0.22	U	0.26	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.21	U	0.2	U	0.21	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.1	U	1	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.1	U	2	U	2.1	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.1	U	1	U	1.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.54	U	0.52	U	0.54	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U	2	U	1.9	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	2.2	U	2.1	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.5	U	4.8	U	4.5	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.6	U	6	U	5.6	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3	U	7.1	J	3.1	U

				Location ID	OL-RAC-CAP-0021-H		OL-RAC-CAP-0023-H		OL-RAC-CAP-0023-H	
				Field Sample ID	OL-4008-20		OL-4008-13		OL-4008-14	
				Start Depth (ft)	0.75		0.25		0.75	
				End Depth (ft)	1		0.5		1	
				Sampled	6/30/2022		6/30/2022		6/30/2022	
				SDG	R2206018		R2206018		R2206018	
				Lab Sample ID	R2206018-020		R2206018-013		R2206018-014	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.9	U	12		3.9	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.1	U	6.3	J	3.2	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.2	U	4.5	U	4.3	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3	U	9.3		3.1	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3	U	3.3	U	3.1	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.5	U	19		5.5	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	2.1	U	1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.3	UJ	5.7	J	3.3	UJ
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.6	U	6.6	J	4.3	J
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.9	U	9.3		3.9	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.6	U	16		3.6	U
SW9045	pH	pH	ph Units	NA	8.47		8.04		8.05	

				Location ID	OL-RAE-CAP-0021-H		OL-RAE-CAP-0021-H		OL-RAE-CAP-0021-I	
				Field Sample ID	OL-4008-01		OL-4008-02		OL-4008-03	
				Start Depth (ft)	0.25		0.75		1	
				End Depth (ft)	0.5		1		1.25	
				Sampled	6/29/2022		6/29/2022		6/29/2022	
				SDG	R2206018		R2206018		R2206018	
				Lab Sample ID	R2206018-001		R2206018-002		R2206018-003	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	85.4		85.7		83	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	1420		1910			
SW7471	7439-97-6	Mercury	mg/kg	T	0.011	J	0.014	J	0.012	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	20	U	20	U	21	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	31	U	31	U	32	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	23	U	23	U	23	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	20	U	20	U	21	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	22	U	22	U	22	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	20	U	20	U	21	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	20	U	20	U	21	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	20	U	20	U	21	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	20	U	20	U	21	U
SW8082	PCB	Total PCBs	ug/kg	NA	31	U	31	U	32	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.49	U	0.53	U	0.66	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.4	U	0.43	U	0.53	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.19	U	0.21	U	0.26	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.3	UJ	0.32	UJ	0.39	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.19	U	0.21	U	0.26	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.21	U	0.3	J	0.28	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.19	U	0.21	U	0.26	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	0.94	U	1.1	U	1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	1.9	U	2.1	U	2.6	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	0.94	U	1.1	U	1.3	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.49	U	0.53	U	0.66	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U	2	U	2	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.1	U	2.1	U	2.2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.7	U	4.7	U	4.8	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.8	U	5.8	U	9	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	7.3	J	6.4	J	10	

				Location ID	OL-RAE-CAP-0021-H		OL-RAE-CAP-0021-H		OL-RAE-CAP-0021-I	
				Field Sample ID	OL-4008-01		OL-4008-02		OL-4008-03	
				Start Depth (ft)	0.25		0.75		1	
				End Depth (ft)	0.5		1		1.25	
				Sampled	6/29/2022		6/29/2022		6/29/2022	
				SDG	R2206018		R2206018		R2206018	
				Lab Sample ID	R2206018-001		R2206018-002		R2206018-003	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	11		9		14	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	7.1	J	5.6	J	7.5	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.4	U	4.4	U	5.2	J
SW8270	218-01-9	Chrysene	ug/kg	NA	6.8	J	6.7	J	11	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.1	U	3.2	U	3.2	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	12		12		19	
SW8270	86-73-7	Fluorene	ug/kg	NA	2	U	2	U	2	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	6.4	J	5.1	J	7.4	J
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.1	J	4.6	J	9.9	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	5.6	J	6.3	J	9.9	
SW8270	129-00-0	Pyrene	ug/kg	NA	11		11		17	
SW9045	pH	pH	ph Units	NA						

				Location ID	OL-RAE-CAP-0022-I		OL-RAE-CAP-0025-H		OL-RAE-CAP-0025-H	
				Field Sample ID	OL-4008-06		OL-4008-04		OL-4008-05	
				Start Depth (ft)	1.417		0.25		0.75	
				End Depth (ft)	1.667		0.5		1	
				Sampled	6/29/2022		6/29/2022		6/29/2022	
				SDG	R2206018		R2206018		R2206018	
				Lab Sample ID	R2206018-006		R2206018-004		R2206018-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	90.7		94.1		90.8	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA			1180		2030	
SW7471	7439-97-6	Mercury	mg/kg	T	0.028		0.009	J	0.023	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	19	U	19	U	19	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	29	U	28	U	29	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	21	U	21	U	21	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	19	U	19	U	19	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	20	U	20	U	20	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	19	U	19	U	19	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	19	U	19	U	19	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	19	U	19	U	19	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	19	U	19	U	19	U
SW8082	PCB	Total PCBs	ug/kg	NA	29	U	28	U	29	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.6	U	0.5	U	0.62	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.48	U	0.41	U	0.5	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.23	U	0.2	U	0.24	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.36	UJ	0.3	UJ	0.37	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.23	U	0.2	U	0.24	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.37	J	0.22	U	0.27	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.64	J	0.2	U	0.24	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	0.96	U	1.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.3	U	2	U	2.4	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	0.96	U	1.2	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.6	U	0.5	U	0.62	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.7	J	1.8	U	1.9	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.4	J	1.9	U	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.6	J	4.3	U	4.4	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	12		5.3	U	6.4	J
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	15		2.9	U	7.3	

				Location ID	OL-RAE-CAP-0022-I		OL-RAE-CAP-0025-H		OL-RAE-CAP-0025-H	
				Field Sample ID	OL-4008-06		OL-4008-04		OL-4008-05	
				Start Depth (ft)	1.417		0.25		0.75	
				End Depth (ft)	1.667		0.5		1	
				Sampled	6/29/2022		6/29/2022		6/29/2022	
				SDG	R2206018		R2206018		R2206018	
				Lab Sample ID	R2206018-006		R2206018-004		R2206018-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	19		3.7	U	11	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	11		3	U	6	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	6.9	J	4	U	4.2	U
SW8270	218-01-9	Chrysene	ug/kg	NA	15		2.9	U	9.2	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.1	J	2.9	U	3	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	27		5.2	U	16	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.7	J	1.8	U	1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	12		3.1	U	5.3	J
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.7	J	2.5	U	15	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	18		3.7	U	8.3	
SW8270	129-00-0	Pyrene	ug/kg	NA	28		3.4	U	16	
SW9045	pH	pH	ph Units	NA						

				Location ID	OL-RAE-CAP-0027-H		OL-RAE-CAP-0027-H		OL-RAE-CAP-0030-H	
				Field Sample ID	OL-4008-11		OL-4008-12		OL-4008-07	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	6/30/2022		6/30/2022		6/30/2022	
				SDG	R2206018		R2206018		R2206018	
				Lab Sample ID	R2206018-011		R2206018-012		R2206018-007	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	83.9		80.9		81.9	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	1070		3750		1610	
SW7471	7439-97-6	Mercury	mg/kg	T	0.015	J	0.124		0.019	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	21	U	32	U	21	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	32	U	48	U	32	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	23	U	35	U	24	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	21	U	32	U	21	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	22	U	33	U	22	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	21	U	32	U	21	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	21	U	32	U	21	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	21	U	32	U	21	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	21	U	32	U	21	U
SW8082	PCB	Total PCBs	ug/kg	NA	32	U	48	U	32	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.59	U	0.53	U	0.74	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.48	U	0.43	U	0.6	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.23	U	1.4	J	0.29	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.36	UJ	0.32	UJ	0.44	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.23	U	0.21	U	0.29	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.25	U	2.1	J	0.32	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.45	J	1.2	J	0.29	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	1.1	U	1.5	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.3	U	2.1	U	2.9	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	1.1	U	1.5	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.59	U	0.53	U	0.74	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2	U	2.1	U	2	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	3.2	J	2.7	J	2.2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.7	U	4.9	U	4.9	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	14		7.4	J	6	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	19		9.5		8.1	

				Location ID	OL-RAE-CAP-0027-H		OL-RAE-CAP-0027-H		OL-RAE-CAP-0030-H	
				Field Sample ID	OL-4008-11		OL-4008-12		OL-4008-07	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	6/30/2022		6/30/2022		6/30/2022	
				SDG	R2206018		R2206018		R2206018	
				Lab Sample ID	R2206018-011		R2206018-012		R2206018-007	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	20		9.9		9.2	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	13		6.9	J	6.4	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	7.8		4.6	U	4.6	U
SW8270	218-01-9	Chrysene	ug/kg	NA	16		7.1	J	6.6	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.4	J	3.3	U	3.3	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	25		12		12	
SW8270	86-73-7	Fluorene	ug/kg	NA	2	U	2.1	U	2.1	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	13		6.3	J	5.8	J
SW8270	91-20-3	Naphthalene	ug/kg	NA	6.2	J	5.5	J	2.8	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	11		5.5	J	5.2	J
SW8270	129-00-0	Pyrene	ug/kg	NA	26		11		11	
SW9045	pH	pH	ph Units	NA						

				Location ID	OL-RAE-CAP-0030-H		OL-RAE-CAP-0031-H		OL-RAE-CAP-0031-H	
				Field Sample ID	OL-4008-08		OL-4008-09		OL-4008-10	
				Start Depth (ft)	0.75		0.25		0.75	
				End Depth (ft)	1		0.5		1	
				Sampled	6/30/2022		6/30/2022		6/30/2022	
				SDG	R2206018		R2206018		R2206018	
				Lab Sample ID	R2206018-008		R2206018-009		R2206018-010	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	91.4		91.2		89.2	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	640		540		1030	
SW7471	7439-97-6	Mercury	mg/kg	T	0.008	U	0.011	J	0.012	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	19	U	19	U	20	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	29	U	29	U	30	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	21	U	21	U	22	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	19	U	19	U	20	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	20	U	20	U	21	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	19	U	19	U	20	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	19	U	19	U	20	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	19	U	19	U	20	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	19	U	19	U	20	U
SW8082	PCB	Total PCBs	ug/kg	NA	29	U	29	U	30	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.53	U	0.72	U	0.54	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.43	U	0.58	U	0.43	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.21	U	0.28	U	0.21	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.32	UJ	0.43	UJ	0.32	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.21	U	0.28	U	0.21	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.23	U	0.31	U	0.23	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.21	U	0.28	U	0.21	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.1	U	1.4	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.1	U	2.8	U	2.1	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.1	U	1.4	U	1.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.53	U	0.72	U	0.54	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	1.8	U	1.9	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	2	U	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.4	U	4.4	U	4.5	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.5	U	5.5	U	7.1	J
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3	U	3	U	5.8	J

				Location ID	OL-RAE-CAP-0030-H		OL-RAE-CAP-0031-H		OL-RAE-CAP-0031-H	
				Field Sample ID	OL-4008-08		OL-4008-09		OL-4008-10	
				Start Depth (ft)	0.75		0.25		0.75	
				End Depth (ft)	1		0.5		1	
				Sampled	6/30/2022		6/30/2022		6/30/2022	
				SDG	R2206018		R2206018		R2206018	
				Lab Sample ID	R2206018-008		R2206018-009		R2206018-010	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.9	U	3.9	U	6.5	J
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.1	U	3.1	U	4.7	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.2	U	4.2	U	4.7	J
SW8270	218-01-9	Chrysene	ug/kg	NA	3	U	3	U	7.2	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3	U	3	U	3.5	J
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.4	U	5.4	U	8.1	
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	1.9	U	1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.2	U	3.2	U	4.8	J
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.6	U	2.6	U	2.6	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.9	U	3.9	U	3.9	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.5	U	3.5	U	8.6	
SW9045	pH	pH	ph Units	NA						

				Location ID	OL-RAE-CAP-0033-H		OL-RAE-CAP-0033-H	
				Field Sample ID	OL-4008-15		OL-4008-16	
				Start Depth (ft)	0.25		0.75	
				End Depth (ft)	0.5		1	
				Sampled	6/30/2022		6/30/2022	
				SDG	R2206018		R2206018	
				Lab Sample ID	R2206018-015		R2206018-016	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
E160.3	SOLIDS	Total Solids	%	NA	87.9		82.4	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	370		2550	
SW7471	7439-97-6	Mercury	mg/kg	T	0.008	U	0.036	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	29	U	31	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	43	U	48	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	32	U	35	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	29	U	31	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	30	U	33	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	29	U	31	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	29	U	31	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	29	U	31	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	29	U	31	U
SW8082	PCB	Total PCBs	ug/kg	NA	43	U	48	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.57	U	0.57	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.46	U	0.46	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.22	U	0.22	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.34	UJ	0.34	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.22	U	0.22	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.24	U	0.24	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.22	U	0.22	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.1	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.2	U	2.2	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.1	U	1.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.57	U	0.57	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U	2	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.1	U	2.2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.6	U	4.9	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.7	U	6.3	J
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.1	U	5.1	J

				Location ID	OL-RAE-CAP-0033-H		OL-RAE-CAP-0033-H	
				Field Sample ID	OL-4008-15		OL-4008-16	
				Start Depth (ft)	0.25		0.75	
				End Depth (ft)	0.5		1	
				Sampled	6/30/2022		6/30/2022	
				SDG	R2206018		R2206018	
				Lab Sample ID	R2206018-015		R2206018-016	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4	U	7.6	J
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.2	U	4.4	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.3	U	4.6	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3.1	U	5.8	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.1	U	3.3	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.6	U	13	
SW8270	86-73-7	Fluorene	ug/kg	NA	2	U	2.1	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.3	UJ	3.6	UJ
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.7	U	5.6	J
SW8270	85-01-8	Phenanthrene	ug/kg	NA	4	U	8.6	
SW8270	129-00-0	Pyrene	ug/kg	NA	3.7	U	12	
SW9045	pH	pH	ph Units	NA				

				Location ID	OL-RAC-CAP-0002-H			OL-RAC-CAP-0002-H			OL-RAC-CAP-0005-H	
				Field Sample ID	OL-4009-05			OL-4009-06			OL-4009-07	
				Start Depth (ft)	0.25			0.75			0.25	
				End Depth (ft)	0.5			1			0.5	
				Sampled	6/30/2022			6/30/2022			6/30/2022	
				SDG	R2206019			R2206019			R2206019	
				Lab Sample ID	R2206019-005			R2206019-006			R2206019-007	
				Medium	Solid			Solid			Solid	
				Sample Type	REG			REG			REG	
				Matrix	SED			SED			SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
E160.3	SOLIDS	Total Solids	%	NA	92.6			91.4			84.6	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	830			3510			740	
SW7471	7439-97-6	Mercury	mg/kg	T	0.008	U		0.013	J		0.009	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	28	U		28	U		30	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	43	U		43	U		46	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	31	U		32	U		34	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	28	U		28	U		30	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	30	U		30	U		32	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	28	U		28	U		30	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	28	U		28	U		30	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	28	U		28	U		30	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	28	U		28	U		30	U
SW8082	PCB	Total PCBs	ug/kg	NA	43	U		43	U		46	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.57	U		0.73	J		0.52	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.46	U		0.65	J		0.42	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.22	U		0.21	UJ		0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.34	UJ		0.33	UJ		0.31	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.22	U		0.21	UJ		0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.24	U		0.41	J		0.22	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.22	U		0.21	UJ		0.2	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.1	U		1.1	UJ		0.99	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.2	U		2.1	UJ		2	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.1	U		1.1	UJ		0.99	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.57	U		0.55	UJ		0.52	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U		1.7	U		1.9	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U		1.9	U		2.1	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.3	U		4.1	U		4.6	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.4	U		5.1	U		5.7	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.9	U		2.8	U		3.1	U

				Location ID	OL-RAC-CAP-0002-H		OL-RAC-CAP-0002-H		OL-RAC-CAP-0005-H	
				Field Sample ID	OL-4009-05		OL-4009-06		OL-4009-07	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	6/30/2022		6/30/2022		6/30/2022	
				SDG	R2206019		R2206019		R2206019	
				Lab Sample ID	R2206019-005		R2206019-006		R2206019-007	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.8	U	3.6	U	4	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3	U	2.9	U	3.2	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.1	U	3.9	U	4.4	U
SW8270	218-01-9	Chrysene	ug/kg	NA	2.9	U	2.8	U	3.1	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.9	U	2.8	U	3.1	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.3	U	5	U	5.6	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	1.8	U	2	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.1	UJ	3	U	3.4	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.5	U	2.4	U	2.7	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.8	U	3.6	U	4	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.5	U	3.3	U	3.7	U
SW9045	pH	pH	ph Units	NA	8.87		8.37		7.68	

				Location ID	OL-RAC-CAP-0005-H		OL-RAC-CAP-0017-H		OL-RAC-CAP-0017-H	
				Field Sample ID	OL-4009-08		OL-4009-01		OL-4009-03	
				Start Depth (ft)	0.75		0.25		0.25	
				End Depth (ft)	1		0.5		0.5	
				Sampled	6/30/2022		6/30/2022		6/30/2022	
				SDG	R2206019		R2206019		R2206019	
				Lab Sample ID	R2206019-008		R2206019-001		R2206019-003	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		FD	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	83.9		91.1		90.4	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	1930		1310		3060	
SW7471	7439-97-6	Mercury	mg/kg	T	0.009	U	0.01	J	0.015	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	30	U	28	U	29	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	46	U	43	U	44	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	34	U	31	U	32	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	30	U	28	U	29	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	32	U	30	U	30	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	30	U	28	U	29	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	30	U	28	U	29	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	30	U	28	U	29	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	30	U	28	U	29	U
SW8082	PCB	Total PCBs	ug/kg	NA	46	U	43	U	44	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.54	U	0.62	U	0.5	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.44	U	0.5	U	0.4	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.21	U	0.24	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.33	UJ	0.37	UJ	0.3	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.21	U	0.24	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.23	U	0.27	U	0.21	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.21	U	0.24	U	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.1	U	1.2	U	0.96	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.1	U	2.4	U	2	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.1	U	1.2	U	0.96	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.54	U	0.62	U	0.5	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U	1.8	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.1	U	2	U	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.5	U	4.4	U	4.4	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.6	U	5.5	U	5.5	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.1	U	3.6	J	3.2	J

				Location ID	OL-RAC-CAP-0005-H		OL-RAC-CAP-0017-H		OL-RAC-CAP-0017-H		
				Field Sample ID	OL-4009-08		OL-4009-01		OL-4009-03		
				Start Depth (ft)	0.75		0.25		0.25		
				End Depth (ft)	1		0.5		0.5		
				Sampled	6/30/2022		6/30/2022		6/30/2022		
				SDG	R2206019		R2206019		R2206019		
				Lab Sample ID	R2206019-008		R2206019-001		R2206019-003		
				Medium	Solid		Solid		Solid		
				Sample Type	REG		REG		FD		
				Matrix	SED		SED		SED		
Method	Parameter Code	Parameter Name	Units	Fraction							
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4	U	5.2	J	4.9	J	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.2	U	3.1	U	3.1	U	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.3	U	4.2	U	4.2	U	
SW8270	218-01-9	Chrysene	ug/kg	NA	3.1	U	4.4	J	3.2	J	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.1	U	3	U	3	U	
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.5	U	9.8		8.9		
SW8270	86-73-7	Fluorene	ug/kg	NA	2	U	1.9	U	1.9	U	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.3	U	3.2	UJ	3.2	UJ	
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.6	U	2.6	J	2.6	U	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	4	U	4	J	3.9	U	
SW8270	129-00-0	Pyrene	ug/kg	NA	3.6	U	8.5		7.6		
SW9045	pH	pH	ph Units	NA	7.82		8.37		8.52		

				Location ID	OL-RAC-CAP-0017-H		OL-RAC-CAP-0019-H	
				Field Sample ID	OL-4009-02		OL-4009-04	
				Start Depth (ft)	0.5		0	
				End Depth (ft)	0.75		0.5	
				Sampled	6/30/2022		6/30/2022	
				SDG	R2206019		R2206019	
				Lab Sample ID	R2206019-002		R2206019-004	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
E160.3	SOLIDS	Total Solids	%	NA	88.4		86	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	1160			
SW7471	7439-97-6	Mercury	mg/kg	T	0.008	U	0.009	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	28	U	30	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	43	U	46	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	32	U	33	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	28	U	30	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	30	U	32	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	28	U	30	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	28	U	30	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	28	U	30	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	28	U	30	U
SW8082	PCB	Total PCBs	ug/kg	NA	43	U	46	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.52	U		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.42	U		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.2	U		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.31	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.2	U		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.22	U		
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.2	U		
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	0.99	U		
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2	U		
SW8260	95-47-6	o-Xylene	ug/kg	NA	0.99	U		
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.52	U		
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U		
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.1	U		
SW8270	120-12-7	Anthracene	ug/kg	NA	4.5	U		
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.6	U	5.7	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.1	U	3.1	U

				Location ID	OL-RAC-CAP-0017-H		OL-RAC-CAP-0019-H	
				Field Sample ID	OL-4009-02		OL-4009-04	
				Start Depth (ft)	0.5		0	
				End Depth (ft)	0.75		0.5	
				Sampled	6/30/2022		6/30/2022	
				SDG	R2206019		R2206019	
				Lab Sample ID	R2206019-002		R2206019-004	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4	U	4	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.2	U	3.2	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.3	U	4.4	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3.1	U	3.1	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.1	U	3.1	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.5	U	5.6	U
SW8270	86-73-7	Fluorene	ug/kg	NA	2	U		
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.3	UJ	3.4	UJ
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.5	J	2.7	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	4	U		
SW8270	129-00-0	Pyrene	ug/kg	NA	4	J	3.7	U
SW9045	pH	pH	ph Units	NA	8.17			

				Location ID	OL-RAB-CAP-0004-H		OL-RAB-CAP-0010-H		OL-RAB-CAP-0011-H	
				Field Sample ID	OL-4010-14		OL-4010-15		OL-4010-16	
				Start Depth (ft)	0.25		0		0	
				End Depth (ft)	0.5		0.5		0.4167	
				Sampled	7/1/2022		7/1/2022		7/1/2022	
				SDG	R2206040		R2206040		R2206040	
				Lab Sample ID	R2206040-014		R2206040-015		R2206040-016	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	89.9		85.6		90.8	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	2450					
SW7471	7439-97-6	Mercury	mg/kg	T	0.009	U	0.008	U	0.013	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	29	U				
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	44	U				
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	32	U				
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	29	U				
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	31	U				
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	29	U				
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	29	U				
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	29	U				
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	29	U				
SW8082	PCB	Total PCBs	ug/kg	NA	44	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.78	U				
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.63	U				
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.3	U				
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.47	UJ				
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.3	U				
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.33	U				
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.3	U				
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.5	U				
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	3	U				
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.5	U				
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.78	U				
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U				
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U				
SW8270	120-12-7	Anthracene	ug/kg	NA	4.5	U				
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.6	U				
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3	U				

				Location ID	OL-RAB-CAP-0004-H		OL-RAB-CAP-0010-H		OL-RAB-CAP-0011-H		
				Field Sample ID	OL-4010-14		OL-4010-15		OL-4010-16		
				Start Depth (ft)	0.25		0		0		
				End Depth (ft)	0.5		0.5		0.4167		
				Sampled	7/1/2022		7/1/2022		7/1/2022		
				SDG	R2206040		R2206040		R2206040		
				Lab Sample ID	R2206040-014		R2206040-015		R2206040-016		
				Medium	Solid		Solid		Solid		
				Sample Type	REG		REG		REG		
				Matrix	SED		SED		SED		
Method	Parameter Code	Parameter Name	Units	Fraction							
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.9	U					
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.1	U					
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.2	U					
SW8270	218-01-9	Chrysene	ug/kg	NA	3	U					
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3	U					
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.5	U					
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U					
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.3	UJ					
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.6	U					
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.9	U					
SW8270	129-00-0	Pyrene	ug/kg	NA	3.6	U					
SW9045	pH	pH	ph Units	NA	8.41						

				Location ID	OL-RAB-CAP-0013-H		OL-RAB-CAP-0014-H		OL-RAB-CAP-0014-H	
				Field Sample ID	OL-4010-17		OL-4010-09		OL-4010-11	
				Start Depth (ft)	0		0.25		0.25	
				End Depth (ft)	0.5		0.5		0.5	
				Sampled	7/1/2022		7/1/2022		7/1/2022	
				SDG	R2206040		R2206040		R2206040	
				Lab Sample ID	R2206040-017		R2206040-009		R2206040-011	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		FD	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	88.5		85.8		90.8	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA			1540		1130	
SW7471	7439-97-6	Mercury	mg/kg	T	0.012	J	0.017	J	0.013	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	28	U	30	U	28	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	43	U	46	U	43	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	32	U	33	U	32	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	28	U	30	U	28	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	30	U	32	U	30	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	28	U	30	U	28	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	28	U	30	U	28	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	28	U	30	U	28	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	28	U	30	U	28	U
SW8082	PCB	Total PCBs	ug/kg	NA	43	U	46	U	43	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA			0.64	U	0.66	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA			0.51	U	0.54	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA			0.25	U	0.26	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA			0.38	UJ	0.4	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA			0.25	U	0.26	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA			0.27	U	0.28	UJ
SW8260	108-90-7	Chlorobenzene	ug/kg	NA			0.25	U	0.26	UJ
SW8260	100-41-4	Ethylbenzene	ug/kg	NA			1.3	U	1.3	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA			2.5	U	2.6	UJ
SW8260	95-47-6	o-Xylene	ug/kg	NA			1.3	U	1.3	UJ
SW8260	1330-20-7	Total Xylenes	ug/kg	NA			0.64	U	0.66	UJ
SW8270	83-32-9	Acenaphthene	ug/kg	NA			1.9	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA			2.1	U	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA			4.6	U	4.4	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.6	U	5.6	U	5.5	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.1	U	3.1	U	3	U

				Location ID	OL-RAB-CAP-0013-H		OL-RAB-CAP-0014-H		OL-RAB-CAP-0014-H	
				Field Sample ID	OL-4010-17		OL-4010-09		OL-4010-11	
				Start Depth (ft)	0		0.25		0.25	
				End Depth (ft)	0.5		0.5		0.5	
				Sampled	7/1/2022		7/1/2022		7/1/2022	
				SDG	R2206040		R2206040		R2206040	
				Lab Sample ID	R2206040-017		R2206040-009		R2206040-011	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		FD	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4	U	4	U	3.9	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.2	U	3.2	U	3.1	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.3	U	4.3	U	4.2	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3.1	U	3.1	U	3	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.1	U	3.1	U	3	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.5	U	5.5	U	5.4	U
SW8270	86-73-7	Fluorene	ug/kg	NA			2	U	1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.3	UJ	3.3	U	3.2	UJ
SW8270	91-20-3	Naphthalene	ug/kg	NA	14		32	J	12	J
SW8270	85-01-8	Phenanthrene	ug/kg	NA			4	U	3.9	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.6	U	3.6	U	3.5	U
SW9045	pH	pH	ph Units	NA			7.87		7.76	

				Location ID	OL-RAB-CAP-0014-H		OL-RAB-CAP-0015-H		OL-RAB-CAP-0015-H	
				Field Sample ID	OL-4010-10		OL-4010-12		OL-4010-13	
				Start Depth (ft)	0.75		0.25		0.75	
				End Depth (ft)	1		0.5		1	
				Sampled	7/1/2022		7/1/2022		7/1/2022	
				SDG	R2206040		R2206040		R2206040	
				Lab Sample ID	R2206040-010		R2206040-012		R2206040-013	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	86.6		91		89.1	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	870	J	710		580	
SW7471	7439-97-6	Mercury	mg/kg	T	0.018	J	0.008	U	0.009	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	30	U	28	U	29	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	46	U	43	U	44	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	34	U	32	U	32	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	30	U	28	U	29	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	32	U	30	U	31	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	30	U	28	U	29	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	30	U	28	U	29	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	30	U	28	U	29	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	30	U	28	U	29	U
SW8082	PCB	Total PCBs	ug/kg	NA	46	U	43	U	44	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.61	UJ	0.66	U	0.55	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.95	J	0.53	U	0.44	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.24	UJ	0.26	U	0.21	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.39	J	0.39	UJ	0.33	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.24	UJ	0.26	U	0.21	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.68	J	0.28	U	0.23	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.24	UJ	0.26	U	0.21	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	UJ	1.3	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.4	UJ	2.6	U	2.1	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	UJ	1.3	U	1.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.61	UJ	0.66	U	0.55	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	UJ	1.8	U	1.9	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.1	UJ	2	U	2.1	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.6	UJ	4.4	U	4.5	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.7	UJ	5.4	U	5.6	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.1	UJ	3	U	3.1	U

				Location ID	OL-RAB-CAP-0014-H			OL-RAB-CAP-0015-H			OL-RAB-CAP-0015-H	
				Field Sample ID	OL-4010-10			OL-4010-12			OL-4010-13	
				Start Depth (ft)	0.75			0.25			0.75	
				End Depth (ft)	1			0.5			1	
				Sampled	7/1/2022			7/1/2022			7/1/2022	
				SDG	R2206040			R2206040			R2206040	
				Lab Sample ID	R2206040-010			R2206040-012			R2206040-013	
				Medium	Solid			Solid			Solid	
				Sample Type	REG			REG			REG	
				Matrix	SED			SED			SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4	UJ		3.8	U		4	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.2	UJ		3.1	U		3.2	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.3	UJ		4.1	U		4.3	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3.1	UJ		3	U		3.1	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.1	UJ		3	U		3.1	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.6	UJ		5.3	U		5.5	U
SW8270	86-73-7	Fluorene	ug/kg	NA	2	UJ		1.9	U		1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.3	UJ		3.2	UJ		3.3	UJ
SW8270	91-20-3	Naphthalene	ug/kg	NA	9.1	J		2.5	U		2.6	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	4	UJ		3.8	U		4	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.7	UJ		3.5	U		3.6	U
SW9045	pH	pH	ph Units	NA	7.97			8.42			8.42	

				Location ID	OL-RAC-CAP-0003-H		OL-RAC-CAP-0003-H		OL-RAC-CAP-0004-H	
				Field Sample ID	OL-4010-01		OL-4010-02		OL-4010-05	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	6/30/2022		6/30/2022		6/30/2022	
				SDG	R2206040		R2206040		R2206040	
				Lab Sample ID	R2206040-001		R2206040-002		R2206040-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	89		88.7		88.3	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	940		1270		820	
SW7471	7439-97-6	Mercury	mg/kg	T	0.008	J	0.009	U	0.008	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	28	U	29	U	29	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	43	U	44	U	44	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	32	U	32	U	32	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	28	U	29	U	29	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	30	U	31	U	30	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	28	U	29	U	29	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	28	U	29	U	29	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	28	U	29	U	29	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	28	U	29	U	29	U
SW8082	PCB	Total PCBs	ug/kg	NA	43	U	44	U	44	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.84	U	0.6	U	0.54	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.68	U	0.49	U	0.43	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.33	U	0.23	U	0.21	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.5	UJ	0.36	UJ	0.32	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.33	U	0.23	U	0.21	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.36	U	0.26	U	0.23	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.33	U	0.23	U	0.21	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.7	U	1.2	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	3.3	U	2.3	U	2.1	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.7	U	1.2	U	1.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.84	U	0.6	U	0.54	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	1.9	U	1.7	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	2	U	1.9	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.4	U	4.4	U	4.2	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.5	U	5.5	U	5.2	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3	U	3	U	2.8	U

				Location ID	OL-RAC-CAP-0003-H		OL-RAC-CAP-0003-H		OL-RAC-CAP-0004-H	
				Field Sample ID	OL-4010-01		OL-4010-02		OL-4010-05	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	6/30/2022		6/30/2022		6/30/2022	
				SDG	R2206040		R2206040		R2206040	
				Lab Sample ID	R2206040-001		R2206040-002		R2206040-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.9	U	3.9	U	3.6	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.1	U	3.1	U	2.9	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.2	U	4.2	U	3.9	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3	U	3	U	2.8	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3	U	3	U	2.8	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.4	U	5.4	U	5.1	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	1.9	U	1.8	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.2	U	3.2	U	3	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.6	U	2.6	U	2.4	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.9	U	3.9	U	3.6	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.5	U	3.6	U	3.3	U
SW9045	pH	pH	ph Units	NA	8.57		9.08		8.05	

				Location ID	OL-RAC-CAP-0004-H		OL-RAC-CAP-0009-H		OL-RAC-CAP-0009-H	
				Field Sample ID	OL-4010-06		OL-4010-03		OL-4010-04	
				Start Depth (ft)	0.75		0.25		0.75	
				End Depth (ft)	1		0.5		1	
				Sampled	6/30/2022		6/30/2022		6/30/2022	
				SDG	R2206040		R2206040		R2206040	
				Lab Sample ID	R2206040-006		R2206040-003		R2206040-004	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	86.7		93.8		90.6	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	3200		810		880	
SW7471	7439-97-6	Mercury	mg/kg	T	0.012	J	0.008	U	0.008	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	29	U	27	U	28	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	45	U	41	U	43	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	33	U	30	U	32	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	29	U	27	U	28	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	31	U	28	U	30	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	29	U	27	U	28	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	29	U	27	U	28	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	29	U	27	U	28	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	29	U	27	U	28	U
SW8082	PCB	Total PCBs	ug/kg	NA	45	U	41	U	43	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.61	U	0.49	U	0.53	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.49	U	0.4	U	0.43	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.24	U	0.19	U	0.21	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.37	UJ	0.3	UJ	0.32	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.24	U	0.19	U	0.21	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.26	U	0.21	U	0.23	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.24	U	0.19	U	0.21	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	0.94	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.4	U	1.9	U	2.1	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	0.94	U	1.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.61	U	0.49	U	0.53	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	1.8	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	1.9	U	1.9	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.3	U	4.2	U	4.2	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.4	U	5.2	U	5.2	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.9	U	2.9	U	2.9	U

				Location ID	OL-RAC-CAP-0004-H		OL-RAC-CAP-0009-H		OL-RAC-CAP-0009-H	
				Field Sample ID	OL-4010-06		OL-4010-03		OL-4010-04	
				Start Depth (ft)	0.75		0.25		0.75	
				End Depth (ft)	1		0.5		1	
				Sampled	6/30/2022		6/30/2022		6/30/2022	
				SDG	R2206040		R2206040		R2206040	
				Lab Sample ID	R2206040-006		R2206040-003		R2206040-004	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.8	U	3.7	U	3.7	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3	U	3	U	3	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.1	U	4	U	4	U
SW8270	218-01-9	Chrysene	ug/kg	NA	2.9	U	2.9	U	2.9	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.9	U	2.9	U	2.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.3	U	5.2	U	5.1	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	1.8	U	1.8	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.2	U	3.1	U	3.1	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	4.6	J	3.5	J	2.4	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.8	U	3.7	U	3.7	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.5	U	3.4	U	3.4	U
SW9045	pH	pH	ph Units	NA	8.31		8.06		8.02	

				Location ID	OL-RAC-CAP-0016-H		OL-RAC-CAP-0016-H	
				Field Sample ID	OL-4010-07		OL-4010-08	
				Start Depth (ft)	0.25		0.5	
				End Depth (ft)	0.5		0.75	
				Sampled	7/1/2022		7/1/2022	
				SDG	R2206040		R2206040	
				Lab Sample ID	R2206040-007		R2206040-008	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
E160.3	SOLIDS	Total Solids	%	NA	87.1		90.2	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	1530		2030	
SW7471	7439-97-6	Mercury	mg/kg	T	0.01	J	0.01	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	29	U	29	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	45	U	43	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	33	U	32	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	29	U	29	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	31	U	30	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	29	U	29	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	29	U	29	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	29	U	29	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	29	U	29	U
SW8082	PCB	Total PCBs	ug/kg	NA	45	U	43	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.52	U	0.77	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.42	U	0.62	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.2	U	0.3	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.31	UJ	0.46	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.2	U	0.3	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.22	U	0.33	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.2	U	0.3	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1	U	1.5	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2	U	3	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1	U	1.5	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.52	U	0.77	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.4	U	4.4	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.5	U	5.4	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3	U	2.9	U

				Location ID	OL-RAC-CAP-0016-H		OL-RAC-CAP-0016-H	
				Field Sample ID	OL-4010-07		OL-4010-08	
				Start Depth (ft)	0.25		0.5	
				End Depth (ft)	0.5		0.75	
				Sampled	7/1/2022		7/1/2022	
				SDG	R2206040		R2206040	
				Lab Sample ID	R2206040-007		R2206040-008	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.8	U	3.8	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.1	U	3.1	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.1	U	4.1	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3	U	2.9	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3	U	2.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.4	U	5.3	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.2	U	3.2	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.5	U	2.5	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.8	U	3.8	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.5	U	3.5	U
SW9045	pH	pH	ph Units	NA	8.52		8.3	

				Location ID	OL-RAA-CAP-0005-H		OL-RAA-CAP-0005-H		OL-RAA-CAP-0005-I	
				Field Sample ID	OL-4011-03		OL-4011-04		OL-4011-05	
				Start Depth (ft)	0.25		0.75		1	
				End Depth (ft)	0.5		1		1.25	
				Sampled	7/6/2022		7/6/2022		7/6/2022	
				SDG	R2206128		R2206128		R2206128	
				Lab Sample ID	R2206128-003		R2206128-004		R2206128-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	73.3		83.6		91.2	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	10100		710			
SW7471	7439-97-6	Mercury	mg/kg	T	0.047		0.011	J	0.008	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	34	U	30	U	19	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	52	U	46	U	29	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	38	U	34	U	21	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	34	U	30	U	19	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	36	U	32	U	20	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	34	U	30	U	19	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	34	U	30	U	19	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	34	U	30	U	19	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	34	U	30	U	19	U
SW8082	PCB	Total PCBs	ug/kg	NA	52	U	46	U	29	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.68	U	0.56	U	0.66	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.55	U	0.45	U	0.53	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.26	U	0.22	U	0.26	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.41	UJ	0.34	UJ	0.39	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.26	U	0.22	U	0.26	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.39	J	0.24	U	0.28	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.26	U	0.22	U	0.26	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.3	U	1.1	U	1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.6	U	2.2	U	2.6	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.3	U	1.1	U	1.3	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.68	U	0.56	U	0.65	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	3.1	J	2	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	6.4	J	2.2	U	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	11		4.8	U	4.4	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	55		6	U	5.5	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	93		3.3	U	3	U

				Location ID	OL-RAA-CAP-0005-H		OL-RAA-CAP-0005-H		OL-RAA-CAP-0005-I	
				Field Sample ID	OL-4011-03		OL-4011-04		OL-4011-05	
				Start Depth (ft)	0.25		0.75		1	
				End Depth (ft)	0.5		1		1.25	
				Sampled	7/6/2022		7/6/2022		7/6/2022	
				SDG	R2206128		R2206128		R2206128	
				Lab Sample ID	R2206128-003		R2206128-004		R2206128-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	110		4.2	U	3.8	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	69		3.4	U	3.1	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	37		4.6	U	4.1	U
SW8270	218-01-9	Chrysene	ug/kg	NA	81		3.3	U	3	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	16		3.3	U	3	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	160		5.9	U	5.4	U
SW8270	86-73-7	Fluorene	ug/kg	NA	4.4	J	2.1	U	1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	68		3.5	UJ	3.2	UJ
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.2	U	2.8	U	2.5	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	56		4.2	U	3.8	U
SW8270	129-00-0	Pyrene	ug/kg	NA	140		3.9	U	3.5	U
SW9045	pH	pH	ph Units	NA						

				Location ID	OL-RAA-CAP-0009-I		OL-RAB-CAP-0001-H		OL-RAB-CAP-0001-H	
				Field Sample ID	OL-4011-06		OL-4011-01		OL-4011-02	
				Start Depth (ft)	0.833333		0.25		0.75	
				End Depth (ft)	1.08333		0.5		1	
				Sampled	7/6/2022		7/5/2022		7/5/2022	
				SDG	R2206128		R2206128		R2206128	
				Lab Sample ID	R2206128-006		R2206128-001		R2206128-002	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	80.2		87		92.6	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA			1020		320	
SW7471	7439-97-6	Mercury	mg/kg	T	0.208		0.009	U	0.008	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	32	U	29	U	28	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	49	U	45	U	42	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	36	U	33	U	31	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	32	U	29	U	28	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	34	U	31	U	29	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	32	U	29	U	28	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	32	U	29	U	28	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	32	U	29	U	28	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	32	U	29	U	28	U
SW8082	PCB	Total PCBs	ug/kg	NA	49	U	45	U	42	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.5	U	0.6	U	0.57	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.4	U	0.48	U	0.46	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.19	U	0.23	U	0.22	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.3	UJ	0.36	UJ	0.34	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.19	U	0.23	U	0.22	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.21	J	0.26	U	0.24	UJ
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.19	U	0.23	U	0.22	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	0.95	U	1.2	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	1.9	U	2.3	U	2.2	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	0.95	U	1.2	U	1.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.5	U	0.6	U	0.57	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.1	U	1.9	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.3	U	2.1	U	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	5	U	4.6	U	4.3	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	6.2	U	5.7	U	5.3	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.4	U	3.1	U	2.9	U

				Location ID	OL-RAA-CAP-0009-I		OL-RAB-CAP-0001-H		OL-RAB-CAP-0001-H	
				Field Sample ID	OL-4011-06		OL-4011-01		OL-4011-02	
				Start Depth (ft)	0.833333		0.25		0.75	
				End Depth (ft)	1.08333		0.5		1	
				Sampled	7/6/2022		7/5/2022		7/5/2022	
				SDG	R2206128		R2206128		R2206128	
				Lab Sample ID	R2206128-006		R2206128-001		R2206128-002	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4.4	U	4	U	3.8	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.5	U	3.2	U	3	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.7	U	4.4	U	4.1	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3.4	U	3.1	U	2.9	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.4	U	3.1	U	2.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	6.1	U	5.6	U	5.2	U
SW8270	86-73-7	Fluorene	ug/kg	NA	2.2	U	2	U	1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.6	UJ	3.4	UJ	3.1	UJ
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.9	U	2.7	U	2.5	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	4.4	U	4	U	3.8	U
SW8270	129-00-0	Pyrene	ug/kg	NA	4	U	3.7	U	3.4	U
SW9045	pH	pH	ph Units	NA			8.32		8.45	

				Location ID	OL-RAB-CAP-0002-H		OL-RAB-CAP-0002-H		OL-RAB-CAP-0003-H	
				Field Sample ID	OL-4011-09		OL-4011-10		OL-4011-07	
				Start Depth (ft)	0.25		0.5		0.25	
				End Depth (ft)	0.5		0.75		0.5	
				Sampled	7/6/2022		7/6/2022		7/6/2022	
				SDG	R2206128		R2206128		R2206128	
				Lab Sample ID	R2206128-009		R2206128-010		R2206128-007	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	90.9		83.7		84.8	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	970		1230		640	
SW7471	7439-97-6	Mercury	mg/kg	T	0.01	J	0.009	U	0.009	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	28	U	31	U	30	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	43	U	47	U	45	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	31	U	34	U	33	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	28	U	31	U	30	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	30	U	33	U	31	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	28	U	31	U	30	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	28	U	31	U	30	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	28	U	31	U	30	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	28	U	31	U	30	U
SW8082	PCB	Total PCBs	ug/kg	NA	43	U	47	U	45	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.54	U	0.69	U	0.76	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.44	U	0.56	U	0.61	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.21	U	0.27	U	0.3	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.33	UJ	0.41	UJ	0.45	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.21	U	0.27	U	0.3	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.23	U	0.29	U	0.32	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.21	U	0.27	U	0.3	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.1	U	1.4	U	1.5	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.1	U	2.7	U	3	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.1	U	1.4	U	1.5	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.54	U	0.69	U	0.76	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U	1.9	UJ	2	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	2	UJ	2.1	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.4	U	4.5	UJ	4.7	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.5	U	5.5	UJ	5.8	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3	U	3	UJ	3.2	U

				Location ID	OL-RAB-CAP-0002-H			OL-RAB-CAP-0002-H			OL-RAB-CAP-0003-H	
				Field Sample ID	OL-4011-09			OL-4011-10			OL-4011-07	
				Start Depth (ft)	0.25			0.5			0.25	
				End Depth (ft)	0.5			0.75			0.5	
				Sampled	7/6/2022			7/6/2022			7/6/2022	
				SDG	R2206128			R2206128			R2206128	
				Lab Sample ID	R2206128-009			R2206128-010			R2206128-007	
				Medium	Solid			Solid			Solid	
				Sample Type	REG			REG			REG	
				Matrix	SED			SED			SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.9	U		3.9	UJ		4.1	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.1	U		3.1	UJ		3.3	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.2	U		4.2	UJ		4.4	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3	U		3	UJ		3.2	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3	U		3	UJ		3.2	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.4	U		5.4	UJ		5.7	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U		1.9	UJ		2	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.2	U		3.2	UJ		3.4	UJ
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.6	U		2.6	UJ		2.7	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.9	U		3.9	UJ		4.1	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.5	U		3.6	UJ		3.8	U
SW9045	pH	pH	ph Units	NA	8.44			7.86			7.79	

				Location ID	OL-RAB-CAP-0003-H	
				Field Sample ID	OL-4011-08	
				Start Depth (ft)	0.583333	
				End Depth (ft)	0.833333	
				Sampled	7/6/2022	
				SDG	R2206128	
				Lab Sample ID	R2206128-008	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	87.5	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	390	
SW7471	7439-97-6	Mercury	mg/kg	T	0.008	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	30	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	45	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	33	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	30	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	31	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	30	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	30	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	30	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	30	U
SW8082	PCB	Total PCBs	ug/kg	NA	45	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.59	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.48	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.23	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.35	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.23	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.25	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.23	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.3	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.59	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.1	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.6	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.7	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.1	U

				Location ID	OL-RAB-CAP-0003-H	
				Field Sample ID	OL-4011-08	
				Start Depth (ft)	0.583333	
				End Depth (ft)	0.833333	
				Sampled	7/6/2022	
				SDG	R2206128	
				Lab Sample ID	R2206128-008	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.2	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.3	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3.1	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.1	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.6	U
SW8270	86-73-7	Fluorene	ug/kg	NA	2	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.3	UJ
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.7	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	4	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.7	U
SW9045	pH	pH	ph Units	NA	8.2	

				Location ID	OL-RAA-CAP-0001-H		OL-RAA-CAP-0001-H		OL-RAA-CAP-0001-H	
				Field Sample ID	OL-4012-12		OL-4012-13		OL-4012-14	
				Start Depth (ft)	0.25		0.75		0.75	
				End Depth (ft)	0.5		1		1	
				Sampled	7/7/2022		7/7/2022		7/7/2022	
				SDG	R2206224		R2206224		R2206224	
				Lab Sample ID	R2206224-012		R2206224-013		R2206224-014	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		FD	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	89.2		89		89.2	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	610		1010		670	
SW7471	7439-97-6	Mercury	mg/kg	T	0.008	U	0.008	U	0.008	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	28	U	29	U	29	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	43	U	44	U	44	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	32	U	32	U	32	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	28	U	29	U	29	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	30	U	31	U	30	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	28	U	29	U	29	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	28	U	29	U	29	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	28	U	29	U	29	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	28	U	29	U	29	U
SW8082	PCB	Total PCBs	ug/kg	NA	43	U	44	U	44	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.64	U	0.53	U	0.77	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.52	UJ	0.43	UJ	0.62	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.25	U	0.21	U	0.3	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.38	UJ	0.32	UJ	0.46	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.25	U	0.21	U	0.3	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.27	U	0.23	U	0.33	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.25	U	0.21	U	0.3	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.3	U	1.1	U	1.5	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.5	U	2.1	U	3	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.3	U	1.1	U	1.5	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.64	U	0.53	U	0.77	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	1.8	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	2	U	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.4	U	4.4	U	4.4	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.4	U	5.4	U	5.4	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3	U	3	U	3	U

				Location ID	OL-RAA-CAP-0001-H		OL-RAA-CAP-0001-H		OL-RAA-CAP-0001-H	
				Field Sample ID	OL-4012-12		OL-4012-13		OL-4012-14	
				Start Depth (ft)	0.25		0.75		0.75	
				End Depth (ft)	0.5		1		1	
				Sampled	7/7/2022		7/7/2022		7/7/2022	
				SDG	R2206224		R2206224		R2206224	
				Lab Sample ID	R2206224-012		R2206224-013		R2206224-014	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		FD	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.8	U	3.8	U	3.8	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.1	U	3.1	U	3.1	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.1	U	4.1	U	4.1	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3	U	3	U	3	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3	U	3	U	3	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.3	U	5.3	U	5.3	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	1.9	U	1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.2	U	3.2	U	3.2	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.5	U	2.5	U	2.5	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.8	U	3.8	U	3.8	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.5	U	3.5	U	3.5	U
SW9045	pH	pH	ph Units	NA						

				Location ID	OL-RAA-CAP-0001-I		OL-RAA-CAP-0002-H		OL-RAA-CAP-0002-H	
				Field Sample ID	OL-4012-15		OL-4012-06		OL-4012-07	
				Start Depth (ft)	1		0.25		0.75	
				End Depth (ft)	1.25		0.5		1	
				Sampled	7/7/2022		7/6/2022		7/6/2022	
				SDG	R2206224		R2206224		R2206224	
				Lab Sample ID	R2206224-015		R2206224-006		R2206224-007	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	83.3		83.4		86.2	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA			3800		1320	
SW7471	7439-97-6	Mercury	mg/kg	T	0.061		0.048		0.017	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	31	U	30	U	30	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	46	U	45	U	45	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	34	U	33	U	33	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	31	U	30	U	30	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	32	U	31	U	31	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	31	U	30	U	30	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	31	U	30	U	30	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	31	U	30	U	30	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	31	U	30	U	30	U
SW8082	PCB	Total PCBs	ug/kg	NA	46	U	45	U	45	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.61	U	0.55	U	0.53	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.49	U	0.44	U	0.43	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.24	U	0.21	U	0.21	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.37	UJ	0.33	UJ	0.32	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.24	U	0.21	U	0.21	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.26	U	0.23	U	0.23	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.24	U	0.21	U	0.21	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	1.1	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.4	U	2.1	U	2.1	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	1.1	U	1.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.61	U	0.55	U	0.53	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2	U	1.9	U	1.9	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.2	U	2	U	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.8	U	4.5	U	4.5	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	6	U	5.6	U	5.5	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.2	U	3.3	J	3	U

				Location ID	OL-RAA-CAP-0001-I		OL-RAA-CAP-0002-H		OL-RAA-CAP-0002-H		
				Field Sample ID	OL-4012-15		OL-4012-06		OL-4012-07		
				Start Depth (ft)	1		0.25		0.75		
				End Depth (ft)	1.25		0.5		1		
				Sampled	7/7/2022		7/6/2022		7/6/2022		
				SDG	R2206224		R2206224		R2206224		
				Lab Sample ID	R2206224-015		R2206224-006		R2206224-007		
				Medium	Solid		Solid		Solid		
				Sample Type	REG		REG		REG		
				Matrix	SED		SED		SED		
Method	Parameter Code	Parameter Name	Units	Fraction							
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4.2	U	4.3	J	3.9	U	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.4	U	3.1	U	3.1	U	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.5	U	4.2	U	4.2	U	
SW8270	218-01-9	Chrysene	ug/kg	NA	3.2	U	3	U	3	U	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.2	U	3	U	3	U	
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.9	U	5.5	U	5.4	U	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.1	U	1.9	U	1.9	U	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.5	U	3.3	U	3.2	U	
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.8	U	2.6	U	2.6	U	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	4.2	U	3.9	U	3.9	U	
SW8270	129-00-0	Pyrene	ug/kg	NA	4.7	J	4.6	J	3.6	U	
SW9045	pH	pH	ph Units	NA							

				Location ID	OL-RAA-CAP-0002-I		OL-RAA-CAP-0003-H		OL-RAA-CAP-0003-H	
				Field Sample ID	OL-4012-08		OL-4012-01		OL-4012-02	
				Start Depth (ft)	1		0.25		0.75	
				End Depth (ft)	1.25		0.5		1	
				Sampled	7/6/2022		7/6/2022		7/6/2022	
				SDG	R2206224		R2206224		R2206224	
				Lab Sample ID	R2206224-008		R2206224-001		R2206224-002	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	90.4		77.8		87.7	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA			940		1170	
SW7471	7439-97-6	Mercury	mg/kg	T	0.008	U	0.029		0.019	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	28	U	32	U	30	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	42	U	49	U	45	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	31	U	36	U	33	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	28	U	32	U	30	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	29	U	34	U	31	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	28	U	32	U	30	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	28	U	32	U	30	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	28	U	32	U	30	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	28	U	32	U	30	U
SW8082	PCB	Total PCBs	ug/kg	NA	42	U	49	U	45	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.52	U	0.63	U	0.57	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.42	U	0.51	U	0.46	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.2	U	0.24	U	0.22	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.31	UJ	0.38	UJ	0.34	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.2	U	0.24	U	0.22	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.22	U	0.27	U	0.24	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.2	U	0.24	U	0.22	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1	U	1.2	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2	U	2.4	U	2.2	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1	U	1.2	U	1.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.52	U	0.63	U	0.57	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	2.1	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	2.3	U	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.3	U	5.1	U	4.3	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.4	U	15		5.4	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.9	U	21		2.9	J

				Location ID	OL-RAA-CAP-0002-I		OL-RAA-CAP-0003-H		OL-RAA-CAP-0003-H	
				Field Sample ID	OL-4012-08		OL-4012-01		OL-4012-02	
				Start Depth (ft)	1		0.25		0.75	
				End Depth (ft)	1.25		0.5		1	
				Sampled	7/6/2022		7/6/2022		7/6/2022	
				SDG	R2206224		R2206224		R2206224	
				Lab Sample ID	R2206224-008		R2206224-001		R2206224-002	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.8	U	26		3.8	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3	U	17		3	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.1	U	8.5		4.1	U
SW8270	218-01-9	Chrysene	ug/kg	NA	2.9	U	18		2.9	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.9	U	4.4	J	2.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.3	U	32		5.3	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	2.2	U	1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.1	U	17		3.1	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.5	U	2.9	U	2.5	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.8	U	12		3.8	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.5	U	30		4.2	J
SW9045	pH	pH	ph Units	NA						

				Location ID	OL-RAA-CAP-0003-I		OL-RAA-CAP-0004-H		OL-RAA-CAP-0004-H	
				Field Sample ID	OL-4012-03		OL-4012-16		OL-4012-17	
				Start Depth (ft)	1		0.25		0.75	
				End Depth (ft)	1.25		0.5		1	
				Sampled	7/6/2022		7/7/2022		7/7/2022	
				SDG	R2206224		R2206224		R2206224	
				Lab Sample ID	R2206224-003		R2206224-016		R2206224-017	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	93.9		85.8		89.9	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA			550		390	
SW7471	7439-97-6	Mercury	mg/kg	T	0.008	U	0.009	U	0.008	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	27	U	30	U	28	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	42	U	45	U	43	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	31	U	33	U	32	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	27	U	30	U	28	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	29	U	31	U	30	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	27	U	30	U	28	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	27	U	30	U	28	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	27	U	30	U	28	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	27	U	30	U	28	U
SW8082	PCB	Total PCBs	ug/kg	NA	42	U	45	U	43	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.77	U	0.57	U	0.66	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.63	U	0.46	U	0.53	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.3	U	0.22	U	0.26	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.46	UJ	0.34	UJ	0.39	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.3	U	0.22	U	0.26	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.33	U	0.24	U	0.28	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.3	U	0.22	U	0.26	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.5	U	1.1	U	1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	3	U	2.2	U	2.6	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.5	U	1.1	U	1.3	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.77	U	0.57	U	0.66	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.7	U	1.9	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	1.8	U	2.1	U	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.1	U	4.6	U	4.3	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5	U	5.7	U	5.4	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.7	U	3.1	U	2.9	U

				Location ID	OL-RAA-CAP-0003-I		OL-RAA-CAP-0004-H		OL-RAA-CAP-0004-H	
				Field Sample ID	OL-4012-03		OL-4012-16		OL-4012-17	
				Start Depth (ft)	1		0.25		0.75	
				End Depth (ft)	1.25		0.5		1	
				Sampled	7/6/2022		7/7/2022		7/7/2022	
				SDG	R2206224		R2206224		R2206224	
				Lab Sample ID	R2206224-003		R2206224-016		R2206224-017	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.5	U	4	U	3.8	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.8	U	3.2	U	3	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	3.8	U	4.3	U	4.1	U
SW8270	218-01-9	Chrysene	ug/kg	NA	2.7	U	3.1	U	2.9	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.7	U	3.1	U	2.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	4.9	U	5.6	U	5.3	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.7	U	2	U	1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	2.9	U	3.3	U	3.1	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.3	U	2.7	U	2.5	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.5	U	4	U	3.8	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.2	U	3.7	U	3.5	U
SW9045	pH	pH	ph Units	NA						

				Location ID	OL-RAA-CAP-0004-I		OL-RAA-CAP-0006-H		OL-RAA-CAP-0006-H	
				Field Sample ID	OL-4012-18		OL-4012-04		OL-4012-05	
				Start Depth (ft)	1		0.25		0.75	
				End Depth (ft)	1.25		0.5		1	
				Sampled	7/7/2022		7/6/2022		7/6/2022	
				SDG	R2206224		R2206224		R2206224	
				Lab Sample ID	R2206224-018		R2206224-004		R2206224-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	83		86.2		89.2	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA			650		480	
SW7471	7439-97-6	Mercury	mg/kg	T	0.009	U	0.008	U	0.009	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	50	U	30	U	29	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	77	U	45	U	44	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	56	U	33	U	32	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	50	U	30	U	29	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	53	U	32	U	31	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	50	U	30	U	29	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	50	U	30	U	29	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	50	U	30	U	29	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	50	U	30	U	29	U
SW8082	PCB	Total PCBs	ug/kg	NA	77	U	45	U	44	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.58	U	0.57	U	0.59	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.47	U	0.46	U	0.48	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.23	U	0.22	U	0.23	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.35	UJ	0.34	UJ	0.35	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.23	U	0.22	U	0.23	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.25	U	0.24	U	0.25	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.23	U	0.22	U	0.23	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	1.1	U	1.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.3	U	2.2	U	2.3	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	1.1	U	1.2	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.58	U	0.57	U	0.59	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2	U	1.9	U	1.7	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.2	U	2.1	U	1.9	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.9	U	4.5	U	4.1	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	6	U	5.6	U	5.1	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.3	U	3.1	U	2.8	U

				Location ID	OL-RAA-CAP-0004-I		OL-RAA-CAP-0006-H		OL-RAA-CAP-0006-H	
				Field Sample ID	OL-4012-18		OL-4012-04		OL-4012-05	
				Start Depth (ft)	1		0.25		0.75	
				End Depth (ft)	1.25		0.5		1	
				Sampled	7/7/2022		7/6/2022		7/6/2022	
				SDG	R2206224		R2206224		R2206224	
				Lab Sample ID	R2206224-018		R2206224-004		R2206224-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4.2	U	3.9	U	3.6	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.4	U	3.2	U	2.9	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.6	U	4.3	U	3.9	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3.3	U	3.1	U	2.8	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.3	U	3.1	U	2.8	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.9	U	5.5	U	5	U
SW8270	86-73-7	Fluorene	ug/kg	NA	2.1	U	1.9	U	1.8	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.5	U	3.3	U	3	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.8	U	2.6	U	2.4	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	4.2	U	3.9	U	3.6	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.9	U	3.6	U	3.3	U
SW9045	pH	pH	ph Units	NA			8.83		9.02	

				Location ID	OL-RAA-CAP-0007-H		OL-RAA-CAP-0007-H		OL-RAA-CAP-0007-I	
				Field Sample ID	OL-4012-09		OL-4012-10		OL-4012-11	
				Start Depth (ft)	0.25		0.75		1	
				End Depth (ft)	0.5		1		1.25	
				Sampled	7/7/2022		7/7/2022		7/7/2022	
				SDG	R2206224		R2206224		R2206224	
				Lab Sample ID	R2206224-009		R2206224-010		R2206224-011	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	93.4		80.2		90.4	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	1300		710			
SW7471	7439-97-6	Mercury	mg/kg	T	0.01	J	0.02	J	0.008	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	27	U	32	U	28	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	42	U	49	U	43	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	31	U	36	U	31	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	27	U	32	U	28	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	29	U	34	U	30	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	27	U	32	U	28	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	27	U	32	U	28	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	27	U	32	U	28	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	27	U	32	U	28	U
SW8082	PCB	Total PCBs	ug/kg	NA	42	U	49	U	43	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.49	U	0.54	U	0.53	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.4	U	0.44	U	0.43	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.19	U	0.21	U	0.21	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.29	UJ	0.33	UJ	0.32	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.19	U	0.21	U	0.21	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.21	U	0.23	U	0.23	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.19	U	0.21	U	0.21	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	0.94	U	1.1	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	1.9	U	2.1	U	2.1	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	0.94	U	1.1	U	1.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.49	U	0.54	U	0.53	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	2.1	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	1.9	U	3.6	J	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.2	U	5	U	4.3	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.2	U	6.2	U	5.4	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.9	U	3.5	J	2.9	U

				Location ID	OL-RAA-CAP-0007-H			OL-RAA-CAP-0007-H			OL-RAA-CAP-0007-I	
				Field Sample ID	OL-4012-09			OL-4012-10			OL-4012-11	
				Start Depth (ft)	0.25			0.75			1	
				End Depth (ft)	0.5			1			1.25	
				Sampled	7/7/2022			7/7/2022			7/7/2022	
				SDG	R2206224			R2206224			R2206224	
				Lab Sample ID	R2206224-009			R2206224-010			R2206224-011	
				Medium	Solid			Solid			Solid	
				Sample Type	REG			REG			REG	
				Matrix	SED			SED			SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.7	U		4.9	J		3.8	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3	U		3.9	J		3	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4	U		4.7	U		4.1	U
SW8270	218-01-9	Chrysene	ug/kg	NA	2.9	U		4	J		2.9	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.9	U		3.4	U		2.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.1	U		6.1	U		5.3	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.8	U		2.2	U		1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.1	U		3.8	J		3.1	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.4	U		2.9	U		2.5	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.7	U		4.4	U		3.8	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.4	U		4	J		3.5	U
SW9045	pH	pH	ph Units	NA								

				3	OL-RAC-CAP-0011-H		OL-RAD-CAP-0001-H		OL-RAD-CAP-0001-H	
				Field Sample ID	OL-4022-01		OL-4022-10		OL-4022-11	
				Start Depth (ft)	0		0.25		0.75	
				End Depth (ft)	0.5		0.5		1	
				Sampled	7/13/2022		7/14/2022		7/14/2022	
				SDG	R2206481		R2206481		R2206481	
				Lab Sample ID	R2206481-001		R2206481-010		R2206481-011	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	87.2		92.1		81.6	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA			5710		1170	
SW7471	7439-97-6	Mercury	mg/kg	T	0.009	J	0.011	J	0.015	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	21	U	44	U	45	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	31	U	67	U	69	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	23	U	49	U	50	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	21	U	44	U	45	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	22	U	47	U	48	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	21	U	44	U	45	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	21	U	44	U	45	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	21	U	44	U	45	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	21	U	44	U	45	U
SW8082	PCB	Total PCBs	ug/kg	NA	31	U	67	U	69	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA			0.59	U	0.51	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA			0.48	U	0.42	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA			0.23	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA			0.36	UJ	0.31	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA			0.23	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA			0.25	U	0.22	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA			0.23	U	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA			1.2	U	0.99	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA			2.3	U	2	U
SW8260	95-47-6	o-Xylene	ug/kg	NA			1.2	U	0.99	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA			0.59	U	0.51	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA			1.7	U	2.1	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA			1.9	U	2.2	U
SW8270	120-12-7	Anthracene	ug/kg	NA			4.1	U	4.9	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.3	U	5.1	U	6.1	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	5.8	J	2.8	U	5.3	J

				3	OL-RAC-CAP-0011-H		OL-RAD-CAP-0001-H		OL-RAD-CAP-0001-H	
				Field Sample ID	OL-4022-01		OL-4022-10		OL-4022-11	
				Start Depth (ft)	0		0.25		0.75	
				End Depth (ft)	0.5		0.5		1	
				Sampled	7/13/2022		7/14/2022		7/14/2022	
				SDG	R2206481		R2206481		R2206481	
				Lab Sample ID	R2206481-001		R2206481-010		R2206481-011	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	7		3.6	U	6.2	J
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	4.4	J	2.9	U	4.2	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4	U	3.9	U	4.6	U
SW8270	218-01-9	Chrysene	ug/kg	NA	4.3	J	2.8	U	4.9	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.9	U	2.8	U	3.3	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	9.2		5	U	11	
SW8270	86-73-7	Fluorene	ug/kg	NA			1.8	U	2.1	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	4.9	J	3	U	3.6	J
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.5	U	2.4	U	4.1	J
SW8270	85-01-8	Phenanthrene	ug/kg	NA			3.6	U	6.4	J
SW8270	129-00-0	Pyrene	ug/kg	NA	7.4		3.3	U	8.8	
SW9045	pH	pH	ph Units	NA			8.52		7.62	

					3		OL-RAD-CAP-0006-H		OL-RAD-CAP-0008-H	
					Field Sample ID		OL-4022-08		OL-4022-09	
					Start Depth (ft)		0.25		0.75	
					End Depth (ft)		0.5		1	
					Sampled		7/14/2022		7/14/2022	
					SDG		R2206481		R2206481	
					Lab Sample ID		R2206481-008		R2206481-009	
					Medium		Solid		Solid	
					Sample Type		REG		REG	
					Matrix		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	92.6		80.1		87.9	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	8260		3820		2010	
SW7471	7439-97-6	Mercury	mg/kg	T	0.014	J	0.023	J	0.029	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	26	U	58	U	30	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	39	U	88	U	46	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	29	U	64	U	34	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	26	U	58	U	30	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	27	U	61	U	32	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	26	U	58	U	30	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	26	U	58	U	30	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	26	U	58	U	30	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	26	U	58	U	30	U
SW8082	PCB	Total PCBs	ug/kg	NA	39	U	88	U	46	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.54	U	0.57	U	0.89	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.44	U	0.46	U	0.72	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.21	U	0.22	U	0.34	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.32	UJ	0.34	UJ	0.53	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.21	U	0.22	U	0.34	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.23	U	0.24	U	0.52	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.21	U	0.22	U	0.75	J
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.1	U	1.1	U	1.7	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.1	U	2.2	U	3.4	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.1	U	1.1	U	1.7	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.54	U	0.57	U	0.89	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.7	U	2	U	2.5	J
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	1.9	U	2.2	U	2.1	J
SW8270	120-12-7	Anthracene	ug/kg	NA	4.1	U	4.8	U	4.4	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.1	U	6	U	6.9	J
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.8	U	3.3	U	6	J

					3		OL-RAD-CAP-0006-H		OL-RAD-CAP-0008-H	
					Field Sample ID		OL-4022-08		OL-4022-09	
					Start Depth (ft)		0.25		0.75	
					End Depth (ft)		0.5		1	
					Sampled		7/14/2022		7/14/2022	
					SDG		R2206481		R2206481	
					Lab Sample ID		R2206481-008		R2206481-009	
					Medium		Solid		Solid	
					Sample Type		REG		REG	
					Matrix		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.6	U	4.9	J	8.6	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.9	U	3.4	U	5.9	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	3.9	U	4.6	U	4.1	U
SW8270	218-01-9	Chrysene	ug/kg	NA	2.8	U	3.3	U	6.7	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.8	U	3.3	U	3	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5	U	7.1	J	19	
SW8270	86-73-7	Fluorene	ug/kg	NA	1.8	U	2.1	U	62	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3	U	3.5	U	4.5	J
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.4	U	2.9	J	120	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.6	U	4.2	U	13	
SW8270	129-00-0	Pyrene	ug/kg	NA	3.3	U	5.7	J	17	
SW9045	pH	pH	ph Units	NA	8.48		7.71		8.36	

				3	OL-RAD-CAP-0008-H		OL-RAD-CAP-0009-H		OL-RAD-CAP-0009-H	
				Field Sample ID	OL-4022-03		OL-4022-04		OL-4022-05	
				Start Depth (ft)	0.625		0.25		0.75	
				End Depth (ft)	0.875		0.5		1	
				Sampled	7/14/2022		7/14/2022		7/14/2022	
				SDG	R2206481		R2206481		R2206481	
				Lab Sample ID	R2206481-003		R2206481-004		R2206481-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	88.3		90.3		89	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	5630		1180		4500	
SW7471	7439-97-6	Mercury	mg/kg	T	0.034		0.011	J	0.023	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	32	U	29	U	38	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	49	U	44	U	58	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	36	U	32	U	42	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	32	U	29	U	38	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	34	U	31	U	40	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	32	U	29	U	38	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	32	U	29	U	38	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	32	U	29	U	38	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	32	U	29	U	38	U
SW8082	PCB	Total PCBs	ug/kg	NA	49	U	44	U	58	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.77	U	0.57	U	0.5	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.62	U	0.46	U	0.41	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.68	J	0.22	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.46	UJ	0.34	UJ	0.3	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.3	U	0.22	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	1.1	J	0.24	U	0.22	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	2	J	0.22	U	0.31	J
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.5	U	1.1	U	0.96	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	5.6	J	2.2	U	2	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	2.2	J	1.1	U	0.96	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	7.8	J	0.57	U	0.5	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	1.8	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	2	U	1.9	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.3	U	4.4	U	4.2	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.3	U	5.5	U	5.2	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.9	U	3	U	4.3	J

					3		OL-RAD-CAP-0008-H		OL-RAD-CAP-0009-H		OL-RAD-CAP-0009-H	
					Field Sample ID		OL-4022-03		OL-4022-04		OL-4022-05	
					Start Depth (ft)		0.625		0.25		0.75	
					End Depth (ft)		0.875		0.5		1	
					Sampled		7/14/2022		7/14/2022		7/14/2022	
					SDG		R2206481		R2206481		R2206481	
					Lab Sample ID		R2206481-003		R2206481-004		R2206481-005	
					Medium		Solid		Solid		Solid	
					Sample Type		REG		REG		REG	
					Matrix		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.8	U	3.8	U	5.1	J		
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3	U	3.1	U	3.6	J		
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.1	U	4.1	U	4	U		
SW8270	218-01-9	Chrysene	ug/kg	NA	2.9	U	3	U	3.4	J		
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.9	U	3	U	2.8	U		
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.2	U	5.4	U	7.8			
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	1.9	U	1.8	U		
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.1	U	3.2	U	3.1	J		
SW8270	91-20-3	Naphthalene	ug/kg	NA	50		2.5	U	3.9	J		
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.8	U	3.8	U	3.9	J		
SW8270	129-00-0	Pyrene	ug/kg	NA	3.4	U	3.5	U	6.4	J		
SW9045	pH	pH	ph Units	NA	8.22		8.2		7.99			

					3		OL-RAD-CAP-0010-H		OL-RAD-CAP-0012-H	
					Field Sample ID		OL-4022-06		OL-4022-07	
					Start Depth (ft)		0.25		0.75	
					End Depth (ft)		0.5		1	
					Sampled		7/14/2022		7/14/2022	
					SDG		R2206481		R2206481	
					Lab Sample ID		R2206481-006		R2206481-007	
					Medium		Solid		Solid	
					Sample Type		REG		REG	
					Matrix		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	86.6		93.7		91.1	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	810		790		1130	
SW7471	7439-97-6	Mercury	mg/kg	T	0.009	J	0.008	U	0.008	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	44	U	49	U	19	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	67	U	75	U	28	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	49	U	55	U	21	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	44	U	49	U	19	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	46	U	52	U	20	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	44	U	49	U	19	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	44	U	49	U	19	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	44	U	49	U	19	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	44	U	49	U	19	U
SW8082	PCB	Total PCBs	ug/kg	NA	67	U	75	U	28	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.56	U	0.59	U	0.65	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.45	U	0.48	U	0.53	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.22	U	0.23	U	0.25	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.33	UJ	0.35	UJ	0.39	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.22	U	0.23	U	0.25	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.24	U	0.25	U	0.28	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.22	U	0.23	U	0.25	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.1	U	1.2	U	1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.2	U	2.3	U	2.5	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.1	U	1.2	U	1.3	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.56	U	0.59	U	0.65	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U	1.7	U	1.7	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.1	U	1.8	U	1.9	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.6	U	4.1	U	4.1	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.7	U	5	U	5.1	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.1	U	2.7	U	2.8	U

					3		OL-RAD-CAP-0010-H		OL-RAD-CAP-0012-H	
					Field Sample ID		OL-4022-06		OL-4022-07		OL-4022-14	
					Start Depth (ft)		0.25		0.75		0.25	
					End Depth (ft)		0.5		1		0.5	
					Sampled		7/14/2022		7/14/2022		7/14/2022	
					SDG		R2206481		R2206481		R2206481	
					Lab Sample ID		R2206481-006		R2206481-007		R2206481-014	
					Medium		Solid		Solid		Solid	
					Sample Type		REG		REG		REG	
					Matrix		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4	U	3.5	U	3.6	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.2	U	2.8	U	2.9	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.4	U	3.8	U	3.8	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3.1	U	2.7	U	2.8	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.1	U	2.7	U	2.8	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.6	U	4.9	U	5	U
SW8270	86-73-7	Fluorene	ug/kg	NA	2	U	1.7	U	1.8	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.4	U	2.9	U	3	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.7	U	2.3	U	4.7	J
SW8270	85-01-8	Phenanthrene	ug/kg	NA	4	U	3.5	U	3.6	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.7	U	3.2	U	3.3	U
SW9045	pH	pH	ph Units	NA	8.09		8.81		8.53	

				3	OL-RAD-CAP-0012-H		OL-RAD-CAP-0013-H		OL-RAD-CAP-0013-H	
				Field Sample ID	OL-4022-15		OL-4022-12		OL-4022-13	
				Start Depth (ft)	0.75		0.25		0.75	
				End Depth (ft)	1		0.5		1	
				Sampled	7/14/2022		7/14/2022		7/14/2022	
				SDG	R2206481		R2206481		R2206481	
				Lab Sample ID	R2206481-015		R2206481-012		R2206481-013	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	91		92		83.1	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	930		12000		660	
SW7471	7439-97-6	Mercury	mg/kg	T	0.009	U	0.012	J	0.009	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	19	U	36	U	21	UJ
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	29	U	55	U	32	UJ
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	21	U	40	U	23	UJ
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	19	U	36	U	21	UJ
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	20	U	38	U	22	UJ
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	19	U	36	U	21	UJ
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	19	U	36	U	21	UJ
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	19	U	36	U	21	UJ
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	19	U	36	U	21	UJ
SW8082	PCB	Total PCBs	ug/kg	NA	29	U	55	U	32	UJ
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.89	U	0.51	U	0.62	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.72	U	0.41	U	0.51	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.35	U	0.2	U	0.24	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.53	UJ	0.3	UJ	0.37	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.35	U	0.2	U	0.24	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.38	U	0.22	U	0.27	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.35	U	0.67	J	0.24	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.8	U	0.97	U	1.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	3.5	U	2	U	2.4	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.8	U	0.97	U	1.2	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.89	U	0.51	U	0.62	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.7	U	1.7	U	1.9	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	1.8	U	1.9	U	2.1	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.1	U	4.2	U	4.5	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5	U	5.2	U	5.6	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.7	U	2.8	U	3.1	U

					3		OL-RAD-CAP-0012-H		OL-RAD-CAP-0013-H		OL-RAD-CAP-0013-H	
					Field Sample ID		OL-4022-15		OL-4022-12		OL-4022-13	
					Start Depth (ft)		0.75		0.25		0.75	
					End Depth (ft)		1		0.5		1	
					Sampled		7/14/2022		7/14/2022		7/14/2022	
					SDG		R2206481		R2206481		R2206481	
					Lab Sample ID		R2206481-015		R2206481-012		R2206481-013	
					Medium		Solid		Solid		Solid	
					Sample Type		REG		REG		REG	
					Matrix		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.5	U	4.6	J	4	U		
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.8	U	2.9	U	3.2	U		
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	3.8	U	3.9	U	4.3	U		
SW8270	218-01-9	Chrysene	ug/kg	NA	2.7	U	3	J	3.1	U		
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.7	U	2.8	U	3.1	U		
SW8270	206-44-0	Fluoranthene	ug/kg	NA	4.9	U	12		5.5	U		
SW8270	86-73-7	Fluorene	ug/kg	NA	1.7	U	2.1	J	1.9	U		
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	2.9	U	3	U	3.3	U		
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.3	U	13		3.3	J		
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.5	U	8.1		4	U		
SW8270	129-00-0	Pyrene	ug/kg	NA	3.2	U	9.4		3.6	U		
SW9045	pH	pH	ph Units	NA	8.27		8.66		8.06			

				Location ID	OL-RAD-CAP-0015-H		OL-RAD-CAP-0015-H		OL-RAD-CAP-0016-H	
				Field Sample ID	OL-4023-01		OL-4023-02		OL-4023-05	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	7/14/2022		7/14/2022		7/15/2022	
				SDG	R2206504		R2206504		R2206504	
				Lab Sample ID	R2206504-001		R2206504-002		R2206504-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	90.8		88.5		90.8	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	1260		920		1720	
SW7471	7439-97-6	Mercury	mg/kg	T	0.008	U	0.009	J	0.014	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	19	U	19	U	19	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	29	U	30	U	28	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	21	U	22	U	21	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	19	U	19	U	19	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	20	U	21	U	20	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	19	U	19	U	19	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	19	U	19	U	19	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	19	U	19	U	19	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	19	U	19	U	19	U
SW8082	PCB	Total PCBs	ug/kg	NA	29	U	30	U	28	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.66	U	0.59	U	0.93	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.53	U	0.47	U	0.75	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.26	U	0.23	U	0.36	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.39	UJ	0.35	UJ	0.56	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.26	U	0.23	U	0.36	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.28	U	0.33	J	0.4	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.86	J	1.5	J	0.41	J
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.3	U	1.2	U	1.8	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.6	U	2.3	U	3.6	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.3	U	1.2	U	1.8	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.66	U	0.59	U	0.93	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.7	U	1.8	U	1.7	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	1.9	U	2	U	1.8	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.2	U	4.3	U	4.1	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	6.5	J	5.3	U	5	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	6.5	J	2.9	U	2.7	U

				Location ID	OL-RAD-CAP-0015-H		OL-RAD-CAP-0015-H		OL-RAD-CAP-0016-H	
				Field Sample ID	OL-4023-01		OL-4023-02		OL-4023-05	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	7/14/2022		7/14/2022		7/15/2022	
				SDG	R2206504		R2206504		R2206504	
				Lab Sample ID	R2206504-001		R2206504-002		R2206504-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	8.9		4.2	J	3.5	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	7.5		3	U	2.8	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.1	J	4	U	3.8	U
SW8270	218-01-9	Chrysene	ug/kg	NA	5.8	J	2.9	U	2.7	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.8	U	2.9	U	2.7	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	11		12		4.9	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.8	U	1.8	U	1.7	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	5.5	J	3.1	U	2.9	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	17		46		2.3	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	6.2	J	8.8		3.5	U
SW8270	129-00-0	Pyrene	ug/kg	NA	9.6		9.5		3.2	U
SW9045	pH	pH	ph Units	NA	8.41		8.5		9.12	

				Location ID	OL-RAD-CAP-0016-H		OL-RAD-CAP-0016-H		OL-RAD-CAP-0019-H	
				Field Sample ID	OL-4023-06		OL-4023-07		OL-4023-03	
				Start Depth (ft)	0.75		0.75		0.25	
				End Depth (ft)	1		1		0.5	
				Sampled	7/15/2022		7/15/2022		7/15/2022	
				SDG	R2206504		R2206504		R2206504	
				Lab Sample ID	R2206504-006		R2206504-007		R2206504-003	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		FD		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	87.5		87.5		86.7	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	450		510		490	
SW7471	7439-97-6	Mercury	mg/kg	T	0.01	J	0.008	U	0.009	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	19	U	20	U	19	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	29	U	30	U	29	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	21	U	22	U	22	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	19	U	20	U	19	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	20	U	21	U	20	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	19	U	20	U	19	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	19	U	20	U	19	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	19	U	20	U	19	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	19	U	20	U	19	U
SW8082	PCB	Total PCBs	ug/kg	NA	29	U	30	U	29	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.58	U	0.53	U	0.56	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.47	U	0.43	U	0.46	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.23	U	0.21	U	0.22	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.35	UJ	0.32	UJ	0.34	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.23	U	0.21	U	0.22	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.25	U	0.23	U	0.24	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.31	J	0.35	J	0.22	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	1.1	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.3	U	2.1	U	2.2	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	1.1	U	1.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.58	U	0.53	U	0.56	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U	1.9	U	1.9	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.1	U	2	U	2.1	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.6	U	4.5	U	4.7	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.7	U	5.5	U	7.6	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.1	U	3	U	7.6	

				Location ID	OL-RAD-CAP-0016-H		OL-RAD-CAP-0016-H		OL-RAD-CAP-0019-H	
				Field Sample ID	OL-4023-06		OL-4023-07		OL-4023-03	
				Start Depth (ft)	0.75		0.75		0.25	
				End Depth (ft)	1		1		0.5	
				Sampled	7/15/2022		7/15/2022		7/15/2022	
				SDG	R2206504		R2206504		R2206504	
				Lab Sample ID	R2206504-006		R2206504-007		R2206504-003	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		FD		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4	U	3.9	U	8.8	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.2	U	3.1	U	10	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.4	U	4.2	U	6.5	J
SW8270	218-01-9	Chrysene	ug/kg	NA	3.1	U	3	U	8.8	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.1	U	3	U	5.3	J
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.6	U	5.4	U	5.7	U
SW8270	86-73-7	Fluorene	ug/kg	NA	2	U	1.9	U	2	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.4	U	3.2	U	8	
SW8270	91-20-3	Naphthalene	ug/kg	NA	3	J	3.7	J	2.7	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	4	U	3.9	U	4.1	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.7	U	3.6	U	6.1	J
SW9045	pH	pH	ph Units	NA	8.85		8.75		8.74	

				Location ID	OL-RAD-CAP-0019-H	
				Field Sample ID	OL-4023-04	
				Start Depth (ft)	0.416667	
				End Depth (ft)	0.666667	
				Sampled	7/15/2022	
				SDG	R2206504	
				Lab Sample ID	R2206504-004	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	85.8	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	470	
SW7471	7439-97-6	Mercury	mg/kg	T	0.009	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	29	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	45	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	33	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	29	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	31	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	29	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	29	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	29	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	29	U
SW8082	PCB	Total PCBs	ug/kg	NA	45	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.68	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.55	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.26	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.41	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.26	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.31	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.5	J
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.6	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.3	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.68	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.5	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.6	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3	U

				Location ID	OL-RAD-CAP-0019-H	
				Field Sample ID	OL-4023-04	
				Start Depth (ft)	0.416667	
				End Depth (ft)	0.666667	
				Sampled	7/15/2022	
				SDG	R2206504	
				Lab Sample ID	R2206504-004	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.9	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.1	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.2	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.5	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.3	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.6	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.9	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.6	U
SW9045	pH	pH	ph Units	NA	8.71	

				Location ID	OL-RAD-CAP-0020-H		OL-RAD-CAP-0020-H		OL-RAD-CAP-0028-H	
				Field Sample ID	OL-4024-01		OL-4024-02		OL-4024-03	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	7/20/2022		7/20/2022		7/20/2022	
				SDG	R2206662		R2206662		R2206662	
				Lab Sample ID	R2206662-001		R2206662-002		R2206662-003	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	83		86.6		86.1	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	410		630		460	
SW7471	7439-97-6	Mercury	mg/kg	T	0.015	U	0.014	U	0.015	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	31	U	29	U	29	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	47	U	45	U	45	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	35	U	33	U	33	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	31	U	29	U	29	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	33	U	31	U	31	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	31	U	29	U	29	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	31	U	29	U	29	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	31	U	29	U	29	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	31	U	29	U	29	U
SW8082	PCB	Total PCBs	ug/kg	NA	47	U	45	U	45	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.4	U	0.67	U	0.51	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.32	U	0.54	U	0.41	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.16	U	0.26	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.24	UJ	0.4	UJ	0.3	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.16	U	0.26	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.17	U	0.28	U	0.22	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.16	U	0.26	U	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	0.76	U	1.3	U	0.97	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	1.6	U	2.6	U	2	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	0.76	U	1.3	U	0.97	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.4	U	0.67	U	0.51	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.7	U	1.9	U	1.9	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	1.9	U	2.1	U	2.1	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.1	U	4.5	U	4.6	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5	U	5.6	U	5.7	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.8	U	3.1	U	3.1	U

				Location ID	OL-RAD-CAP-0020-H		OL-RAD-CAP-0020-H		OL-RAD-CAP-0028-H	
				Field Sample ID	OL-4024-01		OL-4024-02		OL-4024-03	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	7/20/2022		7/20/2022		7/20/2022	
				SDG	R2206662		R2206662		R2206662	
				Lab Sample ID	R2206662-001		R2206662-002		R2206662-003	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.6	U	4	U	4	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.9	U	3.2	U	3.2	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	3.8	U	4.3	U	4.3	U
SW8270	218-01-9	Chrysene	ug/kg	NA	2.8	U	3.1	U	3.1	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.8	U	3.1	U	3.1	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5	U	5.5	U	5.6	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.8	U	1.9	U	2	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3	U	3.3	U	3.3	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.4	U	2.6	U	2.7	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.6	U	4	U	4	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.3	U	3.6	U	3.7	U
SW9045	pH	pH	ph Units	NA	8.41		8.7		8.84	

				Location ID	OL-RAD-CAP-0028-H		OL-RAD-CAP-0032-H		OL-RAD-CAP-0032-H	
				Field Sample ID	OL-4024-04		OL-4024-05		OL-4024-06	
				Start Depth (ft)	0.75		0.25		0.75	
				End Depth (ft)	1		0.5		1	
				Sampled	7/20/2022		7/20/2022		7/20/2022	
				SDG	R2206662		R2206662		R2206662	
				Lab Sample ID	R2206662-004		R2206662-005		R2206662-006	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	76.5		90.2		90.3	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	7800		4100		830	
SW7471	7439-97-6	Mercury	mg/kg	T	0.017	U	0.015	U	0.014	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	33	U	28	U	28	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	51	U	43	U	43	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	37	U	32	U	32	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	33	U	28	U	28	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	35	U	30	U	30	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	33	U	28	U	28	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	33	U	28	U	28	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	33	U	28	U	28	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	33	U	28	U	28	U
SW8082	PCB	Total PCBs	ug/kg	NA	51	U	43	U	43	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.47	U	0.59	U	0.43	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.38	U	0.48	U	0.35	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.19	U	0.23	U	0.17	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.28	UJ	0.35	UJ	0.26	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.19	U	0.23	U	0.17	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.2	U	0.25	U	0.19	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.19	U	0.23	U	0.17	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	0.91	U	1.2	U	0.82	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	1.9	U	2.3	U	1.7	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	0.91	U	1.2	U	0.82	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.47	U	0.59	U	0.43	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.1	U	1.9	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.3	U	2	U	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	5.1	U	4.5	U	4.3	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	6.4	U	5.5	U	5.3	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.5	U	3	U	2.9	U

				Location ID	OL-RAD-CAP-0028-H			OL-RAD-CAP-0032-H			OL-RAD-CAP-0032-H	
				Field Sample ID	OL-4024-04			OL-4024-05			OL-4024-06	
				Start Depth (ft)	0.75			0.25			0.75	
				End Depth (ft)	1			0.5			1	
				Sampled	7/20/2022			7/20/2022			7/20/2022	
				SDG	R2206662			R2206662			R2206662	
				Lab Sample ID	R2206662-004			R2206662-005			R2206662-006	
				Medium	Solid			Solid			Solid	
				Sample Type	REG			REG			REG	
				Matrix	SED			SED			SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4.5	U		3.9	U		3.8	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.6	U		3.1	U		3	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.8	U		4.2	U		4.1	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3.5	U		3	U		2.9	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.5	U		3	U		2.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	6.3	U		5.4	U		5.2	U
SW8270	86-73-7	Fluorene	ug/kg	NA	2.2	U		1.9	U		1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.7	U		3.2	U		3.1	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	9.3			3.3	J		2.8	J
SW8270	85-01-8	Phenanthrene	ug/kg	NA	4.5	U		3.9	U		3.8	U
SW8270	129-00-0	Pyrene	ug/kg	NA	4.1	U		3.6	U		3.4	U
SW9045	pH	pH	ph Units	NA	7.9			9			9.11	

				Location ID	OL-RAD-CAP-0038-H		OL-RAD-CAP-0038-H		OL-RAD-CAP-0038-H	
				Field Sample ID	OL-4024-09		OL-4024-10		OL-4024-11	
				Start Depth (ft)	0.25		0.75		0.75	
				End Depth (ft)	0.5		1		1	
				Sampled	7/20/2022		7/20/2022		7/20/2022	
				SDG	R2206662		R2206662		R2206662	
				Lab Sample ID	R2206662-009		R2206662-010		R2206662-011	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		FD	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	88		90		90.3	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	770		610		550	
SW7471	7439-97-6	Mercury	mg/kg	T	0.015	U	0.016	J	0.015	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	30	U	29	U	28	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	45	U	44	U	42	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	33	U	32	U	31	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	30	U	29	U	28	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	31	U	31	U	29	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	30	U	29	U	28	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	30	U	29	U	28	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	30	U	29	U	28	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	30	U	29	U	28	U
SW8082	PCB	Total PCBs	ug/kg	NA	45	U	44	U	42	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.41	U	0.52	U	0.56	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.33	U	0.42	U	0.45	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.16	U	0.2	U	0.22	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.24	UJ	0.31	UJ	0.33	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.16	U	0.2	U	0.22	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.18	U	0.22	U	0.24	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.16	U	0.2	U	0.22	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	0.78	U	1	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	1.6	U	2	U	2.2	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	0.78	U	1	U	1.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.41	U	0.52	U	0.56	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	1.9	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	2	U	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.3	U	4.5	U	4.3	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.4	U	5.6	U	5.3	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.9	U	3	U	2.9	U

				Location ID	OL-RAD-CAP-0038-H		OL-RAD-CAP-0038-H		OL-RAD-CAP-0038-H	
				Field Sample ID	OL-4024-09		OL-4024-10		OL-4024-11	
				Start Depth (ft)	0.25		0.75		0.75	
				End Depth (ft)	0.5		1		1	
				Sampled	7/20/2022		7/20/2022		7/20/2022	
				SDG	R2206662		R2206662		R2206662	
				Lab Sample ID	R2206662-009		R2206662-010		R2206662-011	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		FD	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.8	U	3.9	U	3.8	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3	U	3.1	U	3	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.1	U	4.2	U	4	U
SW8270	218-01-9	Chrysene	ug/kg	NA	2.9	U	3	U	2.9	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.9	U	3	U	2.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	6	J	5.5	U	5.2	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	1.9	U	1.8	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.1	U	3.3	U	3.1	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	84		59		45	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	8.5		6.3	J	5.3	J
SW8270	129-00-0	Pyrene	ug/kg	NA	4.3	J	3.6	U	3.4	U
SW9045	pH	pH	ph Units	NA	8.74		9.07		9	

				Location ID	OL-RAD-CAP-0040-H		OL-RAD-CAP-0040-H	
				Field Sample ID	OL-4024-07		OL-4024-08	
				Start Depth (ft)	0.25		0.75	
				End Depth (ft)	0.5		1	
				Sampled	7/20/2022		7/20/2022	
				SDG	R2206662		R2206662	
				Lab Sample ID	R2206662-007		R2206662-008	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
E160.3	SOLIDS	Total Solids	%	NA	94.1		86.9	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	780		4300	
SW7471	7439-97-6	Mercury	mg/kg	T	0.014	U	0.071	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	27	U	30	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	41	U	45	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	30	U	33	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	27	U	30	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	29	U	31	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	27	U	30	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	27	U	30	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	27	U	30	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	27	U	30	U
SW8082	PCB	Total PCBs	ug/kg	NA	41	U	45	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.59	U	0.4	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.48	U	0.32	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.74	J	0.16	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.35	UJ	0.24	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.23	U	0.16	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	1.1	J	0.17	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	1.4	J	0.2	J
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	0.76	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.3	U	1.6	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	0.76	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.59	U	0.4	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	4.1	J
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	1.9	U	4.5	J
SW8270	120-12-7	Anthracene	ug/kg	NA	4.2	U	5.3	J
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.2	U	7.5	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.8	U	7.2	J

				Location ID	OL-RAD-CAP-0040-H		OL-RAD-CAP-0040-H	
				Field Sample ID	OL-4024-07		OL-4024-08	
				Start Depth (ft)	0.25		0.75	
				End Depth (ft)	0.5		1	
				Sampled	7/20/2022		7/20/2022	
				SDG	R2206662		R2206662	
				Lab Sample ID	R2206662-007		R2206662-008	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.7	U	13	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.9	U	5.7	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4	U	4.3	U
SW8270	218-01-9	Chrysene	ug/kg	NA	2.8	U	14	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.8	U	3.1	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.1	U	41	
SW8270	86-73-7	Fluorene	ug/kg	NA	1.8	U	5.3	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3	U	3.3	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	26		46	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.7	U	23	
SW8270	129-00-0	Pyrene	ug/kg	NA	3.4	U	35	
SW9045	pH	pH	ph Units	NA	9.11		7.69	

				Location ID	OL-RAD-CAP-0022-H	
				Field Sample ID	OL-4025-01	
				Start Depth (ft)	0.916667	
				End Depth (ft)	1.16667	
				Sampled	7/21/2022	
				SDG	R2206746	
				Lab Sample ID	R2206746-001	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	92.1	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	1820	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	28	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	42	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	31	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	28	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	29	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	28	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	28	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	28	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	28	U
SW8082	PCB	Total PCBs	ug/kg	NA	42	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.4	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.9	U
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.8	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.1	U
SW8270	218-01-9	Chrysene	ug/kg	NA	2.9	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5.3	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.2	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.5	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.5	U

				Location ID	OL-RAD-CAP-0026-H	
				Field Sample ID	OL-4026-01	
				Start Depth (ft)	0.25	
				End Depth (ft)	0.5	
				Sampled	7/22/2022	
				SDG	R2206774	
				Lab Sample ID	R2206774-001	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	83.1	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	6300	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	30	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	46	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	34	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	30	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	32	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	30	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	30	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	30	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	30	U
SW8082	PCB	Total PCBs	ug/kg	NA	46	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.8	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.2	U
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4.1	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	3.3	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	4.4	U
SW8270	218-01-9	Chrysene	ug/kg	NA	3.2	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.2	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	6.6	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.4	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	150	
SW8270	129-00-0	Pyrene	ug/kg	NA	4.2	J

				Location ID	OL-RAD-CAP-0014-H		OL-RAD-CAP-0014-H		OL-RAD-CAP-0021-H	
				Field Sample ID	OL-4030-04		OL-4030-05		OL-4030-06	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	8/12/2022		8/12/2022		8/12/2022	
				SDG	R2207582		R2207582		R2207582	
				Lab Sample ID	R2207582-004		R2207582-005		R2207582-006	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	91.9		94.1		89	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	700		520		1200	
SW7471	7439-97-6	Mercury	mg/kg	T	0.015	U	0.014	U	0.014	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	19	U	18	U	19	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	28	U	27	U	29	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	21	U	20	U	21	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	19	U	18	U	19	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	20	U	19	U	20	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	19	U	18	U	19	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	19	U	18	U	19	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	19	U	18	U	19	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	19	U	18	U	19	U
SW8082	PCB	Total PCBs	ug/kg	NA	28	U	27	U	29	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.45	U	0.57	U	0.56	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.37	U	0.46	U	0.57	J
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.18	U	0.22	U	5.6	
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.27	UJ	0.34	UJ	0.34	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.18	U	0.22	U	0.28	J
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.19	U	0.25	U	10	
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.18	U	0.22	U	27	
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	0.86	U	1.1	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	1.8	U	2.2	U	4.9	J
SW8260	95-47-6	o-Xylene	ug/kg	NA	0.86	U	1.1	U	1.6	J
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.45	U	0.57	U	6.5	J
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.7	U	1.7	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	1.8	U	1.8	U	1.9	U
SW8270	120-12-7	Anthracene	ug/kg	NA	2.9	U	2.9	U	3.1	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	2.1	UJ	2.1	UJ	2.3	UJ
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.7	U	2.7	U	2.9	U

				Location ID	OL-RAD-CAP-0014-H		OL-RAD-CAP-0014-H		OL-RAD-CAP-0021-H	
				Field Sample ID	OL-4030-04		OL-4030-05		OL-4030-06	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	8/12/2022		8/12/2022		8/12/2022	
				SDG	R2207582		R2207582		R2207582	
				Lab Sample ID	R2207582-004		R2207582-005		R2207582-006	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	2.3	U	2.3	U	2.4	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.6	UJ	2.6	UJ	2.7	UJ
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	1.9	U	1.9	U	2	U
SW8270	218-01-9	Chrysene	ug/kg	NA	1.7	UJ	1.7	UJ	1.8	UJ
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.7	U	2.7	U	2.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	2.9	UJ	2.9	UJ	3	UJ
SW8270	86-73-7	Fluorene	ug/kg	NA	1.7	U	1.7	U	9.5	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	2.9	UJ	2.9	UJ	3.1	UJ
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.3	U	2.3	U	43	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	2.5	UJ	2.5	UJ	2.7	UJ
SW8270	129-00-0	Pyrene	ug/kg	NA	2.5	U	2.5	U	2.6	U
SW9045	pH	pH	ph Units	NA	7.99		8.49		8.4	

				Location ID	OL-RAD-CAP-0021-H		OL-RAD-CAP-0025-H		OL-RAD-CAP-0025-H	
				Field Sample ID	OL-4030-07		OL-4030-01		OL-4030-02	
				Start Depth (ft)	0.75		0.25		0.75	
				End Depth (ft)	1		0.5		1	
				Sampled	8/12/2022		8/12/2022		8/12/2022	
				SDG	R2207582		R2207582		R2207582	
				Lab Sample ID	R2207582-007		R2207582-001		R2207582-002	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	93.3		88.3		91.3	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	970		1770		1180	
SW7471	7439-97-6	Mercury	mg/kg	T	0.019	J	0.015	U	0.014	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	18	U	20	U	19	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	28	U	31	U	29	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	20	U	22	U	22	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	18	U	20	U	19	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	19	U	21	U	20	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	18	U	20	U	19	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	18	U	20	U	19	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	18	U	20	U	19	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	18	U	20	U	19	U
SW8082	PCB	Total PCBs	ug/kg	NA	28	U	31	U	29	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.56	U	0.65	U	0.73	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.49	J	0.53	U	0.59	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	4.3	J	0.25	U	0.28	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.34	UJ	0.39	UJ	0.44	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.22	J	0.25	U	0.28	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	8.7		0.28	U	0.31	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	18		0.25	U	0.28	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.1	U	1.3	U	1.4	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	4	J	2.5	U	2.8	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	J	1.3	U	1.4	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	5.2	J	0.65	U	0.73	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	1.8	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	2	U	1.9	U
SW8270	120-12-7	Anthracene	ug/kg	NA	3.1	U	3.1	U	3.1	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	2.3	U	3.2	J	2.2	UJ
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.9	U	2.9	U	3.1	J

				Location ID	OL-RAD-CAP-0021-H		OL-RAD-CAP-0025-H		OL-RAD-CAP-0025-H	
				Field Sample ID	OL-4030-07		OL-4030-01		OL-4030-02	
				Start Depth (ft)	0.75		0.25		0.75	
				End Depth (ft)	1		0.5		1	
				Sampled	8/12/2022		8/12/2022		8/12/2022	
				SDG	R2207582		R2207582		R2207582	
				Lab Sample ID	R2207582-007		R2207582-001		R2207582-002	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	2.4	U	2.4	U	2.4	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.7	U	2.7	UJ	2.7	UJ
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	2	U	2	U	1.9	U
SW8270	218-01-9	Chrysene	ug/kg	NA	1.9	U	1.9	UJ	2.1	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.9	U	2.9	U	2.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	3	U	5	J	3	UJ
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	2.5	J	1.8	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.1	U	3.1	UJ	3.1	UJ
SW8270	91-20-3	Naphthalene	ug/kg	NA	69		5.3	J	2.8	J
SW8270	85-01-8	Phenanthrene	ug/kg	NA	2.7	U	3.9	J	2.6	UJ
SW8270	129-00-0	Pyrene	ug/kg	NA	2.7	U	3.9	J	2.6	U
SW9045	pH	pH	ph Units	NA	8.75		8.23		8.38	

				Location ID	OL-RAD-CAP-0025-H		OL-RAD-CAP-0031-H		OL-RAD-CAP-0031-H	
				Field Sample ID	OL-4030-03		OL-4030-08		OL-4030-09	
				Start Depth (ft)	0.75		0.25		0.75	
				End Depth (ft)	1		0.5		1	
				Sampled	8/12/2022		8/12/2022		8/12/2022	
				SDG	R2207582		R2207582		R2207582	
				Lab Sample ID	R2207582-003		R2207582-008		R2207582-009	
				Medium	Solid		Solid		Solid	
				Sample Type	FD		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	92.5		94.6		83.8	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	1590		440		300	J
SW7471	7439-97-6	Mercury	mg/kg	T	0.013	U	0.014	U	0.015	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	18	U	18	U	30	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	28	U	28	U	45	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	20	U	20	U	33	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	18	U	18	U	30	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	19	U	19	U	31	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	18	U	18	U	30	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	18	U	18	U	30	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	18	U	18	U	30	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	18	U	18	U	30	U
SW8082	PCB	Total PCBs	ug/kg	NA	28	U	28	U	45	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.84	U	0.46	U	0.77	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.68	U	0.37	U	0.62	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.32	U	0.18	U	0.3	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.5	UJ	0.27	UJ	0.46	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.32	U	0.18	U	0.3	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.36	U	0.2	U	0.33	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.32	U	0.18	U	0.3	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.6	U	0.87	U	1.5	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	3.2	U	1.8	U	3	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.6	U	0.87	U	1.5	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.84	U	0.46	U	0.77	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.7	U	1.8	U	2	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	1.9	U	1.9	U	2.1	U
SW8270	120-12-7	Anthracene	ug/kg	NA	3	U	3.1	U	3.4	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	2.2	UJ	2.2	U	2.5	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.8	U	2.9	U	3.2	U

				Location ID	OL-RAD-CAP-0025-H		OL-RAD-CAP-0031-H		OL-RAD-CAP-0031-H	
				Field Sample ID	OL-4030-03		OL-4030-08		OL-4030-09	
				Start Depth (ft)	0.75		0.25		0.75	
				End Depth (ft)	1		0.5		1	
				Sampled	8/12/2022		8/12/2022		8/12/2022	
				SDG	R2207582		R2207582		R2207582	
				Lab Sample ID	R2207582-003		R2207582-008		R2207582-009	
				Medium	Solid		Solid		Solid	
				Sample Type	FD		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	2.3	U	2.4	U	2.7	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.6	UJ	2.7	U	3	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	1.9	U	1.9	U	2.2	U
SW8270	218-01-9	Chrysene	ug/kg	NA	1.8	UJ	1.8	U	2	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.8	U	2.9	U	3.2	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	2.9	UJ	3	U	3.3	U
SW8270	86-73-7	Fluorene	ug/kg	NA	2	J	1.8	U	2	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3	UJ	3.1	U	3.4	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.1	J	2.4	U	2.7	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	2.6	UJ	2.6	U	2.9	U
SW8270	129-00-0	Pyrene	ug/kg	NA	2.5	U	2.6	U	2.9	U
SW9045	pH	pH	ph Units	NA	8.4		8.73		8.3	

				Location ID	OL-RAD-CAP-0033-H		OL-RAD-CAP-0033-H		OL-RAF-CAP-0001-H	
				Field Sample ID	OL-4031-01		OL-4031-02		OL-4031-06	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	8/16/2022		8/16/2022		8/16/2022	
				SDG	R2207648		R2207648		R2207648	
				Lab Sample ID	R2207648-001		R2207648-002		R2207648-006	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	87.7		85.8		83.3	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	6100		570		2070	
SW7471	7439-97-6	Mercury	mg/kg	T	0.022		0.014	U	0.195	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	29	U	32	U	20	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	44	U	49	U	31	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	32	U	36	U	23	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	29	U	32	U	20	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	31	U	34	U	22	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	29	U	32	U	20	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	29	U	32	U	20	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	29	U	32	U	20	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	29	U	32	U	20	U
SW8082	PCB	Total PCBs	ug/kg	NA	44	U	49	U	31	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.45	U	0.53	U	0.69	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.36	U	0.43	U	0.56	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.18	U	0.21	U	0.27	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.27	UJ	0.32	UJ	0.41	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.18	U	0.21	U	0.27	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.19	U	0.23	U	0.3	U
SW8260	71-43-2	Benzene	ug/kg	NA					0.27	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.18	U	0.26	J	0.27	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	0.86	U	1.1	U	1.4	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	1.8	U	2.1	U	2.7	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	0.86	U	1.1	U	1.4	U
SW8260	108-88-3	Toluene	ug/kg	NA					2.7	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.45	U	0.53	U	0.69	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U	1.9	U	2	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.1	U	2.1	U	2.2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	3.3	U	3.4	U	3.5	U

				Location ID	OL-RAD-CAP-0033-H		OL-RAD-CAP-0033-H		OL-RAF-CAP-0001-H	
				Field Sample ID	OL-4031-01		OL-4031-02		OL-4031-06	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	8/16/2022		8/16/2022		8/16/2022	
				SDG	R2207648		R2207648		R2207648	
				Lab Sample ID	R2207648-001		R2207648-002		R2207648-006	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	3	J	2.5	U	4	J
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3.1	U	3.1	U	3.6	J
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	2.6	J	2.6	U	4.8	J
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.9	U	2.9	U	3.1	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	2.1	U	2.1	U	2.4	J
SW8270	218-01-9	Chrysene	ug/kg	NA	2	U	2	U	2.1	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.1	U	3.1	U	3.3	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	3.4	J	3.3	U	5.5	J
SW8270	86-73-7	Fluorene	ug/kg	NA	2	U	2	U	2.1	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.3	U	3.4	U	3.5	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	3.4	J	2.7	U	2.8	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	2.8	U	2.9	U	3	U
SW8270	108-95-2	Phenol	ug/kg	NA					8.4	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3	J	2.9	U	4.4	J
SW9045	pH	pH	ph Units	NA	7.96		8.29			

				Location ID	OL-RAF-CAP-0001-H		OL-RAF-CAP-0001-H		OL-RAF-CAP-0001-I	
				Field Sample ID	OL-4031-07		OL-4031-08		OL-4031-09	
				Start Depth (ft)	0.75		0.75		1	
				End Depth (ft)	1		1		1.25	
				Sampled	8/16/2022		8/16/2022		8/16/2022	
				SDG	R2207648		R2207648		R2207648	
				Lab Sample ID	R2207648-007		R2207648-008		R2207648-009	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		FD		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	86.5		89.4		89.1	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	3330	J	1380	J		
SW7471	7439-97-6	Mercury	mg/kg	T	0.122		0.08		0.159	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	18	U	18	U	19	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	28	U	27	U	29	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	20	U	20	U	21	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	18	U	18	U	19	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	19	U	19	U	20	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	18	U	18	U	19	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	18	U	18	U	19	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	18	U	18	U	19	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	18	U	18	U	19	U
SW8082	PCB	Total PCBs	ug/kg	NA	28	U	27	U	29	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.49	U	0.49	U	0.73	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.39	U	0.4	U	0.59	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.19	U	0.19	U	0.29	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.29	UJ	0.3	UJ	0.44	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.19	U	0.19	U	0.29	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.21	U	0.21	U	0.31	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.19	U	0.19	U	0.29	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.19	U	0.19	U	0.29	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	0.93	U	0.94	U	1.5	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	1.9	U	1.9	U	2.9	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	0.93	U	0.94	U	1.5	U
SW8260	108-88-3	Toluene	ug/kg	NA	1.9	U	1.9	U	2.9	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.49	U	0.49	U	0.73	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U	1.9	U	1.7	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.1	U	2	U	1.8	U
SW8270	120-12-7	Anthracene	ug/kg	NA	3.3	U	3.2	U	2.9	U

				Location ID	OL-RAF-CAP-0001-H		OL-RAF-CAP-0001-H		OL-RAF-CAP-0001-I	
				Field Sample ID	OL-4031-07		OL-4031-08		OL-4031-09	
				Start Depth (ft)	0.75		0.75		1	
				End Depth (ft)	1		1		1.25	
				Sampled	8/16/2022		8/16/2022		8/16/2022	
				SDG	R2207648		R2207648		R2207648	
				Lab Sample ID	R2207648-007		R2207648-008		R2207648-009	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		FD		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	8.7	J	2.9	J	2.1	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	11	J	3	UJ	2.7	U
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	12	J	2.9	J	2.6	J
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	6.8	J	2.8	U	2.6	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	3.4	J	2	U	1.9	U
SW8270	218-01-9	Chrysene	ug/kg	NA	7.6	J	2.2	J	1.7	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.1	U	3	U	2.7	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	8.7	J	3.1	UJ	2.9	U
SW8270	86-73-7	Fluorene	ug/kg	NA	2	U	1.9	U	1.7	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	5.7	J	3.2	U	2.9	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.7	U	2.6	U	2.3	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	2.9	U	2.8	U	2.5	U
SW8270	108-95-2	Phenol	ug/kg	NA	8	U	7.8	U	7.1	U
SW8270	129-00-0	Pyrene	ug/kg	NA	9.4	J	2.7	UJ	2.5	U
SW9045	pH	pH	ph Units	NA						

				Location ID	OL-RAF-CAP-0002-H		OL-RAF-CAP-0002-H		OL-RAF-CAP-0002-I	
				Field Sample ID	OL-4031-03		OL-4031-04		OL-4031-05	
				Start Depth (ft)	0.25		0.75		1	
				End Depth (ft)	0.5		1		1.25	
				Sampled	8/16/2022		8/16/2022		8/16/2022	
				SDG	R2207648		R2207648		R2207648	
				Lab Sample ID	R2207648-003		R2207648-004		R2207648-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	93.4		93		90.8	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	2900		2300			
SW7471	7439-97-6	Mercury	mg/kg	T	0.013	U	0.013	U	0.014	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	28	U	29	U	30	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	42	U	44	U	46	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	31	U	32	U	33	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	28	U	29	U	30	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	29	U	31	U	32	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	28	U	29	U	30	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	28	U	29	U	30	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	28	U	29	U	30	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	28	U	29	U	30	U
SW8082	PCB	Total PCBs	ug/kg	NA	42	U	44	U	46	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.58	U	0.6	U	0.55	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.47	U	0.48	U	0.44	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.23	U	0.23	U	0.21	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.35	UJ	0.36	UJ	0.33	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.23	U	0.23	U	0.21	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.25	U	0.26	U	0.24	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.23	U	0.23	U	0.21	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.23	U	0.23	U	0.21	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	1.2	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.3	U	2.3	U	2.1	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	1.2	U	1.1	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.3	U	2.3	U	2.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.58	U	0.6	U	0.55	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	1.8	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	1.9	U	2	U	2	U
SW8270	120-12-7	Anthracene	ug/kg	NA	3.1	U	3.1	U	3.2	U

				Location ID	OL-RAF-CAP-0002-H		OL-RAF-CAP-0002-H		OL-RAF-CAP-0002-I	
				Field Sample ID	OL-4031-03		OL-4031-04		OL-4031-05	
				Start Depth (ft)	0.25		0.75		1	
				End Depth (ft)	0.5		1		1.25	
				Sampled	8/16/2022		8/16/2022		8/16/2022	
				SDG	R2207648		R2207648		R2207648	
				Lab Sample ID	R2207648-003		R2207648-004		R2207648-005	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	2.2	U	2.3	U	2.3	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.9	U	2.9	U	3	U
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	2.4	U	2.5	U	2.5	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.7	U	2.7	U	2.8	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	1.9	U	2	U	2	U
SW8270	218-01-9	Chrysene	ug/kg	NA	1.8	U	1.9	U	1.9	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.9	U	2.9	U	3	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	3	U	3.1	U	3.1	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.8	U	1.9	U	1.9	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.1	U	3.1	U	3.2	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.5	U	2.5	U	2.5	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	2.6	U	2.7	U	2.7	U
SW8270	108-95-2	Phenol	ug/kg	NA	7.4	U	7.6	U	7.7	U
SW8270	129-00-0	Pyrene	ug/kg	NA	2.6	U	2.7	U	2.7	U
SW9045	pH	pH	ph Units	NA						

				Location ID	OL-SMU8-CAP-0001-C		OL-SMU8-CAP-0001-C		OL-SMU8-CAP-0002-C	
				Field Sample ID	OL-4032-08		OL-4032-09		OL-4032-01	
				Start Depth (ft)	0		0.131234		0	
				End Depth (ft)	0.131234		0.328084		0.131234	
				Sampled	8/17/2022		8/17/2022		8/17/2022	
				SDG	R2207703		R2207703		R2207703	
				Lab Sample ID	R2207703-008		R2207703-009		R2207703-001	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	90.3		50.2		73.6	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	1080		17200		6500	
SW7471	7439-97-6	Mercury	mg/kg	T	0.014	U	0.051		0.029	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	18	U	130	U	47	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	27	U	190	U	72	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	20	U	140	U	53	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	18	U	130	U	47	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	19	U	130	U	50	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	18	U	130	U	47	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	18	U	130	U	47	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	18	U	130	U	47	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	18	U	130	U	47	U
SW8082	PCB	Total PCBs	ug/kg	NA	27	U	190	U	72	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.48	U	1.6	U	0.65	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.39	U	1.3	U	0.53	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.19	U	0.6	U	0.25	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.29	UJ	0.93	UJ	0.39	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.19	U	0.6	U	0.25	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.21	U	1.3	J	0.28	U
SW8260	71-43-2	Benzene	ug/kg	NA	1.2	J	2.7	J	0.25	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.19	U	0.64	J	0.25	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	0.92	U	3	U	1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	1.9	U	6	U	2.5	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	0.92	U	3	U	1.3	U
SW8260	108-88-3	Toluene	ug/kg	NA	1.9	U	6	U	2.5	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.48	U	1.6	U	0.65	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.9	U	3.2	U	2.1	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	3.8	J	3.3	J
SW8270	120-12-7	Anthracene	ug/kg	NA	3.2	U	5.6	U	6.6	J

				Location ID	OL-SMU8-CAP-0001-C			OL-SMU8-CAP-0001-C			OL-SMU8-CAP-0002-C	
				Field Sample ID	OL-4032-08			OL-4032-09			OL-4032-01	
				Start Depth (ft)	0			0.131234			0	
				End Depth (ft)	0.131234			0.328084			0.131234	
				Sampled	8/17/2022			8/17/2022			8/17/2022	
				SDG	R2207703			R2207703			R2207703	
				Lab Sample ID	R2207703-008			R2207703-009			R2207703-001	
				Medium	Solid			Solid			Solid	
				Sample Type	REG			REG			REG	
				Matrix	SED			SED			SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	2.4	U		23			19	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3	U		38			29	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	2.5	U		48			44	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.8	U		34			29	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	2	U		16			14	
SW8270	218-01-9	Chrysene	ug/kg	NA	1.9	U		33			32	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3	U		9.5	J		5.8	J
SW8270	206-44-0	Fluoranthene	ug/kg	NA	3.2	U		53			57	
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U		3.3	U		3.3	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.2	U		26			20	
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.6	U		6.3	J		13	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	2.8	U		21			25	
SW8270	108-95-2	Phenol	ug/kg	NA	7.8	U		14	U		8.8	U
SW8270	129-00-0	Pyrene	ug/kg	NA	2.8	U		47			49	
SW9045	pH	pH	ph Units	NA	8.08			7.34			7.34	

				Location ID	OL-SMU8-CAP-0002-C		OL-SMU8-CAP-0003-C		OL-SMU8-CAP-0003-C	
				Field Sample ID	OL-4032-02		OL-4032-10		OL-4032-11	
				Start Depth (ft)	0.131234		0		0.131234	
				End Depth (ft)	0.328084		0.131234		0.328084	
				Sampled	8/17/2022		8/17/2022		8/17/2022	
				SDG	R2207703		R2207703		R2207703	
				Lab Sample ID	R2207703-002		R2207703-010		R2207703-011	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	84.4		40.3		91.2	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	3700		20100		3800	
SW7471	7439-97-6	Mercury	mg/kg	T	0.034		0.088	J	0.013	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	20	U	130	U	17	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	30	U	190	U	26	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	22	U	140	U	19	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	20	U	130	U	17	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	21	U	130	U	18	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	20	U	130	U	17	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	20	U	130	U	17	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	20	U	130	U	17	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	20	U	130	U	17	U
SW8082	PCB	Total PCBs	ug/kg	NA	30	U	190	U	26	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.49	U	1.1	U	0.59	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.4	U	0.88	U	0.47	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.19	U	0.42	U	0.23	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.3	UJ	0.65	UJ	0.35	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.19	U	0.42	U	0.23	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.21	U	0.78	J	0.25	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.19	U	0.81	J	0.42	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.19	U	0.75	J	0.23	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	0.94	U	2.1	U	1.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	1.9	U	4.2	U	2.3	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	0.94	U	2.1	U	1.2	U
SW8260	108-88-3	Toluene	ug/kg	NA	1.9	U	4.2	U	2.3	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.49	U	1.1	U	0.59	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.7	U	4.1	U	1.7	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	3.1	J	4.5	U	1.8	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.5	J	7.2	U	2.9	U

				Location ID	OL-SMU8-CAP-0002-C		OL-SMU8-CAP-0003-C		OL-SMU8-CAP-0003-C	
				Field Sample ID	OL-4032-02		OL-4032-10		OL-4032-11	
				Start Depth (ft)	0.131234		0		0.131234	
				End Depth (ft)	0.328084		0.131234		0.328084	
				Sampled	8/17/2022		8/17/2022		8/17/2022	
				SDG	R2207703		R2207703		R2207703	
				Lab Sample ID	R2207703-002		R2207703-010		R2207703-011	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	8.9		17		2.1	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	11		25		2.7	U
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	17		34		2.3	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	9.9		25		2.6	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	5.5	J	12	J	1.9	U
SW8270	218-01-9	Chrysene	ug/kg	NA	12		19		1.7	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.8	U	6.7	U	2.7	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	24		38		2.9	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.8	U	4.3	U	1.7	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	6.9		18		2.9	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	25		5.8	U	2.3	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	13		15	J	2.5	U
SW8270	108-95-2	Phenol	ug/kg	NA	7.3	U	18	U	7.1	U
SW8270	129-00-0	Pyrene	ug/kg	NA	25		34		2.5	U
SW9045	pH	pH	ph Units	NA	7.72		7.23		7.87	

				Location ID	OL-SMU8-CAP-0004-C		OL-SMU8-CAP-0005-C		OL-SMU8-CAP-0007-C	
				Field Sample ID	OL-4032-05		OL-4032-03		OL-4032-06	
				Start Depth (ft)	0		0		0	
				End Depth (ft)	0.131234		0.131234		0.131234	
				Sampled	8/17/2022		8/17/2022		8/17/2022	
				SDG	R2207703		R2207703		R2207703	
				Lab Sample ID	R2207703-005		R2207703-003		R2207703-006	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	48		51.2		67.9	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	18200		39800		10400	
SW7471	7439-97-6	Mercury	mg/kg	T	0.193	J	0.182		0.093	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	110	U	94	U	62	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	160	U	150	U	94	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	120	U	110	U	69	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	110	U	94	U	62	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	110	U	100	U	65	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	110	U	94	U	62	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	110	U	94	U	62	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	110	U	94	U	62	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	110	U	94	U	62	U
SW8082	PCB	Total PCBs	ug/kg	NA	160	U	150	U	94	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	1.3	U	1.1	U	0.99	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	1.1	U	0.85	U	0.8	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.48	U	0.41	U	0.38	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.75	UJ	0.63	UJ	0.59	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.48	U	0.41	U	0.38	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.53	U	0.45	U	0.42	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.48	U	0.41	U	0.38	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.48	U	0.41	U	0.38	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	2.4	U	2.1	U	1.9	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	4.8	U	4.1	U	3.8	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	2.4	U	2.1	U	1.9	U
SW8260	108-88-3	Toluene	ug/kg	NA	4.8	U	4.1	U	3.8	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	1.3	U	1.1	U	0.99	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	3.5	U	3	U	2.4	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	3.8	U	3.2	U	2.6	U
SW8270	120-12-7	Anthracene	ug/kg	NA	6	U	5.2	U	4.2	U

				Location ID	OL-SMU8-CAP-0004-C		OL-SMU8-CAP-0005-C		OL-SMU8-CAP-0007-C		
				Field Sample ID	OL-4032-05		OL-4032-03		OL-4032-06		
				Start Depth (ft)	0		0		0		
				End Depth (ft)	0.131234		0.131234		0.131234		
				Sampled	8/17/2022		8/17/2022		8/17/2022		
				SDG	R2207703		R2207703		R2207703		
				Lab Sample ID	R2207703-005		R2207703-003		R2207703-006		
				Medium	Solid		Solid		Solid		
				Sample Type	REG		REG		REG		
				Matrix	SED		SED		SED		
Method	Parameter Code	Parameter Name	Units	Fraction							
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	12	J	7.7	J	14		
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	14		8.9	J	21		
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	22		13		27		
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	14	J	7.7	J	20		
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	7.6	J	3.5	J	9.5		
SW8270	218-01-9	Chrysene	ug/kg	NA	14		7.7	J	20		
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	5.6	U	4.8	U	4.7	J	
SW8270	206-44-0	Fluoranthene	ug/kg	NA	32		17		32		
SW8270	86-73-7	Fluorene	ug/kg	NA	3.6	U	3.1	U	2.5	U	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	6	U	5.2	U	16		
SW8270	91-20-3	Naphthalene	ug/kg	NA	44		7.7	J	7.1	J	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	15		7.1	J	13		
SW8270	108-95-2	Phenol	ug/kg	NA	20	J	13	U	11	U	
SW8270	129-00-0	Pyrene	ug/kg	NA	29		12		30		
SW9045	pH	pH	ph Units	NA	7.14		7.43		7.23		

				Location ID	OL-SMU8-CAP-0010-D		OL-SMU8-CAP-0011-D	
				Field Sample ID	OL-4032-07		OL-4032-04	
				Start Depth (ft)	0		0	
				End Depth (ft)	0.131234		0.131234	
				Sampled	8/17/2022		8/17/2022	
				SDG	R2207703		R2207703	
				Lab Sample ID	R2207703-007		R2207703-004	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
E160.3	SOLIDS	Total Solids	%	NA	34.1		61.8	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	27200		22700	
SW7471	7439-97-6	Mercury	mg/kg	T	0.128	J	0.04	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	170	U	75	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	260	U	120	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	190	U	83	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	170	U	75	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	180	U	79	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	170	U	75	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	170	U	75	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	170	U	75	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	170	U	75	U
SW8082	PCB	Total PCBs	ug/kg	NA	260	U	120	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	2.2	U	0.97	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	1.8	U	0.79	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.83	U	0.38	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	1.3	UJ	0.58	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.83	U	0.38	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	1.5	J	0.41	U
SW8260	71-43-2	Benzene	ug/kg	NA	1.3	J	0.94	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.83	U	0.38	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	4.2	U	1.9	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	8.3	U	3.8	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	4.2	U	1.9	U
SW8260	108-88-3	Toluene	ug/kg	NA	8.3	U	3.8	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	2.2	U	0.97	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	4.5	U	3.3	J
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	4.9	U	3.7	J
SW8270	120-12-7	Anthracene	ug/kg	NA	7.8	U	6	J

				Location ID	OL-SMU8-CAP-0010-D		OL-SMU8-CAP-0011-D	
				Field Sample ID	OL-4032-07		OL-4032-04	
				Start Depth (ft)	0		0	
				End Depth (ft)	0.131234		0.131234	
				Sampled	8/17/2022		8/17/2022	
				SDG	R2207703		R2207703	
				Lab Sample ID	R2207703-007		R2207703-004	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	24		13	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	32		22	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	35		32	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	24		19	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	13	J	9.8	
SW8270	218-01-9	Chrysene	ug/kg	NA	23		24	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	7.3	U	4.2	J
SW8270	206-44-0	Fluoranthene	ug/kg	NA	44		50	
SW8270	86-73-7	Fluorene	ug/kg	NA	4.6	U	2.8	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	20		15	
SW8270	91-20-3	Naphthalene	ug/kg	NA	8	J	20	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	20		21	
SW8270	108-95-2	Phenol	ug/kg	NA	20	J	13	J
SW8270	129-00-0	Pyrene	ug/kg	NA	41		42	
SW9045	pH	pH	ph Units	NA	7.11		7.44	

				Location ID	OL-SMU8-CAP-0018-D		OL-SMU8-CAP-0018-D		OL-SMU8-CAP-0022-E	
				Field Sample ID	OL-4034-03		OL-4034-04		OL-4034-01	
				Start Depth (ft)	0		0.131234		0	
				End Depth (ft)	0.131234		0.328084		0.131234	
				Sampled	8/18/2022		8/18/2022		8/18/2022	
				SDG	R2207784		R2207784		R2207784	
				Lab Sample ID	R2207784-003		R2207784-004		R2207784-001	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	71.3		86.9		31.6	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	9000		1630		32000	
SW7471	7439-97-6	Mercury	mg/kg	T	0.035		0.015	U	0.178	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	84	U	30	U	150	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	130	U	45	U	230	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	94	U	33	U	170	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	84	U	30	U	150	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	89	U	32	U	160	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	84	U	30	U	150	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	84	U	30	U	150	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	84	U	30	U	150	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	84	U	30	U	150	U
SW8082	PCB	Total PCBs	ug/kg	NA	130	U	45	U	230	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.73	U	0.5	U	1.9	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.59	U	0.4	U	1.5	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.28	U	0.19	U	0.71	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.44	UJ	0.3	UJ	1.1	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.28	U	0.19	U	0.71	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.43	J	0.21	U	1.6	J
SW8260	71-43-2	Benzene	ug/kg	NA	0.28	U	0.19	U	1.1	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.28	U	0.2	J	0.71	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.4	U	0.95	U	3.6	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.8	U	1.9	U	7.1	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.4	U	0.95	U	3.6	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.8	U	1.9	U	7.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	0.73	U	0.5	U	1.9	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.9	J	1.9	U	6.1	J
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	4.6	J	2.1	U	11	J
SW8270	120-12-7	Anthracene	ug/kg	NA	11		3.3	U	18	J

				Location ID	OL-SMU8-CAP-0018-D		OL-SMU8-CAP-0018-D		OL-SMU8-CAP-0022-E	
				Field Sample ID	OL-4034-03		OL-4034-04		OL-4034-01	
				Start Depth (ft)	0		0.131234		0	
				End Depth (ft)	0.131234		0.328084		0.131234	
				Sampled	8/18/2022		8/18/2022		8/18/2022	
				SDG	R2207784		R2207784		R2207784	
				Lab Sample ID	R2207784-003		R2207784-004		R2207784-001	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	45		5.2	J	81	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	86		5.6	J	140	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	110		8.6		170	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	73		5.6	J	120	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	38		2.6	J	58	
SW8270	218-01-9	Chrysene	ug/kg	NA	77		5.2	J	120	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	17		3.1	U	28	
SW8270	206-44-0	Fluoranthene	ug/kg	NA	130		12		190	
SW8270	86-73-7	Fluorene	ug/kg	NA	4.6	J	2	U	7.1	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	58		4.1	J	93	
SW8270	91-20-3	Naphthalene	ug/kg	NA	11		2.6	U	16	J
SW8270	85-01-8	Phenanthrene	ug/kg	NA	55		6	J	75	
SW8270	108-95-2	Phenol	ug/kg	NA	11	J	29	J	22	U
SW8270	129-00-0	Pyrene	ug/kg	NA	120		10		180	

				Location ID	OL-SMU8-CAP-0022-E	
				Field Sample ID	OL-4034-02	
				Start Depth (ft)	0.131234	
				End Depth (ft)	0.328084	
				Sampled	8/18/2022	
				SDG	R2207784	
				Lab Sample ID	R2207784-002	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	52.4	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	20200	
SW7471	7439-97-6	Mercury	mg/kg	T	0.211	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	76	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	120	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	85	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	76	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	81	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	76	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	76	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	76	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	76	U
SW8082	PCB	Total PCBs	ug/kg	NA	120	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	1.4	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	1.1	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.58	J
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.79	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.51	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	1.2	J
SW8260	71-43-2	Benzene	ug/kg	NA	0.51	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	1	J
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	2.6	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	5.1	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	2.6	U
SW8260	108-88-3	Toluene	ug/kg	NA	5.1	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	1.4	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	8.7	J
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	12	
SW8270	120-12-7	Anthracene	ug/kg	NA	18	

				Location ID	OL-SMU8-CAP-0022-E	
				Field Sample ID	OL-4034-02	
				Start Depth (ft)	0.131234	
				End Depth (ft)	0.328084	
				Sampled	8/18/2022	
				SDG	R2207784	
				Lab Sample ID	R2207784-002	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	56	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	82	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	120	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	96	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	39	
SW8270	218-01-9	Chrysene	ug/kg	NA	89	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	19	
SW8270	206-44-0	Fluoranthene	ug/kg	NA	140	
SW8270	86-73-7	Fluorene	ug/kg	NA	9.9	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	63	
SW8270	91-20-3	Naphthalene	ug/kg	NA	44	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	68	
SW8270	108-95-2	Phenol	ug/kg	NA	13	U
SW8270	129-00-0	Pyrene	ug/kg	NA	140	

				Location ID	OL-SMU8-CAP-0006-C		OL-SMU8-CAP-0008-D		OL-SMU8-CAP-0012-D		OL-SMU8-CAP-0013-D	
				Field Sample ID	OL-4033-02		OL-4033-01		OL-4033-08		OL-4033-05	
				Start Depth (ft)	0		0		0		0	
				End Depth (ft)	0.13		0.13		0.13		0.13	
				Sampled	8/18/2022		8/17/2022		8/18/2022		8/18/2022	
				SDG	R2207785		R2207785		R2207785		R2207785	
				Lab Sample ID	R2207785-002		R2207785-001		R2207785-008		R2207785-005	
				Medium	Solid		Solid		Solid		Solid	
				Sample Type	REG		REG		REG		REG	
				Matrix	SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
E160.3	SOLIDS	Total Solids	%	NA	50		24.2		60.3		55.3	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	17200		33100	J	31800		22700	
SW7471	7439-97-6	Mercury	mg/kg	T	0.06		0.215	J	0.063		0.069	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	240	U	990	UJ	79	U	94	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	360	U	1600	UJ	130	U	150	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	260	U	1200	UJ	89	U	110	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	240	U	990	UJ	79	U	94	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	250	U	1100	UJ	84	U	100	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	240	U	990	UJ	79	U	94	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	240	U	990	UJ	79	U	94	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	240	U	990	UJ	79	U	94	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	240	U	990	UJ	79	U	94	U
SW8082	PCB	Total PCBs	ug/kg	NA	360	U	1600	UJ	130	U	150	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	1.5	U	2.5	UJ	0.94	U	1.2	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	1.2	U	2	UJ	0.76	U	0.92	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.56	U	0.94	UJ	0.37	U	0.44	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.87	UJ	1.5	UJ	0.57	UJ	0.68	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.56	U	0.94	UJ	0.37	U	0.44	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.62	U	1.1	UJ	0.44	J	0.9	J
SW8260	71-43-2	Benzene	ug/kg	NA	0.56	U	28	J	0.37	U	1	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.56	U	4.6	J	0.37	U	0.59	J
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	2.8	U	4.7	UJ	1.9	U	2.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	5.6	U	9.4	UJ	3.7	U	4.4	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	2.8	U	4.7	UJ	1.9	U	2.2	U
SW8260	108-88-3	Toluene	ug/kg	NA	5.6	U	9.4	UJ	3.7	U	4.4	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	5.6	U	9.4	UJ	3.7	U	4.4	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	3.1	U	6.6	UJ		R	2.7	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	3.3	U	7.2	UJ	7.2	J	3.2	J
SW8270	120-12-7	Anthracene	ug/kg	NA	5.3	U	12	UJ	5.3	J	4.7	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	9.1	J	42	J	14	J-	12	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	11	J	61	J	24	J-	15	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	17		78	J	29	J-	23	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	4.7	U	54	J	19	J-	21	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	6.1	J	25	J	9.7	J-	6.4	J
SW8270	218-01-9	Chrysene	ug/kg	NA	8.5	J	50	J	22	J-	12	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	5	U	16	J	4.8	J	4.4	U

				Location ID	OL-SMU8-CAP-0006-C		OL-SMU8-CAP-0008-D		OL-SMU8-CAP-0012-D		OL-SMU8-CAP-0013-D	
				Field Sample ID	OL-4033-02		OL-4033-01		OL-4033-08		OL-4033-05	
				Start Depth (ft)	0		0		0		0	
				End Depth (ft)	0.13		0.13		0.13		0.13	
				Sampled	8/18/2022		8/17/2022		8/18/2022		8/18/2022	
				SDG	R2207785		R2207785		R2207785		R2207785	
				Lab Sample ID	R2207785-002		R2207785-001		R2207785-008		R2207785-005	
				Medium	Solid		Solid		Solid		Solid	
				Sample Type	REG		REG		REG		REG	
				Matrix	SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8270	206-44-0	Fluoranthene	ug/kg	NA	18		86	J	37	J-	27	
SW8270	86-73-7	Fluorene	ug/kg	NA	3.2	U	6.8	UJ	3.9	J	27	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	8.5	J	38	J	14	J-	14	
SW8270	91-20-3	Naphthalene	ug/kg	NA	4.3	U	15	J	890	J	99	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	7.9	J	36	J	19	J-	12	
SW8270	108-95-2	Phenol	ug/kg	NA	13	U	29	UJ	68	J-	22	J
SW8270	129-00-0	Pyrene	ug/kg	NA	17		78	J	33	J-	26	
SW9045	pH	pH	ph Units	NA	7.3		7.17		7.53		7.67	

				Location ID	OL-SMU8-CAP-0014-D		OL-SMU8-CAP-0014-D		OL-SMU8-CAP-0017-D		OL-SMU8-CAP-0017-D	
				Field Sample ID	OL-4033-12		OL-4033-13		OL-4033-03		OL-4033-04	
				Start Depth (ft)	0		0.13		0		0.13	
				End Depth (ft)	0.13		0.33		0.13		0.33	
				Sampled	8/18/2022		8/18/2022		8/18/2022		8/18/2022	
				SDG	R2207785		R2207785		R2207785		R2207785	
				Lab Sample ID	R2207785-012		R2207785-013		R2207785-003		R2207785-004	
				Medium	Solid		Solid		Solid		Solid	
				Sample Type	REG		REG		REG		REG	
				Matrix	SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
E160.3	SOLIDS	Total Solids	%	NA	43.2		82.2		32.7		71.5	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	10700		6700		17200		5900	
SW7471	7439-97-6	Mercury	mg/kg	T	0.107	J	0.033		0.153	J	0.092	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	440	U	56	U	560	U	65	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	670	U	85	U	850	U	99	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	490	U	62	U	620	U	72	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	440	U	56	U	560	U	65	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	460	U	59	U	590	U	69	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	440	U	56	U	560	U	65	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	440	U	56	U	560	U	65	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	440	U	56	U	560	U	65	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	440	U	56	U	560	U	65	U
SW8082	PCB	Total PCBs	ug/kg	NA	670	U	85	U	850	U	99	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	1.4	U	0.64	U	1.4	U	0.76	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	1.2	U	0.52	U	1.2	U	0.62	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.53	U	0.25	U	0.53	U	0.3	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.82	UJ	0.39	UJ	0.82	UJ	0.46	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.53	U	0.25	U	0.53	U	0.3	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.6	J	0.28	U	1.2	J	0.33	UJ
SW8260	71-43-2	Benzene	ug/kg	NA	0.7	J	5	J	0.78	J	0.58	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.73	J	0.64	J	0.69	J	0.3	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	2.7	U	1.3	U	2.7	U	1.5	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	5.3	U	2.5	U	5.3	U	3	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	2.7	U	1.3	U	2.7	U	1.5	U
SW8260	108-88-3	Toluene	ug/kg	NA	5.3	U	2.5	U	5.3	U	3	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	5.3	U	2.5	U	5.3	U	3	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	3.5	U	1.7	U	5	U	4.4	J
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	3.8	U	1.8	U	5.5	U	4.4	J
SW8270	120-12-7	Anthracene	ug/kg	NA	6.2	U	2.9	U	8.8	U	7	J
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	18		5.4	J	31		7	J
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	25		5.1	J	39		6.6	J
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	31		6.7		49		10	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	20		4.2	J	35		6.6	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	9.8	J	2.6	J	16	J	2.6	J
SW8270	218-01-9	Chrysene	ug/kg	NA	20		4.2	J	30		6.6	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	5.7	U	2.7	U	8.2	U	3.6	U

			Location ID		OL-SMU8-CAP-0014-D		OL-SMU8-CAP-0014-D		OL-SMU8-CAP-0017-D		OL-SMU8-CAP-0017-D	
			Field Sample ID		OL-4033-12		OL-4033-13		OL-4033-03		OL-4033-04	
			Start Depth (ft)		0		0.13		0		0.13	
			End Depth (ft)		0.13		0.33		0.13		0.33	
			Sampled		8/18/2022		8/18/2022		8/18/2022		8/18/2022	
			SDG		R2207785		R2207785		R2207785		R2207785	
			Lab Sample ID		R2207785-012		R2207785-013		R2207785-003		R2207785-004	
			Medium		Solid		Solid		Solid		Solid	
			Sample Type		REG		REG		REG		REG	
			Matrix		SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8270	206-44-0	Fluoranthene	ug/kg	NA	36		9.3		58		24	
SW8270	86-73-7	Fluorene	ug/kg	NA	3.6	U	1.7	U	5.2	U	4.4	J
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	16		3.5	J	26		4	J
SW8270	91-20-3	Naphthalene	ug/kg	NA	4.9	U	6.4		10	J	69	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	13	J	5.8	J	24		17	
SW8270	108-95-2	Phenol	ug/kg	NA	15	U	41		26	J	16	J
SW8270	129-00-0	Pyrene	ug/kg	NA	30		8		53		22	
SW9045	pH	pH	ph Units	NA								

				Location ID	OL-SMU8-CAP-0020-D		OL-SMU8-CAP-0020-D		OL-SMU8-CAP-0021-E		OL-SMU8-CAP-0021-E	
				Field Sample ID	OL-4033-14		OL-4033-15		OL-4033-18		OL-4033-19	
				Start Depth (ft)	0		0.13		0		0.13	
				End Depth (ft)	0.13		0.33		0.13		0.33	
				Sampled	8/18/2022		8/18/2022		8/18/2022		8/18/2022	
				SDG	R2207785		R2207785		R2207785		R2207785	
				Lab Sample ID	R2207785-014		R2207785-015		R2207785-018		R2207785-019	
				Medium	Solid		Solid		Solid		Solid	
				Sample Type	REG		REG		REG		REG	
				Matrix	SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
E160.3	SOLIDS	Total Solids	%	NA	68.2		82.9		31.7		83.7	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	9700		14300		31800		7500	
SW7471	7439-97-6	Mercury	mg/kg	T	0.742		0.648		0.134	J	0.062	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	75	U	67	U	540	U	57	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	120	U	110	U	820	U	87	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	83	U	74	U	600	U	64	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	75	U	67	U	540	U	57	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	79	U	71	U	570	U	61	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	75	U	67	U	540	U	57	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	75	U	67	U	540	U	57	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	75	U	67	U	540	U	57	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	75	U	67	U	540	U	57	U
SW8082	PCB	Total PCBs	ug/kg	NA	120	U	110	U	820	U	87	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	1.1	U	0.48	U	1.9	U	0.63	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.83	U	0.38	U	1.5	U	0.51	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.4	U	0.66	J	0.72	U	0.67	J
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.61	UJ	0.29	UJ	1.2	UJ	0.38	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.4	U	0.56	J	0.72	U	0.25	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.55	J	6.1		1.7	J	1.1	J
SW8260	71-43-2	Benzene	ug/kg	NA	0.4	U	0.28	J	1.1	J	0.25	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.4	U	5.5		0.72	U	1.3	J
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	2	U	0.91	U	3.6	U	1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	4	U	1.9	U	7.2	U	2.5	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	2	U	0.91	U	3.6	U	1.3	U
SW8260	108-88-3	Toluene	ug/kg	NA	4	U	1.9	U	7.2	U	2.5	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	4	U	1.9	U	7.2	U	2.5	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	8.1	J	5.6	J	5	U	2	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	16		21		12	J	17	
SW8270	120-12-7	Anthracene	ug/kg	NA	15		22		22		27	
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	22		43		79		65	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	36		75		140		100	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	40		96		170		130	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	31		57		110		71	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	15		29		55		41	
SW8270	218-01-9	Chrysene	ug/kg	NA	30		68		120		95	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	8.1	J	14		28		19	

				Location ID	OL-SMU8-CAP-0020-D		OL-SMU8-CAP-0020-D		OL-SMU8-CAP-0021-E		OL-SMU8-CAP-0021-E	
				Field Sample ID	OL-4033-14		OL-4033-15		OL-4033-18		OL-4033-19	
				Start Depth (ft)	0		0.13		0		0.13	
				End Depth (ft)	0.13		0.33		0.13		0.33	
				Sampled	8/18/2022		8/18/2022		8/18/2022		8/18/2022	
				SDG	R2207785		R2207785		R2207785		R2207785	
				Lab Sample ID	R2207785-014		R2207785-015		R2207785-018		R2207785-019	
				Medium	Solid		Solid		Solid		Solid	
				Sample Type	REG		REG		REG		REG	
				Matrix	SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8270	206-44-0	Fluoranthene	ug/kg	NA	55		100		210		160	
SW8270	86-73-7	Fluorene	ug/kg	NA	230		8.7		6	J	12	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	23		45		86		59	
SW8270	91-20-3	Naphthalene	ug/kg	NA	280		120		14	J	64	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	47		55		79		78	
SW8270	108-95-2	Phenol	ug/kg	NA	13	J	16	J	22	U	8.2	U
SW8270	129-00-0	Pyrene	ug/kg	NA	48		95		170		150	
SW9045	pH	pH	ph Units	NA								

				Location ID	OL-SMU8-CAP-0023-E		OL-SMU8-CAP-0023-E		OL-SMU8-CAP-0024-E		OL-SMU8-CAP-0024-E	
				Field Sample ID	OL-4033-16		OL-4033-17		OL-4033-09		OL-4033-10	
				Start Depth (ft)	0		0.13		0		0.13	
				End Depth (ft)	0.13		0.33		0.13		0.33	
				Sampled	8/18/2022		8/18/2022		8/18/2022		8/18/2022	
				SDG	R2207785		R2207785		R2207785		R2207785	
				Lab Sample ID	R2207785-016		R2207785-017		R2207785-009		R2207785-010	
				Medium	Solid		Solid		Solid		Solid	
				Sample Type	REG		REG		REG		REG	
				Matrix	SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
E160.3	SOLIDS	Total Solids	%	NA	32.8		74.3		33.3		73.6	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	27800		12000		28700		14000	
SW7471	7439-97-6	Mercury	mg/kg	T	0.179	J	0.193		0.192	J	0.141	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	500	U	65	U	710	U	70	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	760	U	99	U	1100	U	110	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	550	U	73	U	800	U	78	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	500	U	65	U	710	U	70	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	530	U	69	U	760	U	74	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	500	U	65	U	710	U	70	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	500	U	65	U	710	U	70	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	500	U	65	U	710	U	70	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	500	U	65	U	710	U	70	U
SW8082	PCB	Total PCBs	ug/kg	NA	760	U	99	U	1100	U	110	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	1.4	U	1.4	U	2	U	0.88	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	1.2	U	1.2	U	1.6	U	0.71	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	1.5	J	0.54	U	0.74	U	0.56	J
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.83	UJ	0.83	UJ	1.2	UJ	0.53	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.54	U	0.54	U	0.74	U	0.34	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	2.5	J	0.81	J	1.6	J	0.92	J
SW8260	71-43-2	Benzene	ug/kg	NA	0.54	U	0.54	U	1.7	J	0.37	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	2.4	J	0.54	U	0.87	J	1.3	J
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	2.7	U	2.7	U	3.7	U	1.7	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	5.4	U	5.4	U	7.4	U	3.4	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	2.7	U	2.7	U	3.7	U	1.7	U
SW8260	108-88-3	Toluene	ug/kg	NA	5.4	U	5.4	U	7.4	U	3.4	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	5.4	U	5.4	U	7.4	U	3.4	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	5.9	J	11		4.9	U	7.9	J
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	12	J	13		5.4	U	8.7	
SW8270	120-12-7	Anthracene	ug/kg	NA	17	J	25		8.6	U	17	
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	73		59		22		37	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	130		97		27		51	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	150		130		33		77	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	110		67		21		41	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	50		37		12	J	21	
SW8270	218-01-9	Chrysene	ug/kg	NA	110		92		21		57	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	24		18		8	U	8.7	

			Location ID		OL-SMU8-CAP-0023-E		OL-SMU8-CAP-0023-E		OL-SMU8-CAP-0024-E		OL-SMU8-CAP-0024-E	
			Field Sample ID		OL-4033-16		OL-4033-17		OL-4033-09		OL-4033-10	
			Start Depth (ft)		0		0.13		0		0.13	
			End Depth (ft)		0.13		0.33		0.13		0.33	
			Sampled		8/18/2022		8/18/2022		8/18/2022		8/18/2022	
			SDG		R2207785		R2207785		R2207785		R2207785	
			Lab Sample ID		R2207785-016		R2207785-017		R2207785-009		R2207785-010	
			Medium		Solid		Solid		Solid		Solid	
			Sample Type		REG		REG		REG		REG	
			Matrix		SED		SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8270	206-44-0	Fluoranthene	ug/kg	NA	190		150		43		110	J
SW8270	86-73-7	Fluorene	ug/kg	NA	5.9	J	12		5.1	U	8.7	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	84		58		16	J	32	
SW8270	91-20-3	Naphthalene	ug/kg	NA	9.8	J	66		6.9	U	59	J
SW8270	85-01-8	Phenanthrene	ug/kg	NA	70		71		18	J	54	J
SW8270	108-95-2	Phenol	ug/kg	NA	21	U	17	J	21	U	8.8	U
SW8270	129-00-0	Pyrene	ug/kg	NA	160		130		33		93	J
SW9045	pH	pH	ph Units	NA								

				Location ID	OL-SMU8-CAP-0024-E		OL-SMU8-CAP-0025-E		OL-SMU8-CAP-0025-E	
				Field Sample ID	OL-4033-11		OL-4033-06		OL-4033-07	
				Start Depth (ft)	0.13		0		0.13	
				End Depth (ft)	0.33		0.13		0.33	
				Sampled	8/18/2022		8/18/2022		8/18/2022	
				SDG	R2207785		R2207785		R2207785	
				Lab Sample ID	R2207785-011		R2207785-006		R2207785-007	
				Medium	Solid		Solid		Solid	
				Sample Type	FD		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	65.5		36.1		65.5	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	16200		27500		13700	
SW7471	7439-97-6	Mercury	mg/kg	T	0.234		0.153	J	0.187	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	82	U	510	U	74	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	130	U	770	U	120	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	92	U	560	U	82	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	82	U	510	U	74	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	87	U	540	U	78	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	82	U	510	U	74	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	82	U	510	U	74	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	82	U	510	U	74	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	82	U	510	U	74	U
SW8082	PCB	Total PCBs	ug/kg	NA	130	U	770	U	120	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	1.5	J	2	U	0.82	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.96	U	1.6	U	0.67	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.66	J	0.75	U	0.8	J
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.71	UJ	1.2	UJ	0.49	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.46	U	0.75	U	0.32	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	1.4	J	1.1	J	1.3	J
SW8260	71-43-2	Benzene	ug/kg	NA	0.46	U	0.96	J	0.32	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	1.2	J	0.89	J	2.1	J
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	2.3	U	3.8	U	1.6	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	4.6	U	7.5	U	3.2	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	2.3	U	3.8	U	1.6	U
SW8260	108-88-3	Toluene	ug/kg	NA	4.6	U	7.5	U	3.2	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	4.6	U	7.5	U	3.2	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.5	U	4.5	U	9.6	J
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	5.3	J	4.9	U	14	J-
SW8270	120-12-7	Anthracene	ug/kg	NA	7.3	J	7.8	U	23	J-
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	22		25		62	J-
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	37		34		90	J-
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	41		53		140	J-
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	27		42		100	J-
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	15		17	J	47	J-
SW8270	218-01-9	Chrysene	ug/kg	NA	31		37		92	J-
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	6.8	J	8	J	20	J-

				Location ID	OL-SMU8-CAP-0024-E		OL-SMU8-CAP-0025-E		OL-SMU8-CAP-0025-E	
				Field Sample ID	OL-4033-11		OL-4033-06		OL-4033-07	
				Start Depth (ft)	0.13		0		0.13	
				End Depth (ft)	0.33		0.13		0.33	
				Sampled	8/18/2022		8/18/2022		8/18/2022	
				SDG	R2207785		R2207785		R2207785	
				Lab Sample ID	R2207785-011		R2207785-006		R2207785-007	
				Medium	Solid		Solid		Solid	
				Sample Type	FD		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	206-44-0	Fluoranthene	ug/kg	NA	53	J	60		160	J-
SW8270	86-73-7	Fluorene	ug/kg	NA	3.9	J	4.6	U	11	J-
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	21		29		67	J-
SW8270	91-20-3	Naphthalene	ug/kg	NA	16	J	6.2	J	45	J-
SW8270	85-01-8	Phenanthrene	ug/kg	NA	26	J	22		72	J-
SW8270	108-95-2	Phenol	ug/kg	NA	11	U	19	U	11	UJ
SW8270	129-00-0	Pyrene	ug/kg	NA	47	J	53		140	J-
SW9045	pH	pH	ph Units	NA						

				Location ID	OL-RAD-CAP-0003-H		OL-RAD-CAP-0003-H		OL-RAD-CAP-0003-H	
				Field Sample ID	OL-4035-04		OL-4035-05		OL-4035-06	
				Start Depth (ft)	0.25		0.25		0.75	
				End Depth (ft)	0.5		0.5		1	
				Sampled	8/19/2022		8/19/2022		8/19/2022	
				SDG	R2207824		R2207824		R2207824	
				Lab Sample ID	R2207824-004		R2207824-005		R2207824-006	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		FD		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	94.1		92.6		92.7	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	1890		1410		1170	J
SW7471	7439-97-6	Mercury	mg/kg	T	0.014	U	0.014	J	0.013	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	28	U	29	U	29	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	42	U	43	U	44	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	31	U	32	U	32	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	28	U	29	U	29	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	29	U	30	U	30	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	28	U	29	U	29	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	28	U	29	U	29	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	28	U	29	U	29	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	28	U	29	U	29	U
SW8082	PCB	Total PCBs	ug/kg	NA	42	U	43	U	44	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.61	U	0.65	U	0.54	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.49	U	0.53	U	0.44	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.24	U	0.25	U	0.21	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.36	UJ	0.39	UJ	0.32	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.24	U	0.25	U	0.21	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.26	U	0.28	U	0.23	U
SW8260	71-43-2	Benzene	ug/kg	NA						
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.24	U	0.25	U	0.21	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	1.3	U	1.1	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.4	U	2.5	U	2.1	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	1.3	U	1.1	U
SW8260	108-88-3	Toluene	ug/kg	NA						
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	2.4	U	2.5	U	2.1	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.7	U	1.7	U	1.8	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	1.8	U	1.8	U	1.9	U
SW8270	120-12-7	Anthracene	ug/kg	NA	2.9	U	2.9	U	3.1	U

				Location ID	OL-RAD-CAP-0003-H		OL-RAD-CAP-0003-H		OL-RAD-CAP-0003-H	
				Field Sample ID	OL-4035-04		OL-4035-05		OL-4035-06	
				Start Depth (ft)	0.25		0.25		0.75	
				End Depth (ft)	0.5		0.5		1	
				Sampled	8/19/2022		8/19/2022		8/19/2022	
				SDG	R2207824		R2207824		R2207824	
				Lab Sample ID	R2207824-004		R2207824-005		R2207824-006	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		FD		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	6.1	J	5.1	J	4.2	J
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	6.4		6.4		3.1	J
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	8.6		10		5.2	J
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	5.1	J	5.5	J	2.8	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	2.9	J	3	J	1.9	U
SW8270	218-01-9	Chrysene	ug/kg	NA	4.8	J	6.4		3.1	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.7	U	2.7	U	2.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	11		14		7	
SW8270	86-73-7	Fluorene	ug/kg	NA	1.7	U	1.7	U	1.8	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.8	J	3.9	J	3.1	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.3	U	2.3	U	2.4	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	4.8	J	6.4		4.2	J
SW8270	108-95-2	Phenol	ug/kg	NA						
SW8270	129-00-0	Pyrene	ug/kg	NA	8.6		12		5.6	J
SW9045	pH	pH	ph Units	NA	8.76		9.15		8.99	

				Location ID	OL-RAD-CAP-0004-H		OL-RAD-CAP-0004-H		OL-RAD-CAP-0007-H	
				Field Sample ID	OL-4035-10		OL-4035-11		OL-4035-07	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	8/19/2022		8/19/2022		8/19/2022	
				SDG	R2207824		R2207824		R2207824	
				Lab Sample ID	R2207824-010		R2207824-011		R2207824-007	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	91.6		89.5		81.6	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	840		420		4250	J
SW7471	7439-97-6	Mercury	mg/kg	T	0.013	U	0.015	U	0.107	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	29	U	30	U	65	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	44	U	45	U	98	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	33	U	33	U	72	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	29	U	30	U	65	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	31	U	31	U	68	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	29	U	30	U	65	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	29	U	30	U	65	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	29	U	30	U	65	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	29	U	30	U	65	U
SW8082	PCB	Total PCBs	ug/kg	NA	44	U	45	U	98	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.54	U	0.57	U	0.71	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.44	U	0.46	U	0.57	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.24	J	0.22	U	0.27	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.33	UJ	0.34	UJ	0.42	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.21	U	0.22	U	0.27	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.55	J	0.24	U	0.3	U
SW8260	71-43-2	Benzene	ug/kg	NA						
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.27	J	0.22	U	0.27	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.1	U	1.1	U	1.4	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.1	U	2.2	U	2.7	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.1	U	1.1	U	1.4	U
SW8260	108-88-3	Toluene	ug/kg	NA						
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	2.1	U	2.2	U	2.7	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	1.8	U	2	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	2	U	2.1	U
SW8270	120-12-7	Anthracene	ug/kg	NA	3.2	U	3.2	U	3.4	U

				Location ID	OL-RAD-CAP-0004-H		OL-RAD-CAP-0004-H		OL-RAD-CAP-0007-H	
				Field Sample ID	OL-4035-10		OL-4035-11		OL-4035-07	
				Start Depth (ft)	0.25		0.75		0.25	
				End Depth (ft)	0.5		1		0.5	
				Sampled	8/19/2022		8/19/2022		8/19/2022	
				SDG	R2207824		R2207824		R2207824	
				Lab Sample ID	R2207824-010		R2207824-011		R2207824-007	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	2.3	U	2.3	U	3.5	J
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.9	U	3	U	3.2	U
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	2.5	U	2.5	U	2.7	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.8	U	2.8	U	3	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	2	U	2	U	2.1	U
SW8270	218-01-9	Chrysene	ug/kg	NA	1.9	U	1.9	U	2	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.9	U	3	U	3.2	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	3.1	U	3.1	U	6.2	J
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	1.9	U	2	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.2	U	3.2	U	3.4	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.9	J	2.6	U	11	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	2.7	U	2.8	U	5	J
SW8270	108-95-2	Phenol	ug/kg	NA						
SW8270	129-00-0	Pyrene	ug/kg	NA	2.7	U	2.7	U	5.4	J
SW9045	pH	pH	ph Units	NA	9.33		9.21		8.34	

				Location ID	OL-RAD-CAP-0007-H		OL-RAD-CAP-0007-H		OL-SMU8-CAP-0009-D	
				Field Sample ID	OL-4035-08		OL-4035-09		OL-4035-03	
				Start Depth (ft)	0.25		0.75		0	
				End Depth (ft)	0.5		1		0.13	
				Sampled	8/19/2022		8/19/2022		8/18/2022	
				SDG	R2207824		R2207824		R2207824	
				Lab Sample ID	R2207824-008		R2207824-009		R2207824-003	
				Medium	Solid		Solid		Solid	
				Sample Type	FD		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	86.4		90.4		26.8	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	1050	J	870		4620	J
SW7471	7439-97-6	Mercury	mg/kg	T	0.015	UJ	0.015	U	0.152	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	55	U	29	U	1000	UJ
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	84	U	45	U	1600	UJ
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	61	U	33	U	1200	UJ
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	55	U	29	U	1000	UJ
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	58	U	31	U	1100	UJ
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	55	U	29	U	1000	UJ
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	55	U	29	U	1000	UJ
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	55	U	29	U	1000	UJ
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	55	U	29	U	1000	UJ
SW8082	PCB	Total PCBs	ug/kg	NA	84	U	45	U	1600	UJ
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.68	U	0.59	U	2.4	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.55	U	0.47	U	1.9	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.26	U	0.23	U	0.89	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.41	UJ	0.35	UJ	1.4	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.26	U	0.23	U	0.89	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.29	U	0.25	U	0.98	UJ
SW8260	71-43-2	Benzene	ug/kg	NA					1.7	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.26	U	0.23	U	0.89	UJ
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.3	U	1.2	U	4.5	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.6	U	2.3	U	8.9	UJ
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.3	U	1.2	U	4.5	UJ
SW8260	108-88-3	Toluene	ug/kg	NA					8.9	UJ
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	2.6	U	2.3	U	8.9	UJ
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.8	U	1.8	U	6.1	UJ
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2	U	2	U	8.6	J
SW8270	120-12-7	Anthracene	ug/kg	NA	3.2	U	3.1	U	12	J

				Location ID	OL-RAD-CAP-0007-H		OL-RAD-CAP-0007-H		OL-SMU8-CAP-0009-D	
				Field Sample ID	OL-4035-08		OL-4035-09		OL-4035-03	
				Start Depth (ft)	0.25		0.75		0	
				End Depth (ft)	0.5		1		0.13	
				Sampled	8/19/2022		8/19/2022		8/18/2022	
				SDG	R2207824		R2207824		R2207824	
				Lab Sample ID	R2207824-008		R2207824-009		R2207824-003	
				Medium	Solid		Solid		Solid	
				Sample Type	FD		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	2.5	J	2.3	U	38	J
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	3	U	2.9	U	58	J
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	2.5	U	2.4	U	80	J
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.8	U	2.7	U	48	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	2	U	2	U	27	J
SW8270	218-01-9	Chrysene	ug/kg	NA	1.9	U	1.9	U	55	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3	U	2.9	U	12	J
SW8270	206-44-0	Fluoranthene	ug/kg	NA	4	J	3	U	100	J
SW8270	86-73-7	Fluorene	ug/kg	NA	1.9	U	1.9	U	6.3	UJ
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.2	U	3.1	U	39	J
SW8270	91-20-3	Naphthalene	ug/kg	NA	6.5	J	2.5	U	23	J
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.6	J	2.7	U	44	J
SW8270	108-95-2	Phenol	ug/kg	NA					27	UJ
SW8270	129-00-0	Pyrene	ug/kg	NA	3.2	J	2.7	U	86	J
SW9045	pH	pH	ph Units	NA	8.32		8.79		7.01	

				Location ID	OL-SMU8-CAP-0019-D		OL-SMU8-CAP-0019-D	
				Field Sample ID	OL-4035-01		OL-4035-02	
				Start Depth (ft)	0		0.13	
				End Depth (ft)	0.13		0.33	
				Sampled	8/18/2022		8/18/2022	
				SDG	R2207824		R2207824	
				Lab Sample ID	R2207824-001		R2207824-002	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
E160.3	SOLIDS	Total Solids	%	NA	31.6		59.5	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	28100		11600	
SW7471	7439-97-6	Mercury	mg/kg	T	0.274	J	0.417	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	830	U	410	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	1300	U	620	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	930	U	460	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	830	U	410	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	880	U	430	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	830	U	410	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	830	U	410	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	830	U	410	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	830	U	410	U
SW8082	PCB	Total PCBs	ug/kg	NA	1300	U	620	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	2.1	U	0.98	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	1.7	U	0.79	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.79	U	0.49	J
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	1.3	UJ	0.58	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.79	U	0.38	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	1.2	J	1.1	J
SW8260	71-43-2	Benzene	ug/kg	NA	2.1	J	1.2	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	1.2	J	1.5	J
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	4	U	1.9	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	7.9	U	3.8	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	4	U	1.9	U
SW8260	108-88-3	Toluene	ug/kg	NA	7.9	U	3.8	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	7.9	U	3.8	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	5.3	UJ	2.6	UJ
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	5.7	UJ	7.3	J
SW8270	120-12-7	Anthracene	ug/kg	NA	28	J-	7.8	J

				Location ID	OL-SMU8-CAP-0019-D		OL-SMU8-CAP-0019-D	
				Field Sample ID	OL-4035-01		OL-4035-02	
				Start Depth (ft)	0		0.13	
				End Depth (ft)	0.13		0.33	
				Sampled	8/18/2022		8/18/2022	
				SDG	R2207824		R2207824	
				Lab Sample ID	R2207824-001		R2207824-002	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	318.1	J-J	16	J-
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	46	J-	21	J-
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	55	J-	26	J-
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	39	J-	17	J-
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	19	J	8.8	J
SW8270	218-01-9	Chrysene	ug/kg	NA	39	J-	17	J-
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	11	J	4.7	J
SW8270	206-44-0	Fluoranthene	ug/kg	NA	67	J-	35	J-
SW8270	86-73-7	Fluorene	ug/kg	NA	5.4	UJ	2.7	UJ
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	32	J-	13	J-
SW8270	91-20-3	Naphthalene	ug/kg	NA	8.4	J	37	J-
SW8270	85-01-8	Phenanthrene	ug/kg	NA	26	J-	20	J-
SW8270	108-95-2	Phenol	ug/kg	NA	23	U	12	U
SW8270	129-00-0	Pyrene	ug/kg	NA	57	J-	31	J-
SW9045	pH	pH	ph Units	NA				

			Location ID		QC		QC	
			Field Sample ID		OL-4035-12		OL-4035-13	
			Start Depth (ft)					
			End Depth (ft)					
			Sampled		8/19/2022		8/19/2022	
			SDG		R2207825		R2207825	
			Lab Sample ID		R2207825-001		R2207825-002	
			Medium		Water		Water	
			Sample Type		TB		EB	
			Matrix		WQ		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction				
SM5310B	TOC	Total Organic Carbon	mg/L	NA			0.5	U
SW7470	7439-97-6	Mercury	ug/l	T			0.08	U
SW8082	12674-11-2	Aroclor-1016	ug/l	NA			0.5	U
SW8082	11104-28-2	Aroclor-1221	ug/l	NA			1	U
SW8082	11141-16-5	Aroclor-1232	ug/l	NA			0.5	U
SW8082	53469-21-9	Aroclor-1242	ug/l	NA			0.5	U
SW8082	12672-29-6	Aroclor-1248	ug/l	NA			0.5	U
SW8082	11097-69-1	Aroclor-1254	ug/l	NA			0.5	U
SW8082	11096-82-5	Aroclor-1260	ug/l	NA			0.5	U
SW8082	37324-23-5	Aroclor-1262	ug/l	NA			0.5	U
SW8082	11100-14-4	Aroclor-1268	ug/l	NA			0.5	U
SW8082	PCB	Total PCBs	ug/l	NA			1	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ	1.1	
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ	0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA			0.05	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA			0.05	U
SW8270	120-12-7	Anthracene	ug/l	NA			0.071	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/l	NA			0.087	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/l	NA			0.065	U
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/l	NA			0.058	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/l	NA			0.095	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/l	NA			0.065	U
SW8270	218-01-9	Chrysene	ug/l	NA			0.064	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/l	NA			0.065	U
SW8270	206-44-0	Fluoranthene	ug/l	NA			0.098	U
SW8270	86-73-7	Fluorene	ug/l	NA			0.052	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/l	NA			0.11	U
SW8270	91-20-3	Naphthalene	ug/l	NA			0.058	U
SW8270	85-01-8	Phenanthrene	ug/l	NA			0.088	U
SW8270	108-95-2	Phenol	ug/l	NA			0.084	J
SW8270	129-00-0	Pyrene	ug/l	NA			0.071	U
SW9040	pH	pH	ph Units	NA			5.87	

				Location ID	OL-RAD-CAP-0002-H		OL-RAD-CAP-0002-H		OL-SMU8-CAP-0015-D	
				Field Sample ID	OL-4046-01		OL-4046-02		OL-4046-03	
				Start Depth (ft)	0.25		0.75		0	
				End Depth (ft)	0.5		1		0.13	
				Sampled	9/14/2022		9/14/2022		9/14/2022	
				SDG	R2208713		R2208713		R2208713	
				Lab Sample ID	R2208713-001		R2208713-002		R2208713-003	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	91.2		92.6		68.8	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	1200		760		19200	
SW7471	7439-97-6	Mercury	mg/kg	T	0.046		0.014	U	0.025	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	19	U	19	U	75	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	29	U	28	U	120	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	21	U	21	U	84	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	19	U	19	U	75	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	20	U	20	U	79	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	19	U	19	U	75	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	19	U	19	U	75	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	19	U	19	U	75	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	19	U	19	U	75	U
SW8082	PCB	Total PCBs	ug/kg	NA	29	U	28	U	120	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.84	U	0.68	U	0.42	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.68	U	0.55	U	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.33	U	0.26	U	0.16	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.5	UJ	0.41	UJ	0.25	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.33	U	0.26	U	0.16	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.36	U	0.29	U	0.18	U
SW8260	71-43-2	Benzene	ug/kg	NA	0.33	U	0.26	U	0.16	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.33	U	0.26	U	0.16	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.7	U	1.3	U	0.8	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	3.3	U	2.6	U	1.6	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.7	U	1.3	U	0.8	U
SW8260	108-88-3	Toluene	ug/kg	NA	3.3	U	2.6	U	1.6	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	3.3	U	2.6	U	1.6	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.7	U	1.7	U	2.2	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	1.8	U	1.8	U	2.4	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.1	U	4.1	U	5.2	U

				Location ID	OL-RAD-CAP-0002-H		OL-RAD-CAP-0002-H		OL-SMU8-CAP-0015-D		
				Field Sample ID	OL-4046-01		OL-4046-02		OL-4046-03		
				Start Depth (ft)	0.25		0.75		0		
				End Depth (ft)	0.5		1		0.13		
				Sampled	9/14/2022		9/14/2022		9/14/2022		
				SDG	R2208713		R2208713		R2208713		
				Lab Sample ID	R2208713-001		R2208713-002		R2208713-003		
				Medium	Solid		Solid		Solid		
				Sample Type	REG		REG		REG		
				Matrix	SED		SED		SED		
Method	Parameter Code	Parameter Name	Units	Fraction							
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5	U	5	U	8.6		
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.7	U	2.7	U	9.9		
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	4	J	3.5	U	15		
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.8	U	2.8	U	11		
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	3.8	U	3.8	U	4.9	U	
SW8270	218-01-9	Chrysene	ug/kg	NA	2.7	U	2.7	U	9.9		
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.7	U	2.7	U	3.5	U	
SW8270	206-44-0	Fluoranthene	ug/kg	NA	4.9	U	4.9	U	17		
SW8270	86-73-7	Fluorene	ug/kg	NA	1.7	U	1.7	U	2.2	U	
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	2.9	U	2.9	U	7.7	J	
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.3	U	2.3	U	3	U	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.5	U	3.5	U	7.3	J	
SW8270	108-95-2	Phenol	ug/kg	NA	13	J	8.8	U	12	U	
SW8270	129-00-0	Pyrene	ug/kg	NA	3.3	J	3.2	U	16		
SW9045	pH	pH	ph Units	NA	8.88		9.06		7.38		

				Location ID	OL-SMU8-CAP-0016-D	
				Field Sample ID	OL-4046-04	
				Start Depth (ft)	0	
				End Depth (ft)	0.13	
				Sampled	9/14/2022	
				SDG	R2208713	
				Lab Sample ID	R2208713-004	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	47.8	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	7300	
SW7471	7439-97-6	Mercury	mg/kg	T	0.033	J
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	110	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	170	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	120	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	110	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	120	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	110	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	110	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	110	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	110	U
SW8082	PCB	Total PCBs	ug/kg	NA	170	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	1.6	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	1.3	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.6	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.93	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.6	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.87	J
SW8260	71-43-2	Benzene	ug/kg	NA	1.8	J
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.6	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	6	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	3	U
SW8260	108-88-3	Toluene	ug/kg	NA	6	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	6	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	3	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	3.3	U
SW8270	120-12-7	Anthracene	ug/kg	NA	7.3	U

				Location ID	OL-SMU8-CAP-0016-D	
				Field Sample ID	OL-4046-04	
				Start Depth (ft)	0	
				End Depth (ft)	0.13	
				Sampled	9/14/2022	
				SDG	R2208713	
				Lab Sample ID	R2208713-004	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	9	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	7.8	J
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	12	J
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	9.6	J
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	6.8	U
SW8270	218-01-9	Chrysene	ug/kg	NA	6.6	J
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	4.9	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	13	
SW8270	86-73-7	Fluorene	ug/kg	NA	3.1	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	5.3	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	33	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	6.3	U
SW8270	108-95-2	Phenol	ug/kg	NA	46	J
SW8270	129-00-0	Pyrene	ug/kg	NA	11	J
SW9045	pH	pH	ph Units	NA	7.24	

				Location ID	OL-RAD-CAP-0057-H		OL-RAD-CAP-0057-H	
				Field Sample ID	OL-4048-01		OL-4048-02	
				Start Depth (ft)	0.25		0.75	
				End Depth (ft)	0.5		1	
				Sampled	9/15/2022		9/15/2022	
				SDG	R2208784		R2208784	
				Lab Sample ID	R2208784-001		R2208784-002	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
E160.3	SOLIDS	Total Solids	%	NA	76.9		67.2	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	4700		5800	
SW7471	7439-97-6	Mercury	mg/kg	T	0.021	J	0.047	
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	64	UJ	74	UJ
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	98	U	120	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	72	U	83	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	64	U	74	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	68	U	78	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	64	U	74	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	64	U	74	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	64	U	74	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	64	U	74	U
SW8082	PCB	Total PCBs	ug/kg	NA	98	U	120	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.6	U	0.68	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.49	U	0.55	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.23	U	0.26	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.36	UJ	0.41	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.23	U	0.26	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.26	U	0.29	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.23	U	0.26	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.3	U	2.6	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	1.3	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	2.3	U	2.6	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	2.6	J	2.5	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	2.4	U	2.7	U
SW8270	120-12-7	Anthracene	ug/kg	NA	5.3	U	5.9	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	10		16	
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	13		23	
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	21		41	
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	16		30	
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	6.9	J	11	
SW8270	218-01-9	Chrysene	ug/kg	NA	12		23	
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	3.6	U	5.9	J
SW8270	206-44-0	Fluoranthene	ug/kg	NA	26		40	
SW8270	86-73-7	Fluorene	ug/kg	NA	2.6	J	2.5	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3.8	U	20	
SW8270	91-20-3	Naphthalene	ug/kg	NA	9.5		13	
SW8270	85-01-8	Phenanthrene	ug/kg	NA	14		17	
SW8270	129-00-0	Pyrene	ug/kg	NA	22		37	
SW9045	pH	pH	ph Units	NA	7.78		8.12	

				Location ID	OL-RAB-CAP-0005-H		OL-RAB-CAP-0007-H	
				Field Sample ID	OL-4050-01		OL-4050-02	
				Start Depth (ft)	0		0	
				End Depth (ft)	0.33		0.33	
				Sampled	10/11/2022		10/12/2022	
				SDG	R2209791		R2209791	
				Lab Sample ID	R2209791-001		R2209791-002	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
E160.3	SOLIDS	Total Solids	%	NA	64.3		74.9	
SW7471	7439-97-6	Mercury	mg/kg	T	0.406		0.024	J

				Location ID	OL-RAC-CAP-0006-H	
				Field Sample ID	OL-4053-01	
				Start Depth (ft)	0	
				End Depth (ft)	0.42	
				Sampled	10/13/2022	
				SDG	R2209873	
				Lab Sample ID	R2209873-001	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	78.4	
SW7471	7439-97-6	Mercury	mg/kg	T	0.017	U

				Location ID	OL-RAC-CAP-0008-H	
				Field Sample ID	OL-4055-01	
				Start Depth (ft)	0	
				End Depth (ft)	0.33	
				Sampled	10/14/2022	
				SDG	R2209910	
				Lab Sample ID	R2209910-001	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	80.5	
SW7471	7439-97-6	Mercury	mg/kg	T	0.023	J

				Location ID	OL-RAC-CAP-0010-H		OL-RAC-CAP-0012-H	
				Field Sample ID	OL-4056-01		OL-4056-02	
				Start Depth (ft)	0		0	
				End Depth (ft)	0.5		0.5	
				Sampled	10/19/2022		10/19/2022	
				SDG	R2210039		R2210039	
				Lab Sample ID	R2210039-001		R2210039-002	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
E160.3	SOLIDS	Total Solids	%	NA	82.3		83.5	
SW7471	7439-97-6	Mercury	mg/kg	T	0.016	U	0.016	U

				Location ID	OL-RAC-CAP-0014-H		OL-RAC-CAP-0018-H	
				Field Sample ID	OL-4059-01		OL-4059-02	
				Start Depth (ft)	0		0	
				End Depth (ft)	0.5		0.5	
				Sampled	10/20/2022		10/20/2022	
				SDG	R2210133		R2210133	
				Lab Sample ID	R2210133-001		R2210133-002	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
E160.3	SOLIDS	Total Solids	%	NA	70.9		92	
SW7471	7439-97-6	Mercury	mg/kg	T	0.033		0.017	J

				Location ID	OL-RAD-CAP-0005-H		OL-RAD-CAP-0005-H	
				Field Sample ID	OL-4060-01		OL-4060-02	
				Start Depth (ft)	0		0	
				End Depth (ft)	0.5		0.5	
				Sampled	10/21/2022		10/21/2022	
				SDG	R2210183		R2210183	
				Lab Sample ID	R2210183-001		R2210183-002	
				Medium	Solid		Solid	
				Sample Type	REG		FD	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
E160.3	SOLIDS	Total Solids	%	NA	66.6		63.2	
SW7471	7439-97-6	Mercury	mg/kg	T	0.034		0.039	

				Location ID	OL-RAC-CAP-0015-H	
				Field Sample ID	OL-4063-01	
				Start Depth (ft)	0	
				End Depth (ft)	0.5	
				Sampled	10/25/2022	
				SDG	R2210258	
				Lab Sample ID	R2210258-001	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	76.5	
SW7471	7439-97-6	Mercury	mg/kg	T	0.026	

				Location ID	OL-RAD-CAP-0011-H	
				Field Sample ID	OL-4065-01	
				Start Depth (ft)	0	
				End Depth (ft)	0.5	
				Sampled	10/26/2022	
				SDG	R2210305	
				Lab Sample ID	R2210305-001	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	76.8	
SW7471	7439-97-6	Mercury	mg/kg	T	0.037	

				Location ID	OL-RAE-CAP-0038-H		OL-RAE-CAP-0042-H		QC	
				Field Sample ID	OL-4066-02		OL-4066-01		OL-4066-03	
				Start Depth (ft)	0		0			
				End Depth (ft)	0.5		0.5			
				Sampled	10/27/2022		10/27/2022		10/27/2022	
				SDG	R2210383		R2210383		R2210383	
				Lab Sample ID	R2210383-002		R2210383-001		R2210383-003	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		EB	
				Matrix	SED		SED		SQ	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	84.2		67.5		97.2	
SW7471	7439-97-6	Mercury	mg/kg	T	0.829		1			
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA					0.63	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA					0.51	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA					0.25	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA					0.38	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA					0.25	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA					0.27	U
SW8260	71-43-2	Benzene	ug/kg	NA					0.25	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA					0.25	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA					1.3	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA					2.5	U
SW8260	95-47-6	o-Xylene	ug/kg	NA					1.3	U
SW8260	108-88-3	Toluene	ug/kg	NA					2.5	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA					2.5	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA					1.7	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA					1.9	U
SW8270	120-12-7	Anthracene	ug/kg	NA					4.2	U
SW8270	86-73-7	Fluorene	ug/kg	NA					1.8	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA					3.6	UJ
SW8270	108-95-2	Phenol	ug/kg	NA					9.1	U
SW9045	pH	pH	ph Units	NA					5.76	

				Location ID	OL-RAE-CAP-0036-H	
				Field Sample ID	OL-4069-01	
				Start Depth (ft)	0.25	
				End Depth (ft)	0.5	
				Sampled	10/31/2022	
				SDG	R2210455	
				Lab Sample ID	R2210455-001	
				Medium	Solid	
				Sample Type	REG	
				Matrix	SED	
Method	Parameter Code	Parameter Name	Units	Fraction		
E160.3	SOLIDS	Total Solids	%	NA	85	
SW7471	7439-97-6	Mercury	mg/kg	T	0.1	

				Location ID	OL-RAE-CAP-0017-H		OL-RAE-CAP-0017-H		OL-RAE-CAP-0017-I	
				Field Sample ID	OL-4083-01		OL-4083-02		OL-4083-03	
				Start Depth (ft)	0.25		0.75		1	
				End Depth (ft)	0.5		1		1.25	
				Sampled	11/17/2022		11/17/2022		11/17/2022	
				SDG	R2211173		R2211173		R2211173	
				Lab Sample ID	R2211173-001		R2211173-002		R2211173-003	
				Medium	Solid		Solid		Solid	
				Sample Type	REG		REG		REG	
				Matrix	SED		SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction						
E160.3	SOLIDS	Total Solids	%	NA	92.7		93.4		87	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	110	U	430		1180	
SW8260	71-43-2	Benzene	ug/kg	NA	0.25	U	0.17	U	0.17	U
SW8260	108-88-3	Toluene	ug/kg	NA	2.5	U	1.7	U	1.7	U
SW8270	108-95-2	Phenol	ug/kg	NA	9.5	U	9.3	U	11	U

				Location ID	OL-RAD-CAP-0004-H		OL-RAD-CAP-0004-H	
				Field Sample ID	OL-4084-01		OL-4084-02	
				Start Depth (ft)	0.25		0.75	
				End Depth (ft)	0.5		1	
				Sampled	11/18/2022		11/18/2022	
				SDG	R2211206		R2211206	
				Lab Sample ID	R2211206-001		R2211206-002	
				Medium	Solid		Solid	
				Sample Type	REG		REG	
				Matrix	SED		SED	
Method	Parameter Code	Parameter Name	Units	Fraction				
E160.3	SOLIDS	Total Solids	%	NA	87.4		86.3	
Lloyd Kahn	TOC	Total Organic Carbon	mg/kg	NA	210	J	600	
SW7471	7439-97-6	Mercury	mg/kg	T	0.015	U	0.015	U
SW8082	12674-11-2	Aroclor-1016	ug/kg	NA	20	U	20	U
SW8082	11104-28-2	Aroclor-1221	ug/kg	NA	30	U	31	U
SW8082	11141-16-5	Aroclor-1232	ug/kg	NA	22	U	22	U
SW8082	53469-21-9	Aroclor-1242	ug/kg	NA	20	U	20	U
SW8082	12672-29-6	Aroclor-1248	ug/kg	NA	21	U	21	U
SW8082	11097-69-1	Aroclor-1254	ug/kg	NA	20	U	20	U
SW8082	11096-82-5	Aroclor-1260	ug/kg	NA	20	U	20	U
SW8082	37324-23-5	Aroclor-1262	ug/kg	NA	20	U	20	U
SW8082	11100-14-4	Aroclor-1268	ug/kg	NA	20	U	20	U
SW8082	PCB	Total PCBs	ug/kg	NA	30	U	31	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/kg	NA	0.61	U	0.59	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/kg	NA	0.5	U	0.48	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/kg	NA	0.24	U	0.23	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/kg	NA	0.37	UJ	0.35	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/kg	NA	0.24	U	0.23	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/kg	NA	0.26	U	0.25	U
SW8260	108-90-7	Chlorobenzene	ug/kg	NA	0.24	U	0.23	U
SW8260	100-41-4	Ethylbenzene	ug/kg	NA	1.2	U	1.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/kg	NA	2.4	U	2.3	U
SW8260	95-47-6	o-Xylene	ug/kg	NA	1.2	U	1.2	U
SW8260	1330-20-7	Total Xylenes	ug/kg	NA	2.4	U	2.3	U
SW8270	83-32-9	Acenaphthene	ug/kg	NA	1.7	U	1.9	U
SW8270	208-96-8	Acenaphthylene	ug/kg	NA	1.9	U	2.1	U
SW8270	120-12-7	Anthracene	ug/kg	NA	4.1	U	4.5	U
SW8270	56-55-3	Benzo(A)Anthracene	ug/kg	NA	5.1	U	5.6	U
SW8270	50-32-8	Benzo(A)Pyrene	ug/kg	NA	2.8	U	3.1	U
SW8270	205-99-2	Benzo(B)Fluoranthene	ug/kg	NA	3.6	U	4	U
SW8270	191-24-2	Benzo(G,H,I)perylene	ug/kg	NA	2.9	U	3.2	U
SW8270	207-08-9	Benzo(K)Fluoranthene	ug/kg	NA	3.9	U	4.3	U
SW8270	218-01-9	Chrysene	ug/kg	NA	2.8	U	3.1	U
SW8270	53-70-3	Dibenzo(a,h)Anthracene	ug/kg	NA	2.8	U	3.1	U
SW8270	206-44-0	Fluoranthene	ug/kg	NA	5	U	5.5	U
SW8270	86-73-7	Fluorene	ug/kg	NA	1.8	U	2	U
SW8270	193-39-5	Indeno(1,2,3-Cd)Pyrene	ug/kg	NA	3	U	3.3	U
SW8270	91-20-3	Naphthalene	ug/kg	NA	2.4	U	2.6	U
SW8270	85-01-8	Phenanthrene	ug/kg	NA	3.6	U	4	U
SW8270	129-00-0	Pyrene	ug/kg	NA	3.3	U	3.6	U
SW9045	pH	pH	ph Units	NA	9.35		9.19	

ATTACHMENT A-2

VALIDATED LABORATORY DATA FOR POREWATER SAMPLES

					Location ID		OL-RAD-CAP-0001-H		OL-RAD-CAP-0001-H		OL-RAD-CAP-0001-H		OL-RAD-CAP-0001-I		OL-RAD-CAP-0001-I		OL-RAD-CAP-0006-H	
					Field Sample ID		OL-4013-01		OL-4013-02		OL-4013-03		OL-4013-04		OL-4013-05		OL-4013-11	
					Start Depth (ft)		0.25		0.25		0.75		1		1.25		0.25	
					End Depth (ft)		0.5		0.75		1		1.25		1.5		0.5	
					Sampled		7/7/2022		7/7/2022		7/7/2022		7/7/2022		7/7/2022		7/7/2022	
					SDG		R2206223		R2206223		R2206223		R2206223		R2206223		R2206223	
					Lab Sample ID		R2206223-001		R2206223-002		R2206223-003		R2206223-004		R2206223-005		R2206223-011	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		REG	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T								1.9	U					
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA								0.25	U					
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA								0.34	U					
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA								0.2	U					
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA								0.27	UJ					
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA								0.2	U					
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA								0.2	U					
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U				0.2	U	0.2	U			0.2	U	
SW8260	108-90-7	Chlorobenzene	ug/l	NA								0.2	U					
SW8260	100-41-4	Ethylbenzene	ug/l	NA								0.2	U					
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA								0.2	U					
SW8260	91-20-3	Naphthalene	ug/l	NA								0.55	U					
SW8260	95-47-6	o-Xylene	ug/l	NA								0.2	U					
SW8260	108-88-3	Toluene	ug/l	NA	0.27	J				0.26	J	0.24	J			0.2	U	
SW8260	1330-20-7	Total Xylenes	ug/l	NA								0.23	U					
SW8270	83-32-9	Acenaphthene	ug/l	NA								2.8	U					
SW8270	208-96-8	Acenaphthylene	ug/l	NA								2.7	U					
SW8270	120-12-7	Anthracene	ug/l	NA								3.6	U					
SW8270	86-73-7	Fluorene	ug/l	NA								3.3	U					
SW8270	85-01-8	Phenanthrene	ug/l	NA								5	U					
SW8270	108-95-2	Phenol	ug/l	NA			4.8	U		17	U	17	U					
SW9040	pH	pH	ph Units	NA										7.33				

					Location ID		OL-RAD-CAP-0006-H		OL-RAD-CAP-0006-H		OL-RAD-CAP-0006-I		OL-RAD-CAP-0006-I		OL-RAD-CAP-0009-H		OL-RAD-CAP-0009-H	
					Field Sample ID		OL-4013-12		OL-4013-13		OL-4013-14		OL-4013-15		OL-4013-06		OL-4013-07	
					Start Depth (ft)		0.25		0.75		1		1.25		0.25		0.25	
					End Depth (ft)		0.75		1		1.25		1.5		0.5		0.75	
					Sampled		7/7/2022		7/7/2022		7/7/2022		7/7/2022		7/7/2022		7/7/2022	
					SDG		R2206223		R2206223		R2206223		R2206223		R2206223		R2206223	
					Lab Sample ID		R2206223-012		R2206223-013		R2206223-014		R2206223-015		R2206223-006		R2206223-007	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		REG	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T							1.9	U						
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA							0.25	U						
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA							0.34	U						
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA							0.2	U						
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA							0.27	UJ						
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA							0.2	U						
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA							0.2	U						
SW8260	71-43-2	Benzene	ug/l	NA					0.2	U	0.2	U			0.2	U		
SW8260	108-90-7	Chlorobenzene	ug/l	NA							0.2	U						
SW8260	100-41-4	Ethylbenzene	ug/l	NA							0.2	U						
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA							0.2	U						
SW8260	91-20-3	Naphthalene	ug/l	NA							0.55	U						
SW8260	95-47-6	o-Xylene	ug/l	NA							0.2	U						
SW8260	108-88-3	Toluene	ug/l	NA					0.2	U	0.2	U			0.2	U		
SW8260	1330-20-7	Total Xylenes	ug/l	NA							0.23	U						
SW8270	83-32-9	Acenaphthene	ug/l	NA							2.8	U						
SW8270	208-96-8	Acenaphthylene	ug/l	NA							2.7	U						
SW8270	120-12-7	Anthracene	ug/l	NA							3.6	U						
SW8270	86-73-7	Fluorene	ug/l	NA							3.3	U						
SW8270	85-01-8	Phenanthrene	ug/l	NA							5	U						
SW8270	108-95-2	Phenol	ug/l	NA	4.8	U			17	UJ	17	U					4.8	U
SW9040	pH	pH	ph Units	NA									7.59					

				Location ID	OL-RAD-CAP-0009-H		OL-RAD-CAP-0009-I		OL-RAD-CAP-0009-I	
				Field Sample ID	OL-4013-08		OL-4013-09		OL-4013-10	
				Start Depth (ft)	0.75		1		1.25	
				End Depth (ft)	1		1.25		1.5	
				Sampled	7/7/2022		7/7/2022		7/7/2022	
				SDG	R2206223		R2206223		R2206223	
				Lab Sample ID	R2206223-008		R2206223-009		R2206223-010	
				Medium	Water		Water		Water	
				Sample Type	REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW7470	7439-97-6	Mercury	ug/l	T			1.9	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA			0.25	U		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA			0.34	U		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA			0.2	U		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA			0.27	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA			0.2	U		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA			0.2	U		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U	0.2	U		
SW8260	108-90-7	Chlorobenzene	ug/l	NA			0.2	U		
SW8260	100-41-4	Ethylbenzene	ug/l	NA			0.2	U		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA			0.2	U		
SW8260	91-20-3	Naphthalene	ug/l	NA			0.55	U		
SW8260	95-47-6	o-Xylene	ug/l	NA			0.2	U		
SW8260	108-88-3	Toluene	ug/l	NA	0.27	J	0.21	J		
SW8260	1330-20-7	Total Xylenes	ug/l	NA			0.23	U		
SW8270	83-32-9	Acenaphthene	ug/l	NA			2.8	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA			2.7	U		
SW8270	120-12-7	Anthracene	ug/l	NA			3.6	U		
SW8270	86-73-7	Fluorene	ug/l	NA			3.3	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA			5	U		
SW8270	108-95-2	Phenol	ug/l	NA	17	U	17	U		
SW9040	pH	pH	ph Units	NA					7.69	

				Location ID	OL-RAD-CAP-0016-H			OL-RAD-CAP-0016-H			OL-RAD-CAP-0016-H			OL-RAD-CAP-0016-I			OL-RAD-CAP-0016-I			OL-RAD-CAP-0019-H		
				Field Sample ID	OL-4014-01			OL-4014-02			OL-4014-03			OL-4014-04			OL-4014-05			OL-4014-06		
				Start Depth (ft)	0.25			0.25			0.75			1			1.25			0.5		
				End Depth (ft)	0.5			0.75			1			1.25			1.5			0.5		
				Sampled	7/7/2022			7/7/2022			7/7/2022			7/7/2022			7/7/2022			7/8/2022		
				SDG	R2206271			R2206271			R2206271			R2206271			R2206271			R2206271		
				Lab Sample ID	R2206271-001			R2206271-002			R2206271-003			R2206271-004			R2206271-005			R2206271-006		
				Medium	Water			Water			Water			Water			Water			Water		
				Sample Type	REG			REG			REG			REG			REG			REG		
				Matrix	W-PORE			W-PORE			W-PORE			W-PORE			W-PORE			W-PORE		
Method	Parameter Code	Parameter Name	Units	Fraction																		
SW7470	7439-97-6	Mercury	ug/l	T										0.385	U							
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA										0.25	U							
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA										0.34	U							
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA										0.2	U							
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA										0.27	UJ							
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA										0.2	U							
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA										0.2	U							
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U					0.2	U		0.2	U				0.2	U		
SW8260	108-90-7	Chlorobenzene	ug/l	NA										0.2	U							
SW8260	100-41-4	Ethylbenzene	ug/l	NA										0.2	U							
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA										0.2	U							
SW8260	91-20-3	Naphthalene	ug/l	NA										0.55	U							
SW8260	95-47-6	o-Xylene	ug/l	NA										0.2	U							
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U					0.25	J		0.22	J				0.2	U		
SW8260	1330-20-7	Total Xylenes	ug/l	NA										0.23	U							
SW8270	83-32-9	Acenaphthene	ug/l	NA											R							
SW8270	208-96-8	Acenaphthylene	ug/l	NA											R							
SW8270	120-12-7	Anthracene	ug/l	NA											R							
SW8270	86-73-7	Fluorene	ug/l	NA											R							
SW8270	85-01-8	Phenanthrene	ug/l	NA											R							
SW8270	108-95-2	Phenol	ug/l	NA					R			R			R				17	UJ		
SW9040	pH	pH	ph Units	NA												8.41						

					Location ID		OL-RAD-CAP-0019-H		OL-RAD-CAP-0019-I		OL-RAD-CAP-0020-H		OL-RAD-CAP-0020-H		OL-RAD-CAP-0020-H		OL-RAD-CAP-0020-I	
					Field Sample ID		OL-4014-07		OL-4014-08		OL-4014-09		OL-4014-10		OL-4014-11		OL-4014-12	
					Start Depth (ft)		0.5		0.75		0.25		0.25		0.75		1	
					End Depth (ft)		0.75		1		0.5		0.75		1		1.25	
					Sampled		7/8/2022		7/8/2022		7/8/2022		7/8/2022		7/8/2022		7/8/2022	
					SDG		R2206271		R2206271		R2206271		R2206271		R2206271		R2206271	
					Lab Sample ID		R2206271-007		R2206271-008		R2206271-009		R2206271-010		R2206271-011		R2206271-012	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		REG	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T													0.385	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA													0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA													0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA													0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA													0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA													0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA													0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U					0.2	U			0.2	U	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA													0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA													0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA													0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA													0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA													0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.49	J					0.2	U			0.34	J	0.37	J
SW8260	1330-20-7	Total Xylenes	ug/l	NA													0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA													2.8	UJ
SW8270	208-96-8	Acenaphthylene	ug/l	NA													2.7	UJ
SW8270	120-12-7	Anthracene	ug/l	NA													3.6	UJ
SW8270	86-73-7	Fluorene	ug/l	NA													3.3	UJ
SW8270	85-01-8	Phenanthrene	ug/l	NA													5	UJ
SW8270	108-95-2	Phenol	ug/l	NA	17	UJ							4.8	UJ	17	UJ	17	UJ
SW9040	pH	pH	ph Units	NA					8.17									

					Location ID		OL-RAD-CAP-0020-I		OL-RAD-CAP-0022-H		OL-RAD-CAP-0022-H		OL-RAD-CAP-0022-H		OL-RAD-CAP-0022-H		OL-RAD-CAP-0022-H	
					Field Sample ID		OL-4014-13		OL-4014-14		OL-4014-15		OL-4014-16		OL-4014-17		OL-4014-18	
					Start Depth (ft)		1.25		0.25		0.25		0.75		1		1.25	
					End Depth (ft)		1.5		0.5		0.75		1		1.5		1.5	
					Sampled		7/8/2022		7/8/2022		7/8/2022		7/8/2022		7/8/2022		7/8/2022	
					SDG		R2206271		R2206271		R2206271		R2206271		R2206271		R2206271	
					Lab Sample ID		R2206271-013		R2206271-014		R2206271-015		R2206271-016		R2206271-017		R2206271-018	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		REG	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T			0.385	U									0.385	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA			0.25	U									0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA			0.34	U									0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA			0.2	U									0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA			0.27	UJ									0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA			0.2	U									0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA			0.2	U									0.2	U
SW8260	71-43-2	Benzene	ug/l	NA			0.2	U									0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA			0.2	U									0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA			0.2	U									0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA			0.2	U									0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA			0.55	U									0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA			0.2	U									0.2	U
SW8260	108-88-3	Toluene	ug/l	NA			0.2	U									0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA			0.23	U									0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA					0.79	UJ					0.79	UJ		
SW8270	208-96-8	Acenaphthylene	ug/l	NA					0.76	UJ					0.76	UJ		
SW8270	120-12-7	Anthracene	ug/l	NA					1.1	UJ					1.1	UJ		
SW8270	86-73-7	Fluorene	ug/l	NA					0.93	UJ					0.93	UJ		
SW8270	85-01-8	Phenanthrene	ug/l	NA					1.5	UJ					1.5	UJ		
SW8270	108-95-2	Phenol	ug/l	NA					4.8	UJ					4.8	UJ		
SW9040	pH	pH	ph Units	NA	8.14						7.5							

				Location ID	OL-RAD-CAP-0022-I		OL-RAD-CAP-0022-I	
				Field Sample ID	OL-4014-19		OL-4014-20	
				Start Depth (ft)	1.5		1.75	
				End Depth (ft)	1.75		2	
				Sampled	7/8/2022		7/8/2022	
				SDG	R2206271		R2206271	
				Lab Sample ID	R2206271-019		R2206271-020	
				Medium	Water		Water	
				Sample Type	REG		REG	
				Matrix	W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction				
SW7470	7439-97-6	Mercury	ug/l	T	0.385	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U		
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U		
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U		
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U		
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U		
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U		
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U		
SW8270	83-32-9	Acenaphthene	ug/l	NA	2.8	UJ		
SW8270	208-96-8	Acenaphthylene	ug/l	NA	2.7	UJ		
SW8270	120-12-7	Anthracene	ug/l	NA	3.6	UJ		
SW8270	86-73-7	Fluorene	ug/l	NA	3.3	UJ		
SW8270	85-01-8	Phenanthrene	ug/l	NA	5	UJ		
SW8270	108-95-2	Phenol	ug/l	NA	17	UJ		
SW9040	pH	pH	ph Units	NA			7.56	

				Location ID	OL-RAD-CAP-0010-H		OL-RAD-CAP-0010-H		OL-RAD-CAP-0010-H		OL-RAD-CAP-0010-I		OL-RAD-CAP-0010-I		OL-RAD-CAP-0012-H	
				Field Sample ID	OL-4015-10		OL-4015-11		OL-4015-12		OL-4015-13		OL-4015-14		OL-4015-15	
				Start Depth (ft)	0.25		0.25		0.75		1		1.25		0.25	
				End Depth (ft)	0.5		0.75		1		1.25		1.5		0.5	
				Sampled	7/8/2022		7/8/2022		7/8/2022		7/8/2022		7/8/2022		7/8/2022	
				SDG	R2206272		R2206272		R2206272		R2206272		R2206272		R2206272	
				Lab Sample ID	R2206272-006		R2206272-007		R2206272-008		R2206272-009		R2206272-010		R2206272-011	
				Medium	Water		Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction												
SW7470	7439-97-6	Mercury	ug/l	T							0.385	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA							0.25	UJ				
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA							0.34	UJ				
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA							0.2	UJ				
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA							0.27	UJ				
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA							0.2	UJ				
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA							0.2	UJ				
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA							0.2	UJ				
SW8260	100-41-4	Ethylbenzene	ug/l	NA							0.2	UJ				
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA							0.2	UJ				
SW8260	91-20-3	Naphthalene	ug/l	NA							0.55	UJ				
SW8260	95-47-6	o-Xylene	ug/l	NA							0.2	UJ				
SW8260	108-88-3	Toluene	ug/l	NA	0.54	J			0.33	J	0.27	J			0.2	UJ
SW8260	1330-20-7	Total Xylenes	ug/l	NA							0.23	UJ				
SW8270	83-32-9	Acenaphthene	ug/l	NA							5.5	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA							5.3	U				
SW8270	120-12-7	Anthracene	ug/l	NA							7.1	U				
SW8270	86-73-7	Fluorene	ug/l	NA							6.5	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA							10	U				
SW8270	108-95-2	Phenol	ug/l	NA			2.2	U	22	U	33	U				
SW9040	pH	pH	ph Units	NA									8.14			

					Location ID		OL-RAD-CAP-0012-H		OL-RAD-CAP-0012-H		OL-RAD-CAP-0012-I		OL-RAD-CAP-0012-I		OL-RAD-CAP-0015-H		OL-RAD-CAP-0015-H	
					Field Sample ID		OL-4015-16		OL-4015-17		OL-4015-18		OL-4015-19		OL-4015-01		OL-4015-02	
					Start Depth (ft)		0.25		0.75		1		1.25		0.25		0.25	
					End Depth (ft)		0.75		1		1.25		1.5		0.5		0.75	
					Sampled		7/8/2022		7/8/2022		7/8/2022		7/8/2022		7/8/2022		7/8/2022	
					SDG		R2206272		R2206272		R2206272		R2206272		R2206272		R2206272	
					Lab Sample ID		R2206272-012		R2206272-013		R2206272-014		R2206272-015		R2206272-001		R2206272-002	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		REG	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T							0.385	U						
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA							0.25	UJ						
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA							0.34	UJ						
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA							0.2	UJ						
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA							0.27	UJ						
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA							0.2	UJ						
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA							0.2	UJ						
SW8260	71-43-2	Benzene	ug/l	NA					0.2	UJ	0.2	UJ			0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA							0.2	UJ						
SW8260	100-41-4	Ethylbenzene	ug/l	NA							0.2	UJ						
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA							0.2	UJ						
SW8260	91-20-3	Naphthalene	ug/l	NA							0.55	UJ						
SW8260	95-47-6	o-Xylene	ug/l	NA							0.2	UJ						
SW8260	108-88-3	Toluene	ug/l	NA					0.2	J	0.28	J			0.2	UJ		
SW8260	1330-20-7	Total Xylenes	ug/l	NA							0.23	UJ						
SW8270	83-32-9	Acenaphthene	ug/l	NA							3.7	U						
SW8270	208-96-8	Acenaphthylene	ug/l	NA							3.6	U						
SW8270	120-12-7	Anthracene	ug/l	NA							4.8	U						
SW8270	86-73-7	Fluorene	ug/l	NA							4.4	U						
SW8270	85-01-8	Phenanthrene	ug/l	NA							6.7	U						
SW8270	108-95-2	Phenol	ug/l	NA	2.2	U			22	U	22	U					0.33	U
SW9040	pH	pH	ph Units	NA									7.54					

				Location ID	OL-RAD-CAP-0015-H		OL-RAD-CAP-0015-I		OL-RAD-CAP-0015-I	
				Field Sample ID	OL-4015-03		OL-4015-04		OL-4015-05	
				Start Depth (ft)	0.75		1		1.25	
				End Depth (ft)	1		1.25		1.5	
				Sampled	7/8/2022		7/8/2022		7/8/2022	
				SDG	R2206272		R2206272		R2206272	
				Lab Sample ID	R2206272-003		R2206272-004		R2206272-005	
				Medium	Water		Water		Water	
				Sample Type	REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW7470	7439-97-6	Mercury	ug/l	T			0.385	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA			0.25	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA			0.34	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA			0.2	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA			0.27	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA			0.2	UJ		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA			0.2	UJ		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ	0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA			0.32	J		
SW8260	100-41-4	Ethylbenzene	ug/l	NA			0.2	UJ		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA			0.2	UJ		
SW8260	91-20-3	Naphthalene	ug/l	NA			0.55	UJ		
SW8260	95-47-6	o-Xylene	ug/l	NA			0.2	UJ		
SW8260	108-88-3	Toluene	ug/l	NA	21	J-	150	J-		
SW8260	1330-20-7	Total Xylenes	ug/l	NA			0.23	UJ		
SW8270	83-32-9	Acenaphthene	ug/l	NA			3.7	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA			3.6	U		
SW8270	120-12-7	Anthracene	ug/l	NA			4.8	U		
SW8270	86-73-7	Fluorene	ug/l	NA			4.4	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA			6.7	U		
SW8270	108-95-2	Phenol	ug/l	NA	8.5		280			
SW9040	pH	pH	ph Units	NA					7.97	

			Location ID		OL-RAD-CAP-0017-H		OL-RAD-CAP-0017-H		OL-RAD-CAP-0017-H		OL-RAD-CAP-0017-I		OL-RAD-CAP-0017-I		QC	
			Field Sample ID		OL-4016-01		OL-4016-02		OL-4016-03		OL-4016-04		OL-4016-05		OL-4016-06	
			Start Depth (ft)		0.25		0.25		0.75		1		1.25			
			End Depth (ft)		0.5		0.75		1		1.25		1.5			
			Sampled		7/8/2022		7/8/2022		7/8/2022		7/8/2022		7/8/2022		7/8/2022	
			SDG		R2206273		R2206273		R2206273		R2206273		R2206273		R2206273	
			Lab Sample ID		R2206273-001		R2206273-002		R2206273-003		R2206273-004		R2206273-005		R2206273-006	
			Medium		Water		Water		Water		Water		Water		Water	
			Sample Type		REG		REG		REG		REG		REG		TB	
			Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction												
SW7470	7439-97-6	Mercury	ug/l	T	0.385	U			0.385	U	0.385	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	UJ	0.25	UJ			0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	UJ	0.34	UJ			0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ	0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ			0.55	UJ	0.55	UJ			0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	UJ	0.23	UJ			0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA			0.4	U	3.7	U	3.7	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA			0.38	U	3.6	U	3.6	U				
SW8270	120-12-7	Anthracene	ug/l	NA			0.51	U	4.8	U	4.8	U				
SW8270	86-73-7	Fluorene	ug/l	NA			0.47	U	4.4	U	4.4	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA			0.72	U	6.7	U	6.7	U				
SW8270	108-95-2	Phenol	ug/l	NA			2.4	U	22	U	22	U				
SW9040	pH	pH	ph Units	NA									7.72			

				Location ID	QC	
				Field Sample ID	OL-4016-07	
				Start Depth (ft)		
				End Depth (ft)		
				Sampled	7/8/2022	
				SDG	R2206273	
				Lab Sample ID	R2206273-007	
				Medium	Water	
				Sample Type	TB	
				Matrix	WQ	
Method	Parameter Code	Parameter Name	Units	Fraction		
SW7470	7439-97-6	Mercury	ug/l	T		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA		
SW8270	208-96-8	Acenaphthylene	ug/l	NA		
SW8270	120-12-7	Anthracene	ug/l	NA		
SW8270	86-73-7	Fluorene	ug/l	NA		
SW8270	85-01-8	Phenanthrene	ug/l	NA		
SW8270	108-95-2	Phenol	ug/l	NA		
SW9040	pH	pH	ph Units	NA		

					Location ID	OL-RAD-CAP-0018-H		OL-RAD-CAP-0018-H		OL-RAD-CAP-0018-H		OL-RAD-CAP-0018-I		OL-RAD-CAP-0018-I		OL-RAD-CAP-0023-H	
					Field Sample ID	OL-4017-13		OL-4017-14		OL-4017-15		OL-4017-16		OL-4017-17		OL-4017-01	
					Start Depth (ft)	0.25		0.25		0.75		1		1.25		0.25	
					End Depth (ft)	0.5		0.75		1		1.25		1.5		0.5	
					Sampled	7/11/2022		7/11/2022		7/11/2022		7/11/2022		7/11/2022		7/11/2022	
					SDG	R2206300		R2206300		R2206300		R2206300		R2206300		R2206300	
					Lab Sample ID	R2206300-013		R2206300-014		R2206300-015		R2206300-016		R2206300-017		R2206300-001	
					Medium	Water		Water		Water		Water		Water		Water	
					Sample Type	REG		REG		REG		REG		REG		REG	
					Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction													
SW7470	7439-97-6	Mercury	ug/l	T		0.385	U			0.385	U	0.385	U			0.385	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA		0.25	UJ			0.25	UJ	0.25	UJ			0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA		0.34	UJ			0.34	UJ	0.34	UJ			0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA		0.2	UJ			0.2	UJ	0.2	UJ			0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA		0.27	UJ			0.27	UJ	0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA		0.2	UJ			0.2	UJ	0.2	UJ			0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA		0.2	UJ			0.2	UJ	0.2	UJ			0.2	UJ
SW8260	71-43-2	Benzene	ug/l	NA		0.2	UJ			0.2	UJ	0.2	UJ			0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA		0.2	UJ			0.2	UJ	0.2	UJ			0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	NA		0.2	UJ			0.2	UJ	0.2	UJ			0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA		0.2	UJ			0.2	UJ	0.2	UJ			0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	NA		0.55	UJ			0.55	UJ	0.55	UJ			0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	NA		0.2	UJ			0.2	UJ	0.2	UJ			0.2	UJ
SW8260	108-88-3	Toluene	ug/l	NA		0.2	UJ			0.2	UJ	0.23	J			0.2	UJ
SW8260	1330-20-7	Total Xylenes	ug/l	NA		0.23	UJ			0.23	UJ	0.23	UJ			0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	NA				0.5	U	3.7	U	5.5	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA				0.49	U	3.6	U	5.3	U				
SW8270	120-12-7	Anthracene	ug/l	NA				0.65	U	4.8	U	7.1	U				
SW8270	86-73-7	Fluorene	ug/l	NA				0.6	U	4.4	U	6.5	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA				0.91	U	6.7	U	10	U				
SW8270	108-95-2	Phenol	ug/l	NA				3	U	22	U	33	U				
SW9040	pH	pH	ph Units	NA										8.11			

				Location ID	OL-RAD-CAP-0023-H			OL-RAD-CAP-0023-H			OL-RAD-CAP-0023-H			OL-RAD-CAP-0023-H			OL-RAD-CAP-0023-I			OL-RAD-CAP-0023-I		
				Field Sample ID	OL-4017-02			OL-4017-03			OL-4017-04			OL-4017-05			OL-4017-06			OL-4017-07		
				Start Depth (ft)	0.25			0.75			1			1.25			1.5			1.75		
				End Depth (ft)	0.75			1			1.5			1.5			1.75			2		
				Sampled	7/11/2022			7/11/2022			7/11/2022			7/11/2022			7/11/2022			7/11/2022		
				SDG	R2206300			R2206300			R2206300			R2206300			R2206300			R2206300		
				Lab Sample ID	R2206300-002			R2206300-003			R2206300-004			R2206300-005			R2206300-006			R2206300-007		
				Medium	Water			Water			Water			Water			Water			Water		
				Sample Type	REG			REG			REG			REG			REG			REG		
				Matrix	W-PORE			W-PORE			W-PORE			W-PORE			W-PORE			W-PORE		
Method	Parameter Code	Parameter Name	Units	Fraction																		
SW7470	7439-97-6	Mercury	ug/l	T										0.385	U		0.385	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA										0.25	UJ		0.25	UJ				
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA										0.34	UJ		0.34	UJ				
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA										0.2	UJ		0.2	UJ				
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA										0.27	UJ		0.27	UJ				
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA										0.2	UJ		0.2	UJ				
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA										0.2	UJ		0.2	UJ				
SW8260	71-43-2	Benzene	ug/l	NA										0.2	UJ		0.2	UJ				
SW8260	108-90-7	Chlorobenzene	ug/l	NA										0.2	UJ		0.2	UJ				
SW8260	100-41-4	Ethylbenzene	ug/l	NA										0.2	UJ		0.2	UJ				
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA										0.2	UJ		0.2	UJ				
SW8260	91-20-3	Naphthalene	ug/l	NA										0.55	UJ		0.55	UJ				
SW8260	95-47-6	o-Xylene	ug/l	NA										0.2	UJ		0.2	UJ				
SW8260	108-88-3	Toluene	ug/l	NA										0.2	UJ		0.2	UJ				
SW8260	1330-20-7	Total Xylenes	ug/l	NA										0.23	UJ		0.23	UJ				
SW8270	83-32-9	Acenaphthene	ug/l	NA	0.62	U					0.55	U					5.5	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA	0.59	U					0.53	U					5.3	U				
SW8270	120-12-7	Anthracene	ug/l	NA	0.79	U					0.71	U					7.1	U				
SW8270	86-73-7	Fluorene	ug/l	NA	0.73	U					0.65	U					6.5	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA	1.2	U					1	U					10	U				
SW8270	108-95-2	Phenol	ug/l	NA	3.7	U					3.3	U					33	U				
SW9040	pH	pH	ph Units	NA				8.01												7.83		

			Location ID		OL-RAD-CAP-0024-H		OL-RAD-CAP-0024-H		OL-RAD-CAP-0024-H		OL-RAD-CAP-0024-I		OL-RAD-CAP-0024-I		QC	
			Field Sample ID		OL-4017-08		OL-4017-09		OL-4017-10		OL-4017-11		OL-4017-12		OL-4017-18	
			Start Depth (ft)		0.25		0.25		0.75		1		1.25			
			End Depth (ft)		0.5		0.75		1		1.25		1.5			
			Sampled		7/11/2022		7/11/2022		7/11/2022		7/11/2022		7/11/2022		7/11/2022	
			SDG		R2206300		R2206300		R2206300		R2206300		R2206300		R2206300	
			Lab Sample ID		R2206300-008		R2206300-009		R2206300-010		R2206300-011		R2206300-012		R2206300-018	
			Medium		Water		Water		Water		Water		Water		Water	
			Sample Type		REG		REG		REG		REG		REG		TB	
			Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction												
SW7470	7439-97-6	Mercury	ug/l	T	0.385	U			0.385	U	0.385	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	UJ	0.25	UJ			0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	UJ	0.34	UJ			0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ	0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ			0.55	UJ	0.55	UJ			0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	UJ	0.23	UJ			0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA			0.58	U	3.7	U	3.7	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA			0.56	U	3.6	U	3.6	U				
SW8270	120-12-7	Anthracene	ug/l	NA			0.75	U	4.8	U	4.8	U				
SW8270	86-73-7	Fluorene	ug/l	NA			0.69	U	4.4	U	4.4	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA			1.1	U	6.7	U	6.7	U				
SW8270	108-95-2	Phenol	ug/l	NA			3.5	U	22	U	22	U				
SW9040	pH	pH	ph Units	NA									7.93			

					Location ID		OL-RAD-CAP-0013-H		OL-RAD-CAP-0013-H		OL-RAD-CAP-0013-H		OL-RAD-CAP-0013-I		OL-RAD-CAP-0013-I		OL-RAD-CAP-0026-H	
					Field Sample ID		OL-4018-01		OL-4018-02		OL-4018-03		OL-4018-04		OL-4018-05		OL-4018-06	
					Start Depth (ft)		0.25		0.25		0.75		1		1.25		0.25	
					End Depth (ft)		0.5		0.75		1		1.25		1.5		0.5	
					Sampled		7/11/2022		7/11/2022		7/11/2022		7/11/2022		7/11/2022		7/12/2022	
					SDG		R2206339		R2206339		R2206339		R2206339		R2206339		R2206339	
					Lab Sample ID		R2206339-001		R2206339-002		R2206339-003		R2206339-004		R2206339-005		R2206339-006	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		REG	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T									0.385	U			0.385	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA									2.5	U			0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA									3.4	U			0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA									2	U			0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA									2.7	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA									2	U			0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA									2	U			0.2	UJ
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ					1	U	2	U			0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA									2	U			0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	NA									2	U			0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA									2	U			0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	NA									5.5	U			0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	NA									2	U			0.2	UJ
SW8260	108-88-3	Toluene	ug/l	NA	3.2	J-					88		810				0.2	UJ
SW8260	1330-20-7	Total Xylenes	ug/l	NA									2.3	U			0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	NA									2.8	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA									2.7	U				
SW8270	120-12-7	Anthracene	ug/l	NA									3.6	U				
SW8270	86-73-7	Fluorene	ug/l	NA									3.3	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA									5	U				
SW8270	108-95-2	Phenol	ug/l	NA			60				100		500					
SW9040	pH	pH	ph Units	NA											7.92			

					Location ID		OL-RAD-CAP-0026-H		OL-RAD-CAP-0026-H		OL-RAD-CAP-0026-I		OL-RAD-CAP-0026-I		OL-RAD-CAP-0034-H		OL-RAD-CAP-0034-H	
					Field Sample ID		OL-4018-07		OL-4018-08		OL-4018-09		OL-4018-10		OL-4018-11		OL-4018-12	
					Start Depth (ft)		0.25		0.75		1		1.25		0.25		0.25	
					End Depth (ft)		0.75		1		1.25		1.5		0.5		0.75	
					Sampled		7/12/2022		7/12/2022		7/12/2022		7/12/2022		7/12/2022		7/12/2022	
					SDG		R2206339		R2206339		R2206339		R2206339		R2206339		R2206339	
					Lab Sample ID		R2206339-007		R2206339-008		R2206339-009		R2206339-010		R2206339-011		R2206339-012	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		REG	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T			0.385	U	0.385	U			0.385	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA			0.25	UJ	0.25	U			0.25	U				
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA			0.34	UJ	0.34	U			0.34	U				
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA			0.2	UJ	0.2	U			0.2	U				
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA			0.27	UJ	0.27	UJ			0.27	UJ				
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA			0.2	UJ	0.2	U			0.2	U				
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA			0.2	UJ	0.2	U			0.2	U				
SW8260	71-43-2	Benzene	ug/l	NA			0.2	UJ	0.2	U			0.2	U				
SW8260	108-90-7	Chlorobenzene	ug/l	NA			0.2	UJ	0.2	U			0.2	U				
SW8260	100-41-4	Ethylbenzene	ug/l	NA			0.2	UJ	0.2	U			0.2	U				
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA			0.2	UJ	0.2	U			0.2	U				
SW8260	91-20-3	Naphthalene	ug/l	NA			0.55	UJ	0.55	U			0.55	U				
SW8260	95-47-6	o-Xylene	ug/l	NA			0.2	UJ	0.2	U			0.2	U				
SW8260	108-88-3	Toluene	ug/l	NA			0.2	UJ	0.2	U			0.2	U				
SW8260	1330-20-7	Total Xylenes	ug/l	NA			0.23	UJ	0.23	U			0.23	U				
SW8270	83-32-9	Acenaphthene	ug/l	NA	2.8	U	2.8	U	2.8	U							0.79	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA	2.7	U	2.7	U	2.7	U							0.76	U
SW8270	120-12-7	Anthracene	ug/l	NA	3.6	U	3.6	U	3.6	U							1.1	U
SW8270	86-73-7	Fluorene	ug/l	NA	3.3	U	3.3	U	3.3	U							0.93	U
SW8270	85-01-8	Phenanthrene	ug/l	NA	5	U	5	U	5	U							1.5	U
SW8270	108-95-2	Phenol	ug/l	NA	17	U	17	U	17	U							4.8	U
SW9040	pH	pH	ph Units	NA									8.15					

				Location ID	OL-RAD-CAP-0034-H		OL-RAD-CAP-0034-H		OL-RAD-CAP-0034-H		OL-RAD-CAP-0034-I		OL-RAD-CAP-0034-I	
				Field Sample ID	OL-4018-13		OL-4018-14		OL-4018-15		OL-4018-16		OL-4018-17	
				Start Depth (ft)	0.75		1		1.25		1.5		1.75	
				End Depth (ft)	1		1.5		1.5		1.75		2	
				Sampled	7/12/2022		7/12/2022		7/12/2022		7/12/2022		7/12/2022	
				SDG	R2206339		R2206339		R2206339		R2206339		R2206339	
				Lab Sample ID	R2206339-013		R2206339-014		R2206339-015		R2206339-016		R2206339-017	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T					0.385	U	0.385	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA					0.25	U	0.25	U		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA					0.34	U	0.34	U		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA					0.2	U	0.2	U		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA					0.27	UJ	0.27	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA					0.2	U	0.2	U		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA					0.2	U	0.2	U		
SW8260	71-43-2	Benzene	ug/l	NA					0.2	U	0.2	U		
SW8260	108-90-7	Chlorobenzene	ug/l	NA					0.2	U	0.2	U		
SW8260	100-41-4	Ethylbenzene	ug/l	NA					0.2	U	0.2	U		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA					0.2	U	0.2	U		
SW8260	91-20-3	Naphthalene	ug/l	NA					0.55	U	0.55	U		
SW8260	95-47-6	o-Xylene	ug/l	NA					0.2	U	0.2	U		
SW8260	108-88-3	Toluene	ug/l	NA					0.2	U	0.2	U		
SW8260	1330-20-7	Total Xylenes	ug/l	NA					0.23	U	0.23	U		
SW8270	83-32-9	Acenaphthene	ug/l	NA			0.79	U			2.8	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA			0.76	U			2.7	U		
SW8270	120-12-7	Anthracene	ug/l	NA			1.1	U			3.6	U		
SW8270	86-73-7	Fluorene	ug/l	NA			0.93	U			3.3	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA			1.5	U			5	U		
SW8270	108-95-2	Phenol	ug/l	NA			4.8	U			17	U		
SW9040	pH	pH	ph Units	NA	7.72								7.51	

				Location ID	OL-RAD-CAP-0029-H		OL-RAD-CAP-0029-H		OL-RAD-CAP-0029-H		OL-RAD-CAP-0029-H		OL-RAD-CAP-0029-H		OL-RAD-CAP-0029-I	
				Field Sample ID	OL-4019-01		OL-4019-02		OL-4019-03		OL-4019-04		OL-4019-05		OL-4019-06	
				Start Depth (ft)	0.25		0.25		0.75		1		1.25		1.5	
				End Depth (ft)	0.5		0.75		1		1.5		1.5		1.75	
				Sampled	7/12/2022		7/12/2022		7/12/2022		7/12/2022		7/12/2022		7/12/2022	
				SDG	R2206340		R2206340		R2206340		R2206340		R2206340		R2206340	
				Lab Sample ID	R2206340-001		R2206340-002		R2206340-003		R2206340-004		R2206340-005		R2206340-006	
				Medium	Water		Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction												
SW7470	7439-97-6	Mercury	ug/l	T	0.385	U							0.385	U	0.385	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U							0.25	U	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U							0.34	U	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U							0.2	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ							0.27	UJ	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U							0.2	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U							0.2	U	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U							0.2	U	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U							0.2	U	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U							0.2	U	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U							0.2	U	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U							0.55	U	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U							0.2	U	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U							0.21	J	0.21	J
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U							0.23	U	0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA			0.79	U			0.79	U			2.8	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA			0.76	U			0.76	U			2.7	U
SW8270	120-12-7	Anthracene	ug/l	NA			1.1	U			1.1	U			3.6	U
SW8270	86-73-7	Fluorene	ug/l	NA			0.93	U			0.93	U			3.3	U
SW8270	85-01-8	Phenanthrene	ug/l	NA			1.5	U			1.5	U			5	U
SW8270	108-95-2	Phenol	ug/l	NA			4.8	U			4.8	U			17	U
SW9040	pH	pH	ph Units	NA					7.39							

				Location ID	OL-RAD-CAP-0029-I		OL-RAD-CAP-0036-H		OL-RAD-CAP-0036-H		OL-RAD-CAP-0036-H		OL-RAD-CAP-0036-I		OL-RAD-CAP-0036-I							
				Field Sample ID	OL-4019-07		OL-4019-08		OL-4019-09		OL-4019-10		OL-4019-11		OL-4019-12							
				Start Depth (ft)	1.75		0.25		0.25		0.75		1		1.25							
				End Depth (ft)	2		0.5		0.75		1		1.25		1.5							
				Sampled	7/12/2022		7/12/2022		7/12/2022		7/12/2022		7/12/2022		7/12/2022							
				SDG	R2206340		R2206340		R2206340		R2206340		R2206340		R2206340							
				Lab Sample ID	R2206340-007		R2206340-008		R2206340-009		R2206340-010		R2206340-011		R2206340-012							
				Medium	Water		Water		Water		Water		Water		Water							
				Sample Type	REG		REG		REG		REG		REG		REG							
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE							
Method	Parameter Code	Parameter Name	Units	Fraction																		
SW7470	7439-97-6	Mercury	ug/l	T			0.385	U			0.385	U	0.385	U								
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA			0.25	U			0.25	U	0.25	U								
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA			0.34	U			0.34	U	0.34	U								
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA			0.2	U			0.2	U	0.2	U								
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA			0.27	UJ			0.27	UJ	0.27	UJ								
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA			0.2	U			0.2	U	0.2	U								
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA			0.2	U			0.2	U	0.2	U								
SW8260	71-43-2	Benzene	ug/l	NA			0.2	U			0.2	U	0.2	U								
SW8260	108-90-7	Chlorobenzene	ug/l	NA			0.2	U			0.2	U	0.2	U								
SW8260	100-41-4	Ethylbenzene	ug/l	NA			0.2	U			0.2	U	0.2	U								
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA			0.2	U			0.2	U	0.2	U								
SW8260	91-20-3	Naphthalene	ug/l	NA			0.55	U			0.55	U	0.55	U								
SW8260	95-47-6	o-Xylene	ug/l	NA			0.2	U			0.2	U	0.2	U								
SW8260	108-88-3	Toluene	ug/l	NA			0.2	U			0.2	U	0.2	U								
SW8260	1330-20-7	Total Xylenes	ug/l	NA			0.23	U			0.23	U	0.23	U								
SW8270	83-32-9	Acenaphthene	ug/l	NA					0.79	U	2.8	U	2.8	U								
SW8270	208-96-8	Acenaphthylene	ug/l	NA					0.76	U	2.7	U	2.7	U								
SW8270	120-12-7	Anthracene	ug/l	NA					1.1	U	3.6	U	3.6	U								
SW8270	86-73-7	Fluorene	ug/l	NA					0.93	U	3.3	U	3.3	U								
SW8270	85-01-8	Phenanthrene	ug/l	NA					1.5	U	5	U	5	U								
SW8270	108-95-2	Phenol	ug/l	NA					4.8	U	17	U	17	U								
SW9040	pH	pH	ph Units	NA	7.47										7.78							

				Location ID	QC	
				Field Sample ID	OL-4019-13	
				Start Depth (ft)		
				End Depth (ft)		
				Sampled	7/12/2022	
				SDG	R2206340	
				Lab Sample ID	R2206340-013	
				Medium	Water	
				Sample Type	TB	
				Matrix	WQ	
Method	Parameter Code	Parameter Name	Units	Fraction		
SW7470	7439-97-6	Mercury	ug/l	T		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA		
SW8270	208-96-8	Acenaphthylene	ug/l	NA		
SW8270	120-12-7	Anthracene	ug/l	NA		
SW8270	86-73-7	Fluorene	ug/l	NA		
SW8270	85-01-8	Phenanthrene	ug/l	NA		
SW8270	108-95-2	Phenol	ug/l	NA		
SW9040	pH	pH	ph Units	NA		

				Location ID	OL-RAC-CAP-0011-H		OL-RAC-CAP-0011-H		QC	
				Field Sample ID	OL-4021-01		OL-4021-02		OL-4021-03	
				Start Depth (ft)	0.166667		0.416667			
				End Depth (ft)	0.416667		0.666667			
				Sampled	7/13/2022		7/13/2022		7/13/2022	
				SDG	R2206415		R2206415		R2206415	
				Lab Sample ID	R2206415-001		R2206415-002		R2206415-003	
				Medium	Water		Water		Water	
				Sample Type	REG		REG		TB	
				Matrix	W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U	0.25	U	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U	0.34	U	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ	0.27	UJ	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U	0.2	U	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U	0.2	U	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U	0.2	U	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U	0.2	U	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U	0.55	U	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U	0.2	U	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.31	J	0.21	J	0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U	0.23	U	0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA	5.5	U	3.7	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA	5.3	U	3.6	U		
SW8270	120-12-7	Anthracene	ug/l	NA	7.1	U	4.8	U		
SW8270	86-73-7	Fluorene	ug/l	NA	6.5	U	4.4	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA	10	U	6.7	U		
SW8270	108-95-2	Phenol	ug/l	NA	33	U	22	U		
SW9040	pH	pH	ph Units	NA	8.36		8.2			

				Location ID	OL-RAD-CAP-0028-H		OL-RAD-CAP-0028-H		OL-RAD-CAP-0028-H		OL-RAD-CAP-0028-I		OL-RAD-CAP-0028-I		OL-RAD-CAP-0032-H	
				Field Sample ID	OL-4020-16		OL-4020-17		OL-4020-18		OL-4020-19		OL-4020-20		OL-4020-11	
				Start Depth (ft)	0.25		0.25		0.75		1		1.25		0.25	
				End Depth (ft)	0.5		0.75		1		1.25		1.5		0.5	
				Sampled	7/13/2022		7/13/2022		7/13/2022		7/13/2022		7/13/2022		7/13/2022	
				SDG	R2206416		R2206416		R2206416		R2206416		R2206416		R2206416	
				Lab Sample ID	R2206416-016		R2206416-017		R2206416-018		R2206416-019		R2206416-020		R2206416-011	
				Medium	Water		Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction												
SW7470	7439-97-6	Mercury	ug/l	T							0.385	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA							0.25	U				
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA							0.34	U				
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA							0.2	U				
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA							0.27	UJ				
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA							0.2	U				
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA							0.2	U				
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U			0.2	U	0.2	U			0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA							0.2	U				
SW8260	100-41-4	Ethylbenzene	ug/l	NA							0.2	U				
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA							0.2	U				
SW8260	91-20-3	Naphthalene	ug/l	NA							0.55	U				
SW8260	95-47-6	o-Xylene	ug/l	NA							0.2	U				
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U			7		0.46	J			0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA							0.23	U				
SW8270	83-32-9	Acenaphthene	ug/l	NA							0.055	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA							0.053	U				
SW8270	120-12-7	Anthracene	ug/l	NA							0.071	U				
SW8270	86-73-7	Fluorene	ug/l	NA							0.065	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA							0.1	U				
SW8270	108-95-2	Phenol	ug/l	NA			5.9	J	1.4		0.48	J				
SW9040	pH	pH	ph Units	NA									7.83			

					Location ID		OL-RAD-CAP-0032-H		OL-RAD-CAP-0032-H		OL-RAD-CAP-0032-I		OL-RAD-CAP-0032-I		OL-RAD-CAP-0038-H		OL-RAD-CAP-0038-H	
					Field Sample ID		OL-4020-12		OL-4020-13		OL-4020-14		OL-4020-15		OL-4020-01		OL-4020-02	
					Start Depth (ft)		0.25		0.75		1		1.25		0.25		0.25	
					End Depth (ft)		0.75		1		1.25		1.5		0.5		0.75	
					Sampled		7/13/2022		7/13/2022		7/13/2022		7/13/2022		7/13/2022		7/13/2022	
					SDG		R2206416		R2206416		R2206416		R2206416		R2206416		R2206416	
					Lab Sample ID		R2206416-012		R2206416-013		R2206416-014		R2206416-015		R2206416-001		R2206416-002	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		REG	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T							0.385	U						
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA							0.25	U						
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA							0.34	U						
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA							0.2	U						
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA							0.27	UJ						
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA							0.2	U						
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA							0.2	U						
SW8260	71-43-2	Benzene	ug/l	NA			0.2	U	0.2	U					0.2	U		
SW8260	108-90-7	Chlorobenzene	ug/l	NA							0.2	U						
SW8260	100-41-4	Ethylbenzene	ug/l	NA							0.2	U						
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA							0.2	U						
SW8260	91-20-3	Naphthalene	ug/l	NA							0.55	U						
SW8260	95-47-6	o-Xylene	ug/l	NA							0.2	U						
SW8260	108-88-3	Toluene	ug/l	NA			0.2	U	0.2	U	0.32	J			0.2	U		
SW8260	1330-20-7	Total Xylenes	ug/l	NA							0.23	U						
SW8270	83-32-9	Acenaphthene	ug/l	NA							2.8	U						
SW8270	208-96-8	Acenaphthylene	ug/l	NA							2.7	U						
SW8270	120-12-7	Anthracene	ug/l	NA							3.6	U						
SW8270	86-73-7	Fluorene	ug/l	NA							3.3	U						
SW8270	85-01-8	Phenanthrene	ug/l	NA							5	U						
SW8270	108-95-2	Phenol	ug/l	NA	4.8	U	17	UJ	17	U							4.8	U
SW9040	pH	pH	ph Units	NA									8.65					

					Location ID		OL-RAD-CAP-0038-H		OL-RAD-CAP-0038-I		OL-RAD-CAP-0038-I		OL-RAD-CAP-0040-H		OL-RAD-CAP-0040-H		OL-RAD-CAP-0040-H	
					Field Sample ID		OL-4020-03		OL-4020-04		OL-4020-05		OL-4020-06		OL-4020-07		OL-4020-08	
					Start Depth (ft)		0.75		1		1.25		0.25		0.25		0.75	
					End Depth (ft)		1		1.25		1.5		0.5		0.75		1	
					Sampled		7/13/2022		7/13/2022		7/13/2022		7/13/2022		7/13/2022		7/13/2022	
					SDG		R2206416		R2206416		R2206416		R2206416		R2206416		R2206416	
					Lab Sample ID		R2206416-003		R2206416-004		R2206416-005		R2206416-006		R2206416-007		R2206416-008	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		REG	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T			0.385	U										
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA			0.25	UJ										
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA			0.34	UJ										
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA			0.2	UJ										
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA			0.27	UJ										
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA			0.2	UJ										
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA			0.2	UJ										
SW8260	71-43-2	Benzene	ug/l	NA	0.47	J	0.84	J				0.2	UJ			0.2	UJ	
SW8260	108-90-7	Chlorobenzene	ug/l	NA			0.27	J										
SW8260	100-41-4	Ethylbenzene	ug/l	NA			0.2	UJ										
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA			0.2	UJ										
SW8260	91-20-3	Naphthalene	ug/l	NA			0.55	UJ										
SW8260	95-47-6	o-Xylene	ug/l	NA			0.2	UJ										
SW8260	108-88-3	Toluene	ug/l	NA	0.27	J	16	J-				0.27	J			0.42	J	
SW8260	1330-20-7	Total Xylenes	ug/l	NA			0.23	UJ										
SW8270	83-32-9	Acenaphthene	ug/l	NA			2.8	U										
SW8270	208-96-8	Acenaphthylene	ug/l	NA			2.7	U										
SW8270	120-12-7	Anthracene	ug/l	NA			3.6	U										
SW8270	86-73-7	Fluorene	ug/l	NA			3.3	U										
SW8270	85-01-8	Phenanthrene	ug/l	NA			5	U										
SW8270	108-95-2	Phenol	ug/l	NA	17	U	79								4.8	U	50	
SW9040	pH	pH	ph Units	NA					8.57									

				Location ID	OL-RAD-CAP-0040-I		OL-RAD-CAP-0040-I	
				Field Sample ID	OL-4020-09		OL-4020-10	
				Start Depth (ft)	1		1.25	
				End Depth (ft)	1.25		1.5	
				Sampled	7/13/2022		7/13/2022	
				SDG	R2206416		R2206416	
				Lab Sample ID	R2206416-009		R2206416-010	
				Medium	Water		Water	
				Sample Type	REG		REG	
				Matrix	W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction				
SW7470	7439-97-6	Mercury	ug/l	T	0.385	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ		
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ		
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ		
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ		
SW8260	108-88-3	Toluene	ug/l	NA	0.37	J		
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ		
SW8270	83-32-9	Acenaphthene	ug/l	NA	2.8	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA	2.7	U		
SW8270	120-12-7	Anthracene	ug/l	NA	3.6	U		
SW8270	86-73-7	Fluorene	ug/l	NA	3.3	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA	5	U		
SW8270	108-95-2	Phenol	ug/l	NA	32	J		
SW9040	pH	pH	ph Units	NA			8.73	

				Location ID	OL-RAD-CAP-0021-H			OL-RAD-CAP-0021-H			OL-RAD-CAP-0021-H			OL-RAD-CAP-0021-I			OL-RAD-CAP-0021-I			OL-RAD-CAP-0031-H		
				Field Sample ID	OL-4027-10			OL-4027-11			OL-4027-12			OL-4027-13			OL-4027-14			OL-4027-05		
				Start Depth (ft)	0.25			0.25			0.75			1			1.25			0.5		
				End Depth (ft)	0.5			0.75			1			1.25			1.5			0.5		
				Sampled	7/25/2022			7/25/2022			7/25/2022			7/25/2022			7/25/2022			7/25/2022		
				SDG	R2206801			R2206801			R2206801			R2206801			R2206801			R2206801		
				Lab Sample ID	R2206801-010			R2206801-011			R2206801-012			R2206801-013			R2206801-014			R2206801-005		
				Medium	Water			Water			Water			Water			Water			Water		
				Sample Type	REG			REG			REG			REG			REG			REG		
				Matrix	W-PORE			W-PORE			W-PORE			W-PORE			W-PORE			W-PORE		
Method	Parameter Code	Parameter Name	Units	Fraction																		
SW7470	7439-97-6	Mercury	ug/l	T										0.2	U							
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA										1.3	U							
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA										1.7	U							
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA										1	U							
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA										1.4	UJ							
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA										1	U							
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA										1	U							
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ					0.2	UJ		1	U				0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA										4.6	J							
SW8260	100-41-4	Ethylbenzene	ug/l	NA										1	U							
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA										1.1	J							
SW8260	91-20-3	Naphthalene	ug/l	NA										2.8	U							
SW8260	95-47-6	o-Xylene	ug/l	NA										1	U							
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ					540	J		530					0.2	UJ		
SW8260	1330-20-7	Total Xylenes	ug/l	NA										1.2	U							
SW8270	83-32-9	Acenaphthene	ug/l	NA										2.5	U							
SW8270	208-96-8	Acenaphthylene	ug/l	NA										2.5	U							
SW8270	120-12-7	Anthracene	ug/l	NA										3.6	U							
SW8270	86-73-7	Fluorene	ug/l	NA										2.6	U							
SW8270	85-01-8	Phenanthrene	ug/l	NA										4.4	U							
SW8270	108-95-2	Phenol	ug/l	NA				22			240	J+		210	J+							
SW9040	pH	pH	ph Units	NA													8.92					

				Location ID	OL-RAD-CAP-0031-H			OL-RAD-CAP-0031-H			OL-RAD-CAP-0031-I			OL-RAD-CAP-0031-I			OL-RAD-CAP-0033-H			OL-RAD-CAP-0033-H		
				Field Sample ID	OL-4027-06			OL-4027-07			OL-4027-08			OL-4027-09			OL-4027-01			OL-4027-02		
				Start Depth (ft)	0.25			0.75			1			1.25			0.25			0.75		
				End Depth (ft)	0.75			1			1.25			1.5			0.75			1		
				Sampled	7/25/2022			7/25/2022			7/25/2022			7/25/2022			7/25/2022			7/25/2022		
				SDG	R2206801			R2206801			R2206801			R2206801			R2206801			R2206801		
				Lab Sample ID	R2206801-006			R2206801-007			R2206801-008			R2206801-009			R2206801-001			R2206801-002		
				Medium	Water			Water			Water			Water			Water			Water		
				Sample Type	REG			REG			REG			REG			REG			REG		
				Matrix	W-PORE			W-PORE			W-PORE			W-PORE			W-PORE			W-PORE		
Method	Parameter Code	Parameter Name	Units	Fraction																		
SW7470	7439-97-6	Mercury	ug/l	T							0.2	U										
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA							0.25	UJ										
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA							0.34	UJ										
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA							0.2	UJ										
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA							0.27	UJ										
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA							0.2	UJ										
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA							0.2	UJ										
SW8260	71-43-2	Benzene	ug/l	NA				0.2	UJ		0.2	UJ					0.2	UJ		0.2	UJ	
SW8260	108-90-7	Chlorobenzene	ug/l	NA							0.21	J										
SW8260	100-41-4	Ethylbenzene	ug/l	NA							0.2	UJ										
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA							0.2	UJ										
SW8260	91-20-3	Naphthalene	ug/l	NA							0.55	UJ										
SW8260	95-47-6	o-Xylene	ug/l	NA							0.2	UJ										
SW8260	108-88-3	Toluene	ug/l	NA				0.61	J		25	J-					0.34	J		0.41	J	
SW8260	1330-20-7	Total Xylenes	ug/l	NA							0.23	UJ										
SW8270	83-32-9	Acenaphthene	ug/l	NA							2.5	U										
SW8270	208-96-8	Acenaphthylene	ug/l	NA							2.5	U										
SW8270	120-12-7	Anthracene	ug/l	NA							3.6	U										
SW8270	86-73-7	Fluorene	ug/l	NA							2.6	U										
SW8270	85-01-8	Phenanthrene	ug/l	NA							4.4	U										
SW8270	108-95-2	Phenol	ug/l	NA	13	J		24	J		18	J					35	J		33	J	
SW9040	pH	pH	ph Units	NA										9.56								

				Location ID	OL-RAD-CAP-0033-I		OL-RAD-CAP-0033-I		QC		
				Field Sample ID	OL-4027-03		OL-4027-04		OL-4027-15		
				Start Depth (ft)	1		1.25				
				End Depth (ft)	1.25		1.5				
				Sampled	7/25/2022		7/25/2022		7/25/2022		
				SDG	R2206801		R2206801		R2206801		
				Lab Sample ID	R2206801-003		R2206801-004		R2206801-015		
				Medium	Water		Water		Water		
				Sample Type	REG		REG		TB		
				Matrix	W-PORE		W-PORE		WQ		
Method	Parameter Code	Parameter Name	Units	Fraction							
SW7470	7439-97-6	Mercury	ug/l	T	0.2	U					
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	U	
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	U	
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U	
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ	
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U	
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U	
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	U	
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ			0.2	U	
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	U	
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	U	
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ			0.55	U	
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	U	
SW8260	108-88-3	Toluene	ug/l	NA	0.45	J			0.2	U	
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	U	
SW8270	83-32-9	Acenaphthene	ug/l	NA	2.5	U					
SW8270	208-96-8	Acenaphthylene	ug/l	NA	2.5	U					
SW8270	120-12-7	Anthracene	ug/l	NA	3.6	U					
SW8270	86-73-7	Fluorene	ug/l	NA	2.6	U					
SW8270	85-01-8	Phenanthrene	ug/l	NA	4.4	U					
SW8270	108-95-2	Phenol	ug/l	NA	24	J					
SW9040	pH	pH	ph Units	NA			9.53				

				Location ID	OL-RAD-CAP-0003-H			OL-RAD-CAP-0003-H			OL-RAD-CAP-0003-H			OL-RAD-CAP-0003-I			OL-RAD-CAP-0003-I			OL-RAD-CAP-0004-H		
				Field Sample ID	OL-4028-01			OL-4028-02			OL-4028-03			OL-4028-04			OL-4028-05			OL-4028-06		
				Start Depth (ft)	0.25			0.25			0.75			1			1.25			0.25		
				End Depth (ft)	0.5			0.75			1			1.25			1.5			0.5		
				Sampled	7/26/2022			7/26/2022			7/26/2022			7/26/2022			7/26/2022			7/26/2022		
				SDG	R2206855			R2206855			R2206855			R2206855			R2206855			R2206855		
				Lab Sample ID	R2206855-001			R2206855-002			R2206855-003			R2206855-004			R2206855-005			R2206855-006		
				Medium	Water			Water			Water			Water			Water			Water		
				Sample Type	REG			REG			REG			REG			REG			REG		
				Matrix	W-PORE			W-PORE			W-PORE			W-PORE			W-PORE			W-PORE		
Method	Parameter Code	Parameter Name	Units	Fraction																		
SW7470	7439-97-6	Mercury	ug/l	T										0.2	U							
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA										0.25	U							
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA										0.34	U							
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA										0.2	U							
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA										0.27	UJ							
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA										0.2	U							
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA										0.2	U							
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U					0.2	U		0.2	U				0.2	U		
SW8260	108-90-7	Chlorobenzene	ug/l	NA										0.2	U							
SW8260	100-41-4	Ethylbenzene	ug/l	NA										0.2	U							
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA										0.2	U							
SW8260	91-20-3	Naphthalene	ug/l	NA										0.55	U							
SW8260	95-47-6	o-Xylene	ug/l	NA										0.2	U							
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U					0.2	U		0.2	U				0.2	U		
SW8260	1330-20-7	Total Xylenes	ug/l	NA										0.23	U							
SW8270	83-32-9	Acenaphthene	ug/l	NA										2.5	U							
SW8270	208-96-8	Acenaphthylene	ug/l	NA										2.5	U							
SW8270	120-12-7	Anthracene	ug/l	NA										3.6	U							
SW8270	86-73-7	Fluorene	ug/l	NA										2.6	U							
SW8270	85-01-8	Phenanthrene	ug/l	NA										4.4	U							
SW8270	108-95-2	Phenol	ug/l	NA				15			51	J+		34	J							
SW9040	pH	pH	ph Units	NA													9.81					

					Location ID		OL-RAD-CAP-0004-H		OL-RAD-CAP-0004-H		OL-RAD-CAP-0004-I		OL-RAD-CAP-0004-I		OL-RAD-CAP-0007-H		OL-RAD-CAP-0007-H	
					Field Sample ID		OL-4028-07		OL-4028-08		OL-4028-09		OL-4028-10		OL-4028-11		OL-4028-12	
					Start Depth (ft)		0.25		0.75		1		1.25		0.25		0.25	
					End Depth (ft)		0.75		1		1.25		1.5		0.5		0.75	
					Sampled		7/26/2022		7/26/2022		7/26/2022		7/26/2022		7/26/2022		7/26/2022	
					SDG		R2206855		R2206855		R2206855		R2206855		R2206855		R2206855	
					Lab Sample ID		R2206855-007		R2206855-008		R2206855-009		R2206855-010		R2206855-011		R2206855-012	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		REG	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T							0.2	U						
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA							0.25	U						
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA							0.34	U						
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA							0.2	U						
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA							0.27	UJ						
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA							0.2	U						
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA							0.2	U						
SW8260	71-43-2	Benzene	ug/l	NA				0.2	U		0.2	U				0.2	U	
SW8260	108-90-7	Chlorobenzene	ug/l	NA							0.2	U						
SW8260	100-41-4	Ethylbenzene	ug/l	NA							0.2	U						
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA							0.2	U						
SW8260	91-20-3	Naphthalene	ug/l	NA							0.55	U						
SW8260	95-47-6	o-Xylene	ug/l	NA							0.2	U						
SW8260	108-88-3	Toluene	ug/l	NA				0.2	U		0.2	U				0.2	U	
SW8260	1330-20-7	Total Xylenes	ug/l	NA							0.23	U						
SW8270	83-32-9	Acenaphthene	ug/l	NA							2.5	U						
SW8270	208-96-8	Acenaphthylene	ug/l	NA							2.5	U						
SW8270	120-12-7	Anthracene	ug/l	NA							3.6	U						
SW8270	86-73-7	Fluorene	ug/l	NA							2.6	U						
SW8270	85-01-8	Phenanthrene	ug/l	NA							4.4	U						
SW8270	108-95-2	Phenol	ug/l	NA	8.9	J		13	J		15	J					0.72	U
SW9040	pH	pH	ph Units	NA									9.59					

				Location ID	OL-RAD-CAP-0007-H		OL-RAD-CAP-0007-I		OL-RAD-CAP-0007-I		OL-RAD-CAP-0025-H		OL-RAD-CAP-0025-H		OL-RAD-CAP-0025-H	
				Field Sample ID	OL-4028-13		OL-4028-14		OL-4028-15		OL-4028-16		OL-4028-21		OL-4028-17	
				Start Depth (ft)	0.75		1		1.25		0.25		0.25		0.75	
				End Depth (ft)	1		1.25		1.5		0.75		0.5		1	
				Sampled	7/26/2022		7/26/2022		7/26/2022		7/26/2022		7/26/2022		7/26/2022	
				SDG	R2206855		R2206855		R2206855		R2206855		R2206855		R2206855	
				Lab Sample ID	R2206855-013		R2206855-014		R2206855-015		R2206855-017		R2206855-016		R2206855-018	
				Medium	Water		Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction												
SW7470	7439-97-6	Mercury	ug/l	T			0.4	U								
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA			0.25	U								
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA			0.34	U								
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA			0.2	U								
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA			0.27	UJ								
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA			0.2	U								
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA			0.2	U								
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U	0.2	U					0.2	UJ	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA			0.2	U								
SW8260	100-41-4	Ethylbenzene	ug/l	NA			0.2	U								
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA			0.2	U								
SW8260	91-20-3	Naphthalene	ug/l	NA			0.55	U								
SW8260	95-47-6	o-Xylene	ug/l	NA			0.2	U								
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U	0.2	U					0.2	UJ	0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA			0.23	U								
SW8270	83-32-9	Acenaphthene	ug/l	NA			2.5	U								
SW8270	208-96-8	Acenaphthylene	ug/l	NA			2.5	U								
SW8270	120-12-7	Anthracene	ug/l	NA			3.6	U								
SW8270	86-73-7	Fluorene	ug/l	NA			2.6	U								
SW8270	85-01-8	Phenanthrene	ug/l	NA			4.4	U								
SW8270	108-95-2	Phenol	ug/l	NA	37	J	44	J			0.72	U			2.5	U
SW9040	pH	pH	ph Units	NA					9.15							

				Location ID	OL-RAD-CAP-0025-I		OL-RAD-CAP-0025-I		QC		
				Field Sample ID	OL-4028-18		OL-4028-19		OL-4028-20		
				Start Depth (ft)	1		1.25				
				End Depth (ft)	1.25		1.5				
				Sampled	7/26/2022		7/26/2022		7/26/2022		
				SDG	R2206855		R2206855		R2206855		
				Lab Sample ID	R2206855-019		R2206855-020		R2206855-021		
				Medium	Water		Water		Water		
				Sample Type	REG		REG		TB		
				Matrix	W-PORE		W-PORE		WQ		
Method	Parameter Code	Parameter Name	Units	Fraction							
SW7470	7439-97-6	Mercury	ug/l	T			0.2	U			
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U			0.25	UJ	
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U			0.34	UJ	
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U			0.2	UJ	
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ	
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U			0.2	UJ	
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U			0.2	UJ	
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U			0.2	UJ	
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U			0.2	UJ	
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U			0.2	UJ	
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U			0.2	UJ	
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U			0.55	UJ	
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U			0.2	UJ	
SW8260	108-88-3	Toluene	ug/l	NA	0.23	J			0.2	UJ	
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U			0.23	UJ	
SW8270	83-32-9	Acenaphthene	ug/l	NA	2.5	UJ					
SW8270	208-96-8	Acenaphthylene	ug/l	NA	2.5	UJ					
SW8270	120-12-7	Anthracene	ug/l	NA	3.6	UJ					
SW8270	86-73-7	Fluorene	ug/l	NA	2.6	UJ					
SW8270	85-01-8	Phenanthrene	ug/l	NA	4.4	UJ					
SW8270	108-95-2	Phenol	ug/l	NA	40	J					
SW9040	pH	pH	ph Units	NA			9.08				

				Location ID	OL-RAC-CAP-0013-H		OL-RAC-CAP-0013-H		OL-RAD-CAP-0014-H		OL-RAD-CAP-0014-H		OL-RAD-CAP-0014-H		OL-RAD-CAP-0014-I		OL-RAD-CAP-0014-I	
				Field Sample ID	OL-4029-01		OL-4029-02		OL-4029-09		OL-4029-10		OL-4029-11		OL-4029-12		OL-4029-13	
				Start Depth (ft)	0.17		0.42		0.25		0.25		0.75		1		1.25	
				End Depth (ft)	0.42		0.67		0.5		0.75		1		1.25		1.5	
				Sampled	7/27/2022		7/27/2022		7/27/2022		7/27/2022		7/27/2022		7/27/2022		7/27/2022	
				SDG	R2206912		R2206912		R2206912		R2206912		R2206912		R2206912		R2206912	
				Lab Sample ID	R2206912-001		R2206912-002		R2206912-009		R2206912-010		R2206912-011		R2206912-012		R2206912-013	
				Medium	Water		Water		Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T											0.2	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ	0.25	U							0.25	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ	0.34	U							0.34	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ	0.2	U							0.2	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ	0.27	UJ							0.27	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ	0.2	U							0.2	UJ		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ	0.2	U							0.2	UJ		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ	0.2	U	0.2	UJ			0.2	UJ	0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ	0.2	U							0.2	UJ		
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ	0.2	U							0.2	UJ		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ	0.2	U							0.2	UJ		
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ	0.55	U							0.55	UJ		
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ	0.2	U							0.2	UJ		
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ	0.2	U	0.2	UJ			0.2	UJ	0.2	UJ		
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ	0.23	U							0.23	UJ		
SW8270	83-32-9	Acenaphthene	ug/l	NA	0.05	U	0.05	U							0.05	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA	0.05	U	0.05	U							0.05	U		
SW8270	120-12-7	Anthracene	ug/l	NA	0.071	U	0.071	U							0.071	U		
SW8270	86-73-7	Fluorene	ug/l	NA	0.052	U	0.052	U							0.052	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA	0.088	U	0.088	U							0.088	U		
SW8270	108-95-2	Phenol	ug/l	NA	0.12	J	0.16	J			2.3		0.94		1.1			
SW9040	pH	pH	ph Units	NA	8.03		8.48										10.34	

					Location ID		OL-RAD-CAP-0057-H		OL-RAD-CAP-0057-H		OL-RAD-CAP-0057-H		OL-RAD-CAP-0057-I		OL-RAD-CAP-0057-I		QC	
					Field Sample ID		OL-4029-03		OL-4029-04		OL-4029-05		OL-4029-06		OL-4029-07		OL-4029-08	
					Start Depth (ft)		0.25		0.25		0.75		1		1.25			
					End Depth (ft)		0.5		0.75		1		1.25		1.5			
					Sampled		7/27/2022		7/27/2022		7/27/2022		7/27/2022		7/27/2022		7/27/2022	
					SDG		R2206912		R2206912		R2206912		R2206912		R2206912		R2206912	
					Lab Sample ID		R2206912-003		R2206912-004		R2206912-005		R2206912-006		R2206912-007		R2206912-008	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		TB	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T									0.2	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA									0.25	U			0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA									0.34	U			0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA									0.2	U			0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA									0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA									0.2	U			0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA									0.2	U			0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U					0.2	U	0.2	U			0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA									0.2	U			0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA									0.2	U			0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA									0.2	U			0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA									0.55	U			0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA									0.2	U			0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U					0.2	U	0.2	U			0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA									0.23	U			0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA									0.05	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA									0.05	U				
SW8270	120-12-7	Anthracene	ug/l	NA									0.071	U				
SW8270	86-73-7	Fluorene	ug/l	NA									0.052	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA									0.088	U				
SW8270	108-95-2	Phenol	ug/l	NA					0.05	U	0.075	J	0.05	U				
SW9040	pH	pH	ph Units	NA											7.79			

					Location ID	OL-RAA-CAP-0001-H		OL-RAA-CAP-0001-H		OL-RAA-CAP-0001-H		OL-RAA-CAP-0001-I		QC	
					Field Sample ID	OL-4036-01		OL-4036-02		OL-4036-03		OL-4036-04		OL-4036-06	
					Start Depth (ft)	0.25		0.25		0.75		1			
					End Depth (ft)	0.5		0.75		1		1.25			
					Sampled	9/6/2022		9/6/2022		9/6/2022		9/6/2022		9/6/2022	
					SDG	R2208332		R2208332		R2208332		R2208332		R2208332	
					Lab Sample ID	R2208332-001		R2208332-002		R2208332-003		R2208332-004		R2208332-005	
					Medium	Water		Water		Water		Water		Water	
					Sample Type	REG		REG		REG		REG		TB	
					Matrix	W-PORE		W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction											
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA										0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA										0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA										0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA										0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA										0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA										0.2	UJ
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ	1	U	0.2	UJ	
SW8260	108-90-7	Chlorobenzene	ug/l	NA										0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	NA										0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA										0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	NA										0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	NA										0.2	UJ
SW8260	108-88-3	Toluene	ug/l	NA	0.2	J			0.2	UJ	1	U	0.2	UJ	
SW8260	1330-20-7	Total Xylenes	ug/l	NA										0.23	UJ
SW8270	108-95-2	Phenol	ug/l	NA			62		44		25	J			

				Location ID	OL-RAA-CAP-0002-H			OL-RAA-CAP-0002-H			OL-RAA-CAP-0002-H			OL-RAA-CAP-0002-I			OL-RAA-CAP-0003-H			OL-RAA-CAP-0003-H		
				Field Sample ID	OL-4037-01			OL-4037-02			OL-4037-03			OL-4037-04			OL-4037-06			OL-4037-07		
				Start Depth (ft)	0.25			0.25			0.75			1			0.25			0.25		
				End Depth (ft)	0.5			0.75			1			1.25			0.5			0.75		
				Sampled	9/6/2022			9/6/2022			9/6/2022			9/6/2022			9/6/2022			9/6/2022		
				SDG	R2208367			R2208367			R2208367			R2208367			R2208367			R2208367		
				Lab Sample ID	R2208367-001			R2208367-002			R2208367-003			R2208367-004			R2208367-005			R2208367-006		
				Medium	Water			Water			Water			Water			Water			Water		
				Sample Type	REG			REG			REG			REG			REG			REG		
				Matrix	W-PORE			W-PORE			W-PORE			W-PORE			W-PORE			W-PORE		
Method	Parameter Code	Parameter Name	Units	Fraction																			
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U					0.2	U		0.2	U		0.2	U					
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U					0.2	U		0.2	U		0.2	U					
SW8270	108-95-2	Phenol	ug/l	NA				11	J		1.7	UJ		2.6	J					0.72	UJ		

					Location ID	OL-RAA-CAP-0003-H		OL-RAA-CAP-0003-I		OL-RAA-CAP-0004-H		OL-RAA-CAP-0004-H		OL-RAA-CAP-0004-H		OL-RAA-CAP-0004-I	
					Field Sample ID	OL-4037-08		OL-4037-09		OL-4037-16		OL-4037-17		OL-4037-18		OL-4037-19	
					Start Depth (ft)	0.75		1		0.25		0.25		0.75		1	
					End Depth (ft)	1		1.25		0.5		0.75		1		1.25	
					Sampled	9/6/2022		9/6/2022		9/7/2022		9/7/2022		9/7/2022		9/7/2022	
					SDG	R2208367		R2208367		R2208367		R2208367		R2208367		R2208367	
					Lab Sample ID	R2208367-007		R2208367-008		R2208367-013		R2208367-014		R2208367-015		R2208367-016	
					Medium	Water		Water		Water		Water		Water		Water	
					Sample Type	REG		REG		REG		REG		REG		REG	
					Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction													
SW8260	71-43-2	Benzene	ug/l	NA		0.2	U			0.2	U			0.2	U	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA		0.2	U			0.34	J			0.3	J	0.26	J
SW8270	108-95-2	Phenol	ug/l	NA		2.5	UJ	1.2	U			0.72	UJ	3.7	J	2.5	UJ

				Location ID	OL-RAA-CAP-0005-H		OL-RAA-CAP-0005-H		OL-RAA-CAP-0005-H		OL-RAA-CAP-0005-I	
				Field Sample ID	OL-4037-11		OL-4037-12		OL-4037-13		OL-4037-14	
				Start Depth (ft)	0.25		0.25		0.75		1	
				End Depth (ft)	0.5		0.75		1		1.25	
				Sampled	9/7/2022		9/7/2022		9/7/2022		9/7/2022	
				SDG	R2208367		R2208367		R2208367		R2208367	
				Lab Sample ID	R2208367-009		R2208367-010		R2208367-011		R2208367-012	
				Medium	Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U			0.2	U	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U			0.28	J	0.3	J
SW8270	108-95-2	Phenol	ug/l	NA			41		2.5	UJ	0.72	UJ

				Location ID	OL-RAA-CAP-0006-H			OL-RAA-CAP-0006-H			OL-RAA-CAP-0006-H			OL-RAA-CAP-0006-I			OL-RAA-CAP-0006-I			OL-RAA-CAP-0007-H			OL-RAA-CAP-0007-H	
				Field Sample ID	OL-4038-01			OL-4038-02			OL-4038-03			OL-4038-04			OL-4038-05			OL-4038-06			OL-4038-07	
				Start Depth (ft)	0.25			0.25			0.75			1			1.25			0.25			0.25	
				End Depth (ft)	0.5			0.75			1			1.25			1.5			0.5			0.75	
				Sampled	9/7/2022			9/7/2022			9/7/2022			9/7/2022			9/7/2022			9/7/2022			9/7/2022	
				SDG	R2208374			R2208374			R2208374			R2208374			R2208374			R2208374			R2208374	
				Lab Sample ID	R2208374-001			R2208374-002			R2208374-003			R2208374-004			R2208374-005			R2208374-006			R2208374-007	
				Medium	Water			Water			Water			Water			Water			Water			Water	
				Sample Type	REG			REG			REG			REG			REG			REG			REG	
				Matrix	W-PORE			W-PORE			W-PORE			W-PORE			W-PORE			W-PORE			W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction																				
SW7470	7439-97-6	Mercury	ug/l	T										2	U									
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA										0.25	U									
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA										0.34	U									
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA										0.2	U									
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA										0.27	UJ									
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA										0.2	U									
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA										0.2	U									
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U					0.2	U		0.2	U				0.2	U				
SW8260	108-90-7	Chlorobenzene	ug/l	NA										0.2	U									
SW8260	100-41-4	Ethylbenzene	ug/l	NA										0.2	U									
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA										0.2	U									
SW8260	91-20-3	Naphthalene	ug/l	NA										0.55	U									
SW8260	95-47-6	o-Xylene	ug/l	NA										0.2	U									
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U					62			30					0.63	J				
SW8260	1330-20-7	Total Xylenes	ug/l	NA										0.23	U									
SW8270	83-32-9	Acenaphthene	ug/l	NA										2.5	U									
SW8270	208-96-8	Acenaphthylene	ug/l	NA										2.5	U									
SW8270	120-12-7	Anthracene	ug/l	NA										3.6	U									
SW8270	86-73-7	Fluorene	ug/l	NA										2.6	U									
SW8270	85-01-8	Phenanthrene	ug/l	NA										4.4	U									
SW8270	108-95-2	Phenol	ug/l	NA				3.4	J		2.5	U		2.5	U								19	
SW9040	pH	pH	ph Units	NA													9.17							

					Location ID		OL-RAA-CAP-0007-H		OL-RAA-CAP-0007-I		OL-RAB-CAP-0001-H		OL-RAB-CAP-0001-H		OL-RAB-CAP-0001-H		OL-RAB-CAP-0001-I	
					Field Sample ID		OL-4038-08		OL-4038-09		OL-4038-11		OL-4038-12		OL-4038-13		OL-4038-14	
					Start Depth (ft)		0.75		1		0.25		0.25		0.75		1	
					End Depth (ft)		1		1.25		0.5		0.75		1		1.25	
					Sampled		9/7/2022		9/7/2022		9/7/2022		9/7/2022		9/7/2022		9/7/2022	
					SDG		R2208374		R2208374		R2208374		R2208374		R2208374		R2208374	
					Lab Sample ID		R2208374-008		R2208374-009		R2208374-010		R2208374-011		R2208374-012		R2208374-013	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		REG	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T													2	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA													0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA													0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA													0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA													0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA													0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA													0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U	0.2	U	0.2	U					0.2	U	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA													0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA													0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA													0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA													0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA													0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.33	J	0.29	J	0.31	J					0.34	J	0.42	J
SW8260	1330-20-7	Total Xylenes	ug/l	NA													0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA													2.5	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA													2.5	U
SW8270	120-12-7	Anthracene	ug/l	NA													3.6	U
SW8270	86-73-7	Fluorene	ug/l	NA													2.6	U
SW8270	85-01-8	Phenanthrene	ug/l	NA													4.4	U
SW8270	108-95-2	Phenol	ug/l	NA	21	J	19	J					0.72	U	3.5	J	10	J
SW9040	pH	pH	ph Units	NA														

			Location ID		OL-RAB-CAP-0001-I		OL-RAB-CAP-0002-H		OL-RAB-CAP-0002-H		OL-RAB-CAP-0002-H		OL-RAB-CAP-0002-I		OL-RAB-CAP-0002-I	
			Field Sample ID		OL-4038-15		OL-4038-16		OL-4038-17		OL-4038-18		OL-4038-19		OL-4038-20	
			Start Depth (ft)		1.25		0.25		0.25		0.75		1		1.25	
			End Depth (ft)		1.5		0.5		0.75		1		1.25		1.5	
			Sampled		9/7/2022		9/7/2022		9/7/2022		9/7/2022		9/7/2022		9/7/2022	
			SDG		R2208374		R2208374		R2208374		R2208374		R2208374		R2208374	
			Lab Sample ID		R2208374-014		R2208374-015		R2208374-016		R2208374-017		R2208374-018		R2208374-019	
			Medium		Water		Water		Water		Water		Water		Water	
			Sample Type		REG		REG		REG		REG		REG		REG	
			Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction												
SW7470	7439-97-6	Mercury	ug/l	T									2	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA									0.25	U		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA									0.34	U		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA									0.2	U		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA									0.27	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA									0.2	U		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA									0.2	U		
SW8260	71-43-2	Benzene	ug/l	NA			0.2	U			0.2	U	0.2	U		
SW8260	108-90-7	Chlorobenzene	ug/l	NA									0.2	U		
SW8260	100-41-4	Ethylbenzene	ug/l	NA									0.2	U		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA									0.2	U		
SW8260	91-20-3	Naphthalene	ug/l	NA									0.55	U		
SW8260	95-47-6	o-Xylene	ug/l	NA									0.2	U		
SW8260	108-88-3	Toluene	ug/l	NA			0.2	U			0.2	J	0.24	J		
SW8260	1330-20-7	Total Xylenes	ug/l	NA									0.23	U		
SW8270	83-32-9	Acenaphthene	ug/l	NA									2.5	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA									2.5	U		
SW8270	120-12-7	Anthracene	ug/l	NA									3.6	U		
SW8270	86-73-7	Fluorene	ug/l	NA									2.6	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA									4.4	U		
SW8270	108-95-2	Phenol	ug/l	NA					0.72	U	2.5	U	2.5	U		
SW9040	pH	pH	ph Units	NA	9.07										8.13	

				Location ID	QC	
				Field Sample ID	OL-4039-01	
				Start Depth (ft)		
				End Depth (ft)		
				Sampled	9/7/2022	
				SDG	R2208383	
				Lab Sample ID	R2208383-001	
				Medium	Water	
				Sample Type	TB	
				Matrix	WQ	
Method	Parameter Code	Parameter Name	Units	Fraction		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U

				Location ID	OL-RAB-CAP-0003-H			OL-RAB-CAP-0003-H			OL-RAB-CAP-0003-H			OL-RAB-CAP-0003-I			OL-RAB-CAP-0003-I			OL-RAB-CAP-0004-H		
				Field Sample ID	OL-4040-01			OL-4040-02			OL-4040-03			OL-4040-04			OL-4040-05			OL-4040-06		
				Start Depth (ft)	0.25			0.25			0.75			1			1.25			0.5		
				End Depth (ft)	0.5			0.75			1			1.25			1.5			0.5		
				Sampled	9/7/2022			9/7/2022			9/7/2022			9/7/2022			9/7/2022			9/7/2022		
				SDG	R2208480			R2208480			R2208480			R2208480			R2208480			R2208480		
				Lab Sample ID	R2208480-001			R2208480-002			R2208480-003			R2208480-004			R2208480-005			R2208480-006		
				Medium	Water			Water			Water			Water			Water			Water		
				Sample Type	REG			REG			REG			REG			REG			REG		
				Matrix	W-PORE			W-PORE			W-PORE			W-PORE			W-PORE			W-PORE		
Method	Parameter Code	Parameter Name	Units	Fraction																		
SW7470	7439-97-6	Mercury	ug/l	T										2	U							
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA										0.25	U							
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA										0.34	U							
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA										0.2	U							
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA										0.27	UJ							
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA										0.2	U							
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA										0.2	U							
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U					0.2	U		0.2	U				0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA										0.2	U							
SW8260	100-41-4	Ethylbenzene	ug/l	NA										0.2	U							
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA										0.2	U							
SW8260	91-20-3	Naphthalene	ug/l	NA										0.55	U							
SW8260	95-47-6	o-Xylene	ug/l	NA										0.2	U							
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U					0.36	J		0.35	J				1.4	J-		
SW8260	1330-20-7	Total Xylenes	ug/l	NA										0.23	U							
SW8270	83-32-9	Acenaphthene	ug/l	NA										2.5	U							
SW8270	208-96-8	Acenaphthylene	ug/l	NA										2.5	U							
SW8270	120-12-7	Anthracene	ug/l	NA										3.6	U							
SW8270	86-73-7	Fluorene	ug/l	NA										2.6	U							
SW8270	85-01-8	Phenanthrene	ug/l	NA										4.4	U							
SW8270	108-95-2	Phenol	ug/l	NA				8	J		2.5	U		2.5	U				36	J		
SW9040	pH	pH	ph Units	NA													8.91					

					Location ID	OL-RAB-CAP-0004-I		OL-RAB-CAP-0014-H		OL-RAB-CAP-0014-H		OL-RAB-CAP-0014-H		OL-RAB-CAP-0014-I		OL-RAB-CAP-0014-I	
					Field Sample ID	OL-4040-07		OL-4040-08		OL-4040-09		OL-4040-10		OL-4040-11		OL-4040-12	
					Start Depth (ft)	0.5		0.25		0.25		0.75		1		1.25	
					End Depth (ft)	0.75		0.5		0.75		1		1.25		1.5	
					Sampled	9/7/2022		9/8/2022		9/8/2022		9/8/2022		9/8/2022		9/8/2022	
					SDG	R2208480		R2208480		R2208480		R2208480		R2208480		R2208480	
					Lab Sample ID	R2208480-007		R2208480-008		R2208480-009		R2208480-010		R2208480-011		R2208480-012	
					Medium	Water		Water		Water		Water		Water		Water	
					Sample Type	REG		REG		REG		REG		REG		REG	
					Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction													
SW7470	7439-97-6	Mercury	ug/l	T										2	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA										1.3	U		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA										1.7	U		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA										1	U		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA										1.4	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA										1	U		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA										1	U		
SW8260	71-43-2	Benzene	ug/l	NA				0.2	UJ			0.2	UJ	1	U		
SW8260	108-90-7	Chlorobenzene	ug/l	NA										1	U		
SW8260	100-41-4	Ethylbenzene	ug/l	NA										1	U		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA										1	U		
SW8260	91-20-3	Naphthalene	ug/l	NA										2.8	U		
SW8260	95-47-6	o-Xylene	ug/l	NA										1	U		
SW8260	108-88-3	Toluene	ug/l	NA				0.94	J			160	J-	580			
SW8260	1330-20-7	Total Xylenes	ug/l	NA										1.2	U		
SW8270	83-32-9	Acenaphthene	ug/l	NA										2.5	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA										2.5	U		
SW8270	120-12-7	Anthracene	ug/l	NA										3.6	U		
SW8270	86-73-7	Fluorene	ug/l	NA										2.6	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA										4.4	U		
SW8270	108-95-2	Phenol	ug/l	NA						14	J	4.5	J	470			
SW9040	pH	pH	ph Units	NA	9.01											9.08	

				Location ID	OL-RAB-CAP-0015-H		OL-RAB-CAP-0015-H		OL-RAB-CAP-0015-H		OL-RAB-CAP-0015-I		OL-RAB-CAP-0015-I	
				Field Sample ID	OL-4040-13		OL-4040-14		OL-4040-15		OL-4040-16		OL-4040-17	
				Start Depth (ft)	0.25		0.25		0.75		1		1.25	
				End Depth (ft)	0.5		0.75		1		1.25		1.5	
				Sampled	9/8/2022		9/8/2022		9/8/2022		9/8/2022		9/8/2022	
				SDG	R2208480		R2208480		R2208480		R2208480		R2208480	
				Lab Sample ID	R2208480-013		R2208480-014		R2208480-015		R2208480-016		R2208480-017	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T							2	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA							0.25	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA							0.34	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA							0.2	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA							0.27	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA							0.2	UJ		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA							0.2	UJ		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			1	U	0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA							0.21	J		
SW8260	100-41-4	Ethylbenzene	ug/l	NA							0.2	UJ		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA							0.2	UJ		
SW8260	91-20-3	Naphthalene	ug/l	NA							0.55	UJ		
SW8260	95-47-6	o-Xylene	ug/l	NA							0.2	UJ		
SW8260	108-88-3	Toluene	ug/l	NA	1.4	J-			240		120	J-		
SW8260	1330-20-7	Total Xylenes	ug/l	NA							0.23	UJ		
SW8270	83-32-9	Acenaphthene	ug/l	NA							2.5	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA							2.5	U		
SW8270	120-12-7	Anthracene	ug/l	NA							3.6	U		
SW8270	86-73-7	Fluorene	ug/l	NA							2.6	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA							4.4	U		
SW8270	108-95-2	Phenol	ug/l	NA			32	J	190		4.5	J		
SW9040	pH	pH	ph Units	NA									8.65	

					Location ID	OL-RAB-CAP-0010-H		OL-RAB-CAP-0011-H		OL-RAC-CAP-0002-H		OL-RAC-CAP-0002-H		OL-RAC-CAP-0002-H		OL-RAC-CAP-0002-I	
					Field Sample ID	OL-4041-11		OL-4041-12		OL-4041-01		OL-4041-02		OL-4041-03		OL-4041-04	
					Start Depth (ft)	0.17		0.17		0.25		0.25		0.75		1	
					End Depth (ft)	0.42		0.42		0.5		0.75		1		1.25	
					Sampled	9/8/2022		9/8/2022		9/8/2022		9/8/2022		9/8/2022		9/8/2022	
					SDG	R2208481		R2208481		R2208481		R2208481		R2208481		R2208481	
					Lab Sample ID	R2208481-011		R2208481-012		R2208481-001		R2208481-002		R2208481-003		R2208481-004	
					Medium	Water		Water		Water		Water		Water		Water	
					Sample Type	REG		REG		REG		REG		REG		REG	
					Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction													
SW7470	7439-97-6	Mercury	ug/l	T												2	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA		0.25	UJ	0.25	UJ							0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA		0.34	UJ	0.34	UJ							0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA		0.2	UJ	0.2	UJ							0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA		0.27	UJ	0.27	UJ							0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA		0.2	UJ	0.2	UJ							0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA		0.2	UJ	0.2	UJ							0.2	UJ
SW8260	71-43-2	Benzene	ug/l	NA		0.2	UJ	1.1	J-	0.2	UJ			0.2	UJ	0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA		0.2	UJ	0.2	UJ							0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	NA		0.2	UJ	0.2	UJ							0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA		0.2	UJ	0.2	UJ							0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	NA		0.55	UJ	0.55	UJ							0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	NA		0.2	UJ	0.2	UJ							0.2	UJ
SW8260	108-88-3	Toluene	ug/l	NA		0.45	J	0.56	J	2	J-			60	J-	14	J-
SW8260	1330-20-7	Total Xylenes	ug/l	NA		0.23	UJ	0.23	UJ							0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	NA		2.5	U	2.5	U							2.5	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA		2.5	U	2.5	U							2.5	U
SW8270	120-12-7	Anthracene	ug/l	NA		3.6	U	3.6	U							3.6	U
SW8270	86-73-7	Fluorene	ug/l	NA		2.6	U	2.6	U							2.6	U
SW8270	85-01-8	Phenanthrene	ug/l	NA		4.4	U	4.4	U							4.4	U
SW8270	108-95-2	Phenol	ug/l	NA		2.5	U	120				4.9	J	2.5	J	2.5	U
SW9040	pH	pH	ph Units	NA		8.83		9.84									

				Location ID	OL-RAC-CAP-0002-I		OL-RAC-CAP-0003-H		OL-RAC-CAP-0003-H		OL-RAC-CAP-0003-H		OL-RAC-CAP-0003-I		OL-RAC-CAP-0003-I	
				Field Sample ID	OL-4041-05		OL-4041-06		OL-4041-07		OL-4041-08		OL-4041-09		OL-4041-10	
				Start Depth (ft)	1.25		0.25		0.25		0.75		1		1.25	
				End Depth (ft)	1.5		0.5		0.75		1		1.25		1.5	
				Sampled	9/8/2022		9/8/2022		9/8/2022		9/8/2022		9/8/2022		9/8/2022	
				SDG	R2208481		R2208481		R2208481		R2208481		R2208481		R2208481	
				Lab Sample ID	R2208481-005		R2208481-006		R2208481-007		R2208481-008		R2208481-009		R2208481-010	
				Medium	Water		Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction												
SW7470	7439-97-6	Mercury	ug/l	T									2	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA									0.25	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA									0.34	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA									0.2	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA									0.27	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA									0.2	UJ		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA									0.2	UJ		
SW8260	71-43-2	Benzene	ug/l	NA			0.2	UJ			0.2	UJ	0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA									0.2	UJ		
SW8260	100-41-4	Ethylbenzene	ug/l	NA									0.2	UJ		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA									0.2	UJ		
SW8260	91-20-3	Naphthalene	ug/l	NA									0.55	UJ		
SW8260	95-47-6	o-Xylene	ug/l	NA									0.2	UJ		
SW8260	108-88-3	Toluene	ug/l	NA			0.2	UJ			1.2	J-	2.1	J-		
SW8260	1330-20-7	Total Xylenes	ug/l	NA									0.23	UJ		
SW8270	83-32-9	Acenaphthene	ug/l	NA									2.5	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA									2.5	U		
SW8270	120-12-7	Anthracene	ug/l	NA									3.6	U		
SW8270	86-73-7	Fluorene	ug/l	NA									2.6	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA									4.4	U		
SW8270	108-95-2	Phenol	ug/l	NA					0.72	U	2.5	U	2.5	U		
SW9040	pH	pH	ph Units	NA	9.49										9.69	

				Location ID	OL-RAC-CAP-0004-H		OL-RAC-CAP-0004-H		OL-RAC-CAP-0004-H		OL-RAC-CAP-0004-I		OL-RAC-CAP-0004-I	
				Field Sample ID	OL-4041-13		OL-4041-14		OL-4041-15		OL-4041-16		OL-4041-17	
				Start Depth (ft)	0.25		0.25		0.75		1		1.25	
				End Depth (ft)	0.5		0.75		1		1.25		1.5	
				Sampled	9/8/2022		9/8/2022		9/8/2022		9/8/2022		9/8/2022	
				SDG	R2208481		R2208481		R2208481		R2208481		R2208481	
				Lab Sample ID	R2208481-013		R2208481-014		R2208481-015		R2208481-016		R2208481-017	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T							2	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA							0.25	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA							0.34	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA							0.2	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA							0.27	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA							0.2	UJ		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA							0.2	UJ		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA							0.2	UJ		
SW8260	100-41-4	Ethylbenzene	ug/l	NA							0.2	UJ		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA							0.2	UJ		
SW8260	91-20-3	Naphthalene	ug/l	NA							0.55	UJ		
SW8260	95-47-6	o-Xylene	ug/l	NA							0.2	UJ		
SW8260	108-88-3	Toluene	ug/l	NA	1.8	J-			3.4	J-	27	J-		
SW8260	1330-20-7	Total Xylenes	ug/l	NA							0.23	UJ		
SW8270	83-32-9	Acenaphthene	ug/l	NA							2.5	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA							2.5	U		
SW8270	120-12-7	Anthracene	ug/l	NA							3.6	U		
SW8270	86-73-7	Fluorene	ug/l	NA							2.6	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA							4.4	U		
SW8270	108-95-2	Phenol	ug/l	NA			0.72	U	2.5	U	2.5	U		
SW9040	pH	pH	ph Units	NA									9.2	

				Location ID	OL-RAC-CAP-0005-H		OL-RAC-CAP-0005-H		OL-RAC-CAP-0005-H		OL-RAC-CAP-0005-I		QC	
				Field Sample ID	OL-4042-01		OL-4042-02		OL-4042-03		OL-4042-04		OL-4042-05	
				Start Depth (ft)	0.25		0.25		0.75		1			
				End Depth (ft)	0.5		0.75		1		1.25			
				Sampled	9/8/2022		9/8/2022		9/8/2022		9/8/2022		9/8/2022	
				SDG	R2208482		R2208482		R2208482		R2208482		R2208482	
				Lab Sample ID	R2208482-001		R2208482-002		R2208482-003		R2208482-004		R2208482-005	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		TB	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA									0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA									0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA									0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA									0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA									0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA									0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA									0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA									0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA									0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA									0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA									0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	4.9	J-			1.5	J-			0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA									0.23	U
SW8270	108-95-2	Phenol	ug/l	NA			42	J	0.05	U				
SW9040	pH	pH	ph Units	NA							7.03			

				Location ID	OL-RAA-CAP-0008-H		OL-RAA-CAP-0008-H		OL-RAA-CAP-0008-H		OL-RAA-CAP-0008-H		OL-RAA-CAP-0008-H		OL-RAA-CAP-0008-I	
				Field Sample ID	OL-4043-11		OL-4043-12		OL-4043-13		OL-4043-14		OL-4043-15		OL-4043-16	
				Start Depth (ft)	0.25		0.25		0.75		1		1.25		1.5	
				End Depth (ft)	0.5		0.75		1		1.5		1.5		1.75	
				Sampled	9/9/2022		9/9/2022		9/9/2022		9/9/2022		9/9/2022		9/9/2022	
				SDG	R2208526		R2208526		R2208526		R2208526		R2208526		R2208526	
				Lab Sample ID	R2208526-011		R2208526-012		R2208526-013		R2208526-014		R2208526-015		R2208526-016	
				Medium	Water		Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction												
SW7470	7439-97-6	Mercury	ug/l	T	2	U							2	U	2	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ							0.25	UJ	0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ							0.34	UJ	0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ							0.2	UJ	0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ							0.27	UJ	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ							0.2	UJ	0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ							0.2	UJ	0.2	UJ
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ							0.2	UJ	0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ							0.2	UJ	0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ							0.2	UJ	0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ							0.2	UJ	0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ							0.55	UJ	0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ							0.2	UJ	0.2	UJ
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ							0.51	J	0.26	J
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ							0.23	UJ	0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	NA			0.72	UJ			0.72	UJ			2	UJ
SW8270	208-96-8	Acenaphthylene	ug/l	NA			0.72	U			0.72	U			2	U
SW8270	120-12-7	Anthracene	ug/l	NA			1.1	U			1.1	U			2.9	U
SW8270	86-73-7	Fluorene	ug/l	NA			0.75	U			0.75	U			2.1	U
SW8270	85-01-8	Phenanthrene	ug/l	NA			1.3	UJ			1.3	UJ			3.6	UJ
SW8270	108-95-2	Phenol	ug/l	NA			0.72	U			0.72	U			2	U
SW9040	pH	pH	ph Units	NA					7.68							

					Location ID	OL-RAA-CAP-0008-I		OL-RAC-CAP-0009-H		OL-RAC-CAP-0009-H		OL-RAC-CAP-0009-H		OL-RAC-CAP-0009-I		OL-RAC-CAP-0016-H	
					Field Sample ID	OL-4043-17		OL-4043-01		OL-4043-02		OL-4043-03		OL-4043-04		OL-4043-05	
					Start Depth (ft)	1.75		0.25		0.25		0.75		1		0.25	
					End Depth (ft)	2		0.5		0.75		1		1.25		0.5	
					Sampled	9/9/2022		9/9/2022		9/9/2022		9/9/2022		9/9/2022		9/9/2022	
					SDG	R2208526		R2208526		R2208526		R2208526		R2208526		R2208526	
					Lab Sample ID	R2208526-017		R2208526-001		R2208526-002		R2208526-003		R2208526-004		R2208526-005	
					Medium	Water		Water		Water		Water		Water		Water	
					Sample Type	REG		REG		REG		REG		REG		REG	
					Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction													
SW7470	7439-97-6	Mercury	ug/l	T													
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA													
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA													
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA													
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA													
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA													
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA													
SW8260	71-43-2	Benzene	ug/l	NA				0.2	UJ			0.2	UJ			0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA													
SW8260	100-41-4	Ethylbenzene	ug/l	NA													
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA													
SW8260	91-20-3	Naphthalene	ug/l	NA													
SW8260	95-47-6	o-Xylene	ug/l	NA													
SW8260	108-88-3	Toluene	ug/l	NA				1.4	J-			2.2	J-			0.92	J
SW8260	1330-20-7	Total Xylenes	ug/l	NA													
SW8270	83-32-9	Acenaphthene	ug/l	NA													
SW8270	208-96-8	Acenaphthylene	ug/l	NA													
SW8270	120-12-7	Anthracene	ug/l	NA													
SW8270	86-73-7	Fluorene	ug/l	NA													
SW8270	85-01-8	Phenanthrene	ug/l	NA													
SW8270	108-95-2	Phenol	ug/l	NA						3.7	J	8.4	J			2.5	U
SW9040	pH	pH	ph Units	NA	7.8									7.24			

				Location ID	OL-RAC-CAP-0016-H		OL-RAC-CAP-0016-I		OL-RAD-CAP-0008-H		OL-RAD-CAP-0008-H		OL-RAD-CAP-0008-I		QC	
				Field Sample ID	OL-4043-06		OL-4043-07		OL-4043-08		OL-4043-09		OL-4043-10		OL-4043-18	
				Start Depth (ft)	0.5		0.75		0.25		0.5		0.75			
				End Depth (ft)	0.75		1		0.5		0.75		1			
				Sampled	9/9/2022		9/9/2022		9/9/2022		9/9/2022		9/9/2022		9/9/2022	
				SDG	R2208526		R2208526		R2208526		R2208526		R2208526		R2208526	
				Lab Sample ID	R2208526-006		R2208526-007		R2208526-008		R2208526-009		R2208526-010		R2208526-018	
				Medium	Water		Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG		TB	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction												
SW7470	7439-97-6	Mercury	ug/l	T												
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA											0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA											0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA											0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA											0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA											0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA											0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ			0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA											0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA											0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA											0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA											0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA											0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	1.6	J-			1.9	J-	5.4	J-			0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA											0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA												
SW8270	208-96-8	Acenaphthylene	ug/l	NA												
SW8270	120-12-7	Anthracene	ug/l	NA												
SW8270	86-73-7	Fluorene	ug/l	NA												
SW8270	85-01-8	Phenanthrene	ug/l	NA												
SW8270	108-95-2	Phenol	ug/l	NA	2.5	U			1.7	U	2.5	U				
SW9040	pH	pH	ph Units	NA			8.06						8.49			

					Location ID		OL-RAA-CAP-0009-H		OL-RAA-CAP-0009-H		OL-RAA-CAP-0009-H		OL-RAA-CAP-0009-H		OL-RAA-CAP-0009-I		OL-RAB-CAP-0018-H	
					Field Sample ID		OL-4044-01		OL-4044-02		OL-4044-03		OL-4044-04		OL-4044-05		OL-4044-07	
					Start Depth (ft)		0.25		0.25		1		1.25		1.5		0.25	
					End Depth (ft)		0.5		0.75		1.5		1.5		1.75		0.5	
					Sampled		9/12/2022		9/12/2022		9/12/2022		9/12/2022		9/12/2022		9/12/2022	
					SDG		R2208570		R2208570		R2208570		R2208570		R2208570		R2208570	
					Lab Sample ID		R2208570-001		R2208570-002		R2208570-003		R2208570-004		R2208570-005		R2208570-006	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		REG	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T	2	U						2	U			2	U	
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ						0.25	UJ			0.25	U	
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ						0.34	UJ			0.34	U	
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ						0.2	UJ			0.2	U	
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ						0.27	UJ			0.27	UJ	
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ						0.2	UJ			0.2	U	
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ						0.2	UJ			0.2	U	
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ						0.2	UJ	0.2	U	0.2	U	
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ						0.2	UJ			0.2	U	
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ						0.2	UJ			0.2	U	
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ						0.2	UJ			0.2	U	
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ						0.55	UJ			0.55	U	
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ						0.2	UJ			0.2	U	
SW8260	108-88-3	Toluene	ug/l	NA	20	J-						2.6	J-	2.1		2.3		
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ						0.23	UJ			0.23	U	
SW8270	83-32-9	Acenaphthene	ug/l	NA			0.72	UJ			0.72	UJ						
SW8270	208-96-8	Acenaphthylene	ug/l	NA			0.72	U			0.72	U						
SW8270	120-12-7	Anthracene	ug/l	NA			1.1	U			1.1	U						
SW8270	86-73-7	Fluorene	ug/l	NA			0.75	U			0.75	U						
SW8270	85-01-8	Phenanthrene	ug/l	NA			1.3	UJ			1.3	UJ						
SW8270	108-95-2	Phenol	ug/l	NA			0.72	U			7	J			13	J		
SW9040	pH	pH	ph Units	NA														

				Location ID	OL-RAB-CAP-0018-H		OL-RAB-CAP-0018-H		OL-RAB-CAP-0018-I		OL-RAB-CAP-0018-I		QC	
				Field Sample ID	OL-4044-08		OL-4044-09		OL-4044-10		OL-4044-11		OL-4044-12	
				Start Depth (ft)	0.5		0.75		1		1.25			
				End Depth (ft)	1		1		1.25		1.5			
				Sampled	9/12/2022		9/12/2022		9/12/2022		9/12/2022		9/12/2022	
				SDG	R2208570		R2208570		R2208570		R2208570		R2208570	
				Lab Sample ID	R2208570-007		R2208570-008		R2208570-009		R2208570-010		R2208570-011	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		TB	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T			2	U	2	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA			0.25	UJ	0.25	UJ			0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA			0.34	UJ	0.34	UJ			0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA			0.2	UJ	0.2	UJ			0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA			0.27	UJ	0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA			0.2	UJ	0.2	UJ			0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA			0.2	UJ	0.2	UJ			0.2	U
SW8260	71-43-2	Benzene	ug/l	NA			0.2	UJ	0.2	UJ			0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA			0.2	UJ	0.2	UJ			0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA			0.2	UJ	0.2	UJ			0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA			0.2	UJ	0.2	UJ			0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA			0.55	UJ	0.55	UJ			0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA			0.2	UJ	0.2	UJ			0.2	U
SW8260	108-88-3	Toluene	ug/l	NA			8.1	J-	3.3	J-			0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA			0.23	UJ	0.23	UJ			0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA	0.72	UJ			1.5	UJ				
SW8270	208-96-8	Acenaphthylene	ug/l	NA	0.72	U			1.5	U				
SW8270	120-12-7	Anthracene	ug/l	NA	1.1	U			2.1	U				
SW8270	86-73-7	Fluorene	ug/l	NA	0.75	U			1.5	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA	1.3	UJ			2.6	UJ				
SW8270	108-95-2	Phenol	ug/l	NA	0.72	U			1.5	U				
SW9040	pH	pH	ph Units	NA							7.28			

					Location ID		OL-RAB-CAP-0016-H		OL-RAB-CAP-0016-H		OL-RAB-CAP-0016-H		OL-RAB-CAP-0016-I		OL-RAB-CAP-0016-I		QC	
					Field Sample ID		OL-4045-01		OL-4045-02		OL-4045-03		OL-4045-04		OL-4045-06		OL-4045-07	
					Start Depth (ft)		0.25		0.25		0.75		1		1.25			
					End Depth (ft)		0.5		0.75		1		1.25		1.5			
					Sampled		9/12/2022		9/12/2022		9/12/2022		9/12/2022		9/12/2022		9/13/2022	
					SDG		R2208641		R2208641		R2208641		R2208641		R2208641		R2208641	
					Lab Sample ID		R2208641-001		R2208641-002		R2208641-003		R2208641-004		R2208641-005		R2208641-006	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		TB	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T	2	U			2	U	2	U						
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	UJ	0.25	UJ					0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	UJ	0.34	UJ					0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ					0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ	0.27	UJ					0.27	U
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ					0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ					0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ					0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ					0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ					0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ					0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ			0.55	UJ	0.55	UJ					0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ					0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	17	J-			9.7	J-	5.4	J-					0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	UJ	0.23	UJ					0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA			0.72	UJ	2.5	UJ	2	UJ						
SW8270	208-96-8	Acenaphthylene	ug/l	NA			0.72	UJ	2.5	UJ	2	UJ						
SW8270	120-12-7	Anthracene	ug/l	NA			1.1	UJ	3.6	UJ	2.9	UJ						
SW8270	86-73-7	Fluorene	ug/l	NA			0.75	UJ	2.6	UJ	2.1	UJ						
SW8270	85-01-8	Phenanthrene	ug/l	NA			1.3	UJ	4.4	UJ	3.6	UJ						
SW8270	108-95-2	Phenol	ug/l	NA			0.72	UJ	2.5	UJ	2	UJ						
SW9040	pH	pH	ph Units	NA									8.67					

					Location ID	OL-RAB-CAP-0008-H		OL-RAB-CAP-0008-H		OL-RAB-CAP-0008-H		OL-RAB-CAP-0008-I		OL-RAB-CAP-0008-I		OL-RAB-CAP-0012A-H	
					Field Sample ID	OL-4047-01		OL-4047-02		OL-4047-03		OL-4047-04		OL-4047-05		OL-4047-13	
					Start Depth (ft)	0.25		0.25		0.75		1		1.25		0.25	
					End Depth (ft)	0.5		0.75		1		1.25		1.5		0.5	
					Sampled	9/14/2022		9/14/2022		9/14/2022		9/14/2022		9/14/2022		9/14/2022	
					SDG	R2208712		R2208712		R2208712		R2208712		R2208712		R2208712	
					Lab Sample ID	R2208712-001		R2208712-002		R2208712-003		R2208712-004		R2208712-005		R2208712-013	
					Medium	Water		Water		Water		Water		Water		Water	
					Sample Type	REG		REG		REG		REG		REG		REG	
					Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction													
SW7470	7439-97-6	Mercury	ug/l	T		0.08	U			0.08	U	0.08	U			0.08	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA		0.25	U			0.25	U	0.25	U			0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA		0.34	U			0.34	U	0.34	U			0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA		0.2	U			0.2	U	0.2	U			0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA		0.27	U			0.27	U	0.27	U			0.27	U
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA		0.2	U			0.2	U	0.2	U			0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA		0.2	U			0.2	U	0.2	U			0.2	U
SW8260	71-43-2	Benzene	ug/l	NA		0.2	U			0.2	U	0.2	U			0.31	J
SW8260	108-90-7	Chlorobenzene	ug/l	NA		0.2	U			0.2	U	0.2	U			0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA		0.2	U			0.2	U	0.2	U			0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA		0.2	U			0.2	U	0.2	U			0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA		0.55	U			0.55	U	0.55	U			0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA		0.2	U			0.2	U	0.2	U			0.2	U
SW8260	108-88-3	Toluene	ug/l	NA		0.44	J			0.57	J	0.84	J			3.4	
SW8260	1330-20-7	Total Xylenes	ug/l	NA		0.23	U			0.23	U	0.23	U			0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA				0.46	UJ	1.7	UJ	1.7	UJ				
SW8270	208-96-8	Acenaphthylene	ug/l	NA				0.46	UJ	1.7	UJ	1.7	UJ				
SW8270	120-12-7	Anthracene	ug/l	NA				0.65	UJ	2.4	UJ	2.4	UJ				
SW8270	86-73-7	Fluorene	ug/l	NA				0.48	UJ	1.8	UJ	1.8	UJ				
SW8270	85-01-8	Phenanthrene	ug/l	NA				0.8	UJ	3	UJ	3	UJ				
SW8270	108-95-2	Phenol	ug/l	NA				0.46	U	1.7	U	1.7	U				
SW9040	pH	pH	ph Units	NA										8.06			

			Location ID		OL-RAB-CAP-0012A-H		OL-RAB-CAP-0012A-H		OL-RAB-CAP-0012A-I		OL-RAB-CAP-0012A-I		OL-RAC-CAP-0001-H		OL-RAC-CAP-0001-H	
			Field Sample ID		OL-4047-14		OL-4047-15		OL-4047-16		OL-4047-17		OL-4047-06		OL-4047-07	
			Start Depth (ft)		0.25		0.75		1		1.25		0.25		0.25	
			End Depth (ft)		0.75		1		1.25		1.5		0.5		0.75	
			Sampled		9/14/2022		9/14/2022		9/14/2022		9/14/2022		9/14/2022		9/14/2022	
			SDG		R2208712		R2208712		R2208712		R2208712		R2208712		R2208712	
			Lab Sample ID		R2208712-014		R2208712-015		R2208712-016		R2208712-017		R2208712-006		R2208712-007	
			Medium		Water		Water		Water		Water		Water		Water	
			Sample Type		REG		REG		REG		REG		REG		REG	
			Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction												
SW7470	7439-97-6	Mercury	ug/l	T			0.08	U	0.08	U			0.08	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA			0.25	U	0.25	U			0.25	U		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA			0.34	U	0.34	U			0.34	U		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA			0.2	U	0.2	U			0.2	U		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA			0.27	U	0.27	U			0.27	U		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA			0.2	U	0.2	U			0.2	U		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA			0.2	U	0.2	U			0.2	U		
SW8260	71-43-2	Benzene	ug/l	NA			0.2	U	0.2	U			0.2	U		
SW8260	108-90-7	Chlorobenzene	ug/l	NA			0.2	U	0.2	U			0.2	U		
SW8260	100-41-4	Ethylbenzene	ug/l	NA			0.2	U	0.2	U			0.2	U		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA			0.2	U	0.2	U			0.2	U		
SW8260	91-20-3	Naphthalene	ug/l	NA			0.55	U	0.55	U			0.55	U		
SW8260	95-47-6	o-Xylene	ug/l	NA			0.2	U	0.2	U			0.2	U		
SW8260	108-88-3	Toluene	ug/l	NA			1.2		1.1				0.27	J		
SW8260	1330-20-7	Total Xylenes	ug/l	NA			0.23	U	0.23	U			0.23	U		
SW8270	83-32-9	Acenaphthene	ug/l	NA	0.67	UJ	2.5	UJ	2	UJ					0.59	UJ
SW8270	208-96-8	Acenaphthylene	ug/l	NA	0.67	UJ	2.5	UJ	2	UJ					0.59	UJ
SW8270	120-12-7	Anthracene	ug/l	NA	0.95	UJ	3.6	UJ	2.9	UJ					0.84	UJ
SW8270	86-73-7	Fluorene	ug/l	NA	0.7	UJ	2.6	UJ	2.1	UJ					0.62	UJ
SW8270	85-01-8	Phenanthrene	ug/l	NA	1.2	UJ	4.4	UJ	3.6	UJ					1.1	UJ
SW8270	108-95-2	Phenol	ug/l	NA	0.67	U	2.5	U	2	U					0.59	U
SW9040	pH	pH	ph Units	NA							7.89					

				Location ID	OL-RAC-CAP-0001-H			OL-RAC-CAP-0001-H			OL-RAC-CAP-0001-H			OL-RAC-CAP-0001-I			OL-RAC-CAP-0001-I			OL-RAC-CAP-0007-H		
				Field Sample ID	OL-4047-08			OL-4047-09			OL-4047-10			OL-4047-11			OL-4047-12			OL-4047-18		
				Start Depth (ft)	0.75			1			1.25			1.5			1.75			0.25		
				End Depth (ft)	1			1.5			1.5			1.75			2			0.5		
				Sampled	9/14/2022			9/14/2022			9/14/2022			9/14/2022			9/14/2022			9/14/2022		
				SDG	R2208712			R2208712			R2208712			R2208712			R2208712			R2208712		
				Lab Sample ID	R2208712-008			R2208712-009			R2208712-010			R2208712-011			R2208712-012			R2208712-018		
				Medium	Water			Water			Water			Water			Water			Water		
				Sample Type	REG			REG			REG			REG			REG			REG		
				Matrix	W-PORE			W-PORE			W-PORE			W-PORE			W-PORE					
Method	Parameter Code	Parameter Name	Units	Fraction																		
SW7470	7439-97-6	Mercury	ug/l	T							0.08	U		0.08	U					0.08	U	
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA							0.25	U		0.25	U					0.25	U	
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA							0.34	U		0.34	U					0.34	U	
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA							0.2	U		0.2	U					0.2	U	
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA							0.27	U		0.27	U					0.27	U	
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA							0.2	U		0.2	U					0.2	U	
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA							0.2	U		0.2	U					0.2	U	
SW8260	71-43-2	Benzene	ug/l	NA							0.2	U		0.2	U					0.2	U	
SW8260	108-90-7	Chlorobenzene	ug/l	NA							0.2	U		0.2	U					0.2	U	
SW8260	100-41-4	Ethylbenzene	ug/l	NA							0.2	U		0.2	U					0.2	U	
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA							0.2	U		0.2	U					0.2	U	
SW8260	91-20-3	Naphthalene	ug/l	NA							0.55	U		0.55	U					0.55	U	
SW8260	95-47-6	o-Xylene	ug/l	NA							0.2	U		0.2	U					0.2	U	
SW8260	108-88-3	Toluene	ug/l	NA							0.2	U		0.27	J					0.36	J	
SW8260	1330-20-7	Total Xylenes	ug/l	NA							0.23	U		0.23	U					0.23	U	
SW8270	83-32-9	Acenaphthene	ug/l	NA				0.72	UJ					2	UJ							
SW8270	208-96-8	Acenaphthylene	ug/l	NA				0.72	UJ					2	UJ							
SW8270	120-12-7	Anthracene	ug/l	NA				1.1	UJ					2.9	UJ							
SW8270	86-73-7	Fluorene	ug/l	NA				0.75	UJ					2.1	UJ							
SW8270	85-01-8	Phenanthrene	ug/l	NA				1.3	UJ					3.6	UJ							
SW8270	108-95-2	Phenol	ug/l	NA				0.72	U					2	U							
SW9040	pH	pH	ph Units	NA	7.97												8.27					

			Location ID		OL-RAC-CAP-0007-H		OL-RAC-CAP-0007-I		QC	
			Field Sample ID		OL-4047-19		OL-4047-20		OL-4047-21	
			Start Depth (ft)		0.25		0.75			
			End Depth (ft)		0.75		1			
			Sampled		9/14/2022		9/14/2022		9/14/2022	
			SDG		R2208712		R2208712		R2208712	
			Lab Sample ID		R2208712-019		R2208712-020		R2208712-021	
			Medium		Water		Water		Water	
			Sample Type		REG		REG		TB	
			Matrix		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW7470	7439-97-6	Mercury	ug/l	T						
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA					0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA					0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA					0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA					0.27	U
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA					0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA					0.2	U
SW8260	71-43-2	Benzene	ug/l	NA					0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA					0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA					0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA					0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA					0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA					0.2	U
SW8260	108-88-3	Toluene	ug/l	NA					0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA					0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA	0.72	UJ				
SW8270	208-96-8	Acenaphthylene	ug/l	NA	0.72	UJ				
SW8270	120-12-7	Anthracene	ug/l	NA	1.1	UJ				
SW8270	86-73-7	Fluorene	ug/l	NA	0.75	UJ				
SW8270	85-01-8	Phenanthrene	ug/l	NA	1.3	UJ				
SW8270	108-95-2	Phenol	ug/l	NA	0.72	U				
SW9040	pH	pH	ph Units	NA			7.38			

					Location ID		OL-RAC-CAP-0003-H		OL-RAC-CAP-0003-H		OL-RAC-CAP-0003-H		OL-RAC-CAP-0023-I		OL-RAC-CAP-0023-I		QC	
					Field Sample ID		OL-4049-01		OL-4049-02		OL-4049-03		OL-4049-04		OL-4049-05		OL-4049-06	
					Start Depth (ft)		0.25		0.25		0.75		1		1.25			
					End Depth (ft)		0.5		0.75		1		1.25		1.5			
					Sampled		9/20/2022		9/20/2022		9/20/2022		9/20/2022		9/20/2022		9/20/2022	
					SDG		R2208927		R2208927		R2208927		R2208927		R2208927		R2208927	
					Lab Sample ID		R2208927-001		R2208927-002		R2208927-003		R2208927-004		R2208927-005		R2208927-006	
					Medium		Water		Water		Water		Water		Water		Water	
					Sample Type		REG		REG		REG		REG		REG		TB	
					Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction														
SW7470	7439-97-6	Mercury	ug/l	T									0.2	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA									0.25	U			0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA									0.34	U			0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA									0.2	U			0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA									0.27	U			0.27	U
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA									0.2	U			0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA									0.2	U			0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U					0.2	U	0.2	U			0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA									0.2	U			0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA									0.2	U			0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA									0.2	U			0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA									0.55	U			0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA									0.2	U			0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.23	J					0.25	J	2.4				0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA									0.23	U			0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA									1.3	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA									1.3	U				
SW8270	120-12-7	Anthracene	ug/l	NA									1.8	U				
SW8270	86-73-7	Fluorene	ug/l	NA									1.3	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA									2.2	U				
SW8270	108-95-2	Phenol	ug/l	NA					0.67	U	1.5	U	1.3	U				
SW9040	pH	pH	ph Units	NA											7.12			

			Location ID		OL-RAB-CAP-0005-H		OL-RAB-CAP-0005-H		QC	
			Field Sample ID		OL-4051-01		OL-4051-01		OL-4051-02	
			Start Depth (ft)		0		0			
			End Depth (ft)		0.25		0.25			
			Sampled		10/11/2022		10/11/2022		10/12/2022	
			SDG		R2209794		R2209794		R2209794	
			Lab Sample ID		R2209794-001		R2209794-002		R2209794-003	
			Medium		Water		Water		Water	
			Sample Type		REG		REG		TB	
			Matrix		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	D			1.3	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	D			1.7	U		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	D			1	U		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	D			1.4	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	D			1	U		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	D			1	U		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	71-43-2	Benzene	ug/l	D			1	U		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	D			1	U		
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	D			1	U		
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	D			1	U		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	U
SW8260	91-20-3	Naphthalene	ug/l	D			2.8	U		
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ			0.55	U
SW8260	95-47-6	o-Xylene	ug/l	D			1	U		
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	U
SW8260	108-88-3	Toluene	ug/l	D			1	U		
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ			0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	D			1.2	U		
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	D			0.2	U		
SW8270	83-32-9	Acenaphthene	ug/l	NA	0.21	U				
SW8270	208-96-8	Acenaphthylene	ug/l	D			0.2	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA	0.21	U				
SW8270	120-12-7	Anthracene	ug/l	D			0.29	U		
SW8270	120-12-7	Anthracene	ug/l	NA	0.3	U				
SW8270	86-73-7	Fluorene	ug/l	D			0.21	U		
SW8270	86-73-7	Fluorene	ug/l	NA	0.22	U				
SW8270	85-01-8	Phenanthrene	ug/l	D			0.36	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA	0.37	U				
SW8270	108-95-2	Phenol	ug/l	D			8.8	J		
SW8270	108-95-2	Phenol	ug/l	NA	0.21	UJ				
SW9040	pH	pH	ph Units	NA	7.55					

				Location ID	OL-RAB-CAP-0007-H		OL-RAB-CAP-0007-H		QC	
				Field Sample ID	OL-4052-01		OL-4052-01		OL-4052-02	
				Start Depth (ft)	0		0			
				End Depth (ft)	0.33		0.33			
				Sampled	10/12/2022		10/12/2022		10/13/2022	
				SDG	R2209872		R2209872		R2209872	
				Lab Sample ID	R2209872-001		R2209872-002		R2209872-003	
				Medium	Water		Water		Water	
				Sample Type	REG		REG		TB	
				Matrix	W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	D			0.25	UJ		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	D			0.34	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	D			0.2	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	D			0.27	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	D			0.2	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	D			0.2	UJ		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	71-43-2	Benzene	ug/l	D			0.2	UJ		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	D			0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	D			0.2	UJ		
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	D			0.2	UJ		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	D			0.55	UJ		
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ			0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	D			0.2	UJ		
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	108-88-3	Toluene	ug/l	D			0.2	UJ		
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	1330-20-7	Total Xylenes	ug/l	D			0.23	UJ		
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	D			0.2	U		
SW8270	83-32-9	Acenaphthene	ug/l	NA	0.2	U				
SW8270	208-96-8	Acenaphthylene	ug/l	D			0.2	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA	0.2	U				
SW8270	120-12-7	Anthracene	ug/l	D			0.29	U		
SW8270	120-12-7	Anthracene	ug/l	NA	0.29	U				
SW8270	86-73-7	Fluorene	ug/l	D			0.21	U		
SW8270	86-73-7	Fluorene	ug/l	NA	0.21	U				
SW8270	85-01-8	Phenanthrene	ug/l	D			0.36	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA	0.36	U				
SW8270	108-95-2	Phenol	ug/l	D			26	J		
SW8270	108-95-2	Phenol	ug/l	NA	8.7	J				
SW9040	pH	pH	ph Units	NA	7.24					

				Location ID	OL-RAC-CAP-0006-H		OL-RAC-CAP-0006-H		OL-RAC-CAP-0008-H		OL-RAC-CAP-0008-H		QC	
				Field Sample ID	OL-4054-01		OL-4054-01		OL-4054-02		OL-4054-02		OL-4054-03	
				Start Depth (ft)	0		0		0		0			
				End Depth (ft)	0.33		0.33		0.25		0.25			
				Sampled	10/14/2022		10/14/2022		10/14/2022		10/14/2022		10/14/2022	
				SDG	R2209909		R2209909		R2209909		R2209909		R2209909	
				Lab Sample ID	R2209909-001		R2209909-002		R2209909-003		R2209909-004		R2209909-005	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		TB	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	D			0.25	U			0.25	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U			0.25	U			0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	D			0.34	U			0.34	U		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U			0.34	U			0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	D			0.2	U			0.2	U		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U			0.2	U			0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	D			0.27	UJ			0.27	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	D			0.2	U			0.2	U		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U			0.2	U			0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	D			0.2	U			0.2	U		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U			0.2	U			0.2	U
SW8260	71-43-2	Benzene	ug/l	D			0.2	U			0.2	U		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U			0.2	U			0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	D			0.2	U			0.2	U		
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U			0.2	U			0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	D			0.2	U			0.2	U		
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U			0.2	U			0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	D			0.2	U			0.2	U		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U			0.2	U			0.2	U
SW8260	91-20-3	Naphthalene	ug/l	D			0.55	U			0.55	U		
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U			0.55	U			0.55	U
SW8260	95-47-6	o-Xylene	ug/l	D			0.2	U			0.2	U		
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U			0.2	U			0.2	U
SW8260	108-88-3	Toluene	ug/l	D			0.2	U			0.2	U		
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U			0.2	U			0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	D			0.23	U			0.23	U		
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U			0.23	U			0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	D			0.23	U			0.24	U		
SW8270	83-32-9	Acenaphthene	ug/l	NA	0.25	U								
SW8270	208-96-8	Acenaphthylene	ug/l	D			0.23	U			0.24	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA	0.25	U								
SW8270	120-12-7	Anthracene	ug/l	D			0.33	U			0.34	U		
SW8270	120-12-7	Anthracene	ug/l	NA	0.36	U								
SW8270	86-73-7	Fluorene	ug/l	D			0.24	U			0.25	U		
SW8270	86-73-7	Fluorene	ug/l	NA	0.26	U								
SW8270	85-01-8	Phenanthrene	ug/l	D			0.4	U			0.42	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA	0.44	U								
SW8270	108-95-2	Phenol	ug/l	D			78	J			61			
SW8270	108-95-2	Phenol	ug/l	NA	48	J								
SW9040	pH	pH	ph Units	NA	7.09				7.11					

			Location ID		OL-RAC-CAP-0010-H		OL-RAC-CAP-0010-H		QC	
			Field Sample ID		OL-4057-01		OL-4057-01		OL-4057-02	
			Start Depth (ft)		0		0			
			End Depth (ft)		0.5		0.5			
			Sampled		10/19/2022		10/19/2022		10/19/2022	
			SDG		R2210038		R2210038		R2210038	
			Lab Sample ID		R2210038-001		R2210038-002		R2210038-003	
			Medium		Water		Water		Water	
			Sample Type		REG		REG		TB	
			Matrix		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	D			2.5	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	D			3.4	U		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	D			2	U		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	D			2.7	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	D			2	U		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	D			2	U		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	71-43-2	Benzene	ug/l	D			2	U		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	D			2	U		
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	D			2	U		
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	D			2	U		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	D			5.5	U		
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ			0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	D			2	U		
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	108-88-3	Toluene	ug/l	D			2	U		
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	1330-20-7	Total Xylenes	ug/l	D			2.3	U		
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	D			0.2	U		
SW8270	83-32-9	Acenaphthene	ug/l	NA	0.21	U				
SW8270	208-96-8	Acenaphthylene	ug/l	D			0.2	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA	0.21	U				
SW8270	120-12-7	Anthracene	ug/l	D			0.28	U		
SW8270	120-12-7	Anthracene	ug/l	NA	0.3	U				
SW8270	86-73-7	Fluorene	ug/l	D			0.21	U		
SW8270	86-73-7	Fluorene	ug/l	NA	0.22	U				
SW8270	85-01-8	Phenanthrene	ug/l	D			0.35	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA	0.37	U				
SW8270	108-95-2	Phenol	ug/l	D			38	J+		
SW8270	108-95-2	Phenol	ug/l	NA	31					
SW9040	pH	pH	ph Units	NA	9.53					

			Location ID	OL-RAC-CAP-0012-H		OL-RAC-CAP-0012-H		OL-RAC-CAP-0018-H		OL-RAC-CAP-0018-H		QC	
			Field Sample ID	OL-4058-01		OL-4058-01		OL-4058-02		OL-4058-02		OL-4058-03	
			Start Depth (ft)	0		0		0		0			
			End Depth (ft)	0.5		0.5		0.5		0.5			
			Sampled	10/19/2022		10/19/2022		10/20/2022		10/20/2022		10/20/2022	
			SDG	R2210132		R2210132		R2210132		R2210132		R2210132	
			Lab Sample ID	R2210132-001		R2210132-002		R2210132-003		R2210132-004		R2210132-005	
			Medium	Water		Water		Water		Water		Water	
			Sample Type	REG		REG		REG		REG		TB	
			Matrix	W-PORE		W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction									
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	D		0.25	U			0.25	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U		0.25	U			0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	D		0.34	U			0.34	U		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U		0.34	U			0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	D		0.2	U			0.2	U		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U		0.2	U			0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	D		0.27	UJ			0.27	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ		0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	D		0.2	U			0.2	U		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U		0.2	U			0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	D		0.2	U			0.2	U		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U		0.2	U			0.2	U
SW8260	71-43-2	Benzene	ug/l	D		1.3				0.2	U		
SW8260	71-43-2	Benzene	ug/l	NA	1.5			0.2	U			0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	D		0.23	J			0.2	U		
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.22	J		0.2	U			0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	D		0.2	U			0.2	U		
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U		0.2	U			0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	D		0.24	J			0.2	U		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.26	J		0.2	U			0.2	U
SW8260	91-20-3	Naphthalene	ug/l	D		0.55	U			0.55	U		
SW8260	91-20-3	Naphthalene	ug/l	NA	0.66	J		0.55	U			0.55	U
SW8260	95-47-6	o-Xylene	ug/l	D		0.2	J			0.2	U		
SW8260	95-47-6	o-Xylene	ug/l	NA	0.23	J		0.2	U			0.2	U
SW8260	108-88-3	Toluene	ug/l	D		0.56	J			0.2	U		
SW8260	108-88-3	Toluene	ug/l	NA	0.58	J		0.2	U			0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	D		0.44	J			0.23	U		
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.49	J		0.23	U			0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	D		0.22	U			0.18	U		
SW8270	208-96-8	Acenaphthylene	ug/l	D		0.22	U			0.18	U		
SW8270	120-12-7	Anthracene	ug/l	D		0.31	U			0.26	U		
SW8270	86-73-7	Fluorene	ug/l	D		0.23	U			0.19	U		
SW8270	85-01-8	Phenanthrene	ug/l	D		0.39	U			0.32	U		
SW8270	108-95-2	Phenol	ug/l	D		20				3.4	J		
SW9040	pH	pH	ph Units	NA	9.46			7.22					

				Location ID	OL-RAD-CAP-0005-H		OL-RAD-CAP-0005-H		QC	
				Field Sample ID	OL-4061-01		OL-4061-01		OL-4061-02	
				Start Depth (ft)	0		0			
				End Depth (ft)	0.5		0.5			
				Sampled	10/21/2022		10/21/2022		10/21/2022	
				SDG	R2210185		R2210185		R2210185	
				Lab Sample ID	R2210185-001		R2210185-002		R2210185-003	
				Medium	Water		Water		Water	
				Sample Type	REG		REG		TB	
				Matrix	W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	D			0.25	UJ		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	D			0.34	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	D			0.2	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	D			0.27	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	D			0.2	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	D			0.2	UJ		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	71-43-2	Benzene	ug/l	D			0.2	UJ		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	D			0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	D			0.2	UJ		
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	D			0.2	UJ		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	U
SW8260	91-20-3	Naphthalene	ug/l	D			0.55	UJ		
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ			0.55	U
SW8260	95-47-6	o-Xylene	ug/l	D			0.2	UJ		
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	U
SW8260	108-88-3	Toluene	ug/l	D			0.2	UJ		
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ			0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	D			0.23	UJ		
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	D			0.23	U		
SW8270	208-96-8	Acenaphthylene	ug/l	D			0.23	U		
SW8270	120-12-7	Anthracene	ug/l	D			0.32	U		
SW8270	86-73-7	Fluorene	ug/l	D			0.24	U		
SW8270	85-01-8	Phenanthrene	ug/l	D			0.4	U		
SW8270	108-95-2	Phenol	ug/l	D			0.23	U		
SW9040	pH	pH	ph Units	NA	7.12					

				Location ID	OL-RAC-CAP-0014-H		OL-RAC-CAP-0014-H		QC	
				Field Sample ID	OL-4062-01		OL-4062-01		OL-4062-02	
				Start Depth (ft)	0		0			
				End Depth (ft)	0.5		0.5			
				Sampled	10/25/2022		10/25/2022		10/25/2022	
				SDG	R2210257		R2210257		R2210257	
				Lab Sample ID	R2210257-001		R2210257-002		R2210257-003	
				Medium	Water		Water		Water	
				Sample Type	REG		REG		TB	
				Matrix	W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	D			0.25	UJ		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	D			0.34	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	D			0.2	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	D			0.27	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	D			0.2	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	D			0.2	UJ		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	71-43-2	Benzene	ug/l	D			0.2	UJ		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	D			0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	D			0.2	UJ		
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	D			0.2	UJ		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	U
SW8260	91-20-3	Naphthalene	ug/l	D			0.55	UJ		
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ			0.55	U
SW8260	95-47-6	o-Xylene	ug/l	D			0.2	UJ		
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	U
SW8260	108-88-3	Toluene	ug/l	D			0.2	UJ		
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ			0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	D			0.23	UJ		
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	D			0.18	U		
SW8270	208-96-8	Acenaphthylene	ug/l	D			0.18	U		
SW8270	120-12-7	Anthracene	ug/l	D			0.26	U		
SW8270	86-73-7	Fluorene	ug/l	D			0.19	U		
SW8270	85-01-8	Phenanthrene	ug/l	D			0.32	U		
SW8270	108-95-2	Phenol	ug/l	D			0.98	J		
SW9040	pH	pH	ph Units	NA	7.06					

				Location ID	OL-RAC-CAP-0015-H		OL-RAC-CAP-0015-H		OL-RAD-CAP-0011-H		OL-RAD-CAP-0011-H		QC	
				Field Sample ID	OL-4064-01		OL-4064-01		OL-4064-02		OL-4064-02		OL-4064-03	
				Start Depth (ft)	0		0		0		0			
				End Depth (ft)	0.5		0.5		0.5		0.5			
				Sampled	10/25/2022		10/25/2022		10/26/2022		10/26/2022		10/26/2022	
				SDG	R2210304		R2210304		R2210304		R2210304		R2210304	
				Lab Sample ID	R2210304-001		R2210304-002		R2210304-003		R2210304-004		R2210304-005	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		TB	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	D			0.25	UJ			0.25	UJ		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	UJ			0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	D			0.34	UJ			0.34	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	UJ			0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	D			0.2	UJ			0.2	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	D			0.27	UJ			0.27	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	D			0.2	UJ			0.2	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	D			0.2	UJ			0.2	UJ		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	71-43-2	Benzene	ug/l	D			0.2	UJ			0.2	UJ		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	D			0.2	UJ			0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	D			0.2	UJ			0.2	UJ		
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	D			0.2	UJ			0.2	UJ		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	D			0.55	UJ			0.55	UJ		
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ			0.55	UJ			0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	D			0.2	UJ			0.2	UJ		
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	108-88-3	Toluene	ug/l	D			0.2	UJ			0.2	UJ		
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	1330-20-7	Total Xylenes	ug/l	D			0.23	UJ			0.23	UJ		
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	UJ			0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	D			0.18	U			0.18	U		
SW8270	83-32-9	Acenaphthene	ug/l	NA	1.3				0.18	U				
SW8270	208-96-8	Acenaphthylene	ug/l	D			0.18	U			0.18	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA	0.18	U			0.18	U				
SW8270	120-12-7	Anthracene	ug/l	D			0.25	U			0.25	U		
SW8270	120-12-7	Anthracene	ug/l	NA	0.25	U			0.25	U				
SW8270	86-73-7	Fluorene	ug/l	D			0.19	U			0.19	U		
SW8270	86-73-7	Fluorene	ug/l	NA	0.87				0.19	U				
SW8270	85-01-8	Phenanthrene	ug/l	D			0.31	U			0.31	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA	0.85				0.31	U				
SW8270	108-95-2	Phenol	ug/l	D			4.9				0.31	J		
SW8270	108-95-2	Phenol	ug/l	NA	8.3				0.18	U				
SW9040	pH	pH	ph Units	NA	7.11				7.56					

				Location ID	OL-RAE-CAP-0042-H		OL-RAE-CAP-0042-H		QC		QC	
				Field Sample ID	OL-4067-01		OL-4067-01		OL-4067-02		OL-4067-03	
				Start Depth (ft)	0		0					
				End Depth (ft)	0.5		0.5					
				Sampled	10/27/2022		10/27/2022		10/27/2022		10/27/2022	
				SDG	R2210382		R2210382		R2210382		R2210382	
				Lab Sample ID	R2210382-001		R2210382-002		R2210382-003		R2210382-004	
				Medium	Water		Water		Water		Water	
				Sample Type	REG		REG		EB		TB	
				Matrix	W-PORE		W-PORE		WQ		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	D			0.25	UJ				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	UJ	0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	D			0.34	UJ				
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	UJ	0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	D			0.2	UJ				
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	D			0.27	UJ				
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	D			0.2	UJ				
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	D			0.2	UJ				
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	1	UJ			0.6	J	0.2	UJ
SW8260	71-43-2	Benzene	ug/l	D			0.2	UJ				
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	D			0.2	UJ				
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.27	J			0.2	UJ	0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	D			0.2	UJ				
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	D			0.2	UJ				
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	D			0.55	UJ				
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ			0.55	UJ	0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	D			0.2	UJ				
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ
SW8260	108-88-3	Toluene	ug/l	D			0.2	UJ				
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ
SW8260	1330-20-7	Total Xylenes	ug/l	D			0.23	UJ				
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	UJ	0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	D			0.24	J				
SW8270	83-32-9	Acenaphthene	ug/l	NA					0.2	U		
SW8270	208-96-8	Acenaphthylene	ug/l	D			0.22	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA					0.2	U		
SW8270	120-12-7	Anthracene	ug/l	D			0.31	U				
SW8270	120-12-7	Anthracene	ug/l	NA					0.28	U		
SW8270	86-73-7	Fluorene	ug/l	D			0.23	U				
SW8270	86-73-7	Fluorene	ug/l	NA					0.2	U		
SW8270	85-01-8	Phenanthrene	ug/l	D			0.39	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA					0.34	U		
SW8270	108-95-2	Phenol	ug/l	D			3.3	J				
SW8270	108-95-2	Phenol	ug/l	NA					0.3	J		
SW9040	pH	pH	ph Units	NA					6.61			

					Location ID	OL-RAC-CAP-0017-H		OL-RAC-CAP-0017-H		OL-RAC-CAP-0017-I		OL-RAE-CAP-0038-H		OL-RAE-CAP-0038-H		QC	
					Field Sample ID	OL-4068-02		OL-4068-03		OL-4068-04		OL-4068-01		OL-4068-01		OL-4068-05	
					Start Depth (ft)	0.25		0.5		0.75		0		0			
					End Depth (ft)	0.5		0.75		1		0.5		0.5			
					Sampled	10/28/2022		10/28/2022		10/28/2022		10/28/2022		10/28/2022		10/28/2022	
					SDG	R2210421		R2210421		R2210421		R2210421		R2210421		R2210421	
					Lab Sample ID	R2210421-003		R2210421-004		R2210421-005		R2210421-001		R2210421-002		R2210421-006	
					Medium	Water		Water		Water		Water		Water		Water	
					Sample Type	REG		REG		REG		REG		REG		TB	
					Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction													
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	D										0.25	UJ		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA								0.25	UJ			0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	D										0.34	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA								0.34	UJ			0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	D										0.2	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA								0.2	UJ			0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	D										0.27	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA								0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	D										0.2	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA								0.2	UJ			0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	D										0.2	J		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA								0.27	J			0.2	UJ
SW8260	71-43-2	Benzene	ug/l	D										0.61	J		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ		0.2	UJ			0.8	J			0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	D										0.35	J		
SW8260	108-90-7	Chlorobenzene	ug/l	NA								0.52	J			0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	D										5.3	J-		
SW8260	100-41-4	Ethylbenzene	ug/l	NA								7.4	J-			0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	D										1.1	J		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA								1.6	J			0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	D										170	J-		
SW8260	91-20-3	Naphthalene	ug/l	NA								240	J-			0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	D										4.4	J-		
SW8260	95-47-6	o-Xylene	ug/l	NA								6.1	J-			0.2	UJ
SW8260	108-88-3	Toluene	ug/l	D										6.6	J-		
SW8260	108-88-3	Toluene	ug/l	NA	2.4	J-		2.6	J-			5.2	J-			0.2	UJ
SW8260	1330-20-7	Total Xylenes	ug/l	D										5.5	J-		
SW8260	1330-20-7	Total Xylenes	ug/l	NA								7.7	J-			0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	D										13			
SW8270	83-32-9	Acenaphthene	ug/l	NA								17					
SW8270	208-96-8	Acenaphthylene	ug/l	D										0.28	J		
SW8270	208-96-8	Acenaphthylene	ug/l	NA								0.42	J				
SW8270	120-12-7	Anthracene	ug/l	D										0.5	J		
SW8270	120-12-7	Anthracene	ug/l	NA								2.5					
SW8270	86-73-7	Fluorene	ug/l	D										2.7			
SW8270	86-73-7	Fluorene	ug/l	NA								4.9					
SW8270	85-01-8	Phenanthrene	ug/l	D										2.1			
SW8270	85-01-8	Phenanthrene	ug/l	NA								7.5					
SW8270	108-95-2	Phenol	ug/l	D										15			
SW8270	108-95-2	Phenol	ug/l	NA	16	J		11	J			9.6					
SW9040	pH	pH	ph Units	NA						8.26							

				Location ID	OL-RAE-CAP-0036-H		OL-RAE-CAP-0036-H		QC	
				Field Sample ID	OL-4070-01		OL-4070-01		OL-4070-02	
				Start Depth (ft)	0		0			
				End Depth (ft)	0.417		0.417			
				Sampled	10/31/2022		10/31/2022		10/31/2022	
				SDG	R2210454		R2210454		R2210454	
				Lab Sample ID	R2210454-001		R2210454-002		R2210454-003	
				Medium	Water		Water		Water	
				Sample Type	REG		REG		TB	
				Matrix	W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	D			0.25	UJ		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	D			0.34	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	D			0.2	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	D			0.27	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	D			0.2	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	D			0.2	UJ		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	71-43-2	Benzene	ug/l	D			0.2	UJ		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	D			0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	D			0.2	UJ		
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	D			0.2	UJ		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	D			0.55	UJ		
SW8260	91-20-3	Naphthalene	ug/l	NA	0.78	J			0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	D			0.2	UJ		
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	108-88-3	Toluene	ug/l	D			0.2	UJ		
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ			0.2	UJ
SW8260	1330-20-7	Total Xylenes	ug/l	D			0.23	UJ		
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	D			1.7	U		
SW8270	208-96-8	Acenaphthylene	ug/l	D			1.7	U		
SW8270	120-12-7	Anthracene	ug/l	D			2.4	U		
SW8270	86-73-7	Fluorene	ug/l	D			1.8	U		
SW8270	85-01-8	Phenanthrene	ug/l	D			3	U		
SW8270	108-95-2	Phenol	ug/l	D			100			

				Location ID	OL-RAC-CAP-0020-H		OL-RAC-CAP-0020-H		OL-RAC-CAP-0020-H		OL-RAC-CAP-0020-I	
				Field Sample ID	OL-4071-01		OL-4071-02		OL-4071-03		OL-4071-04	
				Start Depth (ft)	0.25		0.25		0.75		1	
				End Depth (ft)	0.5		0.75		1		1.25	
				Sampled	11/1/2022		11/1/2022		11/1/2022		11/1/2022	
				SDG	R2210518		R2210518		R2210518		R2210518	
				Lab Sample ID	R2210518-001		R2210518-002		R2210518-003		R2210518-004	
				Medium	Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW7470	7439-97-6	Mercury	ug/l	T							0.2	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA							0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA							0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA							0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA							0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA							0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA							0.2	UJ
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA							0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	NA							0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA							0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	NA							0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	NA							0.2	UJ
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ			2.7	J-	2.5	J-
SW8260	1330-20-7	Total Xylenes	ug/l	NA							0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	NA							1.3	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA							1.3	U
SW8270	120-12-7	Anthracene	ug/l	NA							1.8	U
SW8270	86-73-7	Fluorene	ug/l	NA							1.3	U
SW8270	85-01-8	Phenanthrene	ug/l	NA							2.2	U
SW8270	108-95-2	Phenol	ug/l	NA			1.3	U	20	J	22	J
SW9040	pH	pH	ph Units	NA								

				Location ID	OL-RAC-CAP-0020-I		OL-RAC-CAP-0021-H		OL-RAC-CAP-0021-H		OL-RAC-CAP-0021-H	
				Field Sample ID	OL-4071-05		OL-4071-06		OL-4071-07		OL-4071-08	
				Start Depth (ft)	1.25		0.25		0.25		0.75	
				End Depth (ft)	1.5		0.5		0.75		1	
				Sampled	11/1/2022		11/1/2022		11/1/2022		11/1/2022	
				SDG	R2210518		R2210518		R2210518		R2210518	
				Lab Sample ID	R2210518-005		R2210518-006		R2210518-007		R2210518-008	
				Medium	Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW7470	7439-97-6	Mercury	ug/l	T								
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA								
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA								
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA								
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA								
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA								
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA								
SW8260	71-43-2	Benzene	ug/l	NA			0.2	UJ			0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA								
SW8260	100-41-4	Ethylbenzene	ug/l	NA								
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA								
SW8260	91-20-3	Naphthalene	ug/l	NA								
SW8260	95-47-6	o-Xylene	ug/l	NA								
SW8260	108-88-3	Toluene	ug/l	NA			0.7	J			0.67	J
SW8260	1330-20-7	Total Xylenes	ug/l	NA								
SW8270	83-32-9	Acenaphthene	ug/l	NA								
SW8270	208-96-8	Acenaphthylene	ug/l	NA								
SW8270	120-12-7	Anthracene	ug/l	NA								
SW8270	86-73-7	Fluorene	ug/l	NA								
SW8270	85-01-8	Phenanthrene	ug/l	NA								
SW8270	108-95-2	Phenol	ug/l	NA					1.3	U	1.3	U
SW9040	pH	pH	ph Units	NA	8.94							

				Location ID	OL-RAC-CAP-0021-I		OL-RAC-CAP-0021-I		OL-RAC-CAP-0022-H		OL-RAC-CAP-0022-H		OL-RAC-CAP-0022-H	
				Field Sample ID	OL-4071-09		OL-4071-10		OL-4071-11		OL-4071-12		OL-4071-13	
				Start Depth (ft)	1		1.25		0.25		0.25		0.75	
				End Depth (ft)	1.25		1.5		0.5		0.75		1	
				Sampled	11/1/2022		11/1/2022		11/1/2022		11/1/2022		11/1/2022	
				SDG	R2210518		R2210518		R2210518		R2210518		R2210518	
				Lab Sample ID	R2210518-009		R2210518-010		R2210518-011		R2210518-012		R2210518-013	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T	0.2	U			0.4	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	UJ				
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	UJ				
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ				
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ				
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ				
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ				
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ				
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ				
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	UJ				
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	UJ				
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ			0.55	UJ				
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	UJ				
SW8260	108-88-3	Toluene	ug/l	NA	1	J-			0.32	J				
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	UJ				
SW8270	83-32-9	Acenaphthene	ug/l	NA	1.3	U					1.5	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA	1.3	U					1.5	U		
SW8270	120-12-7	Anthracene	ug/l	NA	1.8	U					2.1	U		
SW8270	86-73-7	Fluorene	ug/l	NA	1.3	U					1.5	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA	2.2	U					2.6	U		
SW8270	108-95-2	Phenol	ug/l	NA	1.3	U					1.5	U		
SW9040	pH	pH	ph Units	NA			7.71						7.79	

				Location ID	OL-RAC-CAP-0022-H		OL-RAC-CAP-0022-H		OL-RAC-CAP-0022-I		OL-RAC-CAP-0022-I	
				Field Sample ID	OL-4071-14		OL-4071-15		OL-4071-16		OL-4071-17	
				Start Depth (ft)	1		1.25		1.5		1.75	
				End Depth (ft)	1.5		1.5		1.75		2	
				Sampled	11/1/2022		11/1/2022		11/1/2022		11/1/2022	
				SDG	R2210518		R2210518		R2210518		R2210518	
				Lab Sample ID	R2210518-014		R2210518-015		R2210518-016		R2210518-017	
				Medium	Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW7470	7439-97-6	Mercury	ug/l	T			0.2	U	0.2	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA			0.25	UJ	0.25	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA			0.34	UJ	0.34	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA			0.2	UJ	0.2	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA			0.27	UJ	0.27	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA			0.2	UJ	0.2	UJ		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA			0.2	UJ	0.2	UJ		
SW8260	71-43-2	Benzene	ug/l	NA			0.2	UJ	0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA			0.2	UJ	0.2	UJ		
SW8260	100-41-4	Ethylbenzene	ug/l	NA			0.2	UJ	0.2	UJ		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA			0.2	UJ	0.2	UJ		
SW8260	91-20-3	Naphthalene	ug/l	NA			0.55	UJ	0.55	UJ		
SW8260	95-47-6	o-Xylene	ug/l	NA			0.2	UJ	0.2	UJ		
SW8260	108-88-3	Toluene	ug/l	NA			0.22	J	0.36	J		
SW8260	1330-20-7	Total Xylenes	ug/l	NA			0.23	UJ	0.23	UJ		
SW8270	83-32-9	Acenaphthene	ug/l	NA	2.5	U			1.3	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA	2.5	U			1.3	U		
SW8270	120-12-7	Anthracene	ug/l	NA	3.6	U			1.8	U		
SW8270	86-73-7	Fluorene	ug/l	NA	2.6	U			1.3	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA	4.4	U			2.2	U		
SW8270	108-95-2	Phenol	ug/l	NA	2.5	U			1.3	U		
SW9040	pH	pH	ph Units	NA							7.91	

				Location ID	OL-RAE-CAP-0025-H		OL-RAE-CAP-0025-H		OL-RAE-CAP-0025-H		OL-RAE-CAP-0025-I		OL-RAE-CAP-0027-H	
				Field Sample ID	OL-4072-01		OL-4072-02		OL-4072-03		OL-4072-04		OL-4072-06	
				Start Depth (ft)	0.25		0.25		0.75		1		0.25	
				End Depth (ft)	0.5		0.75		1		1.25		0.5	
				Sampled	11/1/2022		11/1/2022		11/1/2022		11/1/2022		11/1/2022	
				SDG	R2210519		R2210519		R2210519		R2210519		R2210519	
				Lab Sample ID	R2210519-001		R2210519-002		R2210519-003		R2210519-004		R2210519-005	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T							0.2	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA							0.25	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA							0.34	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA							0.2	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA							0.27	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA							0.2	UJ		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA							0.2	UJ		
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ	0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA							0.2	UJ		
SW8260	100-41-4	Ethylbenzene	ug/l	NA							0.2	UJ		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA							0.2	UJ		
SW8260	91-20-3	Naphthalene	ug/l	NA							0.55	UJ		
SW8260	95-47-6	o-Xylene	ug/l	NA							0.2	UJ		
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ			0.92	J	0.9	J	2	J-
SW8260	1330-20-7	Total Xylenes	ug/l	NA							0.23	UJ		
SW8270	83-32-9	Acenaphthene	ug/l	NA							1.7	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA							1.7	U		
SW8270	120-12-7	Anthracene	ug/l	NA							2.4	U		
SW8270	86-73-7	Fluorene	ug/l	NA							1.8	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA							3	U		
SW8270	108-95-2	Phenol	ug/l	NA			1.7	U	1.7	U	1.7	U		

					Location ID	OL-RAE-CAP-0027-H		OL-RAE-CAP-0027-H		OL-RAE-CAP-0027-I		OL-RAE-CAP-0030-H		OL-RAE-CAP-0030-H	
					Field Sample ID	OL-4072-07		OL-4072-08		OL-4072-09		OL-4072-11		OL-4072-12	
					Start Depth (ft)	0.25		0.75		1		0.25		0.25	
					End Depth (ft)	0.75		1		1.25		0.5		0.75	
					Sampled	11/1/2022		11/1/2022		11/1/2022		11/1/2022		11/1/2022	
					SDG	R2210519		R2210519		R2210519		R2210519		R2210519	
					Lab Sample ID	R2210519-006		R2210519-007		R2210519-008		R2210519-009		R2210519-010	
					Medium	Water		Water		Water		Water		Water	
					Sample Type	REG		REG		REG		REG		REG	
					Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction											
SW7470	7439-97-6	Mercury	ug/l	T						0.2	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA						0.25	UJ				
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA						0.34	UJ				
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA						0.2	UJ				
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA						0.27	UJ				
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA						0.2	UJ				
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA						0.2	UJ				
SW8260	71-43-2	Benzene	ug/l	NA				0.2	UJ	0.2	UJ	0.2	UJ		
SW8260	108-90-7	Chlorobenzene	ug/l	NA						0.2	UJ				
SW8260	100-41-4	Ethylbenzene	ug/l	NA						0.2	UJ				
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA						0.2	UJ				
SW8260	91-20-3	Naphthalene	ug/l	NA						0.55	UJ				
SW8260	95-47-6	o-Xylene	ug/l	NA						0.2	UJ				
SW8260	108-88-3	Toluene	ug/l	NA				2	J-	2.1	J-	1.4	J-		
SW8260	1330-20-7	Total Xylenes	ug/l	NA						0.23	UJ				
SW8270	83-32-9	Acenaphthene	ug/l	NA						1.3	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA						1.3	U				
SW8270	120-12-7	Anthracene	ug/l	NA						1.8	U				
SW8270	86-73-7	Fluorene	ug/l	NA						1.3	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA						2.2	U				
SW8270	108-95-2	Phenol	ug/l	NA		2.5	U	1	U	1.3	U			12	J

				Location ID	OL-RAE-CAP-0030-H		OL-RAE-CAP-0030-I		OL-RAE-CAP-0031-H		OL-RAE-CAP-0031-H		OL-RAE-CAP-0031-H	
				Field Sample ID	OL-4072-13		OL-4072-14		OL-4072-16		OL-4072-17		OL-4072-18	
				Start Depth (ft)	0.75		1		0.25		0.25		0.75	
				End Depth (ft)	1		1.25		0.5		0.75		1	
				Sampled	11/1/2022		11/1/2022		11/1/2022		11/1/2022		11/1/2022	
				SDG	R2210519		R2210519		R2210519		R2210519		R2210519	
				Lab Sample ID	R2210519-011		R2210519-012		R2210519-013		R2210519-014		R2210519-015	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T			0.2	U						
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA			0.25	UJ						
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA			0.34	UJ						
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA			0.2	UJ						
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA			0.27	UJ						
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA			0.2	UJ						
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA			0.2	UJ						
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ	0.2	UJ	0.2	UJ			0.23	J
SW8260	108-90-7	Chlorobenzene	ug/l	NA			0.2	UJ						
SW8260	100-41-4	Ethylbenzene	ug/l	NA			0.2	UJ						
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA			0.2	UJ						
SW8260	91-20-3	Naphthalene	ug/l	NA			0.55	UJ						
SW8260	95-47-6	o-Xylene	ug/l	NA			0.2	UJ						
SW8260	108-88-3	Toluene	ug/l	NA	2.1	J-	2.2	J-	0.2	UJ			2.5	J-
SW8260	1330-20-7	Total Xylenes	ug/l	NA			0.23	UJ						
SW8270	83-32-9	Acenaphthene	ug/l	NA			1.7	U						
SW8270	208-96-8	Acenaphthylene	ug/l	NA			1.7	U						
SW8270	120-12-7	Anthracene	ug/l	NA			2.4	U						
SW8270	86-73-7	Fluorene	ug/l	NA			1.8	U						
SW8270	85-01-8	Phenanthrene	ug/l	NA			3	U						
SW8270	108-95-2	Phenol	ug/l	NA	3.3	J	15	J			1.7	U	1.7	U

				Location ID	OL-RAE-CAP-0031-I	
				Field Sample ID	OL-4072-19	
				Start Depth (ft)	1	
				End Depth (ft)	1.25	
				Sampled	11/1/2022	
				SDG	R2210519	
				Lab Sample ID	R2210519-016	
				Medium	Water	
				Sample Type	REG	
				Matrix	W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction		
SW7470	7439-97-6	Mercury	ug/l	T	0.2	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ
SW8260	108-88-3	Toluene	ug/l	NA	2.2	J-
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	NA	1.7	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA	1.7	U
SW8270	120-12-7	Anthracene	ug/l	NA	2.4	U
SW8270	86-73-7	Fluorene	ug/l	NA	1.8	U
SW8270	85-01-8	Phenanthrene	ug/l	NA	3	U
SW8270	108-95-2	Phenol	ug/l	NA	1.7	U

				Location ID	OL-RAE-CAP-0026-H			OL-RAE-CAP-0026-H			OL-RAE-CAP-0026-H			OL-RAE-CAP-0026-I			OL-RAE-CAP-0028-H		
				Field Sample ID	OL-4073-06			OL-4073-07			OL-4073-08			OL-4073-09			OL-4073-11		
				Start Depth (ft)	0.25			0.25			0.75			1			0.25		
				End Depth (ft)	0.5			0.75			1			1.25			0.5		
				Sampled	11/2/2022			11/2/2022			11/2/2022			11/2/2022			11/2/2022		
				SDG	R2210564			R2210564			R2210564			R2210564			R2210564		
				Lab Sample ID	R2210564-005			R2210564-006			R2210564-007			R2210564-008			R2210564-009		
				Medium	Water			Water			Water			Water			Water		
				Sample Type	REG			REG			REG			REG			REG		
				Matrix	W-PORE			W-PORE			W-PORE			W-PORE			W-PORE		
Method	Parameter Code	Parameter Name	Units	Fraction															
SW7470	7439-97-6	Mercury	ug/l	T	0.2	U					0.2	U		0.2	U		0.2	U	
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ					0.25	UJ		0.25	UJ		0.25	UJ	
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ					0.34	UJ		0.34	UJ		0.34	UJ	
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ					0.2	UJ		0.2	UJ		0.2	UJ	
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ					0.27	UJ		0.27	UJ		0.27	UJ	
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ					0.2	UJ		0.2	UJ		0.2	UJ	
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ					0.2	UJ		0.2	UJ		0.2	UJ	
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ					0.2	UJ		0.2	UJ		0.2	UJ	
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ					0.2	UJ		0.2	UJ		0.2	UJ	
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ					0.2	UJ		0.2	UJ		0.2	UJ	
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ					0.2	UJ		0.2	UJ		0.2	UJ	
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ					0.55	UJ		0.55	UJ		0.55	UJ	
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ					0.2	UJ		0.2	UJ		0.2	UJ	
SW8260	108-88-3	Toluene	ug/l	NA	0.27	J					1.5	J-		1.2	J-		0.2	UJ	
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ					0.23	UJ		0.23	UJ		0.23	UJ	
SW8270	83-32-9	Acenaphthene	ug/l	NA				1.3	U		1.3	U		1.3	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA				1.3	U		1.3	U		1.3	U				
SW8270	120-12-7	Anthracene	ug/l	NA				1.8	U		1.8	U		1.8	U				
SW8270	86-73-7	Fluorene	ug/l	NA				1.3	U		1.3	U		1.3	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA				2.2	U		2.2	U		2.2	U				
SW8270	108-95-2	Phenol	ug/l	NA				1.3	U		1.3	U		1.3	U				

				Location ID	OL-RAE-CAP-0028-H		OL-RAE-CAP-0028-H		OL-RAE-CAP-0028-H		OL-RAE-CAP-0028-I		OL-RAE-CAP-0033-H	
				Field Sample ID	OL-4073-12		OL-4073-13		OL-4073-14		OL-4073-15		OL-4073-01	
				Start Depth (ft)	0.25		1		1.25		1.5		0.25	
				End Depth (ft)	0.75		1.5		1.5		1.75		0.5	
				Sampled	11/2/2022		11/2/2022		11/2/2022		11/2/2022		11/2/2022	
				SDG	R2210564		R2210564		R2210564		R2210564		R2210564	
				Lab Sample ID	R2210564-010		R2210564-011		R2210564-012		R2210564-013		R2210564-001	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T					0.2	U	0.2	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA					0.25	UJ	0.25	UJ		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA					0.34	UJ	0.34	UJ		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA					0.2	UJ	0.2	UJ		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA					0.27	UJ	0.27	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA					0.2	UJ	0.2	UJ		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA					0.2	UJ	0.2	UJ		
SW8260	71-43-2	Benzene	ug/l	NA					0.2	UJ	0.2	UJ	0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA					0.2	UJ	0.2	UJ		
SW8260	100-41-4	Ethylbenzene	ug/l	NA					0.2	UJ	0.2	UJ		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA					0.2	UJ	0.2	UJ		
SW8260	91-20-3	Naphthalene	ug/l	NA					0.55	UJ	0.55	UJ		
SW8260	95-47-6	o-Xylene	ug/l	NA					0.2	UJ	0.2	UJ		
SW8260	108-88-3	Toluene	ug/l	NA					0.88	J	0.85	J	1.6	J-
SW8260	1330-20-7	Total Xylenes	ug/l	NA					0.23	UJ	0.23	UJ		
SW8270	83-32-9	Acenaphthene	ug/l	NA	1.3	U	1	U			1.5	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA	1.3	U	1	U			1.5	U		
SW8270	120-12-7	Anthracene	ug/l	NA	1.8	U	1.5	U			2.1	U		
SW8270	86-73-7	Fluorene	ug/l	NA	1.3	U	1.1	U			1.5	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA	2.2	U	1.8	U			2.6	U		
SW8270	108-95-2	Phenol	ug/l	NA	1.3	U	1	U			1.5	U		

				Location ID	OL-RAE-CAP-0033-H		OL-RAE-CAP-0033-H		OL-RAE-CAP-0033-I		QC	
				Field Sample ID	OL-4073-02		OL-4073-03		OL-4073-04		OL-4073-17	
				Start Depth (ft)	0.25		0.75		1			
				End Depth (ft)	0.75		1		1.25			
				Sampled	11/2/2022		11/2/2022		11/2/2022		11/2/2022	
				SDG	R2210564		R2210564		R2210564		R2210564	
				Lab Sample ID	R2210564-002		R2210564-003		R2210564-004		R2210564-014	
				Medium	Water		Water		Water		Water	
				Sample Type	REG		REG		REG		TB	
				Matrix	W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW7470	7439-97-6	Mercury	ug/l	T					0.2	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA					0.25	UJ	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA					0.34	UJ	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA					0.2	UJ	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA					0.27	UJ	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA					0.2	UJ	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA					0.2	UJ	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA			0.2	UJ	0.2	UJ	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA					0.2	UJ	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA					0.2	UJ	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA					0.2	UJ	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA					0.55	UJ	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA					0.2	UJ	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA			2	J-	1.7	J-	0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA					0.23	UJ	0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA					1.3	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA					1.3	U		
SW8270	120-12-7	Anthracene	ug/l	NA					1.8	U		
SW8270	86-73-7	Fluorene	ug/l	NA					1.3	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA					2.2	U		
SW8270	108-95-2	Phenol	ug/l	NA	2.5	U	2.5	U	1.3	U		

				Location ID	OL-RAB-CAP-0013-H		OL-RAB-CAP-0017-H		OL-RAB-CAP-0017-H		OL-RAB-CAP-0017-H	
				Field Sample ID	OL-4074-06		OL-4074-01		OL-4074-02		OL-4074-03	
				Start Depth (ft)	0.167		0.25		0.25		0.75	
				End Depth (ft)	0.417		0.5		0.75		1	
				Sampled	11/2/2022		11/2/2022		11/2/2022		11/2/2022	
				SDG	R2210565		R2210565		R2210565		R2210565	
				Lab Sample ID	R2210565-006		R2210565-001		R2210565-002		R2210565-003	
				Medium	Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW7470	7439-97-6	Mercury	ug/l	T			0.4	U			0.4	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U	0.25	UJ			0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U	0.34	UJ			0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U	0.2	UJ			0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ	0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U	0.2	UJ			0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U	0.2	UJ			0.2	UJ
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U	0.2	UJ			0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U	0.2	UJ			0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U	0.2	UJ			0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U	0.2	UJ			0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U	0.55	UJ			0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U	0.2	UJ			0.2	UJ
SW8260	108-88-3	Toluene	ug/l	NA	2.4		0.2	UJ			1	J-
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U	0.23	UJ			0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	NA	1.5	U			0.84	U	1.3	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA	1.5	U			0.84	U	1.3	U
SW8270	120-12-7	Anthracene	ug/l	NA	2.1	U			1.2	U	1.8	U
SW8270	86-73-7	Fluorene	ug/l	NA	1.5	U			0.87	U	1.3	U
SW8270	85-01-8	Phenanthrene	ug/l	NA	2.6	U			1.5	U	2.2	U
SW8270	108-95-2	Phenol	ug/l	NA	18	J			0.84	U	1.3	U
SW9040	pH	pH	ph Units	NA								

			Location ID		OL-RAB-CAP-0017-I		OL-RAB-CAP-0017-I		QC	
			Field Sample ID		OL-4074-04		OL-4074-05		OL-4074-07	
			Start Depth (ft)		1		1.25			
			End Depth (ft)		1.25		1.5			
			Sampled		11/2/2022		11/2/2022		11/2/2022	
			SDG		R2210565		R2210565		R2210565	
			Lab Sample ID		R2210565-004		R2210565-005		R2210565-007	
			Medium		Water		Water		Water	
			Sample Type		REG		REG		TB	
			Matrix		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction						
SW7470	7439-97-6	Mercury	ug/l	T	0.4	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ			0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.93	J			0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA	1.7	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA	1.7	U				
SW8270	120-12-7	Anthracene	ug/l	NA	2.4	U				
SW8270	86-73-7	Fluorene	ug/l	NA	1.8	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA	3	U				
SW8270	108-95-2	Phenol	ug/l	NA	1.7	U				
SW9040	pH	pH	ph Units	NA			7.69			

				Location ID	OL-RAC-CAP-0019-H		OL-RAE-CAP-0035-H		OL-RAE-CAP-0035-H		OL-RAE-CAP-0035-H		OL-RAE-CAP-0035-I		QC	
				Field Sample ID	OL-4076-07		OL-4076-01		OL-4076-02		OL-4076-03		OL-4076-04		OL-4076-06	
				Start Depth (ft)	0.167		0.25		0.25		0.75		1			
				End Depth (ft)	0.417		0.5		0.75		1		1.25			
				Sampled	11/3/2022		11/3/2022		11/3/2022		11/3/2022		11/3/2022		11/3/2022	
				SDG	R2210677		R2210677		R2210677		R2210677		R2210677		R2210677	
				Lab Sample ID	R2210677-001		R2210677-002		R2210677-003		R2210677-004		R2210677-005		R2210677-006	
				Medium	Water		Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG		TB	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction												
SW7470	7439-97-6	Mercury	ug/l	T			0.2	U			0.2	U	0.2	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U	0.25	U			0.25	U	0.25	U	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U	0.34	U			0.34	U	0.34	U	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U			0.2	U	0.2	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ	0.27	UJ			0.27	UJ	0.27	UJ	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U			0.2	U	0.2	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U			0.2	U	0.2	U	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U	0.2	U			0.2	U	0.2	U	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U	0.2	U			0.2	U	0.2	U	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U	0.2	U			0.2	U	0.2	U	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U	0.2	U			0.2	U	0.2	U	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U	0.55	U			0.55	U	0.55	U	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U	0.2	U			0.2	U	0.2	U	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	2.8		1.7				0.55	J	0.57	J	0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U	0.23	U			0.23	U	0.23	U	0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA	1.3	U			0.63	U	1.7	U	1.2	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA	1.3	U			0.63	U	1.7	U	1.2	U		
SW8270	120-12-7	Anthracene	ug/l	NA	1.8	U			0.89	U	2.4	U	1.6	U		
SW8270	86-73-7	Fluorene	ug/l	NA	1.3	U			0.65	U	1.8	U	1.2	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA	2.2	U			1.1	U	3	U	2	U		
SW8270	108-95-2	Phenol	ug/l	NA	51				0.63	U	1.7	U	1.2	U		
SW9040	pH	pH	ph Units	NA	9.9											

			Location ID	OL-RAE-CAP-0021-H		OL-RAE-CAP-0021-H		OL-RAE-CAP-0021-H		OL-RAE-CAP-0021-I		OL-RAE-CAP-0022-H	
			Field Sample ID	OL-4077-16		OL-4077-17		OL-4077-18		OL-4077-19		OL-4077-11	
			Start Depth (ft)	0.25		0.25		0.75		1		0.25	
			End Depth (ft)	0.5		0.75		1		1.25		0.5	
			Sampled	11/15/2022		11/15/2022		11/15/2022		11/15/2022		11/15/2022	
			SDG	R2211048		R2211048		R2211048		R2211048		R2211048	
			Lab Sample ID	R2211048-013		R2211048-014		R2211048-015		R2211048-016		R2211048-009	
			Medium	Water		Water		Water		Water		Water	
			Sample Type	REG		REG		REG		REG		REG	
			Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction									
SW7470	7439-97-6	Mercury	ug/l	T								0.4	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA								0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA								0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA								0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA								0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA								0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA								0.2	UJ
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ	0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA									0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	NA									0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA									0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	NA									0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	NA									0.2	UJ
SW8260	108-88-3	Toluene	ug/l	NA	0.65	J			2	J-	1.8	J-	0.2	UJ
SW8260	1330-20-7	Total Xylenes	ug/l	NA									0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	NA										
SW8270	208-96-8	Acenaphthylene	ug/l	NA										
SW8270	120-12-7	Anthracene	ug/l	NA										
SW8270	86-73-7	Fluorene	ug/l	NA										
SW8270	85-01-8	Phenanthrene	ug/l	NA										
SW8270	108-95-2	Phenol	ug/l	NA			2	J	1.7	J	1.5	U		

				Location ID	OL-RAE-CAP-0022-H			OL-RAE-CAP-0022-H			OL-RAE-CAP-0022-I			OL-RAE-CAP-0039-H			OL-RAE-CAP-0039-H		
				Field Sample ID	OL-4077-12			OL-4077-13			OL-4077-14			OL-4077-01			OL-4077-02		
				Start Depth (ft)	0.25			0.75			1			0.25			0.25		
				End Depth (ft)	0.75			1			1.25			0.5			0.75		
				Sampled	11/15/2022			11/15/2022			11/15/2022			11/15/2022			11/15/2022		
				SDG	R2211048			R2211048			R2211048			R2211048			R2211048		
				Lab Sample ID	R2211048-010			R2211048-011			R2211048-012			R2211048-001			R2211048-002		
				Medium	Water			Water			Water			Water			Water		
				Sample Type	REG			REG			REG			REG			REG		
				Matrix	W-PORE			W-PORE			W-PORE			W-PORE			W-PORE		
Method	Parameter Code	Parameter Name	Units	Fraction															
SW7470	7439-97-6	Mercury	ug/l	T				0.4	U					0.4	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA				0.25	UJ					0.25	UJ				
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA				0.34	UJ					0.34	UJ				
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA				0.2	UJ					0.2	UJ				
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA				0.27	UJ					0.27	UJ				
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA				0.2	UJ					0.2	UJ				
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA				0.2	UJ					0.2	UJ				
SW8260	71-43-2	Benzene	ug/l	NA				0.2	UJ		0.2	UJ		0.2	UJ				
SW8260	108-90-7	Chlorobenzene	ug/l	NA				0.2	UJ					0.2	UJ				
SW8260	100-41-4	Ethylbenzene	ug/l	NA				0.2	UJ					0.2	UJ				
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA				0.2	UJ					0.2	UJ				
SW8260	91-20-3	Naphthalene	ug/l	NA				0.55	UJ					0.55	UJ				
SW8260	95-47-6	o-Xylene	ug/l	NA				0.2	UJ					0.2	UJ				
SW8260	108-88-3	Toluene	ug/l	NA				0.41	J		1.2	J-		0.2	UJ				
SW8260	1330-20-7	Total Xylenes	ug/l	NA				0.23	UJ					0.23	UJ				
SW8270	83-32-9	Acenaphthene	ug/l	NA	1.7	U		0.84	U								0.72	U	
SW8270	208-96-8	Acenaphthylene	ug/l	NA	1.7	U		0.84	U								0.72	U	
SW8270	120-12-7	Anthracene	ug/l	NA	2.4	U		1.2	U								1.1	U	
SW8270	86-73-7	Fluorene	ug/l	NA	1.8	U		0.87	U								0.75	U	
SW8270	85-01-8	Phenanthrene	ug/l	NA	3	U		1.5	U								1.3	U	
SW8270	108-95-2	Phenol	ug/l	NA	1.7	U		0.84	U		0.72	U					4	J	

			Location ID		OL-RAE-CAP-0039-H		OL-RAE-CAP-0039-I		OL-RAE-CAP-0040-H		OL-RAE-CAP-0040-H		OL-RAE-CAP-0040-H	
			Field Sample ID		OL-4077-03		OL-4077-04		OL-4077-06		OL-4077-07		OL-4077-08	
			Start Depth (ft)		0.75		1		0.25		0.25		0.75	
			End Depth (ft)		1		1.25		0.5		0.75		1	
			Sampled		11/15/2022		11/15/2022		11/15/2022		11/15/2022		11/15/2022	
			SDG		R2211048		R2211048		R2211048		R2211048		R2211048	
			Lab Sample ID		R2211048-003		R2211048-004		R2211048-005		R2211048-006		R2211048-007	
			Medium		Water		Water		Water		Water		Water	
			Sample Type		REG		REG		REG		REG		REG	
			Matrix		W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T	0.4	U	0.4	U	0.2	U			0.2	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ	0.25	UJ	0.25	UJ			0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ	0.34	UJ	0.34	UJ			0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ	0.2	UJ	0.2	UJ			0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ	0.27	UJ	0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ	0.2	UJ	0.2	UJ			0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ	0.2	UJ	0.2	UJ			0.2	UJ
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ	0.2	UJ	0.2	UJ			0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ	0.2	UJ	0.2	UJ			0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ	0.2	UJ	0.2	UJ			0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ	0.2	UJ	0.2	UJ			0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ	0.55	UJ	0.55	UJ			0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ	0.2	UJ	0.2	UJ			0.2	UJ
SW8260	108-88-3	Toluene	ug/l	NA	2.4	J-	1.9	J-	0.2	UJ			0.2	UJ
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ	0.23	UJ	0.23	UJ			0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	NA	2.5	U	1.5	U			1.7	U	1.2	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA	2.5	U	1.5	U			1.7	U	1.2	U
SW8270	120-12-7	Anthracene	ug/l	NA	3.6	U	2.1	U			2.4	U	1.6	U
SW8270	86-73-7	Fluorene	ug/l	NA	2.6	U	1.5	U			1.8	U	1.2	U
SW8270	85-01-8	Phenanthrene	ug/l	NA	4.4	U	2.6	U			3	U	2	U
SW8270	108-95-2	Phenol	ug/l	NA	5.5	J	1.5	U			1.7	U	1.2	U

				Location ID	OL-RAE-CAP-0040-I	
				Field Sample ID	OL-4077-09	
				Start Depth (ft)	1	
				End Depth (ft)	1.25	
				Sampled	11/15/2022	
				SDG	R2211048	
				Lab Sample ID	R2211048-008	
				Medium	Water	
				Sample Type	REG	
				Matrix	W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction		
SW7470	7439-97-6	Mercury	ug/l	T	0.2	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ
SW8260	108-88-3	Toluene	ug/l	NA	0.2	UJ
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	NA	1	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA	1	U
SW8270	120-12-7	Anthracene	ug/l	NA	1.5	U
SW8270	86-73-7	Fluorene	ug/l	NA	1.1	U
SW8270	85-01-8	Phenanthrene	ug/l	NA	1.8	U
SW8270	108-95-2	Phenol	ug/l	NA	1	U

				Location ID	OL-RAE-CAP-0019-H		OL-RAE-CAP-0019-H		OL-RAE-CAP-0019-H		OL-RAE-CAP-0019-I		OL-RAE-CAP-0020-H	
				Field Sample ID	OL-4078-06		OL-4078-07		OL-4078-08		OL-4078-09		OL-4078-01	
				Start Depth (ft)	0.25		0.25		0.75		1		0.25	
				End Depth (ft)	0.5		0.75		1		1.25		0.5	
				Sampled	11/15/2022		11/15/2022		11/15/2022		11/15/2022		11/15/2022	
				SDG	R2211049		R2211049		R2211049		R2211049		R2211049	
				Lab Sample ID	R2211049-005		R2211049-006		R2211049-007		R2211049-008		R2211049-001	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T	0.4	U			0.4	U			0.4	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	UJ			0.25	UJ			0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	UJ			0.34	UJ			0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	71-43-2	Benzene	ug/l	NA	0.2	UJ			0.2	UJ	0.2	UJ	0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	UJ			0.55	UJ			0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	UJ			0.2	UJ			0.2	UJ
SW8260	108-88-3	Toluene	ug/l	NA	0.49	J			1.1	J-	1.3	J-	0.95	J
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	UJ			0.23	UJ			0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	NA			0.72	U	0.77	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA			0.72	U	0.77	U				
SW8270	120-12-7	Anthracene	ug/l	NA			1.1	U	1.1	U				
SW8270	86-73-7	Fluorene	ug/l	NA			0.75	U	0.8	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA			1.3	U	1.4	U				
SW8270	108-95-2	Phenol	ug/l	NA			0.72	U	0.77	U	0.72	U		

				Location ID	OL-RAE-CAP-0020-H		OL-RAE-CAP-0020-H		OL-RAE-CAP-0020-I		QC	
				Field Sample ID	OL-4078-02		OL-4078-03		OL-4078-04		OL-4078-11	
				Start Depth (ft)	0.25		0.75		1			
				End Depth (ft)	0.75		1		1.25			
				Sampled	11/15/2022		11/15/2022		11/15/2022		11/15/2022	
				SDG	R2211049		R2211049		R2211049		R2211049	
				Lab Sample ID	R2211049-002		R2211049-003		R2211049-004		R2211049-009	
				Medium	Water		Water		Water		Water	
				Sample Type	REG		REG		REG		TB	
				Matrix	W-PORE		W-PORE		W-PORE		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW7470	7439-97-6	Mercury	ug/l	T			0.4	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA			0.25	UJ			0.25	UJ
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA			0.34	UJ			0.34	UJ
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA			0.2	UJ			0.2	UJ
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA			0.27	UJ			0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA			0.2	UJ			0.2	UJ
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA			0.2	UJ			0.2	UJ
SW8260	71-43-2	Benzene	ug/l	NA			0.2	UJ	0.2	UJ	0.2	UJ
SW8260	108-90-7	Chlorobenzene	ug/l	NA			0.2	UJ			0.2	UJ
SW8260	100-41-4	Ethylbenzene	ug/l	NA			0.2	UJ			0.2	UJ
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA			0.2	UJ			0.2	UJ
SW8260	91-20-3	Naphthalene	ug/l	NA			0.55	UJ			0.55	UJ
SW8260	95-47-6	o-Xylene	ug/l	NA			0.2	UJ			0.2	UJ
SW8260	108-88-3	Toluene	ug/l	NA			0.91	J	1.2	J-	0.2	UJ
SW8260	1330-20-7	Total Xylenes	ug/l	NA			0.23	UJ			0.23	UJ
SW8270	83-32-9	Acenaphthene	ug/l	NA	0.63	U	1.7	U				
SW8270	208-96-8	Acenaphthylene	ug/l	NA	0.63	U	1.7	U				
SW8270	120-12-7	Anthracene	ug/l	NA	0.89	U	2.4	U				
SW8270	86-73-7	Fluorene	ug/l	NA	0.65	U	1.8	U				
SW8270	85-01-8	Phenanthrene	ug/l	NA	1.1	U	3	U				
SW8270	108-95-2	Phenol	ug/l	NA	0.63	U	1.7	U	1.3	U		

				Location ID	OL-RAE-CAP-0018-H		OL-RAE-CAP-0018-H		OL-RAE-CAP-0018-H		OL-RAE-CAP-0018-I	
				Field Sample ID	OL-4079-01		OL-4079-02		OL-4079-03		OL-4079-04	
				Start Depth (ft)	0.25		0.25		0.75		1	
				End Depth (ft)	0.5		0.75		1		1.25	
				Sampled	11/15/2022		11/15/2022		11/15/2022		11/15/2022	
				SDG	R2211093		R2211093		R2211093		R2211093	
				Lab Sample ID	R2211093-001		R2211093-002		R2211093-003		R2211093-004	
				Medium	Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW7470	7439-97-6	Mercury	ug/l	T								
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA								
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA								
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA								
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA								
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA								
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA								
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U			0.2	U	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA								
SW8260	100-41-4	Ethylbenzene	ug/l	NA								
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA								
SW8260	91-20-3	Naphthalene	ug/l	NA								
SW8260	95-47-6	o-Xylene	ug/l	NA								
SW8260	108-88-3	Toluene	ug/l	NA	0.6	J			1.7		1.8	
SW8260	1330-20-7	Total Xylenes	ug/l	NA								
SW8270	83-32-9	Acenaphthene	ug/l	NA								
SW8270	208-96-8	Acenaphthylene	ug/l	NA								
SW8270	120-12-7	Anthracene	ug/l	NA								
SW8270	86-73-7	Fluorene	ug/l	NA								
SW8270	85-01-8	Phenanthrene	ug/l	NA								
SW8270	108-95-2	Phenol	ug/l	NA			0.84	U	0.77	U	1.5	U

				Location ID	OL-RAE-CAP-0024-H		OL-RAE-CAP-0024-H		OL-RAE-CAP-0024-H		OL-RAE-CAP-0024-H				
				Field Sample ID	OL-4079-06		OL-4079-07		OL-4079-08		OL-4079-09				
				Start Depth (ft)	0.25		0.25		1		1.25				
				End Depth (ft)	0.5		0.75		1.5		1.5				
				Sampled	11/15/2022		11/15/2022		11/15/2022		11/15/2022				
				SDG	R2211093		R2211093		R2211093		R2211093				
				Lab Sample ID	R2211093-005		R2211093-006		R2211093-007		R2211093-008				
				Medium	Water		Water		Water		Water				
				Sample Type	REG		REG		REG		REG				
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE				
Method	Parameter Code	Parameter Name	Units	Fraction											
SW7470	7439-97-6	Mercury	ug/l	T	0.2	U					0.4	U			
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U					0.25	U			
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U					0.34	U			
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U					0.2	U			
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ					0.27	UJ			
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U					0.2	U			
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U					0.2	U			
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U					0.2	U			
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U					0.2	U			
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U					0.2	U			
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U					0.2	U			
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U					0.55	U			
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U					0.2	U			
SW8260	108-88-3	Toluene	ug/l	NA	0.47	J					0.73	J			
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U					0.23	U			
SW8270	83-32-9	Acenaphthene	ug/l	NA			0.72	U	0.84	U					
SW8270	208-96-8	Acenaphthylene	ug/l	NA			0.72	U	0.84	U					
SW8270	120-12-7	Anthracene	ug/l	NA			1.1	U	1.2	U					
SW8270	86-73-7	Fluorene	ug/l	NA			0.75	U	0.87	U					
SW8270	85-01-8	Phenanthrene	ug/l	NA			1.3	U	1.5	U					
SW8270	108-95-2	Phenol	ug/l	NA			0.72	U	0.84	U					

					Location ID	OL-RAE-CAP-0024-I		OL-RAE-CAP-0041-H		OL-RAE-CAP-0041-H		OL-RAE-CAP-0041-H	
					Field Sample ID	OL-4079-10		OL-4079-12		OL-4079-13		OL-4079-14	
					Start Depth (ft)	1.5		0.25		0.25		1	
					End Depth (ft)	1.75		0.5		0.75		1.5	
					Sampled	11/15/2022		11/16/2022		11/16/2022		11/16/2022	
					SDG	R2211093		R2211093		R2211093		R2211093	
					Lab Sample ID	R2211093-009		R2211093-010		R2211093-011		R2211093-012	
					Medium	Water		Water		Water		Water	
					Sample Type	REG		REG		REG		REG	
					Matrix	W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction									
SW7470	7439-97-6	Mercury	ug/l	T		0.4	U	0.4	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA		0.25	U	0.25	U				
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA		0.34	U	0.34	U				
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA		0.2	U	0.2	U				
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA		0.27	UJ	0.27	UJ				
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA		0.2	U	0.2	U				
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA		0.2	U	0.2	U				
SW8260	71-43-2	Benzene	ug/l	NA		0.2	U	0.2	U				
SW8260	108-90-7	Chlorobenzene	ug/l	NA		0.2	U	0.2	U				
SW8260	100-41-4	Ethylbenzene	ug/l	NA		0.2	U	0.2	U				
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA		0.2	U	0.2	U				
SW8260	91-20-3	Naphthalene	ug/l	NA		0.55	U	0.55	U				
SW8260	95-47-6	o-Xylene	ug/l	NA		0.2	U	0.2	U				
SW8260	108-88-3	Toluene	ug/l	NA		1.5		0.2	U				
SW8260	1330-20-7	Total Xylenes	ug/l	NA		0.23	U	0.23	U				
SW8270	83-32-9	Acenaphthene	ug/l	NA		1.7	U			0.91	U	0.67	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA		1.7	U			0.91	U	0.67	U
SW8270	120-12-7	Anthracene	ug/l	NA		2.4	U			1.3	U	0.95	U
SW8270	86-73-7	Fluorene	ug/l	NA		1.8	U			0.95	U	0.7	U
SW8270	85-01-8	Phenanthrene	ug/l	NA		3	U			1.6	U	1.2	U
SW8270	108-95-2	Phenol	ug/l	NA		1.7	U			0.91	U	0.67	U

				Location ID	OL-RAE-CAP-0041-H		OL-RAE-CAP-0041-I	
				Field Sample ID	OL-4079-15		OL-4079-16	
				Start Depth (ft)	1.25		1.5	
				End Depth (ft)	1.5		1.75	
				Sampled	11/16/2022		11/16/2022	
				SDG	R2211093		R2211093	
				Lab Sample ID	R2211093-013		R2211093-014	
				Medium	Water		Water	
				Sample Type	REG		REG	
				Matrix	W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction				
SW7470	7439-97-6	Mercury	ug/l	T	0.4	U	0.65	
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U	0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U	0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA			1.5	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA			1.5	U
SW8270	120-12-7	Anthracene	ug/l	NA			2.1	U
SW8270	86-73-7	Fluorene	ug/l	NA			1.5	U
SW8270	85-01-8	Phenanthrene	ug/l	NA			2.6	U
SW8270	108-95-2	Phenol	ug/l	NA			1.5	U

				Location ID	OL-RAA-CAP-0010-H		OL-RAA-CAP-0010-H		OL-RAA-CAP-0010-H		OL-RAA-CAP-0010-H		OL-RAA-CAP-0010-H	
				Field Sample ID	OL-4080-13		OL-4080-14		OL-4080-15		OL-4080-16		OL-4080-17	
				Start Depth (ft)	0.25		0.25		0.75		1		1.25	
				End Depth (ft)	0.5		0.75		1		1.5		1.5	
				Sampled	11/16/2022		11/16/2022		11/16/2022		11/16/2022		11/16/2022	
				SDG	R2211094		R2211094		R2211094		R2211094		R2211094	
				Lab Sample ID	R2211094-011		R2211094-012		R2211094-013		R2211094-014		R2211094-015	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T	0.4	U							0.2	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U							0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U							0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U							0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ							0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U							0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U							0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U							0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U							0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U							0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U							0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U							0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U							0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.38	J							1.9	
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U							0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA			0.84	U			0.67	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA			0.84	U			0.67	U		
SW8270	120-12-7	Anthracene	ug/l	NA			1.2	U			0.95	U		
SW8270	86-73-7	Fluorene	ug/l	NA			0.87	U			0.7	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA			1.5	U			1.2	U		
SW8270	108-95-2	Phenol	ug/l	NA			1.1	J			0.93	J		
SW9040	pH	pH	ph Units	NA					6.76					

				Location ID	OL-RAA-CAP-0010-I		OL-RAA-CAP-0010-I		OL-RAE-CAP-0043-H		OL-RAE-CAP-0043-H		OL-RAE-CAP-0043-H	
				Field Sample ID	OL-4080-18		OL-4080-19		OL-4080-01		OL-4080-02		OL-4080-03	
				Start Depth (ft)	1.5		1.75		0.25		0.25		1	
				End Depth (ft)	1.75		2		0.5		0.75		1.5	
				Sampled	11/16/2022		11/16/2022		11/16/2022		11/16/2022		11/16/2022	
				SDG	R2211094		R2211094		R2211094		R2211094		R2211094	
				Lab Sample ID	R2211094-016		R2211094-017		R2211094-001		R2211094-002		R2211094-003	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T	0.2	U			0.4	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U			0.25	U				
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U			0.34	U				
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U			0.2	U				
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ				
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U			0.2	U				
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U			0.2	U				
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U			0.2	U				
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U			0.2	U				
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U			0.2	U				
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U			0.2	U				
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U			0.55	U				
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U			0.2	U				
SW8260	108-88-3	Toluene	ug/l	NA	3.1				0.56	J				
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U			0.23	U				
SW8270	83-32-9	Acenaphthene	ug/l	NA	1.3	U					1.3	U	0.84	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA	1.3	U					1.3	U	0.84	U
SW8270	120-12-7	Anthracene	ug/l	NA	1.8	U					1.8	U	1.2	U
SW8270	86-73-7	Fluorene	ug/l	NA	1.3	U					1.3	U	0.87	U
SW8270	85-01-8	Phenanthrene	ug/l	NA	2.2	U					2.2	U	1.5	U
SW8270	108-95-2	Phenol	ug/l	NA	1.3	U					1.3	U	0.84	U
SW9040	pH	pH	ph Units	NA			6.8							

				Location ID	OL-RAE-CAP-0043-H		OL-RAE-CAP-0043-I		OL-RAE-CAP-0044-H		OL-RAE-CAP-0044-H		OL-RAE-CAP-0044-H	
				Field Sample ID	OL-4080-04		OL-4080-05		OL-4080-07		OL-4080-08		OL-4080-09	
				Start Depth (ft)	1.25		1.5		0.25		0.25		1	
				End Depth (ft)	1.5		1.75		0.5		0.75		1.5	
				Sampled	11/16/2022		11/16/2022		11/16/2022		11/16/2022		11/16/2022	
				SDG	R2211094		R2211094		R2211094		R2211094		R2211094	
				Lab Sample ID	R2211094-004		R2211094-005		R2211094-006		R2211094-007		R2211094-008	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T	0.4	U	0.4	U	0.4	U				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U	0.25	U	0.25	U				
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U	0.34	U	0.34	U				
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U	0.2	U				
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ	0.27	UJ	0.27	UJ				
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U	0.2	U				
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U	0.2	U				
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U	0.2	U	0.2	U				
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U	0.2	U	0.2	U				
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U	0.2	U	0.2	U				
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U	0.2	U	0.2	U				
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U	0.55	U	0.55	U				
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U	0.2	U	0.2	U				
SW8260	108-88-3	Toluene	ug/l	NA	0.72	J	1.1		0.62	J				
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U	0.23	U	0.23	U				
SW8270	83-32-9	Acenaphthene	ug/l	NA			1.5	U			1.3	U	1.7	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA			1.5	U			1.3	U	1.7	U
SW8270	120-12-7	Anthracene	ug/l	NA			2.1	U			1.8	U	2.4	U
SW8270	86-73-7	Fluorene	ug/l	NA			1.5	U			1.3	U	1.8	U
SW8270	85-01-8	Phenanthrene	ug/l	NA			2.6	U			2.2	U	3	U
SW8270	108-95-2	Phenol	ug/l	NA			1.5	U			1.3	U	3.6	J
SW9040	pH	pH	ph Units	NA										

				Location ID	OL-RAE-CAP-0044-H		OL-RAE-CAP-0044-I	
				Field Sample ID	OL-4080-10		OL-4080-11	
				Start Depth (ft)	1.25		1.5	
				End Depth (ft)	1.5		1.75	
				Sampled	11/16/2022		11/16/2022	
				SDG	R2211094		R2211094	
				Lab Sample ID	R2211094-009		R2211094-010	
				Medium	Water		Water	
				Sample Type	REG		REG	
				Matrix	W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction				
SW7470	7439-97-6	Mercury	ug/l	T	0.4	U	0.4	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	13		3.7	
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U	0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA			1.3	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA			1.3	U
SW8270	120-12-7	Anthracene	ug/l	NA			1.8	U
SW8270	86-73-7	Fluorene	ug/l	NA			1.3	U
SW8270	85-01-8	Phenanthrene	ug/l	NA			2.2	U
SW8270	108-95-2	Phenol	ug/l	NA			1.3	U
SW9040	pH	pH	ph Units	NA				

				Location ID	OL-RAE-CAP-0034-H		OL-RAE-CAP-0034-H		OL-RAE-CAP-0034-H		OL-RAE-CAP-0034-H		OL-RAE-CAP-0034-I	
				Field Sample ID	OL-4081-01		OL-4081-02		OL-4081-03		OL-4081-04		OL-4081-05	
				Start Depth (ft)	0.25		0.25		1		1.25		1.5	
				End Depth (ft)	0.5		0.75		1.5		1.5		1.75	
				Sampled	11/16/2022		11/16/2022		11/16/2022		11/16/2022		11/16/2022	
				SDG	R2211095		R2211095		R2211095		R2211095		R2211095	
				Lab Sample ID	R2211095-001		R2211095-002		R2211095-003		R2211095-004		R2211095-005	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T	0.4	U					0.4	U	0.2	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U					0.25	U	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U					0.34	U	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ					0.27	UJ	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U					0.55	U	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U					0.23	U	0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA			0.84	U	0.84	U			1.7	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA			0.84	U	0.84	U			1.7	U
SW8270	120-12-7	Anthracene	ug/l	NA			1.2	U	1.2	U			2.4	U
SW8270	86-73-7	Fluorene	ug/l	NA			0.87	U	0.87	U			1.8	U
SW8270	85-01-8	Phenanthrene	ug/l	NA			1.5	U	1.5	U			3	U
SW8270	108-95-2	Phenol	ug/l	NA			0.84	U	0.85	J			1.7	U

				Location ID	OL-RAE-CAP-0037-H		OL-RAE-CAP-0037-H		OL-RAE-CAP-0037-H		OL-RAE-CAP-0037-H		OL-RAE-CAP-0037-I	
				Field Sample ID	OL-4081-07		OL-4081-08		OL-4081-09		OL-4081-10		OL-4081-11	
				Start Depth (ft)	0.25		0.25		1		1.25		1.5	
				End Depth (ft)	0.5		0.75		1.5		1.5		1.75	
				Sampled	11/16/2022		11/16/2022		11/16/2022		11/16/2022		11/16/2022	
				SDG	R2211095		R2211095		R2211095		R2211095		R2211095	
				Lab Sample ID	R2211095-006		R2211095-007		R2211095-008		R2211095-009		R2211095-010	
				Medium	Water		Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T	0.2	U					0.2	U	0.2	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U					0.25	U	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U					0.34	U	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ					0.27	UJ	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U					0.55	U	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U					0.2	U	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U					2.4		1.7	
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U					0.23	U	0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA			0.84	U	1	U			1.5	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA			0.84	U	1	U			1.5	U
SW8270	120-12-7	Anthracene	ug/l	NA			1.2	U	1.5	U			2.1	U
SW8270	86-73-7	Fluorene	ug/l	NA			0.87	U	1.1	U			1.5	U
SW8270	85-01-8	Phenanthrene	ug/l	NA			1.5	U	1.8	U			2.6	U
SW8270	108-95-2	Phenol	ug/l	NA			0.84	U	1	U			1.5	U

					Location ID	OL-RAA-CAP-0030-H		OL-RAA-CAP-0030-H		OL-RAA-CAP-0030-H		OL-RAA-CAP-0030-H		OL-RAA-CAP-00
					Field Sample ID	OL-4082-01		OL-4082-02		OL-4082-03		OL-4082-04		OL-4082-0
					Start Depth (ft)	0.25		0.25		0.75		1		1
					End Depth (ft)	0.5		0.75		1		1.25		1.5
					Sampled	11/16/2022		11/16/2022		11/16/2022		11/16/2022		11/16/202
					SDG	R2211096		R2211096		R2211096		R2211096		R2211096
					Lab Sample ID	R2211096-001		R2211096-002		R2211096-003		R2211096-004		R2211096-0
					Medium	Water		Water		Water		Water		Water
					Sample Type	REG		REG		REG		REG		REG
					Matrix	W-PORE		W-PORE		W-PORE		W-PORE		W-PORE
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T		0.4	U			0.4	U	0.4	U	
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA		0.25	U			0.25	U	0.25	U	
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA		0.34	U			0.34	U	0.34	U	
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA		0.2	U			0.2	U	0.2	U	
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA		0.27	UJ			0.27	UJ	0.27	UJ	
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA		0.2	U			0.2	U	0.2	U	
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA		0.2	U			0.2	U	0.2	U	
SW8260	71-43-2	Benzene	ug/l	NA		1.1				1		0.95	J	
SW8260	108-90-7	Chlorobenzene	ug/l	NA		0.2	U			0.2	U	0.2	U	
SW8260	100-41-4	Ethylbenzene	ug/l	NA		0.2	U			0.2	U	0.2	U	
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA		0.2	U			0.2	U	0.2	U	
SW8260	91-20-3	Naphthalene	ug/l	NA		0.55	U			0.55	U	0.55	U	
SW8260	95-47-6	o-Xylene	ug/l	NA		0.2	U			0.2	U	0.2	U	
SW8260	108-88-3	Toluene	ug/l	NA		2.7				1		1.2		
SW8260	1330-20-7	Total Xylenes	ug/l	NA		0.23	U			0.23	U	0.23	U	
SW8270	83-32-9	Acenaphthene	ug/l	NA				0.77	U	1.3	U			0.72
SW8270	208-96-8	Acenaphthylene	ug/l	NA				0.77	U	1.3	U			0.72
SW8270	120-12-7	Anthracene	ug/l	NA				1.1	U	1.8	U			1.1
SW8270	86-73-7	Fluorene	ug/l	NA				0.8	U	1.3	U			0.75
SW8270	85-01-8	Phenanthrene	ug/l	NA				1.4	U	2.2	U			1.3
SW8270	108-95-2	Phenol	ug/l	NA				0.77	U	1.3	U			0.72
SW9040	pH	pH	ph Units	NA										

				Location ID	30-H		OL-RAA-CAP-0030-H		OL-RAA-CAP-0030-H		OL-RAA-CAP-0030-I		OL-RAA-CAP-0030-I	
				Field Sample ID	5		OL-4082-06		OL-4082-07		OL-4082-08		OL-4082-09	
				Start Depth (ft)			1.5		1.75		2		2.25	
				End Depth (ft)			2		2		2.25		2.5	
				Sampled	2		11/16/2022		11/16/2022		11/16/2022		11/16/2022	
				SDG			R2211096		R2211096		R2211096		R2211096	
				Lab Sample ID	05		R2211096-006		R2211096-007		R2211096-008		R2211096-009	
				Medium			Water		Water		Water		Water	
				Sample Type			REG		REG		REG		REG	
				Matrix			W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction										
SW7470	7439-97-6	Mercury	ug/l	T					0.4	U	0.4	U		
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA					0.25	U	0.25	U		
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA					0.34	U	0.34	U		
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA					0.2	U	0.2	U		
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA					0.27	UJ	0.27	UJ		
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA					0.2	U	0.2	U		
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA					0.2	U	0.2	U		
SW8260	71-43-2	Benzene	ug/l	NA					0.99	J	0.95	J		
SW8260	108-90-7	Chlorobenzene	ug/l	NA					0.2	U	0.2	U		
SW8260	100-41-4	Ethylbenzene	ug/l	NA					0.2	U	0.2	U		
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA					0.2	U	0.2	U		
SW8260	91-20-3	Naphthalene	ug/l	NA					0.55	U	0.55	U		
SW8260	95-47-6	o-Xylene	ug/l	NA					0.2	U	0.2	U		
SW8260	108-88-3	Toluene	ug/l	NA					1.4		1.3			
SW8260	1330-20-7	Total Xylenes	ug/l	NA					0.23	U	0.23	U		
SW8270	83-32-9	Acenaphthene	ug/l	NA	U	0.72	U				1.7	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA	U	0.72	U				1.7	U		
SW8270	120-12-7	Anthracene	ug/l	NA	U	1.1	U				2.4	U		
SW8270	86-73-7	Fluorene	ug/l	NA	U	0.75	U				1.8	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA	U	1.3	U				3	U		
SW8270	108-95-2	Phenol	ug/l	NA	U	0.72	U				1.7	U		
SW9040	pH	pH	ph Units	NA									6	

				Location ID	OL-RAA-CAP-0031-H		OL-RAA-CAP-0031-H		OL-RAA-CAP-0031-H		OL-RAA-CAP-0031-H	
				Field Sample ID	OL-4082-10		OL-4082-11		OL-4082-12		OL-4082-13	
				Start Depth (ft)	0.25		0.25		0.75		1	
				End Depth (ft)	0.5		0.75		1		1.25	
				Sampled	11/16/2022		11/16/2022		11/16/2022		11/16/2022	
				SDG	R2211096		R2211096		R2211096		R2211096	
				Lab Sample ID	R2211096-010		R2211096-011		R2211096-012		R2211096-013	
				Medium	Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW7470	7439-97-6	Mercury	ug/l	T	0.4	U			0.4	U	0.4	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U			0.25	U	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U			0.34	U	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U			0.2	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ			0.27	UJ	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U			0.2	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U			0.2	U	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U			0.23	J	0.33	J
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U			0.2	U	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U			0.2	U	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U			0.2	U	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U			0.55	U	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U			0.2	U	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.38	J			0.45	J	0.57	J
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U			0.23	U	0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA			0.72	U	1.5	U		
SW8270	208-96-8	Acenaphthylene	ug/l	NA			0.72	U	1.5	U		
SW8270	120-12-7	Anthracene	ug/l	NA			1.1	U	2.1	U		
SW8270	86-73-7	Fluorene	ug/l	NA			0.75	U	1.5	U		
SW8270	85-01-8	Phenanthrene	ug/l	NA			1.3	U	2.6	U		
SW8270	108-95-2	Phenol	ug/l	NA			0.72	U	2.5	J		
SW9040	pH	pH	ph Units	NA								

				Location ID	OL-RAA-CAP-0031-H		OL-RAA-CAP-0031-H		OL-RAA-CAP-0031-H		OL-RAA-CAP-0031-I	
				Field Sample ID	OL-4082-14		OL-4082-15		OL-4082-16		OL-4082-17	
				Start Depth (ft)	1		1.5		1.75		2	
				End Depth (ft)	1.5		2		2		2.25	
				Sampled	11/16/2022		11/16/2022		11/16/2022		11/16/2022	
				SDG	R2211096		R2211096		R2211096		R2211096	
				Lab Sample ID	R2211096-014		R2211096-015		R2211096-016		R2211096-017	
				Medium	Water		Water		Water		Water	
				Sample Type	REG		REG		REG		REG	
				Matrix	W-PORE		W-PORE		W-PORE		W-PORE	
Method	Parameter Code	Parameter Name	Units	Fraction								
SW7470	7439-97-6	Mercury	ug/l	T					0.4	U	0.4	U
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA					0.25	U	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA					0.34	U	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA					0.2	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA					0.27	UJ	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA					0.2	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA					0.2	U	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA					0.35	J	0.67	J
SW8260	108-90-7	Chlorobenzene	ug/l	NA					0.2	U	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA					0.2	U	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA					0.2	U	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA					0.55	U	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA					0.2	U	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA					1.3		3	
SW8260	1330-20-7	Total Xylenes	ug/l	NA					0.23	U	0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA	0.77	U	0.84	U			1.7	U
SW8270	208-96-8	Acenaphthylene	ug/l	NA	0.77	U	0.84	U			1.7	U
SW8270	120-12-7	Anthracene	ug/l	NA	1.1	U	1.2	U			2.4	U
SW8270	86-73-7	Fluorene	ug/l	NA	0.8	U	0.87	U			1.8	U
SW8270	85-01-8	Phenanthrene	ug/l	NA	1.4	U	1.5	U			3	U
SW8270	108-95-2	Phenol	ug/l	NA	0.77	U	0.84	U			1.7	U
SW9040	pH	pH	ph Units	NA								

				Location ID	QC		QC	
				Field Sample ID	OL-4082-19		OL-4082-20	
				Start Depth (ft)				
				End Depth (ft)				
				Sampled	11/15/2022		11/15/2022	
				SDG	R2211096		R2211096	
				Lab Sample ID	R2211096-018		R2211096-019	
				Medium	Water		Water	
				Sample Type	TB		TB	
				Matrix	WQ		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction				
SW7470	7439-97-6	Mercury	ug/l	T				
SW8260	87-61-6	1,2,3-Trichlorobenzene	ug/l	NA	0.25	U	0.25	U
SW8260	120-82-1	1,2,4-Trichlorobenzene	ug/l	NA	0.34	U	0.34	U
SW8260	95-50-1	1,2-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U
SW8260	108-70-3	1,3,5-Trichlorobenzene	ug/l	NA	0.27	UJ	0.27	UJ
SW8260	541-73-1	1,3-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U
SW8260	106-46-7	1,4-Dichlorobenzene	ug/l	NA	0.2	U	0.2	U
SW8260	71-43-2	Benzene	ug/l	NA	0.2	U	0.2	U
SW8260	108-90-7	Chlorobenzene	ug/l	NA	0.2	U	0.2	U
SW8260	100-41-4	Ethylbenzene	ug/l	NA	0.2	U	0.2	U
SW8260	XYLENES1314	m&p-Xylenes	ug/l	NA	0.2	U	0.2	U
SW8260	91-20-3	Naphthalene	ug/l	NA	0.55	U	0.55	U
SW8260	95-47-6	o-Xylene	ug/l	NA	0.2	U	0.2	U
SW8260	108-88-3	Toluene	ug/l	NA	0.2	U	0.2	U
SW8260	1330-20-7	Total Xylenes	ug/l	NA	0.23	U	0.23	U
SW8270	83-32-9	Acenaphthene	ug/l	NA				
SW8270	208-96-8	Acenaphthylene	ug/l	NA				
SW8270	120-12-7	Anthracene	ug/l	NA				
SW8270	86-73-7	Fluorene	ug/l	NA				
SW8270	85-01-8	Phenanthrene	ug/l	NA				
SW8270	108-95-2	Phenol	ug/l	NA				
SW9040	pH	pH	ph Units	NA				

APPENDIX 6E – 2022 ANALYTICAL TABLES

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0001-H 3-6 in OL-4012-12 R2206224-012 7/7/2022 8:05 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0001-H 9-12 in OL-4012-13/OL-4012-14 R2206224-013 7/7/2022 8:10 SOIL A1 A1 1 Vibracore Core ug/kg	Duplicate OL-RAA-CAP-0001-H 9-12 in OL-4012-13/OL-4012-14 R2206224-014 7/7/2022 8:10 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0001-H 3-6 in OL-4036-01 R2208332-001 9/6/2022 15:20 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0001-H 3-6 in OL-4036-01 R2208332-001 9/6/2022 15:20 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0001-H 3-9 in OL-4036-02 R2208332-002 9/6/2022 15:25 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0001-H 3-9 in OL-4036-02 R2208332-002 9/6/2022 15:25 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0001-H 9-12 in OL-4036-03 R2208332-003 9/6/2022 15:30 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0001-H 9-12 in OL-4036-03 R2208332-003 9/6/2022 15:30 WATER A1 A1 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED												
Avg TOC	Average from RAA <6 in samples			%					1.3794		1.3794			
Avg TOC	Average from RAA >=6 in samples			%										1.2848
Avg TOC	Measured for Sample			%	0.061	0.101	0.101							
Avg TOC	Measured TOC - Location ID			%										
TOC	Total Organic Carbon	N			610	1010	670							
	VOLATILES													
TCB_Summ	Trichlorobenzenes	N	347 ug/kg		0.64 U	0.53 U	0.77 U							
DCB_Summ	Dichlorobenzenes	N	239 ug/kg		0.27 U	0.23 U	0.33 U							
108-90-7	Chlorobenzene	N	428 ug/kg		0.25 U	0.21 U	0.3 U							
100-41-4	Ethylbenzene	N	176 ug/kg		1.3 U	1.1 U	1.5 U							
1330-20-7	Xylenes	N	561 ug/kg		0.64 U	0.53 U	0.77 U							
91-20-3	Naphthalene	N	917 ug/kg		2.5 U	2.5 U	2.5 U							
71-43-2	Benzene	N	760 ug/L					0.13 UJ	0.22 UJ			0.13 UJ	0.22 UJ	
108-88-3	Toluene	N	480 ug/L					0.42 J	0.22 J			0.39 UJ	0.22 UJ	
	SEMIVOLATILES													
108-95-2	Phenol	N	250 ug/L							215	68.2	142	48.4	
83-32-9	Acenaphthene	N	861 ug/kg		1.8 U	1.8 U	1.8 U							
208-96-8	Acenaphthylene	N	1301 ug/kg		2 U	2 U	2 U							
120-12-7	Anthracene	N	207 ug/kg		4.4 U	4.4 U	4.4 U							
86-73-7	Fluorene	N	264 ug/kg		1.9 U	1.9 U	1.9 U							
85-01-8	Phenanthrene	N	543 ug/kg		3.8 U	3.8 U	3.8 U							
56-55-3	Benzo(A)Anthracene	N	192 ug/kg		5.4 U	5.4 U	5.4 U							
50-32-8	Benzo(A)Pyrene	N	146 ug/kg		3 U	3 U	3 U							
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg		3.8 U	3.8 U	3.8 U							
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg		3.1 U	3.1 U	3.1 U							
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg		4.1 U	4.1 U	4.1 U							
218-01-9	Chrysene	N	253 ug/kg		3 U	3 U	3 U							
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg		3 U	3 U	3 U							
206-44-0	Fluoranthene	N	1436 ug/kg		5.3 U	5.3 U	5.3 U							
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg		3.2 U	3.2 U	3.2 U							
129-00-0	Pyrene	N	344 ug/kg		3.5 U	3.5 U	3.5 U							
	PCBs													
PCB	PCB, Total	N	295 ug/kg		43 U	44 U	44 U							
	METALS													
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg	0.008 U	0.008 U	0.008 U							
	OTHER													
PH	pH	N		ph units										
SOLID	Total Solids	N		%	89.2	89	89.2							

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0001-I 12-15 in OL-4012-15 R2206224-015 7/7/2022 8:20 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0001-I 12-15 in OL-4036-04 R2208332-004 9/6/2022 15:35 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0001-I 12-15 in OL-4036-04 R2208332-004 9/6/2022 15:35 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0002-H 3-6 in OL-4012-06 R2206224-006 7/6/2022 14:20 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0002-H 9-12 in OL-4012-07 R2206224-007 7/6/2022 14:25 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0002-H 3-6 in OL-4037-01 R2208367-001 9/6/2022 16:30 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0002-H 3-6 in OL-4037-01 R2208367-001 9/6/2022 16:30 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0002-H 3-9 in OL-4037-02 R2208367-002 9/6/2022 16:35 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0002-H 3-9 in OL-4037-02 R2208367-002 9/6/2022 16:35 WATER A1 A1 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAA <6 in samples				%								1.3794		1.3794
Avg TOC	Average from RAA >=6 in samples				%			1.2848							
Avg TOC	Measured for Sample				%				0.38	0.132					
Avg TOC	Measured TOC - Location ID				%	0.101									
TOC	Total Organic Carbon	N							3800	1320					
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.61 U			0.55 U	0.53 U					
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.26 U			0.23 U	0.23 U					
108-90-7	Chlorobenzene	N	428	ug/kg		0.24 U			0.21 U	0.21 U					
100-41-4	Ethylbenzene	N	176	ug/kg		1.2 U			1.1 U	1.1 U					
1330-20-7	Xylenes	N	561	ug/kg		0.61 U			0.55 U	0.53 U					
91-20-3	Naphthalene	N	917	ug/kg		2.8 U			2.6 U	2.6 U					
71-43-2	Benzene	N	760	ug/L			0.63 U	1.1 U			0.13 U	0.22 U			
108-88-3	Toluene	N	480	ug/L			1.94 U	1.1 U			0.42 U	0.22 U			
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L			81 J	27.5 J					38 J	12.1 J	
83-32-9	Acenaphthene	N	861	ug/kg		2 U			1.9 U	1.9 U					
208-96-8	Acenaphthylene	N	1301	ug/kg		2.2 U			2 U	2 U					
120-12-7	Anthracene	N	207	ug/kg		4.8 U			4.5 U	4.5 U					
86-73-7	Fluorene	N	264	ug/kg		2.1 U			1.9 U	1.9 U					
85-01-8	Phenanthrene	N	543	ug/kg		4.2 U			3.9 U	3.9 U					
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		6 U			5.6 U	5.5 U					
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		3.2 U			3.3 J	3 U					
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		4.2 U			4.3 J	3.9 U					
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		3.4 U			3.1 U	3.1 U					
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		4.5 U			4.2 U	4.2 U					
218-01-9	Chrysene	N	253	ug/kg		3.2 U			3 U	3 U					
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		3.2 U			3 U	3 U					
206-44-0	Fluoranthene	N	1436	ug/kg		5.9 U			5.5 U	5.4 U					
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		3.5 U			3.3 U	3.2 U					
129-00-0	Pyrene	N	344	ug/kg		4.7 J			4.6 J	3.6 U					
	PCBs														
PCB	PCB, Total	N	295	ug/kg		46 U			45 U	45 U					
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.061			0.048	0.017 J					
	OTHER														
PH	pH	N			ph units										
SOLID	Total Solids	N			%	83.3			83.4	86.2					

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0002-H 9-12 in OL-4037-03 R2208367-003 9/6/2022 16:40 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0002-H 9-12 in OL-4037-03 R2208367-003 9/6/2022 16:40 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0002-I 12-15 in OL-4012-08 R2206224-008 7/6/2022 14:30 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0002-I 12-15 in OL-4037-04 R2208367-004 9/6/2022 16:45 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0002-I 12-15 in OL-4037-04 R2208367-004 9/6/2022 16:45 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0003-H 3-6 in OL-4012-01 R2206224-001 7/6/2022 14:30 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0003-H 9-12 in OL-4012-02 R2206224-002 7/6/2022 14:35 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0003-H 3-6 in OL-4037-06 R2208367-005 9/6/2022 17:45 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0003-H 3-6 in OL-4037-06 R2208367-005 9/6/2022 17:45 WATER A1 A1 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAA <6 in samples				%										1.3794
Avg TOC	Average from RAA >=6 in samples				%		1.2848				1.2848				
Avg TOC	Measured for Sample				%							0.094	0.117		
Avg TOC	Measured TOC - Location ID				%			0.132							
TOC	Total Organic Carbon	N										940	1170		
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg				0.52 U				0.63 U	0.57 U		
DCB_Summ	Dichlorobenzenes	N	239	ug/kg				0.22 U				0.27 U	0.24 U		
108-90-7	Chlorobenzene	N	428	ug/kg				0.2 U				0.24 U	0.22 U		
100-41-4	Ethylbenzene	N	176	ug/kg				1 U				1.2 U	1.1 U		
1330-20-7	Xylenes	N	561	ug/kg				0.52 U				0.63 U	0.57 U		
91-20-3	Naphthalene	N	917	ug/kg				2.5 U				2.9 U	2.5 U		
71-43-2	Benzene	N	760	ug/L		0.13 U	0.22 U		0.13 U	0.22 U				0.13 U	0.22 U
108-88-3	Toluene	N	480	ug/L		0.39 U	0.22 U		0.39 U	0.22 U				0.42 U	0.22 U
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		5.49 UJ	1.87 UJ		8.39 J	2.86 J					
83-32-9	Acenaphthene	N	861	ug/kg				1.8 U				2.1 U	1.8 U		
208-96-8	Acenaphthylene	N	1301	ug/kg				2 U				2.3 U	2 U		
120-12-7	Anthracene	N	207	ug/kg				4.3 U				5.1 U	4.3 U		
86-73-7	Fluorene	N	264	ug/kg				1.9 U				2.2 U	1.9 U		
85-01-8	Phenanthrene	N	543	ug/kg				3.8 U				12	3.8 U		
56-55-3	Benzo(A)Anthracene	N	192	ug/kg				5.4 U				15	5.4 U		
50-32-8	Benzo(A)Pyrene	N	146	ug/kg				2.9 U				21	2.9 J		
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg				3.8 U				26	3.8 U		
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg				3 U				17	3 U		
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg				4.1 U				8.5	4.1 U		
218-01-9	Chrysene	N	253	ug/kg				2.9 U				18	2.9 U		
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg				2.9 U				4.4 J	2.9 U		
206-44-0	Fluoranthene	N	1436	ug/kg				5.3 U				32	5.3 U		
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg				3.1 U				17	3.1 U		
129-00-0	Pyrene	N	344	ug/kg				3.5 U				30	4.2 J		
	PCBs														
PCB	PCB, Total	N	295	ug/kg				42 U				49 U	45 U		
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg			0.008 U				0.029	0.019 J		
	OTHER														
PH	pH	N			ph units										
SOLID	Total Solids	N			%			90.4				77.8	87.7		

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0003-H 3-9 in OL-4037-07 R2208367-006 9/6/2022 17:50 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0003-H 3-9 in OL-4037-07 R2208367-006 9/6/2022 17:50 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0003-H 9-12 in OL-4037-08 R2208367-007 9/6/2022 17:55 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0003-H 9-12 in OL-4037-08 R2208367-007 9/6/2022 17:55 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0003-I 12-15 in OL-4012-03 R2206224-003 7/6/2022 14:40 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0003-I 12-15 in OL-4037-09 R2208367-008 9/6/2022 18:00 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0003-I 12-15 in OL-4037-09 R2208367-008 9/6/2022 18:00 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0004-H 3-6 in OL-4012-16 R2206224-016 7/7/2022 8:50 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0004-H 9-12 in OL-4012-17 R2206224-017 7/7/2022 8:55 SOIL A1 A1 1 Vibracore Core ug/kg
CAS NO.	COMPOUND	FILTERED												
Avg TOC	Average from RAA <6 in samples			%		1.3794								
Avg TOC	Average from RAA >=6 in samples			%				1.2848				1.2848		
Avg TOC	Measured for Sample			%									0.055	0.039
Avg TOC	Measured TOC - Location ID			%					0.117					
TOC	Total Organic Carbon	N											550	390
	VOLATILES													
TCB_Summ	Trichlorobenzenes	N	347 ug/kg						0.77 U				0.57 U	0.66 U
DCB_Summ	Dichlorobenzenes	N	239 ug/kg						0.33 U				0.24 U	0.28 U
108-90-7	Chlorobenzene	N	428 ug/kg						0.3 U				0.22 U	0.26 U
100-41-4	Ethylbenzene	N	176 ug/kg						1.5 U				1.1 U	1.3 U
1330-20-7	Xylenes	N	561 ug/kg						0.77 U				0.57 U	0.66 U
91-20-3	Naphthalene	N	917 ug/kg						2.3 U				2.7 U	2.5 U
71-43-2	Benzene	N	760 ug/L				0.13 U	0.22 U						
108-88-3	Toluene	N	480 ug/L				0.39 U	0.22 U						
	SEMIVOLATILES													
108-95-2	Phenol	N	250 ug/L		2.49 UJ	0.792 UJ	8.07 UJ	2.75 UJ		3.87 U	1.32 U			
83-32-9	Acenaphthene	N	861 ug/kg						1.7 U				1.9 U	1.8 U
208-96-8	Acenaphthylene	N	1301 ug/kg						1.8 U				2.1 U	2 U
120-12-7	Anthracene	N	207 ug/kg						4.1 U				4.6 U	4.3 U
86-73-7	Fluorene	N	264 ug/kg						1.7 U				2 U	1.9 U
85-01-8	Phenanthrene	N	543 ug/kg						3.5 U				4 U	3.8 U
56-55-3	Benzo(A)Anthracene	N	192 ug/kg						5 U				5.7 U	5.4 U
50-32-8	Benzo(A)Pyrene	N	146 ug/kg						2.7 U				3.1 U	2.9 U
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg						3.5 U				4 U	3.8 U
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg						2.8 U				3.2 U	3 U
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg						3.8 U				4.3 U	4.1 U
218-01-9	Chrysene	N	253 ug/kg						2.7 U				3.1 U	2.9 U
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg						2.7 U				3.1 U	2.9 U
206-44-0	Fluoranthene	N	1436 ug/kg						4.9 U				5.6 U	5.3 U
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg						2.9 U				3.3 U	3.1 U
129-00-0	Pyrene	N	344 ug/kg						3.2 U				3.7 U	3.5 U
	PCBs													
PCB	PCB, Total	N	295 ug/kg						42 U				45 U	43 U
	METALS													
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg					0.008 U				0.009 U	0.008 U
	OTHER													
PH	pH	N		ph units										
SOLID	Total Solids	N		%					93.9				85.8	89.9

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0004-H 3-6 in OL-4037-16 R2208367-013 9/7/2022 10:45 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0004-H 3-6 in OL-4037-16 R2208367-013 9/7/2022 10:45 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0004-H 3-9 in OL-4037-17 R2208367-014 9/7/2022 10:50 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0004-H 3-9 in OL-4037-17 R2208367-014 9/7/2022 10:50 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0004-H 9-12 in OL-4037-18 R2208367-015 9/7/2022 10:55 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0004-H 9-12 in OL-4037-18 R2208367-015 9/7/2022 10:55 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0004-I 12-15 in OL-4012-18 R2206224-018 7/7/2022 9:00 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0004-I 12-15 in OL-4037-19 R2208367-016 9/7/2022 11:00 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0004-I 12-15 in OL-4037-19 R2208367-016 9/7/2022 11:00 WATER A1 A1 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAA <6 in samples				%		1.3794		1.3794						
Avg TOC	Average from RAA >=6 in samples				%							1.2848			1.2848
Avg TOC	Measured for Sample				%										
Avg TOC	Measured TOC - Location ID				%								0.039		
TOC	Total Organic Carbon	N													
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg									0.58 U		
DCB_Summ	Dichlorobenzenes	N	239	ug/kg									0.25 U		
108-90-7	Chlorobenzene	N	428	ug/kg									0.23 U		
100-41-4	Ethylbenzene	N	176	ug/kg									1.2 U		
1330-20-7	Xylenes	N	561	ug/kg									0.58 U		
91-20-3	Naphthalene	N	917	ug/kg									2.8 U		
71-43-2	Benzene	N	760	ug/L		0.13 U	0.22 U			0.13 U	0.22 U			0.13 U	0.22 U
108-88-3	Toluene	N	480	ug/L		0.71 J	0.374 J			0.58 J	0.33 J			0.5 J	0.286 J
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L				2.49 UJ	0.792 UJ	12 J	4.07 J			8.07 UJ	2.75 UJ
83-32-9	Acenaphthene	N	861	ug/kg									2 U		
208-96-8	Acenaphthylene	N	1301	ug/kg									2.2 U		
120-12-7	Anthracene	N	207	ug/kg									4.9 U		
86-73-7	Fluorene	N	264	ug/kg									2.1 U		
85-01-8	Phenanthrene	N	543	ug/kg									4.2 U		
56-55-3	Benzo(A)Anthracene	N	192	ug/kg									6 U		
50-32-8	Benzo(A)Pyrene	N	146	ug/kg									3.3 U		
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg									4.2 U		
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg									3.4 U		
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg									4.6 U		
218-01-9	Chrysene	N	253	ug/kg									3.3 U		
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg									3.3 U		
206-44-0	Fluoranthene	N	1436	ug/kg									5.9 U		
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg									3.5 U		
129-00-0	Pyrene	N	344	ug/kg									3.9 U		
	PCBs														
PCB	PCB, Total	N	295	ug/kg									77 U		
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg								0.009 U		
	OTHER														
PH	pH	N			ph units										
SOLID	Total Solids	N			%								83		

Notes:
U - Not Detected
J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
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Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0005-H 3-6 in OL-4011-03 R2206128-003 7/6/2022 8:55 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0005-H 9-12 in OL-4011-04 R2206128-004 7/6/2022 9:00 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0005-H 3-6 in OL-4037-11 R2208367-009 9/7/2022 9:30 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0005-H 3-6 in OL-4037-11 R2208367-009 9/7/2022 9:30 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0005-H 3-9 in OL-4037-12 R2208367-010 9/7/2022 9:35 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0005-H 3-9 in OL-4037-12 R2208367-010 9/7/2022 9:35 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0005-H 9-12 in OL-4037-13 R2208367-011 9/7/2022 9:40 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0005-H 9-12 in OL-4037-13 R2208367-011 9/7/2022 9:40 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0005-I 12-15 in OL-4011-05 R2206128-005 7/6/2022 9:05 SOIL A1 A1 1 Vibracore Core ug/kg
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAA <6 in samples				%				1.3794		1.3794				
Avg TOC	Average from RAA >=6 in samples				%								1.2848		
Avg TOC	Measured for Sample				%	1.01	0.071								
Avg TOC	Measured TOC - Location ID				%										0.071
TOC	Total Organic Carbon	N				10100	710								
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.68 U	0.56 U								0.66 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.39	0.24 U								0.28 U
108-90-7	Chlorobenzene	N	428	ug/kg		0.26 U	0.22 U								0.26 U
100-41-4	Ethylbenzene	N	176	ug/kg		1.3 U	1.1 U								1.3 U
1330-20-7	Xylenes	N	561	ug/kg		0.68 U	0.56 U								0.65 U
91-20-3	Naphthalene	N	917	ug/kg		3.2 U	2.8 U								2.5 U
71-43-2	Benzene	N	760	ug/L				0.13 U	0.22 U			0.13 U	0.22 U		
108-88-3	Toluene	N	480	ug/L				0.42 U	0.22 U			0.54 J	0.308 J		
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L						142	45.1	8.07 UJ	2.75 UJ		
83-32-9	Acenaphthene	N	861	ug/kg		3.1 J	2 U								1.8 U
208-96-8	Acenaphthylene	N	1301	ug/kg		6.4 J	2.2 U								2 U
120-12-7	Anthracene	N	207	ug/kg		11	4.8 U								4.4 U
86-73-7	Fluorene	N	264	ug/kg		4.4 J	2.1 U								1.9 U
85-01-8	Phenanthrene	N	543	ug/kg		56	4.2 U								3.8 U
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		55	6 U								5.5 U
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		93	3.3 U								3 U
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		110	4.2 U								3.8 U
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		69	3.4 U								3.1 U
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		37	4.6 U								4.1 U
218-01-9	Chrysene	N	253	ug/kg		81	3.3 U								3 U
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		16	3.3 U								3 U
206-44-0	Fluoranthene	N	1436	ug/kg		160	5.9 U								5.4 U
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		68	3.5 UJ								3.2 UJ
129-00-0	Pyrene	N	344	ug/kg		140	3.9 U								3.5 U
	PCBs														
PCB	PCB, Total	N	295	ug/kg		52 U	46 U								29 U
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.047	0.011 J								0.008 U
	OTHER														
PH	pH	N			ph units										
SOLID	Total Solids	N			%	73.3	83.6								91.2

Notes:
U - Not Detected
J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0005-I 12-15 in OL-4037-14 R2208367-012 9/7/2022 9:45 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0005-I 12-15 in OL-4037-14 R2208367-012 9/7/2022 9:45 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0006-H 3-6 in OL-4012-04 R2206224-004 7/6/2022 15:55 SOIL A2 A2 1 Vibracore Core ug/kg	OL-RAA-CAP-0006-H 9-12 in OL-4012-05 R2206224-005 7/6/2022 16:00 SOIL A2 A2 1 Vibracore Core ug/kg	OL-RAA-CAP-0006-H 3-6 in OL-4038-01 R2208374-001 9/7/2022 11:30 SOIL-CALC A2 A2 1 Peeper Peeper ug/kg	OL-RAA-CAP-0006-H 3-6 in OL-4038-01 R2208374-001 9/7/2022 11:30 WATER A2 A2 1 Peeper Peeper ug/L	OL-RAA-CAP-0006-H 3-9 in OL-4038-02 R2208374-002 9/7/2022 11:35 SOIL-CALC A2 A2 1 Peeper Peeper ug/kg	OL-RAA-CAP-0006-H 3-9 in OL-4038-02 R2208374-002 9/7/2022 11:35 WATER A2 A2 1 Peeper Peeper ug/L	OL-RAA-CAP-0006-H 9-12 in OL-4038-03 R2208374-003 9/7/2022 11:40 SOIL-CALC A2 A2 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAA <6 in samples				%							1.3794		1.3794	
Avg TOC	Average from RAA >=6 in samples				%		1.2848								
Avg TOC	Measured for Sample				%			0.065	0.048						
Avg TOC	Measured TOC - Location ID				%										
TOC	Total Organic Carbon	N						650	480						
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg				0.57 U	0.59 U						
DCB_Summ	Dichlorobenzenes	N	239	ug/kg				0.24 U	0.25 U						
108-90-7	Chlorobenzene	N	428	ug/kg				0.22 U	0.23 U						
100-41-4	Ethylbenzene	N	176	ug/kg				1.1 U	1.2 U						
1330-20-7	Xylenes	N	561	ug/kg				0.57 U	0.59 U						
91-20-3	Naphthalene	N	917	ug/kg				2.6 U	2.4 U						
71-43-2	Benzene	N	760	ug/L		0.13 U	0.22 U			0.13 U	0.22 U				0.13 U
108-88-3	Toluene	N	480	ug/L		0.58 J	0.33 J			0.42 U	0.22 U				120
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		2.32 UJ	0.792 UJ					12 J	3.74 J		8.07 U
83-32-9	Acenaphthene	N	861	ug/kg				1.9 U	1.7 U						
208-96-8	Acenaphthylene	N	1301	ug/kg				2.1 U	1.9 U						
120-12-7	Anthracene	N	207	ug/kg				4.5 U	4.1 U						
86-73-7	Fluorene	N	264	ug/kg				1.9 U	1.8 U						
85-01-8	Phenanthrene	N	543	ug/kg				3.9 U	3.6 U						
56-55-3	Benzo(A)Anthracene	N	192	ug/kg				5.6 U	5.1 U						
50-32-8	Benzo(A)Pyrene	N	146	ug/kg				3.1 U	2.8 U						
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg				3.9 U	3.6 U						
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg				3.2 U	2.9 U						
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg				4.3 U	3.9 U						
218-01-9	Chrysene	N	253	ug/kg				3.1 U	2.8 U						
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg				3.1 U	2.8 U						
206-44-0	Fluoranthene	N	1436	ug/kg				5.5 U	5 U						
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg				3.3 U	3 U						
129-00-0	Pyrene	N	344	ug/kg				3.6 U	3.3 U						
	PCBs														
PCB	PCB, Total	N	295	ug/kg				45 U	44 U						
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg			0.008 U	0.009 U						
	OTHER														
PH	pH	N			ph units			8.83	9.02						
SOLID	Total Solids	N			%			86.2	89.2						

Notes:
U - Not Detected
J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0006-H 9-12 in OL-4038-03 R2208374-003 9/7/2022 11:40 WATER A2 A2 1 Peeper Peeper ug/L	OL-RAA-CAP-0006-I 12-15 in OL-4038-04 R2208374-004 9/7/2022 11:45 SOIL-CALC A2 A2 1 Peeper Peeper ug/kg	OL-RAA-CAP-0006-I 12-15 in OL-4038-04 R2208374-004 9/7/2022 11:45 WATER A2 A2 1 Peeper Peeper ug/L	OL-RAA-CAP-0006-I 15-18 in OL-4038-05 R2208374-005 9/7/2022 11:50 WATER A2 A2 1 Peeper Peeper ug/L	OL-RAA-CAP-0007-H 3-6 in OL-4012-09 R2206224-009 7/7/2022 7:40 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0007-H 9-12 in OL-4012-10 R2206224-010 7/7/2022 7:45 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0007-H 3-6 in OL-4038-06 R2208374-006 9/7/2022 12:50 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0007-H 3-6 in OL-4038-06 R2208374-006 9/7/2022 12:50 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0007-H 3-9 in OL-4038-07 R2208374-007 9/7/2022 12:55 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED												
Avg TOC	Average from RAA <6 in samples			%									1.3794	
Avg TOC	Average from RAA >=6 in samples			%	1.2848		1.2848	1.2848						
Avg TOC	Measured for Sample			%					0.13	0.071				
Avg TOC	Measured TOC - Location ID			%										
TOC	Total Organic Carbon	N							1300	710				
	VOLATILES													
TCB_Summ	Trichlorobenzenes	N	347 ug/kg			4.86 U	0.374 U		0.49 U	0.54 U				
DCB_Summ	Dichlorobenzenes	N	239 ug/kg			1.12 U	0.22 U		0.21 U	0.23 U				
108-90-7	Chlorobenzene	N	428 ug/kg			0.48 U	0.22 U		0.19 U	0.21 U				
100-41-4	Ethylbenzene	N	176 ug/kg			1 U	0.22 U		0.94 U	1.1 U				
1330-20-7	Xylenes	N	561 ug/kg			1.01 U	0.253 U		0.49 U	0.54 U				
91-20-3	Naphthalene	N	917 ug/kg			2.07 U	0.605 U		2.4 U	2.9 U				
71-43-2	Benzene	N	760 ug/L		0.22 U	0.13 U	0.22 U				0.13 U	0.22 U		
108-88-3	Toluene	N	480 ug/L		68.2	58	33				1.31 J	0.693 J		
	SEMIVOLATILES													
108-95-2	Phenol	N	250 ug/L		2.75 U	8.07 U	2.75 U							66
83-32-9	Acenaphthene	N	861 ug/kg			687 U	2.75 U		1.8 U	2.1 U				
208-96-8	Acenaphthylene	N	1301 ug/kg			280 U	2.75 U		1.9 U	3.6 J				
120-12-7	Anthracene	N	207 ug/kg			1304 U	3.96 U		4.2 U	5 U				
86-73-7	Fluorene	N	264 ug/kg			506 U	2.86 U		1.8 U	2.2 U				
85-01-8	Phenanthrene	N	543 ug/kg			1594 U	4.84 U		3.7 U	4.4 U				
56-55-3	Benzo(A)Anthracene	N	192 ug/kg						5.2 U	6.2 U				
50-32-8	Benzo(A)Pyrene	N	146 ug/kg						2.9 U	3.5 J				
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg						3.7 U	4.9 J				
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg						3 U	3.9 J				
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg						4 U	4.7 U				
218-01-9	Chrysene	N	253 ug/kg						2.9 U	4 J				
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg						2.9 U	3.4 U				
206-44-0	Fluoranthene	N	1436 ug/kg						5.1 U	6.1 U				
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg						3.1 U	3.8 J				
129-00-0	Pyrene	N	344 ug/kg						3.4 U	4 J				
	PCBs													
PCB	PCB, Total	N	295 ug/kg						42 U	49 U				
	METALS													
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg		1.316 U	2.2 U		0.01 J	0.02 J				
	OTHER													
PH	pH	N		ph units				9.17						
SOLID	Total Solids	N		%					93.4	80.2				

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0007-H 3-9 in OL-4038-07 R2208374-007 9/7/2022 12:55 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0007-H 9-12 in OL-4038-08 R2208374-008 9/7/2022 13:00 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0007-H 9-12 in OL-4038-08 R2208374-008 9/7/2022 13:00 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0007-I 12-15 in OL-4012-11 R2206224-011 7/7/2022 7:50 SOIL A1 A1 1 Vibracore Core ug/kg	OL-RAA-CAP-0007-I 12-15 in OL-4038-09 R2208374-009 9/7/2022 13:05 SOIL-CALC A1 A1 1 Peeper Peeper ug/kg	OL-RAA-CAP-0007-I 12-15 in OL-4038-09 R2208374-009 9/7/2022 13:05 WATER A1 A1 1 Peeper Peeper ug/L	OL-RAA-CAP-0008-H 3-6 in OL-4043-11 R2208526-011 9/9/2022 14:20 SOIL-CALC A2 A2 2 Peeper Peeper ug/kg	OL-RAA-CAP-0008-H 3-6 in OL-4043-11 R2208526-011 9/9/2022 14:20 WATER A2 A2 2 Peeper Peeper ug/L	OL-RAA-CAP-0008-H 3-9 in OL-4043-12 R2208526-012 9/9/2022 14:25 SOIL-CALC A2 A2 2 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED											
Avg TOC	Average from RAA <6 in samples			%	1.3794							1.3794	
Avg TOC	Average from RAA >=6 in samples			%			1.2848			1.2848			
Avg TOC	Measured for Sample			%									
Avg TOC	Measured TOC - Location ID			%				0.071					
TOC	Total Organic Carbon	N											
	VOLATILES												
TCB_Summ	Trichlorobenzenes	N	347 ug/kg					0.53 U			5.21 U	0.374 U	
DCB_Summ	Dichlorobenzenes	N	239 ug/kg					0.23 U			1.2 U	0.22 U	
108-90-7	Chlorobenzene	N	428 ug/kg					0.21 U			0.51 UJ	0.22 UJ	
100-41-4	Ethylbenzene	N	176 ug/kg					1.1 U			1.07 UJ	0.22 UJ	
1330-20-7	Xylenes	N	561 ug/kg					0.53 U			1.08 UJ	0.253 UJ	
91-20-3	Naphthalene	N	917 ug/kg					2.5 U			2.22 UJ	0.605 UJ	
71-43-2	Benzene	N	760 ug/L			0.13 U	0.22 U		0.13 U	0.22 U	0.13 UJ	0.22 UJ	
108-88-3	Toluene	N	480 ug/L			0.64 J	0.363 J		0.56 J	0.319 J	0.42 UJ	0.22 UJ	
	SEMIVOLATILES												
108-95-2	Phenol	N	250 ug/L		20.9	68 J	23.1 J		61 J	20.9 J			2.49 U
83-32-9	Acenaphthene	N	861 ug/kg					1.8 U					212 UJ
208-96-8	Acenaphthylene	N	1301 ug/kg					2 U					86 U
120-12-7	Anthracene	N	207 ug/kg					4.3 U					428 U
86-73-7	Fluorene	N	264 ug/kg					1.9 U					157 U
85-01-8	Phenanthrene	N	543 ug/kg					3.8 U					505 UJ
56-55-3	Benzo(A)Anthracene	N	192 ug/kg					5.4 U					
50-32-8	Benzo(A)Pyrene	N	146 ug/kg					2.9 U					
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg					3.8 U					
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg					3 U					
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg					4.1 U					
218-01-9	Chrysene	N	253 ug/kg					2.9 U					
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg					2.9 U					
206-44-0	Fluoranthene	N	1436 ug/kg					5.3 U					
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg					3.1 U					
129-00-0	Pyrene	N	344 ug/kg					3.5 U					
	PCBs												
PCB	PCB, Total	N	295 ug/kg					43 U					
	METALS												
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg				0.008 J			1.316 U	2.2 U	
	OTHER												
PH	pH	N		ph units									
SOLID	Total Solids	N		%				90.4					

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0008-H 3-9 in OL-4043-12 R2208526-012 9/9/2022 14:25 WATER A2 A2 2 Peeper Peeper ug/L	OL-RAA-CAP-0008-H 9-12 in OL-4043-13 R2208526-013 9/9/2022 14:30 WATER A2 A2 2 Peeper Peeper ug/L	OL-RAA-CAP-0008-H 12-18 in OL-4043-14 R2208526-014 9/9/2022 14:35 SOIL-CALC A2 A2 2 Peeper Peeper ug/kg	OL-RAA-CAP-0008-H 12-18 in OL-4043-14 R2208526-014 9/9/2022 14:35 WATER A2 A2 2 Peeper Peeper ug/L	OL-RAA-CAP-0008-H 15-18 in OL-4043-15 R2208526-015 9/9/2022 14:40 SOIL-CALC A2 A2 2 Peeper Peeper ug/kg	OL-RAA-CAP-0008-H 15-18 in OL-4043-15 R2208526-015 9/9/2022 14:40 WATER A2 A2 2 Peeper Peeper ug/L	OL-RAA-CAP-0008-I 18-21 in OL-4043-16 R2208526-016 9/9/2022 14:45 SOIL-CALC A2 A2 2 Peeper Peeper ug/kg	OL-RAA-CAP-0008-I 18-21 in OL-4043-16 R2208526-016 9/9/2022 14:45 WATER A2 A2 2 Peeper Peeper ug/L	OL-RAA-CAP-0008-I 21-24 in OL-4043-17 R2208526-017 9/9/2022 14:50 WATER A2 A2 2 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAA <6 in samples				%	1.3794									
Avg TOC	Average from RAA >=6 in samples				%		1.2848		1.2848		1.2848		1.2848	1.2848	
Avg TOC	Measured for Sample				%										
Avg TOC	Measured TOC - Location ID				%										
TOC	Total Organic Carbon	N													
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg						4.86 U	0.374 U	4.86 U	0.374 U		
DCB_Summ	Dichlorobenzenes	N	239	ug/kg						1.12 U	0.22 U	1.12 U	0.22 U		
108-90-7	Chlorobenzene	N	428	ug/kg						0.48 UJ	0.22 UJ	0.48 UJ	0.22 UJ		
100-41-4	Ethylbenzene	N	176	ug/kg						1 UJ	0.22 UJ	1 UJ	0.22 UJ		
1330-20-7	Xylenes	N	561	ug/kg						1.01 UJ	0.253 UJ	1.01 UJ	0.253 UJ		
91-20-3	Naphthalene	N	917	ug/kg						2.07 UJ	0.605 UJ	2.07 UJ	0.605 UJ		
71-43-2	Benzene	N	760	ug/L						0.13 UJ	0.22 UJ	0.13 UJ	0.22 UJ		
108-88-3	Toluene	N	480	ug/L						0.99 J	0.561 J	0.5 J	0.286 J		
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		0.792 U		2.32 U	0.792 U			6.46 U	2.2 U		
83-32-9	Acenaphthene	N	861	ug/kg		0.792 UJ		198 UJ	0.792 UJ			550 UJ	2.2 UJ		
208-96-8	Acenaphthylene	N	1301	ug/kg		0.792 U		81 U	0.792 U			224 U	2.2 U		
120-12-7	Anthracene	N	207	ug/kg		1.21 U		398 U	1.21 U			1050 U	3.19 U		
86-73-7	Fluorene	N	264	ug/kg		0.825 U		146 U	0.825 U			408 U	2.31 U		
85-01-8	Phenanthrene	N	543	ug/kg		1.43 UJ		471 UJ	1.43 UJ			1304 UJ	3.96 UJ		
56-55-3	Benzo(A)Anthracene	N	192	ug/kg											
50-32-8	Benzo(A)Pyrene	N	146	ug/kg											
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg											
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg											
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg											
218-01-9	Chrysene	N	253	ug/kg											
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg											
206-44-0	Fluoranthene	N	1436	ug/kg											
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg											
129-00-0	Pyrene	N	344	ug/kg											
	PCBs														
PCB	PCB, Total	N	295	ug/kg											
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg					1.316 U	2.2 U	1.316 U	2.2 U		
	OTHER														
PH	pH	N			ph units		7.68							7.8	
SOLID	Total Solids	N			%										

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0009-H 3-6 in OL-4044-01 R2208570-001 9/12/2022 13:25 SOIL-CALC A1 A1 2 Peeper Peeper ug/kg	OL-RAA-CAP-0009-H 3-6 in OL-4044-01 R2208570-001 9/12/2022 13:25 WATER A1 A1 2 Peeper Peeper ug/L	OL-RAA-CAP-0009-H 3-9 in OL-4044-02 R2208570-002 9/12/2022 13:30 SOIL-CALC A1 A1 2 Peeper Peeper ug/kg	OL-RAA-CAP-0009-H 3-9 in OL-4044-02 R2208570-002 9/12/2022 13:30 WATER A1 A1 2 Peeper Peeper ug/L	OL-RAA-CAP-0009-H 12-18 in OL-4044-03 R2208570-003 9/12/2022 13:35 SOIL-CALC A1 A1 2 Peeper Peeper ug/kg	OL-RAA-CAP-0009-H 12-18 in OL-4044-03 R2208570-003 9/12/2022 13:35 WATER A1 A1 2 Peeper Peeper ug/L	OL-RAA-CAP-0009-H 15-18 in OL-4044-04 R2208570-004 9/12/2022 13:40 SOIL-CALC A1 A1 2 Peeper Peeper ug/kg	OL-RAA-CAP-0009-H 15-18 in OL-4044-04 R2208570-004 9/12/2022 13:40 WATER A1 A1 2 Peeper Peeper ug/L	OL-RAA-CAP-0009-I 10-13 in OL-4011-06 R2206128-006 7/6/2022 9:55 SOIL A1 A1 2 Vibracore Core ug/kg
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAA <6 in samples				%		1.3794		1.3794						
Avg TOC	Average from RAA >=6 in samples				%							1.2848		1.2848	1.168
Avg TOC	Measured for Sample				%										
Avg TOC	Measured TOC - Location ID				%										
TOC	Total Organic Carbon	N													
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		5.21 U	0.374 U						4.86 U	0.374 U	0.5 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		1.2 U	0.22 U						1.12 U	0.22 U	0.21
108-90-7	Chlorobenzene	N	428	ug/kg		0.51 UJ	0.22 UJ						0.48 UJ	0.22 UJ	0.19 U
100-41-4	Ethylbenzene	N	176	ug/kg		1.07 UJ	0.22 UJ						1 UJ	0.22 UJ	0.95 U
1330-20-7	Xylenes	N	561	ug/kg		1.08 UJ	0.253 UJ						1.01 UJ	0.253 UJ	0.5 U
91-20-3	Naphthalene	N	917	ug/kg		2.22 UJ	0.605 UJ						2.07 UJ	0.605 UJ	2.9 U
71-43-2	Benzene	N	760	ug/L		0.13 UJ	0.22 UJ						0.13 UJ	0.22 UJ	
108-88-3	Toluene	N	480	ug/L		42 J-	22 J-						5.04 J-	2.86 J-	
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L				2.49 U	0.792 U	23 J	7.7 J				
83-32-9	Acenaphthene	N	861	ug/kg				212 UJ	0.792 UJ	198 UJ	0.792 UJ				2.1 U
208-96-8	Acenaphthylene	N	1301	ug/kg				86 U	0.792 U	81 U	0.792 U				2.3 U
120-12-7	Anthracene	N	207	ug/kg				428 U	1.21 U	398 U	1.21 U				5 U
86-73-7	Fluorene	N	264	ug/kg				157 U	0.825 U	146 U	0.825 U				2.2 U
85-01-8	Phenanthrene	N	543	ug/kg				505 UJ	1.43 UJ	471 UJ	1.43 UJ				4.4 U
56-55-3	Benzo(A)Anthracene	N	192	ug/kg											6.2 U
50-32-8	Benzo(A)Pyrene	N	146	ug/kg											3.4 U
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg											4.4 U
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg											3.5 U
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg											4.7 U
218-01-9	Chrysene	N	253	ug/kg											3.4 U
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg											3.4 U
206-44-0	Fluoranthene	N	1436	ug/kg											6.1 U
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg											3.6 UJ
129-00-0	Pyrene	N	344	ug/kg											4 U
	PCBs														
PCB	PCB, Total	N	295	ug/kg											49 U
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	4.659 U	2.2 U					4.659 U	2.2 U	0.208	
	OTHER														
PH	pH	N			ph units										
SOLID	Total Solids	N			%									80.2	

Notes:
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WATER-CALC - porewater values have been calculated from soil results
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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0009-I 18-21 in OL-4044-05 R2208570-005 9/12/2022 13:45 SOIL-CALC A1 A1 2 Peeper Peeper ug/kg	OL-RAA-CAP-0009-I 18-21 in OL-4044-05 R2208570-005 9/12/2022 13:45 WATER A1 A1 2 Peeper Peeper ug/L	OL-RAA-CAP-0010-H 3-6 in OL-4080-13 R2211094-011 11/16/2022 10:40 SOIL-CALC A2 A2 2 Peeper Peeper ug/kg	OL-RAA-CAP-0010-H 3-6 in OL-4080-13 R2211094-011 11/16/2022 10:40 WATER A2 A2 2 Peeper Peeper ug/L	OL-RAA-CAP-0010-H 3-9 in OL-4080-14 R2211094-012 11/16/2022 10:45 SOIL-CALC A2 A2 2 Peeper Peeper ug/kg	OL-RAA-CAP-0010-H 3-9 in OL-4080-14 R2211094-012 11/16/2022 10:45 WATER A2 A2 2 Peeper Peeper ug/L	OL-RAA-CAP-0010-H 9-12 in OL-4080-15 R2211094-013 11/16/2022 10:50 WATER A2 A2 2 Peeper Peeper ug/L	OL-RAA-CAP-0010-H 12-18 in OL-4080-16 R2211094-014 11/16/2022 10:55 SOIL-CALC A2 A2 2 Peeper Peeper ug/kg	OL-RAA-CAP-0010-H 12-18 in OL-4080-16 R2211094-014 11/16/2022 10:55 WATER A2 A2 2 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAA <6 in samples				%				1.3794		1.3794				
Avg TOC	Average from RAA >=6 in samples				%		1.2848						1.2848		1.2848
Avg TOC	Measured for Sample				%										
Avg TOC	Measured TOC - Location ID				%										
TOC	Total Organic Carbon	N													
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg				5.21 U	0.374 U						
DCB_Summ	Dichlorobenzenes	N	239	ug/kg				1.2 U	0.22 U						
108-90-7	Chlorobenzene	N	428	ug/kg				0.51 U	0.22 U						
100-41-4	Ethylbenzene	N	176	ug/kg				1.07 U	0.22 U						
1330-20-7	Xylenes	N	561	ug/kg				1.08 U	0.253 U						
91-20-3	Naphthalene	N	917	ug/kg				2.22 U	0.605 U						
71-43-2	Benzene	N	760	ug/L		0.13 U	0.22 U	0.13 U	0.22 U						
108-88-3	Toluene	N	480	ug/L		4.07	2.31	0.79 J	0.418 J						
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		42 J	14.3 J			3.81 J	1.21 J		3 J	1.023 J	
83-32-9	Acenaphthene	N	861	ug/kg						248 U	0.924 U		184 U	0.737 U	
208-96-8	Acenaphthylene	N	1301	ug/kg						101 U	0.924 U		75 U	0.737 U	
120-12-7	Anthracene	N	207	ug/kg						466 U	1.32 U		344 U	1.045 U	
86-73-7	Fluorene	N	264	ug/kg						182 U	0.957 U		136 U	0.77 U	
85-01-8	Phenanthrene	N	543	ug/kg						583 U	1.65 U		435 U	1.32 U	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg											
50-32-8	Benzo(A)Pyrene	N	146	ug/kg											
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg											
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg											
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg											
218-01-9	Chrysene	N	253	ug/kg											
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg											
206-44-0	Fluoranthene	N	1436	ug/kg											
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg											
129-00-0	Pyrene	N	344	ug/kg											
	PCBs														
PCB	PCB, Total	N	295	ug/kg											
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg			0.263 U	0.44 U						
	OTHER														
PH	pH	N			ph units							6.76			
SOLID	Total Solids	N			%										

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0010-H 15-18 in OL-4080-17 R2211094-015 11/16/2022 11:00 SOIL-CALC A2 A2 2 Peeper Peeper ug/kg	OL-RAA-CAP-0010-H 15-18 in OL-4080-17 R2211094-015 11/16/2022 11:00 WATER A2 A2 2 Peeper Peeper ug/L	OL-RAA-CAP-0010-I 18-21 in OL-4080-18 R2211094-016 11/16/2022 11:05 SOIL-CALC A2 A2 2 Peeper Peeper ug/kg	OL-RAA-CAP-0010-I 18-21 in OL-4080-18 R2211094-016 11/16/2022 11:05 WATER A2 A2 2 Peeper Peeper ug/L	OL-RAA-CAP-0010-I 21-24 in OL-4080-19 R2211094-017 11/16/2022 11:10 WATER A2 A2 2 Peeper Peeper ug/L	OL-RAA-CAP-0011-H 3-6 in OL-4000-07 R2205304-007 6/8/2022 18:37 SOIL A2 A2 3 Hand Core Core ug/kg	OL-RAA-CAP-0011-H 3-6 in OL-4000-07 R2205304-007 6/8/2022 18:37 WATER-CALC A2 A2 3 SED CORE ug/L		OL-RAA-CAP-0011-H 14-17 in OL-4000-08 R2205304-008 6/8/2022 18:45 SOIL A2 A2 3 Hand Core Core ug/kg	OL-RAA-CAP-0011-H 14-17 in OL-4000-08 R2205304-008 6/8/2022 18:45 WATER-CALC A2 A2 3 SED CORE ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAA <6 in samples				%											
Avg TOC	Average from RAA >=6 in samples				%		1.2848		1.2848	1.2848						
Avg TOC	Measured for Sample				%						2.05			2.47		
Avg TOC	Measured TOC - Location ID				%											
TOC	Total Organic Carbon	N									20500			24700		
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		4.86 U	0.374 U	4.86 U	0.374 U		0.66 U			0.65 U		
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		1.12 U	0.22 U	1.12 U	0.22 U		0.28 U			0.28 U		
108-90-7	Chlorobenzene	N	428	ug/kg		0.48 U	0.22 U	0.48 U	0.22 U		0.26 U			0.25 U		
100-41-4	Ethylbenzene	N	176	ug/kg		1 U	0.22 U	1 U	0.22 U		1.3 U			5.3 J		
1330-20-7	Xylenes	N	561	ug/kg		1.01 U	0.253 U	1.01 U	0.253 U		0.66 U			0.65 U		
91-20-3	Naphthalene	N	917	ug/kg		2.07 U	0.605 U	2.07 U	0.605 U		3.1 U			2.9 U		
71-43-2	Benzene	N	760	ug/L		0.13 U	0.22 U	0.13 U	0.22 U		0.26 U	0.26	U	0.26 J		0.22 J
108-88-3	Toluene	N	480	ug/L		3.69	2.09	6.01	3.41		2.6 U	0.84	U	10		2.68
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L				4.2 U	1.43 U		12 U	2.33	U	20 J		3.22 J
83-32-9	Acenaphthene	N	861	ug/kg				357 U	1.43 U		2.2 U			2.1 U		
208-96-8	Acenaphthylene	N	1301	ug/kg				146 U	1.43 U		2.4 U			2.3 U		
120-12-7	Anthracene	N	207	ug/kg				652 U	1.98 U		5.3 U			5 U		
86-73-7	Fluorene	N	264	ug/kg				253 U	1.43 U		2.3 U			2.1 U		
85-01-8	Phenanthrene	N	543	ug/kg				797 U	2.42 U		11			11		
56-55-3	Benzo(A)Anthracene	N	192	ug/kg							9.3			8.4		
50-32-8	Benzo(A)Pyrene	N	146	ug/kg							12			9.3		
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg							15			13		
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg							6.4 J			4.9 J		
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg							5.1 J			4.7 U		
218-01-9	Chrysene	N	253	ug/kg							11			9.1		
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg							3.6 U			3.4 U		
206-44-0	Fluoranthene	N	1436	ug/kg							21			21		
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg							7.6 J			5.5 J		
129-00-0	Pyrene	N	344	ug/kg							16			16		
	PCBs															
PCB	PCB, Total	N	295	ug/kg							45 U			44 U		
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.132 U	0.22 U	0.132 U	0.22 U		0.057			0.06		
	OTHER															
PH	pH	N			ph units					6.8	7.12			6.95		
SOLID	Total Solids	N			%						74			74.7		

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0012-H 3-6 in OL-4001-03/OL-4001-05 R2205328-003 6/9/2022 15:30 SOIL A2 A2 3 Hand Core Core ug/kg	Duplicate OL-RAA-CAP-0012-H 3-6 in OL-4001-03/OL-4001-05 R2205328-005 6/9/2022 15:30 SOIL A2 A2 3 Hand Core Core ug/kg	OL-RAA-CAP-0012-H 3-6 in OL-4001-03/OL-4001-05 R2205328-003 6/9/2022 15:30 WATER-CALC A2 A2 3 SED CORE ug/L	Duplicate OL-RAA-CAP-0012-H 3-6 in OL-4001-03/OL-4001-05 R2205328-005 6/9/2022 15:30 WATER-CALC A2 A2 3 SED CORE ug/L	OL-RAA-CAP-0012-H 7.5-10.5 in OL-4001-04 R2205328-004 6/9/2022 15:35 SOIL A2 A2 3 Hand Core Core ug/kg	OL-RAA-CAP-0012-H 7.5-10.5 in OL-4001-04 R2205328-004 6/9/2022 15:35 WATER-CALC A2 A2 3 SED CORE ug/L	OL-RAA-CAP-0013-H 3-6 in OL-4000-09 R2205304-009 6/8/2022 18:05 SOIL A2 RA-A-40197 3 Hand Core Core ug/kg	OL-RAA-CAP-0013-H 3-6 in OL-4000-09 R2205304-009 6/8/2022 18:05 WATER-CALC RA-A40197 RA-A-40197 3 SED CORE ug/L
CAS NO.	COMPOUND	FILTERED												
Avg TOC	Average from RAA <6 in samples				%									
Avg TOC	Average from RAA >=6 in samples				%									
Avg TOC	Measured for Sample				%	2.51	2.51			2.04		2.07		
Avg TOC	Measured TOC - Location ID				%									
TOC	Total Organic Carbon	N				25100	18600			20400		20700		
	VOLATILES													
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.63 U	0.83 U			0.82 U		0.95 U		
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.27 U	0.35 U			0.35 U		0.48		
108-90-7	Chlorobenzene	N	428	ug/kg		0.24 U	0.32 U			0.32 U		0.37 U		
100-41-4	Ethylbenzene	N	176	ug/kg		1.2 U	1.8 J			1.6 U		1.9 U		
1330-20-7	Xylenes	N	561	ug/kg		0.63 U	0.83 U			0.82 U		0.95 U		
91-20-3	Naphthalene	N	917	ug/kg		3.3 U	3.3 U			3.2 U		3.1 U		
71-43-2	Benzene	N	760	ug/L		0.24 U	0.32 U	0.26 U	0.26 U	0.32 U	0.32 U	0.37 U	0.37 U	
108-88-3	Toluene	N	480	ug/L		2.4 U	3.2 U	0.84 U	0.84 U	3.2 U	1.04 U	3.7 U	1.18 U	
	SEMIVOLATILES													
108-95-2	Phenol	N	250	ug/L		13 U	13 U	2.06 U	2.06 U	13 U	2.54 U	12 U	2.31 U	
83-32-9	Acenaphthene	N	861	ug/kg		2.4 U	2.4 U			2.3 U		2.2 U		
208-96-8	Acenaphthylene	N	1301	ug/kg		2.6 U	2.6 U			2.5 U		2.4 U		
120-12-7	Anthracene	N	207	ug/kg		5.7 U	5.7 U			5.5 U		5.4 U		
86-73-7	Fluorene	N	264	ug/kg		2.4 U	2.4 U			2.4 U		2.3 U		
85-01-8	Phenanthrene	N	543	ug/kg		5.9 J	8.1 J			8.3 J		11		
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		7.1 U	7.5 J			7.5 J		8.8 J		
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		7.3 J	9.4			8.6 J		11		
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		8.8 J	13			11		14		
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		4.1 J	5.4 J			4.9 J		6.1 J		
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		5.4 U	5.4 U			5.2 U		5.1 U		
218-01-9	Chrysene	N	253	ug/kg		5.3 J	8.3 J			7.7 J		9.5		
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		3.8 U	3.8 U			3.7 U		3.6 U		
206-44-0	Fluoranthene	N	1436	ug/kg		11	16			15		20		
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		4.3 J	4.1 U			4 U		6.9 J		
129-00-0	Pyrene	N	344	ug/kg		8.5 J	12			12		15		
	PCBs													
PCB	PCB, Total	N	295	ug/kg		79 U	91 U			79 U		51 U		
	METALS													
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.075	0.053			0.06		0.051		
	OTHER													
PH	pH	N			ph units	6.84	6.94			6.85		7.09		
SOLID	Total Solids	N			%	68.7	71.1			69.2		72.4		

Notes:
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J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0013-H 9-12 in OL-4000-10 R2205304-010 6/8/2022 18:10 SOIL A2 RA-A-40197 3 Hand Core Core ug/kg	OL-RAA-CAP-0013-H 9-12 in OL-4000-10 R2205304-010 6/8/2022 18:10 WATER-CALC RA-A40197 RA-A-40197 3 SED CORE ug/L	OL-RAA-CAP-0014-H 3-6 in OL-4000-05 R2205304-005 6/8/2022 17:00 SOIL A2 RA-A-40197 3 Hand Core Core ug/kg	OL-RAA-CAP-0014-H 3-6 in OL-4000-05 R2205304-005 6/8/2022 17:00 WATER-CALC RA-A40197 RA-A-40197 3 SED CORE ug/L	OL-RAA-CAP-0014-H 10-13 in OL-4000-06 R2205304-006 6/8/2022 17:05 SOIL A2 RA-A-40197 3 Hand Core Core ug/kg	OL-RAA-CAP-0014-H 10-13 in OL-4000-06 R2205304-006 6/8/2022 17:05 WATER-CALC RA-A40197 RA-A-40197 3 SED CORE ug/L	OL-RAA-CAP-0015-H 3-6 in OL-4001-01 R2205328-001 6/9/2022 14:50 SOIL A1 A1 3 Hand Core Core ug/kg	OL-RAA-CAP-0015-H 3-6 in OL-4001-01 R2205328-001 6/9/2022 14:50 WATER-CALC A1 A1 3 SED CORE ug/L	OL-RAA-CAP-0015-H 9-12 in OL-4001-02 R2205328-002 6/9/2022 14:55 SOIL A1 A1 3 Hand Core Core ug/kg
CAS NO.	COMPOUND	FILTERED											
Avg TOC	Average from RAA <6 in samples			%									
Avg TOC	Average from RAA >=6 in samples			%									
Avg TOC	Measured for Sample			%	2.93		1.87		2.66		1.62		1.29
Avg TOC	Measured TOC - Location ID			%									
TOC	Total Organic Carbon	N			29300		18700		26600		16200		12900
	VOLATILES												
TCB_Summ	Trichlorobenzenes	N	347 ug/kg		0.75 U		0.64 U		0.6 U		0.45 U		0.6 U
DCB_Summ	Dichlorobenzenes	N	239 ug/kg		0.32 U		0.38		0.26 U		0.19 U		0.25 U
108-90-7	Chlorobenzene	N	428 ug/kg		0.29 U		0.25 U		0.23 U		0.17 U		0.23 U
100-41-4	Ethylbenzene	N	176 ug/kg		1.5 U		1.6 J		10		0.85 U		1.2 U
1330-20-7	Xylenes	N	561 ug/kg		0.75 U		0.64 U		0.6 U		0.45 U		0.6 U
91-20-3	Naphthalene	N	917 ug/kg		3.2 U		3 U		3 U		2.4 U		3.2 U
71-43-2	Benzene	N	760 ug/L		0.29 U	0.2 U	0.25 U	0.27 U	0.23 U	0.18 U	0.17 U	0.22 U	0.23 U
108-88-3	Toluene	N	480 ug/L		2.9 U	0.66 U	2.5 U	0.89 U	2.3 U	0.57 U	1.7 U	0.7 U	2.3 U
	SEMIVOLATILES												
108-95-2	Phenol	N	250 ug/L		13 J	1.77 J	12 U	2.55 U	12 U	1.8 U	9.2 U	2.26 U	12 U
83-32-9	Acenaphthene	N	861 ug/kg		2.3 U		2.2 U		2.2 U		1.8 U		2.3 U
208-96-8	Acenaphthylene	N	1301 ug/kg		2.5 U		2.4 U		2.4 U		2.3 J		2.5 U
120-12-7	Anthracene	N	207 ug/kg		5.5 U		5.3 U		5.2 U		4.2 U		5.5 U
86-73-7	Fluorene	N	264 ug/kg		2.4 U		2.3 U		2.2 U		1.8 U		2.4 U
85-01-8	Phenanthrene	N	543 ug/kg		9.1		9.6		8.9		13		7.1 J
56-55-3	Benzo(A)Anthracene	N	192 ug/kg		7.5 J		9.9		8.5 J		19		7.7 J
50-32-8	Benzo(A)Pyrene	N	146 ug/kg		10		14		11		25		9.5
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg		13		17		13		31		12
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg		5 J		7.6 J		5.5 J		14		5.7 J
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg		5.2 U		5.7 J		5.5 J		10		5.2 U
218-01-9	Chrysene	N	253 ug/kg		9		11		9.4		22		7.9 J
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg		3.7 U		3.6 U		3.5 U		4 J		3.7 U
206-44-0	Fluoranthene	N	1436 ug/kg		17		20		17		37		14
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg		6.4 J		8.6		6.5 J		15		5.9 J
129-00-0	Pyrene	N	344 ug/kg		13		17		13		31		12
	PCBs												
PCB	PCB, Total	N	295 ug/kg		46 U		51 U		48 U		37 U		45 U
	METALS												
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg	0.049		0.044		0.062		0.054		0.121
	OTHER												
PH	pH	N		ph units	7.17		7.04		7.22				
SOLID	Total Solids	N		%	72.3		74.9		75.6		93		68.7

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0015-H 9-12 in OL-4001-02 R2205328-002 6/9/2022 14:55 WATER-CALC A1 A1 3 SED CORE ug/L	OL-RAA-CAP-0016-H 3-6 in OL-4002-01 R2205425-001 6/13/2022 14:35 SOIL A2 A2 3 Hand Core Core ug/kg	OL-RAA-CAP-0016-H 3-6 in OL-4002-01 R2205425-001 6/13/2022 14:35 WATER-CALC A2 A2 3 SED CORE ug/L	OL-RAA-CAP-0016-H 7.5-10.5 in OL-4002-02 R2205425-002 6/13/2022 14:40 SOIL A2 A2 3 Hand Core Core ug/kg	OL-RAA-CAP-0016-H 7.5-10.5 in OL-4002-02 R2205425-002 6/13/2022 14:40 WATER-CALC A2 A2 3 SED CORE ug/L	OL-RAA-CAP-0017-H 3-6 in OL-4000-01 R2205304-001 6/8/2022 16:00 SOIL A2 NMC Spits 3 Hand Core Core ug/kg	OL-RAA-CAP-0017-H 3-6 in OL-4000-01 R2205304-001 6/8/2022 16:00 WATER-CALC A2 NMC Spits 3 SED CORE ug/L	OL-RAA-CAP-0017-H 14-17 in OL-4000-02 R2205304-002 6/8/2022 16:05 SOIL A2 NMC Spits 3 Hand Core Core ug/kg
CAS NO.	COMPOUND	FILTERED												
Avg TOC	Average from RAA <6 in samples				%									
Avg TOC	Average from RAA >=6 in samples				%									
Avg TOC	Measured for Sample				%		1.94		2.02		2.12		1.63	
Avg TOC	Measured TOC - Location ID				%									
TOC	Total Organic Carbon	N					19400		20200		21200		16300	
	VOLATILES													
TCB_Summ	Trichlorobenzenes	N	347	ug/kg			0.65 U		1.1 U		0.61 U		0.58 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg			0.28 U		0.43 U		0.26 U		0.25 U	
108-90-7	Chlorobenzene	N	428	ug/kg			0.25 U		0.39 U		0.24 U		0.23 U	
100-41-4	Ethylbenzene	N	176	ug/kg			1.3 U		3.8 J		1.2 U		1.2 U	
1330-20-7	Xylenes	N	561	ug/kg			0.65 U		1.1 U		0.61 U		0.58 U	
91-20-3	Naphthalene	N	917	ug/kg			3.1 U		3.3 U		3.1 U		3.1 U	
71-43-2	Benzene	N	760	ug/L		0.37 U	0.25 U	0.26 U	0.39 U	0.4 U	0.24 U	0.23 U	0.23 U	
108-88-3	Toluene	N	480	ug/L		1.18 U	2.5 U	0.85 U	4.9 J	1.61 J	3.7 J	1.16 J	2.3 U	
	SEMIVOLATILES													
108-95-2	Phenol	N	250	ug/L		3.7 U	12 U	2.46 U	13 U	2.56 U	12 U	2.25 U	12 U	
83-32-9	Acenaphthene	N	861	ug/kg			2.2 U		2.4 U		2.2 U		2.2 U	
208-96-8	Acenaphthylene	N	1301	ug/kg			2.4 U		2.6 U		7.9 J		4.3 J	
120-12-7	Anthracene	N	207	ug/kg			5.3 U		5.8 U		9.3		5.3 U	
86-73-7	Fluorene	N	264	ug/kg			2.3 U		2.5 U		5 J		2.7 J	
85-01-8	Phenanthrene	N	543	ug/kg			15		12		59		29	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg			9.8		8.3 J		36		18	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg			12		10		53		27	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg			14		13		61		29	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg			7.7 J		7.5 J		32		14	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg			5 U		5.4 U		21		13	
218-01-9	Chrysene	N	253	ug/kg			13		9.7		43		22	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg			3.6 U		3.9 U		7.3 J		4.6 J	
206-44-0	Fluoranthene	N	1436	ug/kg			22		20		100		52	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg			7.6 J		8.2 J		36		16	
129-00-0	Pyrene	N	344	ug/kg			18		16		80		38	
	PCBs													
PCB	PCB, Total	N	295	ug/kg			66 U		73 U		60 U		37 U	
	METALS													
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg		0.044		0.05		0.06		0.056	
	OTHER													
PH	pH	N			ph units		7.03		6.85		6.86		7.01	
SOLID	Total Solids	N			%		74.7		69.3		73.4		75	

Notes:
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J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0017-H 14-17 in OL-4000-02 R2205304-002 6/8/2022 16:05 WATER-CALC A2 NMC Spits 3 SED CORE ug/L	OL-RAA-CAP-0018-H 3-6 in OL-4000-03 R2205304-003 6/8/2022 16:25 SOIL A2 NMC Spits 3 Hand Core Core ug/kg	OL-RAA-CAP-0018-H 3-6 in OL-4000-03 R2205304-003 6/8/2022 16:25 WATER-CALC A2 NMC Spits 3 SED CORE ug/L	OL-RAA-CAP-0018-H 14-17 in OL-4000-04 R2205304-004 6/8/2022 16:30 SOIL A2 NMC Spits 3 Hand Core Core ug/kg	OL-RAA-CAP-0018-H 14-17 in OL-4000-04 R2205304-004 6/8/2022 16:30 WATER-CALC A2 NMC Spits 3 SED CORE ug/L	OL-RAA-CAP-0019-H 3-6 in OL-4001-06 R2205328-006 6/9/2022 16:15 SOIL A1 A1 3 Hand Core Core ug/kg	OL-RAA-CAP-0019-H 3-6 in OL-4001-06 R2205328-006 6/9/2022 16:15 WATER-CALC A1 A1 3 SED CORE ug/L	OL-RAA-CAP-0019-H 11-14 in OL-4001-07 R2205328-007 6/9/2022 16:10 SOIL A1 A1 3 Hand Core Core ug/kg	OL-RAA-CAP-0019-H 11-14 in OL-4001-07 R2205328-007 6/9/2022 16:10 WATER-CALC A1 A1 3 SED CORE ug/L
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAA <6 in samples				%										
Avg TOC	Average from RAA >=6 in samples				%										
Avg TOC	Measured for Sample				%		2.46		1.1			1.82		1.51	
Avg TOC	Measured TOC - Location ID				%										
TOC	Total Organic Carbon	N					24600		11000			18200		15100	
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg			0.72 U		0.72 U			0.51 U		0.68 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg			0.31 U		0.34			0.22 U		0.29 U	
108-90-7	Chlorobenzene	N	428	ug/kg			0.28 U		0.29 J			0.2 U		0.26 U	
100-41-4	Ethylbenzene	N	176	ug/kg			1.4 U		1.4 J			0.98 U		1.3 U	
1330-20-7	Xylenes	N	561	ug/kg			0.72 U		0.72 U			0.51 U		0.68 U	
91-20-3	Naphthalene	N	917	ug/kg			10		3.3 U			2.5 U		2.8 U	
71-43-2	Benzene	N	760	ug/L		0.29 U	0.28 U	0.23 U	0.28 U	0.52 U		0.2 U	0.23 U	0.26 U	0.35 U
108-88-3	Toluene	N	480	ug/L		0.93 U	4 J	1.08 J	3.4 J	2.05 J		2 U	0.73 U	2.6 U	1.14 U
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		2.93 U	12 U	1.94 U	13 U	4.7 U		9.6 U	2.1 U	11 U	2.9 U
83-32-9	Acenaphthene	N	861	ug/kg			18		2.4 U			1.8 U		2 U	
208-96-8	Acenaphthylene	N	1301	ug/kg			2.4 U		2.6 U			2 U		2.2 U	
120-12-7	Anthracene	N	207	ug/kg			19		5.7 U			4.4 U		4.9 U	
86-73-7	Fluorene	N	264	ug/kg			10		2.4 U			1.9 U		2.1 U	
85-01-8	Phenanthrene	N	543	ug/kg			90		8.6 J			4.8 J		5.4 J	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg			87		7 U			15		6 U	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg			140		7.9 J			19		6.5 J	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg			140		10			19		8.4	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg			57		4.7 J			12		4.2 J	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg			56		5.3 U			15		4.6 U	
218-01-9	Chrysene	N	253	ug/kg			99		7.6 J			17		5.3 J	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg			18		3.8 U			9.5		3.3 U	
206-44-0	Fluoranthene	N	1436	ug/kg			150		15			14		9.9	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg			69		5.3 J			14		4.2 J	
129-00-0	Pyrene	N	344	ug/kg			120		11			11		8.1	
	PCBs														
PCB	PCB, Total	N	295	ug/kg			57 U		53 U			68 U		72 U	
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg		0.053		0.074			0.085		0.057	
	OTHER														
PH	pH	N			ph units		7.31		7.25			7.45		6.93	
SOLID	Total Solids	N			%		70.5		70.9			80.7		80	

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0020-H 3-6 in OL-4002-05 R2205425-005 6/13/2022 15:40 SOIL A1 A1 3 Hand Core Core ug/kg	OL-RAA-CAP-0020-H 3-6 in OL-4002-05 R2205425-005 6/13/2022 15:40 WATER-CALC A1 A1 3 SED CORE ug/L	OL-RAA-CAP-0020-H 12.5-15.5 in OL-4002-06 R2205425-006 6/13/2022 15:45 SOIL A1 A1 3 Hand Core Core ug/kg	OL-RAA-CAP-0020-H 12.5-15.5 in OL-4002-06 R2205425-006 6/13/2022 15:45 WATER-CALC A1 A1 3 SED CORE ug/L	OL-RAA-CAP-0021-H 3-6 in OL-4002-03 R2205425-003 6/13/2022 15:20 SOIL A1 A1 3 Hand Core Core ug/kg	OL-RAA-CAP-0021-H 3-6 in OL-4002-03 R2205425-003 6/13/2022 15:20 WATER-CALC A1 A1 3 SED CORE ug/L	OL-RAA-CAP-0021-H 9.5-12.5 in OL-4002-04 R2205425-004 6/13/2022 15:25 SOIL A1 A1 3 Hand Core Core ug/kg	OL-RAA-CAP-0021-H 9.5-12.5 in OL-4002-04 R2205425-004 6/13/2022 15:25 WATER-CALC A1 A1 3 SED CORE ug/L	OL-RAA-CAP-0030-H 3-6 in OL-4082-01 R2211096-001 11/16/2022 14:10 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAA <6 in samples				%										
Avg TOC	Average from RAA >=6 in samples				%										
Avg TOC	Measured for Sample				%	1.11		1.55		1.2		1.25			
Avg TOC	Measured TOC - Location ID				%										
TOC	Total Organic Carbon	N				11100		15500		12000		12500			
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.79 U		0.73 U		0.44 U		0.52 U		5.21 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.78		0.31 U		0.19 U		0.22 U		1.2 U	
108-90-7	Chlorobenzene	N	428	ug/kg		0.31 U		0.29 U		0.17 U		0.2 U		0.51 U	
100-41-4	Ethylbenzene	N	176	ug/kg		1.6 U		1.5 U		0.85 U		0.99 U		1.07 U	
1330-20-7	Xylenes	N	561	ug/kg		0.79 U		0.73 U		0.44 U		0.52 U		1.08 U	
91-20-3	Naphthalene	N	917	ug/kg		3.5 U		3.1 U		2.9 U		2.6 U		2.22 U	
71-43-2	Benzene	N	760	ug/L		0.31 U	0.57 U	1.6 J	2.12 J	0.17 U	0.29 U	0.2 U	0.33 U	0.74	
108-88-3	Toluene	N	480	ug/L		3.1 U	1.85 U	2.9 U	1.24 U	1.7 U	0.94 U	3.8 J	2.01 J	5.62	
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		14 U	5.02 U	12 U	3.08 U	11 U	3.65 U	9.9 U	3.15 U		
83-32-9	Acenaphthene	N	861	ug/kg		2.5 U		2.2 U		2.1 U		1.9 U			
208-96-8	Acenaphthylene	N	1301	ug/kg		2.7 U		2.4 U		2.3 U		2.1 U			
120-12-7	Anthracene	N	207	ug/kg		6.1 U		5.3 U		5 U		4.5 U			
86-73-7	Fluorene	N	264	ug/kg		2.6 U		2.3 U		2.1 U		2 U			
85-01-8	Phenanthrene	N	543	ug/kg		8.9 J		7.9 J		13		8.3			
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		12		8.5 J		11		7.2 J			
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		19		10		16		9.6			
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		23		13		19		11			
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		16		8.2 J		12		7 J			
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		7.8 J		5 U		7.7 J		4.3 U			
218-01-9	Chrysene	N	253	ug/kg		15		8.8		15		8.7			
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		4.1 U		3.6 U		3.7 J		3.1 U			
206-44-0	Fluoranthene	N	1436	ug/kg		28		17		27		17			
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		15		7.6 J		10		6.7 J			
129-00-0	Pyrene	N	344	ug/kg		23		15		24		14			
	PCBs														
PCB	PCB, Total	N	295	ug/kg		170 U		120 U		69 U		62 U			
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.211		0.074		0.067		0.065		0.932 U	
	OTHER														
PH	pH	N			ph units										
SOLID	Total Solids	N			%	64.6		73.4		80.7		81			

Notes:
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J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0030-H 3-6 in OL-4082-01 R2211096-001 11/16/2022 14:10 WATER A1 A1 3 Peeper Peeper ug/L	OL-RAA-CAP-0030-H 3-9 in OL-4082-02 R2211096-002 11/16/2022 14:15 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg	OL-RAA-CAP-0030-H 3-9 in OL-4082-02 R2211096-002 11/16/2022 14:15 WATER A1 A1 3 Peeper Peeper ug/L	OL-RAA-CAP-0030-H 9-12 in OL-4082-03 R2211096-003 11/16/2022 14:20 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg	OL-RAA-CAP-0030-H 9-12 in OL-4082-03 R2211096-003 11/16/2022 14:20 WATER A1 A1 3 Peeper Peeper ug/L	OL-RAA-CAP-0030-H 12-15 in OL-4082-04 R2211096-004 11/16/2022 14:25 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg	OL-RAA-CAP-0030-H 12-15 in OL-4082-04 R2211096-004 11/16/2022 14:25 WATER A1 A1 3 Peeper Peeper ug/L	OL-RAA-CAP-0030-H 12-18 in OL-4082-05 R2211096-005 11/16/2022 14:30 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg	OL-RAA-CAP-0030-H 12-18 in OL-4082-05 R2211096-005 11/16/2022 14:30 WATER A1 A1 3 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED												
Avg TOC	Average from RAA <6 in samples			%	1.3794		1.3794							
Avg TOC	Average from RAA >=6 in samples			%					1.2848		1.2848			1.2848
Avg TOC	Measured for Sample			%										
Avg TOC	Measured TOC - Location ID			%										
TOC	Total Organic Carbon	N												
	VOLATILES													
TCB_Summ	Trichlorobenzenes	N	347 ug/kg		0.374 U			4.86 U	0.374 U	4.86 U	0.374 U			
DCB_Summ	Dichlorobenzenes	N	239 ug/kg		0.22 U			1.12 U	0.22 U	1.12 U	0.22 U			
108-90-7	Chlorobenzene	N	428 ug/kg		0.22 U			0.48 U	0.22 U	0.48 U	0.22 U			
100-41-4	Ethylbenzene	N	176 ug/kg		0.22 U			1 U	0.22 U	1 U	0.22 U			
1330-20-7	Xylenes	N	561 ug/kg		0.253 U			1.01 U	0.253 U	1.01 U	0.253 U			
91-20-3	Naphthalene	N	917 ug/kg		0.605 U			2.07 U	0.605 U	2.07 U	0.605 U			
71-43-2	Benzene	N	760 ug/L		1.21			0.63	1.1	0.59 J	1.045 J			
108-88-3	Toluene	N	480 ug/L		2.97			1.94	1.1	2.33	1.32			
	SEMIVOLATILES													
108-95-2	Phenol	N	250 ug/L			2.67 U	0.847 U	4.2 U	1.43 U			2.32 U	0.792 U	
83-32-9	Acenaphthene	N	861 ug/kg			227 U	0.847 U	357 U	1.43 U			198 U	0.792 U	
208-96-8	Acenaphthylene	N	1301 ug/kg			92 U	0.847 U	146 U	1.43 U			81 U	0.792 U	
120-12-7	Anthracene	N	207 ug/kg			428 U	1.21 U	652 U	1.98 U			398 U	1.21 U	
86-73-7	Fluorene	N	264 ug/kg			167 U	0.88 U	253 U	1.43 U			146 U	0.825 U	
85-01-8	Phenanthrene	N	543 ug/kg			544 U	1.54 U	797 U	2.42 U			471 U	1.43 U	
56-55-3	Benzo(A)Anthracene	N	192 ug/kg											
50-32-8	Benzo(A)Pyrene	N	146 ug/kg											
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg											
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg											
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg											
218-01-9	Chrysene	N	253 ug/kg											
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg											
206-44-0	Fluoranthene	N	1436 ug/kg											
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg											
129-00-0	Pyrene	N	344 ug/kg											
	PCBs													
PCB	PCB, Total	N	295 ug/kg											
	METALS													
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg	0.44 U			0.932 U	0.44 U	0.932 U	0.44 U			
	OTHER													
PH	pH	N		ph units										
SOLID	Total Solids	N		%										

Notes:
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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0030-H 18-24 in OL-4082-06 R2211096-006 11/16/2022 14:35 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg	OL-RAA-CAP-0030-H 18-24 in OL-4082-06 R2211096-006 11/16/2022 14:35 WATER A1 A1 3 Peeper Peeper ug/L	OL-RAA-CAP-0030-H 21-24 in OL-4082-07 R2211096-007 11/16/2022 14:40 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg	OL-RAA-CAP-0030-H 21-24 in OL-4082-07 R2211096-007 11/16/2022 14:40 WATER A1 A1 3 Peeper Peeper ug/L	OL-RAA-CAP-0030-I 24-27 in OL-4082-08 R2211096-008 11/16/2022 14:45 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg	OL-RAA-CAP-0030-I 24-27 in OL-4082-08 R2211096-008 11/16/2022 14:45 WATER A1 A1 3 Peeper Peeper ug/L	OL-RAA-CAP-0030-I 27-30 in OL-4082-09 R2211096-009 11/16/2022 14:50 WATER A1 A1 3 Peeper Peeper ug/L	OL-RAA-CAP-0031-H 3-6 in OL-4082-10 R2211096-010 11/16/2022 15:00 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg	OL-RAA-CAP-0031-H 3-6 in OL-4082-10 R2211096-010 11/16/2022 15:00 WATER A1 A1 3 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED											
Avg TOC	Average from RAA <6 in samples			%									1.3794
Avg TOC	Average from RAA >=6 in samples			%		1.2848		1.2848		1.2848	1.2848		
Avg TOC	Measured for Sample			%									
Avg TOC	Measured TOC - Location ID			%									
TOC	Total Organic Carbon	N											
	VOLATILES												
TCB_Summ	Trichlorobenzenes	N	347 ug/kg				4.86 U	0.374 U	4.86 U	0.374 U		5.21 U	0.374 U
DCB_Summ	Dichlorobenzenes	N	239 ug/kg				1.12 U	0.22 U	1.12 U	0.22 U		1.2 U	0.22 U
108-90-7	Chlorobenzene	N	428 ug/kg				0.48 U	0.22 U	0.48 U	0.22 U		0.51 U	0.22 U
100-41-4	Ethylbenzene	N	176 ug/kg				1 U	0.22 U	1 U	0.22 U		1.07 U	0.22 U
1330-20-7	Xylenes	N	561 ug/kg				1.01 U	0.253 U	1.01 U	0.253 U		1.08 U	0.253 U
91-20-3	Naphthalene	N	917 ug/kg				2.07 U	0.605 U	2.07 U	0.605 U		2.22 U	0.605 U
71-43-2	Benzene	N	760 ug/L				0.62 J	1.089 J	0.59 J	1.045 J		0.13 U	0.22 U
108-88-3	Toluene	N	480 ug/L				2.72	1.54	2.52	1.43		0.79 J	0.418 J
	SEMIVOLATILES												
108-95-2	Phenol	N	250 ug/L		2.32 U	0.792 U			5.49 U	1.87 U			
83-32-9	Acenaphthene	N	861 ug/kg		198 U	0.792 U			467 U	1.87 U			
208-96-8	Acenaphthylene	N	1301 ug/kg		81 U	0.792 U			190 U	1.87 U			
120-12-7	Anthracene	N	207 ug/kg		398 U	1.21 U			869 U	2.64 U			
86-73-7	Fluorene	N	264 ug/kg		146 U	0.825 U			350 U	1.98 U			
85-01-8	Phenanthrene	N	543 ug/kg		471 U	1.43 U			1087 U	3.3 U			
56-55-3	Benzo(A)Anthracene	N	192 ug/kg										
50-32-8	Benzo(A)Pyrene	N	146 ug/kg										
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg										
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg										
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg										
218-01-9	Chrysene	N	253 ug/kg										
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg										
206-44-0	Fluoranthene	N	1436 ug/kg										
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg										
129-00-0	Pyrene	N	344 ug/kg										
	PCBs												
PCB	PCB, Total	N	295 ug/kg										
	METALS												
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg			0.932 U	0.44 U	0.932 U	0.44 U		0.932 U	0.44 U
	OTHER												
PH	pH	N		ph units							6		
SOLID	Total Solids	N		%									

Notes:
U - Not Detected
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WATER-CALC - porewater values have been calculated from soil results
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Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0031-H 3-9 in OL-4082-11 R2211096-011 11/16/2022 15:05 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg	OL-RAA-CAP-0031-H 3-9 in OL-4082-11 R2211096-011 11/16/2022 15:05 WATER A1 A1 3 Peeper Peeper ug/L	OL-RAA-CAP-0031-H 9-12 in OL-4082-12 R2211096-012 11/16/2022 15:10 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg	OL-RAA-CAP-0031-H 9-12 in OL-4082-12 R2211096-012 11/16/2022 15:10 WATER A1 A1 3 Peeper Peeper ug/L	OL-RAA-CAP-0031-H 12-15 in OL-4082-13 R2211096-013 11/16/2022 15:15 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg	OL-RAA-CAP-0031-H 12-15 in OL-4082-13 R2211096-013 11/16/2022 15:15 WATER A1 A1 3 Peeper Peeper ug/L	OL-RAA-CAP-0031-H 12-18 in OL-4082-14 R2211096-014 11/16/2022 15:20 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg	OL-RAA-CAP-0031-H 12-18 in OL-4082-14 R2211096-014 11/16/2022 15:20 WATER A1 A1 3 Peeper Peeper ug/L	OL-RAA-CAP-0031-H 18-24 in OL-4082-15 R2211096-015 11/16/2022 15:25 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAA <6 in samples				%		1.3794								
Avg TOC	Average from RAA >=6 in samples				%					1.2848		1.2848		1.2848	
Avg TOC	Measured for Sample				%										
Avg TOC	Measured TOC - Location ID				%										
TOC	Total Organic Carbon	N													
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg				4.86 U	0.374 U	4.86 U	0.374 U				
DCB_Summ	Dichlorobenzenes	N	239	ug/kg				1.12 U	0.22 U	1.12 U	0.22 U				
108-90-7	Chlorobenzene	N	428	ug/kg				0.48 U	0.22 U	0.48 U	0.22 U				
100-41-4	Ethylbenzene	N	176	ug/kg				1 U	0.22 U	1 U	0.22 U				
1330-20-7	Xylenes	N	561	ug/kg				1.01 U	0.253 U	1.01 U	0.253 U				
91-20-3	Naphthalene	N	917	ug/kg				2.07 U	0.605 U	2.07 U	0.605 U				
71-43-2	Benzene	N	760	ug/L				0.14 J	0.253 J	0.21 J	0.363 J				
108-88-3	Toluene	N	480	ug/L				0.87 J	0.495 J	1.11 J	0.627 J				
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		2.49 U	0.792 U	8.07 J	2.75 J			2.49 U	0.847 U	2.71 U	
83-32-9	Acenaphthene	N	861	ug/kg		212 U	0.792 U	412 U	1.65 U			212 U	0.847 U	231 U	
208-96-8	Acenaphthylene	N	1301	ug/kg		86 U	0.792 U	168 U	1.65 U			86 U	0.847 U	94 U	
120-12-7	Anthracene	N	207	ug/kg		428 U	1.21 U	761 U	2.31 U			398 U	1.21 U	435 U	
86-73-7	Fluorene	N	264	ug/kg		157 U	0.825 U	292 U	1.65 U			156 U	0.88 U	169 U	
85-01-8	Phenanthrene	N	543	ug/kg		505 U	1.43 U	942 U	2.86 U			507 U	1.54 U	543 U	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg											
50-32-8	Benzo(A)Pyrene	N	146	ug/kg											
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg											
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg											
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg											
218-01-9	Chrysene	N	253	ug/kg											
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg											
206-44-0	Fluoranthene	N	1436	ug/kg											
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg											
129-00-0	Pyrene	N	344	ug/kg											
	PCBs														
PCB	PCB, Total	N	295	ug/kg											
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg			0.932 U	0.44 U	0.932 U	0.44 U				
	OTHER														
PH	pH	N			ph units										
SOLID	Total Solids	N			%										

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area A			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAA-CAP-0031-H 18-24 in OL-4082-15 R2211096-015 11/16/2022 15:25 WATER A1 A1 3 Peeper Peeper ug/L	OL-RAA-CAP-0031-H 21-24 in OL-4082-16 R2211096-016 11/16/2022 15:30 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg	OL-RAA-CAP-0031-H 21-24 in OL-4082-16 R2211096-016 11/16/2022 15:30 WATER A1 A1 3 Peeper Peeper ug/L	OL-RAA-CAP-0031-I 24-27 in OL-4082-17 R2211096-017 11/16/2022 15:35 SOIL-CALC A1 A1 3 Peeper Peeper ug/kg	OL-RAA-CAP-0031-I 24-27 in OL-4082-17 R2211096-017 11/16/2022 15:35 WATER A1 A1 3 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED								
Avg TOC	Average from RAA <6 in samples				%					
Avg TOC	Average from RAA >=6 in samples				%	1.2848		1.2848		1.2848
Avg TOC	Measured for Sample				%					
Avg TOC	Measured TOC - Location ID				%					
TOC	Total Organic Carbon	N								
	VOLATILES									
TCB_Summ	Trichlorobenzenes	N	347	ug/kg			4.86 U	0.374 U	4.86 U	0.374 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg			1.12 U	0.22 U	1.12 U	0.22 U
108-90-7	Chlorobenzene	N	428	ug/kg			0.48 U	0.22 U	0.48 U	0.22 U
100-41-4	Ethylbenzene	N	176	ug/kg			1 U	0.22 U	1 U	0.22 U
1330-20-7	Xylenes	N	561	ug/kg			1.01 U	0.253 U	1.01 U	0.253 U
91-20-3	Naphthalene	N	917	ug/kg			2.07 U	0.605 U	2.07 U	0.605 U
71-43-2	Benzene	N	760	ug/L			0.22 J	0.385 J	0.42 J	0.737 J
108-88-3	Toluene	N	480	ug/L			2.52	1.43	5.82	3.3
	SEMIVOLATILES									
108-95-2	Phenol	N	250	ug/L		0.924 U			5.49 U	1.87 U
83-32-9	Acenaphthene	N	861	ug/kg		0.924 U			467 U	1.87 U
208-96-8	Acenaphthylene	N	1301	ug/kg		0.924 U			190 U	1.87 U
120-12-7	Anthracene	N	207	ug/kg		1.32 U			869 U	2.64 U
86-73-7	Fluorene	N	264	ug/kg		0.957 U			350 U	1.98 U
85-01-8	Phenanthrene	N	543	ug/kg		1.65 U			1087 U	3.3 U
56-55-3	Benzo(A)Anthracene	N	192	ug/kg						
50-32-8	Benzo(A)Pyrene	N	146	ug/kg						
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg						
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg						
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg						
218-01-9	Chrysene	N	253	ug/kg						
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg						
206-44-0	Fluoranthene	N	1436	ug/kg						
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg						
129-00-0	Pyrene	N	344	ug/kg						
	PCBs									
PCB	PCB, Total	N	295	ug/kg						
	METALS									
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg		0.932 U	0.44 U	0.932 U	0.44 U
	OTHER									
PH	pH	N			ph units					
SOLID	Total Solids	N			%					

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area B			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAB-CAP-0001-H 3-6 in OL-4011-01 R2206128-001 7/5/2022 14:25 SOIL B2 RA-B-1A 1 Vibracore Core ug/kg	OL-RAB-CAP-0001-H 9-12 in OL-4011-02 R2206128-002 7/5/2022 14:30 SOIL B2 RA-B-1A 1 Vibracore Core ug/kg	OL-RAB-CAP-0001-H 3-6 in OL-4038-11 R2208374-010 9/7/2022 14:00 SOIL-CALC B2 RA-B-1A 1 Peeper Peeper ug/kg	OL-RAB-CAP-0001-H 3-6 in OL-4038-11 R2208374-010 9/7/2022 14:00 WATER B2 RA-B-1A 1 Peeper Peeper ug/L	OL-RAB-CAP-0001-H 3-9 in OL-4038-12 R2208374-011 9/7/2022 14:05 SOIL-CALC B2 RA-B-1A 1 Peeper Peeper ug/kg	OL-RAB-CAP-0001-H 3-9 in OL-4038-12 R2208374-011 9/7/2022 14:05 WATER B2 RA-B-1A 1 Peeper Peeper ug/L	OL-RAB-CAP-0001-H 9-12 in OL-4038-13 R2208374-012 9/7/2022 14:10 SOIL-CALC B2 RA-B-1A 1 Peeper Peeper ug/kg	OL-RAB-CAP-0001-H 9-12 in OL-4038-13 R2208374-012 9/7/2022 14:10 WATER B2 RA-B-1A 1 Peeper Peeper ug/L	OL-RAB-CAP-0001-I 12-15 in OL-4038-14 R2208374-013 9/7/2022 14:15 SOIL-CALC B2 RA-B-1A 1 Peeper Peeper ug/kg	OL-RAB-CAP-0001-I 12-15 in OL-4038-14 R2208374-013 9/7/2022 14:15 WATER B2 RA-B-1A 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED												
Avg TOC	Average from RAB <6 in samples			%				0.8063		0.8063				
Avg TOC	Average from RAB >=6 in samples			%								0.7711		0.7711
Avg TOC	Measured for Sample			%	0.102	0.032								
TOC	Total Organic Carbon	N		%	1020	320								
	VOLATILES													
TCB_Summ	Trichlorobenzenes	N	347 ug/kg		0.6 U	0.57 U							2.92 U	0.374 U
DCB_Summ	Dichlorobenzenes	N	239 ug/kg		0.26 U	0.24 U							0.67 U	0.22 U
108-90-7	Chlorobenzene	N	428 ug/kg		0.23 U	0.22 U							0.29 U	0.22 U
100-41-4	Ethylbenzene	N	176 ug/kg		1.2 U	1.1 U							0.6 U	0.22 U
1330-20-7	Xylenes	N	561 ug/kg		0.6 U	0.57 U							0.61 U	0.253 U
91-20-3	Naphthalene	N	917 ug/kg		2.7 U	2.5 U							1.24 U	0.605 U
71-43-2	Benzene	N	760 ug/L				0.08 U	0.22 U			0.08 U	0.22 U	0.08 U	0.22 U
108-88-3	Toluene	N	480 ug/L				0.38 J	0.341 J			0.4 J	0.374 J	0.49 J	0.462 J
	SEMIVOLATILES													
108-95-2	Phenol	N	250 ug/L						1.46 U	0.792 U	6.78 J	3.85 J	19 J	11 J
83-32-9	Acenaphthene	N	861 ug/kg		1.9 U	1.8 U							412 U	2.75 U
208-96-8	Acenaphthylene	N	1301 ug/kg		2.1 U	2 U							168 U	2.75 U
120-12-7	Anthracene	N	207 ug/kg		4.6 U	4.3 U							783 U	3.96 U
86-73-7	Fluorene	N	264 ug/kg		2 U	1.9 U							304 U	2.86 U
85-01-8	Phenanthrene	N	543 ug/kg		4 U	3.8 U							956 U	4.84 U
56-55-3	Benzo(A)Anthracene	N	192 ug/kg		5.7 U	5.3 U								
50-32-8	Benzo(A)Pyrene	N	146 ug/kg		3.1 U	2.9 U								
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg		4 U	3.8 U								
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg		3.2 U	3 U								
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg		4.4 U	4.1 U								
218-01-9	Chrysene	N	253 ug/kg		3.1 U	2.9 U								
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg		3.1 U	2.9 U								
206-44-0	Fluoranthene	N	1436 ug/kg		5.6 U	5.2 U								
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg		3.4 UJ	3.1 UJ								
129-00-0	Pyrene	N	344 ug/kg		3.7 U	3.4 U								
108-95-2	Phenol	Y	250 ug/L											
83-32-9	Acenaphthene	Y	861 ug/kg											
208-96-8	Acenaphthylene	Y	1301 ug/kg											
120-12-7	Anthracene	Y	207 ug/kg											
86-73-7	Fluorene	Y	264 ug/kg											
85-01-8	Phenanthrene	Y	543 ug/kg											
	PCBs													
PCB	PCB, Total	N	295 ug/kg		45 U	42 U								
	METALS													
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg	0.009 U	0.008 U							2.955 U	2.2 U
	OTHER													
PH	pH	N		ph units	8.32	8.45								
SOLID	Total Solids	N		%	87	92.6								

Notes:
U - Not Detected
J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area B			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAB-CAP-0001-I 15-18 in OL-4038-15 R2208374-014 9/7/2022 14:20 WATER B2 RA-B-1A 1 Peeper Peeper ug/L	OL-RAB-CAP-0002-H 3-6 in OL-4011-09 R2206128-009 7/6/2022 12:50 SOIL B2 B2 1 Vibracore Core ug/kg	OL-RAB-CAP-0002-H 6-9 in OL-4011-10 R2206128-010 7/6/2022 12:55 SOIL B2 B2 1 Vibracore Core ug/kg	OL-RAB-CAP-0002-H 3-6 in OL-4038-16 R2208374-015 9/7/2022 14:30 SOIL-CALC B2 B2 1 Peeper Peeper ug/kg	OL-RAB-CAP-0002-H 3-6 in OL-4038-16 R2208374-015 9/7/2022 14:30 WATER B2 B2 1 Peeper Peeper ug/L	OL-RAB-CAP-0002-H 3-9 in OL-4038-17 R2208374-016 9/7/2022 14:35 SOIL-CALC B2 B2 1 Peeper Peeper ug/kg	OL-RAB-CAP-0002-H 3-9 in OL-4038-17 R2208374-016 9/7/2022 14:35 WATER B2 B2 1 Peeper Peeper ug/L	OL-RAB-CAP-0002-H 9-12 in OL-4038-18 R2208374-017 9/7/2022 14:40 SOIL-CALC B2 B2 1 Peeper Peeper ug/kg	OL-RAB-CAP-0002-H 9-12 in OL-4038-18 R2208374-017 9/7/2022 14:40 WATER B2 B2 1 Peeper Peeper ug/L	OL-RAB-CAP-0002-I 12-15 in OL-4038-19 R2208374-018 9/7/2022 14:45 SOIL-CALC B2 B2 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAB <6 in samples			%					0.8063		0.8063				
Avg TOC	Average from RAB >=6 in samples			%	0.7711								0.7711		
Avg TOC	Measured for Sample			%		0.097	0.123								
TOC	Total Organic Carbon	N		%		970	1230								
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347 ug/kg			0.54 U	0.69 U								2.92 U
DCB_Summ	Dichlorobenzenes	N	239 ug/kg			0.23 U	0.29 U								0.67 U
108-90-7	Chlorobenzene	N	428 ug/kg			0.21 U	0.27 U								0.29 U
100-41-4	Ethylbenzene	N	176 ug/kg			1.1 U	1.4 U								0.6 U
1330-20-7	Xylenes	N	561 ug/kg			0.54 U	0.69 U								0.61 U
91-20-3	Naphthalene	N	917 ug/kg			2.6 U	2.6 UJ								1.24 U
71-43-2	Benzene	N	760 ug/L					0.08 U	0.22 U			0.08 U	0.22 U		0.08 U
108-88-3	Toluene	N	480 ug/L					0.24 U	0.22 U			0.23 J	0.22 J		0.28 J
	SEMIVOLATILES														
108-95-2	Phenol	N	250 ug/L							1.46 U	0.792 U	4.84 U	2.75 U		4.84 U
83-32-9	Acenaphthene	N	861 ug/kg			1.9 U	1.9 UJ								412 U
208-96-8	Acenaphthylene	N	1301 ug/kg			2 U	2 UJ								168 U
120-12-7	Anthracene	N	207 ug/kg			4.4 U	4.5 UJ								783 U
86-73-7	Fluorene	N	264 ug/kg			1.9 U	1.9 UJ								304 U
85-01-8	Phenanthrene	N	543 ug/kg			3.9 U	3.9 UJ								956 U
56-55-3	Benzo(A)Anthracene	N	192 ug/kg			5.5 U	5.5 UJ								
50-32-8	Benzo(A)Pyrene	N	146 ug/kg			3 U	3 UJ								
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg			3.9 U	3.9 UJ								
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg			3.1 U	3.1 UJ								
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg			4.2 U	4.2 UJ								
218-01-9	Chrysene	N	253 ug/kg			3 U	3 UJ								
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg			3 U	3 UJ								
206-44-0	Fluoranthene	N	1436 ug/kg			5.4 U	5.4 UJ								
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg			3.2 U	3.2 UJ								
129-00-0	Pyrene	N	344 ug/kg			3.5 U	3.6 UJ								
108-95-2	Phenol	Y	250 ug/L												
83-32-9	Acenaphthene	Y	861 ug/kg												
208-96-8	Acenaphthylene	Y	1301 ug/kg												
120-12-7	Anthracene	Y	207 ug/kg												
86-73-7	Fluorene	Y	264 ug/kg												
85-01-8	Phenanthrene	Y	543 ug/kg												
	PCBs														
PCB	PCB, Total	N	295 ug/kg			43 U	47 U								
	METALS														
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg		0.01 J	0.009 U								2.955 U
	OTHER														
PH	pH	N		ph units	9.07	8.44	7.86								
SOLID	Total Solids	N		%		90.9	83.7								

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
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Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area B			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAB-CAP-0002-I 12-15 in OL-4038-19 R2208374-018 9/7/2022 14:45 WATER B2 B2 1 Peeper Peeper ug/L	OL-RAB-CAP-0002-I 15-18 in OL-4038-20 R2208374-019 9/7/2022 14:50 WATER B2 B2 1 Peeper Peeper ug/L	OL-RAB-CAP-0003-H 3-6 in OL-4011-07 R2206128-007 7/6/2022 12:20 SOIL B2 RA-B-1A 1 Vibracore Core ug/kg	OL-RAB-CAP-0003-H 7-10 in OL-4011-08 R2206128-008 7/6/2022 12:25 SOIL B2 RA-B-1A 1 Vibracore Core ug/kg	OL-RAB-CAP-0003-H 3-6 in OL-4040-01 R2208480-001 9/7/2022 16:00 SOIL-CALC B2 RA-B-1A 1 Peeper Peeper ug/kg	OL-RAB-CAP-0003-H 3-6 in OL-4040-01 R2208480-001 9/7/2022 16:00 WATER B2 RA-B-1A 1 Peeper Peeper ug/L	OL-RAB-CAP-0003-H 3-9 in OL-4040-02 R2208480-002 9/7/2022 16:05 SOIL-CALC B2 RA-B-1A 1 Peeper Peeper ug/kg	OL-RAB-CAP-0003-H 3-9 in OL-4040-02 R2208480-002 9/7/2022 16:05 WATER B2 RA-B-1A 1 Peeper Peeper ug/L	OL-RAB-CAP-0003-H 9-12 in OL-4040-03 R2208480-003 9/7/2022 16:10 SOIL-CALC B2 RA-B-1A 1 Peeper Peeper ug/kg	OL-RAB-CAP-0003-H 9-12 in OL-4040-03 R2208480-003 9/7/2022 16:10 WATER B2 RA-B-1A 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED												
Avg TOC	Average from RAB <6 in samples			%						0.8063		0.8063		
Avg TOC	Average from RAB >=6 in samples			%	0.7711	0.7711								0.7711
Avg TOC	Measured for Sample			%			0.064	0.039						
TOC	Total Organic Carbon	N		%			640	390						
	VOLATILES													
TCB_Summ	Trichlorobenzenes	N	347 ug/kg		0.374 U		0.76 U	0.59 U						
DCB_Summ	Dichlorobenzenes	N	239 ug/kg		0.22 U		0.32 U	0.25 U						
108-90-7	Chlorobenzene	N	428 ug/kg		0.22 U		0.3 U	0.23 U						
100-41-4	Ethylbenzene	N	176 ug/kg		0.22 U		1.5 U	1.2 U						
1330-20-7	Xylenes	N	561 ug/kg		0.253 U		0.76 U	0.59 U						
91-20-3	Naphthalene	N	917 ug/kg		0.605 U		2.7 U	2.7 U						
71-43-2	Benzene	N	760 ug/L		0.22 U				0.08 U	0.22 U			0.08 U	0.22 U
108-88-3	Toluene	N	480 ug/L		0.264 J				0.24 U	0.22 U			0.42 J	0.396 J
	SEMIVOLATILES													
108-95-2	Phenol	N	250 ug/L		2.75 U						16 J	8.8 J	4.84 U	2.75 U
83-32-9	Acenaphthene	N	861 ug/kg		2.75 U		2 U	1.9 U						
208-96-8	Acenaphthylene	N	1301 ug/kg		2.75 U		2.1 U	2.1 U						
120-12-7	Anthracene	N	207 ug/kg		3.96 U		4.7 U	4.6 U						
86-73-7	Fluorene	N	264 ug/kg		2.86 U		2 U	2 U						
85-01-8	Phenanthrene	N	543 ug/kg		4.84 U		4.1 U	4 U						
56-55-3	Benzo(A)Anthracene	N	192 ug/kg				5.8 U	5.7 U						
50-32-8	Benzo(A)Pyrene	N	146 ug/kg				3.2 U	3.1 U						
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg				4.1 U	4 U						
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg				3.3 U	3.2 U						
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg				4.4 U	4.3 U						
218-01-9	Chrysene	N	253 ug/kg				3.2 U	3.1 U						
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg				3.2 U	3.1 U						
206-44-0	Fluoranthene	N	1436 ug/kg				5.7 U	5.6 U						
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg				3.4 UJ	3.3 UJ						
129-00-0	Pyrene	N	344 ug/kg				3.8 U	3.7 U						
108-95-2	Phenol	Y	250 ug/L											
83-32-9	Acenaphthene	Y	861 ug/kg											
208-96-8	Acenaphthylene	Y	1301 ug/kg											
120-12-7	Anthracene	Y	207 ug/kg											
86-73-7	Fluorene	Y	264 ug/kg											
85-01-8	Phenanthrene	Y	543 ug/kg											
	PCBs													
PCB	PCB, Total	N	295 ug/kg				45 U	45 U						
	METALS													
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg	2.2 U		0.009 U	0.008 U						
	OTHER													
PH	pH	N		ph units		8.13	7.79	8.2						
SOLID	Total Solids	N		%			84.8	87.5						

Notes:
U - Not Detected
J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
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Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area B			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAB-CAP-0003-I 12-15 in OL-4040-04 R2208480-004 9/7/2022 16:15 SOIL-CALC B2 RA-B-1A 1 Peeper Peeper ug/kg	OL-RAB-CAP-0003-I 12-15 in OL-4040-04 R2208480-004 9/7/2022 16:15 WATER B2 RA-B-1A 1 Peeper Peeper ug/L	OL-RAB-CAP-0003-I 15-18 in OL-4040-05 R2208480-005 9/7/2022 16:20 WATER B2 RA-B-1A 1 Peeper Peeper ug/L	OL-RAB-CAP-0004-H 3-6 in OL-4010-14 R2206040-014 7/1/2022 11:30 SOIL B2 RA-B-1B 1 Vibracore Core ug/kg	OL-RAB-CAP-0004-H 3-6 in OL-4040-06 R2208480-006 9/7/2022 16:45 SOIL-CALC B2 RA-B-1B 1 Peeper Peeper ug/kg	OL-RAB-CAP-0004-H 3-6 in OL-4040-06 R2208480-006 9/7/2022 16:45 WATER B2 RA-B-1B 1 Peeper Peeper ug/L	OL-RAB-CAP-0004-I 6-9 in OL-4040-07 R2208480-007 9/7/2022 16:50 WATER B2 RA-B-1B 1 Peeper Peeper ug/L	OL-RAB-CAP-0005-H 0-4 in OL-4050-01 R2209791-001 10/11/2022 12:00 SOIL B1 RA-B-1C 1 Gravity Core Core ug/kg	OL-RAB-CAP-0005-H 0-3 in OL-4051-01 R2209794-001 10/11/2022 17:00 SOIL-CALC B1 RA-B-1C 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAB-CAP-0005-H 0-3 in OL-4051-01 R2209794-001 10/11/2022 17:00 WATER B1 RA-B-1C 1 Gravity Core SPWE (Direct Extraction) ug/L
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAB <6 in samples			%						0.8063					0.733
Avg TOC	Average from RAB >=6 in samples			%		0.7711	0.7711				0.7711				
Avg TOC	Measured for Sample			%				0.245							
TOC	Total Organic Carbon	N		%				2450							
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347 ug/kg		2.92 U	0.374 U		0.78 U					2.77 U	0.34 U
DCB_Summ	Dichlorobenzenes	N	239 ug/kg		0.67 U	0.22 U		0.33 U					0.64 U	0.2 U
108-90-7	Chlorobenzene	N	428 ug/kg		0.29 U	0.22 U		0.3 U					0.27 UJ	0.2 UJ
100-41-4	Ethylbenzene	N	176 ug/kg		0.6 U	0.22 U		1.5 U					0.57 UJ	0.2 UJ
1330-20-7	Xylenes	N	561 ug/kg		0.61 U	0.253 U		0.78 U					0.58 UJ	0.23 UJ
91-20-3	Naphthalene	N	917 ug/kg		1.24 U	0.605 U		2.6 U					1.18 UJ	0.55 UJ
71-43-2	Benzene	N	760 ug/L		0.08 U	0.22 U			0.08 UJ	0.22 UJ			0.07 UJ	0.2 UJ
108-88-3	Toluene	N	480 ug/L		0.41 J	0.385 J			1.7 J-	1.54 J-			0.22 UJ	0.2 UJ
	SEMIVOLATILES														
108-95-2	Phenol	N	250 ug/L		4.84 U	2.75 U			73 J	39.6 J					
83-32-9	Acenaphthene	N	861 ug/kg		412 U	2.75 U		1.9 U							
208-96-8	Acenaphthylene	N	1301 ug/kg		168 U	2.75 U		2 U							
120-12-7	Anthracene	N	207 ug/kg		783 U	3.96 U		4.5 U							
86-73-7	Fluorene	N	264 ug/kg		304 U	2.86 U		1.9 U							
85-01-8	Phenanthrene	N	543 ug/kg		956 U	4.84 U		3.9 U							
56-55-3	Benzo(A)Anthracene	N	192 ug/kg					5.6 U							
50-32-8	Benzo(A)Pyrene	N	146 ug/kg					3 U							
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg					3.9 U							
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg					3.1 U							
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg					4.2 U							
218-01-9	Chrysene	N	253 ug/kg					3 U							
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg					3 U							
206-44-0	Fluoranthene	N	1436 ug/kg					5.5 U							
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg					3.3 UJ							
129-00-0	Pyrene	N	344 ug/kg					3.6 U							
108-95-2	Phenol	Y	250 ug/L										16 J	8.8 J
83-32-9	Acenaphthene	Y	861 ug/kg										31 U	0.2 U
208-96-8	Acenaphthylene	Y	1301 ug/kg										13 U	0.2 U
120-12-7	Anthracene	Y	207 ug/kg										60 U	0.29 U
86-73-7	Fluorene	Y	264 ug/kg										23 U	0.21 U
85-01-8	Phenanthrene	Y	543 ug/kg										74 U	0.36 U
	PCBs													
PCB	PCB, Total	N	295 ug/kg					44 U						
	METALS													
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg	2.955 U	2.2 U		0.009 U				0.406		
	OTHER													
PH	pH	N		ph units			8.91	8.41			9.01			7.55
SOLID	Total Solids	N		%				89.9				64.3		

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area B			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAB-CAP-0006-H 3-6 in OL-4002-07 R2205425-007 6/13/2022 16:05 SOIL WB1-8 WB1-8 3 Hand Core Core ug/kg	OL-RAB-CAP-0006-H 3-6 in OL-4002-07 R2205425-007 6/13/2022 16:05 WATER-CALC WB 1-8 WB1-8 3 SED CORE ug/L	OL-RAB-CAP-0006-H 9.5-12.5 in OL-4002-08 R2205425-008 6/13/2022 16:00 SOIL WB1-8 WB1-8 3 Hand Core Core ug/kg	OL-RAB-CAP-0006-H 9.5-12.5 in OL-4002-08 R2205425-008 6/13/2022 16:00 WATER-CALC WB 1-8 WB1-8 3 SED CORE ug/L	OL-RAB-CAP-0007-H 0-4 in OL-4050-02 R2209791-002 10/12/2022 8:50 SOIL B1 RA-B-1C 1 Gravity Core Core ug/kg	OL-RAB-CAP-0007-H 0-4 in OL-4052-01 R2209872-001 10/12/2022 15:00 SOIL-CALC B1 RA-B-1C 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAB-CAP-0007-H 0-4 in OL-4052-01 R2209872-001 10/12/2022 15:00 WATER B1 RA-B-1C 1 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAB-CAP-0008-H 3-6 in OL-4047-01 R2208712-001 9/14/2022 9:45 SOIL-CALC B1/C1 RA-B-1C 2 Peeper Peeper ug/kg	OL-RAB-CAP-0008-H 3-6 in OL-4047-01 R2208712-001 9/14/2022 9:45 WATER B1/C1 RA-B-1C 2 Peeper Peeper ug/L	OL-RAB-CAP-0008-H 3-9 in OL-4047-02 R2208712-002 9/14/2022 9:50 SOIL-CALC B1/C1 RA-B-1C 2 Peeper Peeper ug/kg	OL-RAB-CAP-0008-H 3-9 in OL-4047-02 R2208712-002 9/14/2022 9:50 WATER B1/C1 RA-B-1C 2 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAB <6 in samples			%							0.733		0.8063		0.8063
Avg TOC	Average from RAB >=6 in samples			%											
Avg TOC	Measured for Sample			%	1.84		1.86								
TOC	Total Organic Carbon	N		%	18400		18600								
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347 ug/kg		0.69 U		0.67 U			2.77 U	0.34 U	3.05 U	0.374 U		
DCB_Summ	Dichlorobenzenes	N	239 ug/kg		0.3 U		0.29 U			0.64 U	0.2 U	0.7 U	0.22 U		
108-90-7	Chlorobenzene	N	428 ug/kg		0.27 U		0.26 U			0.27 UJ	0.2 UJ	0.3 U	0.22 U		
100-41-4	Ethylbenzene	N	176 ug/kg		1.4 U		1.3 U			0.57 UJ	0.2 UJ	0.63 U	0.22 U		
1330-20-7	Xylenes	N	561 ug/kg		0.69 U		0.67 U			0.58 UJ	0.23 UJ	0.63 U	0.253 U		
91-20-3	Naphthalene	N	917 ug/kg		19		13			1.18 UJ	0.55 UJ	1.3 U	0.605 U		
71-43-2	Benzene	N	760 ug/L		0.27 U	0.3 U	0.26 U	0.29 U		0.07 UJ	0.2 UJ	0.08 U	0.22 U		
108-88-3	Toluene	N	480 ug/L		2.7 U	0.97 U	2.6 U	0.93 U		0.22 UJ	0.2 UJ	0.54 J	0.484 J		
	SEMIVOLATILES														
108-95-2	Phenol	N	250 ug/L		13 U	2.81 U	13 U	2.78 U						0.93 U	0.506 U
83-32-9	Acenaphthene	N	861 ug/kg		6.4 J		3.2 J							79 UJ	0.506 UJ
208-96-8	Acenaphthylene	N	1301 ug/kg		10		10							32 UJ	0.506 UJ
120-12-7	Anthracene	N	207 ug/kg		15		11							148 UJ	0.715 UJ
86-73-7	Fluorene	N	264 ug/kg		7.2 J		5.7 J							59 UJ	0.528 UJ
85-01-8	Phenanthrene	N	543 ug/kg		99		43							182 UJ	0.88 UJ
56-55-3	Benzo(A)Anthracene	N	192 ug/kg		52		34								
50-32-8	Benzo(A)Pyrene	N	146 ug/kg		76		52								
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg		87		64								
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg		49		35								
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg		43		23								
218-01-9	Chrysene	N	253 ug/kg		65		43								
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg		13		9.7								
206-44-0	Fluoranthene	N	1436 ug/kg		130		72								
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg		54		39								
129-00-0	Pyrene	N	344 ug/kg		110		63								
108-95-2	Phenol	Y	250 ug/L							48 J	26 J				
83-32-9	Acenaphthene	Y	861 ug/kg							31 U	0.2 U				
208-96-8	Acenaphthylene	Y	1301 ug/kg							13 U	0.2 U				
120-12-7	Anthracene	Y	207 ug/kg							60 U	0.29 U				
86-73-7	Fluorene	Y	264 ug/kg							23 U	0.21 U				
85-01-8	Phenanthrene	Y	543 ug/kg							74 U	0.36 U				
	PCBs														
PCB	PCB, Total	N	295 ug/kg		110 U		71 U								
	METALS														
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg	0.06		0.087		0.024 J			0.118 U	0.088 U		
	OTHER														
PH	pH	N		ph units	7.28		7.56				7.24				
SOLID	Total Solids	N		%	68.9		68.6		74.9						

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area B			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAB-CAP-0008-H 9-12 in OL-4047-03 R2208712-003 9/14/2022 9:55 SOIL-CALC B1/C1 RA-B-1C 2 Peeper Peeper ug/kg	OL-RAB-CAP-0008-H 9-12 in OL-4047-03 R2208712-003 9/14/2022 9:55 WATER B1/C1 RA-B-1C 2 Peeper Peeper ug/L	OL-RAB-CAP-0008-I 12-15 in OL-4047-04 R2208712-004 9/14/2022 10:00 SOIL-CALC B1/C1 RA-B-1C 2 Peeper Peeper ug/kg	OL-RAB-CAP-0008-I 12-15 in OL-4047-04 R2208712-004 9/14/2022 10:00 WATER B1/C1 RA-B-1C 2 Peeper Peeper ug/L	OL-RAB-CAP-0008-I 15-18 in OL-4047-05 R2208712-005 9/14/2022 10:05 WATER B1/C1 RA-B-1C 2 Peeper Peeper ug/L	OL-RAB-CAP-0009-H 3-6 in OL-4004-01 R2205714-001 6/22/2022 12:15 SOIL WB1-8 WB1-8 3 Hand Core Core ug/kg	OL-RAB-CAP-0009-H 3-6 in OL-4004-01 R2205714-001 6/22/2022 12:15 WATER-CALC WB 1-8 WB1-8 3 SED CORE ug/L	OL-RAB-CAP-0009-H 14-17 in OL-4004-02 R2205714-002 6/22/2022 12:20 SOIL WB1-8 WB1-8 3 Hand Core Core ug/kg	OL-RAB-CAP-0009-H 14-17 in OL-4004-02 R2205714-002 6/22/2022 12:20 WATER-CALC WB 1-8 WB1-8 3 SED CORE ug/L	OL-RAB-CAP-0010-H 0-6 in OL-4010-15 R2206040-015 7/1/2022 11:40 SOIL B1 RA-B-1C 1 Vibracore Core ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAB <6 in samples			%												
Avg TOC	Average from RAB >=6 in samples			%		0.7711		0.7711	0.7711							
Avg TOC	Measured for Sample			%						1.81		1.85				
TOC	Total Organic Carbon	N		%						18100		18500				
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347 ug/kg		2.92 U	0.374 U	2.92 U	0.374 U		0.82 U		0.71 U				
DCB_Summ	Dichlorobenzenes	N	239 ug/kg		0.67 U	0.22 U	0.67 U	0.22 U		0.35 U		0.3 U				
108-90-7	Chlorobenzene	N	428 ug/kg		0.29 U	0.22 U	0.29 U	0.22 U		0.32 U		0.27 U				
100-41-4	Ethylbenzene	N	176 ug/kg		0.6 U	0.22 U	0.6 U	0.22 U		1.6 U		1.4 U				
1330-20-7	Xylenes	N	561 ug/kg		0.61 U	0.253 U	0.61 U	0.253 U		0.82 U		0.71 U				
91-20-3	Naphthalene	N	917 ug/kg		1.24 U	0.605 U	1.24 U	0.605 U		5.3 J		7.1 J				
71-43-2	Benzene	N	760 ug/L		0.08 U	0.22 U	0.08 U	0.22 U		0.32 U	0.36 U	0.27 U	0.3 U			
108-88-3	Toluene	N	480 ug/L		0.66 J	0.627 J	0.98 J	0.924 J		3.2 U	1.17 U	2.7 U	0.97 U			
	SEMIVOLATILES															
108-95-2	Phenol	N	250 ug/L		3.29 U	1.87 U	3.29 U	1.87 U		12 U	2.64 U	13 U	2.8 U			
83-32-9	Acenaphthene	N	861 ug/kg		280 UJ	1.87 UJ	280 UJ	1.87 UJ		2.6 J		7.5 J				
208-96-8	Acenaphthylene	N	1301 ug/kg		114 UJ	1.87 UJ	114 UJ	1.87 UJ		3.2 J		4 J				
120-12-7	Anthracene	N	207 ug/kg		522 UJ	2.64 UJ	522 UJ	2.64 UJ		6.7 J		13				
86-73-7	Fluorene	N	264 ug/kg		210 UJ	1.98 UJ	210 UJ	1.98 UJ		2.9 J		5.9 J				
85-01-8	Phenanthrene	N	543 ug/kg		652 UJ	3.3 UJ	652 UJ	3.3 UJ		21		47				
56-55-3	Benzo(A)Anthracene	N	192 ug/kg							22		41				
50-32-8	Benzo(A)Pyrene	N	146 ug/kg							32		64				
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg							34		68				
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg							21		40				
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg							12		24				
218-01-9	Chrysene	N	253 ug/kg							23		45				
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg							5.7 J		11				
206-44-0	Fluoranthene	N	1436 ug/kg							39		78				
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg							22		44				
129-00-0	Pyrene	N	344 ug/kg							39		68				
108-95-2	Phenol	Y	250 ug/L													
83-32-9	Acenaphthene	Y	861 ug/kg													
208-96-8	Acenaphthylene	Y	1301 ug/kg													
120-12-7	Anthracene	Y	207 ug/kg													
86-73-7	Fluorene	Y	264 ug/kg													
85-01-8	Phenanthrene	Y	543 ug/kg													
	PCBs															
PCB	PCB, Total	N	295 ug/kg							120 U		39 U				
	METALS															
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg	0.118 U	0.088 U	0.118 U	0.088 U		0.045		0.045		0.008 U		
	OTHER															
PH	pH	N		ph units					8.06	7.09		7.05				
SOLID	Total Solids	N		%						70.4		68.2		85.6		

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area B			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAB-CAP-0010-H 2-5 in OL-4041-11 R2208481-011 9/8/2022 11:45 SOIL-CALC B1 RA-B-1C 1 Peeper Peeper ug/kg	OL-RAB-CAP-0010-H 2-5 in OL-4041-11 R2208481-011 9/8/2022 11:45 WATER B1 RA-B-1C 1 Peeper Peeper ug/L	OL-RAB-CAP-0011-H 0-5 in OL-4010-16 R2206040-016 7/1/2022 12:30 SOIL B1 RA-B-1D 1 Vibracore Core ug/kg	OL-RAB-CAP-0011-H 2-5 in OL-4041-12 R2208481-012 9/8/2022 13:10 SOIL-CALC B1 RA-B-1D 1 Peeper Peeper ug/kg	OL-RAB-CAP-0011-H 2-5 in OL-4041-12 R2208481-012 9/8/2022 13:10 WATER B1 RA-B-1D 1 Peeper Peeper ug/L	OL-RAB-CAP-0012A-H 3-6 in OL-4047-13 R2208712-013 9/14/2022 12:15 SOIL-CALC B1/C1 B1/C1 3 Peeper Peeper ug/kg	OL-RAB-CAP-0012A-H 3-6 in OL-4047-13 R2208712-013 9/14/2022 12:15 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L	OL-RAB-CAP-0012A-H 3-9 in OL-4047-14 R2208712-014 9/14/2022 12:20 SOIL-CALC B1/C1 B1/C1 3 Peeper Peeper ug/kg	OL-RAB-CAP-0012A-H 3-9 in OL-4047-14 R2208712-014 9/14/2022 12:20 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L	OL-RAB-CAP-0012A-H 9-12 in OL-4047-15 R2208712-015 9/14/2022 12:25 SOIL-CALC B1/C1 B1/C1 3 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED												
Avg TOC	Average from RAB <6 in samples			%		0.8063			0.8063		0.8063		0.8063	
Avg TOC	Average from RAB >=6 in samples			%										
Avg TOC	Measured for Sample			%										
TOC	Total Organic Carbon	N		%										
	VOLATILES													
TCB_Summ	Trichlorobenzenes	N	347 ug/kg		3.05 U	0.374 U		3.05 U	0.374 U	3.05 U	0.374 U			2.92 U
DCB_Summ	Dichlorobenzenes	N	239 ug/kg		0.7 U	0.22 U		0.7 U	0.22 U	0.7 U	0.22 U			0.67 U
108-90-7	Chlorobenzene	N	428 ug/kg		0.3 UJ	0.22 UJ		0.3 UJ	0.22 UJ	0.3 U	0.22 U			0.29 U
100-41-4	Ethylbenzene	N	176 ug/kg		0.63 UJ	0.22 UJ		0.63 UJ	0.22 UJ	0.63 U	0.22 U			0.6 U
1330-20-7	Xylenes	N	561 ug/kg		0.63 UJ	0.253 UJ		0.63 UJ	0.253 UJ	0.63 U	0.253 U			0.61 U
91-20-3	Naphthalene	N	917 ug/kg		1.3 UJ	0.605 UJ		1.3 UJ	0.605 UJ	1.3 U	0.605 U			1.24 U
71-43-2	Benzene	N	760 ug/L		0.08 UJ	0.22 UJ		0.43 J-	1.21 J-	0.12 J	0.341 J			0.08 U
108-88-3	Toluene	N	480 ug/L		0.55 J	0.495 J		0.68 J	0.616 J	4.14	3.74			1.4
	SEMIVOLATILES													
108-95-2	Phenol	N	250 ug/L		5.06 U	2.75 U		243	132			1.36 U	0.737 U	4.84 U
83-32-9	Acenaphthene	N	861 ug/kg		431 U	2.75 U		431 U	2.75 U			115 UJ	0.737 UJ	412 UJ
208-96-8	Acenaphthylene	N	1301 ug/kg		175 U	2.75 U		175 U	2.75 U			47 UJ	0.737 UJ	168 UJ
120-12-7	Anthracene	N	207 ug/kg		818 U	3.96 U		818 U	3.96 U			216 UJ	1.045 UJ	783 UJ
86-73-7	Fluorene	N	264 ug/kg		317 U	2.86 U		317 U	2.86 U			85 UJ	0.77 UJ	304 UJ
85-01-8	Phenanthrene	N	543 ug/kg		999 U	4.84 U		999 U	4.84 U			273 UJ	1.32 UJ	956 UJ
56-55-3	Benzo(A)Anthracene	N	192 ug/kg											
50-32-8	Benzo(A)Pyrene	N	146 ug/kg											
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg											
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg											
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg											
218-01-9	Chrysene	N	253 ug/kg											
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg											
206-44-0	Fluoranthene	N	1436 ug/kg											
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg											
129-00-0	Pyrene	N	344 ug/kg											
108-95-2	Phenol	Y	250 ug/L											
83-32-9	Acenaphthene	Y	861 ug/kg											
208-96-8	Acenaphthylene	Y	1301 ug/kg											
120-12-7	Anthracene	Y	207 ug/kg											
86-73-7	Fluorene	Y	264 ug/kg											
85-01-8	Phenanthrene	Y	543 ug/kg											
	PCBs													
PCB	PCB, Total	N	295 ug/kg											
	METALS													
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg			0.013 J			0.118 U	0.088 U			0.118 U
	OTHER													
PH	pH	N		ph units		8.83			9.84					
SOLID	Total Solids	N		%			90.8							

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area B			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAB-CAP-0012A-H 9-12 in OL-4047-15 R2208712-015 9/14/2022 12:25 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L	OL-RAB-CAP-0012A-I 12-15 in OL-4047-16 R2208712-016 9/14/2022 12:30 SOIL-CALC B1/C1 B1/C1 3 Peeper Peeper ug/kg	OL-RAB-CAP-0012A-I 12-15 in OL-4047-16 R2208712-016 9/14/2022 12:30 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L	OL-RAB-CAP-0012A-I 15-18 in OL-4047-17 R2208712-017 9/14/2022 12:35 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L	OL-RAB-CAP-0013-H 0-6 in OL-4010-17 R2206040-017 7/1/2022 13:05 SOIL B1 RA-B-1D 1 Gravity Core Core ug/kg	OL-RAB-CAP-0013-H 2-5 in OL-4074-06 R2210565-006 11/2/2022 14:00 SOIL-CALC B1 RA-B-1D 1 Peeper Peeper ug/kg	OL-RAB-CAP-0013-H 2-5 in OL-4074-06 R2210565-006 11/2/2022 14:00 WATER B1 RA-B-1D 1 Peeper Peeper ug/L	OL-RAB-CAP-0014-H 3-6 in OL-4010-09/OL-4010-11 R2206040-009 7/1/2022 8:50 SOIL B1/C1 RA-B-1E 1 Vibracore Core ug/kg	Duplicate OL-RAB-CAP-0014-H 3-6 in OL-4010-09/OL-4010-11 R2206040-011 7/1/2022 8:50 SOIL B1/C1 RA-B-1E 1 Vibracore Core ug/kg	OL-RAB-CAP-0014-H 9-12 in OL-4010-10 R2206040-010 7/1/2022 8:55 SOIL B1/C1 RA-B-1E 1 Vibracore Core ug/kg
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAB <6 in samples			%					0.733		0.8063				
Avg TOC	Average from RAB >=6 in samples			%	0.7711		0.7711	0.7711							
Avg TOC	Measured for Sample			%								0.154	0.154	0.087	
TOC	Total Organic Carbon	N		%								1540	1130	870 J	
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347 ug/kg		0.374 U	2.92 U	0.374 U			3.05 U	0.374 U	0.64 U	0.66 U	1.34	
DCB_Summ	Dichlorobenzenes	N	239 ug/kg		0.22 U	0.67 U	0.22 U			0.7 U	0.22 U	0.27 U	0.28 U	0.68	
108-90-7	Chlorobenzene	N	428 ug/kg		0.22 U	0.29 U	0.22 U			0.3 U	0.22 U	0.25 U	0.26 UJ	0.24 UJ	
100-41-4	Ethylbenzene	N	176 ug/kg		0.22 U	0.6 U	0.22 U			0.63 U	0.22 U	1.3 U	1.3 UJ	1.2 UJ	
1330-20-7	Xylenes	N	561 ug/kg		0.253 U	0.61 U	0.253 U			0.63 U	0.253 U	0.64 U	0.66 UJ	0.61 UJ	
91-20-3	Naphthalene	N	917 ug/kg		0.605 U	1.24 U	0.605 U		14	1.3 U	0.605 U	32 J	12 J	9.1 J	
71-43-2	Benzene	N	760 ug/L		0.22 U	0.08 U	0.22 U			0.08 U	0.22 U				
108-88-3	Toluene	N	480 ug/L		1.32	1.28	1.21			2.92	2.64				
	SEMIVOLATILES														
108-95-2	Phenol	N	250 ug/L		2.75 U	3.87 U	2.2 U			36 J	19.8 J				
83-32-9	Acenaphthene	N	861 ug/kg		2.75 UJ	330 UJ	2.2 UJ			258 U	1.65 U	1.9 U	1.8 U	1.9 UJ	
208-96-8	Acenaphthylene	N	1301 ug/kg		2.75 UJ	134 UJ	2.2 UJ			105 U	1.65 U	2.1 U	2 U	2.1 UJ	
120-12-7	Anthracene	N	207 ug/kg		3.96 UJ	630 UJ	3.19 UJ			477 U	2.31 U	4.6 U	4.4 U	4.6 UJ	
86-73-7	Fluorene	N	264 ug/kg		2.86 UJ	245 UJ	2.31 UJ			183 U	1.65 U	2 U	1.9 U	2 UJ	
85-01-8	Phenanthrene	N	543 ug/kg		4.84 UJ	783 UJ	3.96 UJ			590 U	2.86 U	4 U	3.9 U	4 UJ	
56-55-3	Benzo(A)Anthracene	N	192 ug/kg						5.6 U			5.6 U	5.5 U	5.7 UJ	
50-32-8	Benzo(A)Pyrene	N	146 ug/kg						3.1 U			3.1 U	3 U	3.1 UJ	
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg						4 U			4 U	3.9 U	4 UJ	
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg						3.2 U			3.2 U	3.1 U	3.2 UJ	
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg						4.3 U			4.3 U	4.2 U	4.3 UJ	
218-01-9	Chrysene	N	253 ug/kg						3.1 U			3.1 U	3 U	3.1 UJ	
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg						3.1 U			3.1 U	3 U	3.1 UJ	
206-44-0	Fluoranthene	N	1436 ug/kg						5.5 U			5.5 U	5.4 U	5.6 UJ	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg						3.3 UJ			3.3 U	3.2 UJ	3.3 UJ	
129-00-0	Pyrene	N	344 ug/kg						3.6 U			3.6 U	3.5 U	3.7 UJ	
108-95-2	Phenol	Y	250 ug/L												
83-32-9	Acenaphthene	Y	861 ug/kg												
208-96-8	Acenaphthylene	Y	1301 ug/kg												
120-12-7	Anthracene	Y	207 ug/kg												
86-73-7	Fluorene	Y	264 ug/kg												
85-01-8	Phenanthrene	Y	543 ug/kg												
	PCBs														
PCB	PCB, Total	N	295 ug/kg						43 U			46 U	43 U	46 U	
	METALS														
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg	0.088 U	0.118 U	0.088 U		0.012 J			0.017 J	0.013 J	0.018 J	
	OTHER														
PH	pH	N		ph units				7.89				7.87	7.76	7.97	
SOLID	Total Solids	N		%					88.5			85.8	90.8	86.6	

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area B			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAB-CAP-0014-H 3-6 in OL-4040-08 R2208480-008 9/8/2022 8:30 SOIL-CALC B1/C1 RA-B-1E 1 Peeper Peeper ug/kg	OL-RAB-CAP-0014-H 3-6 in OL-4040-08 R2208480-008 9/8/2022 8:30 WATER B1/C1 RA-B-1E 1 Peeper Peeper ug/L	OL-RAB-CAP-0014-H 3-9 in OL-4040-09 R2208480-009 9/8/2022 8:35 SOIL-CALC B1/C1 RA-B-1E 1 Peeper Peeper ug/kg	OL-RAB-CAP-0014-H 3-9 in OL-4040-09 R2208480-009 9/8/2022 8:35 WATER B1/C1 RA-B-1E 1 Peeper Peeper ug/L	OL-RAB-CAP-0014-H 9-12 in OL-4040-10 R2208480-010 9/8/2022 8:40 SOIL-CALC B1/C1 RA-B-1E 1 Peeper Peeper ug/kg	OL-RAB-CAP-0014-H 9-12 in OL-4040-10 R2208480-010 9/8/2022 8:40 WATER B1/C1 RA-B-1E 1 Peeper Peeper ug/L	OL-RAB-CAP-0014-I 12-15 in OL-4040-11 R2208480-011 9/8/2022 8:45 SOIL-CALC B1/C1 RA-B-1E 1 Peeper Peeper ug/kg	OL-RAB-CAP-0014-I 12-15 in OL-4040-11 R2208480-011 9/8/2022 8:45 WATER B1/C1 RA-B-1E 1 Peeper Peeper ug/L	OL-RAB-CAP-0014-I 15-18 in OL-4040-12 R2208480-012 9/8/2022 8:50 WATER B1/C1 RA-B-1E 1 Peeper Peeper ug/L	OL-RAB-CAP-0015-H 3-6 in OL-4010-12 R2206040-012 7/1/2022 9:40 SOIL B1/C1 B1/C1 1 Vibracore Core ug/kg	OL-RAB-CAP-0015-H 9-12 in OL-4010-13 R2206040-013 7/1/2022 9:45 SOIL B1/C1 B1/C1 1 Vibracore Core ug/kg
CAS NO.	COMPOUND	FILTERED															
Avg TOC	Average from RAB <6 in samples			%		0.8063		0.8063									
Avg TOC	Average from RAB >=6 in samples			%							0.7711		0.7711	0.7711			
Avg TOC	Measured for Sample			%											0.071	0.058	
TOC	Total Organic Carbon	N		%											710	580	
	VOLATILES																
TCB_Summ	Trichlorobenzenes	N	347 ug/kg									15 U	1.87 U		0.66 U	0.55 U	
DCB_Summ	Dichlorobenzenes	N	239 ug/kg									3.36 U	1.1 U		0.28 U	0.23 U	
108-90-7	Chlorobenzene	N	428 ug/kg									1.43 U	1.1 U		0.26 U	0.21 U	
100-41-4	Ethylbenzene	N	176 ug/kg									3 U	1.1 U		1.3 U	1.1 U	
1330-20-7	Xylenes	N	561 ug/kg									3.16 U	1.32 U		0.66 U	0.55 U	
91-20-3	Naphthalene	N	917 ug/kg									6.31 U	3.08 U		2.5 U	2.6 U	
71-43-2	Benzene	N	760 ug/L		0.08 UJ	0.22 UJ			0.08 UJ	0.22 UJ	0.38 U	1.1 U					
108-88-3	Toluene	N	480 ug/L		1.14 J	1.034 J			186 J-	176 J-	675	638					
	SEMIVOLATILES																
108-95-2	Phenol	N	250 ug/L				28 J	15.4 J	8.72 J	4.95 J	911	517					
83-32-9	Acenaphthene	N	861 ug/kg								412 U	2.75 U			1.8 U	1.9 U	
208-96-8	Acenaphthylene	N	1301 ug/kg								168 U	2.75 U			2 U	2.1 U	
120-12-7	Anthracene	N	207 ug/kg								783 U	3.96 U			4.4 U	4.5 U	
86-73-7	Fluorene	N	264 ug/kg								304 U	2.86 U			1.9 U	1.9 U	
85-01-8	Phenanthrene	N	543 ug/kg								956 U	4.84 U			3.8 U	4 U	
56-55-3	Benzo(A)Anthracene	N	192 ug/kg												5.4 U	5.6 U	
50-32-8	Benzo(A)Pyrene	N	146 ug/kg												3 U	3.1 U	
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg												3.8 U	4 U	
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg												3.1 U	3.2 U	
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg												4.1 U	4.3 U	
218-01-9	Chrysene	N	253 ug/kg												3 U	3.1 U	
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg												3 U	3.1 U	
206-44-0	Fluoranthene	N	1436 ug/kg												5.3 U	5.5 U	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg												3.2 UJ	3.3 UJ	
129-00-0	Pyrene	N	344 ug/kg												3.5 U	3.6 U	
108-95-2	Phenol	Y	250 ug/L														
83-32-9	Acenaphthene	Y	861 ug/kg														
208-96-8	Acenaphthylene	Y	1301 ug/kg														
120-12-7	Anthracene	Y	207 ug/kg														
86-73-7	Fluorene	Y	264 ug/kg														
85-01-8	Phenanthrene	Y	543 ug/kg														
	PCBs																
PCB	PCB, Total	N	295 ug/kg												43 U	44 U	
	METALS																
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg							2.955 U	2.2 U			0.008 U	0.009 J	
	OTHER																
PH	pH	N		ph units										9.08	8.42	8.42	
SOLID	Total Solids	N		%											91	89.1	

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area B			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAB-CAP-0015-H 3-6 in OL-4040-13 R2208480-013 9/8/2022 9:10 SOIL-CALC B1/C1 B1/C1 1 Peeper Peeper ug/kg	OL-RAB-CAP-0015-H 3-6 in OL-4040-13 R2208480-013 9/8/2022 9:10 WATER B1/C1 B1/C1 1 Peeper Peeper ug/L	OL-RAB-CAP-0015-H 3-9 in OL-4040-14 R2208480-014 9/8/2022 9:15 SOIL-CALC B1/C1 B1/C1 1 Peeper Peeper ug/kg	OL-RAB-CAP-0015-H 3-9 in OL-4040-14 R2208480-014 9/8/2022 9:15 WATER B1/C1 B1/C1 1 Peeper Peeper ug/L	OL-RAB-CAP-0015-H 9-12 in OL-4040-15 R2208480-015 9/8/2022 9:20 SOIL-CALC B1/C1 B1/C1 1 Peeper Peeper ug/kg	OL-RAB-CAP-0015-H 9-12 in OL-4040-15 R2208480-015 9/8/2022 9:20 WATER B1/C1 B1/C1 1 Peeper Peeper ug/L	OL-RAB-CAP-0015-I 12-15 in OL-4040-16 R2208480-016 9/8/2022 9:25 SOIL-CALC B1/C1 B1/C1 1 Peeper Peeper ug/kg	OL-RAB-CAP-0015-I 12-15 in OL-4040-16 R2208480-016 9/8/2022 9:25 WATER B1/C1 B1/C1 1 Peeper Peeper ug/L	OL-RAB-CAP-0015-I 15-18 in OL-4040-17 R2208480-017 9/8/2022 9:30 WATER B1/C1 B1/C1 1 Peeper Peeper ug/L	OL-RAB-CAP-0016-H 3-6 in OL-4045-01 R2208641-001 9/12/2022 15:25 SOIL-CALC B1/C1 RA-B-1E 2 Peeper Peeper ug/kg	OL-RAB-CAP-0016-H 3-6 in OL-4045-01 R2208641-001 9/12/2022 15:25 WATER B1/C1 RA-B-1E 2 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED															
Avg TOC	Average from RAB <6 in samples			%		0.8063		0.8063								0.8063	
Avg TOC	Average from RAB >=6 in samples			%							0.7711		0.7711	0.7711			
Avg TOC	Measured for Sample			%													
TOC	Total Organic Carbon	N		%													
	VOLATILES																
TCB_Summ	Trichlorobenzenes	N	347 ug/kg									2.92 U	0.374 U		3.05 U	0.374 U	
DCB_Summ	Dichlorobenzenes	N	239 ug/kg									0.67 U	0.22 U		0.7 U	0.22 U	
108-90-7	Chlorobenzene	N	428 ug/kg									0.3 J	0.231 J		0.3 UJ	0.22 UJ	
100-41-4	Ethylbenzene	N	176 ug/kg									0.6 UJ	0.22 UJ		0.63 UJ	0.22 UJ	
1330-20-7	Xylenes	N	561 ug/kg									0.61 UJ	0.253 UJ		0.63 UJ	0.253 UJ	
91-20-3	Naphthalene	N	917 ug/kg									1.24 UJ	0.605 UJ		1.3 UJ	0.605 UJ	
71-43-2	Benzene	N	760 ug/L		0.08 UJ	0.22 UJ			0.38 U	1.1 U		0.08 UJ	0.22 UJ		0.08 UJ	0.22 UJ	
108-88-3	Toluene	N	480 ug/L		1.7 J-	1.54 J-			279	264		140 J-	132 J-		21 J-	18.7 J-	
	SEMIVOLATILES																
108-95-2	Phenol	N	250 ug/L				65 J	35.2 J	368	209		8.72 J	4.95 J				
83-32-9	Acenaphthene	N	861 ug/kg									412 U	2.75 U				
208-96-8	Acenaphthylene	N	1301 ug/kg									168 U	2.75 U				
120-12-7	Anthracene	N	207 ug/kg									783 U	3.96 U				
86-73-7	Fluorene	N	264 ug/kg									304 U	2.86 U				
85-01-8	Phenanthrene	N	543 ug/kg									956 U	4.84 U				
56-55-3	Benzo(A)Anthracene	N	192 ug/kg														
50-32-8	Benzo(A)Pyrene	N	146 ug/kg														
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg														
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg														
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg														
218-01-9	Chrysene	N	253 ug/kg														
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg														
206-44-0	Fluoranthene	N	1436 ug/kg														
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg														
129-00-0	Pyrene	N	344 ug/kg														
108-95-2	Phenol	Y	250 ug/L														
83-32-9	Acenaphthene	Y	861 ug/kg														
208-96-8	Acenaphthylene	Y	1301 ug/kg														
120-12-7	Anthracene	Y	207 ug/kg														
86-73-7	Fluorene	Y	264 ug/kg														
85-01-8	Phenanthrene	Y	543 ug/kg														
	PCBs																
PCB	PCB, Total	N	295 ug/kg														
	METALS																
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg								2.955 U	2.2 U		2.955 U	2.2 U	
	OTHER																
PH	pH	N		ph units										8.65			
SOLID	Total Solids	N		%													

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area B			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAB-CAP-0016-H 3-9 in OL-4045-02 R2208641-002 9/12/2022 15:30 SOIL-CALC B1/C1 RA-B-1E 2 Peeper Peeper ug/kg	OL-RAB-CAP-0016-H 3-9 in OL-4045-02 R2208641-002 9/12/2022 15:30 WATER B1/C1 RA-B-1E 2 Peeper Peeper ug/L	OL-RAB-CAP-0016-H 9-12 in OL-4045-03 R2208641-003 9/12/2022 15:35 SOIL-CALC B1/C1 RA-B-1E 2 Peeper Peeper ug/kg	OL-RAB-CAP-0016-H 9-12 in OL-4045-03 R2208641-003 9/12/2022 15:35 WATER B1/C1 RA-B-1E 2 Peeper Peeper ug/L	OL-RAB-CAP-0016-I 12-15 in OL-4045-04 R2208641-004 9/12/2022 15:40 SOIL-CALC B1/C1 RA-B-1E 2 Peeper Peeper ug/kg	OL-RAB-CAP-0016-I 12-15 in OL-4045-04 R2208641-004 9/12/2022 15:40 WATER B1/C1 RA-B-1E 2 Peeper Peeper ug/L	OL-RAB-CAP-0016-I 15-18 in OL-4045-06 R2208641-005 9/12/2022 15:45 WATER B1/C1 RA-B-1E 2 Peeper Peeper ug/L	OL-RAB-CAP-0017-H 3-6 in OL-4074-01 R2210565-001 11/2/2022 11:00 SOIL-CALC B1/C1 B1/C1 3 Peeper Peeper ug/kg	OL-RAB-CAP-0017-H 3-6 in OL-4074-01 R2210565-001 11/2/2022 11:00 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L	OL-RAB-CAP-0017-H 3-9 in OL-4074-02 R2210565-002 11/2/2022 11:05 SOIL-CALC B1/C1 B1/C1 3 Peeper Peeper ug/kg	OL-RAB-CAP-0017-H 3-9 in OL-4074-02 R2210565-002 11/2/2022 11:05 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED															
Avg TOC	Average from RAB <6 in samples			%		0.8063								0.8063		0.8063	
Avg TOC	Average from RAB >=6 in samples			%				0.7711			0.7711	0.7711					
Avg TOC	Measured for Sample			%													
TOC	Total Organic Carbon	N		%													
	VOLATILES																
TCB_Summ	Trichlorobenzenes	N	347 ug/kg				2.92 U	0.374 U	2.92 U	0.374 U		3.05 U	0.374 U				
DCB_Summ	Dichlorobenzenes	N	239 ug/kg				0.67 U	0.22 U	0.67 U	0.22 U		0.7 U	0.22 U				
108-90-7	Chlorobenzene	N	428 ug/kg				0.29 UJ	0.22 UJ	0.29 UJ	0.22 UJ		0.3 UJ	0.22 UJ				
100-41-4	Ethylbenzene	N	176 ug/kg				0.6 UJ	0.22 UJ	0.6 UJ	0.22 UJ		0.63 UJ	0.22 UJ				
1330-20-7	Xylenes	N	561 ug/kg				0.61 UJ	0.253 UJ	0.61 UJ	0.253 UJ		0.63 UJ	0.253 UJ				
91-20-3	Naphthalene	N	917 ug/kg				1.24 UJ	0.605 UJ	1.24 UJ	0.605 UJ		1.3 UJ	0.605 UJ				
71-43-2	Benzene	N	760 ug/L				0.08 UJ	0.22 UJ	0.08 UJ	0.22 UJ		0.08 UJ	0.22 UJ				
108-88-3	Toluene	N	480 ug/L				11 J-	10.67 J-	6.29 J-	5.94 J-		0.24 UJ	0.22 UJ				
	SEMIVOLATILES																
108-95-2	Phenol	N	250 ug/L		1.46 UJ	0.792 UJ	4.84 UJ	2.75 UJ	3.87 UJ	2.2 UJ					1.7 U	0.924 U	
83-32-9	Acenaphthene	N	861 ug/kg		124 UJ	0.792 UJ	412 UJ	2.75 UJ	330 UJ	2.2 UJ					145 U	0.924 U	
208-96-8	Acenaphthylene	N	1301 ug/kg		51 UJ	0.792 UJ	168 UJ	2.75 UJ	134 UJ	2.2 UJ					59 U	0.924 U	
120-12-7	Anthracene	N	207 ug/kg		250 UJ	1.21 UJ	783 UJ	3.96 UJ	630 UJ	3.19 UJ					273 U	1.32 U	
86-73-7	Fluorene	N	264 ug/kg		91 UJ	0.825 UJ	304 UJ	2.86 UJ	245 UJ	2.31 UJ					106 U	0.957 U	
85-01-8	Phenanthrene	N	543 ug/kg		295 UJ	1.43 UJ	956 UJ	4.84 UJ	783 UJ	3.96 UJ					341 U	1.65 U	
56-55-3	Benzo(A)Anthracene	N	192 ug/kg														
50-32-8	Benzo(A)Pyrene	N	146 ug/kg														
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg														
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg														
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg														
218-01-9	Chrysene	N	253 ug/kg														
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg														
206-44-0	Fluoranthene	N	1436 ug/kg														
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg														
129-00-0	Pyrene	N	344 ug/kg														
108-95-2	Phenol	Y	250 ug/L														
83-32-9	Acenaphthene	Y	861 ug/kg														
208-96-8	Acenaphthylene	Y	1301 ug/kg														
120-12-7	Anthracene	Y	207 ug/kg														
86-73-7	Fluorene	Y	264 ug/kg														
85-01-8	Phenanthrene	Y	543 ug/kg														
	PCBs																
PCB	PCB, Total	N	295 ug/kg														
	METALS																
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg			2.955 U	2.2 U	2.955 U	2.2 U		0.591 U	0.44 U				
	OTHER																
PH	pH	N		ph units							8.67						
SOLID	Total Solids	N		%													

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area B			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAB-CAP-0017-H 9-12 in OL-4074-03 R2210565-003 11/2/2022 11:10 SOIL-CALC B1/C1 B1/C1 3 Peeper Peeper ug/kg	OL-RAB-CAP-0017-H 9-12 in OL-4074-03 R2210565-003 11/2/2022 11:10 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L	OL-RAB-CAP-0017-I 12-15 in OL-4074-04 R2210565-004 11/2/2022 11:15 SOIL-CALC B1/C1 B1/C1 3 Peeper Peeper ug/kg	OL-RAB-CAP-0017-I 12-15 in OL-4074-04 R2210565-004 11/2/2022 11:15 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L	OL-RAB-CAP-0017-I 15-18 in OL-4074-05 R2210565-005 11/2/2022 11:20 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L	OL-RAB-CAP-0018-H 3-6 in OL-4044-07 R2208570-006 9/12/2022 14:30 SOIL-CALC B1/C1 B1/C1 3 Peeper Peeper ug/kg	OL-RAB-CAP-0018-H 3-6 in OL-4044-07 R2208570-006 9/12/2022 14:30 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L	OL-RAB-CAP-0018-H 3-9 in OL-4044-08 R2208570-007 9/12/2022 14:35 SOIL-CALC B1/C1 B1/C1 3 Peeper Peeper ug/kg	OL-RAB-CAP-0018-H 3-9 in OL-4044-08 R2208570-007 9/12/2022 14:35 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L	OL-RAB-CAP-0018-H 9-12 in OL-4044-09 R2208570-008 9/12/2022 14:40 SOIL-CALC B1/C1 B1/C1 3 Peeper Peeper ug/kg	OL-RAB-CAP-0018-H 9-12 in OL-4044-09 R2208570-008 9/12/2022 14:40 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAB <6 in samples			%								0.8063				
Avg TOC	Average from RAB >=6 in samples			%		0.7711		0.7711	0.7711					0.7711		0.7711
Avg TOC	Measured for Sample			%												
TOC	Total Organic Carbon	N		%												
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347 ug/kg		2.92 U	0.374 U	2.92 U	0.374 U		3.05 U	0.374 U			2.92 U	0.374 U
DCB_Summ	Dichlorobenzenes	N	239 ug/kg		0.67 U	0.22 U	0.67 U	0.22 U		0.7 U	0.22 U			0.67 U	0.22 U
108-90-7	Chlorobenzene	N	428 ug/kg		0.29 UJ	0.22 UJ	0.29 UJ	0.22 UJ		0.3 U	0.22 U			0.29 UJ	0.22 UJ
100-41-4	Ethylbenzene	N	176 ug/kg		0.6 UJ	0.22 UJ	0.6 UJ	0.22 UJ		0.63 U	0.22 U			0.6 UJ	0.22 UJ
1330-20-7	Xylenes	N	561 ug/kg		0.61 UJ	0.253 UJ	0.61 UJ	0.253 UJ		0.63 U	0.253 U			0.61 UJ	0.253 UJ
91-20-3	Naphthalene	N	917 ug/kg		1.24 UJ	0.605 UJ	1.24 UJ	0.605 UJ		1.3 U	0.605 U			1.24 UJ	0.605 UJ
71-43-2	Benzene	N	760 ug/L		0.08 UJ	0.22 UJ	0.08 UJ	0.22 UJ		0.08 U	0.22 U			0.08 UJ	0.22 UJ
108-88-3	Toluene	N	480 ug/L		1.16 J-	1.1 J-	1.08 J	1.023 J		2.8	2.53			9.43 J-	8.91 J-
	SEMIVOLATILES															
108-95-2	Phenol	N	250 ug/L		2.52 U	1.43 U	3.29 U	1.87 U				1.39 U	0.792 U		
83-32-9	Acenaphthene	N	861 ug/kg		214 U	1.43 U	280 U	1.87 U				119 UJ	0.792 UJ		
208-96-8	Acenaphthylene	N	1301 ug/kg		87 U	1.43 U	114 U	1.87 U				48 U	0.792 U		
120-12-7	Anthracene	N	207 ug/kg		391 U	1.98 U	522 U	2.64 U				239 U	1.21 U		
86-73-7	Fluorene	N	264 ug/kg		152 U	1.43 U	210 U	1.98 U				88 U	0.825 U		
85-01-8	Phenanthrene	N	543 ug/kg		478 U	2.42 U	652 U	3.3 U				283 UJ	1.43 UJ		
56-55-3	Benzo(A)Anthracene	N	192 ug/kg												
50-32-8	Benzo(A)Pyrene	N	146 ug/kg												
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg												
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg												
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg												
218-01-9	Chrysene	N	253 ug/kg												
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg												
206-44-0	Fluoranthene	N	1436 ug/kg												
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg												
129-00-0	Pyrene	N	344 ug/kg												
108-95-2	Phenol	Y	250 ug/L												
83-32-9	Acenaphthene	Y	861 ug/kg												
208-96-8	Acenaphthylene	Y	1301 ug/kg												
120-12-7	Anthracene	Y	207 ug/kg												
86-73-7	Fluorene	Y	264 ug/kg												
85-01-8	Phenanthrene	Y	543 ug/kg												
	PCBs														
PCB	PCB, Total	N	295 ug/kg												
	METALS														
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg	0.591 U	0.44 U	0.591 U	0.44 U		2.955 U	2.2 U			2.955 U	2.2 U
	OTHER														
PH	pH	N		ph units					7.69						
SOLID	Total Solids	N		%											

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area B			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAB-CAP-0018-I 12-15 in OL-4044-10 R2208570-009 9/12/2022 14:45 SOIL-CALC B1/C1 B1/C1 3 Peeper Peeper ug/kg	OL-RAB-CAP-0018-I 12-15 in OL-4044-10 R2208570-009 9/12/2022 14:45 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L	OL-RAB-CAP-0018-I 15-18 in OL-4044-11 R2208570-010 9/12/2022 14:50 WATER B1/C1 B1/C1 3 Peeper Peeper ug/L	OL-RAB-CAP-0019-H 3-6 in OL-4004-03 R2205714-003 6/22/2022 12:35 SOIL WB1-8 WB1-8 3 Hand Core Core ug/kg	OL-RAB-CAP-0019-H 3-6 in OL-4004-03 R2205714-003 6/22/2022 12:35 WATER-CALC WB 1-8 WB1-8 3 SED CORE ug/L	OL-RAB-CAP-0019-H 18-21 in OL-4004-04 R2205714-004 6/22/2022 12:40 SOIL WB1-8 WB1-8 3 Hand Core Core ug/kg	OL-RAB-CAP-0019-H 18-21 in OL-4004-04 R2205714-004 6/22/2022 12:40 WATER-CALC WB 1-8 WB1-8 3 SED CORE ug/L
CAS NO.	COMPOUND	FILTERED									
Avg TOC	Average from RAB <6 in samples			%							
Avg TOC	Average from RAB >=6 in samples			%		0.7711	0.7711				
Avg TOC	Measured for Sample			%				2.21		1.56	
TOC	Total Organic Carbon	N		%				22100		15600	
	VOLATILES										
TCB_Summ	Trichlorobenzenes	N	347 ug/kg		2.92 U	0.374 U		1.5 U		0.58 U	
DCB_Summ	Dichlorobenzenes	N	239 ug/kg		0.67 U	0.22 U		0.64 U		0.25 U	
108-90-7	Chlorobenzene	N	428 ug/kg		0.29 UJ	0.22 UJ		0.58 U		0.23 U	
100-41-4	Ethylbenzene	N	176 ug/kg		0.6 UJ	0.22 UJ		2.9 U		1.2 U	
1330-20-7	Xylenes	N	561 ug/kg		0.61 UJ	0.253 UJ		1.5 U		0.58 U	
91-20-3	Naphthalene	N	917 ug/kg		1.24 UJ	0.605 UJ		6.5 U		3.8 J	
71-43-2	Benzene	N	760 ug/L		0.08 UJ	0.22 UJ		0.58 U	0.54 U	0.23 U	0.3 U
108-88-3	Toluene	N	480 ug/L		3.84 J-	3.63 J-		35	10	2.3 U	0.98 U
	SEMIVOLATILES										
108-95-2	Phenol	N	250 ug/L		2.91 U	1.65 U		25 U	4.5 U	12 U	3.06 U
83-32-9	Acenaphthene	N	861 ug/kg		247 UJ	1.65 UJ		4.7 U		2.2 U	
208-96-8	Acenaphthylene	N	1301 ug/kg		101 U	1.65 U		5.1 U		5.8 J	
120-12-7	Anthracene	N	207 ug/kg		456 U	2.31 U		12 U		7.3 J	
86-73-7	Fluorene	N	264 ug/kg		175 U	1.65 U		4.8 U		2.3 U	
85-01-8	Phenanthrene	N	543 ug/kg		565 UJ	2.86 UJ		9.9 U		27	
56-55-3	Benzo(A)Anthracene	N	192 ug/kg					14 U		27	
50-32-8	Benzo(A)Pyrene	N	146 ug/kg					11 J		36	
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg					11 J		39	
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg					7.9 U		21	
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg					11 U		14	
218-01-9	Chrysene	N	253 ug/kg					7.6 U		30	
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg					7.6 U		6.7 J	
206-44-0	Fluoranthene	N	1436 ug/kg					14 U		53	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg					8.2 U		23	
129-00-0	Pyrene	N	344 ug/kg					12 J		48	
108-95-2	Phenol	Y	250 ug/L								
83-32-9	Acenaphthene	Y	861 ug/kg								
208-96-8	Acenaphthylene	Y	1301 ug/kg								
120-12-7	Anthracene	Y	207 ug/kg								
86-73-7	Fluorene	Y	264 ug/kg								
85-01-8	Phenanthrene	Y	543 ug/kg								
	PCBs										
PCB	PCB, Total	N	295 ug/kg					230 U		36 U	
	METALS										
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg	2.955 U	2.2 U		0.054 J		0.053	
	OTHER										
PH	pH	N		ph units			7.28	7.3		7.07	
SOLID	Total Solids	N		%				34		73.5	

Notes:
U - Not Detected
J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0001-H 3-6 in OL-4047-06 R2208712-006 9/14/2022 11:00 SOIL-CALC B1/C1 B1/C1 2 Peeper Peeper ug/kg	OL-RAC-CAP-0001-H 3-6 in OL-4047-06 R2208712-006 9/14/2022 11:00 WATER B1/C1 B1/C1 2 Peeper Peeper ug/L	OL-RAC-CAP-0001-H 3-9 in OL-4047-07 R2208712-007 9/14/2022 11:05 SOIL-CALC B1/C1 B1/C1 2 Peeper Peeper ug/kg	OL-RAC-CAP-0001-H 3-9 in OL-4047-07 R2208712-007 9/14/2022 11:05 WATER B1/C1 B1/C1 2 Peeper Peeper ug/L	OL-RAC-CAP-0001-H 9-12 in OL-4047-08 R2208712-008 9/14/2022 11:10 WATER B1/C1 B1/C1 2 Peeper Peeper ug/L	OL-RAC-CAP-0001-H 12-18 in OL-4047-09 R2208712-009 9/14/2022 11:15 SOIL-CALC B1/C1 B1/C1 2 Peeper Peeper ug/kg	OL-RAC-CAP-0001-H 12-18 in OL-4047-09 R2208712-009 9/14/2022 11:15 WATER B1/C1 B1/C1 2 Peeper Peeper ug/L	OL-RAC-CAP-0001-H 15-18 in OL-4047-10 R2208712-010 9/14/2022 11:20 SOIL-CALC B1/C1 B1/C1 2 Peeper Peeper ug/kg	OL-RAC-CAP-0001-H 15-18 in OL-4047-10 R2208712-010 9/14/2022 11:20 WATER B1/C1 B1/C1 2 Peeper Peeper ug/L	OL-RAC-CAP-0001-I 18-21 in OL-4047-11 R2208712-011 9/14/2022 11:25 SOIL-CALC B1/C1 B1/C1 2 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAC <6 in samples				%		0.1287		0.1287							
Avg TOC	Average from RAC >=6 in samples				%					0.1958			0.1958		0.1958	
Avg TOC	Measured for Sample				%											
TOC	Total Organic Carbon	N			%											
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.49 U	0.374 U							0.74 U	0.374 U	0.74 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.11 U	0.22 U							0.17 U	0.22 U	0.17 U
108-90-7	Chlorobenzene	N	428	ug/kg		0.05 U	0.22 U							0.07 U	0.22 U	0.07 U
100-41-4	Ethylbenzene	N	176	ug/kg		0.1 U	0.22 U							0.15 U	0.22 U	0.15 U
1330-20-7	Xylenes	N	561	ug/kg		0.1 U	0.253 U							0.15 U	0.253 U	0.15 U
91-20-3	Naphthalene	N	917	ug/kg		0.21 U	0.605 U							0.31 U	0.605 U	0.31 U
71-43-2	Benzene	N	760	ug/L		0.01 U	0.22 U							0.02 U	0.22 U	0.02 U
108-88-3	Toluene	N	480	ug/L		0.05 J	0.297 J							0.06 U	0.22 U	0.08 J
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L				0.19 U	0.649 U		0.35 U	0.792 U				0.98 U
83-32-9	Acenaphthene	N	861	ug/kg				16 UJ	0.649 UJ		30 UJ	0.792 UJ				84 UJ
208-96-8	Acenaphthylene	N	1301	ug/kg				6.6 UJ	0.649 UJ		12 UJ	0.792 UJ				34 UJ
120-12-7	Anthracene	N	207	ug/kg				30 UJ	0.924 UJ		61 UJ	1.21 UJ				160 UJ
86-73-7	Fluorene	N	264	ug/kg				12 UJ	0.682 UJ		22 UJ	0.825 UJ				62 UJ
85-01-8	Phenanthrene	N	543	ug/kg				40 UJ	1.21 UJ		72 UJ	1.43 UJ				198 UJ
56-55-3	Benzo(A)Anthracene	N	192	ug/kg												
50-32-8	Benzo(A)Pyrene	N	146	ug/kg												
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg												
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg												
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg												
218-01-9	Chrysene	N	253	ug/kg												
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg												
206-44-0	Fluoranthene	N	1436	ug/kg												
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg												
129-00-0	Pyrene	N	344	ug/kg												
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg												
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.118 U	0.088 U							0.118 U	0.088 U	0.118 U
	OTHER															
PH	pH	N			ph units					7.97						
SOLID	Total Solids	N			%											

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0001-I 18-21 in OL-4047-11 R2208712-011 9/14/2022 11:25 WATER B1/C1 B1/C1 2 Peeper Peeper ug/L	OL-RAC-CAP-0001-I 21-24 in OL-4047-12 R2208712-012 9/14/2022 11:30 WATER B1/C1 B1/C1 2 Peeper Peeper ug/L	OL-RAC-CAP-0002-H 3-6 in OL-4009-05 R2206019-005 6/30/2022 13:50 SOIL B1/C1 B1/C1 1 Vibracore Core ug/kg	OL-RAC-CAP-0002-H 9-12 in OL-4009-06 R2206019-006 6/30/2022 13:55 SOIL B1/C1 B1/C1 1 Vibracore Core ug/kg	OL-RAC-CAP-0002-H 3-6 in OL-4041-01 R2208481-001 9/8/2022 10:00 SOIL-CALC B1/C1 B1/C1 1 Peeper Peeper ug/kg	OL-RAC-CAP-0002-H 3-6 in OL-4041-01 R2208481-001 9/8/2022 10:00 WATER B1/C1 B1/C1 1 Peeper Peeper ug/L	OL-RAC-CAP-0002-H 3-9 in OL-4041-02 R2208481-002 9/8/2022 10:05 SOIL-CALC B1/C1 B1/C1 1 Peeper Peeper ug/kg	OL-RAC-CAP-0002-H 3-9 in OL-4041-02 R2208481-002 9/8/2022 10:05 WATER B1/C1 B1/C1 1 Peeper Peeper ug/L	OL-RAC-CAP-0002-H 9-12 in OL-4041-03 R2208481-003 9/8/2022 10:10 SOIL-CALC B1/C1 B1/C1 1 Peeper Peeper ug/kg	OL-RAC-CAP-0002-H 9-12 in OL-4041-03 R2208481-003 9/8/2022 10:10 WATER B1/C1 B1/C1 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAC <6 in samples				%							0.1287		0.1287		
Avg TOC	Average from RAC >=6 in samples				%	0.1958	0.1958									0.1958
Avg TOC	Measured for Sample				%			0.083	0.351							
TOC	Total Organic Carbon	N			%			830	3510							
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.374 U		0.57 U	1.38							
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.22 U		0.24 U	0.41							
108-90-7	Chlorobenzene	N	428	ug/kg		0.22 U		0.22 U	0.21 UJ							
100-41-4	Ethylbenzene	N	176	ug/kg		0.22 U		1.1 U	1.1 UJ							
1330-20-7	Xylenes	N	561	ug/kg		0.253 U		0.57 U	0.55 UJ							
91-20-3	Naphthalene	N	917	ug/kg		0.605 U		2.5 U	2.4 U							
71-43-2	Benzene	N	760	ug/L		0.22 U				0.01 UJ	0.22 UJ			0.02 UJ	0.22 UJ	
108-88-3	Toluene	N	480	ug/L		0.297 J				0.39 J-	2.2 J-			18 J-	66 J-	
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		2.2 U						1.58 J	5.39 J	1.23 J	2.75 J	
83-32-9	Acenaphthene	N	861	ug/kg		2.2 UJ		1.8 U	1.7 U							
208-96-8	Acenaphthylene	N	1301	ug/kg		2.2 UJ		2 U	1.9 U							
120-12-7	Anthracene	N	207	ug/kg		3.19 UJ		4.3 U	4.1 U							
86-73-7	Fluorene	N	264	ug/kg		2.31 UJ		1.9 U	1.8 U							
85-01-8	Phenanthrene	N	543	ug/kg		3.96 UJ		3.8 U	3.6 U							
56-55-3	Benzo(A)Anthracene	N	192	ug/kg				5.4 U	5.1 U							
50-32-8	Benzo(A)Pyrene	N	146	ug/kg				2.9 U	2.8 U							
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg				3.8 U	3.6 U							
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg				3 U	2.9 U							
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg				4.1 U	3.9 U							
218-01-9	Chrysene	N	253	ug/kg				2.9 U	2.8 U							
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg				2.9 U	2.8 U							
206-44-0	Fluoranthene	N	1436	ug/kg				5.3 U	5 U							
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg				3.1 UJ	3 U							
129-00-0	Pyrene	N	344	ug/kg				3.5 U	3.3 U							
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg				43 U	43 U							
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.088 U		0.008 U	0.013 J							
	OTHER															
PH	pH	N			ph units		8.27	8.87	8.37							
SOLID	Total Solids	N			%			92.6	91.4							

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0002-I 12-15 in OL-4041-04 R2208481-004 9/8/2022 10:15 SOIL-CALC B1/C1 B1/C1 1 Peeper Peeper ug/kg	OL-RAC-CAP-0002-I 12-15 in OL-4041-04 R2208481-004 9/8/2022 10:15 WATER B1/C1 B1/C1 1 Peeper Peeper ug/L	OL-RAC-CAP-0002-I 15-18 in OL-4041-05 R2208481-005 9/8/2022 10:20 WATER B1/C1 B1/C1 1 Peeper Peeper ug/L	OL-RAC-CAP-0003-H 3-6 in OL-4010-01 R2206040-001 6/30/2022 14:55 SOIL C2 C2 1 Vibracore Core ug/kg	OL-RAC-CAP-0003-H 9-12 in OL-4010-02 R2206040-002 6/30/2022 15:00 SOIL C2 C2 1 Vibracore Core ug/kg	OL-RAC-CAP-0003-H 3-6 in OL-4041-06 R2208481-006 9/8/2022 10:40 SOIL-CALC C2 C2 1 Peeper Peeper ug/kg	OL-RAC-CAP-0003-H 3-6 in OL-4041-06 R2208481-006 9/8/2022 10:40 WATER C2 C2 1 Peeper Peeper ug/L	OL-RAC-CAP-0003-H 3-9 in OL-4041-07 R2208481-007 9/8/2022 10:45 SOIL-CALC C2 C2 1 Peeper Peeper ug/kg	OL-RAC-CAP-0003-H 3-9 in OL-4041-07 R2208481-007 9/8/2022 10:45 WATER C2 C2 1 Peeper Peeper ug/L	OL-RAC-CAP-0003-H 9-12 in OL-4041-08 R2208481-008 9/8/2022 10:50 SOIL-CALC C2 C2 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAC <6 in samples				%								0.1287		0.1287	
Avg TOC	Average from RAC >=6 in samples				%		0.1958	0.1958								
Avg TOC	Measured for Sample				%				0.094	0.127						
TOC	Total Organic Carbon	N			%				940	1270						
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.74 U	0.374 U		0.84 U	0.6 U						
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.17 U	0.22 U		0.36 U	0.26 U						
108-90-7	Chlorobenzene	N	428	ug/kg		0.07 UJ	0.22 UJ		0.33 U	0.23 U						
100-41-4	Ethylbenzene	N	176	ug/kg		0.15 UJ	0.22 UJ		1.7 U	1.2 U						
1330-20-7	Xylenes	N	561	ug/kg		0.15 UJ	0.253 UJ		0.84 U	0.6 U						
91-20-3	Naphthalene	N	917	ug/kg		0.31 UJ	0.605 UJ		2.6 U	2.6 U						
71-43-2	Benzene	N	760	ug/L		0.02 UJ	0.22 UJ				0.01 UJ	0.22 UJ				0.02 UJ
108-88-3	Toluene	N	480	ug/L		4.13 J-	15.4 J-				0.04 UJ	0.22 UJ				0.35 J-
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		1.23 U	2.75 U							0.23 U	0.792 U	1.23 U
83-32-9	Acenaphthene	N	861	ug/kg		105 U	2.75 U		1.8 U	1.9 U						
208-96-8	Acenaphthylene	N	1301	ug/kg		43 U	2.75 U		2 U	2 U						
120-12-7	Anthracene	N	207	ug/kg		198 U	3.96 U		4.4 U	4.4 U						
86-73-7	Fluorene	N	264	ug/kg		77 U	2.86 U		1.9 U	1.9 U						
85-01-8	Phenanthrene	N	543	ug/kg		243 U	4.84 U		3.9 U	3.9 U						
56-55-3	Benzo(A)Anthracene	N	192	ug/kg					5.5 U	5.5 U						
50-32-8	Benzo(A)Pyrene	N	146	ug/kg					3 U	3 U						
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg					3.9 U	3.9 U						
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg					3.1 U	3.1 U						
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg					4.2 U	4.2 U						
218-01-9	Chrysene	N	253	ug/kg					3 U	3 U						
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg					3 U	3 U						
206-44-0	Fluoranthene	N	1436	ug/kg					5.4 U	5.4 U						
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg					3.2 U	3.2 U						
129-00-0	Pyrene	N	344	ug/kg					3.5 U	3.6 U						
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg					43 U	44 U						
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	2.955 U	2.2 U		0.008 J	0.009 U						
	OTHER															
PH	pH	N			ph units			9.49	8.57	9.08						
SOLID	Total Solids	N			%				89	88.7						

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
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Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0003-H 9-12 in OL-4041-08 R2208481-008 9/8/2022 10:50 WATER C2 C2 1 Peeper Peeper ug/L	OL-RAC-CAP-0003-I 12-15 in OL-4041-09 R2208481-009 9/8/2022 10:55 SOIL-CALC C2 C2 1 Peeper Peeper ug/kg	OL-RAC-CAP-0003-I 12-15 in OL-4041-09 R2208481-009 9/8/2022 10:55 WATER C2 C2 1 Peeper Peeper ug/L	OL-RAC-CAP-0003-I 15-18 in OL-4041-10 R2208481-010 9/8/2022 11:00 WATER C2 C2 1 Peeper Peeper ug/L	OL-RAC-CAP-0004-H 3-6 in OL-4010-05 R2206040-005 6/30/2022 16:15 SOIL C2 C2 1 Vibracore Core ug/kg	OL-RAC-CAP-0004-H 9-12 in OL-4010-06 R2206040-006 6/30/2022 16:20 SOIL C2 C2 1 Vibracore Core ug/kg	OL-RAC-CAP-0004-H 3-6 in OL-4041-13 R2208481-013 9/8/2022 14:00 SOIL-CALC C2 C2 1 Peeper Peeper ug/kg	OL-RAC-CAP-0004-H 3-6 in OL-4041-13 R2208481-013 9/8/2022 14:00 WATER C2 C2 1 Peeper Peeper ug/L	OL-RAC-CAP-0004-H 3-9 in OL-4041-14 R2208481-014 9/8/2022 14:05 SOIL-CALC C2 C2 1 Peeper Peeper ug/kg	OL-RAC-CAP-0004-H 3-9 in OL-4041-14 R2208481-014 9/8/2022 14:05 WATER C2 C2 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED															
Avg TOC	Average from RAC <6 in samples				%									0.1287			0.1287
Avg TOC	Average from RAC >=6 in samples				%	0.1958		0.1958	0.1958								
Avg TOC	Measured for Sample				%					0.082	0.32						
TOC	Total Organic Carbon	N			%					820	3200						
	VOLATILES																
TCB_Summ	Trichlorobenzenes	N	347	ug/kg			0.74 U	0.374 U		0.54 U	0.61 U						
DCB_Summ	Dichlorobenzenes	N	239	ug/kg			0.17 U	0.22 U		0.23 U	0.26 U						
108-90-7	Chlorobenzene	N	428	ug/kg			0.07 UJ	0.22 UJ		0.21 U	0.24 U						
100-41-4	Ethylbenzene	N	176	ug/kg			0.15 UJ	0.22 UJ		1.1 U	1.2 U						
1330-20-7	Xylenes	N	561	ug/kg			0.15 UJ	0.253 UJ		0.54 U	0.61 U						
91-20-3	Naphthalene	N	917	ug/kg			0.31 UJ	0.605 UJ		2.4 U	4.6 J						
71-43-2	Benzene	N	760	ug/L		0.22 UJ	0.02 UJ	0.22 UJ				0.01 UJ	0.22 UJ				
108-88-3	Toluene	N	480	ug/L		1.32 J-	0.62 J-	2.31 J-				0.35 J-	1.98 J-				
	SEMIVOLATILES																
108-95-2	Phenol	N	250	ug/L		2.75 U	1.23 U	2.75 U							0.23 U	0.792 U	
83-32-9	Acenaphthene	N	861	ug/kg			105 U	2.75 U		1.7 U	1.8 U						
208-96-8	Acenaphthylene	N	1301	ug/kg			43 U	2.75 U		1.9 U	2 U						
120-12-7	Anthracene	N	207	ug/kg			198 U	3.96 U		4.2 U	4.3 U						
86-73-7	Fluorene	N	264	ug/kg			77 U	2.86 U		1.8 U	1.9 U						
85-01-8	Phenanthrene	N	543	ug/kg			243 U	4.84 U		3.6 U	3.8 U						
56-55-3	Benzo(A)Anthracene	N	192	ug/kg						5.2 U	5.4 U						
50-32-8	Benzo(A)Pyrene	N	146	ug/kg						2.8 U	2.9 U						
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg						3.6 U	3.8 U						
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg						2.9 U	3 U						
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg						3.9 U	4.1 U						
218-01-9	Chrysene	N	253	ug/kg						2.8 U	2.9 U						
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg						2.8 U	2.9 U						
206-44-0	Fluoranthene	N	1436	ug/kg						5.1 U	5.3 U						
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg						3 U	3.2 U						
129-00-0	Pyrene	N	344	ug/kg						3.3 U	3.5 U						
108-95-2	Phenol	Y	250	ug/L													
83-32-9	Acenaphthene	Y	861	ug/kg													
208-96-8	Acenaphthylene	Y	1301	ug/kg													
120-12-7	Anthracene	Y	207	ug/kg													
86-73-7	Fluorene	Y	264	ug/kg													
85-01-8	Phenanthrene	Y	543	ug/kg													
	PCBs																
PCB	PCB, Total	N	295	ug/kg						44 U	45 U						
	METALS																
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg		2.955 U	2.2 U		0.008 U	0.012 J						
	OTHER																
PH	pH	N			ph units				9.69	8.05	8.31						
SOLID	Total Solids	N			%					88.3	86.7						

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0004-H 9-12 in OL-4041-15 R2208481-015 9/8/2022 14:10 SOIL-CALC C2 C2 1 Peeper Peeper ug/kg	OL-RAC-CAP-0004-H 9-12 in OL-4041-15 R2208481-015 9/8/2022 14:10 WATER C2 C2 1 Peeper Peeper ug/L	OL-RAC-CAP-0004-I 12-15 in OL-4041-16 R2208481-016 9/8/2022 14:15 SOIL-CALC C2 C2 1 Peeper Peeper ug/kg	OL-RAC-CAP-0004-I 12-15 in OL-4041-16 R2208481-016 9/8/2022 14:15 WATER C2 C2 1 Peeper Peeper ug/L	OL-RAC-CAP-0004-I 15-18 in OL-4041-17 R2208481-017 9/8/2022 14:20 WATER C2 C2 1 Peeper Peeper ug/L	OL-RAC-CAP-0005-H 3-6 in OL-4009-07 R2206019-007 6/30/2022 14:10 SOIL C2 RA-C-2A 1 Vibracore Core ug/kg	OL-RAC-CAP-0005-H 9-12 in OL-4009-08 R2206019-008 6/30/2022 14:15 SOIL C2 RA-C-2A 1 Vibracore Core ug/kg	OL-RAC-CAP-0005-H 3-6 in OL-4042-01 R2208482-001 9/8/2022 14:50 SOIL-CALC C2 RA-C-2A 1 Peeper Peeper ug/kg	OL-RAC-CAP-0005-H 3-6 in OL-4042-01 R2208482-001 9/8/2022 14:50 WATER C2 RA-C-2A 1 Peeper Peeper ug/L	OL-RAC-CAP-0005-H 3-9 in OL-4042-02 R2208482-002 9/8/2022 14:55 SOIL-CALC C2 RA-C-2A 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAC <6 in samples				%										0.1287	
Avg TOC	Average from RAC >=6 in samples				%		0.1958		0.1958	0.1958						
Avg TOC	Measured for Sample				%							0.074	0.193			
TOC	Total Organic Carbon	N			%							740	1930			
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg				0.74 U	0.374 U			0.52 U	0.54 U			
DCB_Summ	Dichlorobenzenes	N	239	ug/kg				0.17 U	0.22 U			0.22 U	0.23 U			
108-90-7	Chlorobenzene	N	428	ug/kg				0.07 UJ	0.22 UJ			0.2 U	0.21 U			
100-41-4	Ethylbenzene	N	176	ug/kg				0.15 UJ	0.22 UJ			0.99 U	1.1 U			
1330-20-7	Xylenes	N	561	ug/kg				0.15 UJ	0.253 UJ			0.52 U	0.54 U			
91-20-3	Naphthalene	N	917	ug/kg				0.31 UJ	0.605 UJ			2.7 U	2.6 U			
71-43-2	Benzene	N	760	ug/L		0.02 UJ	0.22 UJ	0.02 UJ	0.22 UJ					0.01 UJ	0.22 UJ	
108-88-3	Toluene	N	480	ug/L		1 J-	3.74 J-	7.97 J-	29.7 J-					0.95 J-	5.39 J-	
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		1.23 U	2.75 U	1.23 U	2.75 U							14 J
83-32-9	Acenaphthene	N	861	ug/kg				105 U	2.75 U			1.9 U	1.9 U			
208-96-8	Acenaphthylene	N	1301	ug/kg				43 U	2.75 U			2.1 U	2.1 U			
120-12-7	Anthracene	N	207	ug/kg				198 U	3.96 U			4.6 U	4.5 U			
86-73-7	Fluorene	N	264	ug/kg				77 U	2.86 U			2 U	2 U			
85-01-8	Phenanthrene	N	543	ug/kg				243 U	4.84 U			4 U	4 U			
56-55-3	Benzo(A)Anthracene	N	192	ug/kg								5.7 U	5.6 U			
50-32-8	Benzo(A)Pyrene	N	146	ug/kg								3.1 U	3.1 U			
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg								4 U	4 U			
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg								3.2 U	3.2 U			
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg								4.4 U	4.3 U			
218-01-9	Chrysene	N	253	ug/kg								3.1 U	3.1 U			
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg								3.1 U	3.1 U			
206-44-0	Fluoranthene	N	1436	ug/kg								5.6 U	5.5 U			
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg								3.4 U	3.3 U			
129-00-0	Pyrene	N	344	ug/kg								3.7 U	3.6 U			
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg								46 U	46 U			
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg			2.955 U	2.2 U			0.009 U	0.009 U			
	OTHER															
PH	pH	N			ph units					9.2		7.68	7.82			
SOLID	Total Solids	N			%							84.6	83.9			

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0005-H 3-9 in OL-4042-02 R2208482-002 9/8/2022 14:55 WATER C2 RA-C-2A 1 Peeper Peeper ug/L	OL-RAC-CAP-0005-H 9-12 in OL-4042-03 R2208482-003 9/8/2022 15:00 SOIL-CALC C2 RA-C-2A 1 Peeper Peeper ug/kg	OL-RAC-CAP-0005-H 9-12 in OL-4042-03 R2208482-003 9/8/2022 15:00 WATER C2 RA-C-2A 1 Peeper Peeper ug/L	OL-RAC-CAP-0005-I 12-15 in OL-4042-04 R2208482-004 9/8/2022 15:05 WATER C2 RA-C-2A 1 Peeper Peeper ug/L	OL-RAC-CAP-0006-H 0-5 in OL-4053-01 R2209873-001 10/13/2022 9:05 SOIL C2 RA-C-2B 1 Gravity Core Core ug/kg	OL-RAC-CAP-0006-H 0-4 in OL-4054-01 R2209909-001 10/14/2022 10:30 SOIL-CALC C2 RA-C-2B 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAC-CAP-0006-H 0-4 in OL-4054-01 R2209909-001 10/14/2022 10:30 WATER C2 RA-C-2B 1 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAC-CAP-0007-H 3-6 in OL-4047-18 R2208712-018 9/14/2022 14:15 SOIL-CALC C2 RA-C-2A 2 Peeper Peeper ug/kg	OL-RAC-CAP-0007-H 3-6 in OL-4047-18 R2208712-018 9/14/2022 14:15 WATER C2 RA-C-2A 2 Peeper Peeper ug/L	OL-RAC-CAP-0007-H 3-9 in OL-4047-19 R2208712-019 9/14/2022 14:20 SOIL-CALC C2 RA-C-2A 2 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAC <6 in samples				%	0.1287						0.117		0.1287		
Avg TOC	Average from RAC >=6 in samples				%			0.1958	0.1958							
Avg TOC	Measured for Sample				%											
TOC	Total Organic Carbon	N			%											
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg							0.44 U	0.34 U	0.49 U	0.374 U		
DCB_Summ	Dichlorobenzenes	N	239	ug/kg							0.1 U	0.2 U	0.11 U	0.22 U		
108-90-7	Chlorobenzene	N	428	ug/kg							0.04 U	0.2 U	0.05 U	0.22 U		
100-41-4	Ethylbenzene	N	176	ug/kg							0.09 U	0.2 U	0.1 U	0.22 U		
1330-20-7	Xylenes	N	561	ug/kg							0.09 U	0.23 U	0.1 U	0.253 U		
91-20-3	Naphthalene	N	917	ug/kg							0.19 U	0.55 U	0.21 U	0.605 U		
71-43-2	Benzene	N	760	ug/L			0.02 UJ	0.22 UJ			0.01 U	0.2 U	0.01 U	0.22 U		
108-88-3	Toluene	N	480	ug/L			0.44 J-	1.65 J-			0.04 U	0.2 U	0.07 J	0.396 J		
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		46.2 J	0.02 U	0.055 U							0.23 U	
83-32-9	Acenaphthene	N	861	ug/kg											20 UJ	
208-96-8	Acenaphthylene	N	1301	ug/kg											8.05 UJ	
120-12-7	Anthracene	N	207	ug/kg											40 UJ	
86-73-7	Fluorene	N	264	ug/kg											15 UJ	
85-01-8	Phenanthrene	N	543	ug/kg											47 UJ	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg												
50-32-8	Benzo(A)Pyrene	N	146	ug/kg												
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg												
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg												
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg												
218-01-9	Chrysene	N	253	ug/kg												
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg												
206-44-0	Fluoranthene	N	1436	ug/kg												
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg												
129-00-0	Pyrene	N	344	ug/kg												
108-95-2	Phenol	Y	250	ug/L							23 J	78 J				
83-32-9	Acenaphthene	Y	861	ug/kg							5.74 U	0.23 U				
208-96-8	Acenaphthylene	Y	1301	ug/kg							2.34 U	0.23 U				
120-12-7	Anthracene	Y	207	ug/kg							11 U	0.33 U				
86-73-7	Fluorene	Y	264	ug/kg							4.24 U	0.24 U				
85-01-8	Phenanthrene	Y	543	ug/kg							13 U	0.4 U				
	PCBs															
PCB	PCB, Total	N	295	ug/kg												
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg					0.017 U			0.118 U	0.088 U		
	OTHER															
PH	pH	N			ph units				7.03			7.09				
SOLID	Total Solids	N			%					78.4						

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C					OL-RAC-CAP-0007-H 3-9 in OL-4047-19 R2208712-019 9/14/2022 14:20 WATER C2 RA-C-2A 2 Peeper Peeper ug/L	OL-RAC-CAP-0007-I 9-12 in OL-4047-20 R2208712-020 9/14/2022 14:25 WATER C2 RA-C-2A 2 Peeper Peeper ug/L	OL-RAC-CAP-0008-H 0-3 in OL-4054-02 R2209909-003 10/14/2022 13:30 SOIL-CALC C2 RA-C-2B 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAC-CAP-0008-H 0-3 in OL-4054-02 R2209909-003 10/14/2022 13:30 WATER C2 RA-C-2B 1 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAC-CAP-0008-H 0-4 in OL-4055-01 R2209910-001 10/14/2022 12:50 SOIL C2 RA-C-2B 1 Gravity Core Core ug/kg	OL-RAC-CAP-0009-H 3-6 in OL-4010-03 R2206040-003 6/30/2022 15:35 SOIL C2 RA-C-2A 1 Vibracore Core ug/kg	OL-RAC-CAP-0009-H 9-12 in OL-4010-04 R2206040-004 6/30/2022 15:40 SOIL C2 RA-C-2A 1 Vibracore Core ug/kg	OL-RAC-CAP-0009-H 3-6 in OL-4043-01 R2208526-001 9/9/2022 11:10 SOIL-CALC C2 RA-C-2A 1 Peeper Peeper ug/kg	OL-RAC-CAP-0009-H 3-6 in OL-4043-01 R2208526-001 9/9/2022 11:10 WATER C2 RA-C-2A 1 Peeper Peeper ug/L	OL-RAC-CAP-0009-H 3-9 in OL-4043-02 R2208526-002 9/9/2022 11:15 SOIL-CALC C2 RA-C-2A 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED	Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units										
Avg TOC	Average from RAC <6 in samples			%	0.1287			0.117					0.1287	
Avg TOC	Average from RAC >=6 in samples			%		0.1958								
Avg TOC	Measured for Sample			%						0.081	0.088			
TOC	Total Organic Carbon	N		%						810	880			
	VOLATILES													
TCB_Summ	Trichlorobenzenes	N	347 ug/kg				0.44 U	0.34 U		0.49 U	0.53 U			
DCB_Summ	Dichlorobenzenes	N	239 ug/kg				0.1 U	0.2 U		0.21 U	0.23 U			
108-90-7	Chlorobenzene	N	428 ug/kg				0.04 U	0.2 U		0.19 U	0.21 U			
100-41-4	Ethylbenzene	N	176 ug/kg				0.09 U	0.2 U		0.94 U	1.1 U			
1330-20-7	Xylenes	N	561 ug/kg				0.09 U	0.23 U		0.49 U	0.53 U			
91-20-3	Naphthalene	N	917 ug/kg				0.19 U	0.55 U		3.5 J	2.4 U			
71-43-2	Benzene	N	760 ug/L				0.01 U	0.2 U				0.01 UJ	0.22 UJ	
108-88-3	Toluene	N	480 ug/L				0.04 U	0.2 U				0.27 J-	1.54 J-	
	SEMIVOLATILES													
108-95-2	Phenol	N	250 ug/L		0.792 U									1.19 J
83-32-9	Acenaphthene	N	861 ug/kg		0.792 UJ					1.8 U	1.8 U			
208-96-8	Acenaphthylene	N	1301 ug/kg		0.792 UJ					1.9 U	1.9 U			
120-12-7	Anthracene	N	207 ug/kg		1.21 UJ					4.2 U	4.2 U			
86-73-7	Fluorene	N	264 ug/kg		0.825 UJ					1.8 U	1.8 U			
85-01-8	Phenanthrene	N	543 ug/kg		1.43 UJ					3.7 U	3.7 U			
56-55-3	Benzo(A)Anthracene	N	192 ug/kg							5.2 U	5.2 U			
50-32-8	Benzo(A)Pyrene	N	146 ug/kg							2.9 U	2.9 U			
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg							3.7 U	3.7 U			
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg							3 U	3 U			
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg							4 U	4 U			
218-01-9	Chrysene	N	253 ug/kg							2.9 U	2.9 U			
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg							2.9 U	2.9 U			
206-44-0	Fluoranthene	N	1436 ug/kg							5.2 U	5.1 U			
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg							3.1 U	3.1 U			
129-00-0	Pyrene	N	344 ug/kg							3.4 U	3.4 U			
108-95-2	Phenol	Y	250 ug/L				18	61						
83-32-9	Acenaphthene	Y	861 ug/kg				5.99 U	0.24 U						
208-96-8	Acenaphthylene	Y	1301 ug/kg				2.44 U	0.24 U						
120-12-7	Anthracene	Y	207 ug/kg				11 U	0.34 U						
86-73-7	Fluorene	Y	264 ug/kg				4.42 U	0.25 U						
85-01-8	Phenanthrene	Y	543 ug/kg				14 U	0.42 U						
	PCBs													
PCB	PCB, Total	N	295 ug/kg							41 U	43 U			
	METALS													
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg					0.023 J	0.008 U	0.008 U			
	OTHER													
PH	pH	N		ph units		7.38		7.11		8.06	8.02			
SOLID	Total Solids	N		%					80.5	93.8	90.6			

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0009-H 3-9 in OL-4043-02 R2208526-002 9/9/2022 11:15 WATER C2 RA-C-2A 1 Peeper Peeper ug/L	OL-RAC-CAP-0009-H 9-12 in OL-4043-03 R2208526-003 9/9/2022 11:20 SOIL-CALC C2 RA-C-2A 1 Peeper Peeper ug/kg	OL-RAC-CAP-0009-H 9-12 in OL-4043-03 R2208526-003 9/9/2022 11:20 WATER C2 RA-C-2A 1 Peeper Peeper ug/L	OL-RAC-CAP-0009-I 12-15 in OL-4043-04 R2208526-004 9/9/2022 11:25 WATER C2 RA-C-2A 1 Peeper Peeper ug/L	OL-RAC-CAP-0010-H 0-6 in OL-4056-01 R2210039-001 10/19/2022 12:30 SOIL C2 RA-C-2D 2 Gravity Core Core ug/kg	OL-RAC-CAP-0010-H 0-6 in OL-4057-01 R2210038-001 10/19/2022 14:00 SOIL-CALC C2 RA-C-2D 2 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAC-CAP-0010-H 0-6 in OL-4057-01 R2210038-001 10/19/2022 14:00 WATER C2 RA-C-2D 2 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAC-CAP-0011-H 2-5 in OL-4021-01 R2206415-001 7/13/2022 12:45 SOIL-CALC C2 RA-C-2C 1 Peeper Peeper ug/kg	OL-RAC-CAP-0011-H 2-5 in OL-4021-01 R2206415-001 7/13/2022 12:45 WATER C2 RA-C-2C 1 Peeper Peeper ug/L	OL-RAC-CAP-0011-H 5-8 in OL-4021-02 R2206415-002 7/13/2022 12:50 SOIL-CALC C2 RA-C-2C 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAC <6 in samples				%	0.1287						0.117		0.1287		
Avg TOC	Average from RAC >=6 in samples				%			0.1958	0.1958							
Avg TOC	Measured for Sample				%											
TOC	Total Organic Carbon	N			%											
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg							0.44 U	0.34 U	0.49 U	0.374 U	0.49 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg							0.1 U	0.2 U	0.11 U	0.22 U	0.11 U	
108-90-7	Chlorobenzene	N	428	ug/kg							0.04 UJ	0.2 UJ	0.05 U	0.22 U	0.05 U	
100-41-4	Ethylbenzene	N	176	ug/kg							0.09 UJ	0.2 UJ	0.1 U	0.22 U	0.1 U	
1330-20-7	Xylenes	N	561	ug/kg							0.09 UJ	0.23 UJ	0.1 U	0.253 U	0.1 U	
91-20-3	Naphthalene	N	917	ug/kg							0.19 UJ	0.55 UJ	0.21 U	0.605 U	0.21 U	
71-43-2	Benzene	N	760	ug/L			0.02 UJ	0.22 UJ			0.01 UJ	0.2 UJ	0.01 U	0.22 U	0.01 U	
108-88-3	Toluene	N	480	ug/L			0.65 J-	2.42 J-			0.04 UJ	0.2 UJ	0.06 J	0.341 J	0.04 J	
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		4.07 J	4.13 J	9.24 J					11 U	36.3 U	7.09 U	
83-32-9	Acenaphthene	N	861	ug/kg									151 U	6.05 U	102 U	
208-96-8	Acenaphthylene	N	1301	ug/kg									59 U	5.83 U	40 U	
120-12-7	Anthracene	N	207	ug/kg									257 U	7.81 U	174 U	
86-73-7	Fluorene	N	264	ug/kg									126 U	7.15 U	85 U	
85-01-8	Phenanthrene	N	543	ug/kg									362 U	11 U	242 U	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg												
50-32-8	Benzo(A)Pyrene	N	146	ug/kg												
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg												
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg												
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg												
218-01-9	Chrysene	N	253	ug/kg												
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg												
206-44-0	Fluoranthene	N	1436	ug/kg												
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg												
129-00-0	Pyrene	N	344	ug/kg												
108-95-2	Phenol	Y	250	ug/L							11 J+	38 J+				
83-32-9	Acenaphthene	Y	861	ug/kg							4.99 U	0.2 U				
208-96-8	Acenaphthylene	Y	1301	ug/kg							2.03 U	0.2 U				
120-12-7	Anthracene	Y	207	ug/kg							9.21 U	0.28 U				
86-73-7	Fluorene	Y	264	ug/kg							3.71 U	0.21 U				
85-01-8	Phenanthrene	Y	543	ug/kg							12 U	0.35 U				
	PCBs															
PCB	PCB, Total	N	295	ug/kg												
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg					0.016 U						
	OTHER															
PH	pH	N			ph units				7.24			9.53		8.36		
SOLID	Total Solids	N			%					82.3						

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0011-H 5-8 in OL-4021-02 R2206415-002 7/13/2022 12:50 WATER C2 RA-C-2C 1 Peeper Peeper ug/L	OL-RAC-CAP-0011-H 0-6 in OL-4022-01 R2206481-001 7/13/2022 16:15 SOIL C2 RA-C-2C 1 Gravity Core Core ug/kg	OL-RAC-CAP-0012-H 0-6 in OL-4056-02 R2210039-002 10/19/2022 15:05 SOIL C2 RA-C-2D 2 Gravity Core Core ug/kg	OL-RAC-CAP-0012-H 0-6 in OL-4058-01 R2210132-001 10/19/2022 16:30 SOIL-CALC C2 RA-C-2D 2 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAC-CAP-0012-H 0-6 in OL-4058-01 R2210132-001 10/19/2022 16:30 WATER C2 RA-C-2D 2 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAC-CAP-0013-H 0-6 in OL-4003-01 R2205685-001 6/20/2022 14:00 SOIL C2 RA-C-2C 1 Gravity Core Core ug/kg	OL-RAC-CAP-0013-H 2-5 in OL-4029-01 R2206912-001 7/27/2022 8:20 SOIL-CALC C2 RA-C-2C 1 Peeper Peeper ug/kg	OL-RAC-CAP-0013-H 2-5 in OL-4029-01 R2206912-001 7/27/2022 8:20 WATER C2 RA-C-2C 1 Peeper Peeper ug/L	OL-RAC-CAP-0013-H 5-8 in OL-4029-02 R2206912-002 7/27/2022 8:25 SOIL-CALC C2 RA-C-2C 1 Peeper Peeper ug/kg	OL-RAC-CAP-0013-H 5-8 in OL-4029-02 R2206912-002 7/27/2022 8:25 WATER C2 RA-C-2C 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAC <6 in samples				%	0.1287	0.117			0.117	0.117		0.1287		0.1287
Avg TOC	Average from RAC >=6 in samples				%										
Avg TOC	Measured for Sample				%										
TOC	Total Organic Carbon	N			%										
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.374 U			0.44 U	0.34 U		0.49 U	0.374 U	0.49 U	0.374 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.22 U			0.1 U	0.2 U		0.11 U	0.22 U	0.11 U	0.22 U
108-90-7	Chlorobenzene	N	428	ug/kg		0.22 U			0.05 J	0.22 J		0.05 UJ	0.22 UJ	0.05 U	0.22 U
100-41-4	Ethylbenzene	N	176	ug/kg		0.22 U			0.09 U	0.2 U		0.1 UJ	0.22 UJ	0.1 U	0.22 U
1330-20-7	Xylenes	N	561	ug/kg		0.253 U			0.2 J	0.49 J		0.1 UJ	0.253 UJ	0.1 U	0.253 U
91-20-3	Naphthalene	N	917	ug/kg		0.605 U	2.5 U		0.23 J	0.66 J	2.5 U	0.21 UJ	0.605 UJ	0.21 U	0.605 U
71-43-2	Benzene	N	760	ug/L		0.22 U			0.09	1.5		0.01 UJ	0.22 UJ	0.01 U	0.22 U
108-88-3	Toluene	N	480	ug/L		0.231 J			0.1 J	0.58 J		0.04 UJ	0.22 UJ	0.04 U	0.22 U
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		24.2 U						0.04 J	0.132 J	0.05 J	0.176 J
83-32-9	Acenaphthene	N	861	ug/kg		4.07 U						1.37 U	0.055 U	1.37 U	0.055 U
208-96-8	Acenaphthylene	N	1301	ug/kg		3.96 U						0.56 U	0.055 U	0.56 U	0.055 U
120-12-7	Anthracene	N	207	ug/kg		5.28 U						2.57 U	0.0781 U	2.57 U	0.0781 U
86-73-7	Fluorene	N	264	ug/kg		4.84 U						1.01 U	0.0572 U	1.01 U	0.0572 U
85-01-8	Phenanthrene	N	543	ug/kg		7.37 U						3.18 U	0.0968 U	3.18 U	0.0968 U
56-55-3	Benzo(A)Anthracene	N	192	ug/kg			5.3 U				5.3 U				
50-32-8	Benzo(A)Pyrene	N	146	ug/kg			5.8 J				2.9 U				
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg			7				3.7 U				
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg			4.4 J				3 U				
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg			4 U				4 U				
218-01-9	Chrysene	N	253	ug/kg			4.3 J				2.9 U				
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg			2.9 U				2.9 U				
206-44-0	Fluoranthene	N	1436	ug/kg			9.2				5.2 U				
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg			4.9 J				3.1 U				
129-00-0	Pyrene	N	344	ug/kg			7.4				3.4 U				
108-95-2	Phenol	Y	250	ug/L					5.86	20					
83-32-9	Acenaphthene	Y	861	ug/kg					5.49 U	0.22 U					
208-96-8	Acenaphthylene	Y	1301	ug/kg					2.24 U	0.22 U					
120-12-7	Anthracene	Y	207	ug/kg					10 U	0.31 U					
86-73-7	Fluorene	Y	264	ug/kg					4.06 U	0.23 U					
85-01-8	Phenanthrene	Y	543	ug/kg					13 U	0.39 U					
	PCBs														
PCB	PCB, Total	N	295	ug/kg			31 U				45 U				
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg		0.009 J	0.016 U			0.008 U				
	OTHER														
PH	pH	N			ph units	8.2				9.46			8.03		8.48
SOLID	Total Solids	N			%		87.2	83.5			90.8				

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0014-H 0-6 in OL-4059-01 R2210133-001 10/20/2022 12:25 SOIL C3 RA-C-1B 1 Gravity Core Core ug/kg	OL-RAC-CAP-0014-H 0-6 in OL-4062-01 R2210257-001 10/25/2022 12:10 SOIL-CALC C3 RA-C-1B 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAC-CAP-0014-H 0-6 in OL-4062-01 R2210257-001 10/25/2022 12:10 WATER C3 RA-C-1B 1 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAC-CAP-0015-H 0-6 in OL-4063-01 R2210258-001 10/25/2022 13:10 SOIL C3 RA-C-1C 1 Gravity Core Core ug/kg	OL-RAC-CAP-0015-H 0-6 in OL-4064-01 R2210304-001 10/25/2022 15:45 SOIL-CALC C3 RA-C-1C 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAC-CAP-0015-H 0-6 in OL-4064-01 R2210304-001 10/25/2022 15:45 WATER C3 RA-C-1C 1 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAC-CAP-0016-H 3-6 in OL-4010-07 R2206040-007 7/1/2022 8:25 SOIL C3 RA-C-1A 1 Vibracore Core ug/kg	OL-RAC-CAP-0016-H 6-9 in OL-4010-08 R2206040-008 7/1/2022 8:30 SOIL C3 RA-C-1A 1 Vibracore Core ug/kg	OL-RAC-CAP-0016-H 3-6 in OL-4043-05 R2208526-005 9/9/2022 12:10 SOIL-CALC C3 RA-C-1A 1 Peeper Peeper ug/kg	OL-RAC-CAP-0016-H 3-6 in OL-4043-05 R2208526-005 9/9/2022 12:10 WATER C3 RA-C-1A 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAC <6 in samples				%			0.117				0.117				0.1287
Avg TOC	Average from RAC >=6 in samples				%											
Avg TOC	Measured for Sample				%								0.153	0.203		
TOC	Total Organic Carbon	N			%								1530	2030		
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg			0.44 U	0.34 U		0.44 U	0.34 U	0.52 U	0.77 U		
DCB_Summ	Dichlorobenzenes	N	239	ug/kg			0.1 U	0.2 U		0.1 U	0.2 U	0.22 U	0.33 U		
108-90-7	Chlorobenzene	N	428	ug/kg			0.04 UJ	0.2 UJ		0.04 UJ	0.2 UJ	0.2 U	0.3 U		
100-41-4	Ethylbenzene	N	176	ug/kg			0.09 UJ	0.2 UJ		0.09 UJ	0.2 UJ	1 U	1.5 U		
1330-20-7	Xylenes	N	561	ug/kg			0.09 UJ	0.23 UJ		0.09 UJ	0.23 UJ	0.52 U	0.77 U		
91-20-3	Naphthalene	N	917	ug/kg			0.19 UJ	0.55 UJ		0.19 UJ	0.55 UJ	2.5 U	2.5 U		
71-43-2	Benzene	N	760	ug/L			0.01 UJ	0.2 UJ		0.01 UJ	0.2 UJ			0.01 UJ	0.22 UJ
108-88-3	Toluene	N	480	ug/L			0.04 UJ	0.2 UJ		0.04 UJ	0.2 UJ			0.18 J	1.012 J
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L										0.81 U	2.75 U
83-32-9	Acenaphthene	N	861	ug/kg								1.8 U	1.8 U		
208-96-8	Acenaphthylene	N	1301	ug/kg								2 U	2 U		
120-12-7	Anthracene	N	207	ug/kg								4.4 U	4.4 U		
86-73-7	Fluorene	N	264	ug/kg								1.9 U	1.9 U		
85-01-8	Phenanthrene	N	543	ug/kg								3.8 U	3.8 U		
56-55-3	Benzo(A)Anthracene	N	192	ug/kg								5.5 U	5.4 U		
50-32-8	Benzo(A)Pyrene	N	146	ug/kg								3 U	2.9 U		
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg								3.8 U	3.8 U		
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg								3.1 U	3.1 U		
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg								4.1 U	4.1 U		
218-01-9	Chrysene	N	253	ug/kg								3 U	2.9 U		
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg								3 U	2.9 U		
206-44-0	Fluoranthene	N	1436	ug/kg								5.4 U	5.3 U		
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg								3.2 U	3.2 U		
129-00-0	Pyrene	N	344	ug/kg								3.5 U	3.5 U		
108-95-2	Phenol	Y	250	ug/L			0.29 J	0.98 J		1.44	4.9				
83-32-9	Acenaphthene	Y	861	ug/kg			4.49 U	0.18 U		4.49 U	0.18 U				
208-96-8	Acenaphthylene	Y	1301	ug/kg			1.83 U	0.18 U		1.83 U	0.18 U				
120-12-7	Anthracene	Y	207	ug/kg			8.55 U	0.26 U		8.22 U	0.25 U				
86-73-7	Fluorene	Y	264	ug/kg			3.36 U	0.19 U		3.36 U	0.19 U				
85-01-8	Phenanthrene	Y	543	ug/kg			11 U	0.32 U		10 U	0.31 U				
	PCBs															
PCB	PCB, Total	N	295	ug/kg								45 U	43 U		
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.033			0.026			0.01 J	0.01 J		
	OTHER															
PH	pH	N			ph units			7.06			7.11	8.52	8.3		
SOLID	Total Solids	N			%	70.9			76.5			87.1	90.2		

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0016-H 6-9 in OL-4043-06 R2208526-006 9/9/2022 12:15 SOIL-CALC C3 RA-C-1A 1 Peeper Peeper ug/kg	OL-RAC-CAP-0016-H 6-9 in OL-4043-06 R2208526-006 9/9/2022 12:15 WATER C3 RA-C-1A 1 Peeper Peeper ug/L	OL-RAC-CAP-0016-I 9-12 in OL-4043-07 R2208526-007 9/9/2022 12:20 WATER C3 RA-C-1A 1 Peeper Peeper ug/L	OL-RAC-CAP-0017-H 3-6 in OL-4009-01/OL-4009-03 R2206019-001 6/30/2022 11:10 SOIL C3 RA-C-1A 1 Vibracore Core ug/kg	Duplicate OL-RAC-CAP-0017-H 3-6 in OL-4009-01/OL-4009-03 R2206019-003 6/30/2022 11:10 SOIL C3 RA-C-1A 1 Vibracore Core ug/kg	OL-RAC-CAP-0017-H 6-9 in OL-4009-02 R2206019-002 6/30/2022 11:15 SOIL C3 RA-C-1A 1 Vibracore Core ug/kg	OL-RAC-CAP-0017-H 3-6 in OL-4068-02 R2210421-003 10/28/2022 13:50 SOIL-CALC C3 RA-C-1A 1 Peeper Peeper ug/kg	OL-RAC-CAP-0017-H 3-6 in OL-4068-02 R2210421-003 10/28/2022 13:50 WATER C3 RA-C-1A 1 Peeper Peeper ug/L	OL-RAC-CAP-0017-H 6-9 in OL-4068-03 R2210421-004 10/28/2022 13:55 SOIL-CALC C3 RA-C-1A 1 Peeper Peeper ug/kg	OL-RAC-CAP-0017-H 6-9 in OL-4068-03 R2210421-004 10/28/2022 13:55 WATER C3 RA-C-1A 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAC <6 in samples				%								0.1287		
Avg TOC	Average from RAC >=6 in samples				%		0.1958	0.1958							0.1958
Avg TOC	Measured for Sample				%				0.306	0.306	0.116				
TOC	Total Organic Carbon	N			%				1310	3060	1160				
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg					0.62 U	0.5 U	0.52 U				
DCB_Summ	Dichlorobenzenes	N	239	ug/kg					0.27 U	0.21 U	0.22 U				
108-90-7	Chlorobenzene	N	428	ug/kg					0.24 U	0.2 U	0.2 U				
100-41-4	Ethylbenzene	N	176	ug/kg					1.2 U	0.96 U	0.99 U				
1330-20-7	Xylenes	N	561	ug/kg					0.62 U	0.5 U	0.52 U				
91-20-3	Naphthalene	N	917	ug/kg					2.6 J	2.6 U	3.5 J				
71-43-2	Benzene	N	760	ug/L		0.02 UJ	0.22 UJ					0.01 UJ	0.22 UJ	0.02 UJ	0.22 UJ
108-88-3	Toluene	N	480	ug/L		0.47 J-	1.76 J-					0.47 J-	2.64 J-	0.77 J-	2.86 J-
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		1.23 U	2.75 U					5.16 J	17.6 J	5.4 J	12.1 J
83-32-9	Acenaphthene	N	861	ug/kg					1.8 U	1.8 U	1.9 U				
208-96-8	Acenaphthylene	N	1301	ug/kg					2 U	2 U	2.1 U				
120-12-7	Anthracene	N	207	ug/kg					4.4 U	4.4 U	4.5 U				
86-73-7	Fluorene	N	264	ug/kg					1.9 U	1.9 U	2 U				
85-01-8	Phenanthrene	N	543	ug/kg					4 J	3.9 U	4 U				
56-55-3	Benzo(A)Anthracene	N	192	ug/kg					5.5 U	5.5 U	5.6 U				
50-32-8	Benzo(A)Pyrene	N	146	ug/kg					3.6 J	3.2 J	3.1 U				
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg					5.2 J	4.9 J	4 U				
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg					3.1 U	3.1 U	3.2 U				
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg					4.2 U	4.2 U	4.3 U				
218-01-9	Chrysene	N	253	ug/kg					4.4 J	3.2 J	3.1 U				
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg					3 U	3 U	3.1 U				
206-44-0	Fluoranthene	N	1436	ug/kg					9.8	8.9	5.5 U				
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg					3.2 UJ	3.2 UJ	3.3 UJ				
129-00-0	Pyrene	N	344	ug/kg					8.5	7.6	4 J				
108-95-2	Phenol	Y	250	ug/L											
83-32-9	Acenaphthene	Y	861	ug/kg											
208-96-8	Acenaphthylene	Y	1301	ug/kg											
120-12-7	Anthracene	Y	207	ug/kg											
86-73-7	Fluorene	Y	264	ug/kg											
85-01-8	Phenanthrene	Y	543	ug/kg											
	PCBs														
PCB	PCB, Total	N	295	ug/kg					43 U	44 U	43 U				
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg				0.01 J	0.015 J	0.008 U				
	OTHER														
PH	pH	N			ph units			8.06	8.37	8.52	8.17				
SOLID	Total Solids	N			%				91.1	90.4	88.4				

Notes:
U - Not Detected
J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
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Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0017-I 9-12 in OL-4068-04 R2210421-005 10/28/2022 14:00 WATER C3 RA-C-1A 1 Peeper Peeper ug/L	OL-RAC-CAP-0018-H 0-6 in OL-4058-02 R2210132-003 10/20/2022 15:20 SOIL-CALC C3 RA-C-1B 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAC-CAP-0018-H 0-6 in OL-4058-02 R2210132-003 10/20/2022 15:20 WATER C3 RA-C-1B 1 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAC-CAP-0018-H 0-6 in OL-4059-02 R2210133-002 10/20/2022 14:25 SOIL C3 RA-C-1B 1 Gravity Core Core ug/kg	OL-RAC-CAP-0019-H 0-6 in OL-4009-04 R2206019-004 6/30/2022 12:00 SOIL C3 RA-C-1D 1 Gravity Core Core ug/kg	OL-RAC-CAP-0019-H 2-5 in OL-4076-07 R2210677-001 11/3/2022 14:45 SOIL-CALC C3 RA-C-1D 1 Peeper Peeper ug/kg	OL-RAC-CAP-0019-H 2-5 in OL-4076-07 R2210677-001 11/3/2022 14:45 WATER C3 RA-C-1D 1 Peeper Peeper ug/L	OL-RAC-CAP-0020-H 3-6 in OL-4008-17 R2206018-017 6/30/2022 10:20 SOIL C3 C3 1 Vibracore Core ug/kg	OL-RAC-CAP-0020-H 9-12 in OL-4008-18 R2206018-018 6/30/2022 10:25 SOIL C3 C3 1 Vibracore Core ug/kg	OL-RAC-CAP-0020-H 3-6 in OL-4071-01 R2210518-001 11/1/2022 9:00 SOIL-CALC C3 C3 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAC <6 in samples				%			0.117		0.117		0.1287				
Avg TOC	Average from RAC >=6 in samples				%	0.1958										
Avg TOC	Measured for Sample				%									0.039	0.081	
TOC	Total Organic Carbon	N			%									390	810	
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg			0.44 U	0.34 U			0.49 U	0.374 U	0.57 U	0.55 U		
DCB_Summ	Dichlorobenzenes	N	239	ug/kg			0.1 U	0.2 U			0.11 U	0.22 U	0.24 U	0.24 U		
108-90-7	Chlorobenzene	N	428	ug/kg			0.04 U	0.2 U			0.05 U	0.22 U	0.22 U	0.22 U		
100-41-4	Ethylbenzene	N	176	ug/kg			0.09 U	0.2 U			0.1 U	0.22 U	1.1 U	1.1 U		
1330-20-7	Xylenes	N	561	ug/kg			0.09 U	0.23 U			0.1 U	0.253 U	0.57 U	0.55 U		
91-20-3	Naphthalene	N	917	ug/kg			0.19 U	0.55 U		2.7 U	0.21 U	0.605 U	2.8 U	2.9 U		
71-43-2	Benzene	N	760	ug/L			0.01 U	0.2 U			0.01 U	0.22 U			0.01 UJ	
108-88-3	Toluene	N	480	ug/L			0.04 U	0.2 U			0.54	3.08			0.04 UJ	
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L							16	56.1				
83-32-9	Acenaphthene	N	861	ug/kg							36 U	1.43 U	2 U	2.1 U		
208-96-8	Acenaphthylene	N	1301	ug/kg							15 U	1.43 U	2.2 U	2.2 U		
120-12-7	Anthracene	N	207	ug/kg							65 U	1.98 U	4.8 U	4.9 U		
86-73-7	Fluorene	N	264	ug/kg							25 U	1.43 U	2.1 U	2.1 U		
85-01-8	Phenanthrene	N	543	ug/kg							80 U	2.42 U	4.2 U	4.3 U		
56-55-3	Benzo(A)Anthracene	N	192	ug/kg						5.7 U			5.9 U	6.1 U		
50-32-8	Benzo(A)Pyrene	N	146	ug/kg						3.1 U			3.2 U	3.3 U		
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg						4 U			4.2 U	4.3 U		
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg						3.2 U			3.3 U	3.5 U		
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg						4.4 U			4.5 U	4.7 U		
218-01-9	Chrysene	N	253	ug/kg						3.1 U			3.2 U	3.3 U		
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg						3.1 U			3.2 U	3.3 U		
206-44-0	Fluoranthene	N	1436	ug/kg						5.6 U			5.8 U	6 U		
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg						3.4 UJ			3.5 UJ	3.6 UJ		
129-00-0	Pyrene	N	344	ug/kg						3.7 U			3.8 U	3.9 U		
108-95-2	Phenol	Y	250	ug/L			1 J	3.4 J								
83-32-9	Acenaphthene	Y	861	ug/kg			4.49 U	0.18 U								
208-96-8	Acenaphthylene	Y	1301	ug/kg			1.83 U	0.18 U								
120-12-7	Anthracene	Y	207	ug/kg			8.55 U	0.26 U								
86-73-7	Fluorene	Y	264	ug/kg			3.36 U	0.19 U								
85-01-8	Phenanthrene	Y	543	ug/kg			11 U	0.32 U								
	PCBs															
PCB	PCB, Total	N	295	ug/kg						46 U			46 U	49 U		
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg				0.017 J	0.009 J			0.008 U	0.01 U		
	OTHER															
PH	pH	N			ph units	8.26		7.22				9.9	8.22	8		
SOLID	Total Solids	N			%				92	86			84.7	81.4		

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0020-H 3-6 in OL-4071-01 R2210518-001 11/1/2022 9:00 WATER C3 C3 1 Peeper Peeper ug/L	OL-RAC-CAP-0020-H 3-9 in OL-4071-02 R2210518-002 11/1/2022 9:05 SOIL-CALC C3 C3 1 Peeper Peeper ug/kg	OL-RAC-CAP-0020-H 3-9 in OL-4071-02 R2210518-002 11/1/2022 9:05 WATER C3 C3 1 Peeper Peeper ug/L	OL-RAC-CAP-0020-H 9-12 in OL-4071-03 R2210518-003 11/1/2022 9:10 SOIL-CALC C3 C3 1 Peeper Peeper ug/kg	OL-RAC-CAP-0020-H 9-12 in OL-4071-03 R2210518-003 11/1/2022 9:10 WATER C3 C3 1 Peeper Peeper ug/L	OL-RAC-CAP-0020-I 12-15 in OL-4071-04 R2210518-004 11/1/2022 9:15 SOIL-CALC C3 C3 1 Peeper Peeper ug/kg	OL-RAC-CAP-0020-I 12-15 in OL-4071-04 R2210518-004 11/1/2022 9:15 WATER C3 C3 1 Peeper Peeper ug/L	OL-RAC-CAP-0020-I 15-18 in OL-4071-05 R2210518-005 11/1/2022 9:20 WATER C3 C3 1 Peeper Peeper ug/L	OL-RAC-CAP-0021-H 3-6 in OL-4008-19 R2206018-019 6/30/2022 10:50 SOIL C3 C3 1 Vibracore Core ug/kg	OL-RAC-CAP-0021-H 9-12 in OL-4008-20 R2206018-020 6/30/2022 10:55 SOIL C3 C3 1 Vibracore Core ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAC <6 in samples				%	0.1287		0.1287								
Avg TOC	Average from RAC >=6 in samples				%					0.1958		0.1958	0.1958			
Avg TOC	Measured for Sample				%									0.12	0.09	
TOC	Total Organic Carbon	N			%									1200	900	
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg							0.74 U	0.374 U		0.55 U	0.54 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg							0.17 U	0.22 U		0.24 U	0.23 U	
108-90-7	Chlorobenzene	N	428	ug/kg							0.07 UJ	0.22 UJ		0.22 U	0.21 U	
100-41-4	Ethylbenzene	N	176	ug/kg							0.15 UJ	0.22 UJ		1.1 U	1.1 U	
1330-20-7	Xylenes	N	561	ug/kg							0.15 UJ	0.253 UJ		0.55 U	0.54 U	
91-20-3	Naphthalene	N	917	ug/kg							0.31 UJ	0.605 UJ		3.1 J	2.6 U	
71-43-2	Benzene	N	760	ug/L		0.22 UJ			0.02 UJ	0.22 UJ	0.02 UJ	0.22 UJ				
108-88-3	Toluene	N	480	ug/L		0.22 UJ			0.8 J-	2.97 J-	0.74 J-	2.75 J-				
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L			0.42 U	1.43 U	9.83 J	22 J	11 J	24.2 J				
83-32-9	Acenaphthene	N	861	ug/kg							54 U	1.43 U		1.9 U	1.9 U	
208-96-8	Acenaphthylene	N	1301	ug/kg							22 U	1.43 U		2.1 U	2 U	
120-12-7	Anthracene	N	207	ug/kg							99 U	1.98 U		4.6 U	4.5 U	
86-73-7	Fluorene	N	264	ug/kg							38 U	1.43 U		2 U	1.9 U	
85-01-8	Phenanthrene	N	543	ug/kg							121 U	2.42 U		4 U	3.9 U	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg										5.7 U	5.6 U	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg										3.1 U	3 U	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg										4.1 J	3.9 U	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg										3.2 U	3.1 U	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg										4.3 U	4.2 U	
218-01-9	Chrysene	N	253	ug/kg										3.1 U	3 U	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg										3.1 U	3 U	
206-44-0	Fluoranthene	N	1436	ug/kg										6.3 J	5.5 U	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg										3.3 UJ	3.3 UJ	
129-00-0	Pyrene	N	344	ug/kg										5.5 J	3.6 U	
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg										46 UJ	43 U	
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg						0.296 U	0.22 U		0.009 U	0.011 J	
	OTHER															
PH	pH	N			ph units								8.94	8.05	8.47	
SOLID	Total Solids	N			%									86.2	89.1	

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0021-H 3-6 in OL-4071-06 R2210518-006 11/1/2022 9:45 SOIL-CALC C3 C3 1 Peeper Peeper ug/kg	OL-RAC-CAP-0021-H 3-6 in OL-4071-06 R2210518-006 11/1/2022 9:45 WATER C3 C3 1 Peeper Peeper ug/L	OL-RAC-CAP-0021-H 3-9 in OL-4071-07 R2210518-007 11/1/2022 9:50 SOIL-CALC C3 C3 1 Peeper Peeper ug/kg	OL-RAC-CAP-0021-H 3-9 in OL-4071-07 R2210518-007 11/1/2022 9:50 WATER C3 C3 1 Peeper Peeper ug/L	OL-RAC-CAP-0021-H 9-12 in OL-4071-08 R2210518-008 11/1/2022 9:55 SOIL-CALC C3 C3 1 Peeper Peeper ug/kg	OL-RAC-CAP-0021-H 9-12 in OL-4071-08 R2210518-008 11/1/2022 9:55 WATER C3 C3 1 Peeper Peeper ug/L	OL-RAC-CAP-0021-I 12-15 in OL-4071-09 R2210518-009 11/1/2022 10:00 SOIL-CALC C3 C3 1 Peeper Peeper ug/kg	OL-RAC-CAP-0021-I 12-15 in OL-4071-09 R2210518-009 11/1/2022 10:00 WATER C3 C3 1 Peeper Peeper ug/L	OL-RAC-CAP-0021-I 15-18 in OL-4071-10 R2210518-010 11/1/2022 10:05 WATER C3 C3 1 Peeper Peeper ug/L	OL-RAC-CAP-0022-H 3-6 in OL-4071-11 R2210518-011 11/1/2022 10:15 SOIL-CALC C3 C3 2 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAC <6 in samples				%		0.1287		0.1287							
Avg TOC	Average from RAC >=6 in samples				%							0.1958		0.1958	0.1958	
Avg TOC	Measured for Sample				%											
TOC	Total Organic Carbon	N			%											
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg									0.74 U	0.374 U		0.49 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg									0.17 U	0.22 U		0.11 U
108-90-7	Chlorobenzene	N	428	ug/kg									0.07 UJ	0.22 UJ		0.05 UJ
100-41-4	Ethylbenzene	N	176	ug/kg									0.15 UJ	0.22 UJ		0.1 UJ
1330-20-7	Xylenes	N	561	ug/kg									0.15 UJ	0.253 UJ		0.1 UJ
91-20-3	Naphthalene	N	917	ug/kg									0.31 UJ	0.605 UJ		0.21 UJ
71-43-2	Benzene	N	760	ug/L		0.01 UJ	0.22 UJ				0.02 UJ	0.22 UJ	0.02 UJ	0.22 UJ		0.01 UJ
108-88-3	Toluene	N	480	ug/L		0.14 J	0.77 J				0.2 J	0.737 J	0.3 J-	1.1 J-		0.06 J
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L				0.42 U	1.43 U	0.64 U	1.43 U	0.64 U	1.43 U			
83-32-9	Acenaphthene	N	861	ug/kg								54 U	1.43 U			
208-96-8	Acenaphthylene	N	1301	ug/kg								22 U	1.43 U			
120-12-7	Anthracene	N	207	ug/kg								99 U	1.98 U			
86-73-7	Fluorene	N	264	ug/kg								38 U	1.43 U			
85-01-8	Phenanthrene	N	543	ug/kg								121 U	2.42 U			
56-55-3	Benzo(A)Anthracene	N	192	ug/kg												
50-32-8	Benzo(A)Pyrene	N	146	ug/kg												
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg												
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg												
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg												
218-01-9	Chrysene	N	253	ug/kg												
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg												
206-44-0	Fluoranthene	N	1436	ug/kg												
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg												
129-00-0	Pyrene	N	344	ug/kg												
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg												
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg							0.296 U	0.22 U		0.591 U	
	OTHER															
PH	pH	N			ph units									7.71		
SOLID	Total Solids	N			%											

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0022-H 3-6 in OL-4071-11 R2210518-011 11/1/2022 10:15 WATER C3 C3 2 Peeper Peeper ug/L	OL-RAC-CAP-0022-H 3-9 in OL-4071-12 R2210518-012 11/1/2022 10:20 SOIL-CALC C3 C3 2 Peeper Peeper ug/kg	OL-RAC-CAP-0022-H 3-9 in OL-4071-12 R2210518-012 11/1/2022 10:20 WATER C3 C3 2 Peeper Peeper ug/L	OL-RAC-CAP-0022-H 9-12 in OL-4071-13 R2210518-013 11/1/2022 10:25 WATER C3 C3 2 Peeper Peeper ug/L	OL-RAC-CAP-0022-H 12-18 in OL-4071-14 R2210518-014 11/1/2022 10:30 SOIL-CALC C3 C3 2 Peeper Peeper ug/kg	OL-RAC-CAP-0022-H 12-18 in OL-4071-14 R2210518-014 11/1/2022 10:30 WATER C3 C3 2 Peeper Peeper ug/L	OL-RAC-CAP-0022-H 15-18 in OL-4071-15 R2210518-015 11/1/2022 10:35 SOIL-CALC C3 C3 2 Peeper Peeper ug/kg	OL-RAC-CAP-0022-H 15-18 in OL-4071-15 R2210518-015 11/1/2022 10:35 WATER C3 C3 2 Peeper Peeper ug/L	OL-RAC-CAP-0022-I 18-21 in OL-4071-16 R2210518-016 11/1/2022 10:40 SOIL-CALC C3 C3 2 Peeper Peeper ug/kg	OL-RAC-CAP-0022-I 18-21 in OL-4071-16 R2210518-016 11/1/2022 10:40 WATER C3 C3 2 Peeper Peeper ug/L	OL-RAC-CAP-0022-I 21-24 in OL-4071-17 R2210518-017 11/1/2022 10:45 WATER C3 C3 2 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED																
Avg TOC	Average from RAC <6 in samples				%	0.1287		0.1287										
Avg TOC	Average from RAC >=6 in samples				%				0.1958			0.1958		0.1958		0.1958		0.1958
Avg TOC	Measured for Sample				%													
TOC	Total Organic Carbon	N			%													
	VOLATILES																	
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.374 U							0.74 U	0.374 U	0.74 U	0.374 U		
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.22 U							0.17 U	0.22 U	0.17 U	0.22 U		
108-90-7	Chlorobenzene	N	428	ug/kg		0.22 UJ							0.07 UJ	0.22 UJ	0.07 UJ	0.22 UJ		
100-41-4	Ethylbenzene	N	176	ug/kg		0.22 UJ							0.15 UJ	0.22 UJ	0.15 UJ	0.22 UJ		
1330-20-7	Xylenes	N	561	ug/kg		0.253 UJ							0.15 UJ	0.253 UJ	0.15 UJ	0.253 UJ		
91-20-3	Naphthalene	N	917	ug/kg		0.605 UJ							0.31 UJ	0.605 UJ	0.31 UJ	0.605 UJ		
71-43-2	Benzene	N	760	ug/L		0.22 UJ							0.02 UJ	0.22 UJ	0.02 UJ	0.22 UJ		
108-88-3	Toluene	N	480	ug/L		0.352 J							0.06 J	0.242 J	0.11 J	0.396 J		
	SEMIVOLATILES																	
108-95-2	Phenol	N	250	ug/L			0.48 U	1.65 U		1.23 U	2.75 U				0.64 U	1.43 U		
83-32-9	Acenaphthene	N	861	ug/kg			41 U	1.65 U		105 U	2.75 U				54 U	1.43 U		
208-96-8	Acenaphthylene	N	1301	ug/kg			17 U	1.65 U		43 U	2.75 U				22 U	1.43 U		
120-12-7	Anthracene	N	207	ug/kg			76 U	2.31 U		198 U	3.96 U				99 U	1.98 U		
86-73-7	Fluorene	N	264	ug/kg			29 U	1.65 U		77 U	2.86 U				38 U	1.43 U		
85-01-8	Phenanthrene	N	543	ug/kg			94 U	2.86 U		243 U	4.84 U				121 U	2.42 U		
56-55-3	Benzo(A)Anthracene	N	192	ug/kg														
50-32-8	Benzo(A)Pyrene	N	146	ug/kg														
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg														
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg														
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg														
218-01-9	Chrysene	N	253	ug/kg														
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg														
206-44-0	Fluoranthene	N	1436	ug/kg														
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg														
129-00-0	Pyrene	N	344	ug/kg														
108-95-2	Phenol	Y	250	ug/L														
83-32-9	Acenaphthene	Y	861	ug/kg														
208-96-8	Acenaphthylene	Y	1301	ug/kg														
120-12-7	Anthracene	Y	207	ug/kg														
86-73-7	Fluorene	Y	264	ug/kg														
85-01-8	Phenanthrene	Y	543	ug/kg														
	PCBs																	
PCB	PCB, Total	N	295	ug/kg														
	METALS																	
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.44 U							0.296 U	0.22 U	0.296 U	0.22 U		
	OTHER																	
PH	pH	N			ph units				7.79								7.91	
SOLID	Total Solids	N			%													

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0023-H 3-6 in OL-4008-13 R2206018-013 6/30/2022 9:25 SOIL C3 C3 1 Vibracore Core ug/kg	OL-RAC-CAP-0023-H 9-12 in OL-4008-14 R2206018-014 6/30/2022 9:30 SOIL C3 C3 1 Vibracore Core ug/kg	OL-RAC-CAP-0023-H 3-6 in OL-4049-01 R2208927-001 9/20/2022 9:45 SOIL-CALC C3 C3 1 Peeper Peeper ug/kg	OL-RAC-CAP-0023-H 3-6 in OL-4049-01 R2208927-001 9/20/2022 9:45 WATER C3 C3 1 Peeper Peeper ug/L	OL-RAC-CAP-0023-H 3-9 in OL-4049-02 R2208927-002 9/20/2022 9:50 SOIL-CALC C3 C3 1 Peeper Peeper ug/kg	OL-RAC-CAP-0023-H 3-9 in OL-4049-02 R2208927-002 9/20/2022 9:50 WATER C3 C3 1 Peeper Peeper ug/L	OL-RAC-CAP-0023-H 9-12 in OL-4049-03 R2208927-003 9/20/2022 9:55 SOIL-CALC C3 C3 1 Peeper Peeper ug/kg	OL-RAC-CAP-0023-H 9-12 in OL-4049-03 R2208927-003 9/20/2022 9:55 WATER C3 C3 1 Peeper Peeper ug/L	OL-RAC-CAP-0023-I 12-15 in OL-4049-04 R2208927-004 9/20/2022 10:00 SOIL-CALC C3 C3 1 Peeper Peeper ug/kg	OL-RAC-CAP-0023-I 12-15 in OL-4049-04 R2208927-004 9/20/2022 10:00 WATER C3 C3 1 Peeper Peeper ug/L	OL-RAC-CAP-0023-I 15-18 in OL-4049-05 R2208927-005 9/20/2022 10:05 WATER C3 C3 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED																
Avg TOC	Average from RAC <6 in samples				%				0.1287		0.1287							
Avg TOC	Average from RAC >=6 in samples				%									0.1958		0.1958	0.1958	
Avg TOC	Measured for Sample				%	0.135	0.209											
TOC	Total Organic Carbon	N			%	1350	2090											
	VOLATILES																	
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.52 U	0.54 U									0.74 U	0.374 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.22 U	0.26									0.17 U	0.22 U	
108-90-7	Chlorobenzene	N	428	ug/kg		0.2 U	0.21 U									0.07 U	0.22 U	
100-41-4	Ethylbenzene	N	176	ug/kg		1 U	1.1 U									0.15 U	0.22 U	
1330-20-7	Xylenes	N	561	ug/kg		0.52 U	0.54 U									0.15 U	0.253 U	
91-20-3	Naphthalene	N	917	ug/kg		6.6 J	4.3 J									0.31 U	0.605 U	
71-43-2	Benzene	N	760	ug/L				0.01 U	0.22 U				0.02 U	0.22 U	0.02 U	0.22 U		
108-88-3	Toluene	N	480	ug/L				0.04 J	0.253 J				0.07 J	0.275 J	0.71	2.64		
	SEMIVOLATILES																	
108-95-2	Phenol	N	250	ug/L						0.22 U	0.737 U	0.74 U	1.65 U	0.64 U	1.43 U			
83-32-9	Acenaphthene	N	861	ug/kg		2 U	1.9 U							54 U	1.43 U			
208-96-8	Acenaphthylene	N	1301	ug/kg		2.2 U	2.1 U							22 U	1.43 U			
120-12-7	Anthracene	N	207	ug/kg		4.8 U	4.5 U							99 U	1.98 U			
86-73-7	Fluorene	N	264	ug/kg		2.1 U	1.9 U							38 U	1.43 U			
85-01-8	Phenanthrene	N	543	ug/kg		9.3	3.9 U							121 U	2.42 U			
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		6 U	5.6 U											
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		7.1 J	3.1 U											
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		12	3.9 U											
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		6.3 J	3.2 U											
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		4.5 U	4.3 U											
218-01-9	Chrysene	N	253	ug/kg		9.3	3.1 U											
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		3.3 U	3.1 U											
206-44-0	Fluoranthene	N	1436	ug/kg		19	5.5 U											
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		5.7 J	3.3 UJ											
129-00-0	Pyrene	N	344	ug/kg		16	3.6 U											
108-95-2	Phenol	Y	250	ug/L														
83-32-9	Acenaphthene	Y	861	ug/kg														
208-96-8	Acenaphthylene	Y	1301	ug/kg														
120-12-7	Anthracene	Y	207	ug/kg														
86-73-7	Fluorene	Y	264	ug/kg														
85-01-8	Phenanthrene	Y	543	ug/kg														
	PCBs																	
PCB	PCB, Total	N	295	ug/kg		46 U	44 U											
	METALS																	
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.009 U	0.015 J									0.296 U	0.22 U	
	OTHER																	
PH	pH	N			ph units	8.04	8.05											7.12
SOLID	Total Solids	N			%	83.8	89.6											

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0001-H 3-6 in OL-4013-01 R2206223-001 7/7/2022 12:00 SOIL-CALC D-SMU2 D-SMU2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0001-H 3-6 in OL-4013-01 R2206223-001 7/7/2022 12:00 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L	OL-RAD-CAP-0001-H 3-9 in OL-4013-02 R2206223-002 7/7/2022 12:05 SOIL-CALC D-SMU2 D-SMU2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0001-H 3-9 in OL-4013-02 R2206223-002 7/7/2022 12:05 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L	OL-RAD-CAP-0001-H 9-12 in OL-4013-03 R2206223-003 7/7/2022 12:10 SOIL-CALC D-SMU2 D-SMU2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0001-H 9-12 in OL-4013-03 R2206223-003 7/7/2022 12:10 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L	OL-RAD-CAP-0001-H 3-6 in OL-4022-10 R2206481-010 7/14/2022 13:45 SOIL D-SMU2 D-SMU2 1 Vibracore Core ug/kg	OL-RAD-CAP-0001-H 9-12 in OL-4022-11 R2206481-011 7/14/2022 13:50 SOIL D-SMU2 D-SMU2 1 Vibracore Core ug/kg	OL-RAD-CAP-0001-I 12-15 in OL-4013-04 R2206223-004 7/7/2022 12:15 SOIL-CALC D-SMU2 D-SMU2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0001-I 12-15 in OL-4013-04 R2206223-004 7/7/2022 12:15 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%		1.0241		1.0241							
Avg TOC	Average from RAD >=6 in samples				%							0.8866				0.8866
Avg TOC	Measured for Sample				%								0.571	0.117		
TOC	Total Organic Carbon	N			%								5710	1170		
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg									0.59 U	0.51 U	3.35 U	0.374 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg									0.25 U	0.22 U	0.77 U	0.22 U
108-90-7	Chlorobenzene	N	428	ug/kg									0.23 U	0.2 U	0.33 U	0.22 U
100-41-4	Ethylbenzene	N	176	ug/kg									1.2 U	0.99 U	0.69 U	0.22 U
1330-20-7	Xylenes	N	561	ug/kg									0.59 U	0.51 U	0.7 U	0.253 U
91-20-3	Naphthalene	N	917	ug/kg									2.4 U	4.1 J	1.43 U	0.605 U
71-43-2	Benzene	N	760	ug/L		0.1 U	0.22 U			0.09 U	0.22 U				0.09 U	0.22 U
108-88-3	Toluene	N	480	ug/L		0.42 J	0.297 J			0.35 J	0.286 J				0.32 J	0.264 J
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L				12 U	5.28 U	38 U	18.7 U				38 U	18.7 U
83-32-9	Acenaphthene	N	861	ug/kg									1.7 U	2.1 U	531 U	3.08 U
208-96-8	Acenaphthylene	N	1301	ug/kg									1.9 U	2.2 U	208 U	2.97 U
120-12-7	Anthracene	N	207	ug/kg									4.1 U	4.9 U	899 U	3.96 U
86-73-7	Fluorene	N	264	ug/kg									1.8 U	2.1 U	443 U	3.63 U
85-01-8	Phenanthrene	N	543	ug/kg									3.6 U	6.4 J	1249 U	5.5 U
56-55-3	Benzo(A)Anthracene	N	192	ug/kg									5.1 U	6.1 U		
50-32-8	Benzo(A)Pyrene	N	146	ug/kg									2.8 U	5.3 J		
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg									3.6 U	6.2 J		
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg									2.9 U	4.2 J		
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg									3.9 U	4.6 U		
218-01-9	Chrysene	N	253	ug/kg									2.8 U	4.9 J		
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg									2.8 U	3.3 U		
206-44-0	Fluoranthene	N	1436	ug/kg									5 U	11		
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg									3 U	3.6 J		
129-00-0	Pyrene	N	344	ug/kg									3.3 U	8.8		
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg									67 U	69 U		
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg								0.011 J	0.015 J	2.808 U	2.09 U
	OTHER															
PH	pH	N			ph units								8.52	7.62		
SOLID	Total Solids	N			%								92.1	81.6		

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0001-I 15-18 in OL-4013-05 R2206223-005 7/7/2022 12:20 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L	OL-RAD-CAP-0002-H 3-6 in OL-4046-01 R2208713-001 9/14/2022 7:45 SOIL D-Center RA-D-1A 1 Vibracore Core ug/kg	OL-RAD-CAP-0002-H 3-6 in OL-4046-01 R2208713-001 9/14/2022 7:45 WATER-CALC RA-D-1A RA-D-1A 1 SED CORE ug/L	OL-RAD-CAP-0002-H 9-12 in OL-4046-02 R2208713-002 9/14/2022 8:00 SOIL D-Center RA-D-1A 1 Vibracore Core ug/kg	OL-RAD-CAP-0002-H 9-12 in OL-4046-02 R2208713-002 9/14/2022 8:00 WATER-CALC RA-D-1A RA-D-1A 1 SED CORE ug/L	OL-RAD-CAP-0003-H 3-6 in OL-4028-01 R2206855-001 7/26/2022 11:40 SOIL-CALC D-Center RA-D-1A 1 Peeper Peeper ug/kg	OL-RAD-CAP-0003-H 3-6 in OL-4028-01 R2206855-001 7/26/2022 11:40 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L	OL-RAD-CAP-0003-H 3-9 in OL-4028-02 R2206855-002 7/26/2022 11:45 SOIL-CALC D-Center RA-D-1A 1 Peeper Peeper ug/kg	OL-RAD-CAP-0003-H 3-9 in OL-4028-02 R2206855-002 7/26/2022 11:45 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L	OL-RAD-CAP-0003-H 9-12 in OL-4028-03 R2206855-003 7/26/2022 11:50 SOIL-CALC D-Center RA-D-1A 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%								1.0241		1.0241	
Avg TOC	Average from RAD >=6 in samples				%	0.8866										
Avg TOC	Measured for Sample				%		0.12		0.076							
TOC	Total Organic Carbon	N			%		1200		760							
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg			0.84 U		0.68 U							
DCB_Summ	Dichlorobenzenes	N	239	ug/kg			0.36 U		0.29 U							
108-90-7	Chlorobenzene	N	428	ug/kg			0.33 U		0.26 U							
100-41-4	Ethylbenzene	N	176	ug/kg			1.7 U		1.3 U							
1330-20-7	Xylenes	N	561	ug/kg			3.3 U		2.6 U							
91-20-3	Naphthalene	N	917	ug/kg			2.3 U		2.3 U							
71-43-2	Benzene	N	760	ug/L			0.33 U	5.65 U	0.26 U	7.03 U	0.1 U	0.22 U			0.09 U	
108-88-3	Toluene	N	480	ug/L			3.3 U	18 U	2.6 U	23 U	0.31 U	0.22 U			0.27 U	
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L			13 J	43 J	8.8 U	46 U			39	16.5	114 J+	
83-32-9	Acenaphthene	N	861	ug/kg			1.7 U		1.7 U							
208-96-8	Acenaphthylene	N	1301	ug/kg			1.8 U		1.8 U							
120-12-7	Anthracene	N	207	ug/kg			4.1 U		4.1 U							
86-73-7	Fluorene	N	264	ug/kg			1.7 U		1.7 U							
85-01-8	Phenanthrene	N	543	ug/kg			3.5 U		3.5 U							
56-55-3	Benzo(A)Anthracene	N	192	ug/kg			5 U		5 U							
50-32-8	Benzo(A)Pyrene	N	146	ug/kg			2.7 U		2.7 U							
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg			4 J		3.5 U							
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg			2.8 U		2.8 U							
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg			3.8 U		3.8 U							
218-01-9	Chrysene	N	253	ug/kg			2.7 U		2.7 U							
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg			2.7 U		2.7 U							
206-44-0	Fluoranthene	N	1436	ug/kg			4.9 U		4.9 U							
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg			2.9 U		2.9 U							
129-00-0	Pyrene	N	344	ug/kg			3.3 J		3.2 U							
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg			29 U		28 U							
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg		0.046		0.014 U							
	OTHER															
PH	pH	N			ph units	7.33	8.88		9.06							
SOLID	Total Solids	N			%		91.2		92.6							

Notes:
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J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0003-H 9-12 in OL-4028-03 R2206855-003 7/26/2022 11:50 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L	OL-RAD-CAP-0003-H 3-6 in OL-4035-04/OL-4035-05 R2207824-004 8/19/2022 7:45 SOIL D-Center RA-D-1A 1 Vibracore Core ug/kg	Duplicate OL-RAD-CAP-0003-H 3-6 in OL-4035-04/OL-4035-05 R2207824-005 8/19/2022 7:50 SOIL D-Center RA-D-1A 1 Vibracore Core ug/kg	OL-RAD-CAP-0003-H 9-12 in OL-4035-06 R2207824-006 8/19/2022 7:55 SOIL D-Center RA-D-1A 1 Vibracore Core ug/kg	OL-RAD-CAP-0003-I 12-15 in OL-4028-04 R2206855-004 7/26/2022 11:55 SOIL-CALC D-Center RA-D-1A 1 Peeper Peeper ug/kg	OL-RAD-CAP-0003-I 12-15 in OL-4028-04 R2206855-004 7/26/2022 11:55 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L	OL-RAD-CAP-0003-I 15-18 in OL-4028-05 R2206855-005 7/26/2022 12:00 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L	OL-RAD-CAP-0004-H 3-6 in OL-4028-06 R2206855-006 7/26/2022 12:40 SOIL-CALC D-Center RA-D-1A 1 Peeper Peeper ug/kg	OL-RAD-CAP-0004-H 3-6 in OL-4028-06 R2206855-006 7/26/2022 12:40 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L	OL-RAD-CAP-0004-H 3-9 in OL-4028-07 R2206855-007 7/26/2022 12:45 SOIL-CALC D-Center RA-D-1A 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAD <6 in samples				%									1.0241	
Avg TOC	Average from RAD >=6 in samples				%	0.8866						0.8866	0.8866			
Avg TOC	Measured for Sample				%		0.189	0.189	0.117						
TOC	Total Organic Carbon	N			%		1890	1410	1170 J						
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg			0.61 U	0.65 U	0.54 U	3.35 U	0.374 U				
DCB_Summ	Dichlorobenzenes	N	239	ug/kg			0.26 U	0.28 U	0.23 U	0.77 U	0.22 U				
108-90-7	Chlorobenzene	N	428	ug/kg			0.24 U	0.25 U	0.21 U	0.33 U	0.22 U				
100-41-4	Ethylbenzene	N	176	ug/kg			1.2 U	1.3 U	1.1 U	0.69 U	0.22 U				
1330-20-7	Xylenes	N	561	ug/kg			2.4 U	2.5 U	2.1 U	0.7 U	0.253 U				
91-20-3	Naphthalene	N	917	ug/kg			2.3 U	2.3 U	2.4 U	1.43 U	0.605 U				
71-43-2	Benzene	N	760	ug/L		0.22 U				0.09 U	0.22 U		0.1 U	0.22 U	
108-88-3	Toluene	N	480	ug/L		0.22 U				0.27 U	0.22 U		0.31 U	0.22 U	
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		56.1 J+				76 J	37.4 J				23 J
83-32-9	Acenaphthene	N	861	ug/kg			1.7 U	1.7 U	1.8 U	474 U	2.75 U				
208-96-8	Acenaphthylene	N	1301	ug/kg			1.8 U	1.8 U	1.9 U	193 U	2.75 U				
120-12-7	Anthracene	N	207	ug/kg			2.9 U	2.9 U	3.1 U	899 U	3.96 U				
86-73-7	Fluorene	N	264	ug/kg			1.7 U	1.7 U	1.8 U	349 U	2.86 U				
85-01-8	Phenanthrene	N	543	ug/kg			4.8 J	6.4	4.2 J	1099 U	4.84 U				
56-55-3	Benzo(A)Anthracene	N	192	ug/kg			6.1 J	5.1 J	4.2 J						
50-32-8	Benzo(A)Pyrene	N	146	ug/kg			6.4	6.4	3.1 J						
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg			8.6	10	5.2 J						
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg			5.1 J	5.5 J	2.8 J						
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg			2.9 J	3 J	1.9 U						
218-01-9	Chrysene	N	253	ug/kg			4.8 J	6.4	3.1 J						
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg			2.7 U	2.7 U	2.9 U						
206-44-0	Fluoranthene	N	1436	ug/kg			11	14	7						
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg			3.8 J	3.9 J	3.1 U						
129-00-0	Pyrene	N	344	ug/kg			8.6	12	5.6 J						
108-95-2	Phenol	Y	250	ug/L											
83-32-9	Acenaphthene	Y	861	ug/kg											
208-96-8	Acenaphthylene	Y	1301	ug/kg											
120-12-7	Anthracene	Y	207	ug/kg											
86-73-7	Fluorene	Y	264	ug/kg											
85-01-8	Phenanthrene	Y	543	ug/kg											
	PCBs														
PCB	PCB, Total	N	295	ug/kg			42 U	43 U	44 U						
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg		0.014 U	0.014 J	0.013 U	0.296 U	0.22 U				
	OTHER														
PH	pH	N			ph units		8.76	9.15	8.99			9.81			
SOLID	Total Solids	N			%		94.1	92.6	92.7						

Notes:
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J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
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Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0004-H 3-9 in OL-4028-07 R2206855-007 7/26/2022 12:45 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L	OL-RAD-CAP-0004-H 9-12 in OL-4028-08 R2206855-008 7/26/2022 12:50 SOIL-CALC D-Center RA-D-1A 1 Peeper Peeper ug/kg	OL-RAD-CAP-0004-H 9-12 in OL-4028-08 R2206855-008 7/26/2022 12:50 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L	OL-RAD-CAP-0004-H 3-6 in OL-4035-10 R2207824-010 8/19/2022 9:40 SOIL D-Center RA-D-1A 1 Vibracore Core ug/kg	OL-RAD-CAP-0004-H 9-12 in OL-4035-11 R2207824-011 8/19/2022 9:45 SOIL D-Center RA-D-1A 1 Vibracore Core ug/kg	OL-RAD-CAP-0004-H 3-6 in OL-4084-01 R2211206-001 11/18/2022 14:10 SOIL D-Center RA-D-1A 1 Vibracore Core ug/kg	OL-RAD-CAP-0004-H 9-12 in OL-4084-02 R2211206-002 11/18/2022 14:15 SOIL D-Center RA-D-1A 1 Vibracore Core ug/kg	OL-RAD-CAP-0004-I 12-15 in OL-4028-09 R2206855-009 7/26/2022 12:55 SOIL-CALC D-Center RA-D-1A 1 Peeper Peeper ug/kg	OL-RAD-CAP-0004-I 12-15 in OL-4028-09 R2206855-009 7/26/2022 12:55 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L	OL-RAD-CAP-0004-I 15-18 in OL-4028-10 R2206855-010 7/26/2022 13:00 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED															
Avg TOC	Average from RAD <6 in samples				%	1.0241											
Avg TOC	Average from RAD >=6 in samples				%			0.8866							0.8866	0.8866	
Avg TOC	Measured for Sample				%				0.084	0.042	0.021	0.06					
TOC	Total Organic Carbon	N			%				840	420	210 J	600					
	VOLATILES																
TCB_Summ	Trichlorobenzenes	N	347	ug/kg					0.54 U	0.57 U	0.61 U	0.59 U	3.35 U	0.374 U			
DCB_Summ	Dichlorobenzenes	N	239	ug/kg					0.79	0.24 U	0.26 U	0.25 U	0.77 U	0.22 U			
108-90-7	Chlorobenzene	N	428	ug/kg					0.27 J	0.22 U	0.24 U	0.23 U	0.33 U	0.22 U			
100-41-4	Ethylbenzene	N	176	ug/kg					1.1 U	1.1 U	1.2 U	1.2 U	0.69 U	0.22 U			
1330-20-7	Xylenes	N	561	ug/kg					2.1 U	2.2 U	2.4 U	2.3 U	0.7 U	0.253 U			
91-20-3	Naphthalene	N	917	ug/kg					2.9 J	2.6 U	2.4 U	2.6 U	1.43 U	0.605 U			
71-43-2	Benzene	N	760	ug/L			0.09 U	0.22 U					0.09 U	0.22 U			
108-88-3	Toluene	N	480	ug/L			0.27 U	0.22 U					0.27 U	0.22 U			
	SEMIVOLATILES																
108-95-2	Phenol	N	250	ug/L		9.79 J	29 J	14.3 J					33 J	16.5 J			
83-32-9	Acenaphthene	N	861	ug/kg					1.8 U	1.8 U	1.7 U	1.9 U	474 U	2.75 U			
208-96-8	Acenaphthylene	N	1301	ug/kg					2 U	2 U	1.9 U	2.1 U	193 U	2.75 U			
120-12-7	Anthracene	N	207	ug/kg					3.2 U	3.2 U	4.1 U	4.5 U	899 U	3.96 U			
86-73-7	Fluorene	N	264	ug/kg					1.9 U	1.9 U	1.8 U	2 U	349 U	2.86 U			
85-01-8	Phenanthrene	N	543	ug/kg					2.7 U	2.8 U	3.6 U	4 U	1099 U	4.84 U			
56-55-3	Benzo(A)Anthracene	N	192	ug/kg					2.3 U	2.3 U	5.1 U	5.6 U					
50-32-8	Benzo(A)Pyrene	N	146	ug/kg					2.9 U	3 U	2.8 U	3.1 U					
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg					2.5 U	2.5 U	3.6 U	4 U					
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg					2.8 U	2.8 U	2.9 U	3.2 U					
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg					2 U	2 U	3.9 U	4.3 U					
218-01-9	Chrysene	N	253	ug/kg					1.9 U	1.9 U	2.8 U	3.1 U					
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg					2.9 U	3 U	2.8 U	3.1 U					
206-44-0	Fluoranthene	N	1436	ug/kg					3.1 U	3.1 U	5 U	5.5 U					
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg					3.2 U	3.2 U	3 U	3.3 U					
129-00-0	Pyrene	N	344	ug/kg					2.7 U	2.7 U	3.3 U	3.6 U					
108-95-2	Phenol	Y	250	ug/L													
83-32-9	Acenaphthene	Y	861	ug/kg													
208-96-8	Acenaphthylene	Y	1301	ug/kg													
120-12-7	Anthracene	Y	207	ug/kg													
86-73-7	Fluorene	Y	264	ug/kg													
85-01-8	Phenanthrene	Y	543	ug/kg													
	PCBs																
PCB	PCB, Total	N	295	ug/kg					44 U	45 U	30 U	31 U					
	METALS																
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg				0.013 U	0.015 U	0.015 U	0.015 U	0.296 U	0.22 U			
	OTHER																
PH	pH	N			ph units				9.33	9.21	9.35	9.19			9.59		
SOLID	Total Solids	N			%				91.6	89.5	87.4	86.3					

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0005-H 0-6 in OL-4060-01/OL-4060-02 R2210183-001 10/21/2022 12:05 SOIL D-Center RA-D-1B 1 Gravity Core Core ug/kg	Duplicate OL-RAD-CAP-0005-H 0-6 in OL-4060-01/OL-4060-02 R2210183-002 10/21/2022 12:05 SOIL D-Center RA-D-1B 1 Gravity Core Core ug/kg	OL-RAD-CAP-0005-H 0-6 in OL-4061-01 R2210185-001 10/21/2022 13:40 SOIL-CALC D-Center RA-D-1B 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAD-CAP-0005-H 0-6 in OL-4061-01 R2210185-001 10/21/2022 13:40 WATER D-Center RA-D-1B 1 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAD-CAP-0006-H 3-6 in OL-4013-11 R2206223-011 7/7/2022 13:45 SOIL-CALC D-SMU2 D-SMU2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0006-H 3-6 in OL-4013-11 R2206223-011 7/7/2022 13:45 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L	OL-RAD-CAP-0006-H 3-9 in OL-4013-12 R2206223-012 7/7/2022 13:50 SOIL-CALC D-SMU2 D-SMU2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0006-H 3-9 in OL-4013-12 R2206223-012 7/7/2022 13:50 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L	OL-RAD-CAP-0006-H 9-12 in OL-4013-13 R2206223-013 7/7/2022 13:55 SOIL-CALC D-SMU2 D-SMU2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0006-H 9-12 in OL-4013-13 R2206223-013 7/7/2022 13:55 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%				0.931		1.0241		1.0241		
Avg TOC	Average from RAD >=6 in samples				%										0.8866
Avg TOC	Measured for Sample				%										
TOC	Total Organic Carbon	N			%										
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg				3.52 U	0.34 U						
DCB_Summ	Dichlorobenzenes	N	239	ug/kg				0.81 U	0.2 U						
108-90-7	Chlorobenzene	N	428	ug/kg				0.35 UJ	0.2 UJ						
100-41-4	Ethylbenzene	N	176	ug/kg				0.72 UJ	0.2 UJ						
1330-20-7	Xylenes	N	561	ug/kg				0.73 UJ	0.23 UJ						
91-20-3	Naphthalene	N	917	ug/kg				1.5 UJ	0.55 UJ						
71-43-2	Benzene	N	760	ug/L				0.09 UJ	0.2 UJ	0.1 U	0.22 U			0.09 U	0.22 U
108-88-3	Toluene	N	480	ug/L				0.28 UJ	0.2 UJ	0.31 U	0.22 U			0.27 U	0.22 U
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L								12 U	5.28 U	38 UJ	18.7 UJ
83-32-9	Acenaphthene	N	861	ug/kg											
208-96-8	Acenaphthylene	N	1301	ug/kg											
120-12-7	Anthracene	N	207	ug/kg											
86-73-7	Fluorene	N	264	ug/kg											
85-01-8	Phenanthrene	N	543	ug/kg											
56-55-3	Benzo(A)Anthracene	N	192	ug/kg											
50-32-8	Benzo(A)Pyrene	N	146	ug/kg											
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg											
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg											
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg											
218-01-9	Chrysene	N	253	ug/kg											
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg											
206-44-0	Fluoranthene	N	1436	ug/kg											
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg											
129-00-0	Pyrene	N	344	ug/kg											
108-95-2	Phenol	Y	250	ug/L				0.54 U	0.23 U						
83-32-9	Acenaphthene	Y	861	ug/kg				46 U	0.23 U						
208-96-8	Acenaphthylene	Y	1301	ug/kg				19 U	0.23 U						
120-12-7	Anthracene	Y	207	ug/kg				84 U	0.32 U						
86-73-7	Fluorene	Y	264	ug/kg				34 U	0.24 U						
85-01-8	Phenanthrene	Y	543	ug/kg				105 U	0.4 U						
	PCBs														
PCB	PCB, Total	N	295	ug/kg											
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.034	0.039								
	OTHER														
PH	pH	N			ph units				7.12						
SOLID	Total Solids	N			%	66.6	63.2								

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0006-H 3-6 in OL-4022-08 R2206481-008 7/14/2022 13:10 SOIL D-SMU2 D-SMU2 1 Vibracore Core ug/kg	OL-RAD-CAP-0006-H 9-12 in OL-4022-09 R2206481-009 7/14/2022 13:15 SOIL D-SMU2 D-SMU2 1 Vibracore Core ug/kg	OL-RAD-CAP-0006-I 12-15 in OL-4013-14 R2206223-014 7/7/2022 14:00 SOIL-CALC D-SMU2 D-SMU2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0006-I 12-15 in OL-4013-14 R2206223-014 7/7/2022 14:00 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L	OL-RAD-CAP-0006-I 15-18 in OL-4013-15 R2206223-015 7/7/2022 14:05 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L	OL-RAD-CAP-0007-H 3-6 in OL-4028-11 R2206855-011 7/26/2022 13:55 SOIL-CALC D-East D-Addendum East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0007-H 3-6 in OL-4028-11 R2206855-011 7/26/2022 13:55 WATER D-East D-Addendum East 1 Peeper Peeper ug/L	OL-RAD-CAP-0007-H 3-9 in OL-4028-12 R2206855-012 7/26/2022 14:00 SOIL-CALC D-East D-Addendum East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0007-H 3-9 in OL-4028-12 R2206855-012 7/26/2022 14:00 WATER D-East D-Addendum East 1 Peeper Peeper ug/L	OL-RAD-CAP-0007-H 9-12 in OL-4028-13 R2206855-013 7/26/2022 14:05 SOIL-CALC D-East D-Addendum East 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAD <6 in samples				%								1.0241		1.0241	
Avg TOC	Average from RAD >=6 in samples				%				0.8866	0.8866						
Avg TOC	Measured for Sample				%	0.826	0.382									
TOC	Total Organic Carbon	N			%	8260	3820									
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.54 U	0.57 U	3.35 U	0.374 U							
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.23 U	0.24 U	0.77 U	0.22 U							
108-90-7	Chlorobenzene	N	428	ug/kg		0.21 U	0.22 U	0.33 U	0.22 U							
100-41-4	Ethylbenzene	N	176	ug/kg		1.1 U	1.1 U	0.69 U	0.22 U							
1330-20-7	Xylenes	N	561	ug/kg		0.54 U	0.57 U	0.7 U	0.253 U							
91-20-3	Naphthalene	N	917	ug/kg		2.4 U	2.9 J	1.43 U	0.605 U							
71-43-2	Benzene	N	760	ug/L				0.09 U	0.22 U		0.1 U	0.22 U				0.09 U
108-88-3	Toluene	N	480	ug/L				0.27 U	0.22 U		0.31 U	0.22 U				0.27 U
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L				38 U	18.7 U				1.85 U	0.792 U		82 J
83-32-9	Acenaphthene	N	861	ug/kg		1.7 U	2 U	531 U	3.08 U							
208-96-8	Acenaphthylene	N	1301	ug/kg		1.9 U	2.2 U	208 U	2.97 U							
120-12-7	Anthracene	N	207	ug/kg		4.1 U	4.8 U	899 U	3.96 U							
86-73-7	Fluorene	N	264	ug/kg		1.8 U	2.1 U	443 U	3.63 U							
85-01-8	Phenanthrene	N	543	ug/kg		3.6 U	4.2 U	1249 U	5.5 U							
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		5.1 U	6 U									
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		2.8 U	3.3 U									
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		3.6 U	4.9 J									
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		2.9 U	3.4 U									
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		3.9 U	4.6 U									
218-01-9	Chrysene	N	253	ug/kg		2.8 U	3.3 U									
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		2.8 U	3.3 U									
206-44-0	Fluoranthene	N	1436	ug/kg		5 U	7.1 J									
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		3 U	3.5 U									
129-00-0	Pyrene	N	344	ug/kg		3.3 U	5.7 J									
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg		39 U	88 U									
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.014 J	0.023 J	2.808 U	2.09 U							
	OTHER															
PH	pH	N			ph units	8.48	7.71			7.59						
SOLID	Total Solids	N			%	92.6	80.1									

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0007-H 9-12 in OL-4028-13 R2206855-013 7/26/2022 14:05 WATER D-East D-Addendum East 1 Peeper Peeper ug/L	OL-RAD-CAP-0007-H 3-6 in OL-4035-07/OL-4035-08 R2207824-007 8/19/2022 8:30 SOIL D-East D-Addendum East 1 Vibracore Core ug/kg	Duplicate OL-RAD-CAP-0007-H 3-6 in OL-4035-07/OL-4035-08 R2207824-008 8/19/2022 8:35 SOIL D-East D-Addendum East 1 Vibracore Core ug/kg	OL-RAD-CAP-0007-H 9-12 in OL-4035-09 R2207824-009 8/19/2022 8:40 SOIL D-East D-Addendum East 1 Vibracore Core ug/kg	OL-RAD-CAP-0007-I 12-15 in OL-4028-14 R2206855-014 7/26/2022 14:10 SOIL-CALC D-East D-Addendum East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0007-I 12-15 in OL-4028-14 R2206855-014 7/26/2022 14:10 WATER D-East D-Addendum East 1 Peeper Peeper ug/L	OL-RAD-CAP-0007-I 15-18 in OL-4028-15 R2206855-015 7/26/2022 14:15 WATER D-East D-Addendum East 1 Peeper Peeper ug/L	OL-RAD-CAP-0008-H 3-6 in OL-4022-02 R2206481-002 7/14/2022 11:45 SOIL D-West RA-D-2 1 Vibracore Core ug/kg	OL-RAD-CAP-0008-H 7.5-10.5 in OL-4022-03 R2206481-003 7/14/2022 11:50 SOIL D-West RA-D-2 1 Vibracore Core ug/kg	OL-RAD-CAP-0008-H 3-6 in OL-4043-08 R2208526-008 9/9/2022 12:50 SOIL-CALC D-West RA-D-2 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAD <6 in samples				%										
Avg TOC	Average from RAD >=6 in samples				%	0.8866						0.8866	0.8866		
Avg TOC	Measured for Sample				%		0.425	0.425	0.087					0.201	0.563	
TOC	Total Organic Carbon	N			%		4250 J	1050 J	870					2010	5630	
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg			0.71 U	0.68 U	0.59 U	3.35 U	0.374 U			0.89 U	0.77 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg			0.3 U	0.29 U	0.25 U	0.77 U	0.22 U			0.52	1.78	
108-90-7	Chlorobenzene	N	428	ug/kg			0.27 U	0.26 U	0.23 U	0.33 U	0.22 U			0.75 J	2 J	
100-41-4	Ethylbenzene	N	176	ug/kg			1.4 U	1.3 U	1.2 U	0.69 U	0.22 U			1.7 U	1.5 U	
1330-20-7	Xylenes	N	561	ug/kg			2.7 U	2.6 U	2.3 U	0.7 U	0.253 U			0.89 U	7.8 J	
91-20-3	Naphthalene	N	917	ug/kg			11	6.5 J	2.5 U	1.43 U	0.605 U			120	50	
71-43-2	Benzene	N	760	ug/L		0.22 U				0.09 U	0.22 U					0.1 UJ
108-88-3	Toluene	N	480	ug/L		0.22 U				0.27 U	0.22 U					2.94 J-
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		40.7 J				98 J	48.4 J					4.37 U
83-32-9	Acenaphthene	N	861	ug/kg			2 U	1.8 U	1.8 U	474 U	2.75 U			2.5 J	1.8 U	
208-96-8	Acenaphthylene	N	1301	ug/kg			2.1 U	2 U	2 U	193 U	2.75 U			2.1 J	2 U	
120-12-7	Anthracene	N	207	ug/kg			3.4 U	3.2 U	3.1 U	899 U	3.96 U			4.4 U	4.3 U	
86-73-7	Fluorene	N	264	ug/kg			2 U	1.9 U	1.9 U	349 U	2.86 U			62	1.9 U	
85-01-8	Phenanthrene	N	543	ug/kg			5 J	3.6 J	2.7 U	1099 U	4.84 U			13	3.8 U	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg			3.5 J	2.5 J	2.3 U					6.9 J	5.3 U	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg			3.2 U	3 U	2.9 U					6 J	2.9 U	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg			2.7 U	2.5 U	2.4 U					8.6	3.8 U	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg			3 U	2.8 U	2.7 U					5.9 J	3 U	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg			2.1 U	2 U	2 U					4.1 U	4.1 U	
218-01-9	Chrysene	N	253	ug/kg			2 U	1.9 U	1.9 U					6.7 J	2.9 U	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg			3.2 U	3 U	2.9 U					3 U	2.9 U	
206-44-0	Fluoranthene	N	1436	ug/kg			6.2 J	4 J	3 U					19	5.2 U	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg			3.4 U	3.2 U	3.1 U					4.5 J	3.1 U	
129-00-0	Pyrene	N	344	ug/kg			5.4 J	3.2 J	2.7 U					17	3.4 U	
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg			98 U	84 U	45 U					46 U	49 U	
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg		0.107 J	0.015 UJ	0.015 U	0.591 U	0.44 U			0.029	0.034	
	OTHER															
PH	pH	N			ph units		8.34	8.32	8.79			9.15		8.36	8.22	
SOLID	Total Solids	N			%		81.6	86.4	90.4					87.9	88.3	

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0008-H 3-6 in OL-4043-08 R2208526-008 9/9/2022 12:50 WATER D-West RA-D-2 1 Peeper Peeper ug/L	OL-RAD-CAP-0008-H 6-9 in OL-4043-09 R2208526-009 9/9/2022 12:55 SOIL-CALC D-West RA-D-2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0008-H 6-9 in OL-4043-09 R2208526-009 9/9/2022 12:55 WATER D-West RA-D-2 1 Peeper Peeper ug/L	OL-RAD-CAP-0008-I 9-12 in OL-4043-10 R2208526-010 9/9/2022 13:00 WATER D-West RA-D-2 1 Peeper Peeper ug/L	OL-RAD-CAP-0009-H 3-6 in OL-4013-06 R2206223-006 7/7/2022 13:00 SOIL-CALC D-SMU2 D-SMU2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0009-H 3-6 in OL-4013-06 R2206223-006 7/7/2022 13:00 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L	OL-RAD-CAP-0009-H 3-9 in OL-4013-07 R2206223-007 7/7/2022 13:05 SOIL-CALC D-SMU2 D-SMU2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0009-H 3-9 in OL-4013-07 R2206223-007 7/7/2022 13:05 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L	OL-RAD-CAP-0009-H 9-12 in OL-4013-08 R2206223-008 7/7/2022 13:10 SOIL-CALC D-SMU2 D-SMU2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0009-H 9-12 in OL-4013-08 R2206223-008 7/7/2022 13:10 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%	1.0241					1.0241		1.0241			
Avg TOC	Average from RAD >=6 in samples				%			0.8866	0.8866							0.8866
Avg TOC	Measured for Sample				%											
TOC	Total Organic Carbon	N			%											
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg												
DCB_Summ	Dichlorobenzenes	N	239	ug/kg												
108-90-7	Chlorobenzene	N	428	ug/kg												
100-41-4	Ethylbenzene	N	176	ug/kg												
1330-20-7	Xylenes	N	561	ug/kg												
91-20-3	Naphthalene	N	917	ug/kg												
71-43-2	Benzene	N	760	ug/L		0.22 UJ	0.09 UJ	0.22 UJ		0.1 U	0.22 U			0.09 U	0.22 U
108-88-3	Toluene	N	480	ug/L		2.09 J-	7.22 J-	5.94 J-		0.31 U	0.22 U			0.36 J	0.297 J
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		1.87 U	5.57 U	2.75 U				12 U	5.28 U	38 U	18.7 U
83-32-9	Acenaphthene	N	861	ug/kg											
208-96-8	Acenaphthylene	N	1301	ug/kg											
120-12-7	Anthracene	N	207	ug/kg											
86-73-7	Fluorene	N	264	ug/kg											
85-01-8	Phenanthrene	N	543	ug/kg											
56-55-3	Benzo(A)Anthracene	N	192	ug/kg											
50-32-8	Benzo(A)Pyrene	N	146	ug/kg											
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg											
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg											
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg											
218-01-9	Chrysene	N	253	ug/kg											
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg											
206-44-0	Fluoranthene	N	1436	ug/kg											
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg											
129-00-0	Pyrene	N	344	ug/kg											
108-95-2	Phenol	Y	250	ug/L											
83-32-9	Acenaphthene	Y	861	ug/kg											
208-96-8	Acenaphthylene	Y	1301	ug/kg											
120-12-7	Anthracene	Y	207	ug/kg											
86-73-7	Fluorene	Y	264	ug/kg											
85-01-8	Phenanthrene	Y	543	ug/kg											
	PCBs															
PCB	PCB, Total	N	295	ug/kg											
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg										
	OTHER															
PH	pH	N			ph units				8.49						
SOLID	Total Solids	N			%										

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0009-H 3-6 in OL-4022-04 R2206481-004 7/14/2022 12:20 SOIL D-SMU2 D-SMU2 1 Vibracore Core ug/kg	OL-RAD-CAP-0009-H 9-12 in OL-4022-05 R2206481-005 7/14/2022 12:25 SOIL D-SMU2 D-SMU2 1 Vibracore Core ug/kg	OL-RAD-CAP-0009-I 12-15 in OL-4013-09 R2206223-009 7/7/2022 13:15 SOIL-CALC D-SMU2 D-SMU2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0009-I 12-15 in OL-4013-09 R2206223-009 7/7/2022 13:15 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L	OL-RAD-CAP-0009-I 15-18 in OL-4013-10 R2206223-010 7/7/2022 13:20 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L	OL-RAD-CAP-0010-H 3-6 in OL-4015-10 R2206272-006 7/8/2022 12:15 SOIL-CALC D-West D-West 1 Peeper Peeper ug/kg	OL-RAD-CAP-0010-H 3-6 in OL-4015-10 R2206272-006 7/8/2022 12:15 WATER D-West D-West 1 Peeper Peeper ug/L	OL-RAD-CAP-0010-H 3-9 in OL-4015-11 R2206272-007 7/8/2022 12:20 SOIL-CALC D-West D-West 1 Peeper Peeper ug/kg	OL-RAD-CAP-0010-H 3-9 in OL-4015-11 R2206272-007 7/8/2022 12:20 WATER D-West D-West 1 Peeper Peeper ug/L	OL-RAD-CAP-0010-H 9-12 in OL-4015-12 R2206272-008 7/8/2022 12:25 SOIL-CALC D-West D-West 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%							1.0241		1.0241		
Avg TOC	Average from RAD >=6 in samples				%				0.8866	0.8866						
Avg TOC	Measured for Sample				%	0.118	0.45									
TOC	Total Organic Carbon	N			%	1180	4500									
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.57 U	0.5 U	3.35 U	0.374 U							
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.24 U	0.22 U	0.77 U	0.22 U							
108-90-7	Chlorobenzene	N	428	ug/kg		0.22 U	0.31 J	0.33 U	0.22 U							
100-41-4	Ethylbenzene	N	176	ug/kg		1.1 U	0.96 U	0.69 U	0.22 U							
1330-20-7	Xylenes	N	561	ug/kg		0.57 U	0.5 U	0.7 U	0.253 U							
91-20-3	Naphthalene	N	917	ug/kg		2.5 U	3.9 J	1.43 U	0.605 U							
71-43-2	Benzene	N	760	ug/L				0.09 U	0.22 U		0.1 UJ	0.22 UJ				0.09 UJ
108-88-3	Toluene	N	480	ug/L				0.28 J	0.231 J		0.83 J	0.594 J				0.44 J
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L				38 U	18.7 U				5.66 U	2.42 U		49 U
83-32-9	Acenaphthene	N	861	ug/kg		1.8 U	1.8 U	531 U	3.08 U							
208-96-8	Acenaphthylene	N	1301	ug/kg		2 U	1.9 U	208 U	2.97 U							
120-12-7	Anthracene	N	207	ug/kg		4.4 U	4.2 U	899 U	3.96 U							
86-73-7	Fluorene	N	264	ug/kg		1.9 U	1.8 U	443 U	3.63 U							
85-01-8	Phenanthrene	N	543	ug/kg		3.8 U	3.9 J	1249 U	5.5 U							
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		5.5 U	5.2 U									
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		3 U	4.3 J									
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		3.8 U	5.1 J									
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		3.1 U	3.6 J									
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		4.1 U	4 U									
218-01-9	Chrysene	N	253	ug/kg		3 U	3.4 J									
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		3 U	2.8 U									
206-44-0	Fluoranthene	N	1436	ug/kg		5.4 U	7.8									
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		3.2 U	3.1 J									
129-00-0	Pyrene	N	344	ug/kg		3.5 U	6.4 J									
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg		44 U	58 U									
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.011 J	0.023	2.808 U	2.09 U							
	OTHER															
PH	pH	N			ph units	8.2	7.99			7.69						
SOLID	Total Solids	N			%	90.3	89									

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0010-H 9-12 in OL-4015-12 R2206272-008 7/8/2022 12:25 WATER D-West D-West 1 Peeper Peeper ug/L	OL-RAD-CAP-0010-H 3-6 in OL-4022-06 R2206481-006 7/14/2022 12:40 SOIL D-West D-West 1 Vibracore Core ug/kg	OL-RAD-CAP-0010-H 9-12 in OL-4022-07 R2206481-007 7/14/2022 12:45 SOIL D-West D-West 1 Vibracore Core ug/kg	OL-RAD-CAP-0010-I 12-15 in OL-4015-13 R2206272-009 7/8/2022 12:30 SOIL-CALC D-West D-West 1 Peeper Peeper ug/kg	OL-RAD-CAP-0010-I 12-15 in OL-4015-13 R2206272-009 7/8/2022 12:30 WATER D-West D-West 1 Peeper Peeper ug/L	OL-RAD-CAP-0010-I 15-18 in OL-4015-14 R2206272-010 7/8/2022 12:35 WATER D-West D-West 1 Peeper Peeper ug/L	OL-RAD-CAP-0011-H 0-6 in OL-4064-02 R2210304-003 10/26/2022 14:00 SOIL-CALC D-Center RA-D-1B 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAD-CAP-0011-H 0-6 in OL-4064-02 R2210304-003 10/26/2022 14:00 WATER D-Center RA-D-1B 1 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAD-CAP-0011-H 0-6 in OL-4065-01 R2210305-001 10/26/2022 7:55 SOIL D-Center RA-D-1B 1 Gravity Core Core ug/kg	OL-RAD-CAP-0012-H 3-6 in OL-4015-15 R2206272-011 7/8/2022 13:10 SOIL-CALC D-Center D-Center 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED															
Avg TOC	Average from RAD <6 in samples				%									0.931			
Avg TOC	Average from RAD >=6 in samples				%	0.8866					0.8866	0.8866					
Avg TOC	Measured for Sample				%		0.081	0.079									
TOC	Total Organic Carbon	N			%		810	790									
	VOLATILES																
TCB_Summ	Trichlorobenzenes	N	347	ug/kg			0.56 U	0.59 U	3.35 U	0.374 U		3.52 U	0.34 U				
DCB_Summ	Dichlorobenzenes	N	239	ug/kg			0.24 U	0.25 U	0.77 U	0.22 U		0.81 U	0.2 U				
108-90-7	Chlorobenzene	N	428	ug/kg			0.22 U	0.23 U	0.33 UJ	0.22 UJ		0.35 UJ	0.2 UJ				
100-41-4	Ethylbenzene	N	176	ug/kg			1.1 U	1.2 U	0.69 UJ	0.22 UJ		0.72 UJ	0.2 UJ				
1330-20-7	Xylenes	N	561	ug/kg			0.56 U	0.59 U	0.7 UJ	0.253 UJ		0.73 UJ	0.23 UJ				
91-20-3	Naphthalene	N	917	ug/kg			2.7 U	2.3 U	1.43 UJ	0.605 UJ		1.5 UJ	0.55 UJ				
71-43-2	Benzene	N	760	ug/L		0.22 UJ			0.09 UJ	0.22 UJ		0.09 UJ	0.2 UJ			0.1 UJ	
108-88-3	Toluene	N	480	ug/L		0.363 J			0.36 J	0.297 J		0.28 UJ	0.2 UJ			0.31 UJ	
	SEMIVOLATILES																
108-95-2	Phenol	N	250	ug/L		24.2 U			73 U	36.3 U							
83-32-9	Acenaphthene	N	861	ug/kg			1.9 U	1.7 U	1042 U	6.05 U							
208-96-8	Acenaphthylene	N	1301	ug/kg			2.1 U	1.8 U	409 U	5.83 U							
120-12-7	Anthracene	N	207	ug/kg			4.6 U	4.1 U	1773 U	7.81 U							
86-73-7	Fluorene	N	264	ug/kg			2 U	1.7 U	872 U	7.15 U							
85-01-8	Phenanthrene	N	543	ug/kg			4 U	3.5 U	2498 U	11 U							
56-55-3	Benzo(A)Anthracene	N	192	ug/kg			5.7 U	5 U									
50-32-8	Benzo(A)Pyrene	N	146	ug/kg			3.1 U	2.7 U									
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg			4 U	3.5 U									
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg			3.2 U	2.8 U									
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg			4.4 U	3.8 U									
218-01-9	Chrysene	N	253	ug/kg			3.1 U	2.7 U									
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg			3.1 U	2.7 U									
206-44-0	Fluoranthene	N	1436	ug/kg			5.6 U	4.9 U									
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg			3.4 U	2.9 U									
129-00-0	Pyrene	N	344	ug/kg			3.7 U	3.2 U									
108-95-2	Phenol	Y	250	ug/L								0.72 J	0.31 J				
83-32-9	Acenaphthene	Y	861	ug/kg								36 U	0.18 U				
208-96-8	Acenaphthylene	Y	1301	ug/kg								15 U	0.18 U				
120-12-7	Anthracene	Y	207	ug/kg								66 U	0.25 U				
86-73-7	Fluorene	Y	264	ug/kg								27 U	0.19 U				
85-01-8	Phenanthrene	Y	543	ug/kg								81 U	0.31 U				
	PCBs																
PCB	PCB, Total	N	295	ug/kg			67 U	75 U									
	METALS																
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg		0.009 J	0.008 U	0.569 U	0.4235 U				0.037			
	OTHER																
PH	pH	N			ph units		8.09	8.81			8.14		7.56				
SOLID	Total Solids	N			%		86.6	93.7						76.8			

Notes:
U - Not Detected
J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
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Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0012-H 3-6 in OL-4015-15 R2206272-011 7/8/2022 13:10 WATER D-Center D-Center 1 Peeper Peeper ug/L	OL-RAD-CAP-0012-H 3-9 in OL-4015-16 R2206272-012 7/8/2022 13:15 SOIL-CALC D-Center D-Center 1 Peeper Peeper ug/kg	OL-RAD-CAP-0012-H 3-9 in OL-4015-16 R2206272-012 7/8/2022 13:15 WATER D-Center D-Center 1 Peeper Peeper ug/L	OL-RAD-CAP-0012-H 9-12 in OL-4015-17 R2206272-013 7/8/2022 13:20 SOIL-CALC D-Center D-Center 1 Peeper Peeper ug/kg	OL-RAD-CAP-0012-H 9-12 in OL-4015-17 R2206272-013 7/8/2022 13:20 WATER D-Center D-Center 1 Peeper Peeper ug/L	OL-RAD-CAP-0012-H 3-6 in OL-4022-14 R2206481-014 7/14/2022 14:45 SOIL D-Center D-Center 1 Vibracore Core ug/kg	OL-RAD-CAP-0012-H 9-12 in OL-4022-15 R2206481-015 7/14/2022 14:50 SOIL D-Center D-Center 1 Vibracore Core ug/kg	OL-RAD-CAP-0012-I 12-15 in OL-4015-18 R2206272-014 7/8/2022 13:25 SOIL-CALC D-Center D-Center 1 Peeper Peeper ug/kg	OL-RAD-CAP-0012-I 12-15 in OL-4015-18 R2206272-014 7/8/2022 13:25 WATER D-Center D-Center 1 Peeper Peeper ug/L	OL-RAD-CAP-0012-I 15-18 in OL-4015-19 R2206272-015 7/8/2022 13:30 WATER D-Center D-Center 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%	1.0241		1.0241								
Avg TOC	Average from RAD >=6 in samples				%					0.8866				0.8866	0.8866	
Avg TOC	Measured for Sample				%						0.113	0.093				
TOC	Total Organic Carbon	N			%						1130	930				
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg							0.65 U	0.89 U	3.35 U	0.374 U		
DCB_Summ	Dichlorobenzenes	N	239	ug/kg							0.28 U	0.38 U	0.77 U	0.22 U		
108-90-7	Chlorobenzene	N	428	ug/kg							0.25 U	0.35 U	0.33 UJ	0.22 UJ		
100-41-4	Ethylbenzene	N	176	ug/kg							1.3 U	1.8 U	0.69 UJ	0.22 UJ		
1330-20-7	Xylenes	N	561	ug/kg							0.65 U	0.89 U	0.7 UJ	0.253 UJ		
91-20-3	Naphthalene	N	917	ug/kg							4.7 J	2.3 U	1.43 UJ	0.605 UJ		
71-43-2	Benzene	N	760	ug/L		0.22 UJ			0.09 UJ	0.22 UJ			0.09 UJ	0.22 UJ		
108-88-3	Toluene	N	480	ug/L		0.22 UJ			0.27 J	0.22 J			0.37 J	0.308 J		
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L			5.66 U	2.42 U	49 U	24.2 U			49 U	24.2 U		
83-32-9	Acenaphthene	N	861	ug/kg							1.7 U	1.7 U	701 U	4.07 U		
208-96-8	Acenaphthylene	N	1301	ug/kg							1.9 U	1.8 U	278 U	3.96 U		
120-12-7	Anthracene	N	207	ug/kg							4.1 U	4.1 U	1199 U	5.28 U		
86-73-7	Fluorene	N	264	ug/kg							1.8 U	1.7 U	590 U	4.84 U		
85-01-8	Phenanthrene	N	543	ug/kg							3.6 U	3.5 U	1673 U	7.37 U		
56-55-3	Benzo(A)Anthracene	N	192	ug/kg							5.1 U	5 U				
50-32-8	Benzo(A)Pyrene	N	146	ug/kg							2.8 U	2.7 U				
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg							3.6 U	3.5 U				
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg							2.9 U	2.8 U				
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg							3.8 U	3.8 U				
218-01-9	Chrysene	N	253	ug/kg							2.8 U	2.7 U				
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg							2.8 U	2.7 U				
206-44-0	Fluoranthene	N	1436	ug/kg							5 U	4.9 U				
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg							3 U	2.9 U				
129-00-0	Pyrene	N	344	ug/kg							3.3 U	3.2 U				
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg							28 U	29 U				
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg						0.008 J	0.009 U	0.569 U	0.4235 U		
	OTHER															
PH	pH	N			ph units						8.53	8.27			7.54	
SOLID	Total Solids	N			%						91.1	91				

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0013-H 3-6 in OL-4018-01 R2206339-001 7/11/2022 16:00 SOIL-CALC D-Center D-Center 1 Peeper Peeper ug/kg	OL-RAD-CAP-0013-H 3-6 in OL-4018-01 R2206339-001 7/11/2022 16:00 WATER D-Center D-Center 1 Peeper Peeper ug/L	OL-RAD-CAP-0013-H 3-9 in OL-4018-02 R2206339-002 7/11/2022 16:05 SOIL-CALC D-Center D-Center 1 Peeper Peeper ug/kg	OL-RAD-CAP-0013-H 3-9 in OL-4018-02 R2206339-002 7/11/2022 16:05 WATER D-Center D-Center 1 Peeper Peeper ug/L	OL-RAD-CAP-0013-H 9-12 in OL-4018-03 R2206339-003 7/11/2022 16:10 SOIL-CALC D-Center D-Center 1 Peeper Peeper ug/kg	OL-RAD-CAP-0013-H 9-12 in OL-4018-03 R2206339-003 7/11/2022 16:10 WATER D-Center D-Center 1 Peeper Peeper ug/L	OL-RAD-CAP-0013-H 3-6 in OL-4022-12 R2206481-012 7/14/2022 14:15 SOIL D-Center D-Center 1 Vibracore Core ug/kg	OL-RAD-CAP-0013-H 9-12 in OL-4022-13 R2206481-013 7/14/2022 14:20 SOIL D-Center D-Center 1 Vibracore Core ug/kg	OL-RAD-CAP-0013-I 12-15 in OL-4018-04 R2206339-004 7/11/2022 16:15 SOIL-CALC D-Center D-Center 1 Peeper Peeper ug/kg	OL-RAD-CAP-0013-I 12-15 in OL-4018-04 R2206339-004 7/11/2022 16:15 WATER D-Center D-Center 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%		1.0241		1.0241							
Avg TOC	Average from RAD >=6 in samples				%							0.8866				0.8866
Avg TOC	Measured for Sample				%								1.2	0.066		
TOC	Total Organic Carbon	N			%								12000	660		
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg									0.51 U	0.62 U	33 U	3.74 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg									0.22 U	0.27 U	7.73 U	2.2 U
108-90-7	Chlorobenzene	N	428	ug/kg									0.67 J	0.24 U	3.29 U	2.2 U
100-41-4	Ethylbenzene	N	176	ug/kg									0.97 U	1.2 U	6.9 U	2.2 U
1330-20-7	Xylenes	N	561	ug/kg									0.51 U	0.62 U	6.97 U	2.53 U
91-20-3	Naphthalene	N	917	ug/kg									13	3.3 J	14 U	6.05 U
71-43-2	Benzene	N	760	ug/L		0.1 UJ	0.22 UJ				0.43 U	1.1 U			0.86 U	2.2 U
108-88-3	Toluene	N	480	ug/L		4.94 J-	3.52 J-				118	96.8			1084	891
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L				154	66	223	110				1113	550
83-32-9	Acenaphthene	N	861	ug/kg									1.7 U	1.9 U	531 U	3.08 U
208-96-8	Acenaphthylene	N	1301	ug/kg									1.9 U	2.1 U	208 U	2.97 U
120-12-7	Anthracene	N	207	ug/kg									4.2 U	4.5 U	899 U	3.96 U
86-73-7	Fluorene	N	264	ug/kg									2.1 J	1.9 U	443 U	3.63 U
85-01-8	Phenanthrene	N	543	ug/kg									8.1	4 U	1249 U	5.5 U
56-55-3	Benzo(A)Anthracene	N	192	ug/kg									5.2 U	5.6 U		
50-32-8	Benzo(A)Pyrene	N	146	ug/kg									2.8 U	3.1 U		
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg									4.6 J	4 U		
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg									2.9 U	3.2 U		
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg									3.9 U	4.3 U		
218-01-9	Chrysene	N	253	ug/kg									3 J	3.1 U		
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg									2.8 U	3.1 U		
206-44-0	Fluoranthene	N	1436	ug/kg									12	5.5 U		
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg									3 U	3.3 U		
129-00-0	Pyrene	N	344	ug/kg									9.4	3.6 U		
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg									55 U	32 UJ		
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg								0.012 J	0.009 U	0.569 U	0.4235 U
	OTHER															
PH	pH	N			ph units								8.66	8.06		
SOLID	Total Solids	N			%								92	83.1		

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0013-I 15-18 in OL-4018-05 R2206339-005 7/11/2022 16:20 WATER D-Center D-Center 1 Peeper Peeper ug/L	OL-RAD-CAP-0014-H 3-6 in OL-4029-09 R2206912-009 7/27/2022 12:30 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0014-H 3-6 in OL-4029-09 R2206912-009 7/27/2022 12:30 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0014-H 3-9 in OL-4029-10 R2206912-010 7/27/2022 12:35 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0014-H 3-9 in OL-4029-10 R2206912-010 7/27/2022 12:35 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0014-H 9-12 in OL-4029-11 R2206912-011 7/27/2022 12:40 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0014-H 9-12 in OL-4029-11 R2206912-011 7/27/2022 12:40 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0014-H 3-6 in OL-4030-04 R2207582-004 8/12/2022 13:40 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0014-H 9-12 in OL-4030-05 R2207582-005 8/12/2022 13:45 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0014-I 12-15 in OL-4029-12 R2206912-012 7/27/2022 12:45 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED															
Avg TOC	Average from RAD <6 in samples				%			1.0241		1.0241							
Avg TOC	Average from RAD >=6 in samples				%	0.8866							0.8866				
Avg TOC	Measured for Sample				%									0.07	0.052		
TOC	Total Organic Carbon	N			%									700	520		
	VOLATILES																
TCB_Summ	Trichlorobenzenes	N	347	ug/kg										0.45 U	0.57 U	3.35 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg										0.19 U	0.25 U	0.77 U	
108-90-7	Chlorobenzene	N	428	ug/kg										0.18 U	0.22 U	0.33 UJ	
100-41-4	Ethylbenzene	N	176	ug/kg										0.86 U	1.1 U	0.69 UJ	
1330-20-7	Xylenes	N	561	ug/kg										0.45 U	0.57 U	0.7 UJ	
91-20-3	Naphthalene	N	917	ug/kg										2.3 U	2.3 U	1.43 UJ	
71-43-2	Benzene	N	760	ug/L			0.1 UJ	0.22 UJ			0.09 UJ	0.22 UJ				0.09 UJ	
108-88-3	Toluene	N	480	ug/L			0.31 UJ	0.22 UJ			0.27 UJ	0.22 UJ				0.27 UJ	
	SEMIVOLATILES																
108-95-2	Phenol	N	250	ug/L					5.91	2.53	2.09	1.034				2.45	
83-32-9	Acenaphthene	N	861	ug/kg										1.7 U	1.7 U	9.47 U	
208-96-8	Acenaphthylene	N	1301	ug/kg										1.8 U	1.8 U	3.86 U	
120-12-7	Anthracene	N	207	ug/kg										2.9 U	2.9 U	18 U	
86-73-7	Fluorene	N	264	ug/kg										1.7 U	1.7 U	6.98 U	
85-01-8	Phenanthrene	N	543	ug/kg										2.5 UJ	2.5 UJ	22 U	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg										2.1 UJ	2.1 UJ		
50-32-8	Benzo(A)Pyrene	N	146	ug/kg										2.7 U	2.7 U		
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg										2.3 U	2.3 U		
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg										2.6 UJ	2.6 UJ		
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg										1.9 U	1.9 U		
218-01-9	Chrysene	N	253	ug/kg										1.7 UJ	1.7 UJ		
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg										2.7 U	2.7 U		
206-44-0	Fluoranthene	N	1436	ug/kg										2.9 UJ	2.9 UJ		
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg										2.9 UJ	2.9 UJ		
129-00-0	Pyrene	N	344	ug/kg										2.5 U	2.5 U		
108-95-2	Phenol	Y	250	ug/L													
83-32-9	Acenaphthene	Y	861	ug/kg													
208-96-8	Acenaphthylene	Y	1301	ug/kg													
120-12-7	Anthracene	Y	207	ug/kg													
86-73-7	Fluorene	Y	264	ug/kg													
85-01-8	Phenanthrene	Y	543	ug/kg													
	PCBs																
PCB	PCB, Total	N	295	ug/kg										28 U	27 U		
	METALS																
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg									0.015 U	0.014 U	0.296 U	
	OTHER																
PH	pH	N			ph units	7.92								7.99	8.49		
SOLID	Total Solids	N			%									91.9	94.1		

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0014-I 12-15 in OL-4029-12 R2206912-012 7/27/2022 12:45 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0014-I 15-18 in OL-4029-13 R2206912-013 7/27/2022 12:50 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0015-H 3-6 in OL-4015-01 R2206272-001 7/8/2022 10:40 SOIL-CALC D-West D-West 1 Peeper Peeper ug/kg	OL-RAD-CAP-0015-H 3-6 in OL-4015-01 R2206272-001 7/8/2022 10:40 WATER D-West D-West 1 Peeper Peeper ug/L	OL-RAD-CAP-0015-H 3-9 in OL-4015-02 R2206272-002 7/8/2022 10:45 SOIL-CALC D-West D-West 1 Peeper Peeper ug/kg	OL-RAD-CAP-0015-H 3-9 in OL-4015-02 R2206272-002 7/8/2022 10:45 WATER D-West D-West 1 Peeper Peeper ug/L	OL-RAD-CAP-0015-H 9-12 in OL-4015-03 R2206272-003 7/8/2022 10:50 SOIL-CALC D-West D-West 1 Peeper Peeper ug/kg	OL-RAD-CAP-0015-H 9-12 in OL-4015-03 R2206272-003 7/8/2022 10:50 WATER D-West D-West 1 Peeper Peeper ug/L	OL-RAD-CAP-0015-H 3-6 in OL-4023-01 R2206504-001 7/14/2022 15:15 SOIL D-West D-West 1 Vibracore Core ug/kg	OL-RAD-CAP-0015-H 9-12 in OL-4023-02 R2206504-002 7/14/2022 15:20 SOIL D-West D-West 1 Vibracore Core ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%				1.0241		1.0241					
Avg TOC	Average from RAD >=6 in samples				%	0.8866	0.8866							0.8866		
Avg TOC	Measured for Sample				%										0.126	0.092
TOC	Total Organic Carbon	N			%										1260	920
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.374 U									0.66 U	0.59 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.22 U									0.28 U	0.33
108-90-7	Chlorobenzene	N	428	ug/kg		0.22 UJ									0.86 J	1.5 J
100-41-4	Ethylbenzene	N	176	ug/kg		0.22 UJ									1.3 U	1.2 U
1330-20-7	Xylenes	N	561	ug/kg		0.253 UJ									0.66 U	0.59 U
91-20-3	Naphthalene	N	917	ug/kg		0.605 UJ									17	46
71-43-2	Benzene	N	760	ug/L		0.22 UJ		0.1 UJ	0.22 UJ			0.09 UJ	0.22 UJ			
108-88-3	Toluene	N	480	ug/L		0.22 UJ		0.31 UJ	0.22 UJ			28 J-	23.1 J-			
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		1.21				0.85 U	0.363 U	19	9.35			
83-32-9	Acenaphthene	N	861	ug/kg		0.055 U									1.7 U	1.8 U
208-96-8	Acenaphthylene	N	1301	ug/kg		0.055 U									1.9 U	2 U
120-12-7	Anthracene	N	207	ug/kg		0.0781 U									4.2 U	4.3 U
86-73-7	Fluorene	N	264	ug/kg		0.0572 U									1.8 U	1.8 U
85-01-8	Phenanthrene	N	543	ug/kg		0.0968 U									6.2 J	8.8
56-55-3	Benzo(A)Anthracene	N	192	ug/kg											6.5 J	5.3 U
50-32-8	Benzo(A)Pyrene	N	146	ug/kg											6.5 J	2.9 U
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg											8.9	4.2 J
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg											7.5	3 U
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg											4.1 J	4 U
218-01-9	Chrysene	N	253	ug/kg											5.8 J	2.9 U
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg											2.8 U	2.9 U
206-44-0	Fluoranthene	N	1436	ug/kg											11	12
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg											5.5 J	3.1 U
129-00-0	Pyrene	N	344	ug/kg											9.6	9.5
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg											29 U	30 U
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.22 U									0.008 U	0.009 J
	OTHER															
PH	pH	N			ph units		10.34								8.41	8.5
SOLID	Total Solids	N			%										90.8	88.5

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID:	OL-RAD-CAP-0015-I	OL-RAD-CAP-0015-I	OL-RAD-CAP-0015-I	OL-RAD-CAP-0016-H	OL-RAD-CAP-0016-H	OL-RAD-CAP-0016-H	OL-RAD-CAP-0016-H	OL-RAD-CAP-0016-H	OL-RAD-CAP-0016-H	Duplicate
					Depth:	12-15 in	12-15 in	15-18 in	3-6 in	3-6 in	9-12 in	9-12 in	3-6 in	9-12 in	9-12 in
					Sample ID:	OL-4015-04	OL-4015-04	OL-4015-05	OL-4014-01	OL-4014-01	OL-4014-03	OL-4014-03	OL-4023-05	OL-4023-06/OL-4023-07	OL-4023-06/OL-4023-07
					Lab Sample Id:	R2206272-004	R2206272-004	R2206272-005	R2206271-001	R2206271-001	R2206271-003	R2206271-003	R2206504-005	R2206504-006	R2206504-007
					Sampled:	7/8/2022 10:55	7/8/2022 10:55	7/8/2022 11:00	7/7/2022 15:00	7/7/2022 15:00	7/7/2022 15:10	7/7/2022 15:10	7/15/2022 11:45	7/15/2022 11:50	7/15/2022 11:50
					Matrix:	SOIL-CALC	WATER	WATER	SOIL-CALC	WATER	SOIL-CALC	WATER	SOIL	SOIL	SOIL
					Model Area:	D-West	D-West	D-West	D-SMU2	D-SMU2	D-SMU2	D-SMU2	D-SMU2	D-SMU2	D-SMU2
					Cap Type	D-West	D-West	D-West	D-SMU2	D-SMU2	D-SMU2	D-SMU2	D-SMU2	D-SMU2	D-SMU2
					Zone:	1	1	1	1	1	1	1	1	1	1
					Collection Method	Peeper	Peeper	Peeper	Peeper	Peeper	Peeper	Peeper	Vibracore	Vibracore	Vibracore
					Sampling Method	Peeper	Peeper	Peeper	Peeper	Peeper	Peeper	Peeper	Core	Core	Core
					Units	ug/kg	ug/L	ug/L	ug/kg	ug/L	ug/kg	ug/L	ug/kg	ug/kg	ug/kg
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAD <6 in samples				%					1.0241					
Avg TOC	Average from RAD >=6 in samples				%		0.8866	0.8866				0.8866			
Avg TOC	Measured for Sample				%								0.172	0.051	0.051
TOC	Total Organic Carbon	N			%								1720	450	510
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		3.35 U	0.374 U						0.93 U	0.58 U	0.53 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.77 U	0.22 U						0.4 U	0.25 U	0.23 U
108-90-7	Chlorobenzene	N	428	ug/kg		0.53 J	0.352 J						0.41 J	0.31 J	0.35 J
100-41-4	Ethylbenzene	N	176	ug/kg		0.69 UJ	0.22 UJ						1.8 U	1.2 U	1.1 U
1330-20-7	Xylenes	N	561	ug/kg		0.7 UJ	0.253 UJ						0.93 U	0.58 U	0.53 U
91-20-3	Naphthalene	N	917	ug/kg		1.43 UJ	0.605 UJ						2.3 U	3 J	3.7 J
71-43-2	Benzene	N	760	ug/L		0.09 UJ	0.22 UJ		0.1 U	0.22 U	0.09 U	0.22 U			
108-88-3	Toluene	N	480	ug/L		201 J-	165 J-		0.31 U	0.22 U	0.33 J	0.275 J			
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		623	308								
83-32-9	Acenaphthene	N	861	ug/kg		701 U	4.07 U						1.7 U	1.9 U	1.9 U
208-96-8	Acenaphthylene	N	1301	ug/kg		278 U	3.96 U						1.8 U	2.1 U	2 U
120-12-7	Anthracene	N	207	ug/kg		1199 U	5.28 U						4.1 U	4.6 U	4.5 U
86-73-7	Fluorene	N	264	ug/kg		590 U	4.84 U						1.7 U	2 U	1.9 U
85-01-8	Phenanthrene	N	543	ug/kg		1673 U	7.37 U						3.5 U	4 U	3.9 U
56-55-3	Benzo(A)Anthracene	N	192	ug/kg									5 U	5.7 U	5.5 U
50-32-8	Benzo(A)Pyrene	N	146	ug/kg									2.7 U	3.1 U	3 U
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg									3.5 U	4 U	3.9 U
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg									2.8 U	3.2 U	3.1 U
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg									3.8 U	4.4 U	4.2 U
218-01-9	Chrysene	N	253	ug/kg									2.7 U	3.1 U	3 U
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg									2.7 U	3.1 U	3 U
206-44-0	Fluoranthene	N	1436	ug/kg									4.9 U	5.6 U	5.4 U
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg									2.9 U	3.4 U	3.2 U
129-00-0	Pyrene	N	344	ug/kg									3.2 U	3.7 U	3.6 U
108-95-2	Phenol	Y	250	ug/L											
83-32-9	Acenaphthene	Y	861	ug/kg											
208-96-8	Acenaphthylene	Y	1301	ug/kg											
120-12-7	Anthracene	Y	207	ug/kg											
86-73-7	Fluorene	Y	264	ug/kg											
85-01-8	Phenanthrene	Y	543	ug/kg											
	PCBs														
PCB	PCB, Total	N	295	ug/kg									28 U	29 U	30 U
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.569 U	0.4235 U						0.014 J	0.01 J	0.008 U
	OTHER														
PH	pH	N			ph units			7.97					9.12	8.85	8.75
SOLID	Total Solids	N			%								90.8	87.5	87.5

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0016-I 12-15 in OL-4014-04 R2206271-004 7/7/2022 15:15 SOIL-CALC D-SMU2 D-SMU2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0016-I 12-15 in OL-4014-04 R2206271-004 7/7/2022 15:15 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L	OL-RAD-CAP-0016-I 15-18 in OL-4014-05 R2206271-005 7/7/2022 15:20 WATER D-SMU2 D-SMU2 1 Peeper Peeper ug/L	OL-RAD-CAP-0017-H 3-6 in OL-4016-01 R2206273-001 7/8/2022 14:00 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0017-H 3-6 in OL-4016-01 R2206273-001 7/8/2022 14:00 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0017-H 3-9 in OL-4016-02 R2206273-002 7/8/2022 14:05 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0017-H 3-9 in OL-4016-02 R2206273-002 7/8/2022 14:05 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0017-H 9-12 in OL-4016-03 R2206273-003 7/8/2022 14:10 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0017-H 9-12 in OL-4016-03 R2206273-003 7/8/2022 14:10 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0017-I 12-15 in OL-4016-04 R2206273-004 7/8/2022 14:15 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%					1.0241		1.0241			
Avg TOC	Average from RAD >=6 in samples				%		0.8866	0.8866						0.8866	
Avg TOC	Measured for Sample				%										
TOC	Total Organic Carbon	N			%										
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		3.35 U	0.374 U		3.87 U	0.374 U			3.35 U	0.374 U	3.35 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.77 U	0.22 U		0.89 U	0.22 U			0.77 U	0.22 U	0.77 U
108-90-7	Chlorobenzene	N	428	ug/kg		0.33 U	0.22 U		0.38 UJ	0.22 UJ			0.33 UJ	0.22 UJ	0.33 UJ
100-41-4	Ethylbenzene	N	176	ug/kg		0.69 U	0.22 U		0.8 UJ	0.22 UJ			0.69 UJ	0.22 UJ	0.69 UJ
1330-20-7	Xylenes	N	561	ug/kg		0.7 U	0.253 U		0.8 UJ	0.253 UJ			0.7 UJ	0.253 UJ	0.7 UJ
91-20-3	Naphthalene	N	917	ug/kg		1.43 U	0.605 U		1.65 UJ	0.605 UJ			1.43 UJ	0.605 UJ	1.43 UJ
71-43-2	Benzene	N	760	ug/L		0.09 U	0.22 U		0.1 UJ	0.22 UJ			0.09 UJ	0.22 UJ	0.09 UJ
108-88-3	Toluene	N	480	ug/L		0.29 J	0.242 J		0.31 UJ	0.22 UJ			0.27 UJ	0.22 UJ	0.27 UJ
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L							6.17 U	2.64 U	49 U	24.2 U	49 U
83-32-9	Acenaphthene	N	861	ug/kg							88 U	0.44 U	701 U	4.07 U	701 U
208-96-8	Acenaphthylene	N	1301	ug/kg							34 U	0.418 U	278 U	3.96 U	278 U
120-12-7	Anthracene	N	207	ug/kg							147 U	0.561 U	1199 U	5.28 U	1199 U
86-73-7	Fluorene	N	264	ug/kg							73 U	0.517 U	590 U	4.84 U	590 U
85-01-8	Phenanthrene	N	543	ug/kg							208 U	0.792 U	1673 U	7.37 U	1673 U
56-55-3	Benzo(A)Anthracene	N	192	ug/kg											
50-32-8	Benzo(A)Pyrene	N	146	ug/kg											
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg											
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg											
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg											
218-01-9	Chrysene	N	253	ug/kg											
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg											
206-44-0	Fluoranthene	N	1436	ug/kg											
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg											
129-00-0	Pyrene	N	344	ug/kg											
108-95-2	Phenol	Y	250	ug/L											
83-32-9	Acenaphthene	Y	861	ug/kg											
208-96-8	Acenaphthylene	Y	1301	ug/kg											
120-12-7	Anthracene	Y	207	ug/kg											
86-73-7	Fluorene	Y	264	ug/kg											
85-01-8	Phenanthrene	Y	543	ug/kg											
	PCBs														
PCB	PCB, Total	N	295	ug/kg											
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.569 U	0.4235 U		0.569 U	0.4235 U			0.569 U	0.4235 U	0.569 U
	OTHER														
PH	pH	N			ph units			8.41							
SOLID	Total Solids	N			%										

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0017-I 12-15 in OL-4016-04 R2206273-004 7/8/2022 14:15 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0017-I 15-18 in OL-4016-05 R2206273-005 7/8/2022 14:20 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0018-H 3-6 in OL-4017-13 R2206300-013 7/11/2022 15:00 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0018-H 3-6 in OL-4017-13 R2206300-013 7/11/2022 15:00 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0018-H 3-9 in OL-4017-14 R2206300-014 7/11/2022 15:05 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0018-H 3-9 in OL-4017-14 R2206300-014 7/11/2022 15:05 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0018-H 9-12 in OL-4017-15 R2206300-015 7/11/2022 15:10 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0018-H 9-12 in OL-4017-15 R2206300-015 7/11/2022 15:10 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0018-I 12-15 in OL-4017-16 R2206300-016 7/11/2022 15:15 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0018-I 12-15 in OL-4017-16 R2206300-016 7/11/2022 15:15 WATER D-Center D-Center 2 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAD <6 in samples				%				1.0241		1.0241				
Avg TOC	Average from RAD >=6 in samples				%	0.8866	0.8866						0.8866		0.8866
Avg TOC	Measured for Sample				%										
TOC	Total Organic Carbon	N			%										
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.374 U		3.87 U	0.374 U			3.35 U	0.374 U	3.35 U	0.374 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.22 U		0.89 U	0.22 U			0.77 U	0.22 U	0.77 U	0.22 U
108-90-7	Chlorobenzene	N	428	ug/kg		0.22 UJ		0.38 UJ	0.22 UJ			0.33 UJ	0.22 UJ	0.33 UJ	0.22 UJ
100-41-4	Ethylbenzene	N	176	ug/kg		0.22 UJ		0.8 UJ	0.22 UJ			0.69 UJ	0.22 UJ	0.69 UJ	0.22 UJ
1330-20-7	Xylenes	N	561	ug/kg		0.253 UJ		0.8 UJ	0.253 UJ			0.7 UJ	0.253 UJ	0.7 UJ	0.253 UJ
91-20-3	Naphthalene	N	917	ug/kg		0.605 UJ		1.65 UJ	0.605 UJ			1.43 UJ	0.605 UJ	1.43 UJ	0.605 UJ
71-43-2	Benzene	N	760	ug/L		0.22 UJ		0.1 UJ	0.22 UJ			0.09 UJ	0.22 UJ	0.09 UJ	0.22 UJ
108-88-3	Toluene	N	480	ug/L		0.22 UJ		0.31 UJ	0.22 UJ			0.27 UJ	0.22 UJ	0.31 J	0.253 J
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		24.2 U				7.71 U	3.3 U	49 U	24.2 U	73 U	36.3 U
83-32-9	Acenaphthene	N	861	ug/kg		4.07 U				109 U	0.55 U	701 U	4.07 U	1042 U	6.05 U
208-96-8	Acenaphthylene	N	1301	ug/kg		3.96 U				44 U	0.539 U	278 U	3.96 U	409 U	5.83 U
120-12-7	Anthracene	N	207	ug/kg		5.28 U				188 U	0.715 U	1199 U	5.28 U	1773 U	7.81 U
86-73-7	Fluorene	N	264	ug/kg		4.84 U				93 U	0.66 U	590 U	4.84 U	872 U	7.15 U
85-01-8	Phenanthrene	N	543	ug/kg		7.37 U				263 U	1.001 U	1673 U	7.37 U	2498 U	11 U
56-55-3	Benzo(A)Anthracene	N	192	ug/kg											
50-32-8	Benzo(A)Pyrene	N	146	ug/kg											
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg											
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg											
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg											
218-01-9	Chrysene	N	253	ug/kg											
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg											
206-44-0	Fluoranthene	N	1436	ug/kg											
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg											
129-00-0	Pyrene	N	344	ug/kg											
108-95-2	Phenol	Y	250	ug/L											
83-32-9	Acenaphthene	Y	861	ug/kg											
208-96-8	Acenaphthylene	Y	1301	ug/kg											
120-12-7	Anthracene	Y	207	ug/kg											
86-73-7	Fluorene	Y	264	ug/kg											
85-01-8	Phenanthrene	Y	543	ug/kg											
	PCBs														
PCB	PCB, Total	N	295	ug/kg											
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.4235 U		0.569 U	0.4235 U			0.569 U	0.4235 U	0.569 U	0.4235 U
	OTHER														
PH	pH	N			ph units		7.72								
SOLID	Total Solids	N			%										

Notes:
U - Not Detected
J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0018-I 15-18 in OL-4017-17 R2206300-017 7/11/2022 15:20 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0019-H 3-6 in OL-4014-06 R2206271-006 7/8/2022 8:20 SOIL-CALC D-West RA-D-2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0019-H 3-6 in OL-4014-06 R2206271-006 7/8/2022 8:20 WATER D-West RA-D-2 1 Peeper Peeper ug/L	OL-RAD-CAP-0019-H 6-9 in OL-4014-07 R2206271-007 7/8/2022 8:25 SOIL-CALC D-West RA-D-2 1 Peeper Peeper ug/kg	OL-RAD-CAP-0019-H 6-9 in OL-4014-07 R2206271-007 7/8/2022 8:25 WATER D-West RA-D-2 1 Peeper Peeper ug/L	OL-RAD-CAP-0019-H 3-6 in OL-4023-03 R2206504-003 7/15/2022 11:10 SOIL D-West RA-D-2 1 Vibracore Core ug/kg	OL-RAD-CAP-0019-H 5-8 in OL-4023-04 R2206504-004 7/15/2022 11:15 SOIL D-West RA-D-2 1 Vibracore Core ug/kg	OL-RAD-CAP-0019-I 9-12 in OL-4014-08 R2206271-008 7/8/2022 8:30 WATER D-West RA-D-2 1 Peeper Peeper ug/L	OL-RAD-CAP-0020-H 3-6 in OL-4014-09 R2206271-009 7/8/2022 9:00 SOIL-CALC D-West D-West 1 Peeper Peeper ug/kg	OL-RAD-CAP-0020-H 3-6 in OL-4014-09 R2206271-009 7/8/2022 9:00 WATER D-West D-West 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED															
Avg TOC	Average from RAD <6 in samples				%			1.0241									1.0241
Avg TOC	Average from RAD >=6 in samples				%	0.8866					0.8866				0.8866		
Avg TOC	Measured for Sample				%							0.049	0.047				
TOC	Total Organic Carbon	N			%							490	470				
	VOLATILES																
TCB_Summ	Trichlorobenzenes	N	347	ug/kg								0.56 U	0.68 U				
DCB_Summ	Dichlorobenzenes	N	239	ug/kg								0.24 U	0.31				
108-90-7	Chlorobenzene	N	428	ug/kg								0.22 U	0.5 J				
100-41-4	Ethylbenzene	N	176	ug/kg								1.1 U	1.3 U				
1330-20-7	Xylenes	N	561	ug/kg								0.56 U	0.68 U				
91-20-3	Naphthalene	N	917	ug/kg								2.7 U	2.6 U				
71-43-2	Benzene	N	760	ug/L			0.1 U	0.22 U	0.09 U	0.22 U					0.1 U	0.22 U	
108-88-3	Toluene	N	480	ug/L			0.31 U	0.22 U	0.66 J	0.539 J					0.31 U	0.22 U	
	SEMIVOLATILES																
108-95-2	Phenol	N	250	ug/L			44 UJ	18.7 UJ	38 UJ	18.7 UJ							
83-32-9	Acenaphthene	N	861	ug/kg								1.9 U	1.9 U				
208-96-8	Acenaphthylene	N	1301	ug/kg								2.1 U	2 U				
120-12-7	Anthracene	N	207	ug/kg								4.7 U	4.5 U				
86-73-7	Fluorene	N	264	ug/kg								2 U	1.9 U				
85-01-8	Phenanthrene	N	543	ug/kg								4.1 U	3.9 U				
56-55-3	Benzo(A)Anthracene	N	192	ug/kg								7.6	5.6 U				
50-32-8	Benzo(A)Pyrene	N	146	ug/kg								7.6	3 U				
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg								8.8	3.9 U				
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg								10	3.1 U				
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg								6.5 J	4.2 U				
218-01-9	Chrysene	N	253	ug/kg								8.8	3 U				
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg								5.3 J	3 U				
206-44-0	Fluoranthene	N	1436	ug/kg								5.7 U	5.5 U				
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg								8	3.3 U				
129-00-0	Pyrene	N	344	ug/kg								6.1 J	3.6 U				
108-95-2	Phenol	Y	250	ug/L													
83-32-9	Acenaphthene	Y	861	ug/kg													
208-96-8	Acenaphthylene	Y	1301	ug/kg													
120-12-7	Anthracene	Y	207	ug/kg													
86-73-7	Fluorene	Y	264	ug/kg													
85-01-8	Phenanthrene	Y	543	ug/kg													
	PCBs																
PCB	PCB, Total	N	295	ug/kg								29 U	45 U				
	METALS																
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg							0.009 U	0.009 U				
	OTHER																
PH	pH	N			ph units	8.11						8.74	8.71	8.17			
SOLID	Total Solids	N			%							86.7	85.8				

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
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Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0020-H 3-9 in OL-4014-10 R2206271-010 7/8/2022 9:05 SOIL-CALC D-West D-West 1 Peeper Peeper ug/kg	OL-RAD-CAP-0020-H 3-9 in OL-4014-10 R2206271-010 7/8/2022 9:05 WATER D-West D-West 1 Peeper Peeper ug/L	OL-RAD-CAP-0020-H 9-12 in OL-4014-11 R2206271-011 7/8/2022 9:10 SOIL-CALC D-West D-West 1 Peeper Peeper ug/kg	OL-RAD-CAP-0020-H 9-12 in OL-4014-11 R2206271-011 7/8/2022 9:10 WATER D-West D-West 1 Peeper Peeper ug/L	OL-RAD-CAP-0020-H 3-6 in OL-4024-01 R2206662-001 7/20/2022 10:25 SOIL D-West D-West 1 Vibracore Core ug/kg	OL-RAD-CAP-0020-H 9-12 in OL-4024-02 R2206662-002 7/20/2022 10:30 SOIL D-West D-West 1 Vibracore Core ug/kg	OL-RAD-CAP-0020-I 12-15 in OL-4014-12 R2206271-012 7/8/2022 9:15 SOIL-CALC D-West D-West 1 Peeper Peeper ug/kg	OL-RAD-CAP-0020-I 12-15 in OL-4014-12 R2206271-012 7/8/2022 9:15 WATER D-West D-West 1 Peeper Peeper ug/L	OL-RAD-CAP-0020-I 15-18 in OL-4014-13 R2206271-013 7/8/2022 9:20 WATER D-West D-West 1 Peeper Peeper ug/L	OL-RAD-CAP-0021-H 3-6 in OL-4027-10 R2206801-010 7/25/2022 13:30 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%		1.0241									
Avg TOC	Average from RAD >=6 in samples				%				0.8866					0.8866	0.8866	
Avg TOC	Measured for Sample				%						0.041	0.063				
TOC	Total Organic Carbon	N			%						410	630				
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg							0.4 U	0.67 U	3.35 U	0.374 U		
DCB_Summ	Dichlorobenzenes	N	239	ug/kg							0.17 U	0.28 U	0.77 U	0.22 U		
108-90-7	Chlorobenzene	N	428	ug/kg							0.16 U	0.26 U	0.33 U	0.22 U		
100-41-4	Ethylbenzene	N	176	ug/kg							0.76 U	1.3 U	0.69 U	0.22 U		
1330-20-7	Xylenes	N	561	ug/kg							0.4 U	0.67 U	0.7 U	0.253 U		
91-20-3	Naphthalene	N	917	ug/kg							2.4 U	2.6 U	1.43 U	0.605 U		
71-43-2	Benzene	N	760	ug/L				0.09 U	0.22 U				0.09 U	0.22 U		0.1 UJ
108-88-3	Toluene	N	480	ug/L				0.45 J	0.374 J				0.49 J	0.407 J		0.31 UJ
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		12 UJ	5.28 UJ	38 UJ	18.7 UJ				38 UJ	18.7 UJ		
83-32-9	Acenaphthene	N	861	ug/kg							1.7 U	1.9 U	531 UJ	3.08 UJ		
208-96-8	Acenaphthylene	N	1301	ug/kg							1.9 U	2.1 U	208 UJ	2.97 UJ		
120-12-7	Anthracene	N	207	ug/kg							4.1 U	4.5 U	899 UJ	3.96 UJ		
86-73-7	Fluorene	N	264	ug/kg							1.8 U	1.9 U	443 UJ	3.63 UJ		
85-01-8	Phenanthrene	N	543	ug/kg							3.6 U	4 U	1249 UJ	5.5 UJ		
56-55-3	Benzo(A)Anthracene	N	192	ug/kg							5 U	5.6 U				
50-32-8	Benzo(A)Pyrene	N	146	ug/kg							2.8 U	3.1 U				
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg							3.6 U	4 U				
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg							2.9 U	3.2 U				
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg							3.8 U	4.3 U				
218-01-9	Chrysene	N	253	ug/kg							2.8 U	3.1 U				
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg							2.8 U	3.1 U				
206-44-0	Fluoranthene	N	1436	ug/kg							5 U	5.5 U				
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg							3 U	3.3 U				
129-00-0	Pyrene	N	344	ug/kg							3.3 U	3.6 U				
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg							47 U	45 U				
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg						0.015 U	0.014 U	0.569 U	0.4235 U		
	OTHER															
PH	pH	N			ph units						8.41	8.7			8.14	
SOLID	Total Solids	N			%						83	86.6				

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0021-H 3-6 in OL-4027-10 R2206801-010 7/25/2022 13:30 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0021-H 3-9 in OL-4027-11 R2206801-011 7/25/2022 13:35 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0021-H 3-9 in OL-4027-11 R2206801-011 7/25/2022 13:35 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0021-H 9-12 in OL-4027-12 R2206801-012 7/25/2022 13:40 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0021-H 9-12 in OL-4027-12 R2206801-012 7/25/2022 13:40 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0021-H 3-6 in OL-4030-06 R2207582-006 8/12/2022 13:55 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0021-H 9-11 in OL-4030-07 R2207582-007 8/12/2022 14:00 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0021-I 12-15 in OL-4027-13 R2206801-013 7/25/2022 13:45 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0021-I 12-15 in OL-4027-13 R2206801-013 7/25/2022 13:45 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0021-I 15-18 in OL-4027-14 R2206801-014 7/25/2022 13:50 WATER D-East D-East 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%	1.0241		1.0241								
Avg TOC	Average from RAD >=6 in samples				%					0.8866				0.8866	0.8866	
Avg TOC	Measured for Sample				%						0.12	0.097				
TOC	Total Organic Carbon	N			%						1200	970				
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg							0.57	0.49	17 U	1.87 U		
DCB_Summ	Dichlorobenzenes	N	239	ug/kg							15.88	13.22	3.86 U	1.1 U		
108-90-7	Chlorobenzene	N	428	ug/kg							27	18	7.56 J	5.06 J		
100-41-4	Ethylbenzene	N	176	ug/kg							1.1 U	1.1 U	3.45 U	1.1 U		
1330-20-7	Xylenes	N	561	ug/kg							6.5 J	5.2 J	3.63 U	1.32 U		
91-20-3	Naphthalene	N	917	ug/kg							43	69	7.26 U	3.08 U		
71-43-2	Benzene	N	760	ug/L		0.22 UJ				0.09 UJ	0.22 UJ			0.43 U	1.1 U	
108-88-3	Toluene	N	480	ug/L		0.22 UJ				722 J	594 J			709	583	
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L			57	24.2		534 J+	264 J+			467 J+	231 J+	
83-32-9	Acenaphthene	N	861	ug/kg								1.8 U	1.8 U	474 U	2.75 U	
208-96-8	Acenaphthylene	N	1301	ug/kg								1.9 U	2 U	193 U	2.75 U	
120-12-7	Anthracene	N	207	ug/kg								3.1 U	3.1 U	899 U	3.96 U	
86-73-7	Fluorene	N	264	ug/kg								9.5	1.9 U	349 U	2.86 U	
85-01-8	Phenanthrene	N	543	ug/kg								2.7 UJ	2.7 U	1099 U	4.84 U	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg								2.3 UJ	2.3 U			
50-32-8	Benzo(A)Pyrene	N	146	ug/kg								2.9 U	2.9 U			
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg								2.4 U	2.4 U			
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg								2.7 UJ	2.7 U			
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg								2 U	2 U			
218-01-9	Chrysene	N	253	ug/kg								1.8 UJ	1.9 U			
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg								2.9 U	2.9 U			
206-44-0	Fluoranthene	N	1436	ug/kg								3 UJ	3 U			
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg								3.1 UJ	3.1 U			
129-00-0	Pyrene	N	344	ug/kg								2.6 U	2.7 U			
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg								29 U	28 U			
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg							0.014 U	0.019 J	0.296 U	0.22 U	
	OTHER															
PH	pH	N			ph units							8.4	8.75			8.92
SOLID	Total Solids	N			%							89	93.3			

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0022-H 3-6 in OL-4014-14 R2206271-014 7/8/2022 9:40 SOIL-CALC D-West D-West 2 Peeper Peeper ug/kg	OL-RAD-CAP-0022-H 3-6 in OL-4014-14 R2206271-014 7/8/2022 9:40 WATER D-West D-West 2 Peeper Peeper ug/L	OL-RAD-CAP-0022-H 3-9 in OL-4014-15 R2206271-015 7/8/2022 9:45 SOIL-CALC D-West D-West 2 Peeper Peeper ug/kg	OL-RAD-CAP-0022-H 3-9 in OL-4014-15 R2206271-015 7/8/2022 9:45 WATER D-West D-West 2 Peeper Peeper ug/L	OL-RAD-CAP-0022-H 9-12 in OL-4014-16 R2206271-016 7/8/2022 9:50 WATER D-West D-West 2 Peeper Peeper ug/L	OL-RAD-CAP-0022-H 12-18 in OL-4014-17 R2206271-017 7/8/2022 9:55 SOIL-CALC D-West D-West 2 Peeper Peeper ug/kg	OL-RAD-CAP-0022-H 12-18 in OL-4014-17 R2206271-017 7/8/2022 9:55 WATER D-West D-West 2 Peeper Peeper ug/L	OL-RAD-CAP-0022-H 15-18 in OL-4014-18 R2206271-018 7/8/2022 10:00 SOIL-CALC D-West D-West 2 Peeper Peeper ug/kg	OL-RAD-CAP-0022-H 15-18 in OL-4014-18 R2206271-018 7/8/2022 10:00 WATER D-West D-West 2 Peeper Peeper ug/L	OL-RAD-CAP-0022-H 11-14 in OL-4025-01 R2206746-001 7/21/2022 13:35 SOIL D-West D-West 2 Vibracore Core ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%		1.0241		1.0241							
Avg TOC	Average from RAD >=6 in samples				%						0.8866		0.8866		0.8866	
Avg TOC	Measured for Sample				%											0.182
TOC	Total Organic Carbon	N			%											1820
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		3.87 U	0.374 U							3.35 U	0.374 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.89 U	0.22 U							0.77 U	0.22 U	
108-90-7	Chlorobenzene	N	428	ug/kg		0.38 U	0.22 U							0.33 U	0.22 U	
100-41-4	Ethylbenzene	N	176	ug/kg		0.8 U	0.22 U							0.69 U	0.22 U	
1330-20-7	Xylenes	N	561	ug/kg		0.8 U	0.253 U							0.7 U	0.253 U	
91-20-3	Naphthalene	N	917	ug/kg		1.65 U	0.605 U							1.43 U	0.605 U	2.5 U
71-43-2	Benzene	N	760	ug/L		0.1 U	0.22 U							0.09 U	0.22 U	
108-88-3	Toluene	N	480	ug/L		0.31 U	0.22 U							0.27 U	0.22 U	
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L				12 UJ	5.28 UJ		11 UJ	5.28 UJ				
83-32-9	Acenaphthene	N	861	ug/kg				173 UJ	0.869 UJ		150 UJ	0.869 UJ				
208-96-8	Acenaphthylene	N	1301	ug/kg				68 UJ	0.836 UJ		59 UJ	0.836 UJ				
120-12-7	Anthracene	N	207	ug/kg				317 UJ	1.21 UJ		275 UJ	1.21 UJ				
86-73-7	Fluorene	N	264	ug/kg				144 UJ	1.023 UJ		125 UJ	1.023 UJ				
85-01-8	Phenanthrene	N	543	ug/kg				433 UJ	1.65 UJ		375 UJ	1.65 UJ				
56-55-3	Benzo(A)Anthracene	N	192	ug/kg												5.4 U
50-32-8	Benzo(A)Pyrene	N	146	ug/kg												2.9 U
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg												3.8 U
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg												3 U
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg												4.1 U
218-01-9	Chrysene	N	253	ug/kg												2.9 U
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg												2.9 U
206-44-0	Fluoranthene	N	1436	ug/kg												5.3 U
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg												3.2 U
129-00-0	Pyrene	N	344	ug/kg												3.5 U
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg												42 U
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.569 U	0.4235 U							0.569 U	0.4235 U	
	OTHER															
PH	pH	N			ph units					7.5						
SOLID	Total Solids	N			%											92.1

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0022-I 18-21 in OL-4014-19 R2206271-019 7/8/2022 10:05 SOIL-CALC D-West D-West 2 Peeper Peeper ug/kg	OL-RAD-CAP-0022-I 18-21 in OL-4014-19 R2206271-019 7/8/2022 10:05 WATER D-West D-West 2 Peeper Peeper ug/L	OL-RAD-CAP-0022-I 21-24 in OL-4014-20 R2206271-020 7/8/2022 10:10 WATER D-West D-West 2 Peeper Peeper ug/L	OL-RAD-CAP-0023-H 3-6 in OL-4017-01 R2206300-001 7/11/2022 13:00 SOIL-CALC D-Center OL-VC-10138/40 2 Peeper Peeper ug/kg	OL-RAD-CAP-0023-H 3-6 in OL-4017-01 R2206300-001 7/11/2022 13:00 WATER D-Center OL-VC-10138/40 2 Peeper Peeper ug/L	OL-RAD-CAP-0023-H 3-9 in OL-4017-02 R2206300-002 7/11/2022 13:05 SOIL-CALC D-Center OL-VC-10138/40 2 Peeper Peeper ug/kg	OL-RAD-CAP-0023-H 3-9 in OL-4017-02 R2206300-002 7/11/2022 13:05 WATER D-Center OL-VC-10138/40 2 Peeper Peeper ug/L	OL-RAD-CAP-0023-H 9-12 in OL-4017-03 R2206300-003 7/11/2022 13:10 WATER D-Center OL-VC-10138/40 2 Peeper Peeper ug/L	OL-RAD-CAP-0023-H 12-18 in OL-4017-04 R2206300-004 7/11/2022 13:15 SOIL-CALC D-Center OL-VC-10138/40 2 Peeper Peeper ug/kg	OL-RAD-CAP-0023-H 12-18 in OL-4017-04 R2206300-004 7/11/2022 13:15 WATER D-Center OL-VC-10138/40 2 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%					1.0241		1.0241				
Avg TOC	Average from RAD >=6 in samples				%		0.8866	0.8866						0.8866		0.8866
Avg TOC	Measured for Sample				%											
TOC	Total Organic Carbon	N			%											
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		3.35 U	0.374 U		3.87 U	0.374 U						
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.77 U	0.22 U		0.89 U	0.22 U						
108-90-7	Chlorobenzene	N	428	ug/kg		0.33 U	0.22 U		0.38 UJ	0.22 UJ						
100-41-4	Ethylbenzene	N	176	ug/kg		0.69 U	0.22 U		0.8 UJ	0.22 UJ						
1330-20-7	Xylenes	N	561	ug/kg		0.7 U	0.253 U		0.8 UJ	0.253 UJ						
91-20-3	Naphthalene	N	917	ug/kg		1.43 U	0.605 U		1.65 UJ	0.605 UJ						
71-43-2	Benzene	N	760	ug/L		0.09 U	0.22 U		0.1 UJ	0.22 UJ						
108-88-3	Toluene	N	480	ug/L		0.27 U	0.22 U		0.31 UJ	0.22 UJ						
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		38 UJ	18.7 UJ				9.51 U	4.07 U		7.35 U	3.63 U
83-32-9	Acenaphthene	N	861	ug/kg		531 UJ	3.08 UJ				136 U	0.682 U		104 U	0.605 U
208-96-8	Acenaphthylene	N	1301	ug/kg		208 UJ	2.97 UJ				53 U	0.649 U		41 U	0.583 U
120-12-7	Anthracene	N	207	ug/kg		899 UJ	3.96 UJ				228 U	0.869 U		177 U	0.781 U
86-73-7	Fluorene	N	264	ug/kg		443 UJ	3.63 UJ				113 U	0.803 U		87 U	0.715 U
85-01-8	Phenanthrene	N	543	ug/kg		1249 UJ	5.5 UJ				346 U	1.32 U		250 U	1.1 U
56-55-3	Benzo(A)Anthracene	N	192	ug/kg												
50-32-8	Benzo(A)Pyrene	N	146	ug/kg												
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg												
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg												
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg												
218-01-9	Chrysene	N	253	ug/kg												
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg												
206-44-0	Fluoranthene	N	1436	ug/kg												
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg												
129-00-0	Pyrene	N	344	ug/kg												
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg												
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.569 U	0.4235 U		0.569 U	0.4235 U						
	OTHER															
PH	pH	N			ph units			7.56					8.01			
SOLID	Total Solids	N			%											

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0023-H 15-18 in OL-4017-05 R2206300-005 7/11/2022 13:20 SOIL-CALC D-Center OL-VC-10138/40 2 Peeper Peeper ug/kg	OL-RAD-CAP-0023-H 15-18 in OL-4017-05 R2206300-005 7/11/2022 13:20 WATER D-Center OL-VC-10138/40 2 Peeper Peeper ug/L	OL-RAD-CAP-0023-I 18-21 in OL-4017-06 R2206300-006 7/11/2022 13:25 SOIL-CALC D-Center OL-VC-10138/40 2 Peeper Peeper ug/kg	OL-RAD-CAP-0023-I 18-21 in OL-4017-06 R2206300-006 7/11/2022 13:25 WATER D-Center OL-VC-10138/40 2 Peeper Peeper ug/L	OL-RAD-CAP-0023-I 21-24 in OL-4017-07 R2206300-007 7/11/2022 13:30 WATER D-Center OL-VC-10138/40 2 Peeper Peeper ug/L	OL-RAD-CAP-0024-H 3-6 in OL-4017-08 R2206300-008 7/11/2022 14:00 SOIL-CALC D-Center OL-VC-10138/40 2 Peeper Peeper ug/kg	OL-RAD-CAP-0024-H 3-6 in OL-4017-08 R2206300-008 7/11/2022 14:00 WATER D-Center OL-VC-10138/40 2 Peeper Peeper ug/L	OL-RAD-CAP-0024-H 3-9 in OL-4017-09 R2206300-009 7/11/2022 14:05 SOIL-CALC D-Center OL-VC-10138/40 2 Peeper Peeper ug/kg	OL-RAD-CAP-0024-H 3-9 in OL-4017-09 R2206300-009 7/11/2022 14:05 WATER D-Center OL-VC-10138/40 2 Peeper Peeper ug/L	OL-RAD-CAP-0024-H 9-12 in OL-4017-10 R2206300-010 7/11/2022 14:10 SOIL-CALC D-Center OL-VC-10138/40 2 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAD <6 in samples				%								1.0241			1.0241	
Avg TOC	Average from RAD >=6 in samples				%		0.8866		0.8866		0.8866						
Avg TOC	Measured for Sample				%												
TOC	Total Organic Carbon	N			%												
	VOLATILES																
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		3.35 U	0.374 U	3.35 U	0.374 U		3.87 U	0.374 U			3.35 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.77 U	0.22 U	0.77 U	0.22 U		0.89 U	0.22 U			0.77 U
108-90-7	Chlorobenzene	N	428	ug/kg		0.33 UJ	0.22 UJ	0.33 UJ	0.22 UJ		0.38 UJ	0.22 UJ			0.33 UJ
100-41-4	Ethylbenzene	N	176	ug/kg		0.69 UJ	0.22 UJ	0.69 UJ	0.22 UJ		0.8 UJ	0.22 UJ			0.69 UJ
1330-20-7	Xylenes	N	561	ug/kg		0.7 UJ	0.253 UJ	0.7 UJ	0.253 UJ		0.8 UJ	0.253 UJ			0.7 UJ
91-20-3	Naphthalene	N	917	ug/kg		1.43 UJ	0.605 UJ	1.43 UJ	0.605 UJ		1.65 UJ	0.605 UJ			1.43 UJ
71-43-2	Benzene	N	760	ug/L		0.09 UJ	0.22 UJ	0.09 UJ	0.22 UJ		0.1 UJ	0.22 UJ			0.09 UJ
108-88-3	Toluene	N	480	ug/L		0.27 UJ	0.22 UJ	0.27 UJ	0.22 UJ		0.31 UJ	0.22 UJ			0.27 UJ
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L				73 U	36.3 U				9 U	3.85 U	49 U
83-32-9	Acenaphthene	N	861	ug/kg				1042 U	6.05 U				127 U	0.638 U	701 U
208-96-8	Acenaphthylene	N	1301	ug/kg				409 U	5.83 U				50 U	0.616 U	278 U
120-12-7	Anthracene	N	207	ug/kg				1773 U	7.81 U				216 U	0.825 U	1199 U
86-73-7	Fluorene	N	264	ug/kg				872 U	7.15 U				107 U	0.759 U	590 U
85-01-8	Phenanthrene	N	543	ug/kg				2498 U	11 U				317 U	1.21 U	1673 U
56-55-3	Benzo(A)Anthracene	N	192	ug/kg											
50-32-8	Benzo(A)Pyrene	N	146	ug/kg											
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg											
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg											
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg											
218-01-9	Chrysene	N	253	ug/kg											
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg											
206-44-0	Fluoranthene	N	1436	ug/kg											
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg											
129-00-0	Pyrene	N	344	ug/kg											
108-95-2	Phenol	Y	250	ug/L											
83-32-9	Acenaphthene	Y	861	ug/kg											
208-96-8	Acenaphthylene	Y	1301	ug/kg											
120-12-7	Anthracene	Y	207	ug/kg											
86-73-7	Fluorene	Y	264	ug/kg											
85-01-8	Phenanthrene	Y	543	ug/kg											
	PCBs														
PCB	PCB, Total	N	295	ug/kg											
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.569 U	0.4235 U	0.569 U	0.4235 U		0.569 U	0.4235 U			0.569 U
	OTHER														
PH	pH	N			ph units					7.83					
SOLID	Total Solids	N			%										

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0024-H 9-12 in OL-4017-10 R2206300-010 7/11/2022 14:10 WATER D-Center OL-VC-10138/40 2 Peeper Peeper ug/L	OL-RAD-CAP-0024-I 12-15 in OL-4017-11 R2206300-011 7/11/2022 14:15 SOIL-CALC D-Center OL-VC-10138/40 2 Peeper Peeper ug/kg	OL-RAD-CAP-0024-I 12-15 in OL-4017-11 R2206300-011 7/11/2022 14:15 WATER D-Center OL-VC-10138/40 2 Peeper Peeper ug/L	OL-RAD-CAP-0024-I 15-18 in OL-4017-12 R2206300-012 7/11/2022 14:20 WATER D-Center OL-VC-10138/40 2 Peeper Peeper ug/L	OL-RAD-CAP-0025-H 3-9 in OL-4028-16 R2206855-017 7/26/2022 15:15 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0025-H 3-9 in OL-4028-16 R2206855-017 7/26/2022 15:15 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0025-H 9-12 in OL-4028-17 R2206855-018 7/26/2022 15:20 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0025-H 9-12 in OL-4028-17 R2206855-018 7/26/2022 15:20 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0025-H 3-6 in OL-4028-21 R2206855-016 7/26/2022 15:10 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0025-H 3-6 in OL-4028-21 R2206855-016 7/26/2022 15:10 WATER D-East D-East 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%						1.0241				1.0241
Avg TOC	Average from RAD >=6 in samples				%	0.8866		0.8866	0.8866					0.8866		
Avg TOC	Measured for Sample				%											
TOC	Total Organic Carbon	N			%											
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.374 U	3.35 U	0.374 U								
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.22 U	0.77 U	0.22 U								
108-90-7	Chlorobenzene	N	428	ug/kg		0.22 UJ	0.33 UJ	0.22 UJ								
100-41-4	Ethylbenzene	N	176	ug/kg		0.22 UJ	0.69 UJ	0.22 UJ								
1330-20-7	Xylenes	N	561	ug/kg		0.253 UJ	0.7 UJ	0.253 UJ								
91-20-3	Naphthalene	N	917	ug/kg		0.605 UJ	1.43 UJ	0.605 UJ								
71-43-2	Benzene	N	760	ug/L		0.22 UJ	0.09 UJ	0.22 UJ					0.09 U	0.22 U	0.1 UJ	0.22 UJ
108-88-3	Toluene	N	480	ug/L		0.22 UJ	0.27 UJ	0.22 UJ					0.27 U	0.22 U	0.31 UJ	0.22 UJ
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		24.2 U	49 U	24.2 U		1.85 U	0.792 U	5.57 U	2.75 U			
83-32-9	Acenaphthene	N	861	ug/kg		4.07 U	701 U	4.07 U								
208-96-8	Acenaphthylene	N	1301	ug/kg		3.96 U	278 U	3.96 U								
120-12-7	Anthracene	N	207	ug/kg		5.28 U	1199 U	5.28 U								
86-73-7	Fluorene	N	264	ug/kg		4.84 U	590 U	4.84 U								
85-01-8	Phenanthrene	N	543	ug/kg		7.37 U	1673 U	7.37 U								
56-55-3	Benzo(A)Anthracene	N	192	ug/kg												
50-32-8	Benzo(A)Pyrene	N	146	ug/kg												
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg												
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg												
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg												
218-01-9	Chrysene	N	253	ug/kg												
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg												
206-44-0	Fluoranthene	N	1436	ug/kg												
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg												
129-00-0	Pyrene	N	344	ug/kg												
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg												
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.4235 U	0.569 U	0.4235 U								
	OTHER															
PH	pH	N			ph units				7.93							
SOLID	Total Solids	N			%											

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
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Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0025-H 3-6 in OL-4030-01 R2207582-001 8/12/2022 13:10 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0025-H 9-12 in OL-4030-02/OL-4030-03 R2207582-002 8/12/2022 13:25 SOIL D-East D-East 1 Vibracore Core ug/kg	Duplicate OL-RAD-CAP-0025-H 9-12 in OL-4030-02/OL-4030-03 R2207582-003 8/12/2022 13:30 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0025-I 12-15 in OL-4028-18 R2206855-019 7/26/2022 15:25 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0025-I 12-15 in OL-4028-18 R2206855-019 7/26/2022 15:25 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0025-I 15-18 in OL-4028-19 R2206855-020 7/26/2022 15:30 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0025-I 15-18 in OL-4028-19 R2206855-020 7/26/2022 15:30 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0026-H 3-6 in OL-4018-06 R2206339-006 7/12/2022 8:50 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0026-H 3-6 in OL-4018-06 R2206339-006 7/12/2022 8:50 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0026-H 3-9 in OL-4018-07 R2206339-007 7/12/2022 8:55 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAD <6 in samples				%									1.0241	
Avg TOC	Average from RAD >=6 in samples				%						0.8866		0.8866			
Avg TOC	Measured for Sample				%	0.177	0.159	0.159							
TOC	Total Organic Carbon	N			%	1770	1180	1590							
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.65 U	0.73 U	0.84 U	3.35 U	0.374 U			3.87 U	0.374 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.28 U	0.31 U	0.36 U	0.77 U	0.22 U			0.89 U	0.22 U	
108-90-7	Chlorobenzene	N	428	ug/kg		0.25 U	0.28 U	0.32 U	0.33 U	0.22 U			0.38 UJ	0.22 UJ	
100-41-4	Ethylbenzene	N	176	ug/kg		1.3 U	1.4 U	1.6 U	0.69 U	0.22 U			0.8 UJ	0.22 UJ	
1330-20-7	Xylenes	N	561	ug/kg		0.65 U	0.73 U	0.84 U	0.7 U	0.253 U			0.8 UJ	0.253 UJ	
91-20-3	Naphthalene	N	917	ug/kg		5.3 J	2.8 J	3.1 J	1.43 U	0.605 U			1.65 UJ	0.605 UJ	
71-43-2	Benzene	N	760	ug/L					0.09 U	0.22 U			0.1 UJ	0.22 UJ	
108-88-3	Toluene	N	480	ug/L					0.31 J	0.253 J			0.31 UJ	0.22 UJ	
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L					89 J	44 J					44 U
83-32-9	Acenaphthene	N	861	ug/kg		1.8 U	1.8 U	1.7 U	474 UJ	2.75 UJ					613 U
208-96-8	Acenaphthylene	N	1301	ug/kg		2 U	1.9 U	1.9 U	193 UJ	2.75 UJ					241 U
120-12-7	Anthracene	N	207	ug/kg		3.1 U	3.1 U	3 U	899 UJ	3.96 UJ					1039 U
86-73-7	Fluorene	N	264	ug/kg		2.5 J	1.8 U	2 J	349 UJ	2.86 UJ					511 U
85-01-8	Phenanthrene	N	543	ug/kg		3.9 J	2.6 UJ	2.6 UJ	1099 UJ	4.84 UJ					1443 U
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		3.2 J	2.2 UJ	2.2 UJ							
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		2.9 U	3.1 J	2.8 U							
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		2.4 U	2.4 U	2.3 U							
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		2.7 UJ	2.7 UJ	2.6 UJ							
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		2 U	1.9 U	1.9 U							
218-01-9	Chrysene	N	253	ug/kg		1.9 UJ	2.1 J	1.8 UJ							
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		2.9 U	2.9 U	2.8 U							
206-44-0	Fluoranthene	N	1436	ug/kg		5 J	3 UJ	2.9 UJ							
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		3.1 UJ	3.1 UJ	3 UJ							
129-00-0	Pyrene	N	344	ug/kg		3.9 J	2.6 U	2.5 U							
108-95-2	Phenol	Y	250	ug/L											
83-32-9	Acenaphthene	Y	861	ug/kg											
208-96-8	Acenaphthylene	Y	1301	ug/kg											
120-12-7	Anthracene	Y	207	ug/kg											
86-73-7	Fluorene	Y	264	ug/kg											
85-01-8	Phenanthrene	Y	543	ug/kg											
	PCBs														
PCB	PCB, Total	N	295	ug/kg		31 U	29 U	28 U							
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.015 U	0.014 U	0.013 U			0.296 U	0.22 U	0.569 U	0.4235 U	
	OTHER														
PH	pH	N			ph units	8.23	8.38	8.4				9.08			
SOLID	Total Solids	N			%	88.3	91.3	92.5							

Notes:
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J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0026-H 3-9 in OL-4018-07 R2206339-007 7/12/2022 8:55 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0026-H 9-12 in OL-4018-08 R2206339-008 7/12/2022 9:00 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0026-H 9-12 in OL-4018-08 R2206339-008 7/12/2022 9:00 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0026-H 3-6 in OL-4026-01 R2206774-001 7/22/2022 12:40 SOIL D-Center D-Center 2 Vibracore Core ug/kg	OL-RAD-CAP-0026-I 12-15 in OL-4018-09 R2206339-009 7/12/2022 9:05 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0026-I 12-15 in OL-4018-09 R2206339-009 7/12/2022 9:05 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0026-I 15-18 in OL-4018-10 R2206339-010 7/12/2022 9:10 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0027-H 3-6 in OL-4006-07 R2205835-007 6/24/2022 10:30 SOIL Outboard West Outboard West 3 Hand Core Core ug/kg	OL-RAD-CAP-0027-H 3-6 in OL-4006-07 R2205835-007 6/24/2022 10:30 WATER-CALC Outboard West Outboard West 3 SED CORE ug/L	OL-RAD-CAP-0027-H 15-18 in OL-4006-08 R2205835-008 6/24/2022 10:35 SOIL Outboard West Outboard West 3 Hand Core Core ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%	1.0241										
Avg TOC	Average from RAD >=6 in samples				%			0.8866				0.8866	0.8866			
Avg TOC	Measured for Sample				%				0.63					1.77		1.97
TOC	Total Organic Carbon	N			%				6300					17700		19700
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg			3.35 U	0.374 U		3.35 U	0.374 U		0.56 U		0.77 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg			0.77 U	0.22 U		0.77 U	0.22 U		0.61		0.33 U
108-90-7	Chlorobenzene	N	428	ug/kg			0.33 UJ	0.22 UJ		0.33 U	0.22 U		0.23 J		0.3 U
100-41-4	Ethylbenzene	N	176	ug/kg			0.69 UJ	0.22 UJ		0.69 U	0.22 U		1.1 U		1.5 U
1330-20-7	Xylenes	N	561	ug/kg			0.7 UJ	0.253 UJ		0.7 U	0.253 U		0.56 U		0.77 U
91-20-3	Naphthalene	N	917	ug/kg			1.43 UJ	0.605 UJ	150	1.43 U	0.605 U		3.1 U		3.1 U
71-43-2	Benzene	N	760	ug/L			0.09 UJ	0.22 UJ		0.09 U	0.22 U		0.22 U	0.26 U	0.3 U
108-88-3	Toluene	N	480	ug/L			0.27 UJ	0.22 UJ		0.27 U	0.22 U		2.2 U	0.82 U	3 U
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		18.7 U	38 U	18.7 U		38 U	18.7 U		12 U	2.7 U	12 U
83-32-9	Acenaphthene	N	861	ug/kg		3.08 U	531 U	3.08 U		531 U	3.08 U		2.3 U		2.3 U
208-96-8	Acenaphthylene	N	1301	ug/kg		2.97 U	208 U	2.97 U		208 U	2.97 U		2.5 U		2.5 U
120-12-7	Anthracene	N	207	ug/kg		3.96 U	899 U	3.96 U		899 U	3.96 U		5.4 U		5.4 U
86-73-7	Fluorene	N	264	ug/kg		3.63 U	443 U	3.63 U		443 U	3.63 U		2.3 U		2.3 U
85-01-8	Phenanthrene	N	543	ug/kg		5.5 U	1249 U	5.5 U		1249 U	5.5 U		8.9		9.4
56-55-3	Benzo(A)Anthracene	N	192	ug/kg					5.8 U				8.1 J		10
50-32-8	Benzo(A)Pyrene	N	146	ug/kg					3.2 U				11		14
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg					4.1 U				14		19
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg					3.3 U				11		11
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg					4.4 U				5.1 U		5.8 J
218-01-9	Chrysene	N	253	ug/kg					3.2 U				10		14
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg					3.2 U				3.7 U		3.7 U
206-44-0	Fluoranthene	N	1436	ug/kg					6.6 J				17		22
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg					3.4 U				11		11
129-00-0	Pyrene	N	344	ug/kg					4.2 J				14		17
108-95-2	Phenol	Y	250	ug/L											
83-32-9	Acenaphthene	Y	861	ug/kg											
208-96-8	Acenaphthylene	Y	1301	ug/kg											
120-12-7	Anthracene	Y	207	ug/kg											
86-73-7	Fluorene	Y	264	ug/kg											
85-01-8	Phenanthrene	Y	543	ug/kg											
	PCBs															
PCB	PCB, Total	N	295	ug/kg					46 U				36 U		36 U
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg		0.569 U	0.4235 U		0.569 U	0.4235 U		0.049		0.049
	OTHER															
PH	pH	N			ph units							8.15	7.16		7.01
SOLID	Total Solids	N			%				83.1				73		73.2

Notes:
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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0027-H 15-18 in OL-4006-08 R2205835-008 6/24/2022 10:35 WATER-CALC Outboard West Outboard West 3 SED CORE ug/L	OL-RAD-CAP-0028-H 3-6 in OL-4020-16 R2206416-016 7/13/2022 11:55 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0028-H 3-6 in OL-4020-16 R2206416-016 7/13/2022 11:55 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0028-H 3-9 in OL-4020-17 R2206416-017 7/13/2022 12:00 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0028-H 3-9 in OL-4020-17 R2206416-017 7/13/2022 12:00 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0028-H 9-12 in OL-4020-18 R2206416-018 7/13/2022 12:10 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0028-H 9-12 in OL-4020-18 R2206416-018 7/13/2022 12:10 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0028-H 3-6 in OL-4024-03 R2206662-003 7/20/2022 11:00 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0028-H 9-12 in OL-4024-04 R2206662-004 7/20/2022 11:05 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0028-I 12-15 in OL-4020-19 R2206416-019 7/13/2022 12:05 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED															
Avg TOC	Average from RAD <6 in samples				%			1.0241		1.0241							
Avg TOC	Average from RAD >=6 in samples				%								0.8866				
Avg TOC	Measured for Sample				%									0.046	0.78		
TOC	Total Organic Carbon	N			%									460	7800		
	VOLATILES																
TCB_Summ	Trichlorobenzenes	N	347	ug/kg										0.51 U	0.47 U	3.35 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg										0.22 U	0.2 U	0.77 U	
108-90-7	Chlorobenzene	N	428	ug/kg										0.2 U	0.19 U	0.33 U	
100-41-4	Ethylbenzene	N	176	ug/kg										0.97 U	0.91 U	0.69 U	
1330-20-7	Xylenes	N	561	ug/kg										0.51 U	0.47 U	0.7 U	
91-20-3	Naphthalene	N	917	ug/kg										2.7 U	9.3	1.43 U	
71-43-2	Benzene	N	760	ug/L		0.31 U	0.1 U	0.22 U				0.09 U	0.22 U			0.09 U	
108-88-3	Toluene	N	480	ug/L		1.01 U	0.31 U	0.22 U				9.36	7.7			0.62 J	
	SEMIVOLATILES																
108-95-2	Phenol	N	250	ug/L		2.43 U			15 J	6.49 J	3.12	1.54				1.07 J	
83-32-9	Acenaphthene	N	861	ug/kg										1.9 U	2.1 U	10 U	
208-96-8	Acenaphthylene	N	1301	ug/kg										2.1 U	2.3 U	4.09 U	
120-12-7	Anthracene	N	207	ug/kg										4.6 U	5.1 U	18 U	
86-73-7	Fluorene	N	264	ug/kg										2 U	2.2 U	8.72 U	
85-01-8	Phenanthrene	N	543	ug/kg										4 U	4.5 U	25 U	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg										5.7 U	6.4 U		
50-32-8	Benzo(A)Pyrene	N	146	ug/kg										3.1 U	3.5 U		
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg										4 U	4.5 U		
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg										3.2 U	3.6 U		
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg										4.3 U	4.8 U		
218-01-9	Chrysene	N	253	ug/kg										3.1 U	3.5 U		
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg										3.1 U	3.5 U		
206-44-0	Fluoranthene	N	1436	ug/kg										5.6 U	6.3 U		
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg										3.3 U	3.7 U		
129-00-0	Pyrene	N	344	ug/kg										3.7 U	4.1 U		
108-95-2	Phenol	Y	250	ug/L													
83-32-9	Acenaphthene	Y	861	ug/kg													
208-96-8	Acenaphthylene	Y	1301	ug/kg													
120-12-7	Anthracene	Y	207	ug/kg													
86-73-7	Fluorene	Y	264	ug/kg													
85-01-8	Phenanthrene	Y	543	ug/kg													
	PCBs																
PCB	PCB, Total	N	295	ug/kg										45 U	51 U		
	METALS																
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg									0.015 U	0.017 U	0.569 U	
	OTHER																
PH	pH	N			ph units									8.84	7.9		
SOLID	Total Solids	N			%									86.1	76.5		

Notes:
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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0028-I 12-15 in OL-4020-19 R2206416-019 7/13/2022 12:05 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0028-I 15-18 in OL-4020-20 R2206416-020 7/13/2022 12:10 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0029-H 3-6 in OL-4019-01 R2206340-001 7/12/2022 10:50 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0029-H 3-6 in OL-4019-01 R2206340-001 7/12/2022 10:50 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0029-H 3-9 in OL-4019-02 R2206340-002 7/12/2022 10:55 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0029-H 3-9 in OL-4019-02 R2206340-002 7/12/2022 10:55 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0029-H 9-12 in OL-4019-03 R2206340-003 7/12/2022 11:00 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0029-H 12-18 in OL-4019-04 R2206340-004 7/12/2022 11:05 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0029-H 12-18 in OL-4019-04 R2206340-004 7/12/2022 11:05 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0029-H 15-18 in OL-4019-05 R2206340-005 7/12/2022 11:10 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%				1.0241		1.0241					
Avg TOC	Average from RAD >=6 in samples				%	0.8866	0.8866					0.8866		0.8866		
Avg TOC	Measured for Sample				%											
TOC	Total Organic Carbon	N			%											
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.374 U		3.87 U	0.374 U							3.35 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.22 U		0.89 U	0.22 U							0.77 U
108-90-7	Chlorobenzene	N	428	ug/kg		0.22 U		0.38 U	0.22 U							0.33 U
100-41-4	Ethylbenzene	N	176	ug/kg		0.22 U		0.8 U	0.22 U							0.69 U
1330-20-7	Xylenes	N	561	ug/kg		0.253 U		0.8 U	0.253 U							0.7 U
91-20-3	Naphthalene	N	917	ug/kg		0.605 U		1.65 U	0.605 U							1.43 U
71-43-2	Benzene	N	760	ug/L		0.22 U		0.1 U	0.22 U							0.09 U
108-88-3	Toluene	N	480	ug/L		0.506 J		0.31 U	0.22 U							0.28 J
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		0.528 J				12 U	5.28 U		11 U	5.28 U		
83-32-9	Acenaphthene	N	861	ug/kg		0.0605 U				173 U	0.869 U		150 U	0.869 U		
208-96-8	Acenaphthylene	N	1301	ug/kg		0.0583 U				68 U	0.836 U		59 U	0.836 U		
120-12-7	Anthracene	N	207	ug/kg		0.0781 U				317 U	1.21 U		275 U	1.21 U		
86-73-7	Fluorene	N	264	ug/kg		0.0715 U				144 U	1.023 U		125 U	1.023 U		
85-01-8	Phenanthrene	N	543	ug/kg		0.11 U				433 U	1.65 U		375 U	1.65 U		
56-55-3	Benzo(A)Anthracene	N	192	ug/kg												
50-32-8	Benzo(A)Pyrene	N	146	ug/kg												
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg												
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg												
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg												
218-01-9	Chrysene	N	253	ug/kg												
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg												
206-44-0	Fluoranthene	N	1436	ug/kg												
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg												
129-00-0	Pyrene	N	344	ug/kg												
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg												
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.4235 U		0.569 U	0.4235 U							0.569 U
	OTHER															
PH	pH	N			ph units		7.83					7.39				
SOLID	Total Solids	N			%											

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0029-H 15-18 in OL-4019-05 R2206340-005 7/12/2022 11:10 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0029-I 18-21 in OL-4019-06 R2206340-006 7/12/2022 11:15 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0029-I 18-21 in OL-4019-06 R2206340-006 7/12/2022 11:15 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0029-I 21-24 in OL-4019-07 R2206340-007 7/12/2022 11:20 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0030-H 3-6 in OL-4006-09 R2205835-009 6/24/2022 11:55 SOIL Outboard West Outboard West 3 Hand Core Core ug/kg	OL-RAD-CAP-0030-H 3-6 in OL-4006-09 R2205835-009 6/24/2022 11:55 WATER-CALC Outboard West Outboard West 3 SED CORE ug/L	OL-RAD-CAP-0030-H 15-18 in OL-4006-10 R2205835-010 6/24/2022 12:00 SOIL Outboard West Outboard West 3 Hand Core Core ug/kg	OL-RAD-CAP-0030-H 15-18 in OL-4006-10 R2205835-010 6/24/2022 12:00 WATER-CALC Outboard West Outboard West 3 SED CORE ug/L	OL-RAD-CAP-0031-H 3-6 in OL-4027-05 R2206801-005 7/25/2022 12:10 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0031-H 3-6 in OL-4027-05 R2206801-005 7/25/2022 12:10 WATER D-East D-East 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED															
Avg TOC	Average from RAD <6 in samples				%												1.0241
Avg TOC	Average from RAD >=6 in samples				%	0.8866		0.8866	0.8866								
Avg TOC	Measured for Sample				%					1.81		1.95					
TOC	Total Organic Carbon	N			%					18100		19500					
	VOLATILES																
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.374 U	3.35 U	0.374 U		0.66 U		0.71 U					
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.22 U	0.77 U	0.22 U		0.28 U		0.3 U					
108-90-7	Chlorobenzene	N	428	ug/kg		0.22 U	0.33 U	0.22 U		0.26 U		0.28 U					
100-41-4	Ethylbenzene	N	176	ug/kg		0.22 U	0.69 U	0.22 U		1.3 U		1.4 U					
1330-20-7	Xylenes	N	561	ug/kg		0.253 U	0.7 U	0.253 U		0.66 U		0.71 U					
91-20-3	Naphthalene	N	917	ug/kg		0.605 U	1.43 U	0.605 U		3.1 U		3.1 U					
71-43-2	Benzene	N	760	ug/L		0.22 U	0.09 U	0.22 U		0.26 U	0.3 U	0.28 U	0.3 U	0.1 UJ	0.22 UJ		
108-88-3	Toluene	N	480	ug/L		0.231 J	0.28 J	0.231 J		2.6 U	0.95 U	2.8 U	0.95 U	0.31 UJ	0.22 UJ		
	SEMIVOLATILES																
108-95-2	Phenol	N	250	ug/L			38 U	18.7 U		12 U	2.64 U	12 U	2.45 U				
83-32-9	Acenaphthene	N	861	ug/kg			531 U	3.08 U		2.3 U		2.3 U					
208-96-8	Acenaphthylene	N	1301	ug/kg			208 U	2.97 U		2.5 U		2.5 U					
120-12-7	Anthracene	N	207	ug/kg			899 U	3.96 U		5.4 U		5.4 U					
86-73-7	Fluorene	N	264	ug/kg			443 U	3.63 U		2.3 U		2.3 U					
85-01-8	Phenanthrene	N	543	ug/kg			1249 U	5.5 U		11		10					
56-55-3	Benzo(A)Anthracene	N	192	ug/kg						11		9.8					
50-32-8	Benzo(A)Pyrene	N	146	ug/kg						16		14					
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg						18		17					
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg						11		9.4					
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg						6.2 J		5.8 J					
218-01-9	Chrysene	N	253	ug/kg						14		12					
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg						3.7 U		3.7 U					
206-44-0	Fluoranthene	N	1436	ug/kg						25		21					
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg						12		11					
129-00-0	Pyrene	N	344	ug/kg						21		20					
108-95-2	Phenol	Y	250	ug/L													
83-32-9	Acenaphthene	Y	861	ug/kg													
208-96-8	Acenaphthylene	Y	1301	ug/kg													
120-12-7	Anthracene	Y	207	ug/kg													
86-73-7	Fluorene	Y	264	ug/kg													
85-01-8	Phenanthrene	Y	543	ug/kg													
	PCBs																
PCB	PCB, Total	N	295	ug/kg						36 U		36 U					
	METALS																
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.4235 U	0.569 U	0.4235 U		0.059		0.059					
	OTHER																
PH	pH	N			ph units				7.47	7.35		7.01					
SOLID	Total Solids	N			%					73.2		73.7					

Notes:
U - Not Detected
J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
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Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0031-H 3-9 in OL-4027-06 R2206801-006 7/25/2022 12:15 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0031-H 3-9 in OL-4027-06 R2206801-006 7/25/2022 12:15 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0031-H 9-12 in OL-4027-07 R2206801-007 7/25/2022 12:20 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0031-H 9-12 in OL-4027-07 R2206801-007 7/25/2022 12:20 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0031-H 3-6 in OL-4030-08 R2207582-008 8/12/2022 14:10 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0031-H 9-12 in OL-4030-09 R2207582-009 8/12/2022 14:15 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0031-I 12-15 in OL-4027-08 R2206801-008 7/25/2022 12:25 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0031-I 12-15 in OL-4027-08 R2206801-008 7/25/2022 12:25 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0031-I 15-18 in OL-4027-09 R2206801-009 7/25/2022 12:30 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0032-H 3-6 in OL-4020-11 R2206416-011 7/13/2022 10:50 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%		1.0241									
Avg TOC	Average from RAD >=6 in samples				%				0.8866					0.8866	0.8866	
Avg TOC	Measured for Sample				%					0.044	0.03					
TOC	Total Organic Carbon	N			%					440	300 J					
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg						0.46 U	0.77 U	3.35 U	0.374 U			
DCB_Summ	Dichlorobenzenes	N	239	ug/kg						0.2 U	0.33 U	0.77 U	0.22 U			
108-90-7	Chlorobenzene	N	428	ug/kg						0.18 U	0.3 U	0.35 J	0.231 J			
100-41-4	Ethylbenzene	N	176	ug/kg						0.87 U	1.5 U	0.69 UJ	0.22 UJ			
1330-20-7	Xylenes	N	561	ug/kg						0.46 U	0.77 U	0.7 UJ	0.253 UJ			
91-20-3	Naphthalene	N	917	ug/kg						2.4 U	2.7 U	1.43 UJ	0.605 UJ			
71-43-2	Benzene	N	760	ug/L				0.09 UJ	0.22 UJ			0.09 UJ	0.22 UJ			0.1 U
108-88-3	Toluene	N	480	ug/L				0.82 J	0.671 J			33 J-	27.5 J-			0.31 U
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		33 J	14.3 J	53 J	26.4 J			40 J	19.8 J			
83-32-9	Acenaphthene	N	861	ug/kg						1.8 U	2 U	474 U	2.75 U			
208-96-8	Acenaphthylene	N	1301	ug/kg						1.9 U	2.1 U	193 U	2.75 U			
120-12-7	Anthracene	N	207	ug/kg						3.1 U	3.4 U	899 U	3.96 U			
86-73-7	Fluorene	N	264	ug/kg						1.8 U	2 U	349 U	2.86 U			
85-01-8	Phenanthrene	N	543	ug/kg						2.6 U	2.9 U	1099 U	4.84 U			
56-55-3	Benzo(A)Anthracene	N	192	ug/kg						2.2 U	2.5 U					
50-32-8	Benzo(A)Pyrene	N	146	ug/kg						2.9 U	3.2 U					
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg						2.4 U	2.7 U					
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg						2.7 U	3 U					
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg						1.9 U	2.2 U					
218-01-9	Chrysene	N	253	ug/kg						1.8 U	2 U					
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg						2.9 U	3.2 U					
206-44-0	Fluoranthene	N	1436	ug/kg						3 U	3.3 U					
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg						3.1 U	3.4 U					
129-00-0	Pyrene	N	344	ug/kg						2.6 U	2.9 U					
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg						28 U	45 U					
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg					0.014 U	0.015 U	0.296 U	0.22 U			
	OTHER															
PH	pH	N			ph units					8.73	8.3			9.56		
SOLID	Total Solids	N			%					94.6	83.8					

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0032-H 3-6 in OL-4020-11 R2206416-011 7/13/2022 10:50 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0032-H 3-9 in OL-4020-12 R2206416-012 7/13/2022 10:55 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0032-H 3-9 in OL-4020-12 R2206416-012 7/13/2022 10:55 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0032-H 9-12 in OL-4020-13 R2206416-013 7/13/2022 11:00 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0032-H 9-12 in OL-4020-13 R2206416-013 7/13/2022 11:00 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0032-H 3-6 in OL-4024-05 R2206662-005 7/20/2022 11:30 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0032-H 9-12 in OL-4024-06 R2206662-006 7/20/2022 11:35 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0032-I 12-15 in OL-4020-14 R2206416-014 7/13/2022 11:05 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0032-I 12-15 in OL-4020-14 R2206416-014 7/13/2022 11:05 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0032-I 15-18 in OL-4020-15 R2206416-015 7/13/2022 11:10 WATER D-East D-East 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%	1.0241		1.0241								
Avg TOC	Average from RAD >=6 in samples				%					0.8866				0.8866	0.8866	
Avg TOC	Measured for Sample				%						0.41	0.083				
TOC	Total Organic Carbon	N			%						4100	830				
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg							0.59 U	0.43 U	3.35 U	0.374 U		
DCB_Summ	Dichlorobenzenes	N	239	ug/kg							0.25 U	0.19 U	0.77 U	0.22 U		
108-90-7	Chlorobenzene	N	428	ug/kg							0.23 U	0.17 U	0.33 U	0.22 U		
100-41-4	Ethylbenzene	N	176	ug/kg							1.2 U	0.82 U	0.69 U	0.22 U		
1330-20-7	Xylenes	N	561	ug/kg							0.59 U	0.43 U	0.7 U	0.253 U		
91-20-3	Naphthalene	N	917	ug/kg							3.3 J	2.8 J	1.43 U	0.605 U		
71-43-2	Benzene	N	760	ug/L		0.22 U			0.09 U	0.22 U			0.09 U	0.22 U		
108-88-3	Toluene	N	480	ug/L		0.22 U			0.27 U	0.22 U			0.43 J	0.352 J		
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L			12 U	5.28 U	38 UJ	18.7 UJ			38 U	18.7 U		
83-32-9	Acenaphthene	N	861	ug/kg							1.9 U	1.8 U	531 U	3.08 U		
208-96-8	Acenaphthylene	N	1301	ug/kg							2 U	2 U	208 U	2.97 U		
120-12-7	Anthracene	N	207	ug/kg							4.5 U	4.3 U	899 U	3.96 U		
86-73-7	Fluorene	N	264	ug/kg							1.9 U	1.9 U	443 U	3.63 U		
85-01-8	Phenanthrene	N	543	ug/kg							3.9 U	3.8 U	1249 U	5.5 U		
56-55-3	Benzo(A)Anthracene	N	192	ug/kg							5.5 U	5.3 U				
50-32-8	Benzo(A)Pyrene	N	146	ug/kg							3 U	2.9 U				
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg							3.9 U	3.8 U				
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg							3.1 U	3 U				
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg							4.2 U	4.1 U				
218-01-9	Chrysene	N	253	ug/kg							3 U	2.9 U				
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg							3 U	2.9 U				
206-44-0	Fluoranthene	N	1436	ug/kg							5.4 U	5.2 U				
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg							3.2 U	3.1 U				
129-00-0	Pyrene	N	344	ug/kg							3.6 U	3.4 U				
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg							43 U	43 U				
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg						0.015 U	0.014 U	0.569 U	0.4235 U		
	OTHER															
PH	pH	N			ph units						9	9.11			8.65	
SOLID	Total Solids	N			%						90.2	90.3				

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0033-H 3-9 in OL-4027-01 R2206801-001 7/25/2022 10:45 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0033-H 3-9 in OL-4027-01 R2206801-001 7/25/2022 10:45 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0033-H 9-12 in OL-4027-02 R2206801-002 7/25/2022 10:50 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0033-H 9-12 in OL-4027-02 R2206801-002 7/25/2022 10:50 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0033-H 3-6 in OL-4031-01 R2207648-001 8/16/2022 9:45 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0033-H 9-12 in OL-4031-02 R2207648-002 8/16/2022 9:50 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0033-I 12-15 in OL-4027-03 R2206801-003 7/25/2022 10:55 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0033-I 12-15 in OL-4027-03 R2206801-003 7/25/2022 10:55 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0033-I 15-18 in OL-4027-04 R2206801-004 7/25/2022 11:00 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0034-H 3-6 in OL-4018-11 R2206339-011 7/12/2022 9:50 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%		1.0241									
Avg TOC	Average from RAD >=6 in samples				%				0.8866					0.8866	0.8866	
Avg TOC	Measured for Sample				%						0.61	0.057				
TOC	Total Organic Carbon	N			%						6100	570				
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg							0.45 U	0.53 U	3.35 U	0.374 U		3.87 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg							0.19 U	0.23 U	0.77 U	0.22 U		0.89 U
108-90-7	Chlorobenzene	N	428	ug/kg							0.18 U	0.26 J	0.33 UJ	0.22 UJ		0.38 U
100-41-4	Ethylbenzene	N	176	ug/kg							0.86 U	1.1 U	0.69 UJ	0.22 UJ		0.8 U
1330-20-7	Xylenes	N	561	ug/kg							0.45 U	0.53 U	0.7 UJ	0.253 UJ		0.8 U
91-20-3	Naphthalene	N	917	ug/kg							3.4 J	2.7 U	1.43 UJ	0.605 UJ		1.65 U
71-43-2	Benzene	N	760	ug/L		0.1 UJ	0.22 UJ	0.09 UJ	0.22 UJ				0.09 UJ	0.22 UJ		0.1 U
108-88-3	Toluene	N	480	ug/L		0.53 J	0.374 J	0.55 J	0.451 J				0.6 J	0.495 J		0.31 U
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		90 J	38.5 J	73 J	36.3 J				53 J	26.4 J		
83-32-9	Acenaphthene	N	861	ug/kg							1.9 U	1.9 U	474 U	2.75 U		
208-96-8	Acenaphthylene	N	1301	ug/kg							2.1 U	2.1 U	193 U	2.75 U		
120-12-7	Anthracene	N	207	ug/kg							3.3 U	3.4 U	899 U	3.96 U		
86-73-7	Fluorene	N	264	ug/kg							2 U	2 U	349 U	2.86 U		
85-01-8	Phenanthrene	N	543	ug/kg							2.8 U	2.9 U	1099 U	4.84 U		
56-55-3	Benzo(A)Anthracene	N	192	ug/kg							3 J	2.5 U				
50-32-8	Benzo(A)Pyrene	N	146	ug/kg							3.1 U	3.1 U				
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg							2.6 J	2.6 U				
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg							2.9 U	2.9 U				
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg							2.1 U	2.1 U				
218-01-9	Chrysene	N	253	ug/kg							2 U	2 U				
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg							3.1 U	3.1 U				
206-44-0	Fluoranthene	N	1436	ug/kg							3.4 J	3.3 U				
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg							3.3 U	3.4 U				
129-00-0	Pyrene	N	344	ug/kg							3 J	2.9 U				
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg							44 U	49 U				
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg						0.022	0.014 U	0.296 U	0.22 U		0.569 U
	OTHER															
PH	pH	N			ph units						7.96	8.29			9.53	
SOLID	Total Solids	N			%						87.7	85.8				

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0034-H 3-6 in OL-4018-11 R2206339-011 7/12/2022 9:50 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0034-H 3-9 in OL-4018-12 R2206339-012 7/12/2022 9:55 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0034-H 3-9 in OL-4018-12 R2206339-012 7/12/2022 9:55 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0034-H 9-12 in OL-4018-13 R2206339-013 7/12/2022 10:00 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0034-H 12-18 in OL-4018-14 R2206339-014 7/12/2022 10:05 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0034-H 12-18 in OL-4018-14 R2206339-014 7/12/2022 10:05 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0034-H 15-18 in OL-4018-15 R2206339-015 7/12/2022 10:10 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0034-H 15-18 in OL-4018-15 R2206339-015 7/12/2022 10:10 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0034-I 18-21 in OL-4018-16 R2206339-016 7/12/2022 10:15 SOIL-CALC D-Center D-Center 2 Peeper Peeper ug/kg	OL-RAD-CAP-0034-I 18-21 in OL-4018-16 R2206339-016 7/12/2022 10:15 WATER D-Center D-Center 2 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%	1.0241		1.0241								
Avg TOC	Average from RAD >=6 in samples				%				0.8866		0.8866		0.8866			0.8866
Avg TOC	Measured for Sample				%											
TOC	Total Organic Carbon	N			%											
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.374 U						3.35 U	0.374 U	3.35 U	0.374 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.22 U						0.77 U	0.22 U	0.77 U	0.22 U	
108-90-7	Chlorobenzene	N	428	ug/kg		0.22 U						0.33 U	0.22 U	0.33 U	0.22 U	
100-41-4	Ethylbenzene	N	176	ug/kg		0.22 U						0.69 U	0.22 U	0.69 U	0.22 U	
1330-20-7	Xylenes	N	561	ug/kg		0.253 U						0.7 U	0.253 U	0.7 U	0.253 U	
91-20-3	Naphthalene	N	917	ug/kg		0.605 U						1.43 U	0.605 U	1.43 U	0.605 U	
71-43-2	Benzene	N	760	ug/L		0.22 U						0.09 U	0.22 U	0.09 U	0.22 U	
108-88-3	Toluene	N	480	ug/L		0.22 U						0.27 U	0.22 U	0.27 U	0.22 U	
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L			12 U	5.28 U		11 U	5.28 U			38 U	18.7 U	
83-32-9	Acenaphthene	N	861	ug/kg			173 U	0.869 U		150 U	0.869 U			531 U	3.08 U	
208-96-8	Acenaphthylene	N	1301	ug/kg			68 U	0.836 U		59 U	0.836 U			208 U	2.97 U	
120-12-7	Anthracene	N	207	ug/kg			317 U	1.21 U		275 U	1.21 U			899 U	3.96 U	
86-73-7	Fluorene	N	264	ug/kg			144 U	1.023 U		125 U	1.023 U			443 U	3.63 U	
85-01-8	Phenanthrene	N	543	ug/kg			433 U	1.65 U		375 U	1.65 U			1249 U	5.5 U	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg												
50-32-8	Benzo(A)Pyrene	N	146	ug/kg												
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg												
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg												
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg												
218-01-9	Chrysene	N	253	ug/kg												
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg												
206-44-0	Fluoranthene	N	1436	ug/kg												
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg												
129-00-0	Pyrene	N	344	ug/kg												
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg												
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.4235 U						0.569 U	0.4235 U	0.569 U	0.4235 U	
	OTHER															
PH	pH	N			ph units				7.72							
SOLID	Total Solids	N			%											

Notes:
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WATER-CALC - porewater values have been calculated from soil results
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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0034-I 21-24 in OL-4018-17 R2206339-017 7/12/2022 10:20 WATER D-Center D-Center 2 Peeper Peeper ug/L	OL-RAD-CAP-0035-H 3-6 in OL-4006-01 R2205835-001 6/24/2022 7:40 SOIL Outboard West Outboard West 3 Hand Core Core ug/kg	OL-RAD-CAP-0035-H 3-6 in OL-4006-01 R2205835-001 6/24/2022 7:40 WATER-CALC Outboard West Outboard West 3 SED CORE ug/L	OL-RAD-CAP-0035-H 16-19 in OL-4006-02 R2205835-002 6/24/2022 7:45 SOIL Outboard West Outboard West 3 Hand Core Core ug/kg	OL-RAD-CAP-0035-H 16-19 in OL-4006-02 R2205835-002 6/24/2022 7:45 WATER-CALC Outboard West Outboard West 3 SED CORE ug/L	OL-RAD-CAP-0036-H 3-6 in OL-4019-08 R2206340-008 7/12/2022 12:00 SOIL-CALC D-East D-East 2 Peeper Peeper ug/kg	OL-RAD-CAP-0036-H 3-6 in OL-4019-08 R2206340-008 7/12/2022 12:00 WATER D-East D-East 2 Peeper Peeper ug/L	OL-RAD-CAP-0036-H 3-9 in OL-4019-09 R2206340-009 7/12/2022 12:05 SOIL-CALC D-East D-East 2 Peeper Peeper ug/kg	OL-RAD-CAP-0036-H 3-9 in OL-4019-09 R2206340-009 7/12/2022 12:05 WATER D-East D-East 2 Peeper Peeper ug/L	OL-RAD-CAP-0036-H 9-12 in OL-4019-10 R2206340-010 7/12/2022 12:10 SOIL-CALC D-East D-East 2 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%								1.0241		1.0241	
Avg TOC	Average from RAD >=6 in samples				%	0.8866										
Avg TOC	Measured for Sample				%		2.1		1.89							
TOC	Total Organic Carbon	N			%		21000		18900							
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg			0.68 U		0.58 U		3.87 U	0.374 U				3.35 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg			0.29 U		0.25 U		0.89 U	0.22 U				0.77 U
108-90-7	Chlorobenzene	N	428	ug/kg			0.27 U		0.23 U		0.38 U	0.22 U				0.33 U
100-41-4	Ethylbenzene	N	176	ug/kg			1.4 U		1.2 U		0.8 U	0.22 U				0.69 U
1330-20-7	Xylenes	N	561	ug/kg			0.68 U		0.58 U		0.8 U	0.253 U				0.7 U
91-20-3	Naphthalene	N	917	ug/kg			15 UJ		3.1 U		1.65 U	0.605 U				1.43 U
71-43-2	Benzene	N	760	ug/L			0.27 U	0.26 U	0.23 U	0.25 U	0.1 U	0.22 U				0.09 U
108-88-3	Toluene	N	480	ug/L			2.7 U	0.85 U	2.3 U	0.81 U	0.31 U	0.22 U				0.27 U
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L			57 UJ	11 UJ	12 U	2.53 U			12 U	5.28 U		38 U
83-32-9	Acenaphthene	N	861	ug/kg			11 UJ		2.2 U				173 U	0.869 U		531 U
208-96-8	Acenaphthylene	N	1301	ug/kg			12 UJ		2.4 U				68 U	0.836 U		208 U
120-12-7	Anthracene	N	207	ug/kg			27 UJ		5.4 U				317 U	1.21 U		899 U
86-73-7	Fluorene	N	264	ug/kg			12 UJ		2.3 U				144 U	1.023 U		443 U
85-01-8	Phenanthrene	N	543	ug/kg			30 J		45				433 U	1.65 U		1249 U
56-55-3	Benzo(A)Anthracene	N	192	ug/kg			35 J		6.6 U							
50-32-8	Benzo(A)Pyrene	N	146	ug/kg			35 J		45							
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg			35 J		51							
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg			30 J		3.7 U							
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg			25 UJ		5 U							
218-01-9	Chrysene	N	253	ug/kg			24 J		3.6 U							
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg			18 UJ		3.6 U							
206-44-0	Fluoranthene	N	1436	ug/kg			45 J		80							
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg			26 J		3.9 U							
129-00-0	Pyrene	N	344	ug/kg			43 J		60							
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg			37 U		35 U							
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg		0.049		0.053		0.569 U	0.4235 U				0.569 U
	OTHER															
PH	pH	N			ph units	7.51	6.81		6.86							
SOLID	Total Solids	N			%		72.1		74.6							

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0036-H 9-12 in OL-4019-10 R2206340-010 7/12/2022 12:10 WATER D-East D-East 2 Peeper Peeper ug/L	OL-RAD-CAP-0036-I 12-15 in OL-4019-11 R2206340-011 7/12/2022 12:15 SOIL-CALC D-East D-East 2 Peeper Peeper ug/kg	OL-RAD-CAP-0036-I 12-15 in OL-4019-11 R2206340-011 7/12/2022 12:15 WATER D-East D-East 2 Peeper Peeper ug/L	OL-RAD-CAP-0036-I 15-18 in OL-4019-12 R2206340-012 7/12/2022 12:20 WATER D-East D-East 2 Peeper Peeper ug/L	OL-RAD-CAP-0037-H 3-6 in OL-4006-03 R2205835-003 6/24/2022 8:00 SOIL Outboard Center Outboard Center 3 Hand Core Core ug/kg	OL-RAD-CAP-0037-H 3-6 in OL-4006-03 R2205835-003 6/24/2022 8:00 WATER-CALC Outboard Center Outboard Center 3 SED CORE ug/L	OL-RAD-CAP-0037-H 17-20 in OL-4006-04 R2205835-004 6/24/2022 8:05 SOIL Outboard Center Outboard Center 3 Hand Core Core ug/kg	OL-RAD-CAP-0037-H 17-20 in OL-4006-04 R2205835-004 6/24/2022 8:05 WATER-CALC Outboard Center Outboard Center 3 SED CORE ug/L	OL-RAD-CAP-0038-H 3-6 in OL-4020-01 R2206416-001 7/13/2022 8:30 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0038-H 3-6 in OL-4020-01 R2206416-001 7/13/2022 8:30 WATER D-East D-East 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%											1.0241
Avg TOC	Average from RAD >=6 in samples				%	0.8866		0.8866	0.8866							
Avg TOC	Measured for Sample				%					2.59		1.99				
TOC	Total Organic Carbon	N			%					25900		19900				
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.374 U	3.35 U	0.374 U		0.72 U		0.62 U				
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.22 U	0.77 U	0.22 U		0.31 U		0.27 U				
108-90-7	Chlorobenzene	N	428	ug/kg		0.22 U	0.33 U	0.22 U		0.28 U		0.24 U				
100-41-4	Ethylbenzene	N	176	ug/kg		0.22 U	0.69 U	0.22 U		1.4 U		1.2 U				
1330-20-7	Xylenes	N	561	ug/kg		0.253 U	0.7 U	0.253 U		0.72 U		0.62 U				
91-20-3	Naphthalene	N	917	ug/kg		0.605 U	1.43 U	0.605 U		3.3 U		3.1 U				
71-43-2	Benzene	N	760	ug/L		0.22 U	0.09 U	0.22 U		0.28 U	0.22 U	0.24 U	0.25 U	0.1 U	0.22 U	
108-88-3	Toluene	N	480	ug/L		0.22 U	0.27 U	0.22 U		2.8 U	0.72 U	2.4 U	0.8 U	0.31 U	0.22 U	
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		18.7 U	38 U	18.7 U		13 U	2 U	12 U	2.4 U			
83-32-9	Acenaphthene	N	861	ug/kg		3.08 U	531 U	3.08 U		2.4 U		2.2 U				
208-96-8	Acenaphthylene	N	1301	ug/kg		2.97 U	208 U	2.97 U		2.6 U		2.4 U				
120-12-7	Anthracene	N	207	ug/kg		3.96 U	899 U	3.96 U		5.8 U		5.3 U				
86-73-7	Fluorene	N	264	ug/kg		3.63 U	443 U	3.63 U		2.5 U		2.3 U				
85-01-8	Phenanthrene	N	543	ug/kg		5.5 U	1249 U	5.5 U		14		14				
56-55-3	Benzo(A)Anthracene	N	192	ug/kg						13		13				
50-32-8	Benzo(A)Pyrene	N	146	ug/kg						17		19				
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg						20		20				
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg						12		14				
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg						7.6 J		7.4 J				
218-01-9	Chrysene	N	253	ug/kg						14		14				
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg						3.9 U		3.9 J				
206-44-0	Fluoranthene	N	1436	ug/kg						27		27				
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg						4.2 U		14				
129-00-0	Pyrene	N	344	ug/kg						20		21				
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg						37 U		35 U				
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.4235 U	0.569 U	0.4235 U		0.049		0.047				
	OTHER															
PH	pH	N			ph units				7.78	7.43		7.29				
SOLID	Total Solids	N			%					70.2		75.3				

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0038-H 3-9 in OL-4020-02 R2206416-002 7/13/2022 8:35 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0038-H 3-9 in OL-4020-02 R2206416-002 7/13/2022 8:35 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0038-H 9-12 in OL-4020-03 R2206416-003 7/13/2022 8:40 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0038-H 9-12 in OL-4020-03 R2206416-003 7/13/2022 8:40 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0038-H 3-6 in OL-4024-09 R2206662-009 7/20/2022 13:45 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0038-H 9-12 in OL-4024-10/OL-4024-11 R2206662-010 7/20/2022 13:50 SOIL D-East D-East 1 Vibracore Core ug/kg	Duplicate OL-RAD-CAP-0038-H 9-12 in OL-4024-10/OL-4024-11 R2206662-011 7/20/2022 13:55 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0038-I 12-15 in OL-4020-04 R2206416-004 7/13/2022 8:45 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0038-I 12-15 in OL-4020-04 R2206416-004 7/13/2022 8:45 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0038-I 15-18 in OL-4020-05 R2206416-005 7/13/2022 8:50 WATER D-East D-East 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED															
Avg TOC	Average from RAD <6 in samples				%		1.0241										
Avg TOC	Average from RAD >=6 in samples				%				0.8866						0.8866	0.8866	
Avg TOC	Measured for Sample				%						0.077	0.061	0.061				
TOC	Total Organic Carbon	N			%						770	610	550				
	VOLATILES																
TCB_Summ	Trichlorobenzenes	N	347	ug/kg							0.41 U	0.52 U	0.56 U	3.35 U	0.374 U		
DCB_Summ	Dichlorobenzenes	N	239	ug/kg							0.18 U	0.22 U	0.24 U	0.77 U	0.22 U		
108-90-7	Chlorobenzene	N	428	ug/kg							0.16 U	0.2 U	0.22 U	0.44 J	0.297 J		
100-41-4	Ethylbenzene	N	176	ug/kg							0.78 U	1 U	1.1 U	0.69 UJ	0.22 UJ		
1330-20-7	Xylenes	N	561	ug/kg							0.41 U	0.52 U	0.56 U	0.7 UJ	0.253 UJ		
91-20-3	Naphthalene	N	917	ug/kg							84	59	45	1.43 UJ	0.605 UJ		
71-43-2	Benzene	N	760	ug/L				0.2 J	0.517 J					0.36 J	0.924 J		
108-88-3	Toluene	N	480	ug/L				0.36 J	0.297 J					21 J-	17.6 J-		
	SEMIVOLATILES																
108-95-2	Phenol	N	250	ug/L		12 U	5.28 U	38 U	18.7 U					176	86.9		
83-32-9	Acenaphthene	N	861	ug/kg							1.8 U	1.9 U	1.8 U	531 U	3.08 U		
208-96-8	Acenaphthylene	N	1301	ug/kg							2 U	2 U	2 U	208 U	2.97 U		
120-12-7	Anthracene	N	207	ug/kg							4.3 U	4.5 U	4.3 U	899 U	3.96 U		
86-73-7	Fluorene	N	264	ug/kg							1.9 U	1.9 U	1.8 U	443 U	3.63 U		
85-01-8	Phenanthrene	N	543	ug/kg							8.5	6.3 J	5.3 J	1249 U	5.5 U		
56-55-3	Benzo(A)Anthracene	N	192	ug/kg							5.4 U	5.6 U	5.3 U				
50-32-8	Benzo(A)Pyrene	N	146	ug/kg							2.9 U	3 U	2.9 U				
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg							3.8 U	3.9 U	3.8 U				
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg							3 U	3.1 U	3 U				
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg							4.1 U	4.2 U	4 U				
218-01-9	Chrysene	N	253	ug/kg							2.9 U	3 U	2.9 U				
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg							2.9 U	3 U	2.9 U				
206-44-0	Fluoranthene	N	1436	ug/kg							6 J	5.5 U	5.2 U				
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg							3.1 U	3.3 U	3.1 U				
129-00-0	Pyrene	N	344	ug/kg							4.3 J	3.6 U	3.4 U				
108-95-2	Phenol	Y	250	ug/L													
83-32-9	Acenaphthene	Y	861	ug/kg													
208-96-8	Acenaphthylene	Y	1301	ug/kg													
120-12-7	Anthracene	Y	207	ug/kg													
86-73-7	Fluorene	Y	264	ug/kg													
85-01-8	Phenanthrene	Y	543	ug/kg													
	PCBs																
PCB	PCB, Total	N	295	ug/kg							45 U	44 U	42 U				
	METALS																
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg						0.015 U	0.016 J	0.015 U	0.569 U	0.4235 U		
	OTHER																
PH	pH	N			ph units						8.74	9.07	9			8.57	
SOLID	Total Solids	N			%						88	90	90.3				

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0039-H 3-6 in OL-4006-05 R2205835-005 6/24/2022 8:15 SOIL Outboard Center Outboard Center 3 Hand Core Core ug/kg	OL-RAD-CAP-0039-H 3-6 in OL-4006-05 R2205835-005 6/24/2022 8:15 WATER-CALC Outboard Center Outboard Center 3 SED CORE ug/L	OL-RAD-CAP-0039-H 9.5-12.5 in OL-4006-06 R2205835-006 6/24/2022 8:20 SOIL Outboard Center Outboard Center 3 Hand Core Core ug/kg	OL-RAD-CAP-0039-H 9.5-12.5 in OL-4006-06 R2205835-006 6/24/2022 8:20 WATER-CALC Outboard Center Outboard Center 3 SED CORE ug/L	OL-RAD-CAP-0040-H 3-6 in OL-4020-06 R2206416-006 7/13/2022 10:00 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0040-H 3-6 in OL-4020-06 R2206416-006 7/13/2022 10:00 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0040-H 3-9 in OL-4020-07 R2206416-007 7/13/2022 10:05 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0040-H 3-9 in OL-4020-07 R2206416-007 7/13/2022 10:05 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0040-H 9-12 in OL-4020-08 R2206416-008 7/13/2022 10:10 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0040-H 9-12 in OL-4020-08 R2206416-008 7/13/2022 10:10 WATER D-East D-East 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAD <6 in samples				%						1.0241		1.0241		
Avg TOC	Average from RAD >=6 in samples				%										0.8866
Avg TOC	Measured for Sample				%	1.99		2.06							
TOC	Total Organic Carbon	N			%	19900		20600							
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.65 U		0.64 U							
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.28 U		0.28 U							
108-90-7	Chlorobenzene	N	428	ug/kg		0.25 U		0.25 U							
100-41-4	Ethylbenzene	N	176	ug/kg		1.3 U		1.3 U							
1330-20-7	Xylenes	N	561	ug/kg		0.65 U		0.64 U							
91-20-3	Naphthalene	N	917	ug/kg		3.5 U		3.4 U							
71-43-2	Benzene	N	760	ug/L		0.25 U	0.26 U	0.25 U	0.25 U	0.1 UJ	0.22 UJ			0.09 UJ	0.22 UJ
108-88-3	Toluene	N	480	ug/L		2.5 U	0.83 U	2.5 U	0.8 U	0.42 J	0.297 J			0.56 J	0.462 J
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		14 U	2.8 U	13 U	2.51 U			12 U	5.28 U	111	55
83-32-9	Acenaphthene	N	861	ug/kg		2.5 U		2.4 U							
208-96-8	Acenaphthylene	N	1301	ug/kg		4 J		2.9 J							
120-12-7	Anthracene	N	207	ug/kg		6 U		5.8 U							
86-73-7	Fluorene	N	264	ug/kg		2.6 U		2.5 U							
85-01-8	Phenanthrene	N	543	ug/kg		8.9 J		27							
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		11		17							
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		15		22							
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		21		27							
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		16		15							
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		7.9 J		9.1 J							
218-01-9	Chrysene	N	253	ug/kg		12		20							
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		4.1 U		3.9 U							
206-44-0	Fluoranthene	N	1436	ug/kg		19		41							
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		16		16							
129-00-0	Pyrene	N	344	ug/kg		15		31							
108-95-2	Phenol	Y	250	ug/L											
83-32-9	Acenaphthene	Y	861	ug/kg											
208-96-8	Acenaphthylene	Y	1301	ug/kg											
120-12-7	Anthracene	Y	207	ug/kg											
86-73-7	Fluorene	Y	264	ug/kg											
85-01-8	Phenanthrene	Y	543	ug/kg											
	PCBs														
PCB	PCB, Total	N	295	ug/kg		31 J		39 U							
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.061		0.052							
	OTHER														
PH	pH	N			ph units	7.7		7.31							
SOLID	Total Solids	N			%	67.2		68.4							

Notes:
U - Not Detected
J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
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Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0040-H 3-6 in OL-4024-07 R2206662-007 7/20/2022 12:30 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0040-H 9-12 in OL-4024-08 R2206662-008 7/20/2022 12:35 SOIL D-East D-East 1 Vibracore Core ug/kg	OL-RAD-CAP-0040-I 12-15 in OL-4020-09 R2206416-009 7/13/2022 10:15 SOIL-CALC D-East D-East 1 Peeper Peeper ug/kg	OL-RAD-CAP-0040-I 12-15 in OL-4020-09 R2206416-009 7/13/2022 10:15 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0040-I 15-18 in OL-4020-10 R2206416-010 7/13/2022 10:20 WATER D-East D-East 1 Peeper Peeper ug/L	OL-RAD-CAP-0041-H 3-6 in OL-4005-01 R2205796-001 6/22/2022 16:00 SOIL Outboard Center Outboard Center 3 Hand Core Core ug/kg	OL-RAD-CAP-0041-H 3-6 in OL-4005-01 R2205796-001 6/22/2022 16:00 WATER-CALC Outboard Center Outboard Center 3 SED CORE ug/L	OL-RAD-CAP-0041-H 6-9 in OL-4005-02 R2205796-002 6/22/2022 16:05 SOIL Outboard Center Outboard Center 3 Hand Core Core ug/kg	OL-RAD-CAP-0041-H 6-9 in OL-4005-02 R2205796-002 6/22/2022 16:05 WATER-CALC Outboard Center Outboard Center 3 SED CORE ug/L	OL-RAD-CAP-0042-H 3-6 in OL-4005-05 R2205796-005 6/23/2022 13:15 SOIL Outboard East Outboard East 3 Hand Core Core ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%											
Avg TOC	Average from RAD >=6 in samples				%				0.8866	0.8866						
Avg TOC	Measured for Sample				%	0.078	0.43				3.23		1.67		2.68	
TOC	Total Organic Carbon	N			%	780	4300				32300		16700		26800	
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.59 U	0.4 U	3.35 U	0.374 U		0.66 U		0.53 U		1.1 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		1.84	0.17 U	0.77 U	0.22 U		0.28 U		0.23 U		0.72	
108-90-7	Chlorobenzene	N	428	ug/kg		1.4 J	0.2 J	0.33 UJ	0.22 UJ		0.26 U		0.21 U		0.67 J	
100-41-4	Ethylbenzene	N	176	ug/kg		1.2 U	0.76 U	0.69 UJ	0.22 UJ		1.3 U		1.1 U		2 U	
1330-20-7	Xylenes	N	561	ug/kg		0.59 U	0.4 U	0.7 UJ	0.253 UJ		0.66 U		0.53 U		1.1 U	
91-20-3	Naphthalene	N	917	ug/kg		26	46	1.43 UJ	0.605 UJ		3.5 U		3 J		15	
71-43-2	Benzene	N	760	ug/L				0.09 UJ	0.22 UJ		0.26 U	0.17 U	0.21 U	0.26 U	0.5 J	
108-88-3	Toluene	N	480	ug/L				0.49 J	0.407 J		2.6 U	0.53 U	2.1 U	0.83 U	4 U	
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L				71 J	35.2 J		14 U	1.73 U	11 U	2.62 U	17 U	
83-32-9	Acenaphthene	N	861	ug/kg		1.8 U	4.1 J	531 U	3.08 U		2.5 U		4.2 J		21	
208-96-8	Acenaphthylene	N	1301	ug/kg		1.9 U	4.5 J	208 U	2.97 U		2.7 U		2.2 U		28	
120-12-7	Anthracene	N	207	ug/kg		4.2 U	5.3 J	899 U	3.96 U		6 U		5 J		82	
86-73-7	Fluorene	N	264	ug/kg		1.8 U	5.3 J	443 U	3.63 U		2.6 U		2.3 J		41	
85-01-8	Phenanthrene	N	543	ug/kg		3.7 U	23	1249 U	5.5 U		8.8 J		19		350	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		5.2 U	7.5				8 J		14		280	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		2.8 U	7.2 J				11		17		440	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		3.7 U	13				14		20		520	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		2.9 U	5.7 J				8 J		12		260	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		4 U	4.3 U				5.7 U		6.8 J		170	
218-01-9	Chrysene	N	253	ug/kg		2.8 U	14				10		14		380	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		2.8 U	3.1 U				4.1 U		3.2 U		67	
206-44-0	Fluoranthene	N	1436	ug/kg		5.1 U	41				17		28		660	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		3 U	3.3 U				7.5 J		13		290	
129-00-0	Pyrene	N	344	ug/kg		3.4 U	35				16		22		560	
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg		41 U	45 U				120 U		100 U		140 U	
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.014 U	0.071	0.569 U	0.4235 U		0.154		0.03		0.067	
	OTHER															
PH	pH	N			ph units	9.11	7.69			8.73	6.18		7.1			
SOLID	Total Solids	N			%	94.1	86.9				66.2		75.8		52	

Notes:
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J - Estimated Value
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WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0042-H 3-6 in OL-4005-05 R2205796-005 6/23/2022 13:15 WATER-CALC Outboard East Outboard East 3 SED CORE ug/L	OL-RAD-CAP-0042-H 11.5-14.5 in OL-4005-06 R2205796-006 6/23/2022 13:20 SOIL Outboard East Outboard East 3 Hand Core Core ug/kg	OL-RAD-CAP-0042-H 11.5-14.5 in OL-4005-06 R2205796-006 6/23/2022 13:20 WATER-CALC Outboard East Outboard East 3 SED CORE ug/L	OL-RAD-CAP-0043-H 3-6 in OL-4005-09 R2205796-009 6/23/2022 14:15 SOIL Outboard East Outboard East 3 Hand Core Core ug/kg	OL-RAD-CAP-0043-H 3-6 in OL-4005-09 R2205796-009 6/23/2022 14:15 WATER-CALC Outboard East Outboard East 3 SED CORE ug/L	OL-RAD-CAP-0043-H 10-13 in OL-4005-10 R2205796-010 6/23/2022 14:20 SOIL Outboard East Outboard East 3 Hand Core Core ug/kg	OL-RAD-CAP-0043-H 10-13 in OL-4005-10 R2205796-010 6/23/2022 14:20 WATER-CALC Outboard East Outboard East 3 SED CORE ug/L	OL-RAD-CAP-0044-H 3-6 in OL-4005-07 R2205796-007 6/23/2022 13:50 SOIL Outboard East Outboard East 3 Hand Core Core ug/kg	OL-RAD-CAP-0044-H 3-6 in OL-4005-07 R2205796-007 6/23/2022 13:50 WATER-CALC Outboard East Outboard East 3 SED CORE ug/L	OL-RAD-CAP-0044-H 12-15 in OL-4005-08 R2205796-008 6/23/2022 13:55 SOIL Outboard East Outboard East 3 Hand Core Core ug/kg
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Average from RAD <6 in samples				%											
Avg TOC	Average from RAD >=6 in samples				%											
Avg TOC	Measured for Sample				%		3.2		2.24		2.3		2.32		2.46	
TOC	Total Organic Carbon	N			%		32000		22400		23000		23200		24600	
	VOLATILES															
TCB_Summ	Trichlorobenzenes	N	347	ug/kg			0.69 U		0.62 U		0.79 U		1.6 U		0.88 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg			0.29 U		0.26 U		0.34 U		0.67 U		0.38 U	
108-90-7	Chlorobenzene	N	428	ug/kg			0.27 U		0.24 U		0.31 U		0.61 U		0.34 U	
100-41-4	Ethylbenzene	N	176	ug/kg			1.4 U		1.2 U		1.6 U		3.1 U		1.7 U	
1330-20-7	Xylenes	N	561	ug/kg			0.69 U		0.62 U		0.79 U		1.6 U		0.88 U	
91-20-3	Naphthalene	N	917	ug/kg			12 J		19 J		3.7 J		15 U		17 J	
71-43-2	Benzene	N	760	ug/L		0.38 J	0.27 U	0.17 U	0.24 U	0.22 U	0.31 U	0.28 U	0.61 U	0.54 U	0.34 U	
108-88-3	Toluene	N	480	ug/L		0.99 U	2.7 U	0.56 U	2.4 U	0.71 U	3.1 U	0.89 U	6.1 U	1.74 U	3.4 U	
	SEMIVOLATILES															
108-95-2	Phenol	N	250	ug/L		2.53 U	37 U	4.6 U	38 U	6.75 U	13 U	2.25 U	55 U	9.44 U	49 U	
83-32-9	Acenaphthene	N	861	ug/kg			9.5 J		9.5 J		3.9 J		14 J		12 J	
208-96-8	Acenaphthylene	N	1301	ug/kg			20 J		10 J		7.5 J		23 J		20 J	
120-12-7	Anthracene	N	207	ug/kg			36		28 J		13		48		46	
86-73-7	Fluorene	N	264	ug/kg			14 J		9.6 J		4.6 J		17 J		18 J	
85-01-8	Phenanthrene	N	543	ug/kg			130		110		60		200		200	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg			130		120		62		200		210	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg			190		190		100		330		350	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg			210		230		120		410		440	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg			110		100		56		230		220	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg			70		78		43		150		140	
218-01-9	Chrysene	N	253	ug/kg			150		170		88		310		340	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg			33		31		17		63		62	
206-44-0	Fluoranthene	N	1436	ug/kg			270		290		160		560		580	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg			130		120		65		260		260	
129-00-0	Pyrene	N	344	ug/kg			230		250		130		440		460	
108-95-2	Phenol	Y	250	ug/L												
83-32-9	Acenaphthene	Y	861	ug/kg												
208-96-8	Acenaphthylene	Y	1301	ug/kg												
120-12-7	Anthracene	Y	207	ug/kg												
86-73-7	Fluorene	Y	264	ug/kg												
85-01-8	Phenanthrene	Y	543	ug/kg												
	PCBs															
PCB	PCB, Total	N	295	ug/kg			65 U		120 U		92 U		150 U		130 U	
	METALS															
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg		0.05		0.061		0.057		0.075 J		0.077	
	OTHER															
PH	pH	N			ph units											
SOLID	Total Solids	N			%		70.6		68.1		70		45.2		54	

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID:	OL-RAD-CAP-0044-H	OL-RAD-CAP-0045-H	OL-RAD-CAP-0045-H	OL-RAD-CAP-0045-H	Duplicate OL-RAD-CAP-0045-H	OL-RAD-CAP-0045-H	Duplicate OL-RAD-CAP-0045-H	OL-RAD-CAP-0046-H	OL-RAD-CAP-0046-H	OL-RAD-CAP-0046-H
					Depth:	12-15 in	3-6 in	3-6 in	7-10 in	7-10 in	7-10 in	7-10 in	3-6 in	3-6 in	19.5-22.5 in
					Sample ID:	OL-4005-08	OL-4005-11	OL-4005-11	OL-4005-12/OL-4005-13	OL-4005-12/OL-4005-13	OL-4005-12/OL-4005-13	OL-4005-12/OL-4005-13	OL-4005-03	OL-4005-03	OL-4005-04
					Lab Sample Id:	R2205796-008	R2205796-011	R2205796-011	R2205796-012	R2205796-013	R2205796-012	R2205796-013	R2205796-003	R2205796-003	R2205796-004
					Sampled:	6/23/2022 13:55	6/23/2022 14:45	6/23/2022 14:45	6/23/2022 14:50	6/23/2022 14:50	6/23/2022 14:50	6/23/2022 14:50	6/23/2022 12:40	6/23/2022 12:40	6/23/2022 12:45
					Matrix:	WATER-CALC	SOIL	WATER-CALC	SOIL	SOIL	WATER-CALC	WATER-CALC	SOIL	WATER-CALC	SOIL
					Model Area:	Outboard East	Outboard East	Outboard East	Outboard East	Outboard East	Outboard East	Outboard East	Outboard East	Outboard East	Outboard East
					Cap Type	Outboard East	Outboard East	Outboard East	Outboard East	Outboard East	Outboard East	Outboard East	Outboard East	Outboard East	Outboard East
					Zone:	3	3	3	3	3	3	3	3	3	3
					Collection Method	SED	Hand Core	SED	Hand Core	Hand Core	SED	SED	Hand Core	SED	Hand Core
					Sampling Method	CORE	Core	CORE	Core	Core	CORE	CORE	Core	CORE	Core
					Units	ug/L	ug/kg	ug/L	ug/kg	ug/kg	ug/L	ug/L	ug/kg	ug/L	ug/kg
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Average from RAD <6 in samples				%										
Avg TOC	Average from RAD >=6 in samples				%										
Avg TOC	Measured for Sample				%		4.31		3.32	3.32			4.14		2.15
TOC	Total Organic Carbon	N			%		43100		33200	31800			41400		21500
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg			0.88 U		0.48 U	1.5 U			0.77 U		0.74 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg			0.38 U		0.21 U	0.61 U			0.47		0.32 U
108-90-7	Chlorobenzene	N	428	ug/kg			0.34 U		0.19 U	0.55 U			0.74 J		0.29 U
100-41-4	Ethylbenzene	N	176	ug/kg			1.7 U		0.92 U	2.8 U			1.5 U		1.5 U
1330-20-7	Xylenes	N	561	ug/kg			0.88 U		0.48 U	1.5 U			0.77 U		0.74 U
91-20-3	Naphthalene	N	917	ug/kg			41 U		32 U	36 U			20 J		3.2 U
71-43-2	Benzene	N	760	ug/L		0.28 U	0.34 U	0.16 U	0.23 J	0.55 U	0.14 J	0.14 U	0.44 J	0.22 J	0.29 U
108-88-3	Toluene	N	480	ug/L		0.92 U	3.4 U	0.52 U	1.9 U	5.5 U	1.1 U	1.1 U	3 U	0.48 U	2.9 U
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		7.93 U	160 U	15 U	130 U	140 U	17 U	17 U	58 U	5.58 U	13 U
83-32-9	Acenaphthene	N	861	ug/kg			52 J		23 U	31 J			22 J		3.4 J
208-96-8	Acenaphthylene	N	1301	ug/kg			60 J		72 J	74 J			33 J		7.4 J
120-12-7	Anthracene	N	207	ug/kg			170		110	140			72		15
86-73-7	Fluorene	N	264	ug/kg			60 J		35 J	47 J			25 J		4.2 J
85-01-8	Phenanthrene	N	543	ug/kg			830		370	560			350		60
56-55-3	Benzo(A)Anthracene	N	192	ug/kg			860		370	480			360		64
50-32-8	Benzo(A)Pyrene	N	146	ug/kg			1200		550	690			570		95
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg			1300		580	760			710		110
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg			660 J		230	300			440		65
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg			460		210	250			230		37
218-01-9	Chrysene	N	253	ug/kg			1100		480	610			530		83
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg			170		78 J	87 J			100		16
206-44-0	Fluoranthene	N	1436	ug/kg			2200		870	1200			960		140
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg			770		280	380			450		72
129-00-0	Pyrene	N	344	ug/kg			1700		700	930			790		130
108-95-2	Phenol	Y	250	ug/L											
83-32-9	Acenaphthene	Y	861	ug/kg											
208-96-8	Acenaphthylene	Y	1301	ug/kg											
120-12-7	Anthracene	Y	207	ug/kg											
86-73-7	Fluorene	Y	264	ug/kg											
85-01-8	Phenanthrene	Y	543	ug/kg											
	PCBs														
PCB	PCB, Total	N	295	ug/kg			150 U		120 U	120 U			170 U		110 U
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg		0.063		0.06	0.063			0.124 J		0.066
	OTHER														
PH	pH	N			ph units										
SOLID	Total Solids	N			%		54.7		72	61.7			42.9		68.8

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0046-H 19.5-22.5 in OL-4005-04 R2205796-004 6/23/2022 12:45 WATER-CALC Outboard East Outboard East 3 SED CORE ug/L	OL-RAD-CAP-0057-H 3-6 in OL-4029-03 R2206912-003 7/27/2022 9:00 SOIL-CALC D-Center RA-D-1A 1 Peeper Peeper ug/kg	OL-RAD-CAP-0057-H 3-6 in OL-4029-03 R2206912-003 7/27/2022 9:00 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L	OL-RAD-CAP-0057-H 3-9 in OL-4029-04 R2206912-004 7/27/2022 9:05 SOIL-CALC D-Center RA-D-1A 1 Peeper Peeper ug/kg	OL-RAD-CAP-0057-H 3-9 in OL-4029-04 R2206912-004 7/27/2022 9:05 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L	OL-RAD-CAP-0057-H 9-12 in OL-4029-05 R2206912-005 7/27/2022 9:10 SOIL-CALC D-Center RA-D-1A 1 Peeper Peeper ug/kg	OL-RAD-CAP-0057-H 9-12 in OL-4029-05 R2206912-005 7/27/2022 9:10 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L	OL-RAD-CAP-0057-H 3-6 in OL-4048-01 R2208784-001 9/15/2022 12:00 SOIL D-Center RA-D-1A 1 Vibracore Core ug/kg	OL-RAD-CAP-0057-H 9-12 in OL-4048-02 R2208784-002 9/15/2022 12:05 SOIL D-Center RA-D-1A 1 Vibracore Core ug/kg	OL-RAD-CAP-0057-I 12-15 in OL-4029-06 R2206912-006 7/27/2022 9:15 SOIL-CALC D-Center RA-D-1A 1 Peeper Peeper ug/kg
CAS NO.	COMPOUND	FILTERED															
Avg TOC	Average from RAD <6 in samples				%			1.0241		1.0241							
Avg TOC	Average from RAD >=6 in samples				%								0.8866				
Avg TOC	Measured for Sample				%										0.47	0.58	
TOC	Total Organic Carbon	N			%										4700	5800	
	VOLATILES																
TCB_Summ	Trichlorobenzenes	N	347	ug/kg											0.6 U	0.68 U	3.35 U
DCB_Summ	Dichlorobenzenes	N	239	ug/kg											0.26 U	0.29 U	0.77 U
108-90-7	Chlorobenzene	N	428	ug/kg											0.23 U	0.26 U	0.33 U
100-41-4	Ethylbenzene	N	176	ug/kg											1.2 U	1.3 U	0.69 U
1330-20-7	Xylenes	N	561	ug/kg											2.3 U	2.6 U	0.7 U
91-20-3	Naphthalene	N	917	ug/kg											9.5	13	1.43 U
71-43-2	Benzene	N	760	ug/L		0.28 U	0.1 U	0.22 U				0.09 U	0.22 U				0.09 U
108-88-3	Toluene	N	480	ug/L		0.89 U	0.31 U	0.22 U				0.27 U	0.22 U				0.27 U
	SEMIVOLATILES																
108-95-2	Phenol	N	250	ug/L		2.41 U			0.13 U	0.055 U	0.17 J	0.0825 J					0.11 U
83-32-9	Acenaphthene	N	861	ug/kg											2.6 J	2.5 U	9.47 U
208-96-8	Acenaphthylene	N	1301	ug/kg											2.4 U	2.7 U	3.86 U
120-12-7	Anthracene	N	207	ug/kg											5.3 U	5.9 U	18 U
86-73-7	Fluorene	N	264	ug/kg											2.6 J	2.5 U	6.98 U
85-01-8	Phenanthrene	N	543	ug/kg											14	17	22 U
56-55-3	Benzo(A)Anthracene	N	192	ug/kg											10	16	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg											13	23	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg											21	41	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg											16	30	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg											6.9 J	11	
218-01-9	Chrysene	N	253	ug/kg											12	23	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg											3.6 U	5.9 J	
206-44-0	Fluoranthene	N	1436	ug/kg											26	40	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg											3.8 U	20	
129-00-0	Pyrene	N	344	ug/kg											22	37	
108-95-2	Phenol	Y	250	ug/L													
83-32-9	Acenaphthene	Y	861	ug/kg													
208-96-8	Acenaphthylene	Y	1301	ug/kg													
120-12-7	Anthracene	Y	207	ug/kg													
86-73-7	Fluorene	Y	264	ug/kg													
85-01-8	Phenanthrene	Y	543	ug/kg													
	PCBs																
PCB	PCB, Total	N	295	ug/kg											98 U	120 U	
	METALS																
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg										0.021 J	0.047	0.296 U
	OTHER																
PH	pH	N			ph units										7.78	8.12	
SOLID	Total Solids	N			%										76.9	67.2	

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0057-I 12-15 in OL-4029-06 R2206912-006 7/27/2022 9:15 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L	OL-RAD-CAP-0057-I 15-18 in OL-4029-07 R2206912-007 7/27/2022 9:20 WATER D-Center RA-D-1A 1 Peeper Peeper ug/L
CAS NO.	COMPOUND	FILTERED					
Avg TOC	Average from RAD <6 in samples				%		
Avg TOC	Average from RAD >=6 in samples				%	0.8866	0.8866
Avg TOC	Measured for Sample				%		
TOC	Total Organic Carbon	N			%		
	VOLATILES						
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.374 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.22 U	
108-90-7	Chlorobenzene	N	428	ug/kg		0.22 U	
100-41-4	Ethylbenzene	N	176	ug/kg		0.22 U	
1330-20-7	Xylenes	N	561	ug/kg		0.253 U	
91-20-3	Naphthalene	N	917	ug/kg		0.605 U	
71-43-2	Benzene	N	760	ug/L		0.22 U	
108-88-3	Toluene	N	480	ug/L		0.22 U	
	SEMIVOLATILES						
108-95-2	Phenol	N	250	ug/L		0.055 U	
83-32-9	Acenaphthene	N	861	ug/kg		0.055 U	
208-96-8	Acenaphthylene	N	1301	ug/kg		0.055 U	
120-12-7	Anthracene	N	207	ug/kg		0.0781 U	
86-73-7	Fluorene	N	264	ug/kg		0.0572 U	
85-01-8	Phenanthrene	N	543	ug/kg		0.0968 U	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg			
50-32-8	Benzo(A)Pyrene	N	146	ug/kg			
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg			
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg			
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg			
218-01-9	Chrysene	N	253	ug/kg			
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg			
206-44-0	Fluoranthene	N	1436	ug/kg			
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg			
129-00-0	Pyrene	N	344	ug/kg			
108-95-2	Phenol	Y	250	ug/L			
83-32-9	Acenaphthene	Y	861	ug/kg			
208-96-8	Acenaphthylene	Y	1301	ug/kg			
120-12-7	Anthracene	Y	207	ug/kg			
86-73-7	Fluorene	Y	264	ug/kg			
85-01-8	Phenanthrene	Y	543	ug/kg			
	PCBs						
PCB	PCB, Total	N	295	ug/kg			
	METALS						
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.22 U	
	OTHER						
PH	pH	N			ph units		7.79
SOLID	Total Solids	N			%		

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area F			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAF-CAP-0001-H 3-6 in OL-4031-06 R2207648-006 8/16/2022 10:40 SOIL RAF RAF 1 Vibracore Core ug/kg	OL-RAF-CAP-0001-H 3-6 in OL-4031-06 R2207648-006 8/16/2022 10:40 WATER-CALC RAF RAF 1 SED CORE ug/L	OL-RAF-CAP-0001-H 9-12 in OL-4031-07/OL-4031-08 R2207648-007 8/16/2022 10:45 SOIL RAF RAF 1 Vibracore Core ug/kg	Duplicate OL-RAF-CAP-0001-H 9-12 in OL-4031-07/OL-4031-08 R2207648-008 8/16/2022 10:50 SOIL RAF RAF 1 Vibracore Core ug/kg	OL-RAF-CAP-0001-H 9-12 in OL-4031-07/OL-4031-08 R2207648-007 8/16/2022 10:45 WATER-CALC RAF RAF 1 SED CORE ug/L	Duplicate OL-RAF-CAP-0001-H 9-12 in OL-4031-07/OL-4031-08 R2207648-008 8/16/2022 10:50 WATER-CALC RAF RAF 1 SED CORE ug/L	OL-RAF-CAP-0001-I 12-15 in OL-4031-09 R2207648-009 8/16/2022 10:55 SOIL RAF RAF 1 Vibracore Core ug/kg	OL-RAF-CAP-0001-I 12-15 in OL-4031-09 R2207648-009 8/16/2022 10:55 WATER-CALC RAF RAF 1 SED CORE ug/L	OL-RAF-CAP-0002-H 3-6 in OL-4031-03 R2207648-003 8/16/2022 10:10 SOIL RAF RAF 1 Vibracore Core ug/kg
CAS NO.	COMPOUND	FILTERED											
Avg TOC	Measured for Sample			%	0.207		0.333	0.333					0.29
Avg TOC	Measured TOC - Location ID			%							0.333		
TOC	Total Organic Carbon	N		%	2070		3330 J	1380 J					2900
	VOLATILES												
TCB_Summ	Trichlorobenzenes	N	347 ug/kg		0.69 U		0.49 U	0.49 U			0.73 U		0.58 U
DCB_Summ	Dichlorobenzenes	N	239 ug/kg		0.3 U		0.21 U	0.21 U			0.31 U		0.25 U
108-90-7	Chlorobenzene	N	428 ug/kg		0.27 U		0.19 U	0.19 U			0.29 U		0.23 U
100-41-4	Ethylbenzene	N	176 ug/kg		1.4 U		0.93 U	0.94 U			1.5 U		1.2 U
1330-20-7	Xylenes	N	561 ug/kg		0.69 U		0.49 U	0.49 U			0.73 U		0.58 U
91-20-3	Naphthalene	N	917 ug/kg		2.8 U		2.7 U	2.6 U			2.3 U		2.5 U
71-43-2	Benzene	N	760 ug/L		0.27 U	2.68 U	0.19 U	0.19 U	1.17 U	1.17 U	0.29 U	2.12 U	0.23 U
108-88-3	Toluene	N	480 ug/L		2.7 U	8.64 U	1.9 U	1.9 U	3.78 U	3.78 U	2.9 U	6.83 U	2.3 U
	SEMIVOLATILES												
108-95-2	Phenol	N	250 ug/L		8.4 U	16 U	8 U	7.8 U	9.56 U	9.56 U	7.1 U	10 U	7.4 U
83-32-9	Acenaphthene	N	861 ug/kg		2 U		1.9 U	1.9 U			1.7 U		1.8 U
208-96-8	Acenaphthylene	N	1301 ug/kg		2.2 U		2.1 U	2 U			1.8 U		1.9 U
120-12-7	Anthracene	N	207 ug/kg		3.5 U		3.3 U	3.2 U			2.9 U		3.1 U
86-73-7	Fluorene	N	264 ug/kg		2.1 U		2 U	1.9 U			1.7 U		1.8 U
85-01-8	Phenanthrene	N	543 ug/kg		3 U		2.9 U	2.8 U			2.5 U		2.6 U
56-55-3	Benzo(A)Anthracene	N	192 ug/kg		4 J		8.7 J	2.9 J			2.1 U		2.2 U
50-32-8	Benzo(A)Pyrene	N	146 ug/kg		3.6 J		11 J	3 UJ			2.7 U		2.9 U
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg		4.8 J		12 J	2.9 J			2.6 J		2.4 U
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg		3.1 U		6.8 J	2.8 U			2.6 U		2.7 U
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg		2.4 J		3.4 J	2 U			1.9 U		1.9 U
218-01-9	Chrysene	N	253 ug/kg		2.1 U		7.6 J	2.2 J			1.7 U		1.8 U
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg		3.3 U		3.1 U	3 U			2.7 U		2.9 U
206-44-0	Fluoranthene	N	1436 ug/kg		5.5 J		8.7 J	3.1 UJ			2.9 U		3 U
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg		3.5 U		5.7 J	3.2 U			2.9 U		3.1 U
129-00-0	Pyrene	N	344 ug/kg		4.4 J		9.4 J	2.7 UJ			2.5 U		2.6 U
	PCBs												
PCB	PCB, Total	N	295 ug/kg		31 U		28 U	27 U			29 U		42 U
	METALS												
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg	0.195		0.122	0.08			0.159		0.013 U
	OTHER												
SOLID	Total Solids	N		%	83.3		86.5	89.4			89.1		93.4

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area F			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAF-CAP-0002-H 3-6 in OL-4031-03 R2207648-003 8/16/2022 10:10 WATER-CALC RAF RAF 1 SED CORE ug/L	OL-RAF-CAP-0002-H 9-12 in OL-4031-04 R2207648-004 8/16/2022 10:15 SOIL RAF RAF 1 Vibracore Core ug/kg	OL-RAF-CAP-0002-H 9-12 in OL-4031-04 R2207648-004 8/16/2022 10:15 WATER-CALC RAF RAF 1 SED CORE ug/L	OL-RAF-CAP-0002-I 12-15 in OL-4031-05 R2207648-005 8/16/2022 10:20 SOIL RAF RAF 1 Vibracore Core ug/kg	OL-RAF-CAP-0002-I 12-15 in OL-4031-05 R2207648-005 8/16/2022 10:20 WATER-CALC RAF RAF 1 SED CORE ug/L
CAS NO.	COMPOUND	FILTERED							
Avg TOC	Measured for Sample			%		0.23			
Avg TOC	Measured TOC - Location ID			%				0.23	
TOC	Total Organic Carbon	N		%		2300			
	VOLATILES								
TCB_Summ	Trichlorobenzenes	N	347 ug/kg			0.6 U		0.55 U	
DCB_Summ	Dichlorobenzenes	N	239 ug/kg			0.26 U		0.24 U	
108-90-7	Chlorobenzene	N	428 ug/kg			0.23 U		0.21 U	
100-41-4	Ethylbenzene	N	176 ug/kg			1.2 U		1.1 U	
1330-20-7	Xylenes	N	561 ug/kg			0.6 U		0.55 U	
91-20-3	Naphthalene	N	917 ug/kg			2.5 U		2.5 U	
71-43-2	Benzene	N	760 ug/L		1.63 U	0.23 U	2.05 U	0.21 U	1.53 U
108-88-3	Toluene	N	480 ug/L		5.25 U	2.3 U	6.62 U	2.1 U	4.94 U
	SEMIVOLATILES								
108-95-2	Phenol	N	250 ug/L		10 U	7.6 U	13 U	7.7 U	11 U
83-32-9	Acenaphthene	N	861 ug/kg			1.8 U		1.8 U	
208-96-8	Acenaphthylene	N	1301 ug/kg			2 U		2 U	
120-12-7	Anthracene	N	207 ug/kg			3.1 U		3.2 U	
86-73-7	Fluorene	N	264 ug/kg			1.9 U		1.9 U	
85-01-8	Phenanthrene	N	543 ug/kg			2.7 U		2.7 U	
56-55-3	Benzo(A)Anthracene	N	192 ug/kg			2.3 U		2.3 U	
50-32-8	Benzo(A)Pyrene	N	146 ug/kg			2.9 U		3 U	
205-99-2	Benzo(B)Fluoranthene	N	908 ug/kg			2.5 U		2.5 U	
191-24-2	Benzo(G,H,I)Perylene	N	780 ug/kg			2.7 U		2.8 U	
207-08-9	Benzo(K)Fluoranthene	N	203 ug/kg			2 U		2 U	
218-01-9	Chrysene	N	253 ug/kg			1.9 U		1.9 U	
53-70-3	Dibenz(A,H)Anthracene	N	157 ug/kg			2.9 U		3 U	
206-44-0	Fluoranthene	N	1436 ug/kg			3.1 U		3.1 U	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183 ug/kg			3.1 U		3.2 U	
129-00-0	Pyrene	N	344 ug/kg			2.7 U		2.7 U	
	PCBs								
PCB	PCB, Total	N	295 ug/kg			44 U		46 U	
	METALS								
7439-97-6	Mercury	N	2.2 mg/kg	mg/kg		0.013 U		0.014 U	
	OTHER								
SOLID	Total Solids	N		%		93		90.8	

Notes:
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WATER-CALC - porewater values have been calculated from soil results

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area SMU-8			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-SMU8-CAP-0001-C 0-4 cm OL-4032-08 R2207703-008 8/17/2022 16:40 SOIL RA-C-TLC RA-C-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0001-C 0-4 cm OL-4032-08 R2207703-008 8/17/2022 16:40 WATER-CALC RA-C-TLC RA-C-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0001-C 4-10 cm OL-4032-09 R2207703-009 8/17/2022 16:45 SOIL RA-C-TLC RA-C-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0001-C 4-10 cm OL-4032-09 R2207703-009 8/17/2022 16:45 WATER-CALC RA-C-TLC RA-C-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0002-C 0-4 cm OL-4032-01 R2207703-001 8/17/2022 11:30 SOIL RA-C-TLC RA-C-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0002-C 0-4 cm OL-4032-01 R2207703-001 8/17/2022 11:30 WATER-CALC RA-C-TLC RA-C-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0002-C 4-10 cm OL-4032-02 R2207703-002 8/17/2022 11:35 SOIL RA-C-TLC RA-C-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0002-C 4-10 cm OL-4032-02 R2207703-002 8/17/2022 11:35 WATER-CALC RA-C-TLC RA-C-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0003-C 0-4 cm OL-4032-10 R2207703-010 8/17/2022 15:25 SOIL RA-C-TLC RA-C-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0003-C 0-4 cm OL-4032-10 R2207703-010 8/17/2022 15:25 WATER-CALC RA-C-TLC RA-C-TLC SMU8 SED CORE ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Measured for Sample				%	0.108		1.72		0.65		0.37		2.01	
TOC	Total Organic Carbon	N			%	1080		17200		6500		3700		20100	
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.48 U		1.6 U		0.65 U		0.49 U		1.1 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.21 U		1.3		0.28 U		0.21 U		0.78	
108-90-7	Chlorobenzene	N	428	ug/kg		0.19 U		0.64 J		0.25 U		0.19 U		0.75 J	
100-41-4	Ethylbenzene	N	176	ug/kg		0.92 U		3 U		1.3 U		0.94 U		2.1 U	
1330-20-7	Xylenes	N	561	ug/kg		0.48 U		1.6 U		0.65 U		0.49 U		1.1 U	
91-20-3	Naphthalene	N	917	ug/kg		2.6 U		6.3 J		13		25		5.8 U	
71-43-2	Benzene	N	760	ug/L		1.2 J	23 J	2.7 J	3.23 J	0.25 U	0.79 U	0.19 U	1.06 U	0.81 J	0.83 J
108-88-3	Toluene	N	480	ug/L		1.9 U	12 U	6 U	2.31 U	2.5 U	2.55 U	1.9 U	3.4 U	4.2 U	1.38 U
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		7.8 U	29 U	14 U	3.24 U	8.8 U	5.39 U	7.3 U	7.85 U	18 U	3.57 U
83-32-9	Acenaphthene	N	861	ug/kg		1.9 U		3.2 U		2.1 U		1.7 U		4.1 U	
208-96-8	Acenaphthylene	N	1301	ug/kg		2 U		3.8 J		3.3 J		3.1 J		4.5 U	
120-12-7	Anthracene	N	207	ug/kg		3.2 U		5.6 U		6.6 J		4.5 J		7.2 U	
86-73-7	Fluorene	N	264	ug/kg		1.9 U		3.3 U		3.3 J		1.8 U		4.3 U	
85-01-8	Phenanthrene	N	543	ug/kg		2.8 U		21		25		13		15 J	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		2.4 U		23		19		8.9		17	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		3 U		38		29		11		25	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		2.5 U		48		44		17		34	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		2.8 U		34		29		9.9		25	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		2 U		16		14		5.5 J		12 J	
218-01-9	Chrysene	N	253	ug/kg		1.9 U		33		32		12		19	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		3 U		9.5 J		5.8 J		2.8 U		6.7 U	
206-44-0	Fluoranthene	N	1436	ug/kg		3.2 U		53		57		24		38	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		3.2 U		26		20		6.9		18	
129-00-0	Pyrene	N	344	ug/kg		2.8 U		47		49		25		34	
	PCBs														
PCB	PCB, Total	N	295	ug/kg		27 U		190 U		72 U		30 U		190 U	
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.014 U		0.051		0.029		0.034		0.088 J	
	OTHER														
PH	pH	N		ph units	ph units	8.08		7.34		7.34		7.72		7.23	
SOLID	Total Solids	N			%	90.3		50.2		73.6		84.4		40.3	

Notes:
U - Not Detected
J - Estimated Value

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area SMU-8			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-SMU8-CAP-0003-C 4-10 cm OL-4032-11 R2207703-011 8/17/2022 15:30 SOIL RA-C-TLC RA-C-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0003-C 4-10 cm OL-4032-11 R2207703-011 8/17/2022 15:30 WATER-CALC RA-C-TLC RA-C-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0004-C 0-4 cm OL-4032-05 R2207703-005 8/17/2022 13:15 SOIL RA-C-TLC RA-C-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0004-C 0-4 cm OL-4032-05 R2207703-005 8/17/2022 13:15 WATER-CALC RA-C-TLC RA-C-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0005-C 0-4 cm OL-4032-03 R2207703-003 8/17/2022 12:05 SOIL RA-C-TLC RA-C-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0005-C 0-4 cm OL-4032-03 R2207703-003 8/17/2022 12:05 WATER-CALC RA-C-TLC RA-C-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0006-C 0-4 cm OL-4033-02 R2207785-002 8/18/2022 7:50 SOIL RA-C-TLC RA-C-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0006-C 0-4 cm OL-4033-02 R2207785-002 8/18/2022 7:50 WATER-CALC RA-C-TLC RA-C-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0007-C 0-4 cm OL-4032-06 R2207703-006 8/17/2022 14:15 SOIL RA-C-TLC RA-C-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0007-C 0-4 cm OL-4032-06 R2207703-006 8/17/2022 14:15 WATER-CALC RA-C-TLC RA-C-TLC SMU8 SED CORE ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Measured for Sample				%	0.38		1.82		3.98		1.72		1.04	
TOC	Total Organic Carbon	N			%	3800		18200		39800		17200		10400	
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.59 U		1.3 U		1.1 U		1.5 U		0.99 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.25 U		0.53 U		0.45 U		0.62 U		0.42 U	
108-90-7	Chlorobenzene	N	428	ug/kg		0.23 U		0.48 U		0.41 U		0.56 U		0.38 U	
100-41-4	Ethylbenzene	N	176	ug/kg		1.2 U		2.4 U		2.1 U		2.8 U		1.9 U	
1330-20-7	Xylenes	N	561	ug/kg		0.59 U		1.3 U		1.1 U		5.6 U		0.99 U	
91-20-3	Naphthalene	N	917	ug/kg		2.3 U		44		7.7 J		4.3 U		7.1 J	
71-43-2	Benzene	N	760	ug/L		0.42 J	2.27 J	0.48 U	0.54 U	0.41 U	0.21 U	0.56 U	0.67 U	0.38 U	0.75 U
108-88-3	Toluene	N	480	ug/L		2.3 U	4.01 U	4.8 U	1.75 U	4.1 U	0.68 U	5.6 U	2.16 U	3.8 U	2.42 U
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		7.1 U	7.44 U	20 J	4.37 J	13 U	1.3 U	13 U	3.01 U	11 U	4.21 U
83-32-9	Acenaphthene	N	861	ug/kg		1.7 U		3.5 U		3 U		3.1 U		2.4 U	
208-96-8	Acenaphthylene	N	1301	ug/kg		1.8 U		3.8 U		3.2 U		3.3 U		2.6 U	
120-12-7	Anthracene	N	207	ug/kg		2.9 U		6 U		5.2 U		5.3 U		4.2 U	
86-73-7	Fluorene	N	264	ug/kg		1.7 U		3.6 U		3.1 U		3.2 U		2.5 U	
85-01-8	Phenanthrene	N	543	ug/kg		2.5 U		15		7.1 J		7.9 J		13	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		2.1 U		12 J		7.7 J		9.1 J		14	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		2.7 U		14		8.9 J		11 J		21	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		2.3 U		22		13		17		27	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		2.6 U		14 J		7.7 J		4.7 U		20	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		1.9 U		7.6 J		3.5 J		6.1 J		9.5	
218-01-9	Chrysene	N	253	ug/kg		1.7 U		14		7.7 J		8.5 J		20	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		2.7 U		5.6 U		4.8 U		5 U		4.7 J	
206-44-0	Fluoranthene	N	1436	ug/kg		2.9 U		32		17		18		32	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		2.9 U		6 U		5.2 U		8.5 J		16	
129-00-0	Pyrene	N	344	ug/kg		2.5 U		29		12		17		30	
	PCBs														
PCB	PCB, Total	N	295	ug/kg		26 U		160 U		150 U		360 U		94 U	
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.013 U		0.193 J		0.182		0.06		0.093	
	OTHER														
PH	pH	N		ph units	ph units	7.87		7.14		7.43		7.3		7.23	
SOLID	Total Solids	N			%	91.2		48		51.2		50		67.9	

Notes:
U - Not Detected
J - Estimated Value

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area SMU-8			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-SMU8-CAP-0008-D 0-4 cm OL-4033-01 R2207785-001 8/17/2022 16:00 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0008-D 0-4 cm OL-4033-01 R2207785-001 8/17/2022 16:00 WATER-CALC RA-D-Amended TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0009-D 0-4 cm OL-4035-03 R2207824-003 8/18/2022 16:10 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0009-D 0-4 cm OL-4035-03 R2207824-003 8/18/2022 16:10 WATER-CALC RA-D-Amended TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0010-D 0-4 cm OL-4032-07 R2207703-007 8/17/2022 13:50 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0010-D 0-4 cm OL-4032-07 R2207703-007 8/17/2022 13:50 WATER-CALC RA-D-Amended TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0011-D 0-4 cm OL-4032-04 R2207703-004 8/17/2022 12:40 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0011-D 0-4 cm OL-4032-04 R2207703-004 8/17/2022 12:40 WATER-CALC RA-D-Amended TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0012-D 0-4 cm OL-4033-08 R2207785-008 8/18/2022 9:15 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0012-D 0-4 cm OL-4033-08 R2207785-008 8/18/2022 9:15 WATER-CALC RA-D-Amended TLC RA-D-TLC SMU8 SED CORE ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Measured for Sample				%	3.31		0.462		2.72		2.27		3.18	
TOC	Total Organic Carbon	N			%	33100 J		4620 J		27200		22700		31800	
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		2.5 U		2.4 U		2.2 U		0.97 U		0.94 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		1.1 U		0.98 U		1.5		0.41 U		0.44	
108-90-7	Chlorobenzene	N	428	ug/kg		4.6 J		0.89 UJ		0.83 U		0.38 U		0.37 U	
100-41-4	Ethylbenzene	N	176	ug/kg		4.7 UJ		4.5 UJ		4.2 U		1.9 U		1.9 U	
1330-20-7	Xylenes	N	561	ug/kg		9.4 UJ		8.9 UJ		2.2 U		0.97 U		3.7 U	
91-20-3	Naphthalene	N	917	ug/kg		15 J		23 J		8 J		20		890 J	
71-43-2	Benzene	N	760	ug/L		28 J	17 J	1.7 J	7.56 J	1.3 J	0.98 J	0.94 J	0.85 J	0.37 U	0.24 U
108-88-3	Toluene	N	480	ug/L		9.4 UJ	1.88 UJ	8.9 UJ	13 UJ	8.3 U	2.02 U	3.8 U	1.11 U	3.7 U	0.77 U
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		29 UJ	3.49 UJ	27 UJ	23 UJ	20 J	2.93 J	13 J	2.28 J	68 J-	8.51 J-
83-32-9	Acenaphthene	N	861	ug/kg		6.6 UJ		6.1 UJ		4.5 U		3.3 J			
208-96-8	Acenaphthylene	N	1301	ug/kg		7.2 UJ		8.6 J		4.9 U		3.7 J		7.2 J	
120-12-7	Anthracene	N	207	ug/kg		12 UJ		12 J		7.8 U		6 J		5.3 J	
86-73-7	Fluorene	N	264	ug/kg		6.8 UJ		6.3 UJ		4.6 U		2.8 J		3.9 J	
85-01-8	Phenanthrene	N	543	ug/kg		36 J		44 J		20		21		19 J-	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		42 J		38 J		24		13		14 J-	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		61 J		58 J		32		22		24 J-	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		78 J		80 J		35		32		29 J-	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		54 J		48 J		24		19		19 J-	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		25 J		27 J		13 J		9.8		9.7 J-	
218-01-9	Chrysene	N	253	ug/kg		50 J		55 J		23		24		22 J-	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		16 J		12 J		7.3 U		4.2 J		4.8 J	
206-44-0	Fluoranthene	N	1436	ug/kg		86 J		100 J		44		50		37 J-	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		38 J		39 J		20		15		14 J-	
129-00-0	Pyrene	N	344	ug/kg		78 J		86 J		41		42		33 J-	
	PCBs														
PCB	PCB, Total	N	295	ug/kg		1600 UJ		1600 UJ		260 U		120 U		130 U	
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.215 J		0.152 J		0.128 J		0.04		0.063	
	OTHER														
PH	pH	N		ph units	ph units	7.17		7.01		7.11		7.44		7.53	
SOLID	Total Solids	N			%	24.2		26.8		34.1		61.8		60.3	

Notes:
U - Not Detected
J - Estimated Value

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area SMU-8			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-SMU8-CAP-0013-D 0-4 cm OL-4033-05 R2207785-005 8/18/2022 8:30 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0013-D 0-4 cm OL-4033-05 R2207785-005 8/18/2022 8:30 WATER-CALC RA-D-Amended TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0014-D 0-4 cm OL-4033-12 R2207785-012 8/18/2022 10:15 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0014-D 0-4 cm OL-4033-12 R2207785-012 8/18/2022 10:15 WATER-CALC RA-D-Amended TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0014-D 4-10 cm OL-4033-13 R2207785-013 8/18/2022 10:20 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0014-D 4-10 cm OL-4033-13 R2207785-013 8/18/2022 10:20 WATER-CALC RA-D-Amended TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0015-D 0-4 cm OL-4046-03 R2208713-003 9/14/2022 8:15 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0015-D 0-4 cm OL-4046-03 R2208713-003 9/14/2022 8:15 WATER-CALC RA-D-Amended TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0016-D 0-4 cm OL-4046-04 R2208713-004 9/14/2022 8:45 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0016-D 0-4 cm OL-4046-04 R2208713-004 9/14/2022 8:45 WATER-CALC RA-D-Amended TLC RA-D-TLC SMU8 SED CORE ug/L
CAS NO.	COMPOUND	FILTERED													
Avg TOC	Measured for Sample				%	2.27		1.07		0.67		1.92		0.73	
TOC	Total Organic Carbon	N			%	22700		10700		6700		19200		7300	
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		1.2 U		1.4 U		0.64 U		0.42 U		1.6 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		0.9		0.6		0.28 U		0.18 U		0.87	
108-90-7	Chlorobenzene	N	428	ug/kg		0.59 J		0.73 J		0.64 J		0.16 U		0.6 U	
100-41-4	Ethylbenzene	N	176	ug/kg		2.2 U		2.7 U		1.3 U		0.8 U		3 U	
1330-20-7	Xylenes	N	561	ug/kg		4.4 U		5.3 U		2.5 U		1.6 U		6 U	
91-20-3	Naphthalene	N	917	ug/kg		99		4.9 U		6.4		3 U		33	
71-43-2	Benzene	N	760	ug/L		1 J	0.91 J	0.7 J	1.34 J	5 J	15 J	0.16 U	0.17 U	1.8 J	5.07 J
108-88-3	Toluene	N	480	ug/L		4.4 U	1.28 U	5.3 U	3.28 U	2.5 U	2.47 U	1.6 U	0.55 U	6 U	5.45 U
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		22 J	3.86 J	15 U	5.58 U	41	24	12 U	2.49 U	46 J	25 J
83-32-9	Acenaphthene	N	861	ug/kg		2.7 U		3.5 U		1.7 U		2.2 U		3 U	
208-96-8	Acenaphthylene	N	1301	ug/kg		3.2 J		3.8 U		1.8 U		2.4 U		3.3 U	
120-12-7	Anthracene	N	207	ug/kg		4.7 U		6.2 U		2.9 U		5.2 U		7.3 U	
86-73-7	Fluorene	N	264	ug/kg		27		3.6 U		1.7 U		2.2 U		3.1 U	
85-01-8	Phenanthrene	N	543	ug/kg		12		13 J		5.8 J		7.3 J		6.3 U	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		12		18		5.4 J		8.6		9 U	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		15		25		5.1 J		9.9		7.8 J	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		23		31		6.7		15		12 J	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		21		20		4.2 J		11		9.6 J	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		6.4 J		9.8 J		2.6 J		4.9 U		6.8 U	
218-01-9	Chrysene	N	253	ug/kg		12		20		4.2 J		9.9		6.6 J	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		4.4 U		5.7 U		2.7 U		3.5 U		4.9 U	
206-44-0	Fluoranthene	N	1436	ug/kg		27		36		9.3		17		13	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		14		16		3.5 J		7.7 J		5.3 U	
129-00-0	Pyrene	N	344	ug/kg		26		30		8		16		11 J	
	PCBs														
PCB	PCB, Total	N	295	ug/kg		150 U		670 U		85 U		120 U		170 U	
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.069		0.107 J		0.033		0.025		0.033 J	
	OTHER														
PH	pH	N		ph units	ph units	7.67						7.38		7.24	
SOLID	Total Solids	N			%	55.3		43.2		82.2		68.8		47.8	

Notes:
U - Not Detected
J - Estimated Value

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area SMU-8			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-SMU8-CAP-0017-D 0-4 cm OL-4033-03 R2207785-003 8/18/2022 8:10 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0017-D 0-4 cm OL-4033-03 R2207785-003 8/18/2022 8:10 WATER-CALC RA-D-TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0017-D 4-10 cm OL-4033-04 R2207785-004 8/18/2022 8:15 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0017-D 4-10 cm OL-4033-04 R2207785-004 8/18/2022 8:15 WATER-CALC RA-D-TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0018-D 0-4 cm OL-4034-03 R2207784-003 8/18/2022 14:40 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0018-D 0-4 cm OL-4034-03 R2207784-003 8/18/2022 14:40 WATER-CALC RA-D-TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0018-D 4-10 cm OL-4034-04 R2207784-004 8/18/2022 14:45 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0018-D 4-10 cm OL-4034-04 R2207784-004 8/18/2022 14:45 WATER-CALC RA-D-TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0019-D 0-4 cm OL-4035-01 R2207824-001 8/18/2022 15:40 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0019-D 0-4 cm OL-4035-01 R2207824-001 8/18/2022 15:40 WATER-CALC RA-D-TLC RA-D-TLC SMU8 SED CORE ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Measured for Sample				%	1.72		0.59		0.9		0.163		2.81	
TOC	Total Organic Carbon	N			%	17200		5900		9000		1630		28100	
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		1.4 U		0.76 U		0.73 U		0.5 U		2.1 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		1.2		0.33 U		0.43		0.21 U		1.2	
108-90-7	Chlorobenzene	N	428	ug/kg		0.69 J		0.3 U		0.28 U		0.2 J		1.2 J	
100-41-4	Ethylbenzene	N	176	ug/kg		2.7 U		1.5 U		1.4 U		0.95 U		4 U	
1330-20-7	Xylenes	N	561	ug/kg		5.3 U		3 U		0.73 U		0.5 U		7.9 U	
91-20-3	Naphthalene	N	917	ug/kg		10 J		69		11		2.6 U		8.4 J	
71-43-2	Benzene	N	760	ug/L		0.78 J	0.93 J	0.58 J	2.02 J	0.28 U	0.64 U	0.19 U	2.4 U	2.1 J	1.54 J
108-88-3	Toluene	N	480	ug/L		5.3 U	2.04 U	3 U	3.37 U	2.8 U	2.06 U	1.9 U	7.72 U	7.9 U	1.86 U
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		26 J	6.02 J	16 J	11 J	11 J	4.87 J	29 J	71 J	23 U	3.26 U
83-32-9	Acenaphthene	N	861	ug/kg		5 U		4.4 J		2.9 J		1.9 U		5.3 UJ	
208-96-8	Acenaphthylene	N	1301	ug/kg		5.5 U		4.4 J		4.6 J		2.1 U		5.7 UJ	
120-12-7	Anthracene	N	207	ug/kg		8.8 U		7 J		11		3.3 U		28 J-	
86-73-7	Fluorene	N	264	ug/kg		5.2 U		4.4 J		4.6 J		2 U		5.4 UJ	
85-01-8	Phenanthrene	N	543	ug/kg		24		17		55		6 J		26 J-	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		31		7 J		45		5.2 J		31 J-	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		39		6.6 J		86		5.6 J		46 J-	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		49		10		110		8.6		55 J-	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		35		6.6 J		73		5.6 J		39 J-	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		16 J		2.6 J		38		2.6 J		19 J	
218-01-9	Chrysene	N	253	ug/kg		30		6.6 J		77		5.2 J		39 J-	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		8.2 U		3.6 U		17		3.1 U		11 J	
206-44-0	Fluoranthene	N	1436	ug/kg		58		24		130		12		67 J-	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		26		4 J		58		4.1 J		32 J-	
129-00-0	Pyrene	N	344	ug/kg		53		22		120		10		57 J-	
	PCBs														
PCB	PCB, Total	N	295	ug/kg		850 U		99 U		130 U		45 U		1300 U	
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.153 J		0.092		0.035		0.015 U		0.274 J	
	OTHER														
PH	pH	N		ph units	ph units										
SOLID	Total Solids	N			%	32.7		71.5		71.3		86.9		31.6	

Notes:
U - Not Detected
J - Estimated Value

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area SMU-8			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-SMU8-CAP-0019-D 4-10 cm OL-4035-02 R2207824-002 8/18/2022 15:45 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0019-D 4-10 cm OL-4035-02 R2207824-002 8/18/2022 15:45 WATER-CALC RA-D-TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0020-D 0-4 cm OL-4033-14 R2207785-014 8/18/2022 11:10 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0020-D 0-4 cm OL-4033-14 R2207785-014 8/18/2022 11:10 WATER-CALC RA-D-TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0020-D 4-10 cm OL-4033-15 R2207785-015 8/18/2022 11:15 SOIL RA-D-TLC RA-D-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0020-D 4-10 cm OL-4033-15 R2207785-015 8/18/2022 11:15 WATER-CALC RA-D-TLC RA-D-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0021-E 0-4 cm OL-4033-18 R2207785-018 8/18/2022 13:40 SOIL RA-E-TLC RA-E-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0021-E 0-4 cm OL-4033-18 R2207785-018 8/18/2022 13:40 WATER-CALC RA-E-TLC RA-E-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0021-E 4-10 cm OL-4033-19 R2207785-019 8/18/2022 13:45 SOIL RA-E-TLC RA-E-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0021-E 4-10 cm OL-4033-19 R2207785-019 8/18/2022 13:45 WATER-CALC RA-E-TLC RA-E-TLC SMU8 SED CORE ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Measured for Sample				%	1.16		0.97		1.43		3.18		0.75	
TOC	Total Organic Carbon	N			%	11600		9700		14300		31800		7500	
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.98 U		1.1 U		0.48 U		1.9 U		0.63 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		1.59		0.55		7.32		1.7		1.77	
108-90-7	Chlorobenzene	N	428	ug/kg		1.5 J		0.4 U		5.5		0.72 U		1.3 J	
100-41-4	Ethylbenzene	N	176	ug/kg		1.9 U		2 U		0.91 U		3.6 U		1.3 U	
1330-20-7	Xylenes	N	561	ug/kg		3.8 U		4 U		1.9 U		7.2 U		2.5 U	
91-20-3	Naphthalene	N	917	ug/kg		37 J-		280		120		14 J		64	
71-43-2	Benzene	N	760	ug/L		1.2 J	2.13 J	0.4 U	0.85 U	0.28 J	0.4 J	1.1 J	0.71 J	0.25 U	0.68 U
108-88-3	Toluene	N	480	ug/L		3.8 U	2.17 U	4 U	2.73 U	1.9 U	0.88 U	7.2 U	1.5 U	2.5 U	2.21 U
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		12 U	4.12 U	13 J	5.34 J	16 J	4.45 J	22 U	2.75 U	8.2 U	4.35 U
83-32-9	Acenaphthene	N	861	ug/kg		2.6 UJ		8.1 J		5.6 J		5 U		2 U	
208-96-8	Acenaphthylene	N	1301	ug/kg		7.3 J		16		21		12 J		17	
120-12-7	Anthracene	N	207	ug/kg		7.8 J		15		22		22		27	
86-73-7	Fluorene	N	264	ug/kg		2.7 UJ		230		8.7		6 J		12	
85-01-8	Phenanthrene	N	543	ug/kg		20 J-		47		55		79		78	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		16 J-		22		43		79		65	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		21 J-		36		75		140		100	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		26 J-		40		96		170		130	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		17 J-		31		57		110		71	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		8.8 J		15		29		55		41	
218-01-9	Chrysene	N	253	ug/kg		17 J-		30		68		120		95	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		4.7 J		8.1 J		14		28		19	
206-44-0	Fluoranthene	N	1436	ug/kg		35 J-		55		100		210		160	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		13 J-		23		45		86		59	
129-00-0	Pyrene	N	344	ug/kg		31 J-		48		95		170		150	
	PCBs														
PCB	PCB, Total	N	295	ug/kg		620 U		120 U		110 U		820 U		87 U	
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.417		0.742		0.648		0.134 J		0.062	
	OTHER														
PH	pH	N		ph units	ph units										
SOLID	Total Solids	N			%	59.5		68.2		82.9		31.7		83.7	

Notes:
U - Not Detected
J - Estimated Value

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area SMU-8			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-SMU8-CAP-0022-E 0-4 cm OL-4034-01 R2207784-001 8/18/2022 14:10 SOIL RA-E-TLC RA-E-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0022-E 0-4 cm OL-4034-01 R2207784-001 8/18/2022 14:10 WATER-CALC RA-E-TLC RA-E-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0022-E 4-10 cm OL-4034-02 R2207784-002 8/18/2022 14:15 SOIL RA-E-TLC RA-E-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0022-E 4-10 cm OL-4034-02 R2207784-002 8/18/2022 14:15 WATER-CALC RA-E-TLC RA-E-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0023-E 0-4 cm OL-4033-16 R2207785-016 8/18/2022 13:05 SOIL RA-E-TLC RA-E-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0023-E 0-4 cm OL-4033-16 R2207785-016 8/18/2022 13:05 WATER-CALC RA-E-TLC RA-E-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0023-E 4-10 cm OL-4033-17 R2207785-017 8/18/2022 13:10 SOIL RA-E-TLC RA-E-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0023-E 4-10 cm OL-4033-17 R2207785-017 8/18/2022 13:10 WATER-CALC RA-E-TLC RA-E-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0024-E 0-4 cm OL-4033-09 R2207785-009 8/18/2022 9:45 SOIL RA-E-TLC RA-E-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0024-E 0-4 cm OL-4033-09 R2207785-009 8/18/2022 9:45 WATER-CALC RA-E-TLC RA-E-TLC SMU8 SED CORE ug/L
CAS NO.	COMPOUND	FILTERED														
Avg TOC	Measured for Sample				%	3.2		2.02		2.78		1.2		2.87	
TOC	Total Organic Carbon	N			%	32000		20200		27800		12000		28700	
	VOLATILES														
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		1.9 U		1.4 U		1.4 U		1.4 U		2 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		1.6		1.78		4		0.81		1.6	
108-90-7	Chlorobenzene	N	428	ug/kg		0.71 U		1 J		2.4 J		0.54 U		0.87 J	
100-41-4	Ethylbenzene	N	176	ug/kg		3.6 U		2.6 U		2.7 U		2.7 U		3.7 U	
1330-20-7	Xylenes	N	561	ug/kg		1.9 U		1.4 U		5.4 U		5.4 U		7.4 U	
91-20-3	Naphthalene	N	917	ug/kg		16 J		44		9.8 J		66		6.9 U	
71-43-2	Benzene	N	760	ug/L		1.1 J	0.71 J	0.51 U	0.52 U	0.54 U	0.4 U	0.54 U	0.92 U	1.7 J	1.22 J
108-88-3	Toluene	N	480	ug/L		7.1 U	1.47 U	5.1 U	1.67 U	5.4 U	1.29 U	5.4 U	2.98 U	7.4 U	1.71 U
	SEMIVOLATILES														
108-95-2	Phenol	N	250	ug/L		22 U	2.74 U	13 U	2.56 U	21 U	3.01 U	17 J	5.64 J	21 U	2.91 U
83-32-9	Acenaphthene	N	861	ug/kg		6.1 J		8.7 J		5.9 J		11		4.9 U	
208-96-8	Acenaphthylene	N	1301	ug/kg		11 J		12		12 J		13		5.4 U	
120-12-7	Anthracene	N	207	ug/kg		18 J		18		17 J		25		8.6 U	
86-73-7	Fluorene	N	264	ug/kg		7.1 J		9.9 J		5.9 J		12		5.1 U	
85-01-8	Phenanthrene	N	543	ug/kg		75		68		70		71		18 J	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		81		56		73		59		22	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		140		82		130		97		27	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		170		120		150		130		33	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		120		96		110		67		21	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		58		39		50		37		12 J	
218-01-9	Chrysene	N	253	ug/kg		120		89		110		92		21	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		28		19		24		18		8 U	
206-44-0	Fluoranthene	N	1436	ug/kg		190		140		190		150		43	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		93		63		84		58		16 J	
129-00-0	Pyrene	N	344	ug/kg		180		140		160		130		33	
	PCBs														
PCB	PCB, Total	N	295	ug/kg		230 U		120 U		760 U		99 U		1100 U	
	METALS														
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.178 J		0.211		0.179 J		0.193		0.192 J	
	OTHER														
PH	pH	N		ph units	ph units										
SOLID	Total Solids	N			%	31.6		52.4		32.8		74.3		33.3	

Notes:
U - Not Detected
J - Estimated Value

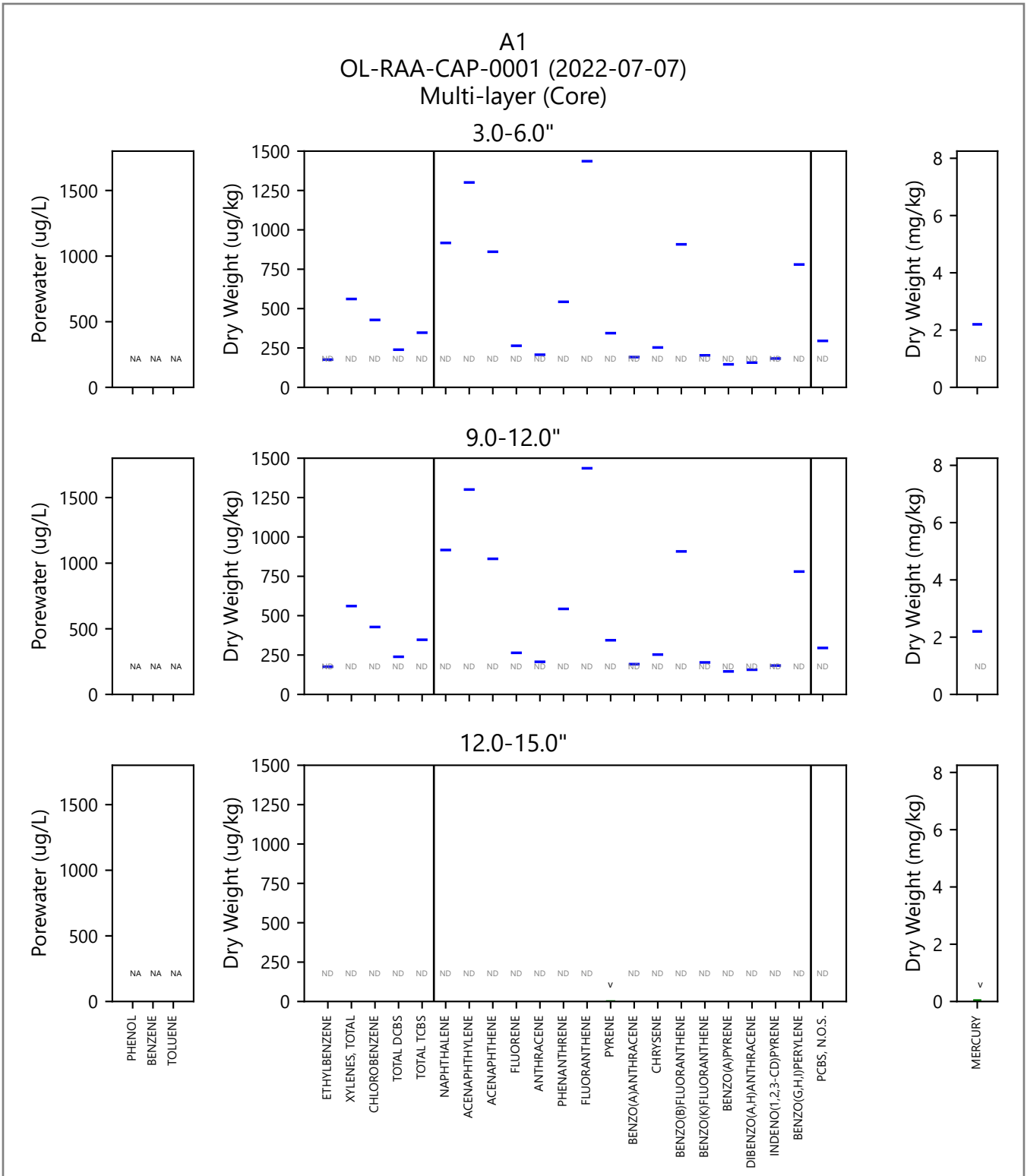
Honeywell

PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area SMU-8			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-SMU8-CAP-0024-E 4-10 cm OL-4033-10/OL-4033-11 R2207785-010 8/18/2022 9:50 SOIL RA-E-TLC RA-E-TLC SMU8 Gravity Core Core ug/kg	Duplicate OL-SMU8-CAP-0024-E 4-10 cm OL-4033-10/OL-4033-11 R2207785-011 8/18/2022 9:50 SOIL RA-E-TLC RA-E-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0024-E 4-10 cm OL-4033-10/OL-4033-11 R2207785-010 8/18/2022 9:50 WATER-CALC RA-E-TLC RA-E-TLC SMU8 SED CORE ug/L	Duplicate OL-SMU8-CAP-0024-E 4-10 cm OL-4033-10/OL-4033-11 R2207785-011 8/18/2022 9:50 WATER-CALC RA-E-TLC RA-E-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0025-E 0-4 cm OL-4033-06 R2207785-006 8/18/2022 8:55 SOIL RA-E-TLC RA-E-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0025-E 0-4 cm OL-4033-06 R2207785-006 8/18/2022 8:55 WATER-CALC RA-E-TLC RA-E-TLC SMU8 SED CORE ug/L	OL-SMU8-CAP-0025-E 4-10 cm OL-4033-07 R2207785-007 8/18/2022 9:00 SOIL RA-E-TLC RA-E-TLC SMU8 Gravity Core Core ug/kg	OL-SMU8-CAP-0025-E 4-10 cm OL-4033-07 R2207785-007 8/18/2022 9:00 WATER-CALC RA-E-TLC RA-E-TLC SMU8 SED CORE ug/L
CAS NO.	COMPOUND	FILTERED											
Avg TOC	Measured for Sample				%	1.62	1.62			2.75		1.37	
TOC	Total Organic Carbon	N			%	14000	16200			27500		13700	
	VOLATILES												
TCB_Summ	Trichlorobenzenes	N	347	ug/kg		0.88 U	1.5			2 U		0.82 U	
DCB_Summ	Dichlorobenzenes	N	239	ug/kg		1.48	2.06			1.1		2.1	
108-90-7	Chlorobenzene	N	428	ug/kg		1.3 J	1.2 J			0.89 J		2.1 J	
100-41-4	Ethylbenzene	N	176	ug/kg		1.7 U	2.3 U			3.8 U		1.6 U	
1330-20-7	Xylenes	N	561	ug/kg		3.4 U	4.6 U			7.5 U		3.2 U	
91-20-3	Naphthalene	N	917	ug/kg		59 J	16 J			6.2 J		45 J-	
71-43-2	Benzene	N	760	ug/L		0.37 J	0.46 U	0.47 J	0.47 U	0.96 J	0.72 J	0.32 U	0.48 U
108-88-3	Toluene	N	480	ug/L		3.4 U	4.6 U	1.88 U	1.88 U	7.5 U	1.81 U	3.2 U	1.55 U
	SEMIVOLATILES												
108-95-2	Phenol	N	250	ug/L		8.8 U	11 U	2.7 U	2.7 U	19 U	2.75 U	11 UJ	3.2 UJ
83-32-9	Acenaphthene	N	861	ug/kg		7.9 J	2.5 U			4.5 U		9.6 J	
208-96-8	Acenaphthylene	N	1301	ug/kg		8.7	5.3 J			4.9 U		14 J-	
120-12-7	Anthracene	N	207	ug/kg		17	7.3 J			7.8 U		23 J-	
86-73-7	Fluorene	N	264	ug/kg		8.7	3.9 J			4.6 U		11 J-	
85-01-8	Phenanthrene	N	543	ug/kg		54 J	26 J			22		72 J-	
56-55-3	Benzo(A)Anthracene	N	192	ug/kg		37	22			25		62 J-	
50-32-8	Benzo(A)Pyrene	N	146	ug/kg		51	37			34		90 J-	
205-99-2	Benzo(B)Fluoranthene	N	908	ug/kg		77	41			53		140 J-	
191-24-2	Benzo(G,H,I)Perylene	N	780	ug/kg		41	27			42		100 J-	
207-08-9	Benzo(K)Fluoranthene	N	203	ug/kg		21	15			17 J		47 J-	
218-01-9	Chrysene	N	253	ug/kg		57	31			37		92 J-	
53-70-3	Dibenz(A,H)Anthracene	N	157	ug/kg		8.7	6.8 J			8 J		20 J-	
206-44-0	Fluoranthene	N	1436	ug/kg		110 J	53 J			60		160 J-	
193-39-5	Indeno(1,2,3-C,D)Pyrene	N	183	ug/kg		32	21			29		67 J-	
129-00-0	Pyrene	N	344	ug/kg		93 J	47 J			53		140 J-	
	PCBs												
PCB	PCB, Total	N	295	ug/kg		110 U	130 U			770 U		120 U	
	METALS												
7439-97-6	Mercury	N	2.2	mg/kg	mg/kg	0.141	0.234			0.153 J		0.187	
	OTHER												
PH	pH	N		ph units	ph units								
SOLID	Total Solids	N			%	73.6	65.5			36.1		65.5	

Notes:
U - Not Detected
J - Estimated Value

APPENDIX 6F – 2022 CHEMICAL BAR CHARTS



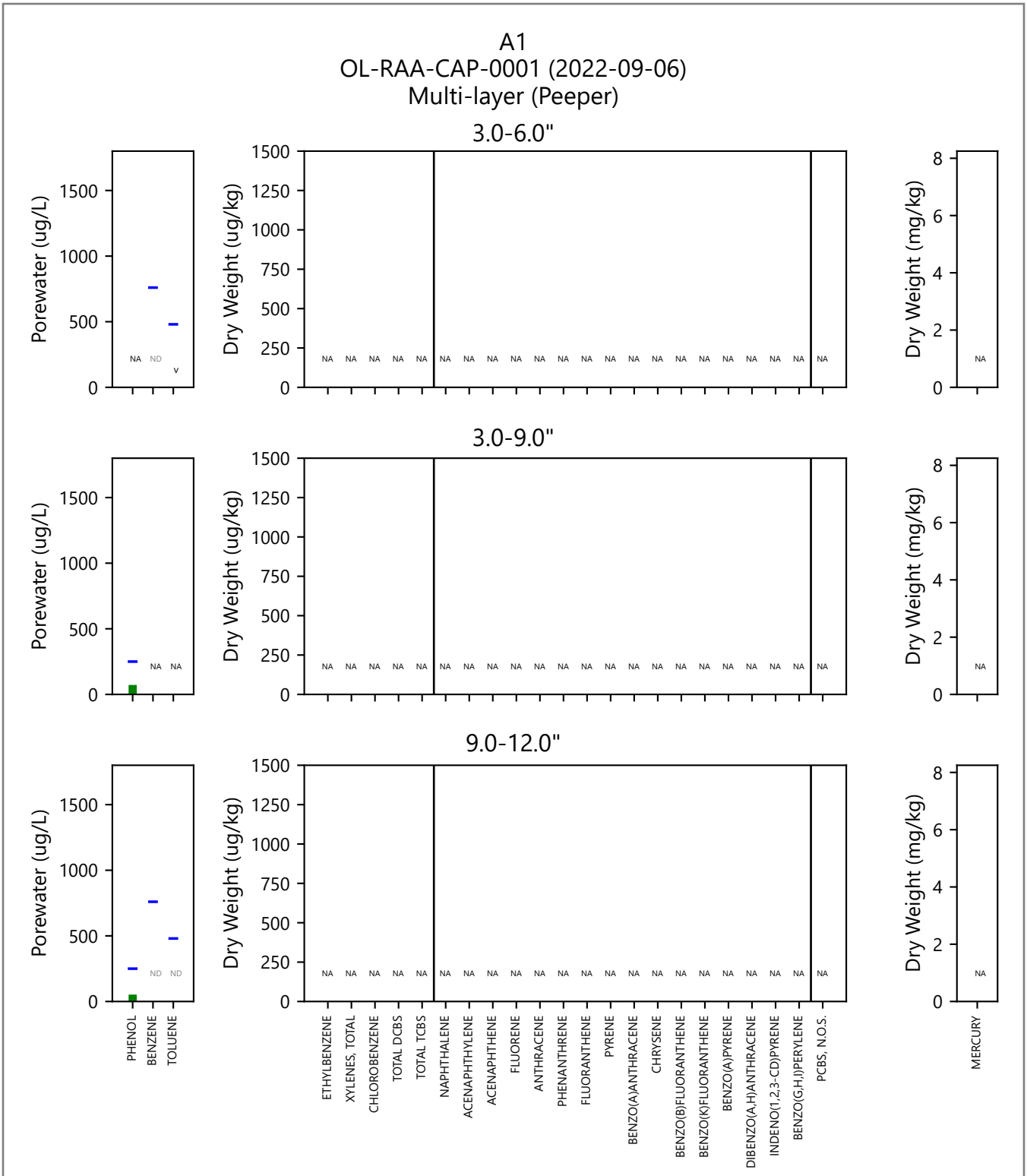
Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

Publish Date: 05/31/2024 10:57 AM | User: BAL-DGRA2
File Path: \\WCL-FS1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Cap_Chemistry\Python\Forensics\OLCap_Forensic_Bar_Plots_CapMaterial_Criteria_HLine_2019_wHB.py

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Figure 1-1

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

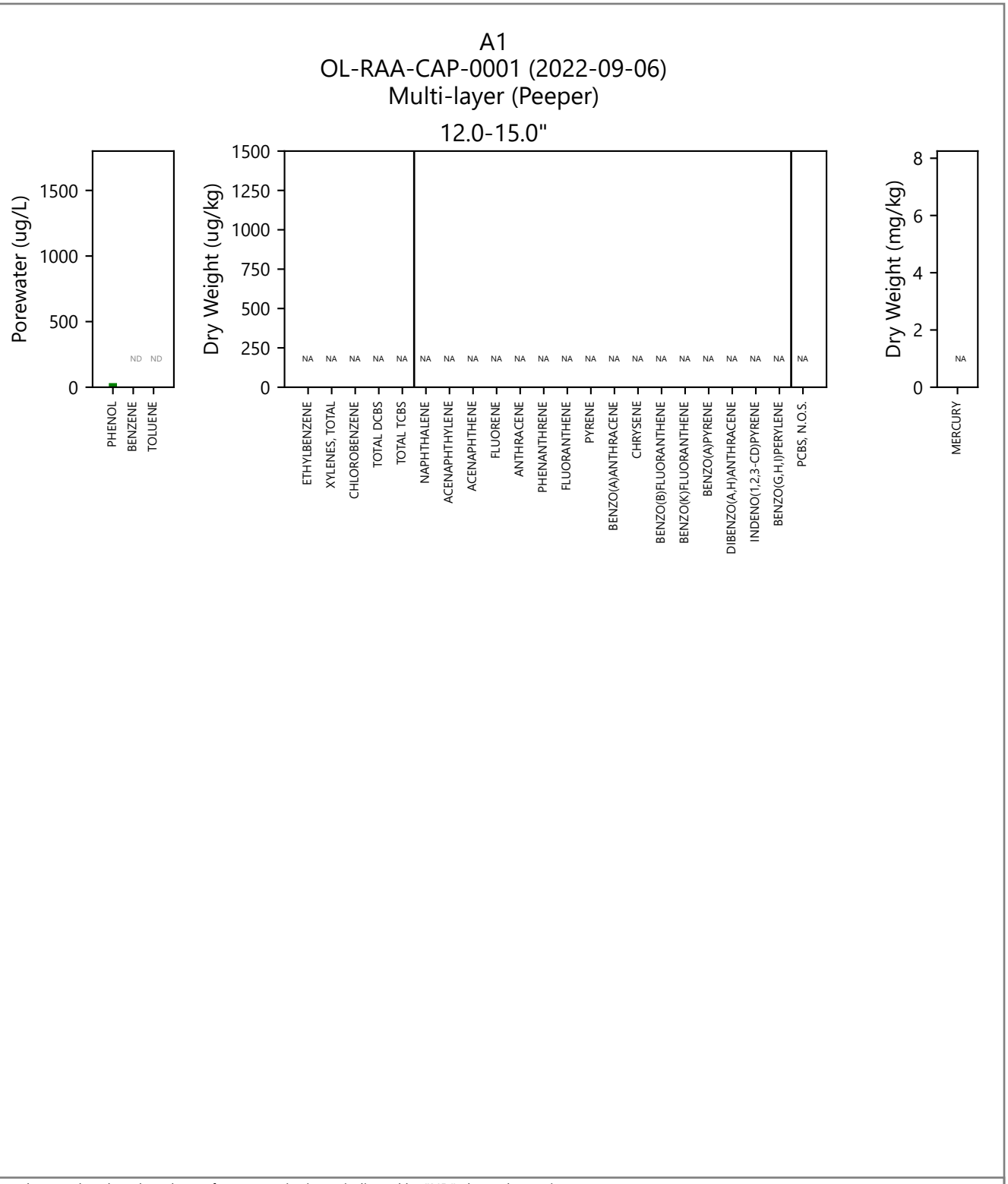
Habitat Layer Performance Criteria

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Figure 1-2

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

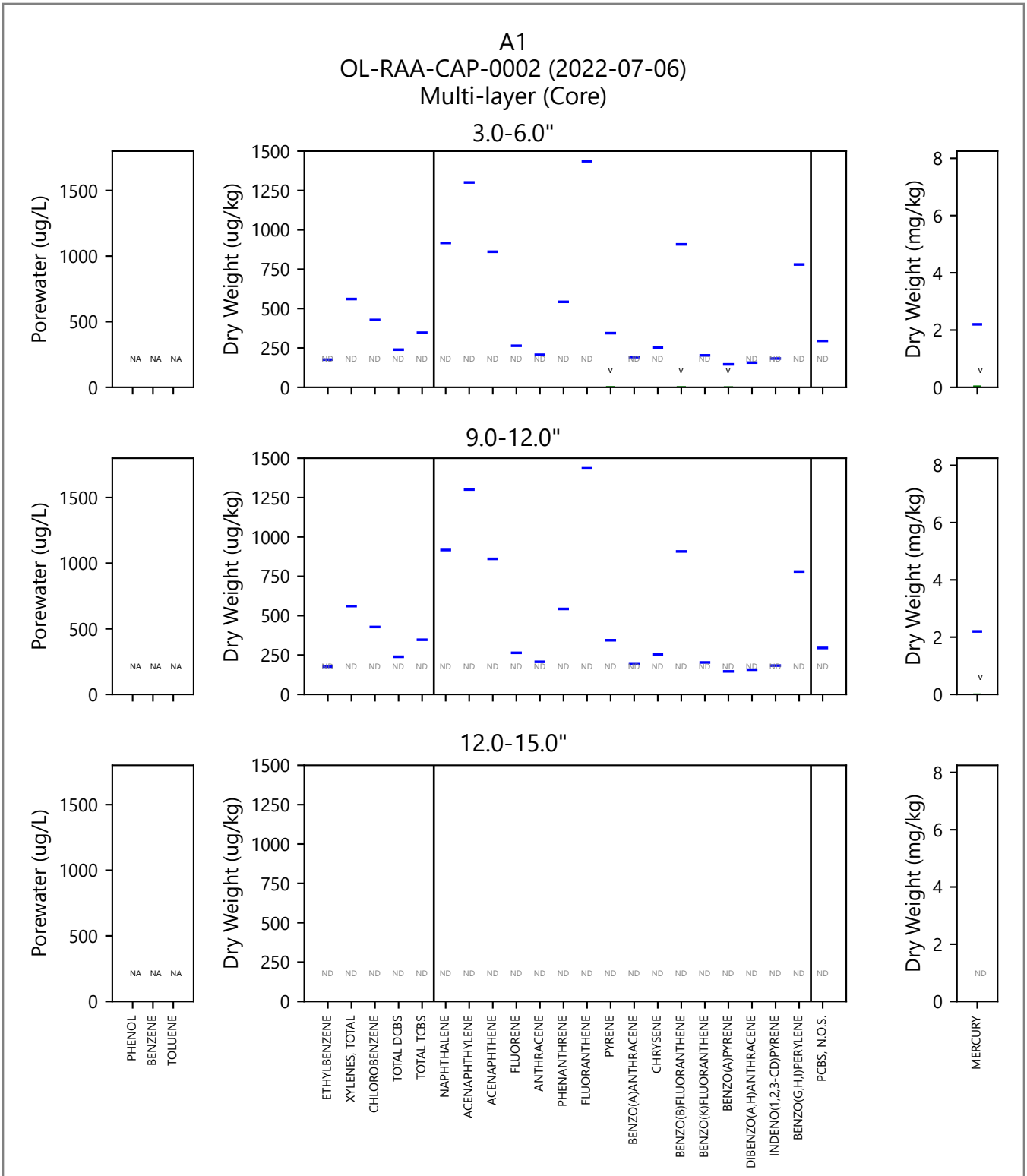
Habitat Layer Performance Criteria

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Figure 1-3

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

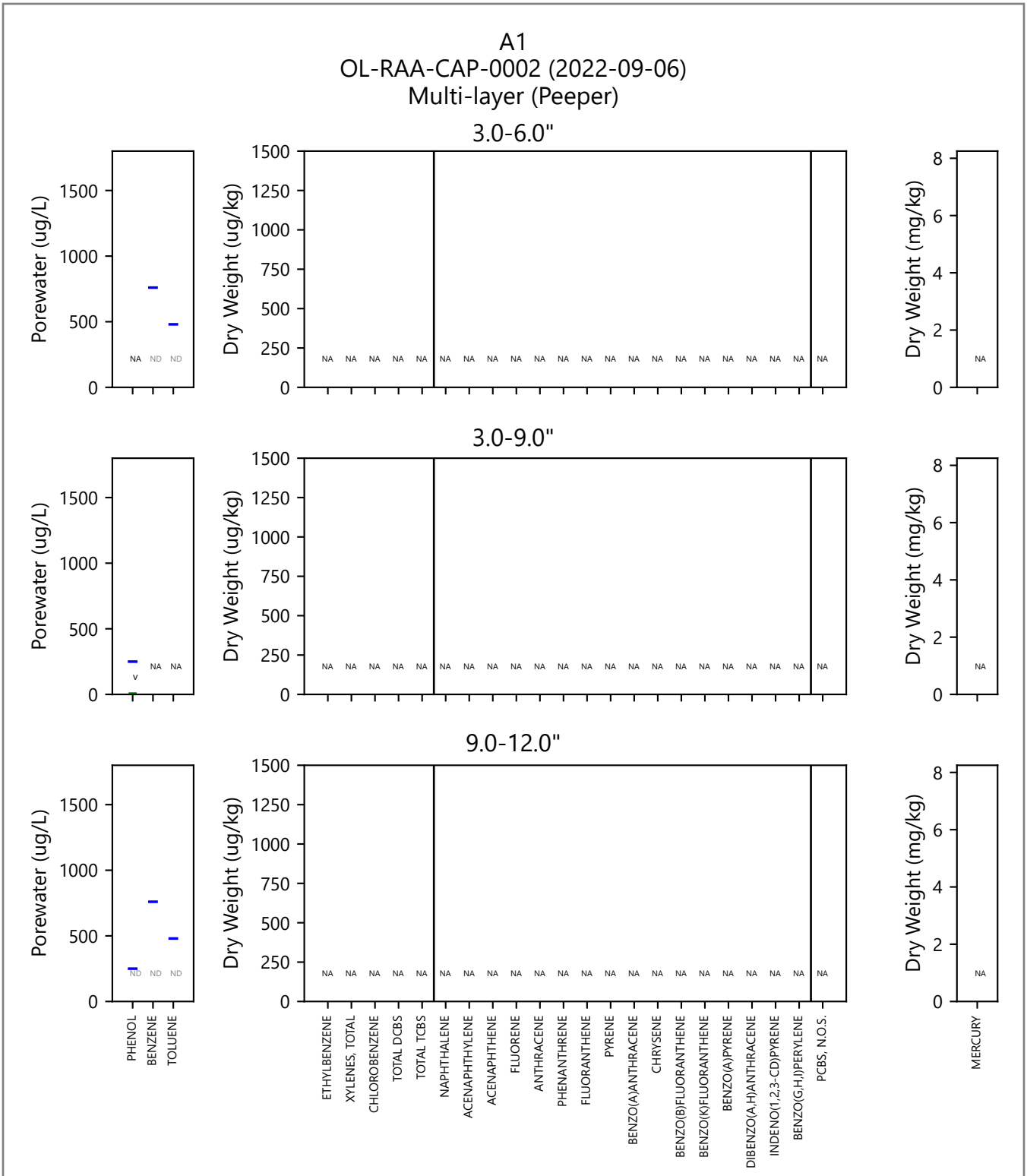
Habitat Layer Performance Criteria

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Figure 1-4

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

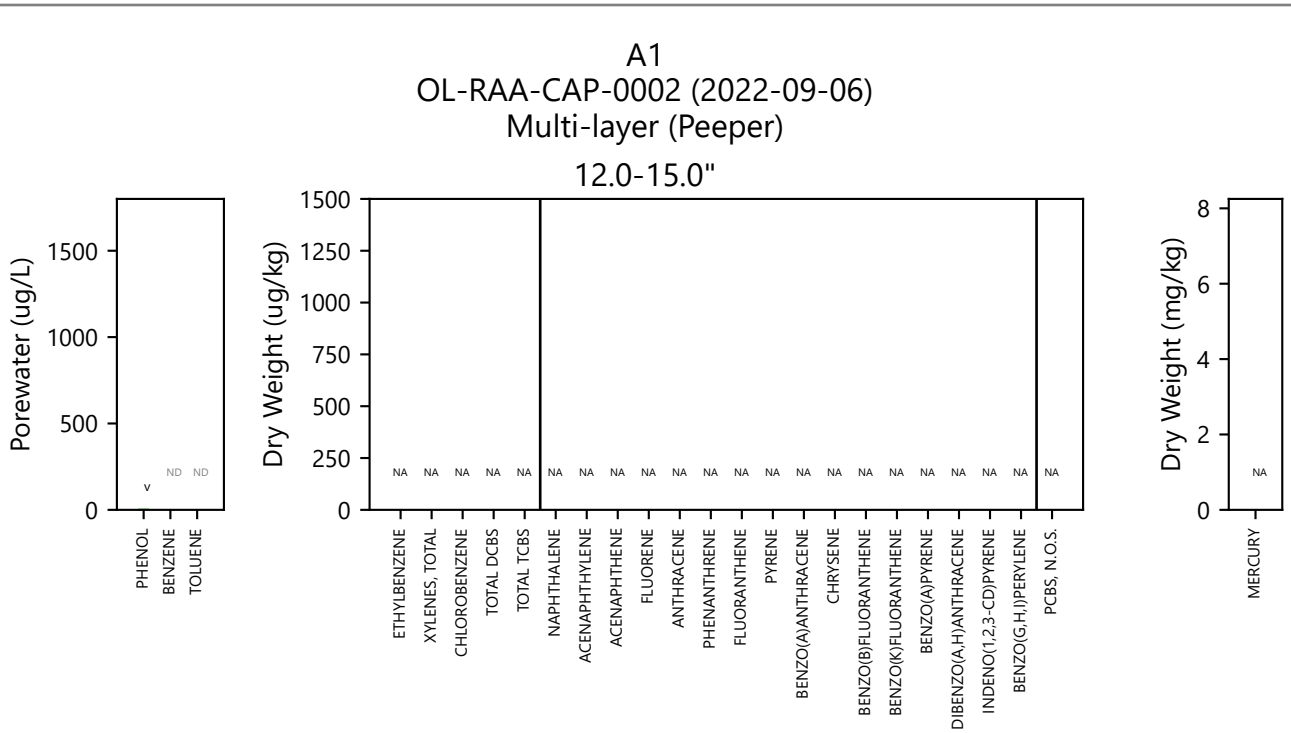
Habitat Layer Performance Criteria

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Figure 1-5

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

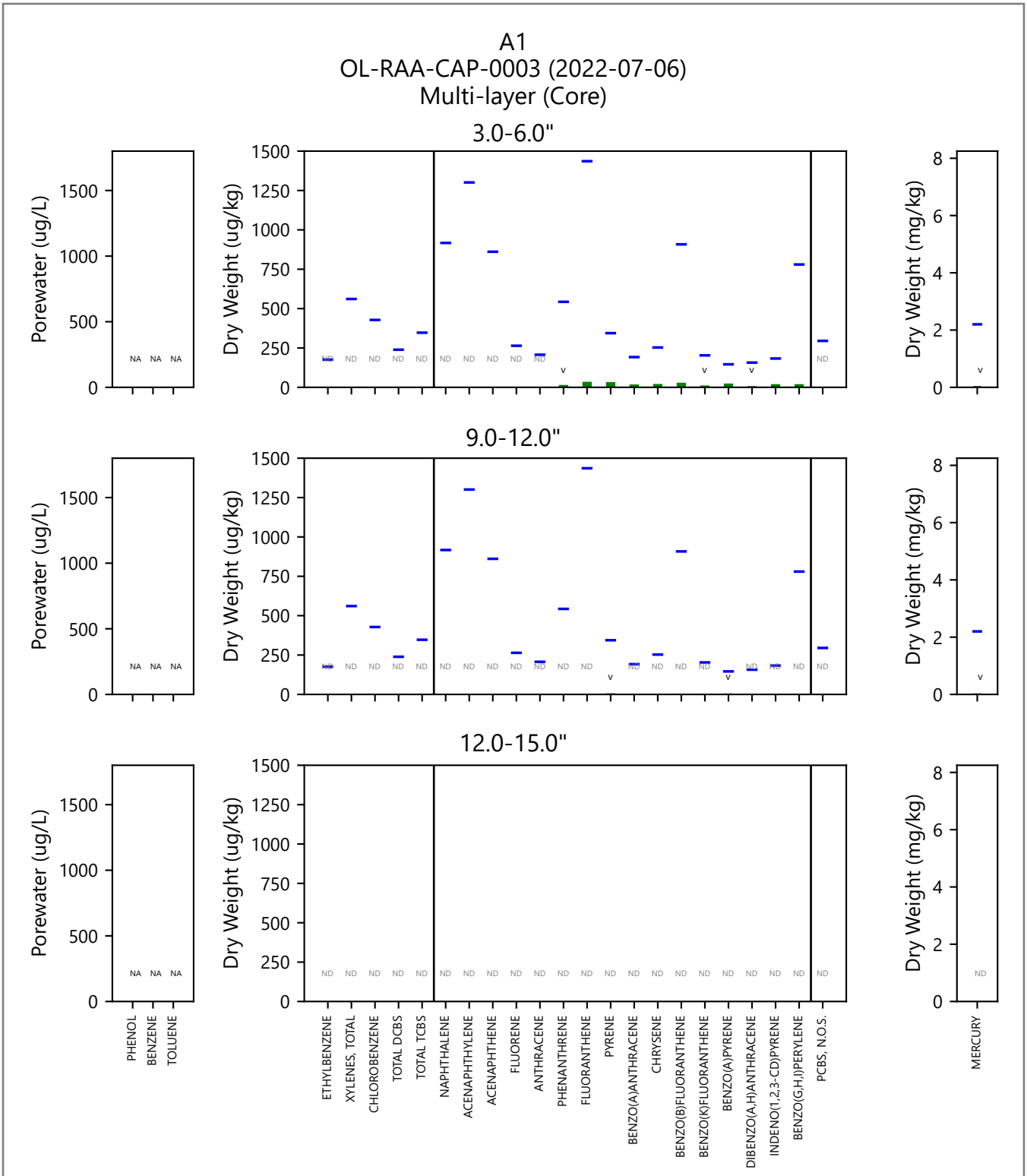
- Habitat Layer Performance Criteria

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Figure 1-6

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

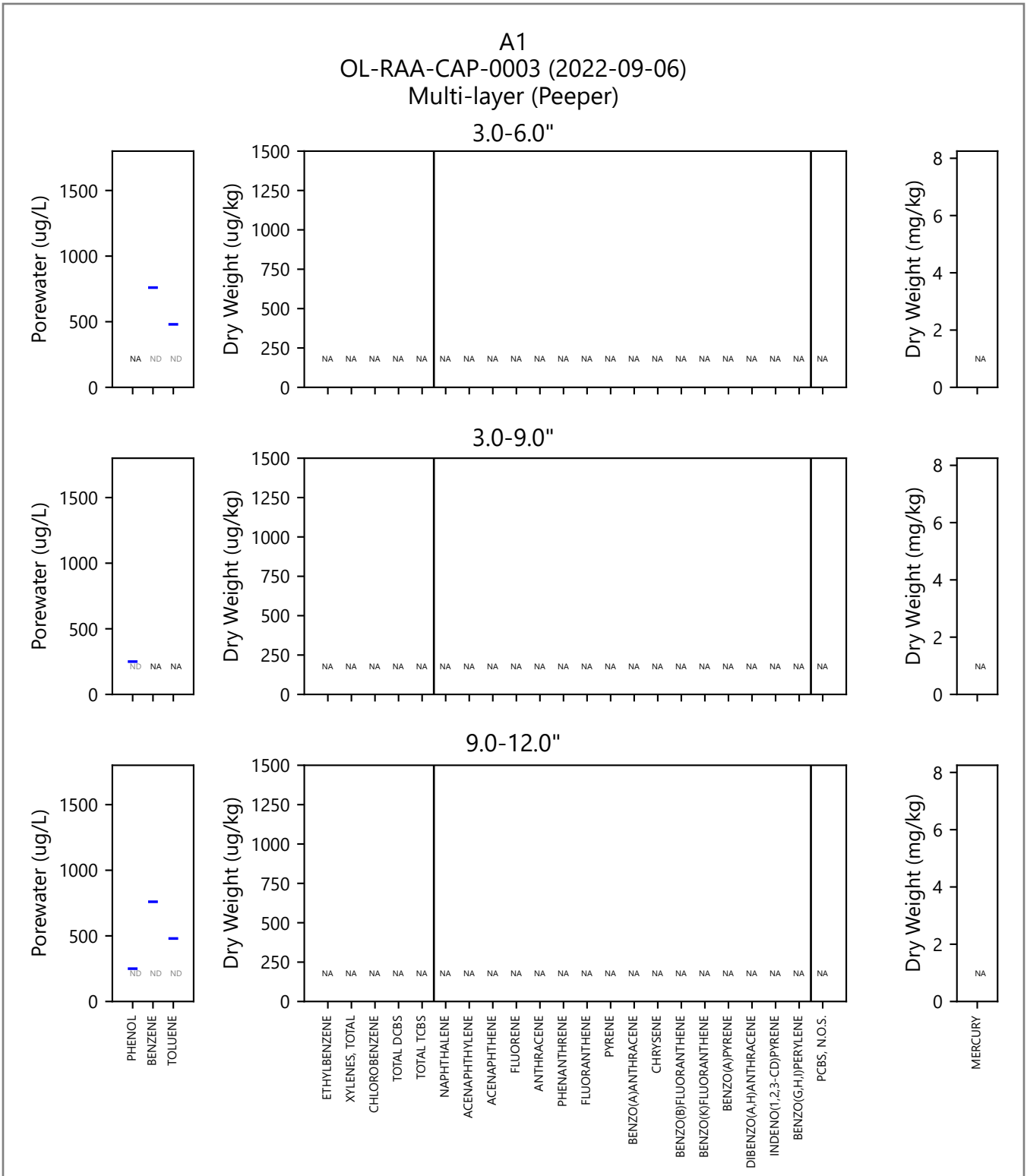
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Figure 1-7

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
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Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

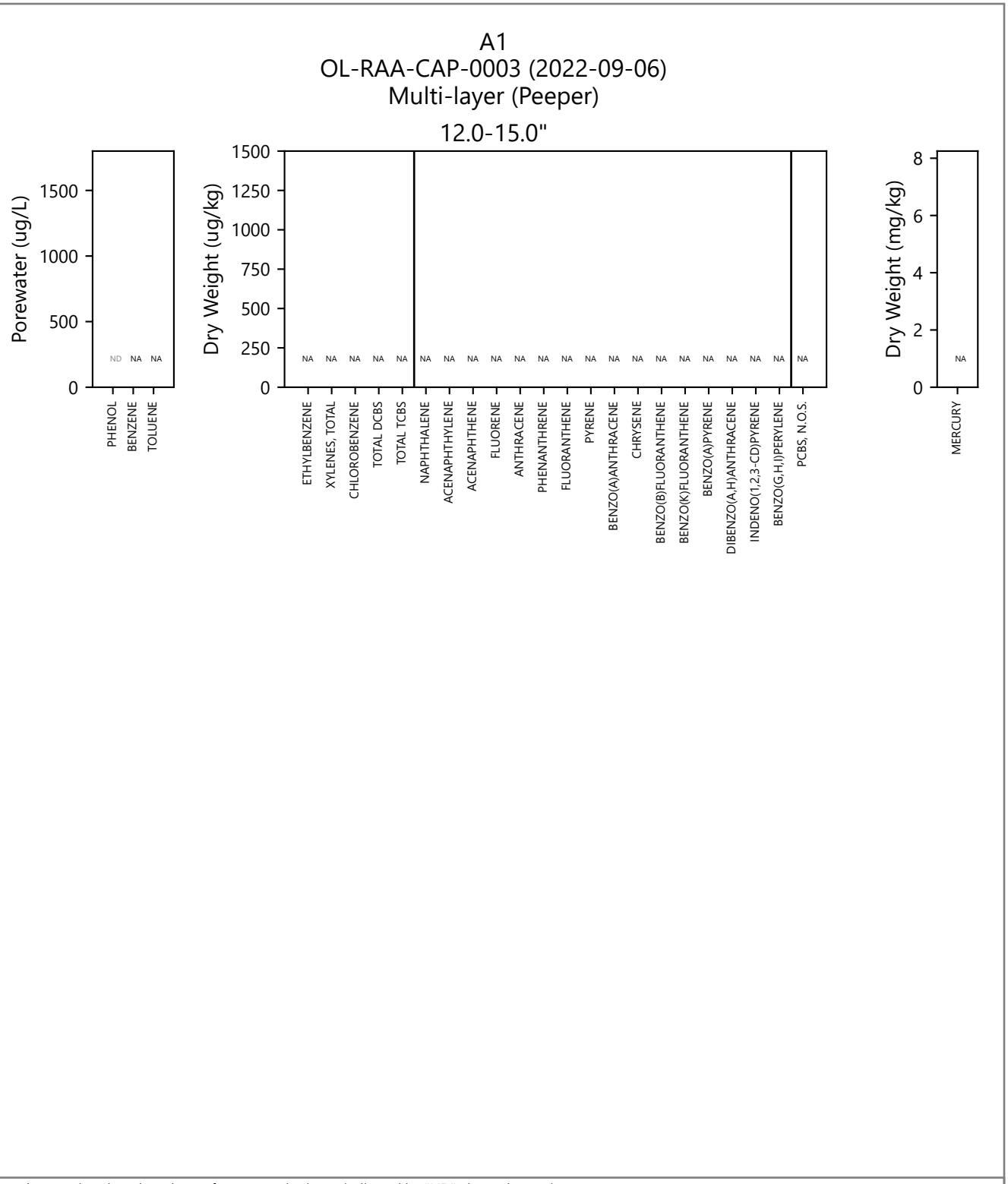
Habitat Layer Performance Criteria

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Figure 1-8

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

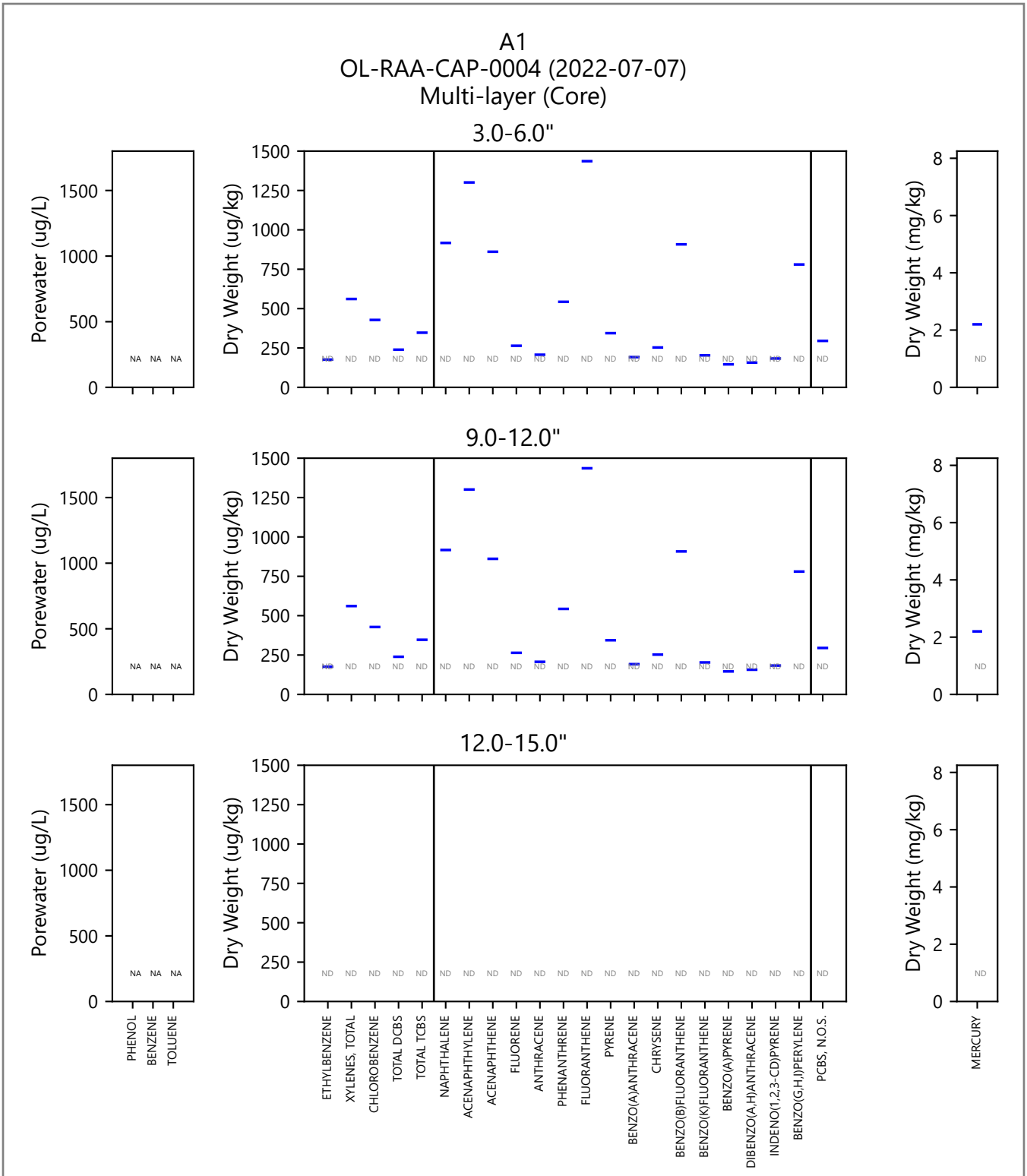
- Habitat Layer Performance Criteria

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Figure 1-9

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

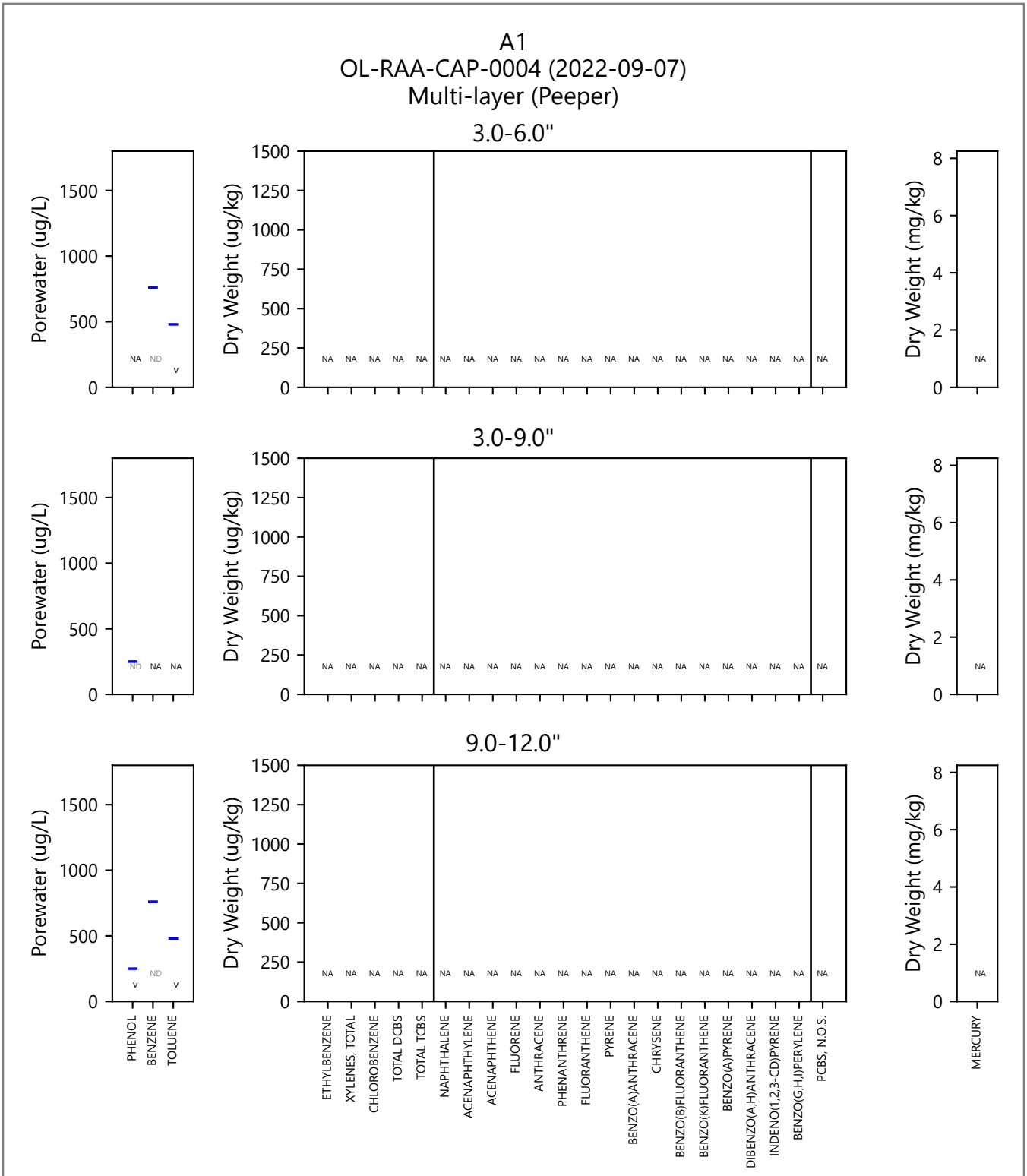
Habitat Layer Performance Criteria

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Figure 1-10

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

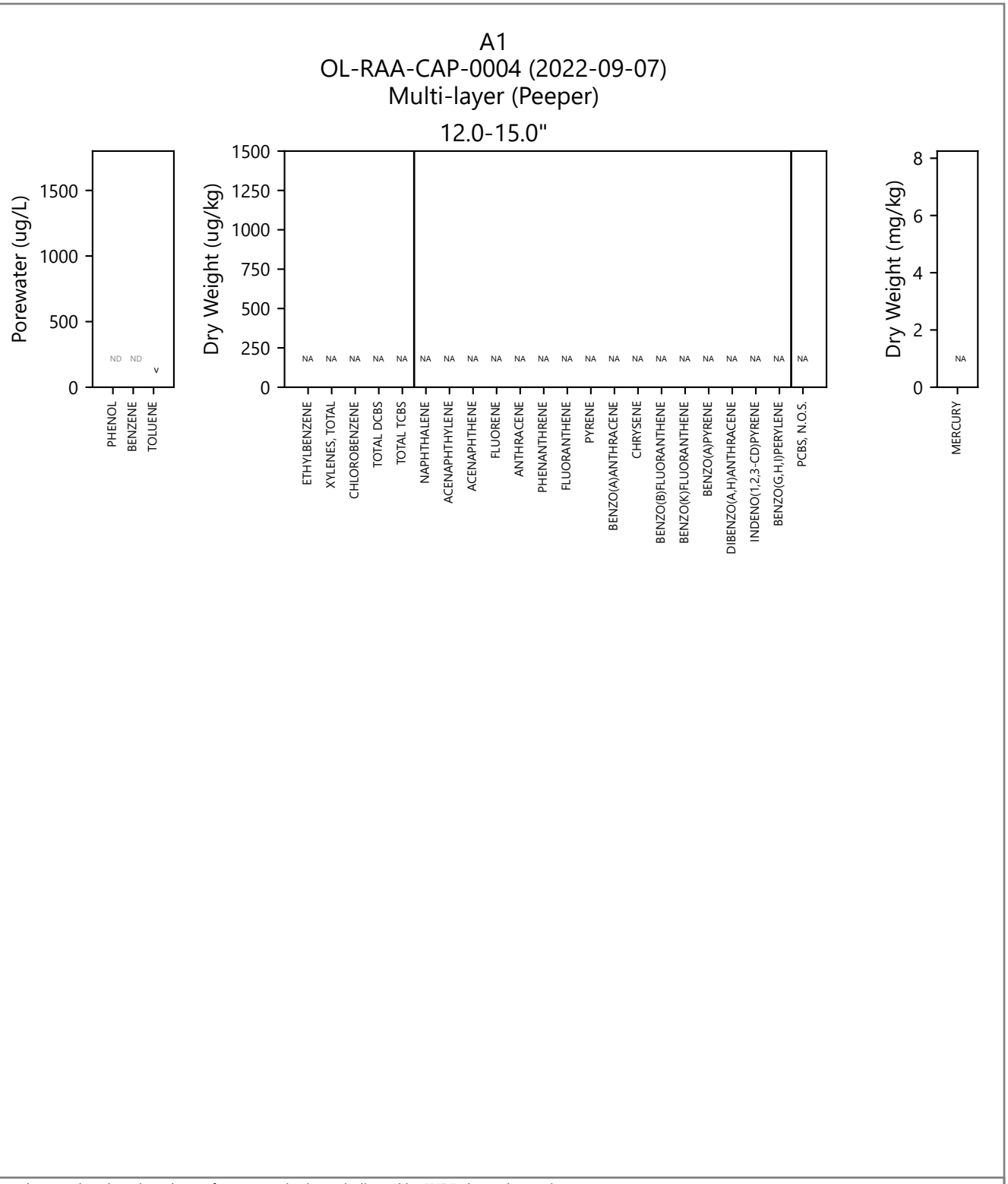
Habitat Layer Performance Criteria

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ANCHOR QEA

Figure 1-11

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

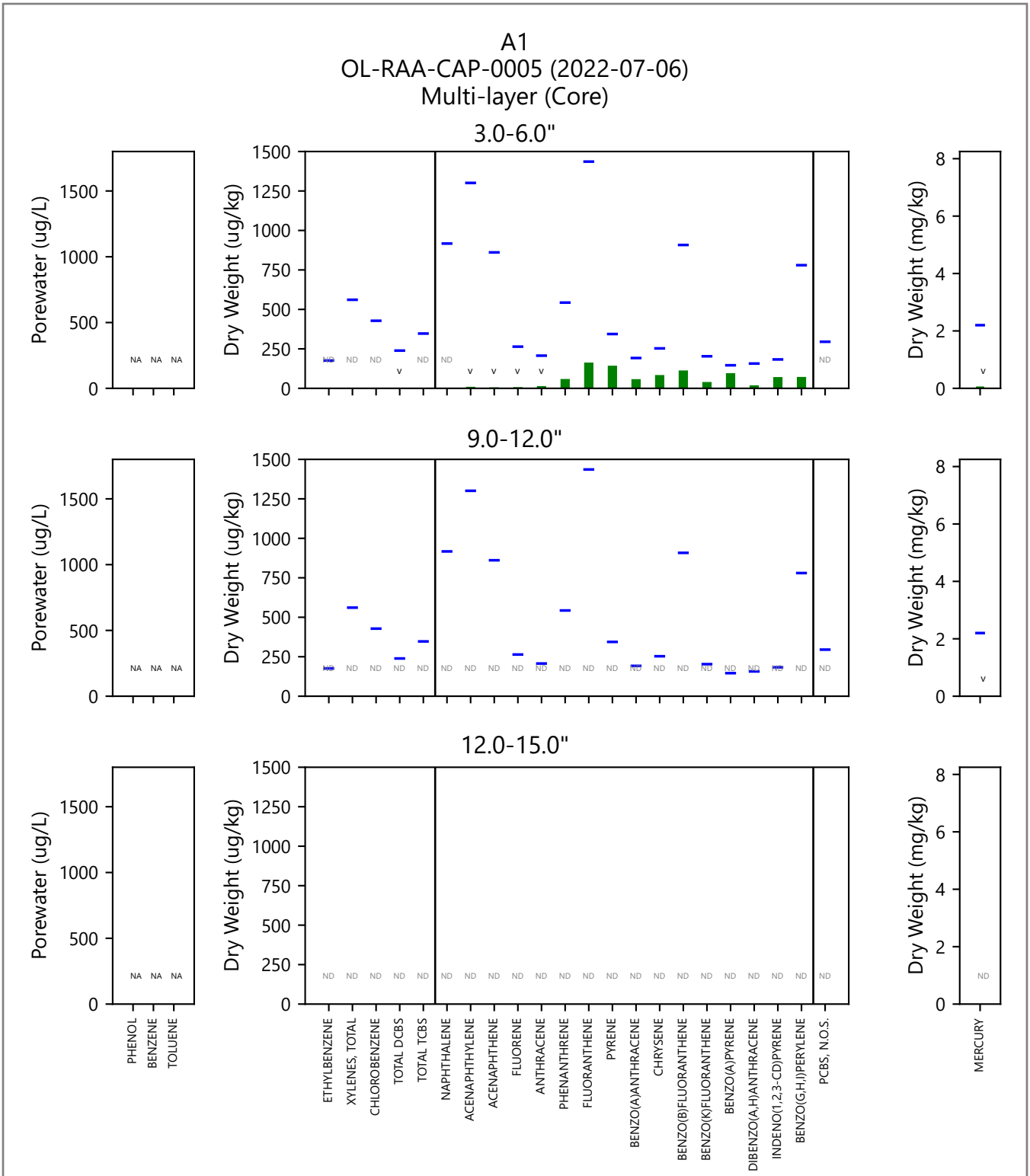
- Habitat Layer Performance Criteria

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ANCHOR QEA

Figure 1-12

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

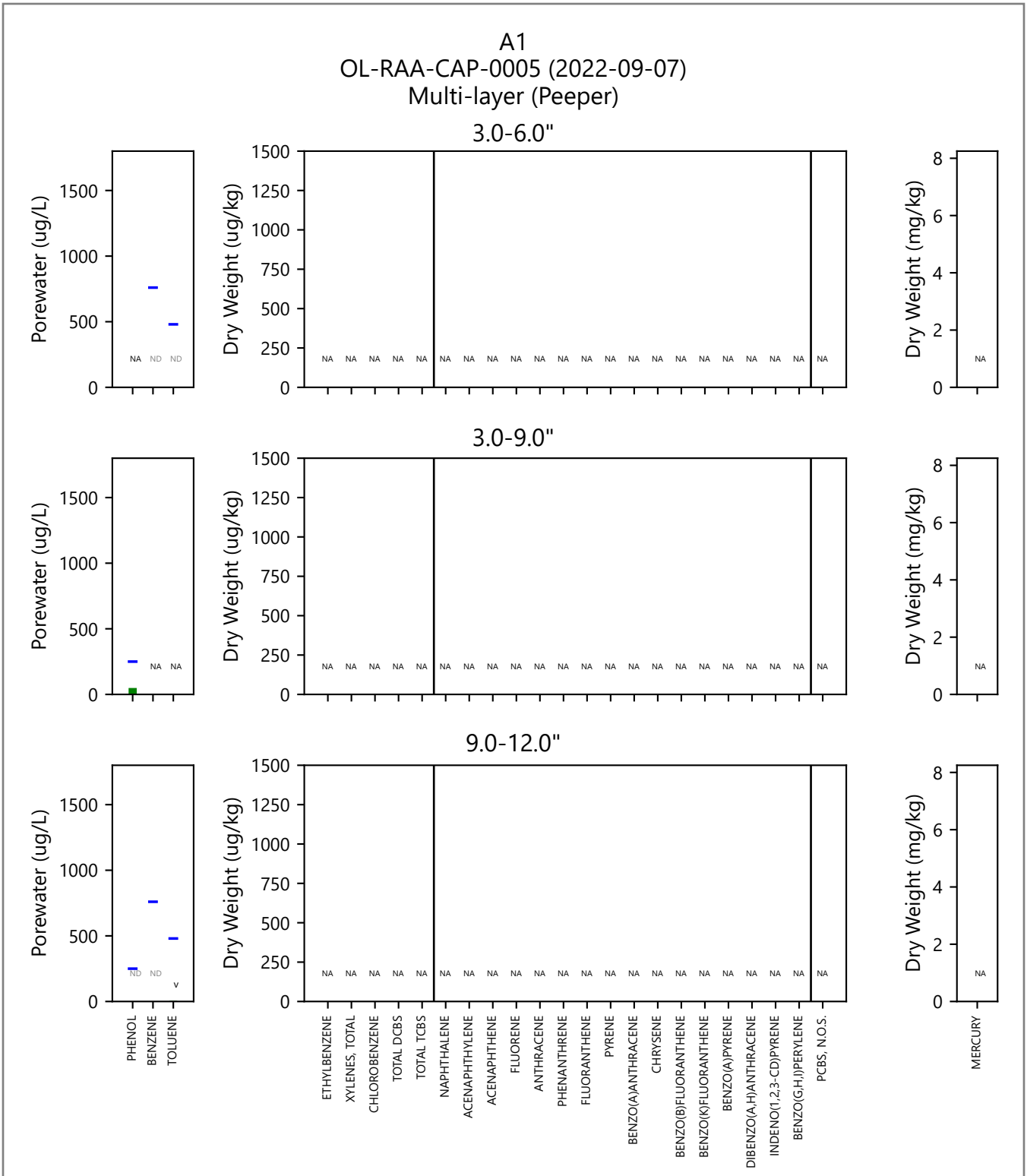
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Figure 1-13

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

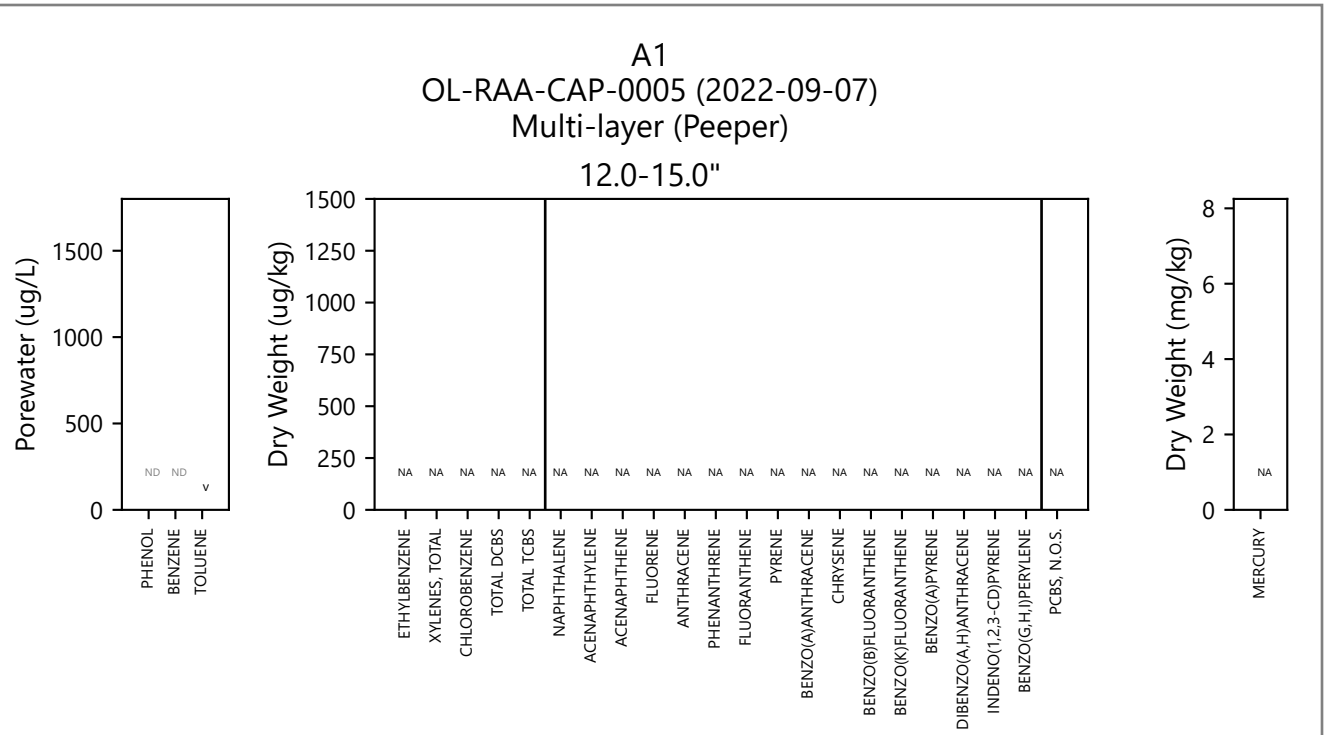
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Figure 1-14

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

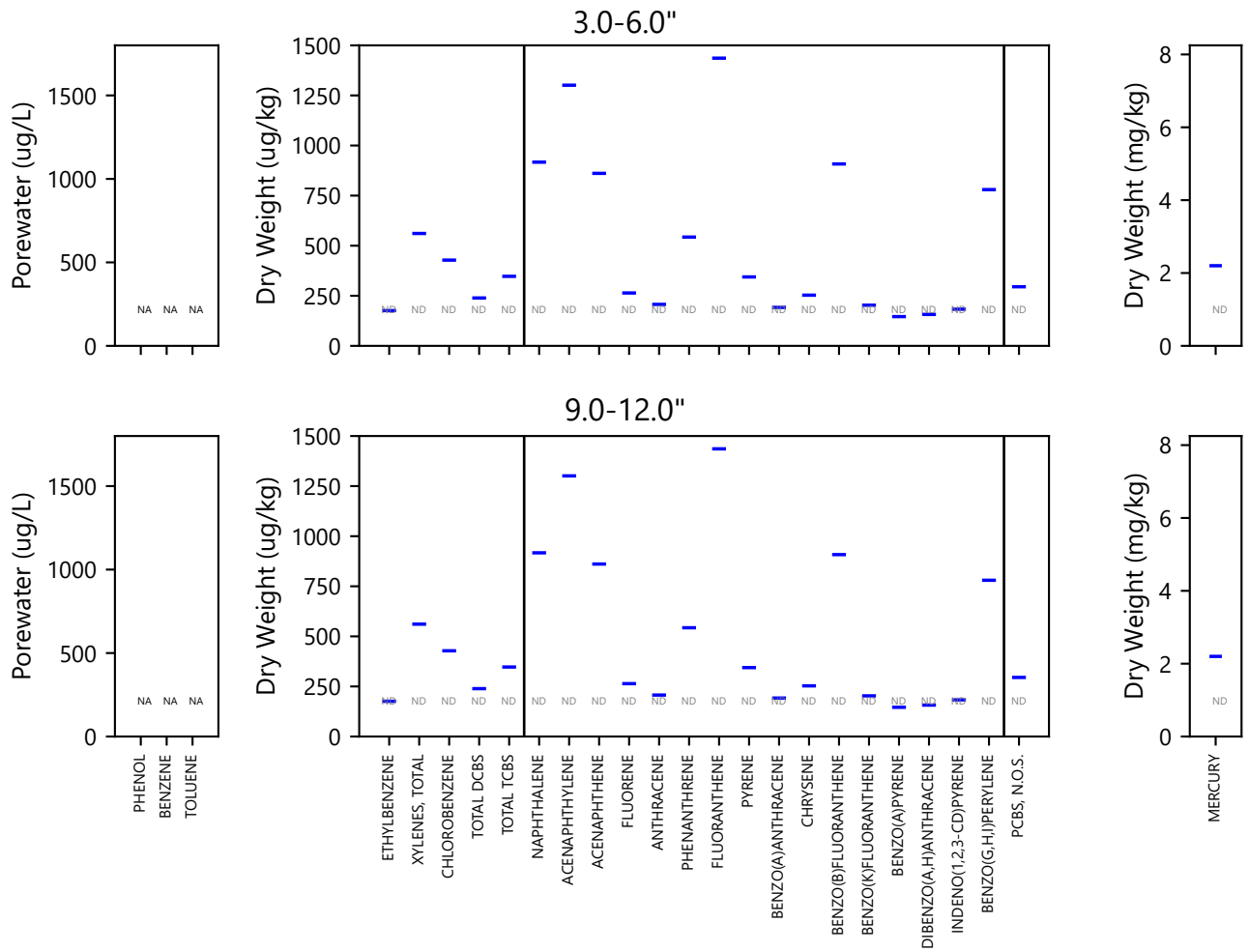
- Habitat Layer Performance Criteria

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Figure 1-15

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

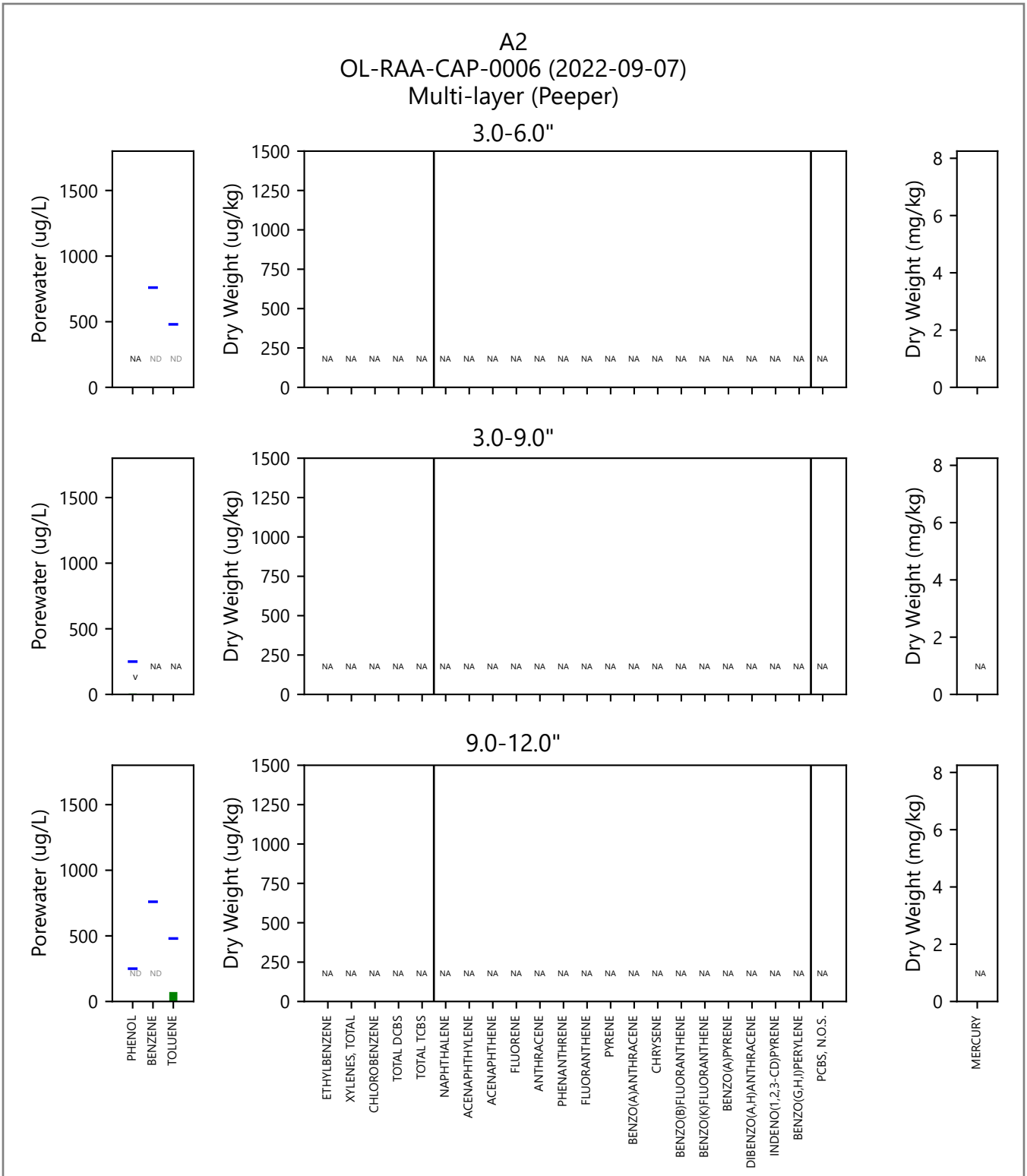
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Figure 1-16

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

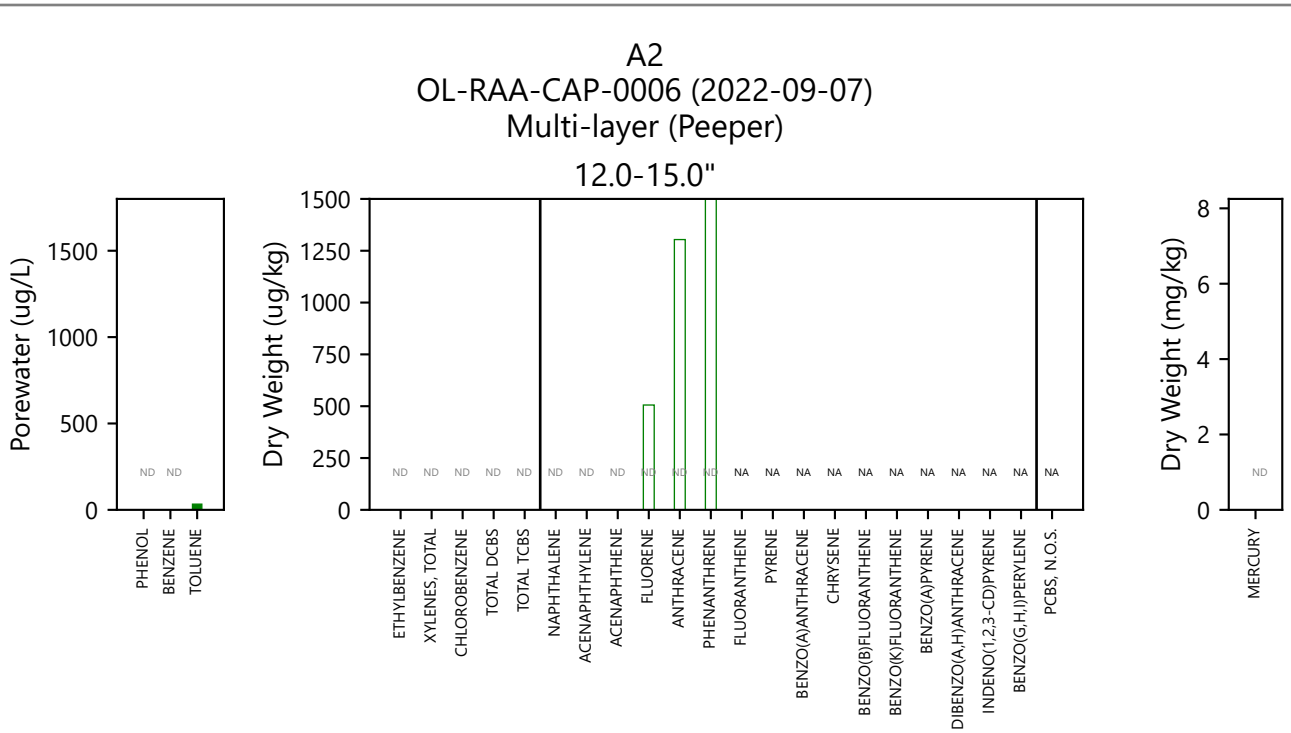
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Figure 1-17

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

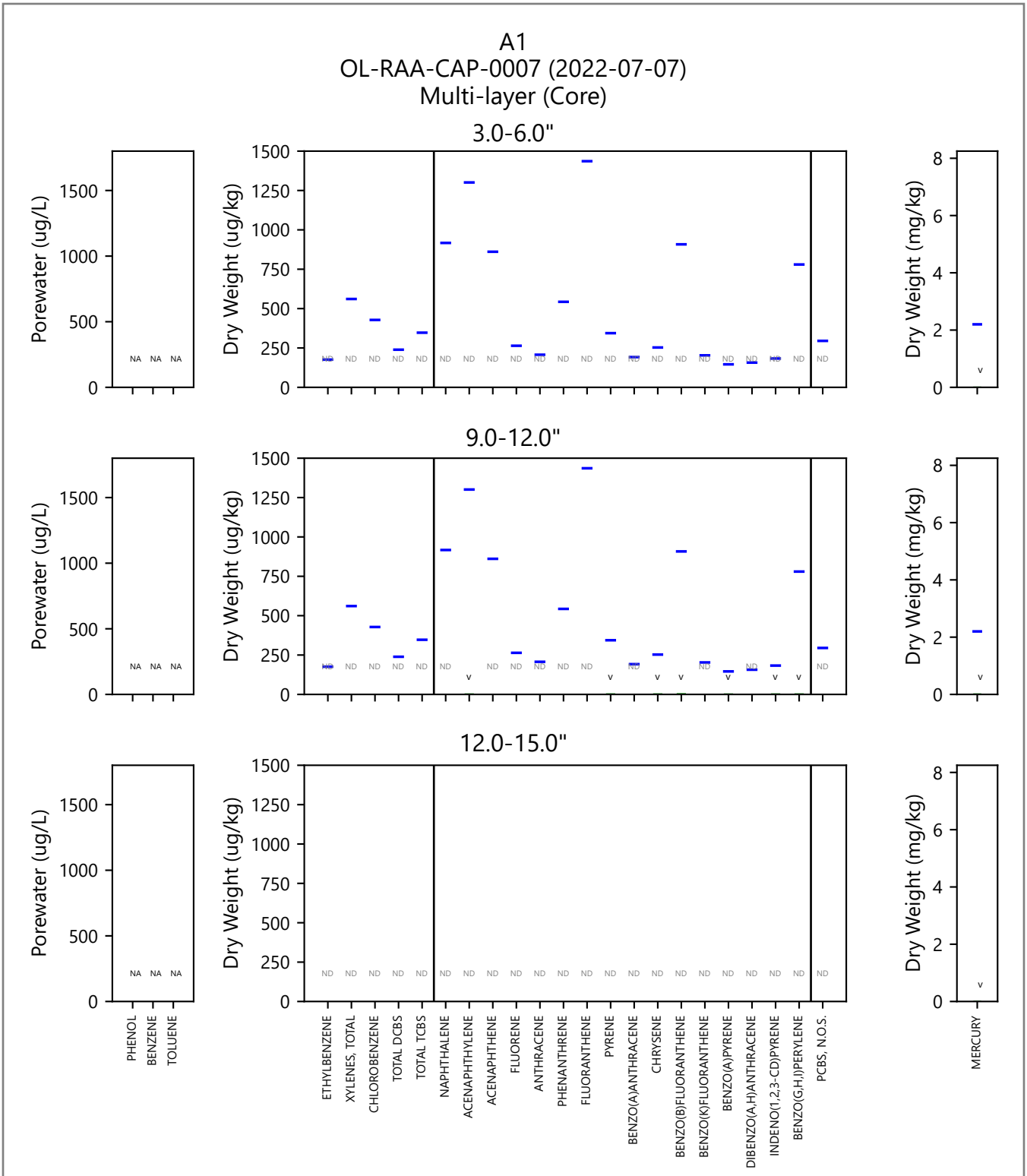
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Figure 1-18

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

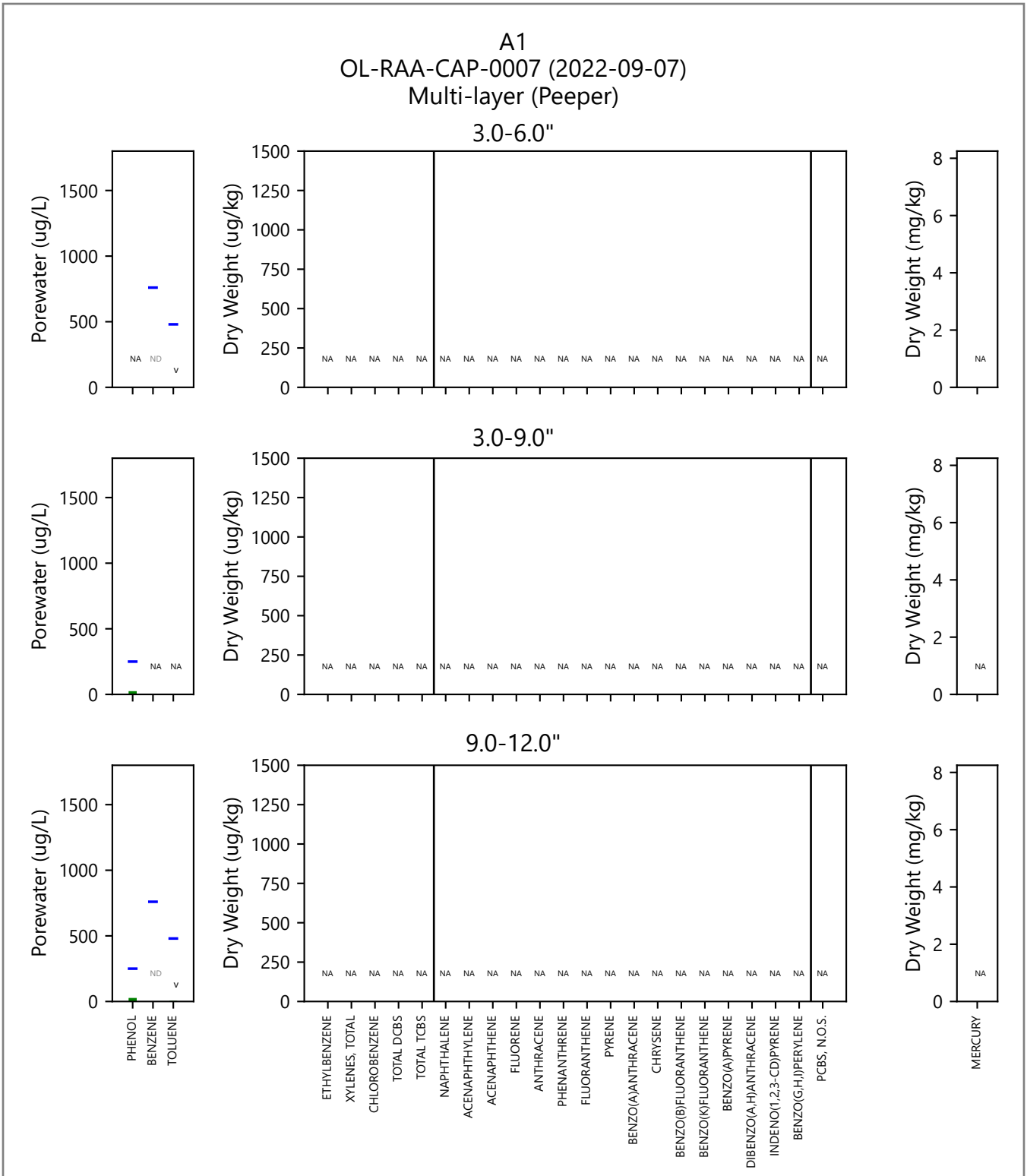
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Figure 1-19

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

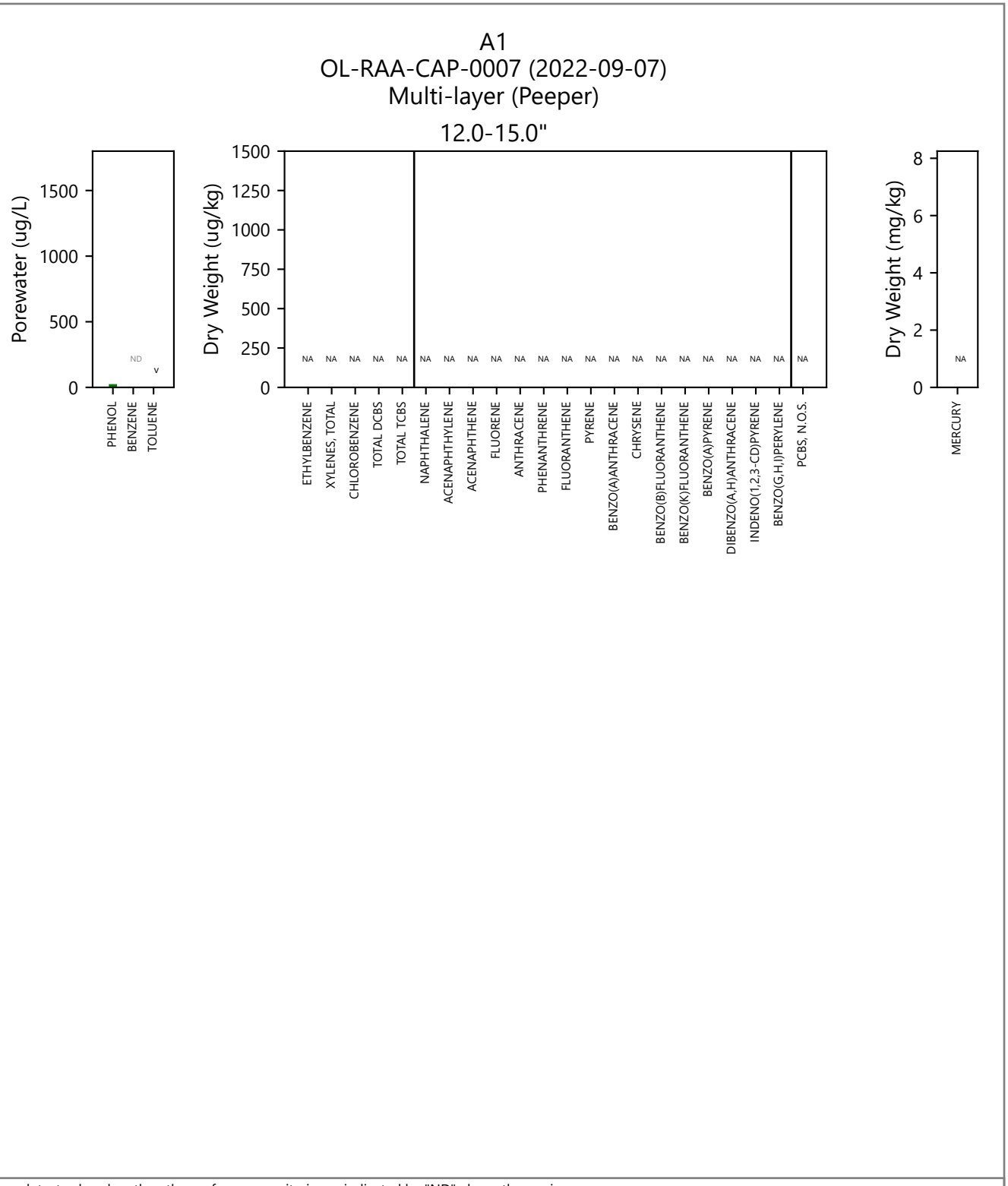
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Figure 1-20

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

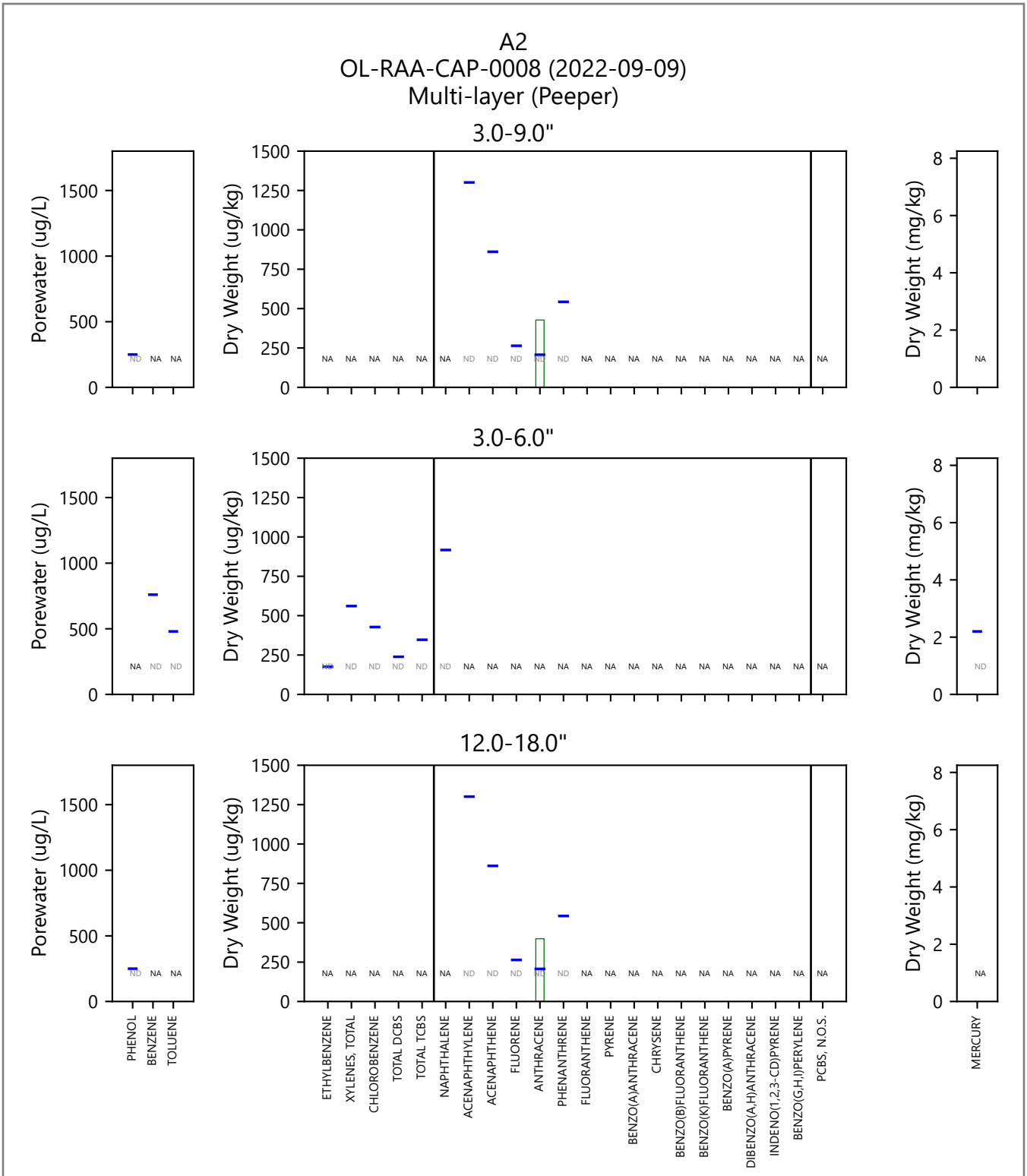
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Figure 1-21

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

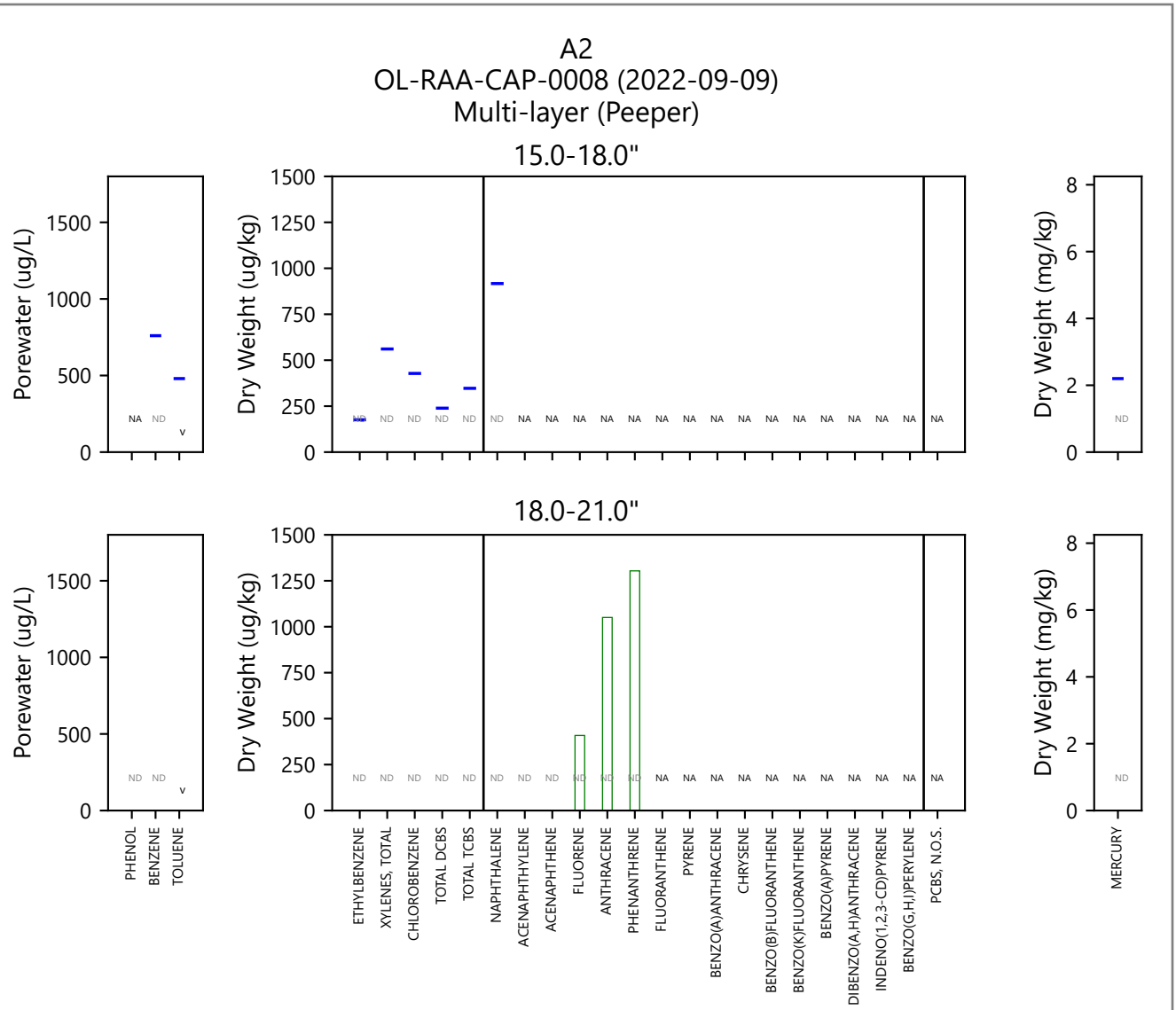
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Figure 1-22

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

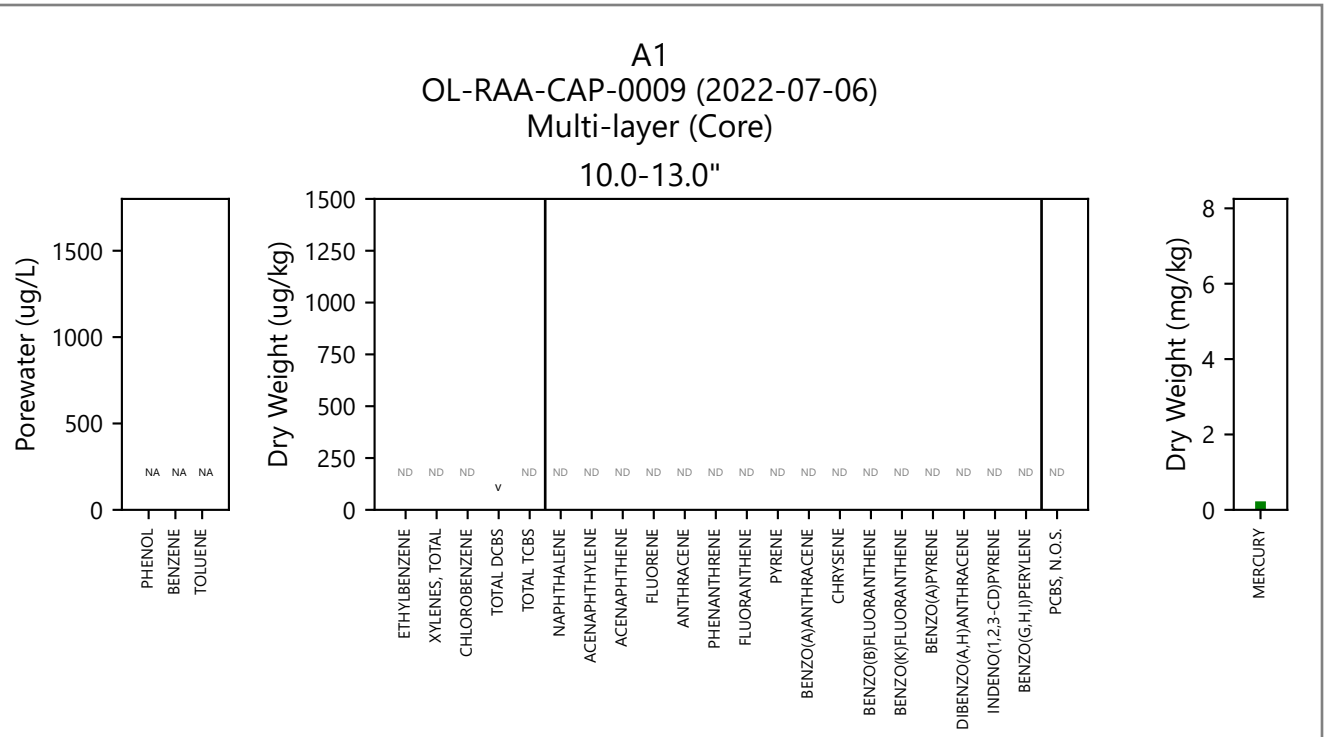
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Figure 1-23

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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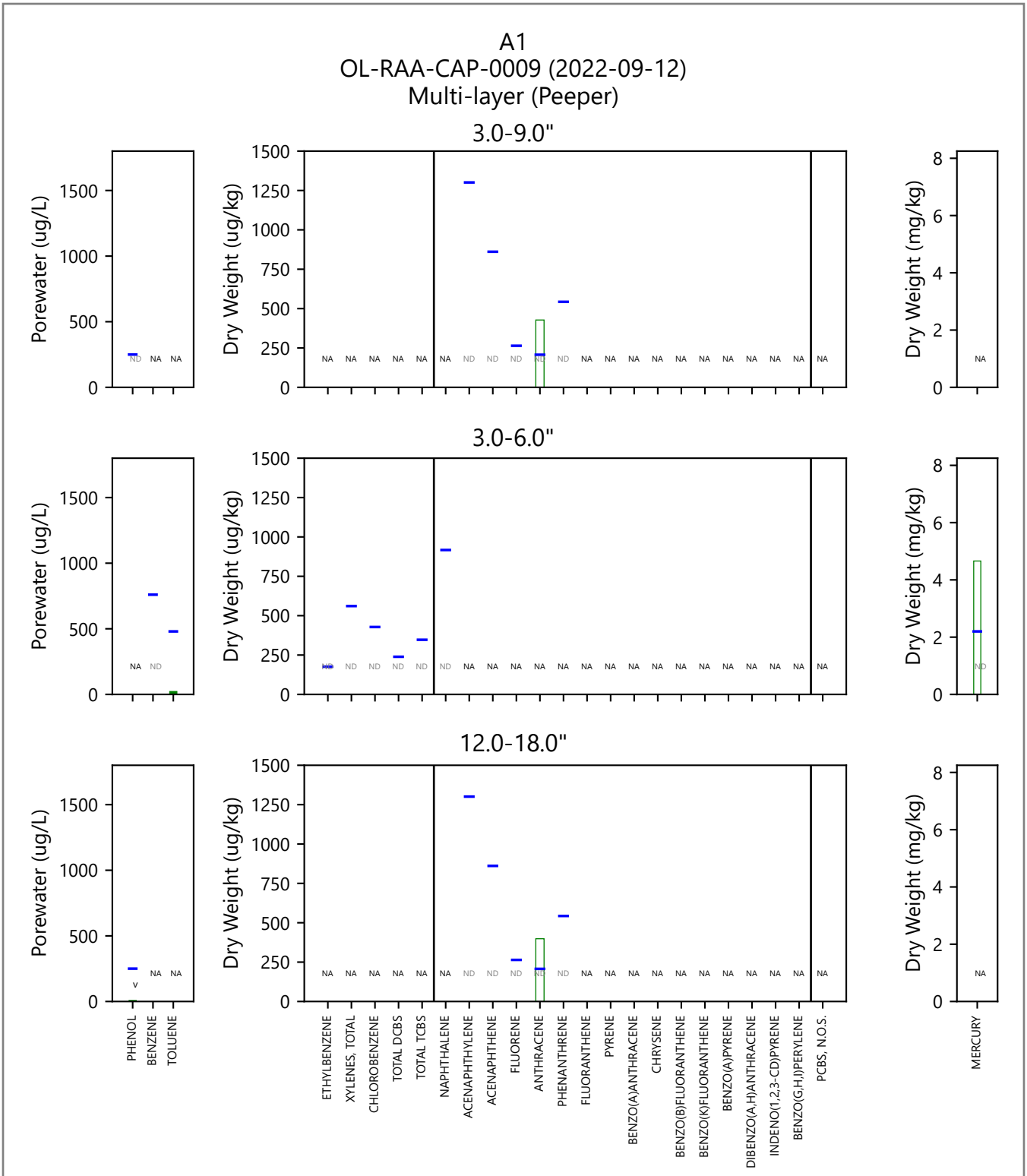
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Figure 1-24

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

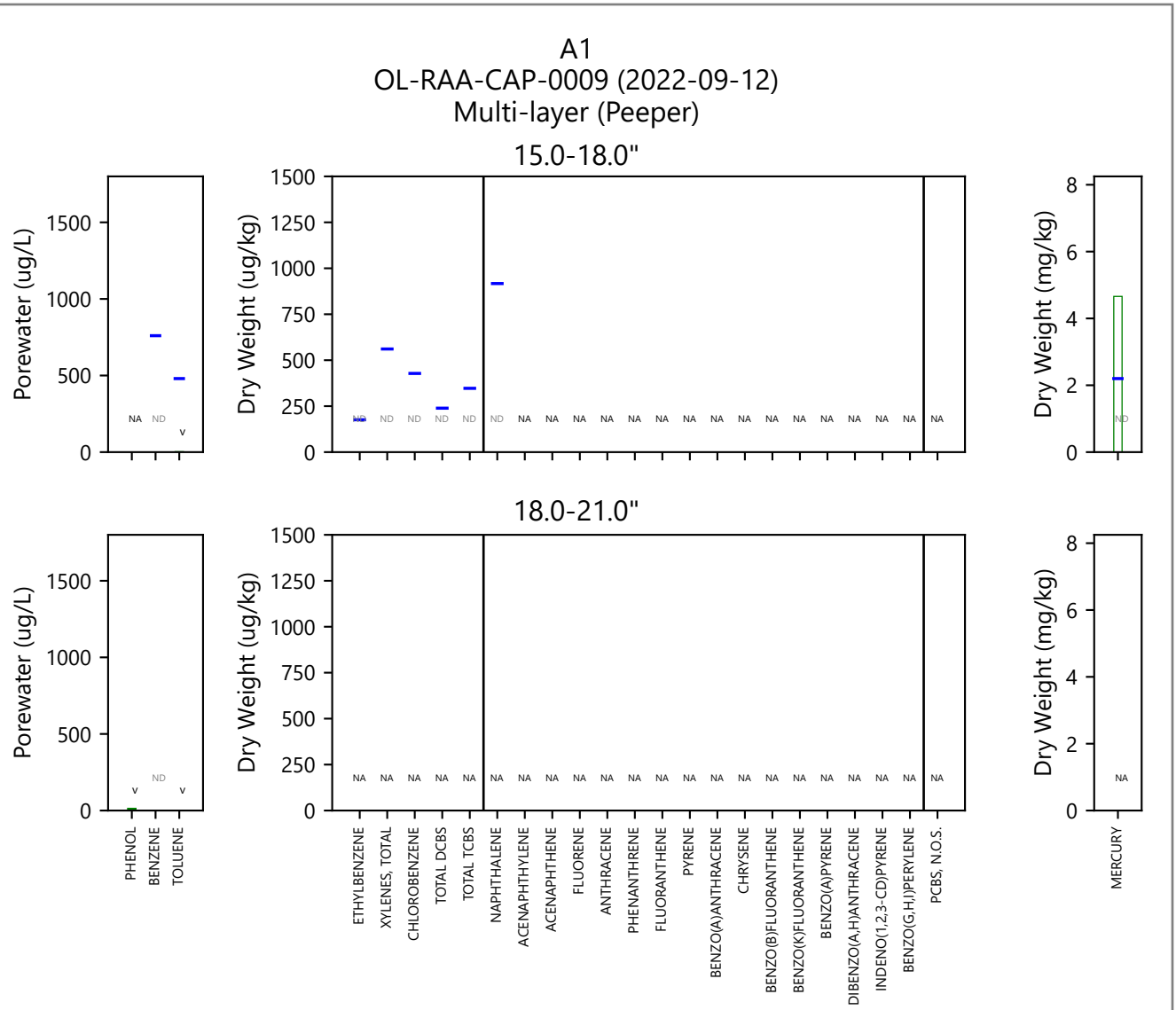
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Figure 1-25

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

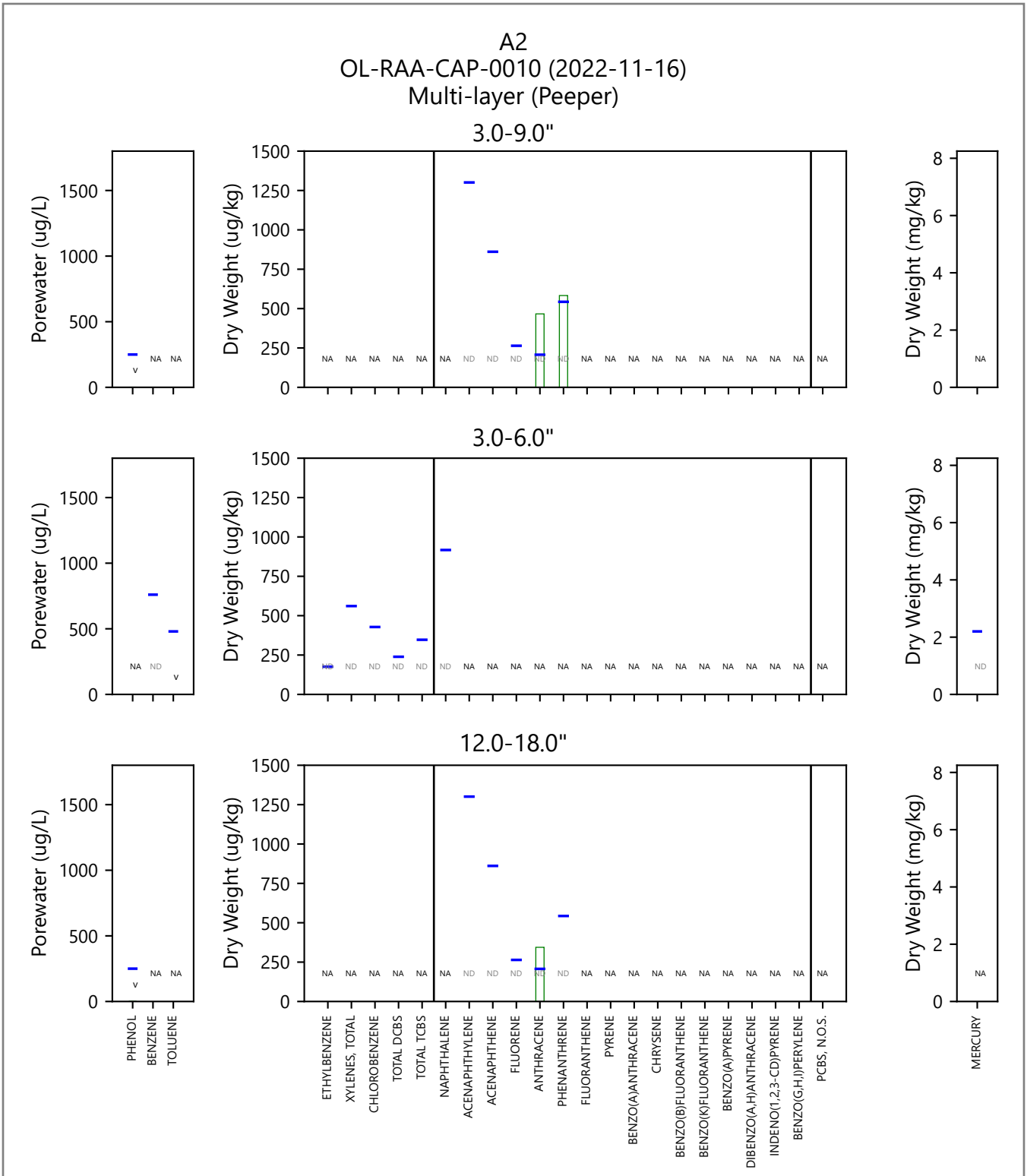
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Figure 1-26

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

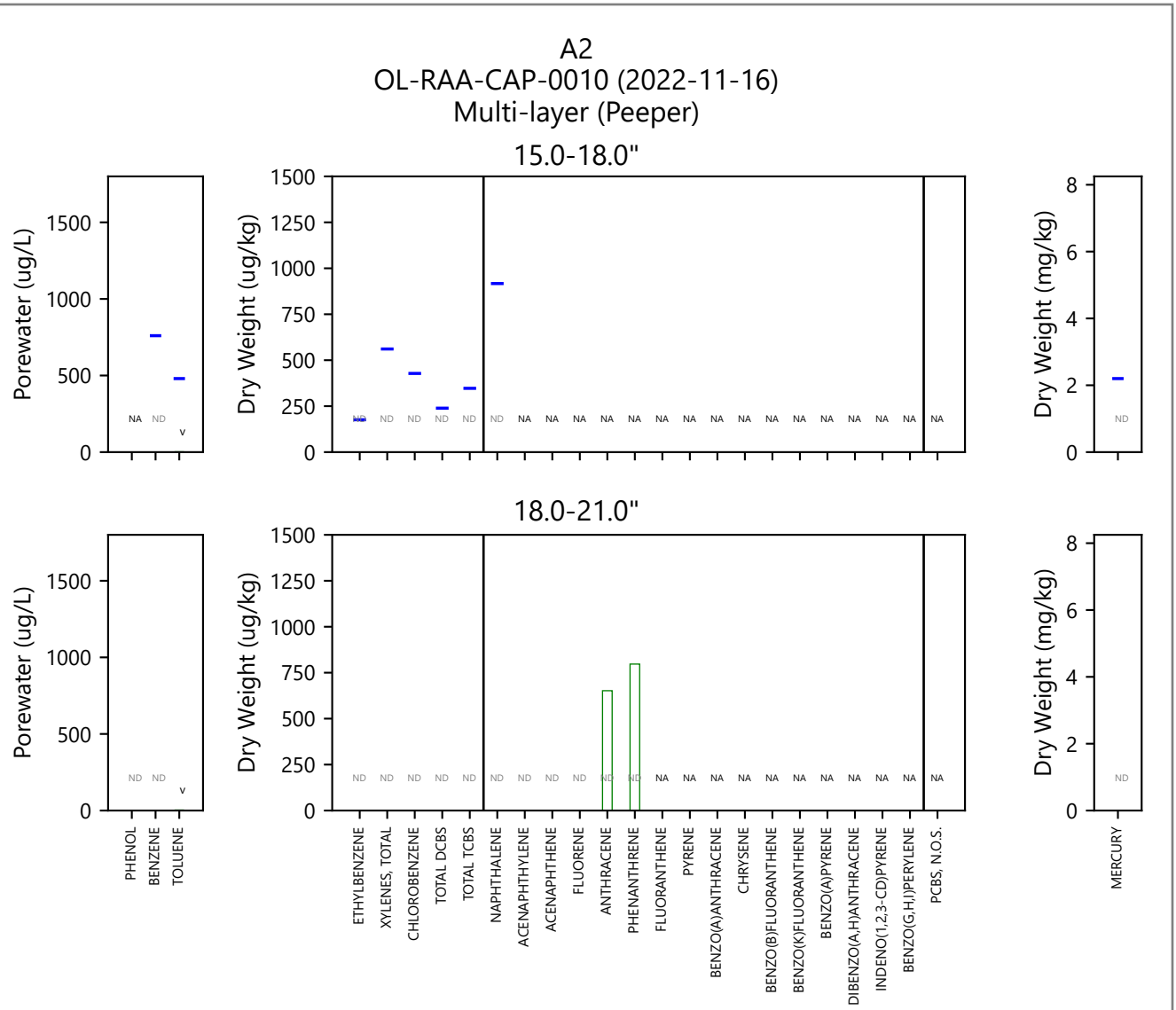
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Figure 1-27

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

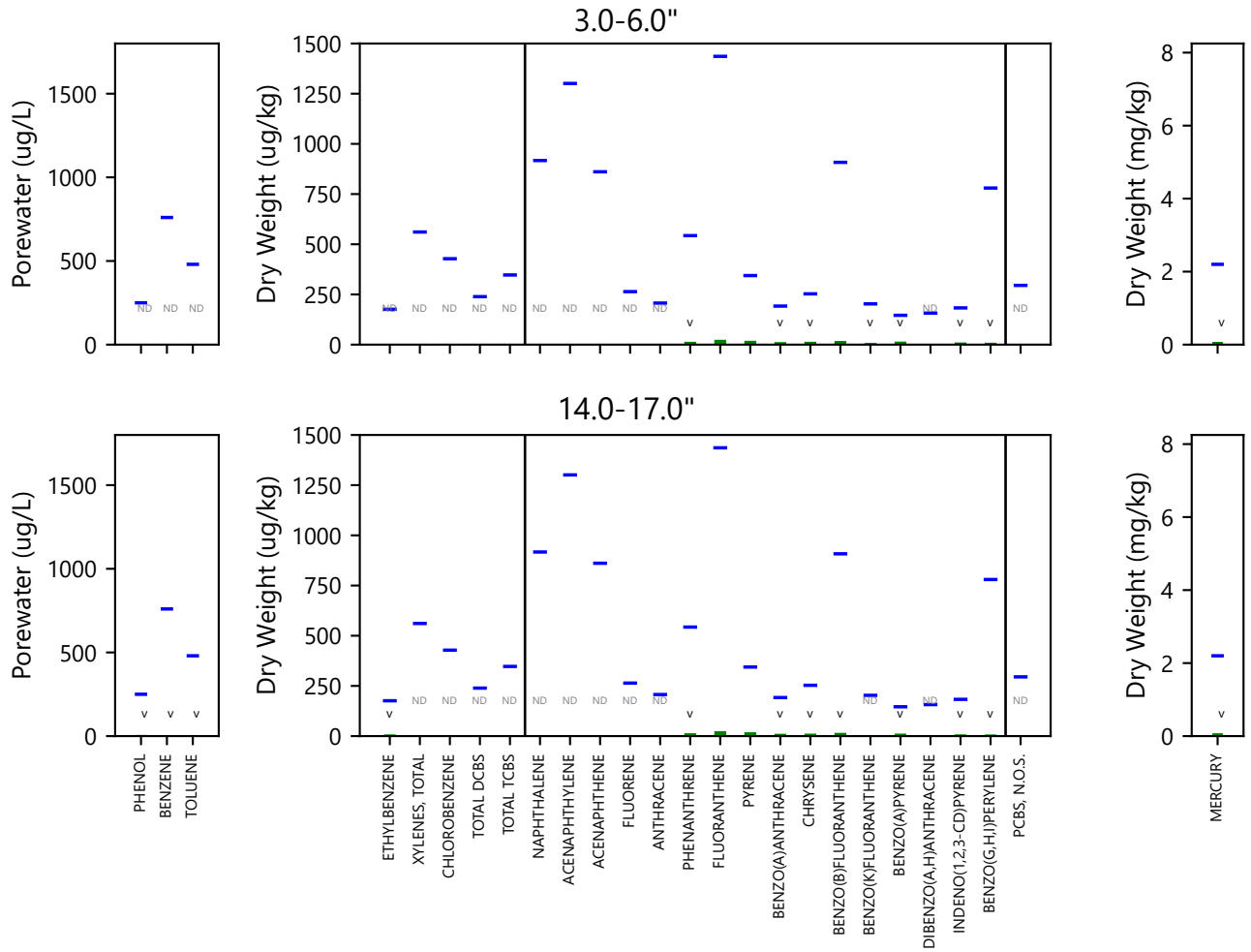
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Figure 1-28

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

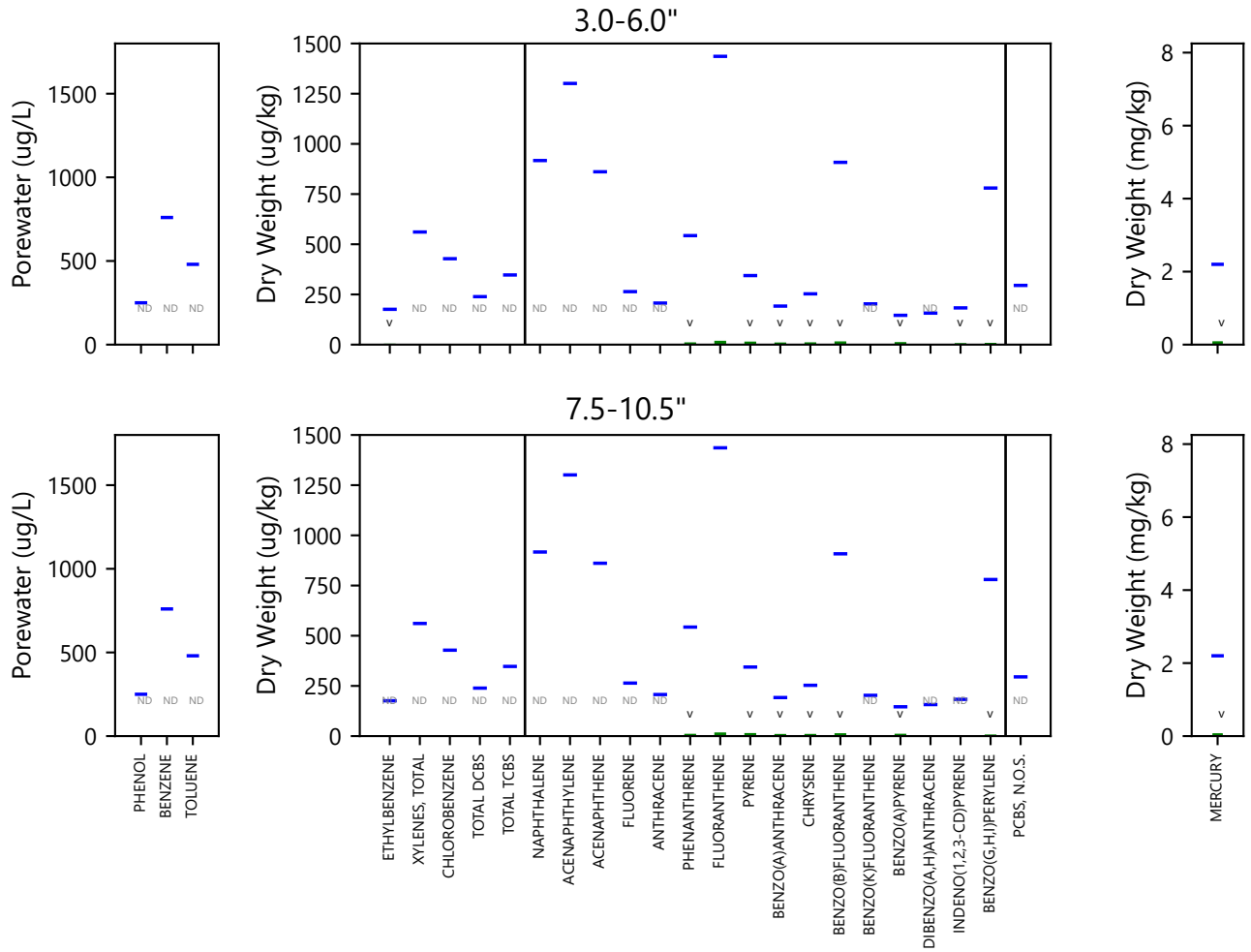
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Figure 1-29

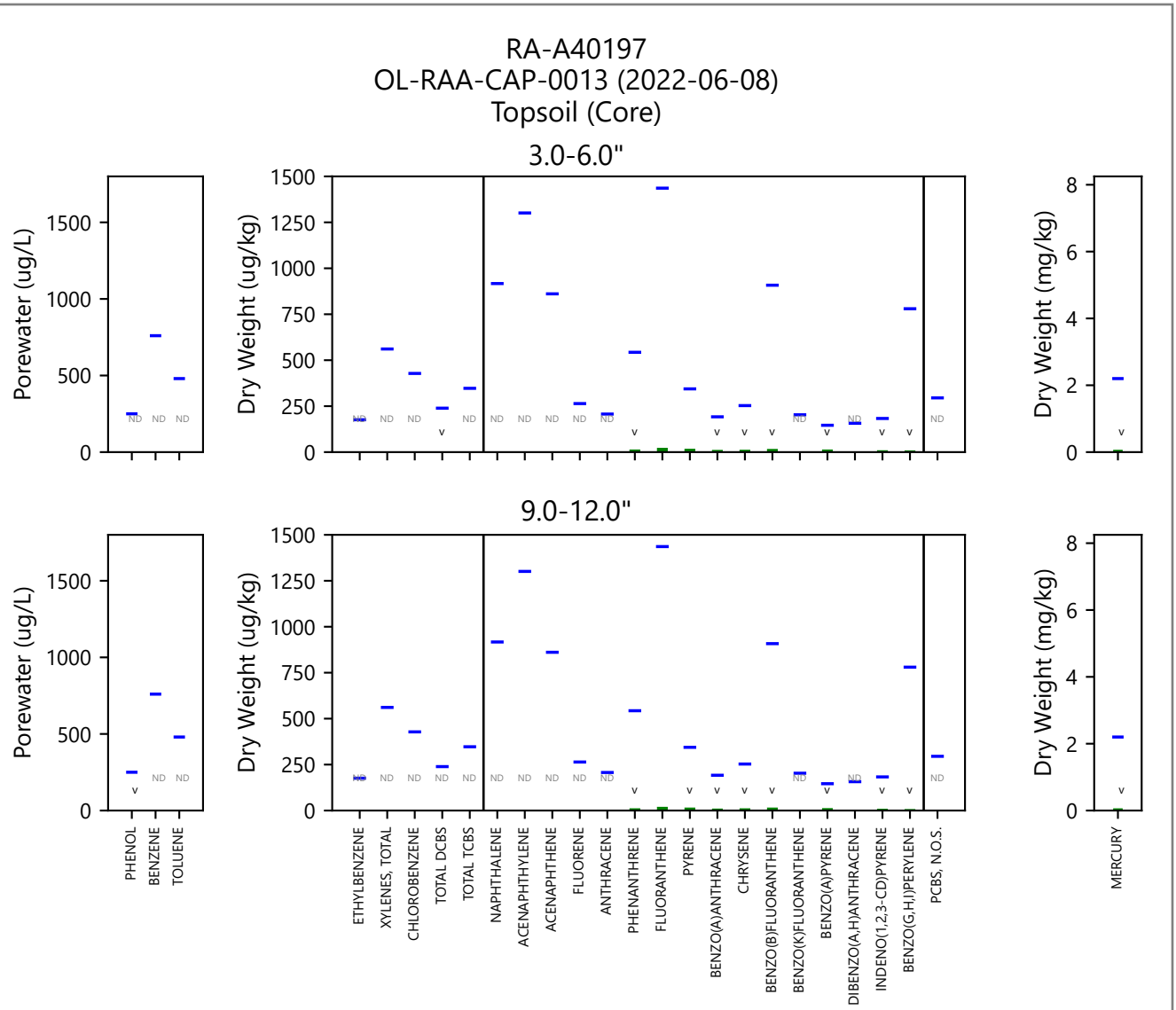
Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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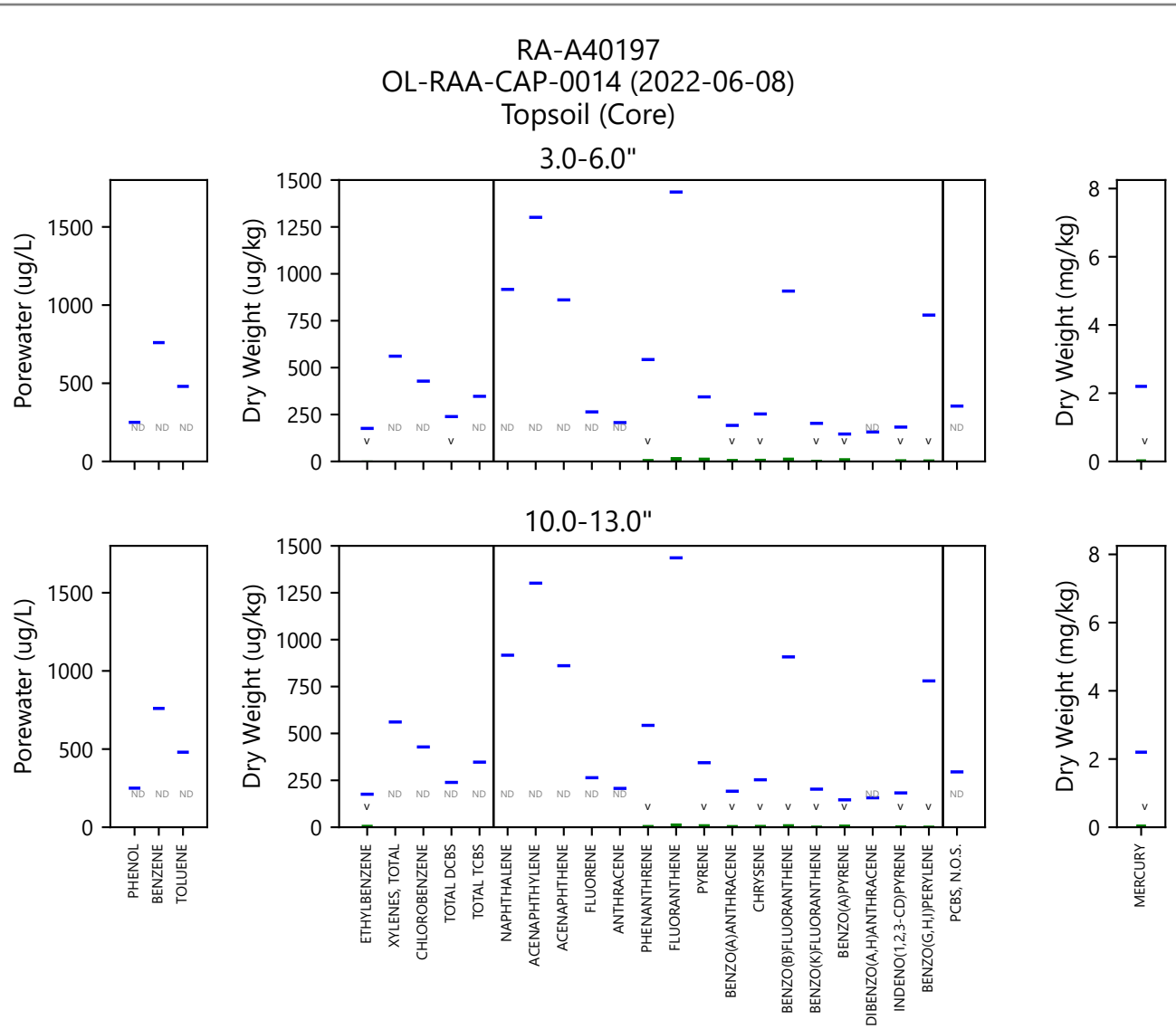
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Figure 1-31

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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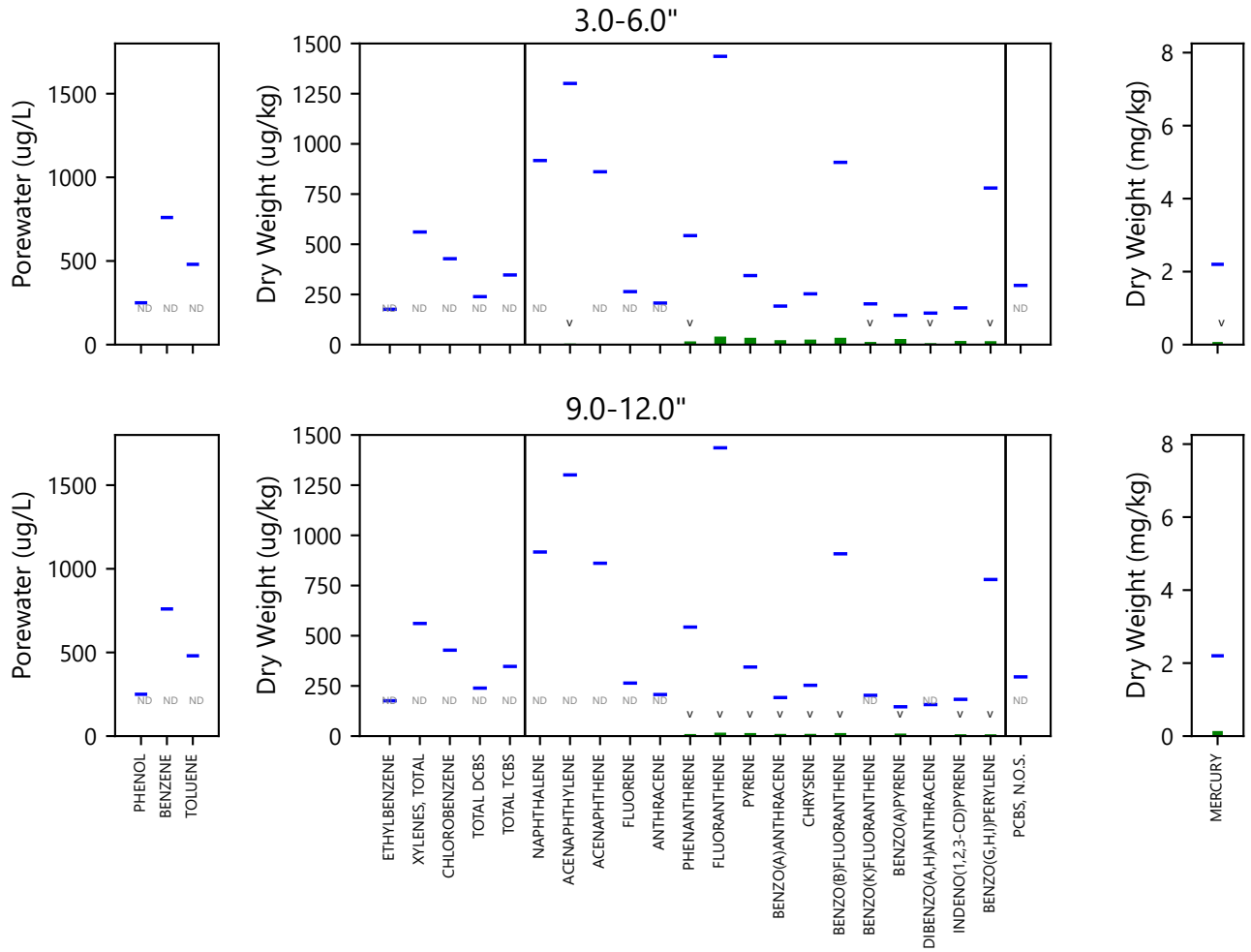
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Figure 1-32

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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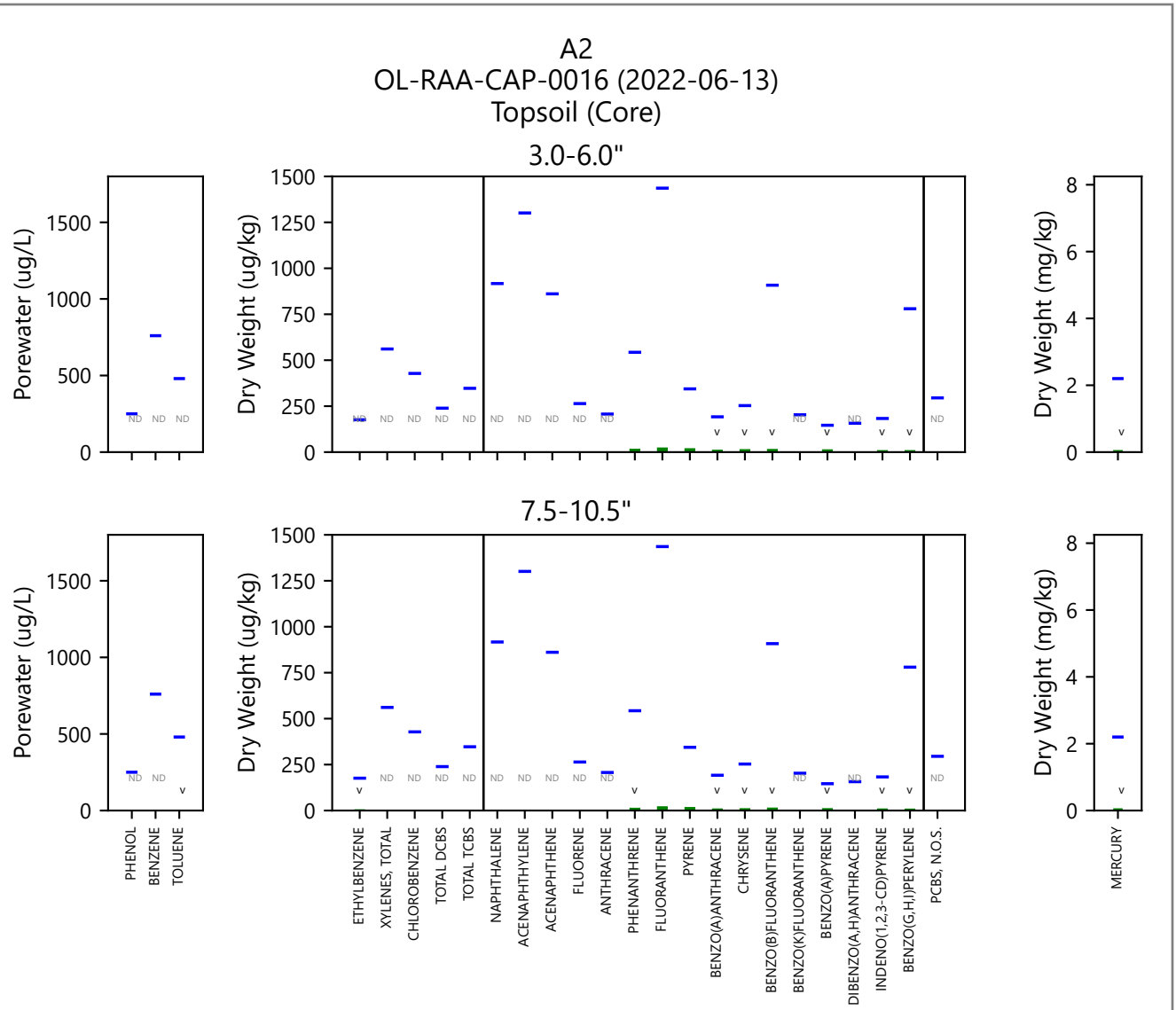
Habitat Layer Performance Criteria

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File Path: \\WCL-FS1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Cap_Chemistry\Python\Forensics\OLCap_Forensic_Bar_Plots_CapMaterial_Criteria_HLine_2019_wHB.py

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Figure 1-33

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

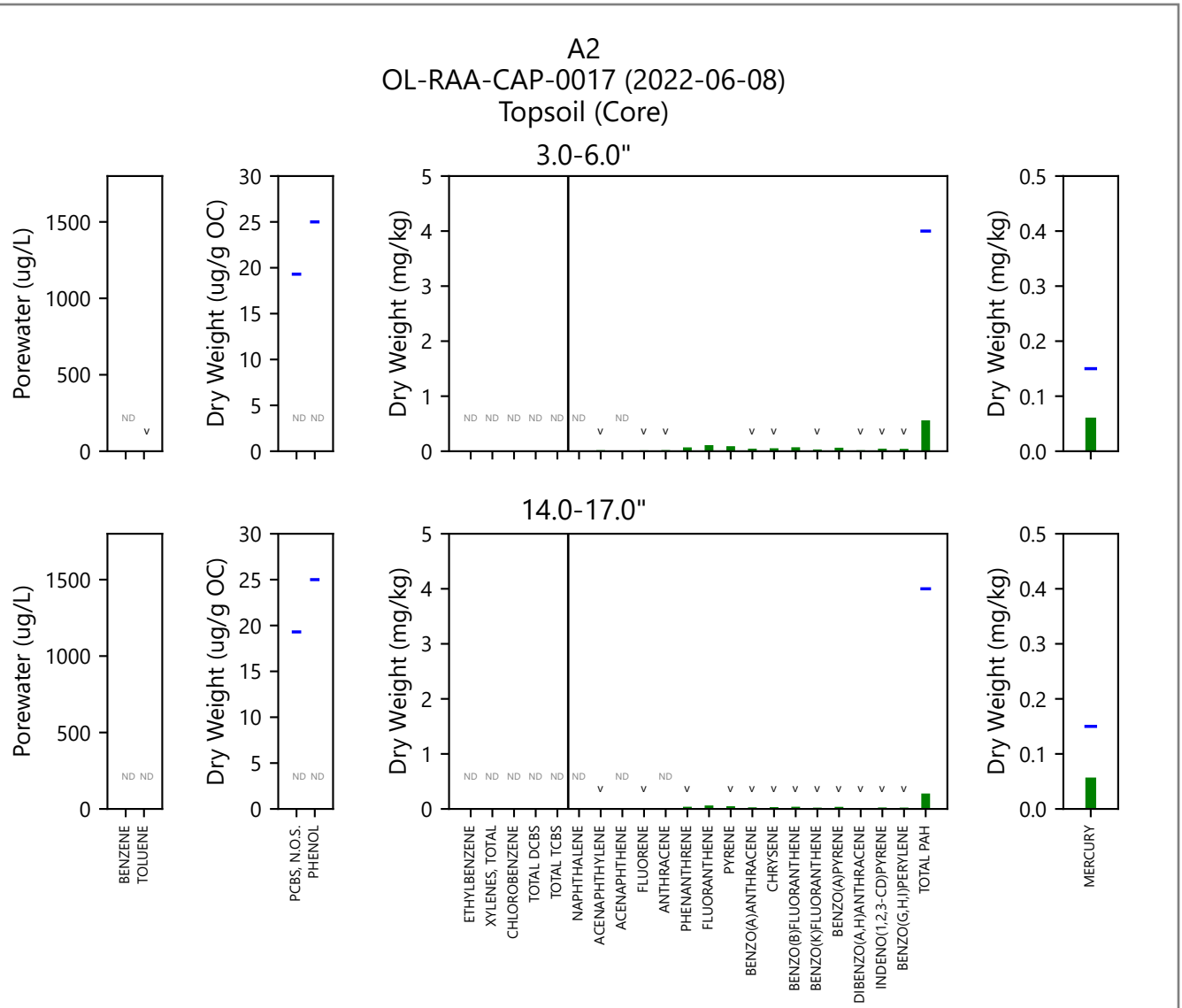
Habitat Layer Performance Criteria

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Figure 1-34

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
OL-RAA-CAP-0017 is subject to the NMC OU2 criteria which includes mercury=0.15 mg/kg, TPAH= 4 mg/kg, PCBs = 19.3 ug/g-OC, and phenol = 25 ug/g-OC.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.
Total PAHs is the sum of the detected PAHs. Habitat criteria are from Ninemile Creek ROD.

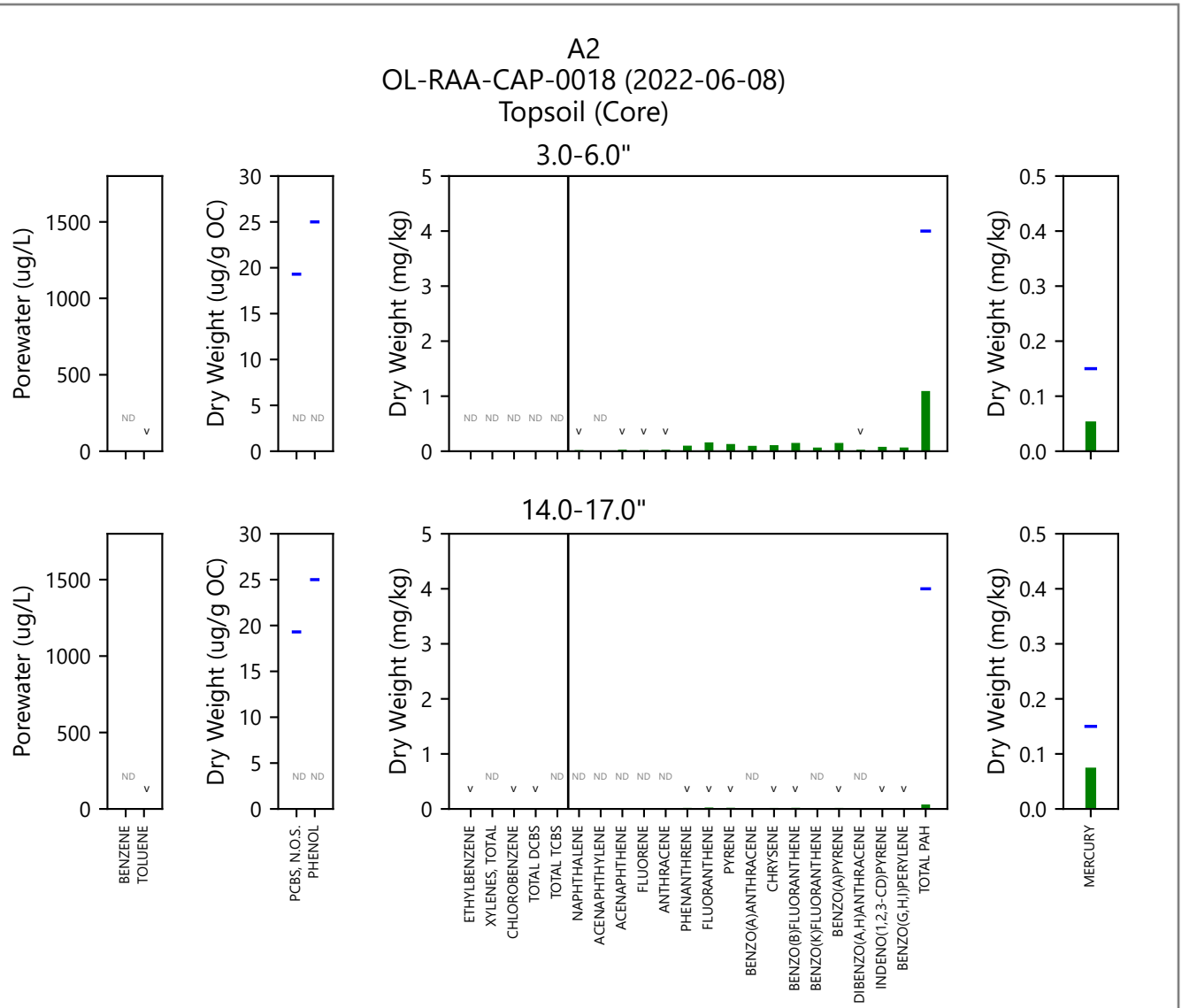
Habitat Layer Performance Criteria

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Figure 1-35

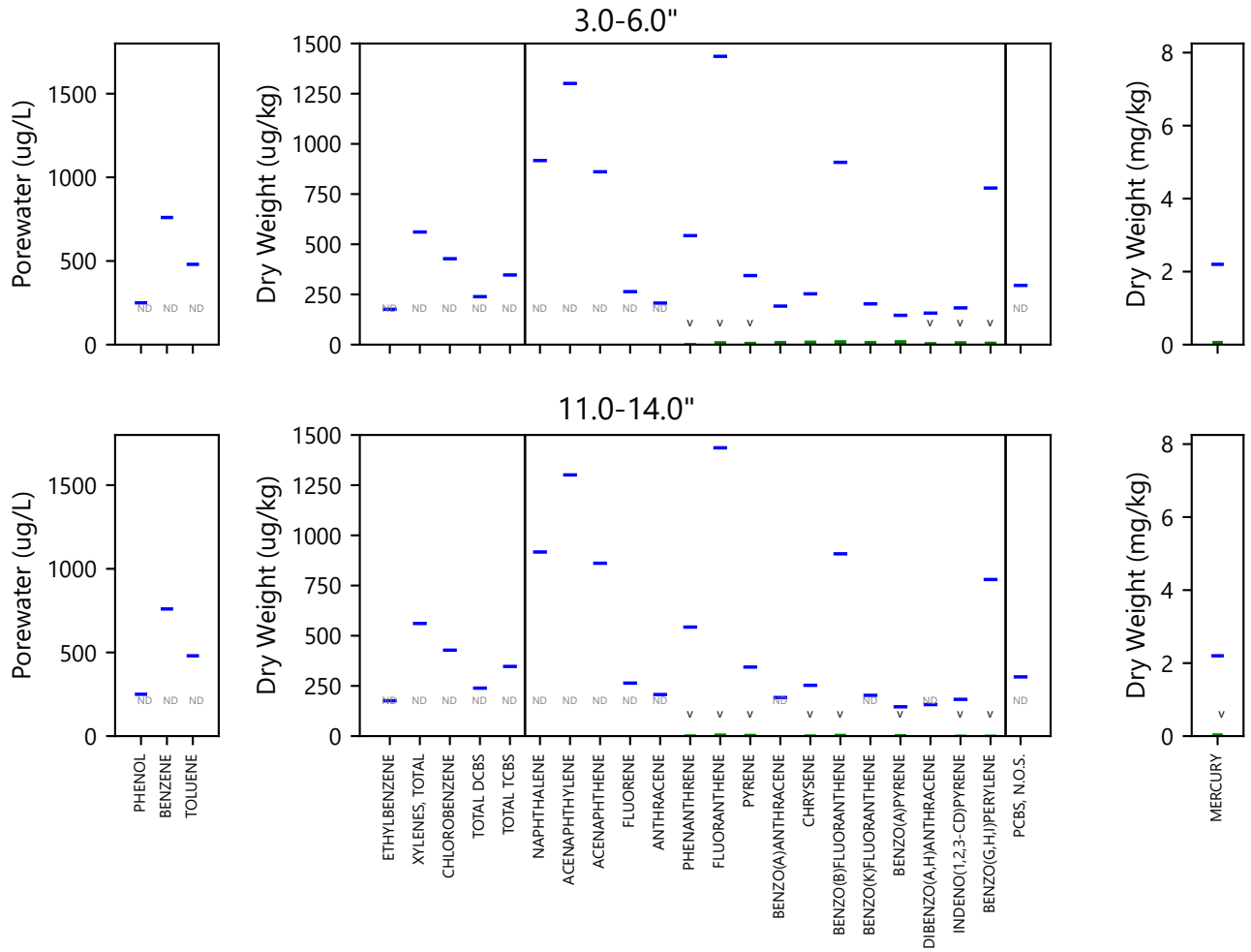
Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
OL-RAA-CAP-0018 is subject to the NMC OU2 criteria which includes mercury=0.15 mg/kg, TPAH= 4 mg/kg, PCBs = 19.3 ug/g-OC, and phenol = 25 ug/g-OC.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.
Total PAHs is the sum of the detected PAHs. Habitat criteria are from Ninemile Creek ROD.

Habitat Layer Performance Criteria

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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

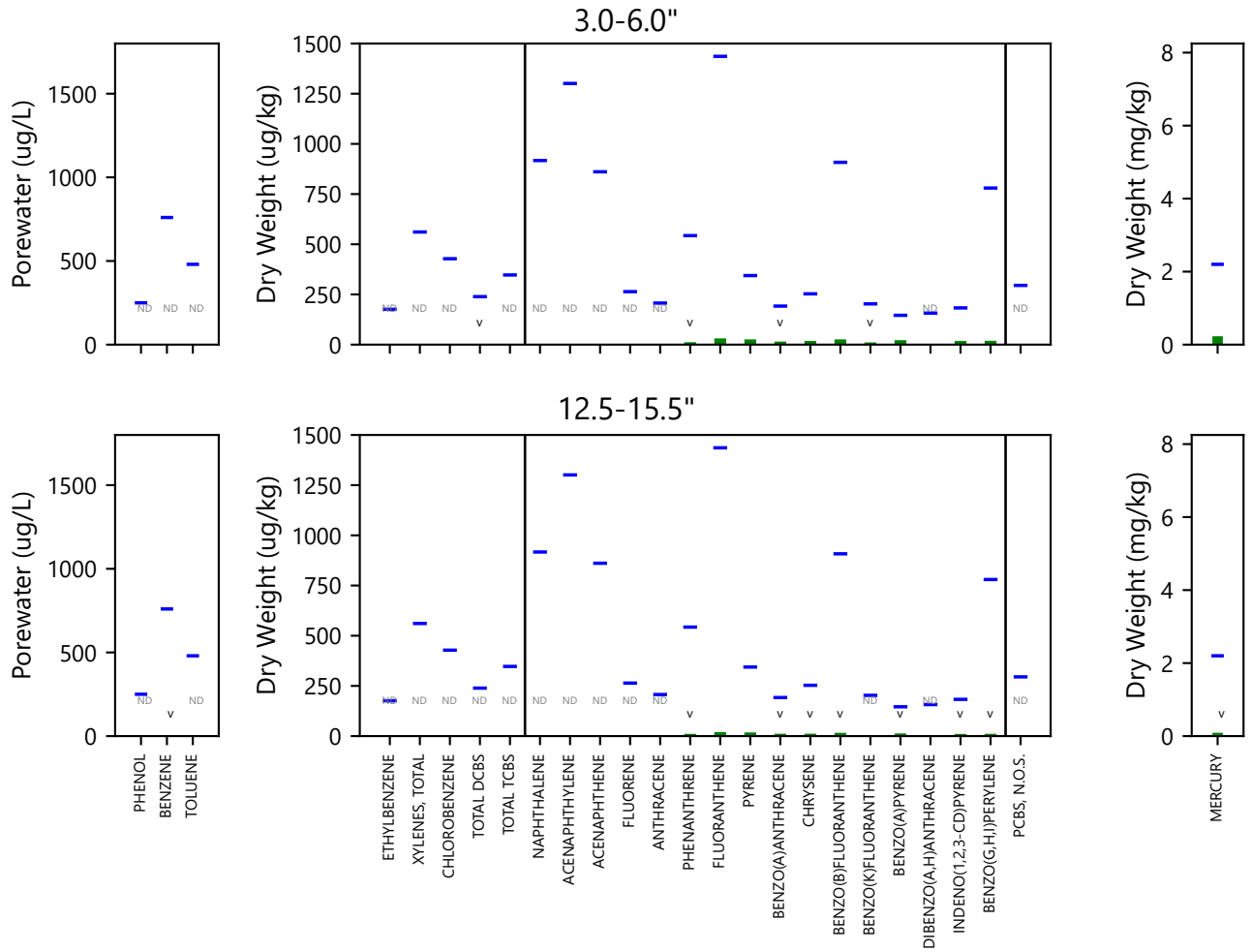
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Figure 1-37

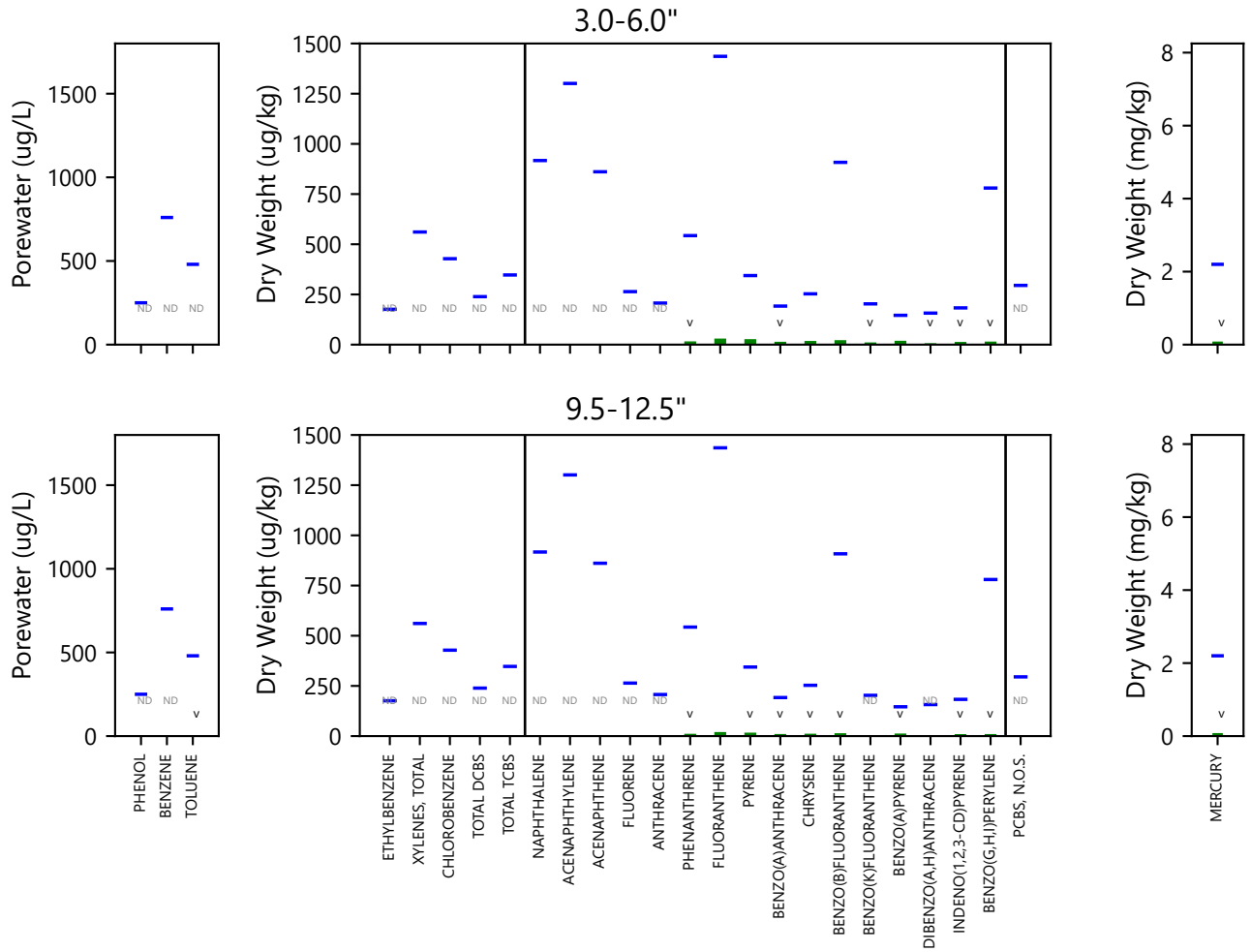
Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

Habitat Layer Performance Criteria

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Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

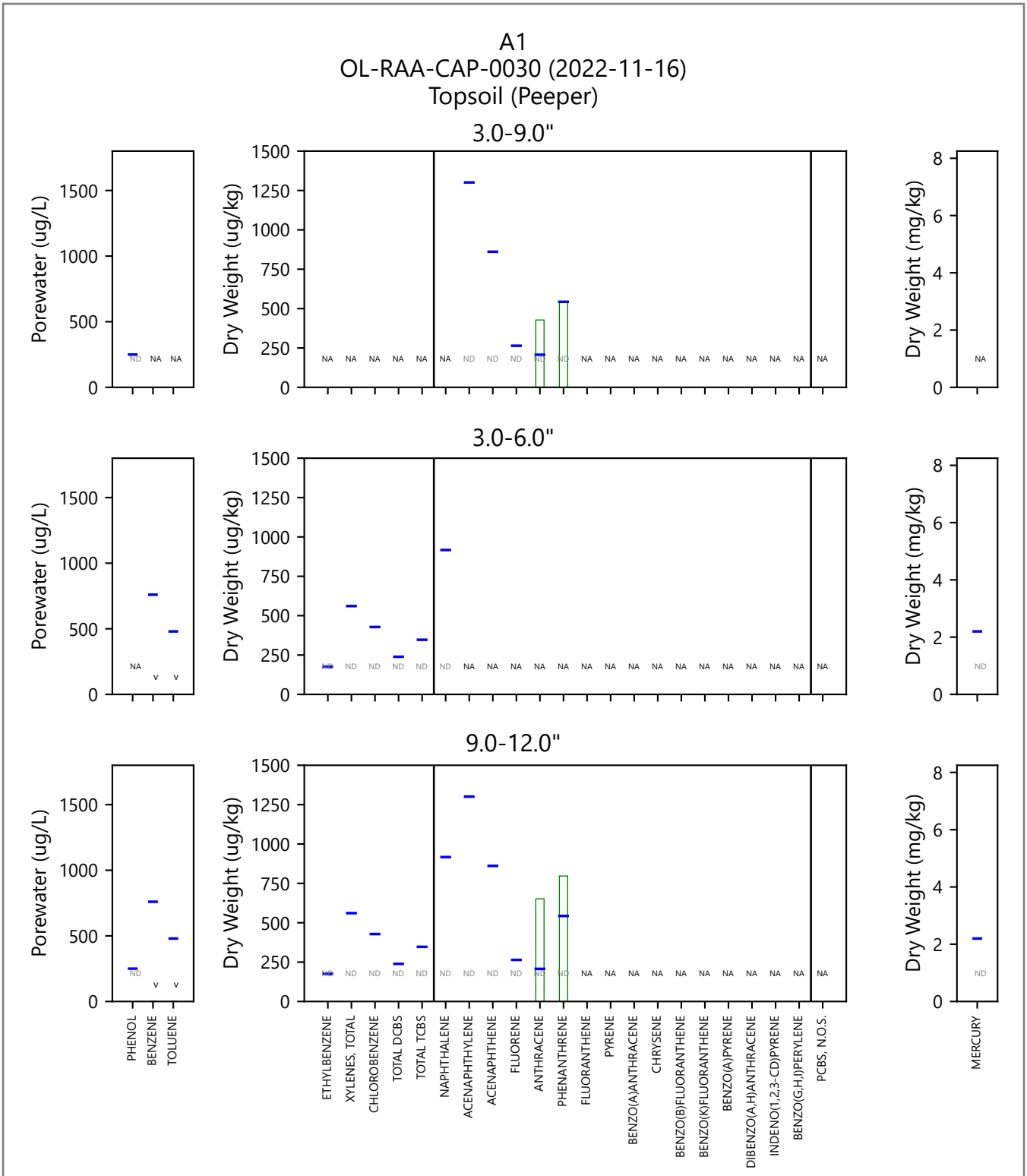
Habitat Layer Performance Criteria

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Figure 1-39

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

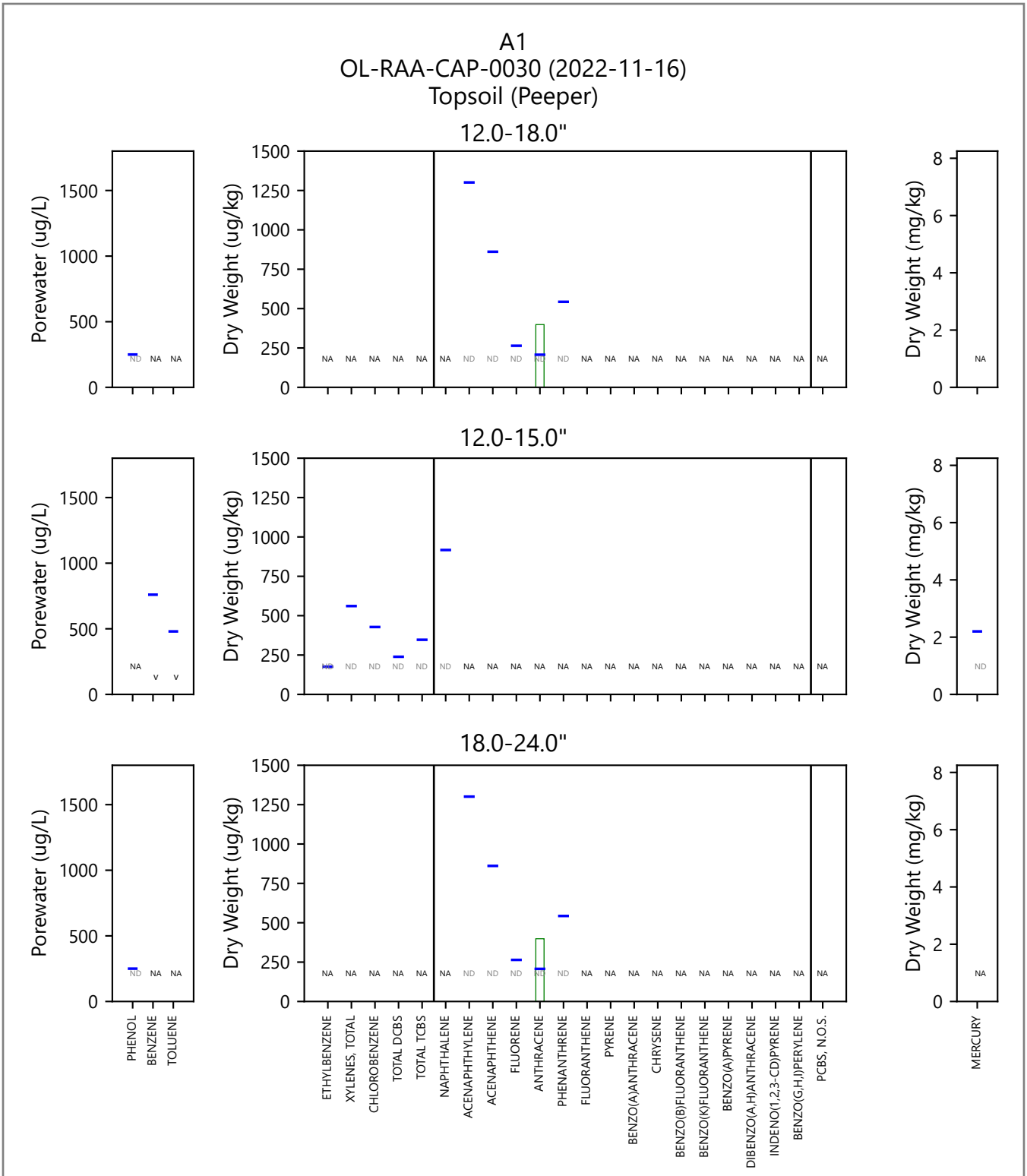
Habitat Layer Performance Criteria

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Figure 1-40

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

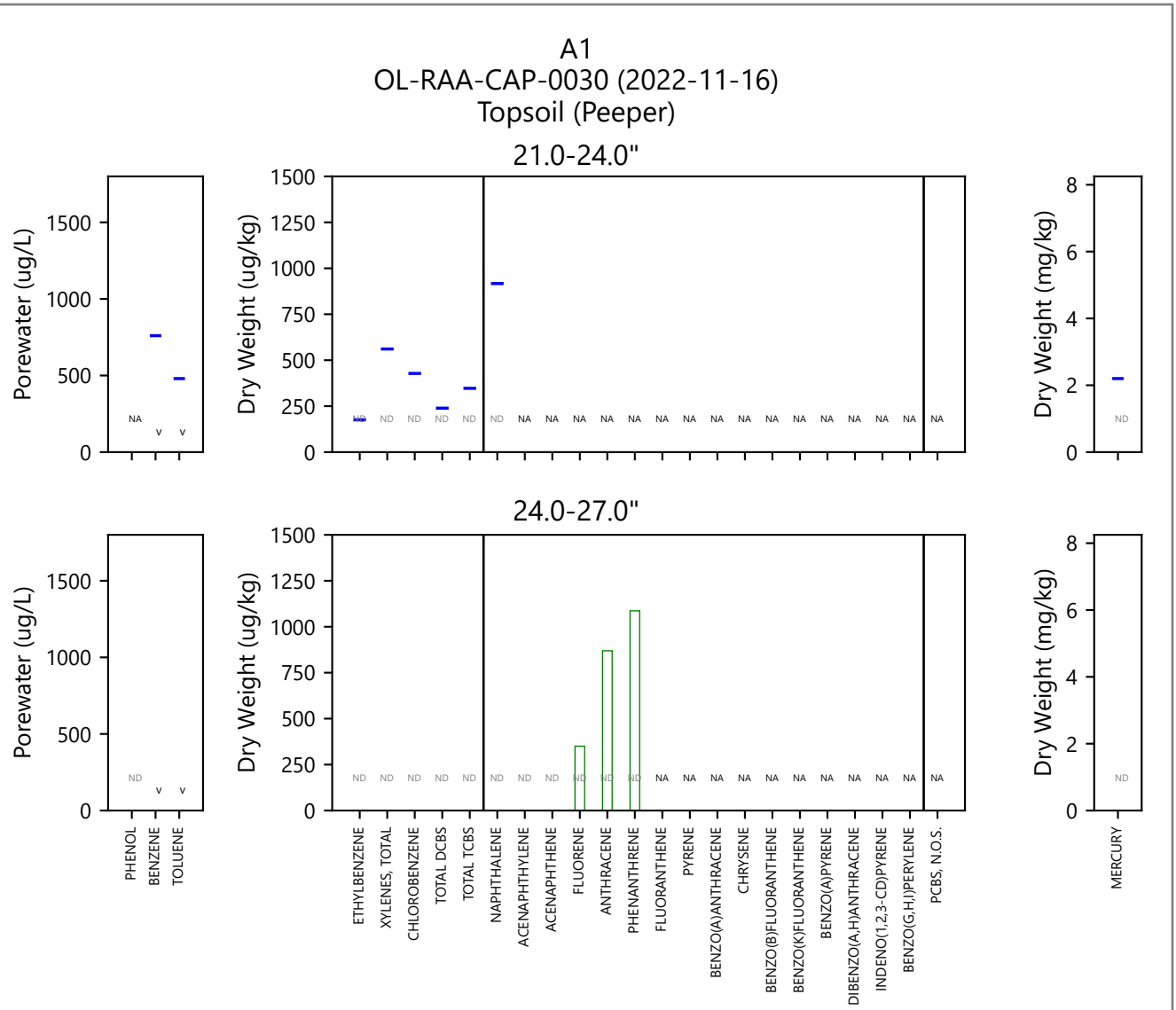
Habitat Layer Performance Criteria

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Figure 1-41

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

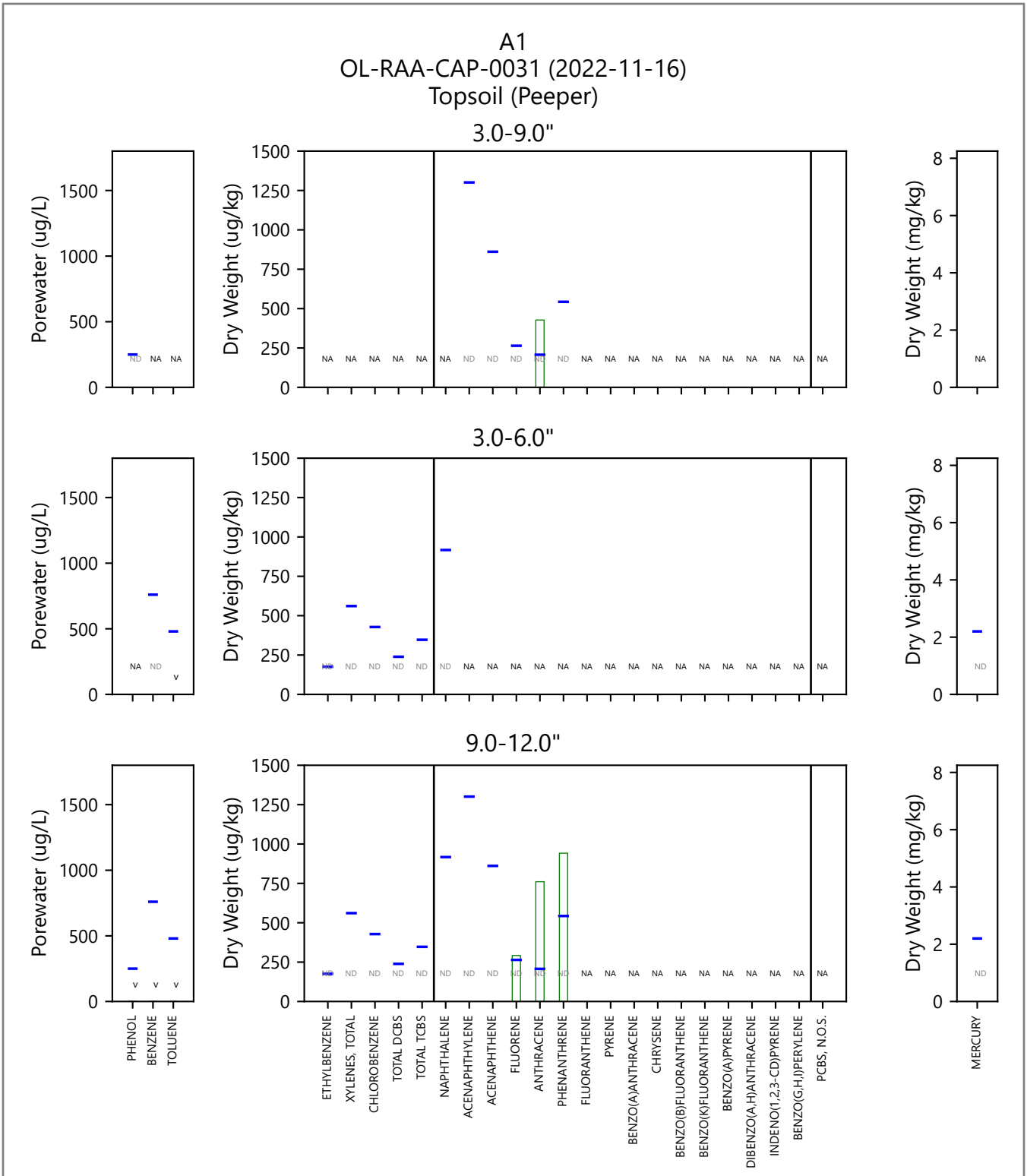
Habitat Layer Performance Criteria

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Figure 1-42

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

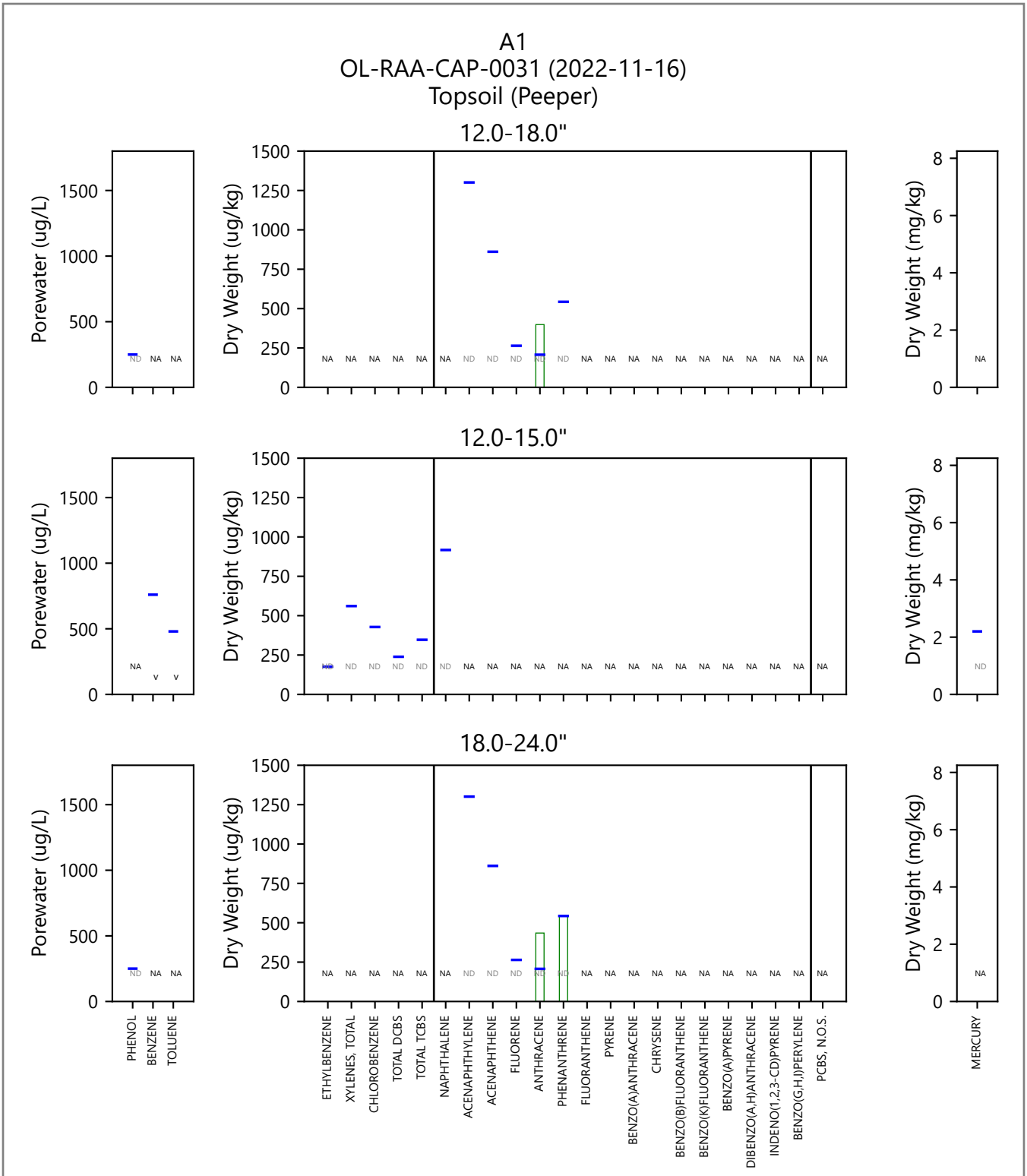
Habitat Layer Performance Criteria

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Figure 1-43

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

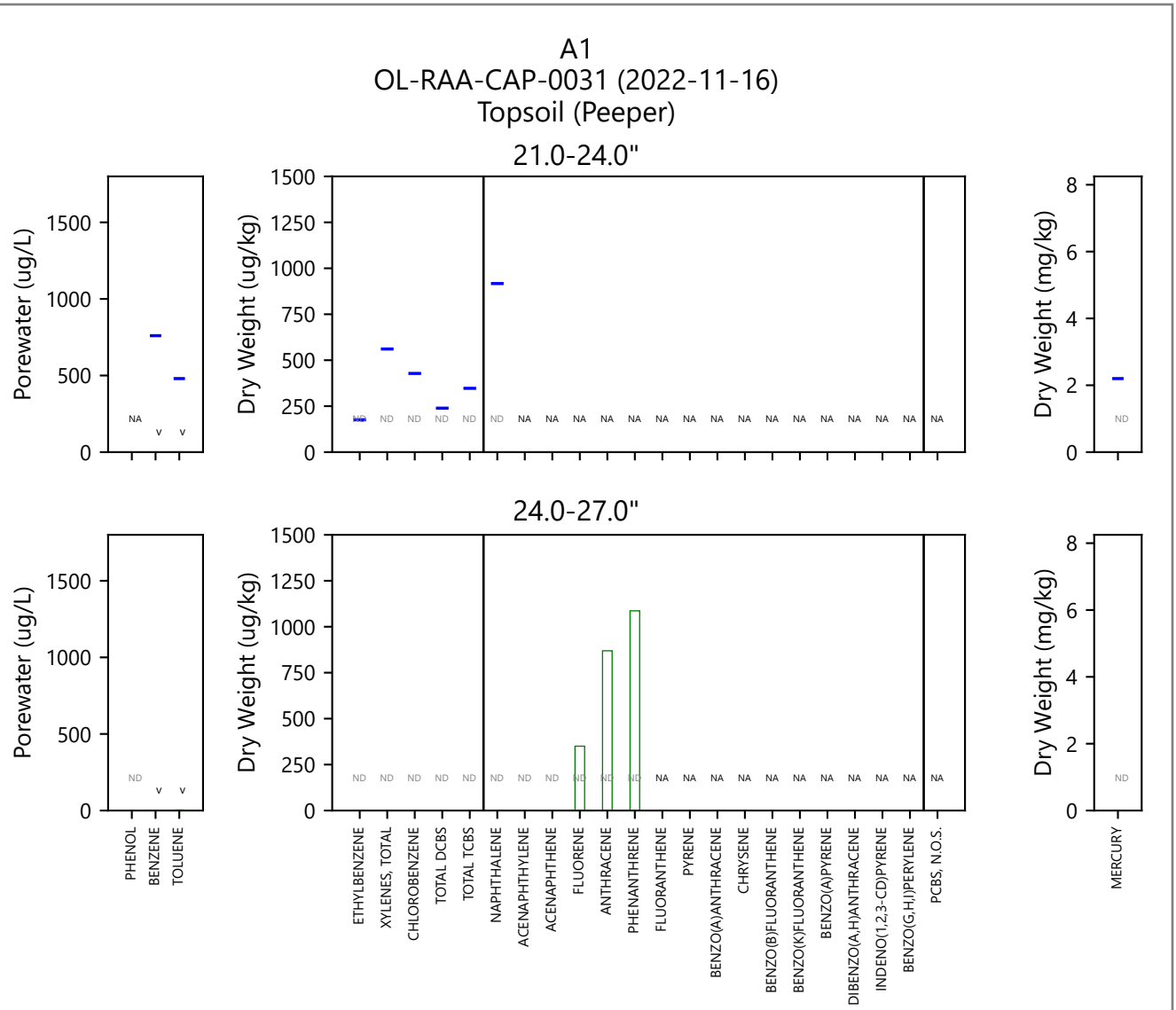
Habitat Layer Performance Criteria

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Figure 1-44

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

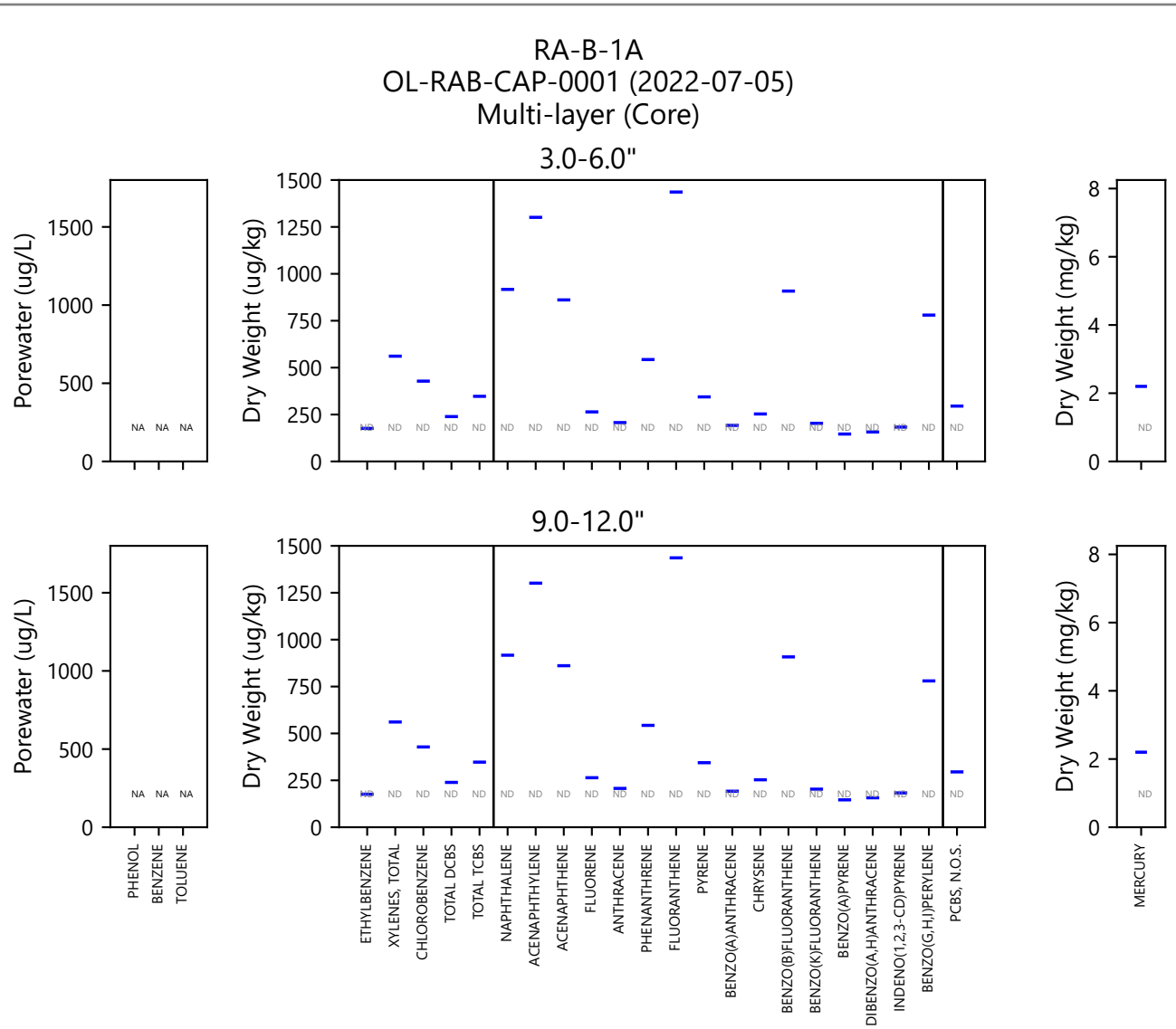
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Figure 1-45

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

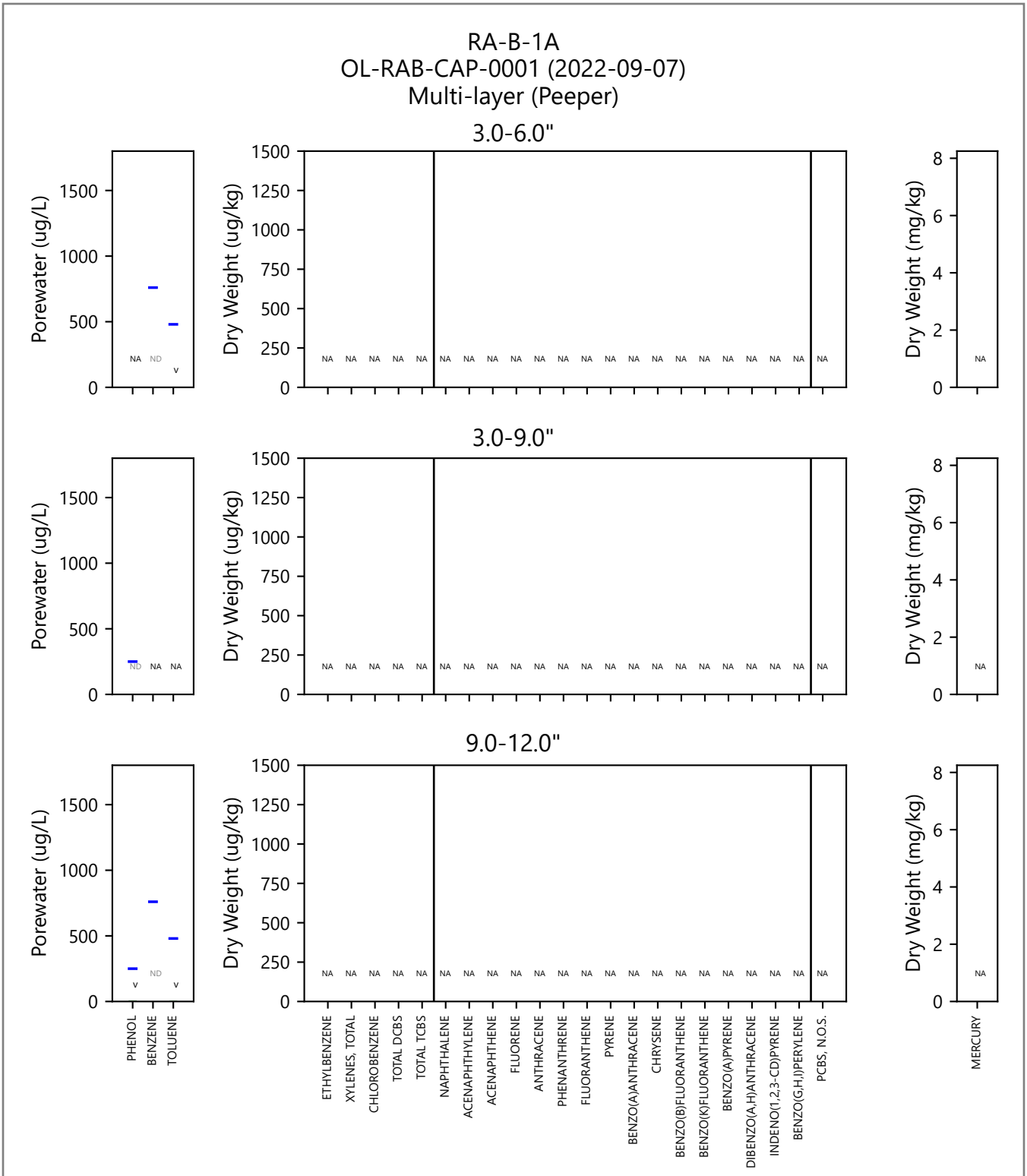
Habitat Layer Performance Criteria

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Figure 1-46

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

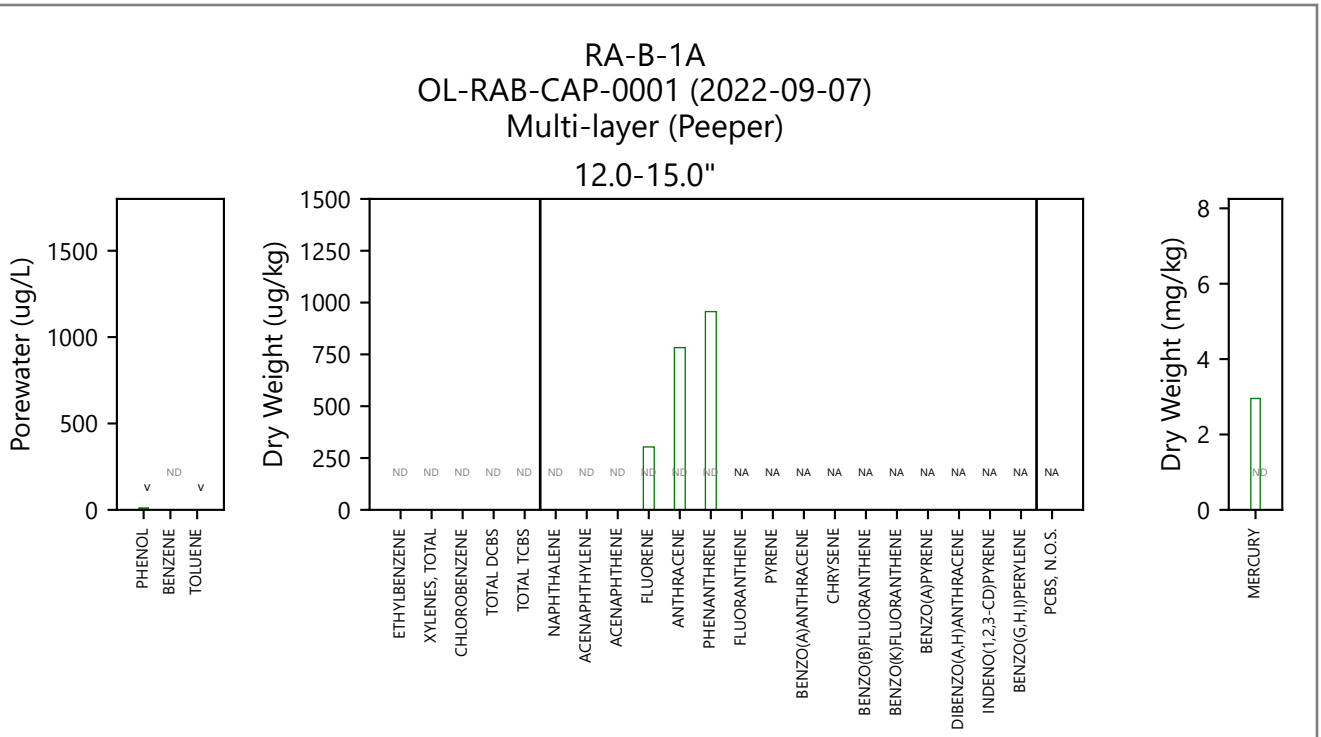
Habitat Layer Performance Criteria

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Figure 1-47

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

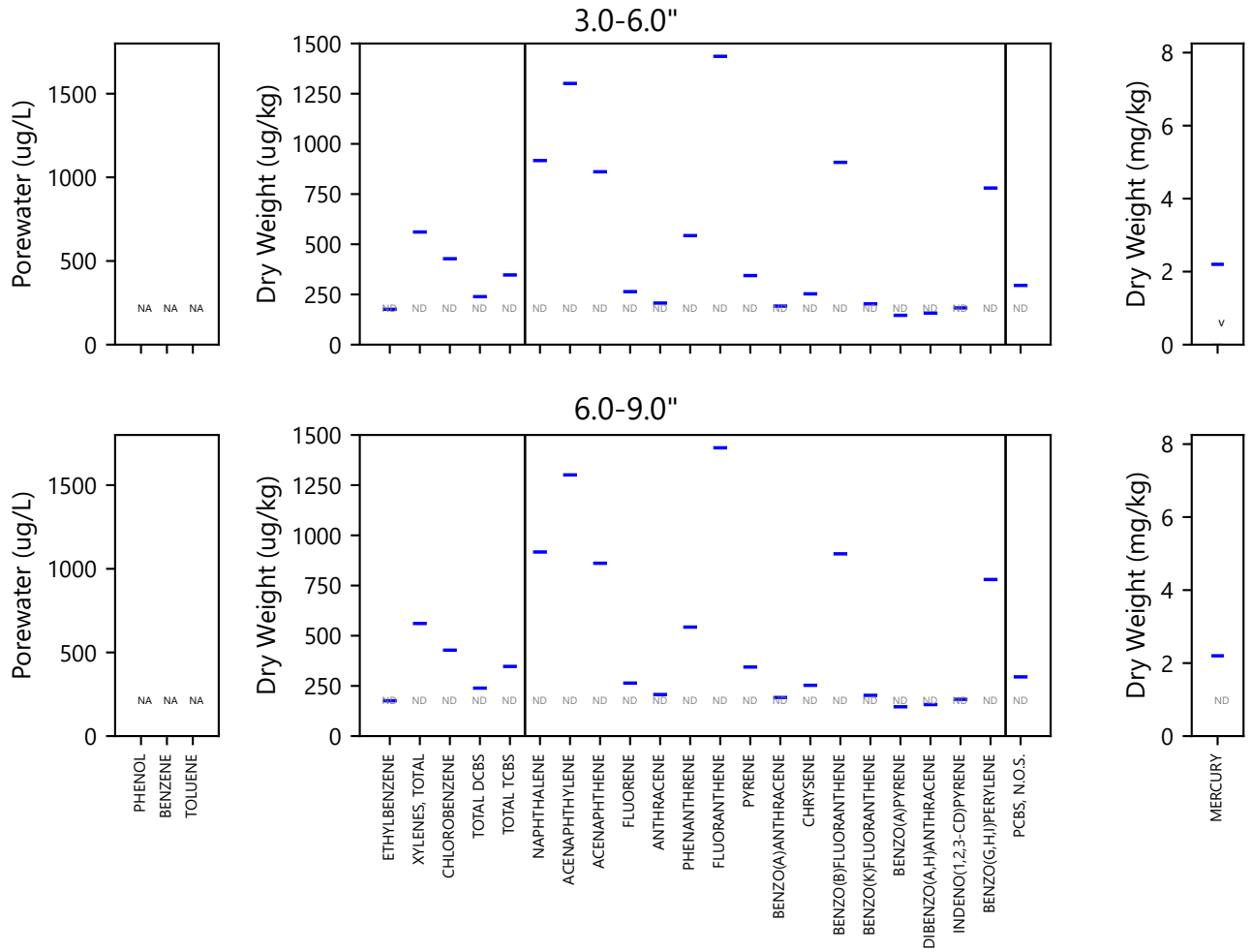
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Figure 1-48

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

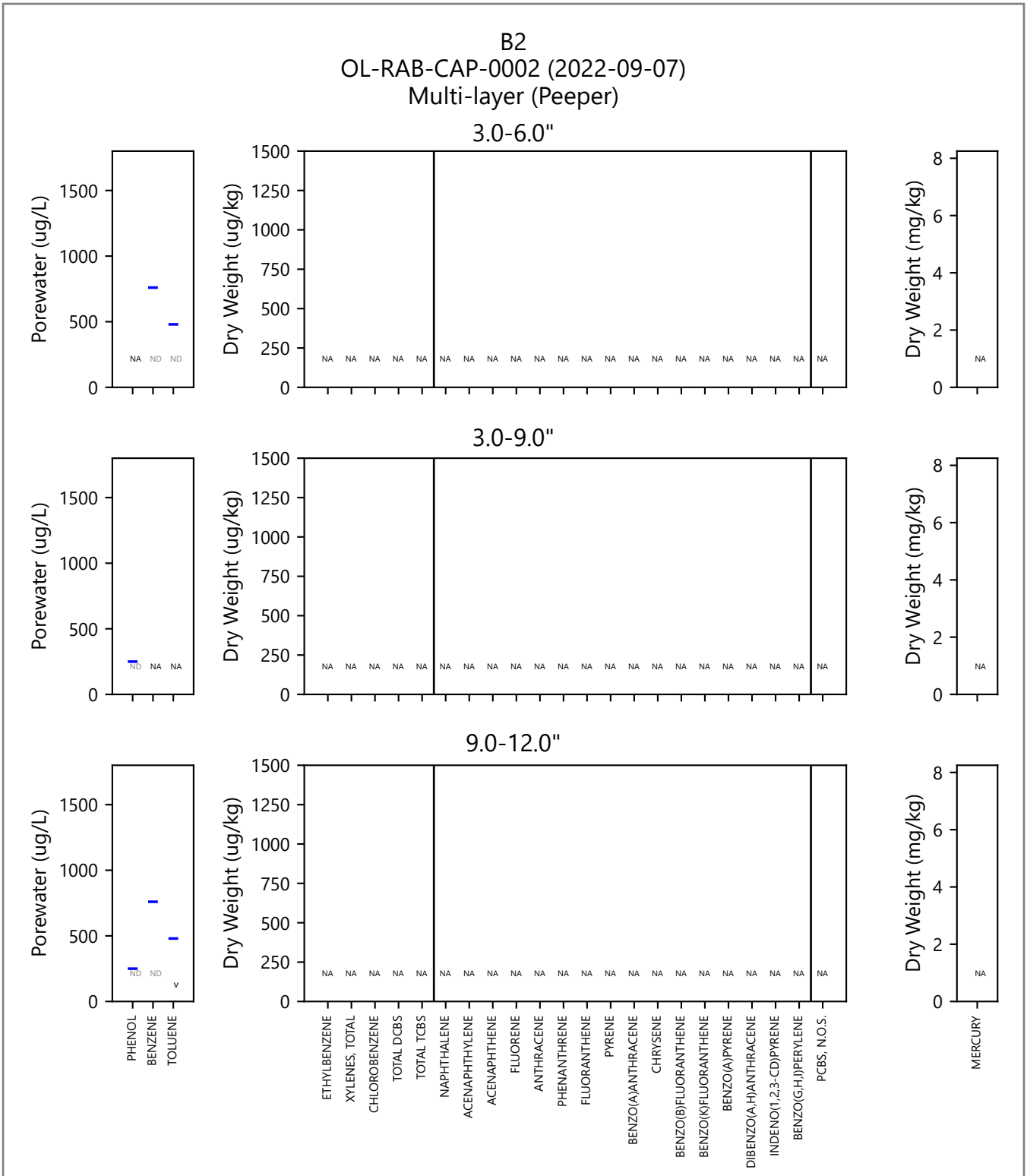
Habitat Layer Performance Criteria

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Figure 1-49

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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Chemical groups are separated by vertical lines.
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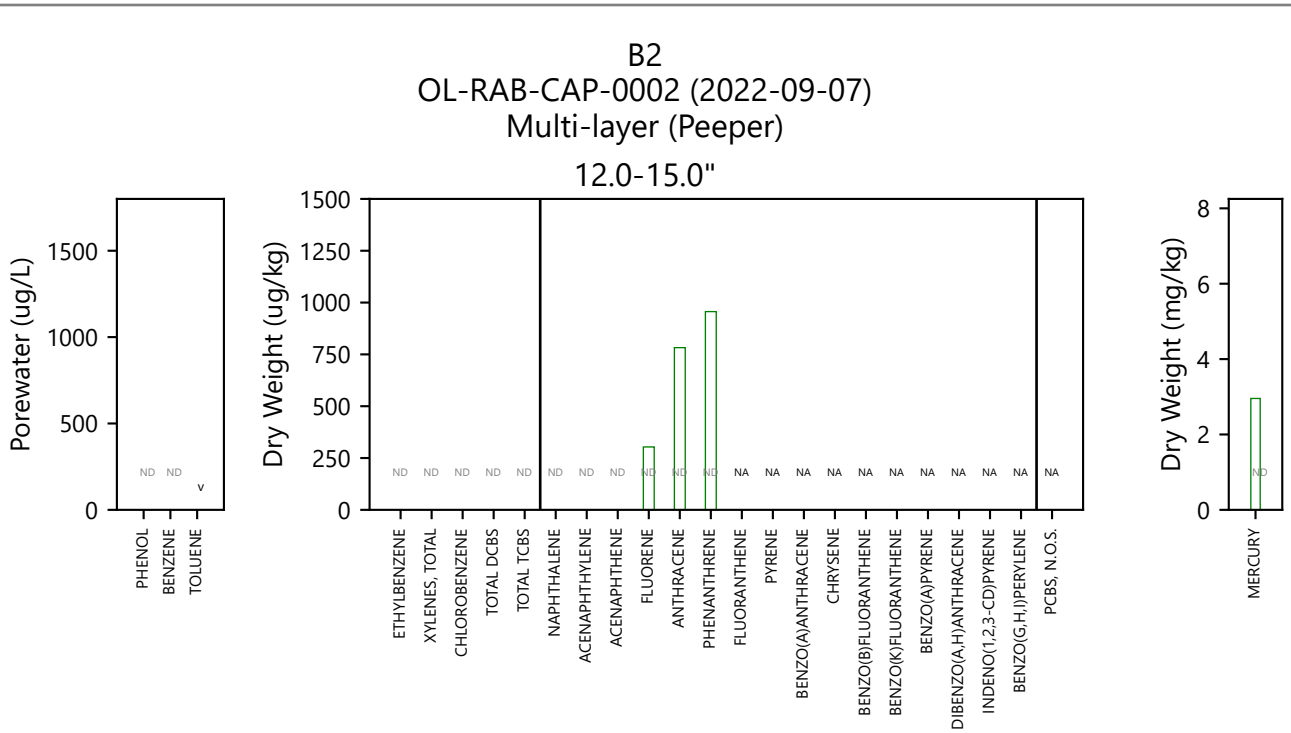
Habitat Layer Performance Criteria

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Figure 1-50

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

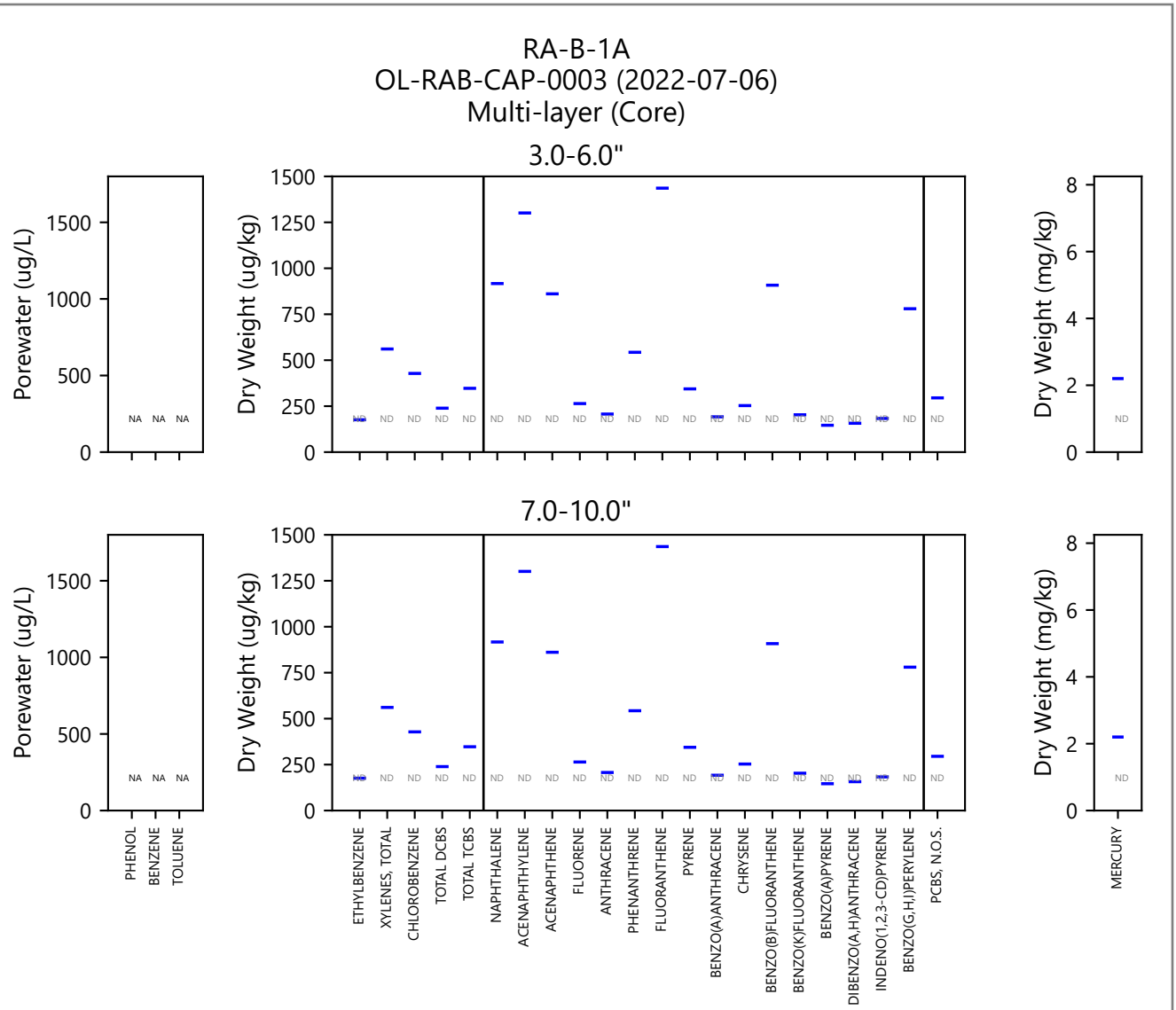
Habitat Layer Performance Criteria

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Figure 1-51

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

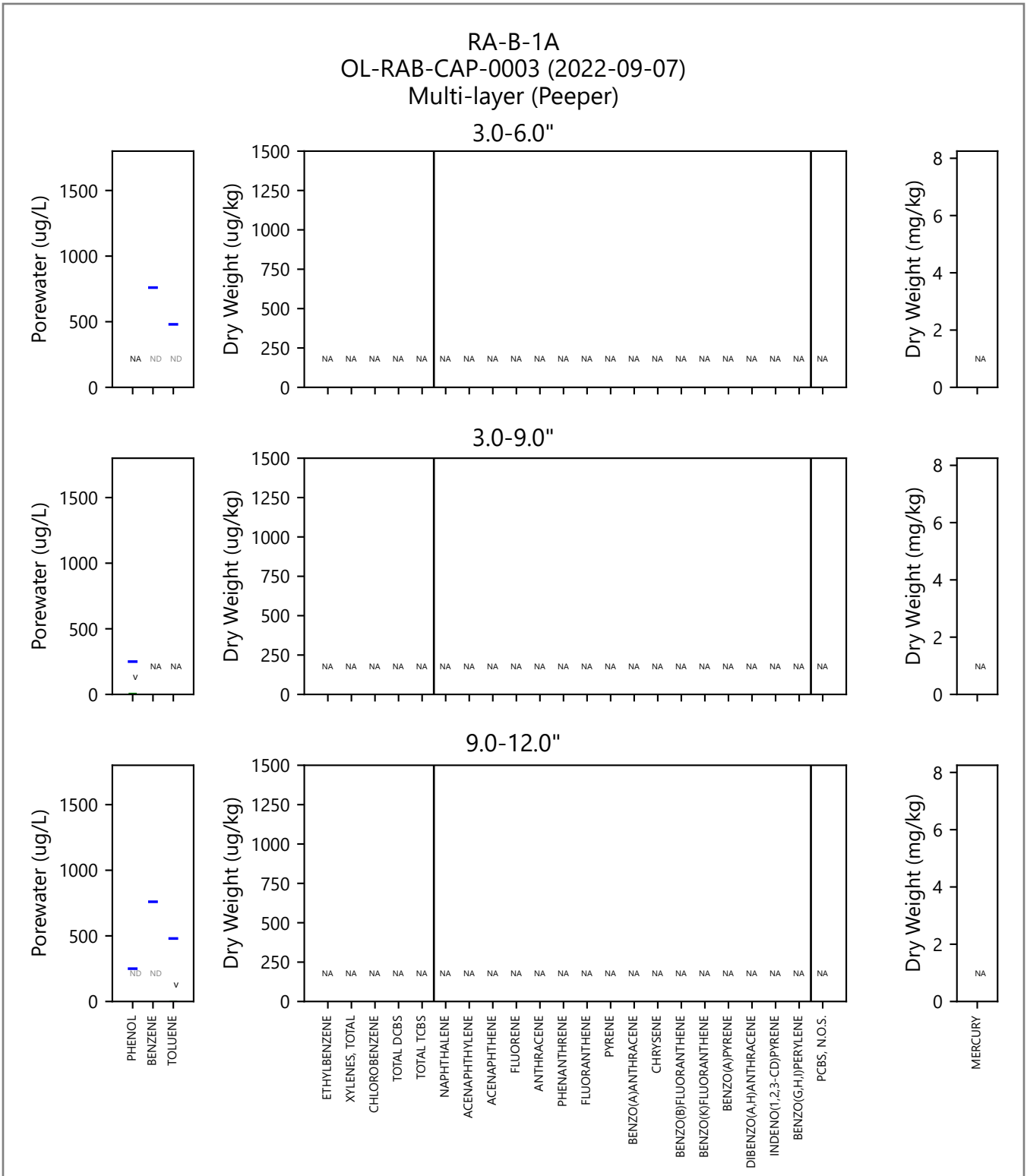
Habitat Layer Performance Criteria

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Figure 1-52

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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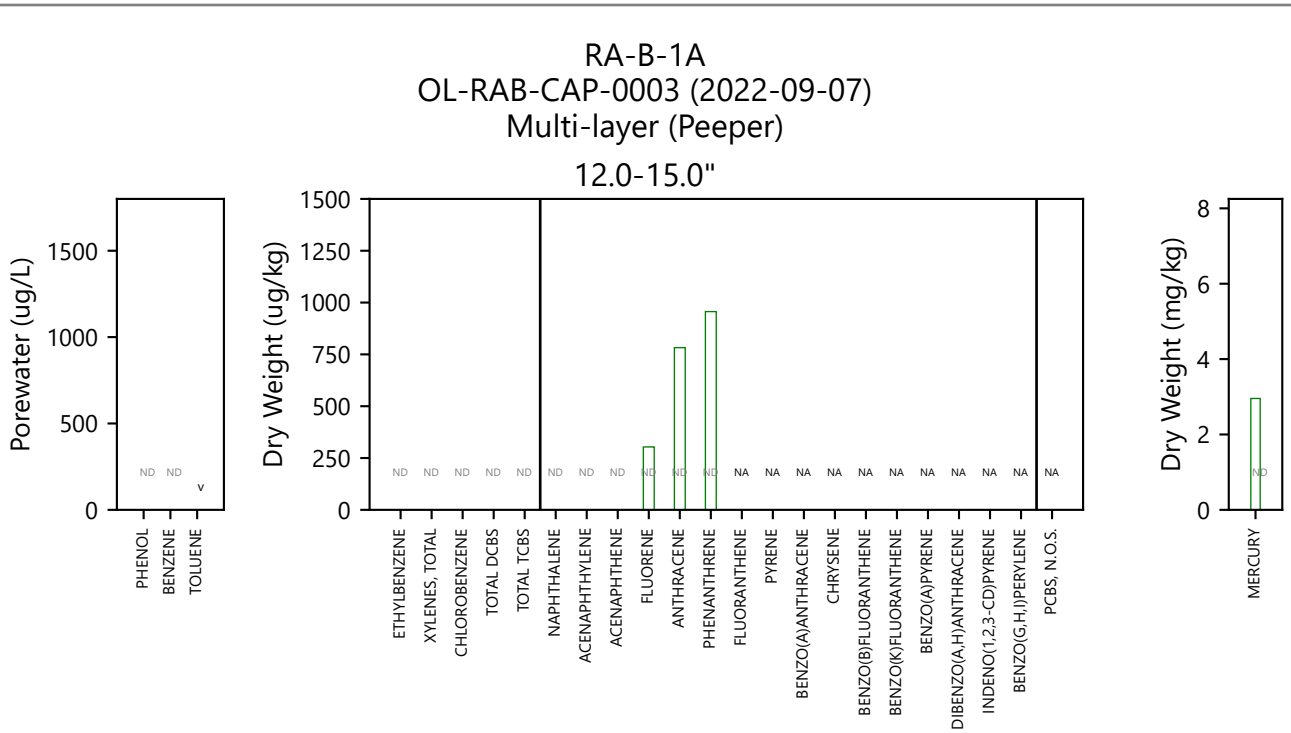
Habitat Layer Performance Criteria

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Figure 1-53

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

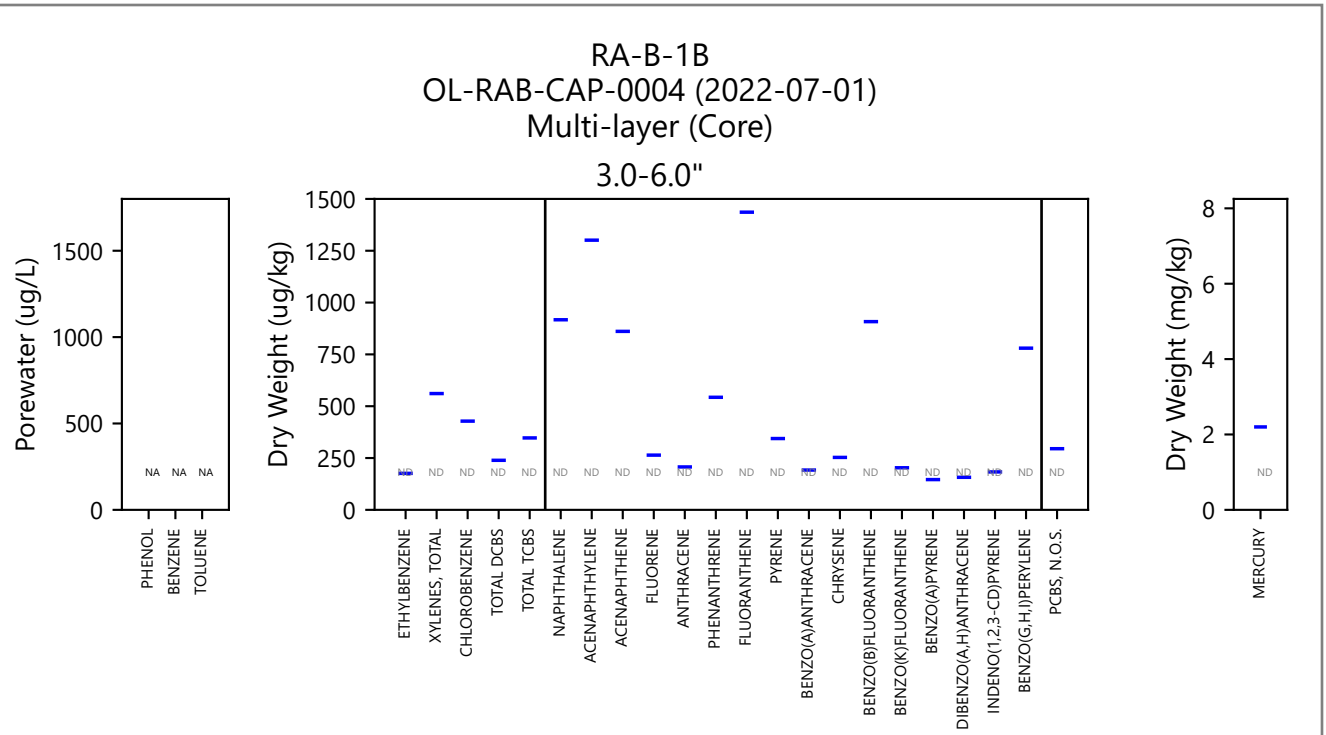
Habitat Layer Performance Criteria

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Figure 1-54

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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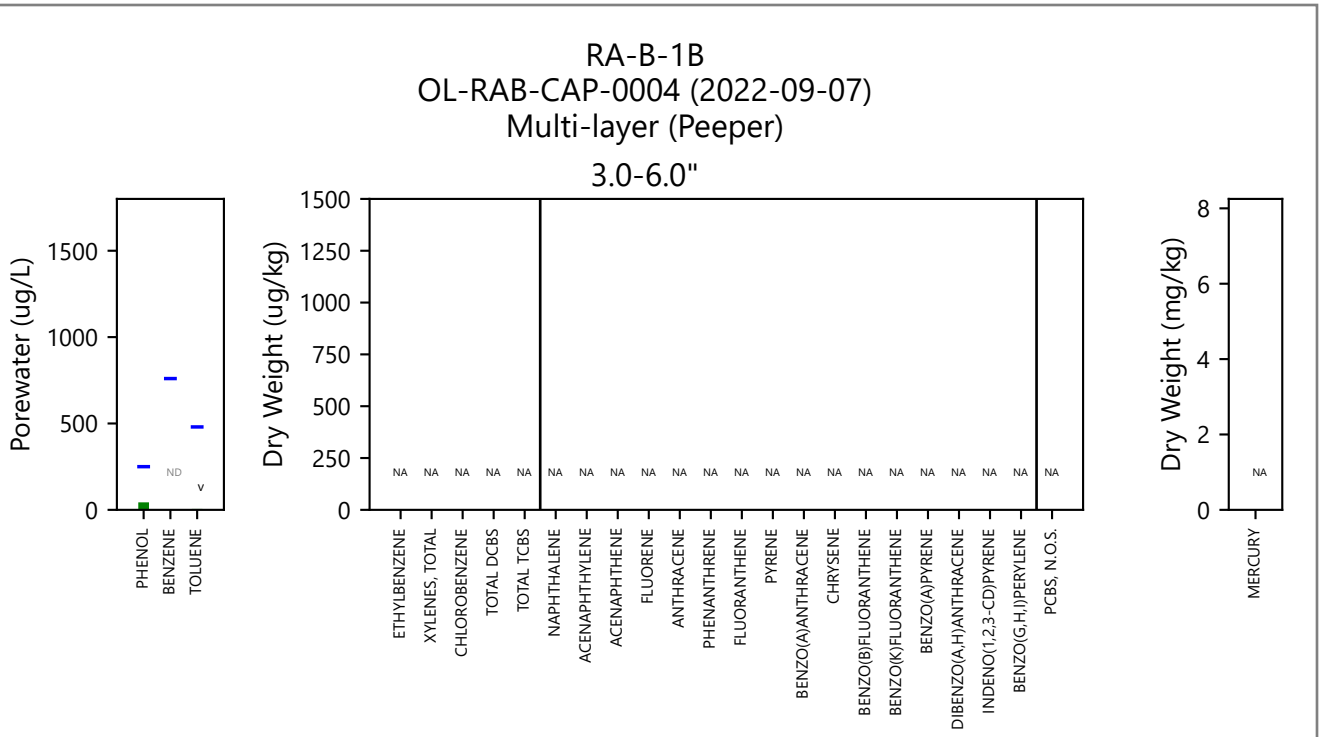
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Figure 1-55

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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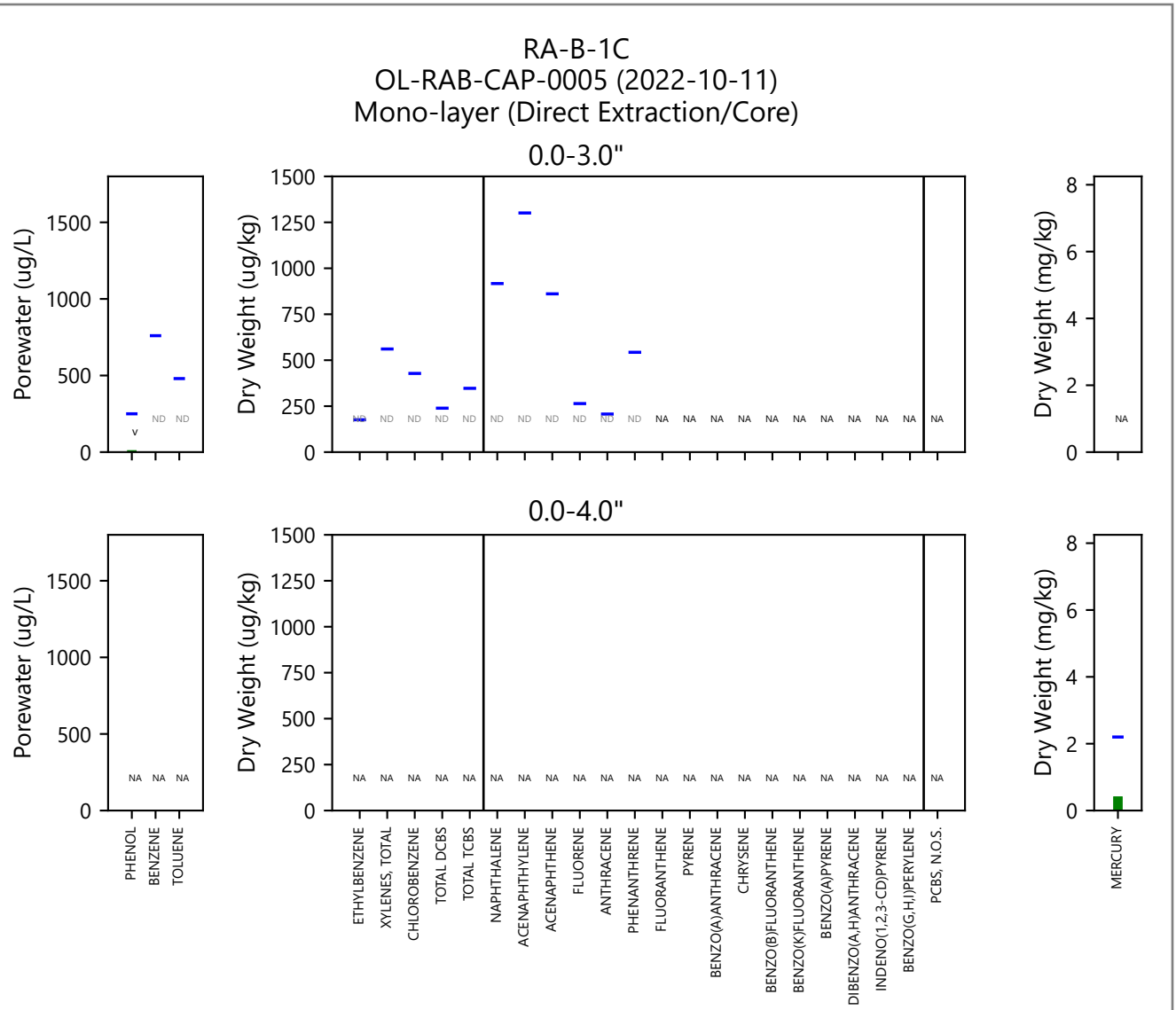
- Habitat Layer Performance Criteria

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Figure 1-56

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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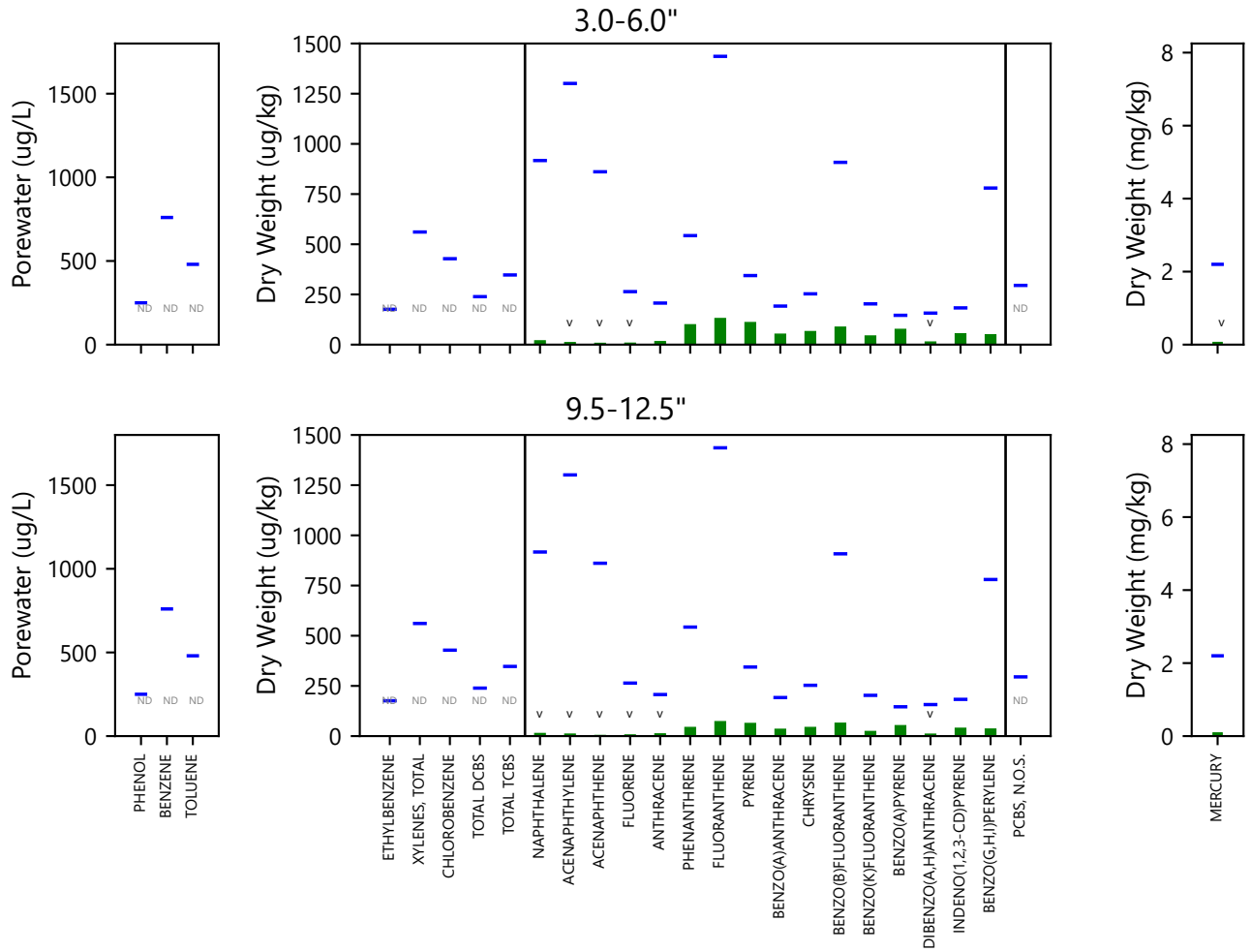
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Figure 1-57

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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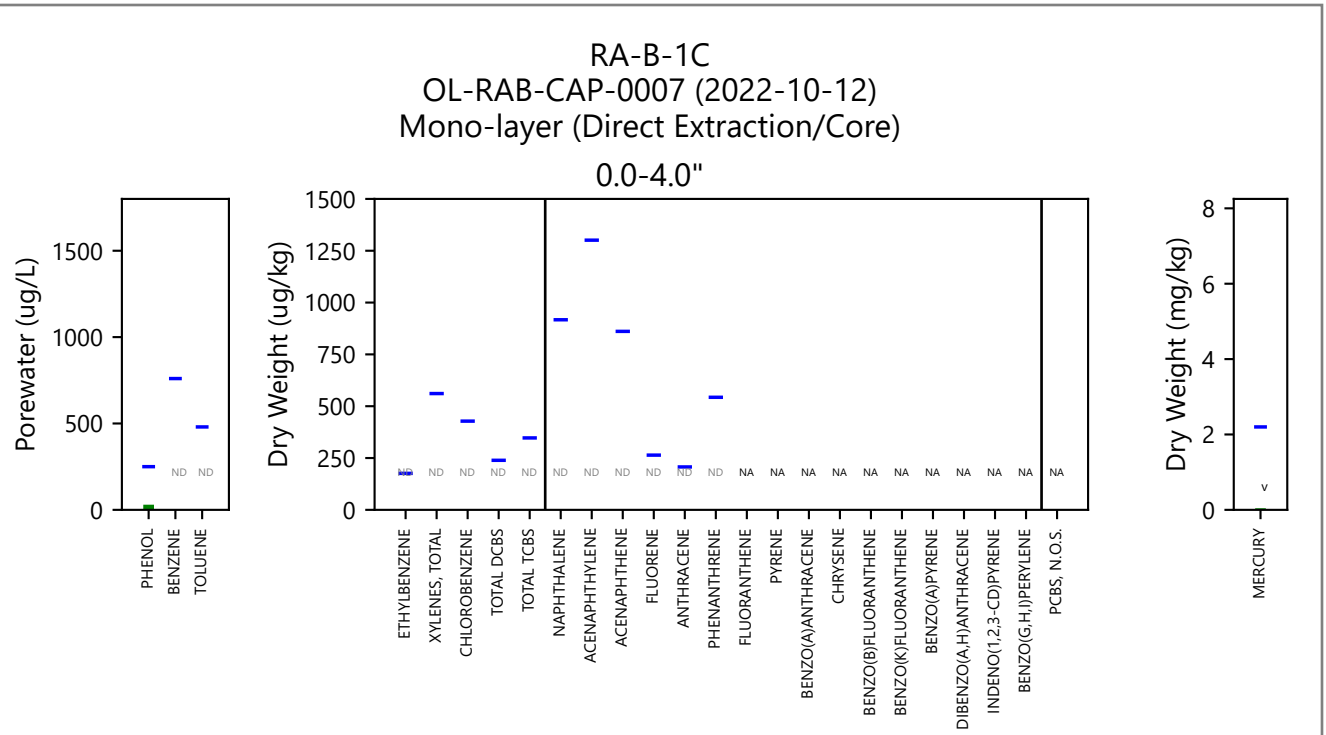
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Figure 1-58

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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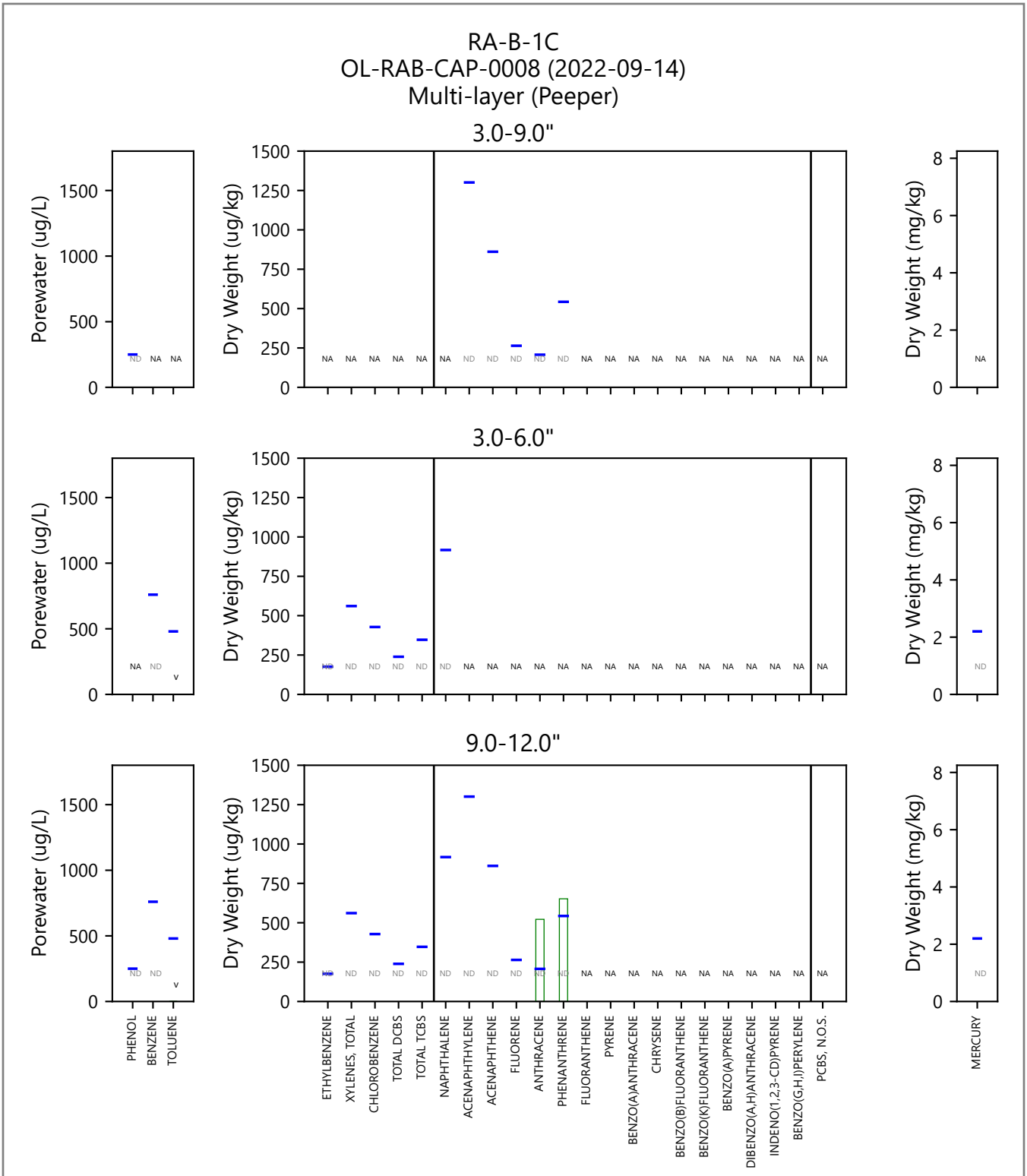
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Figure 1-59

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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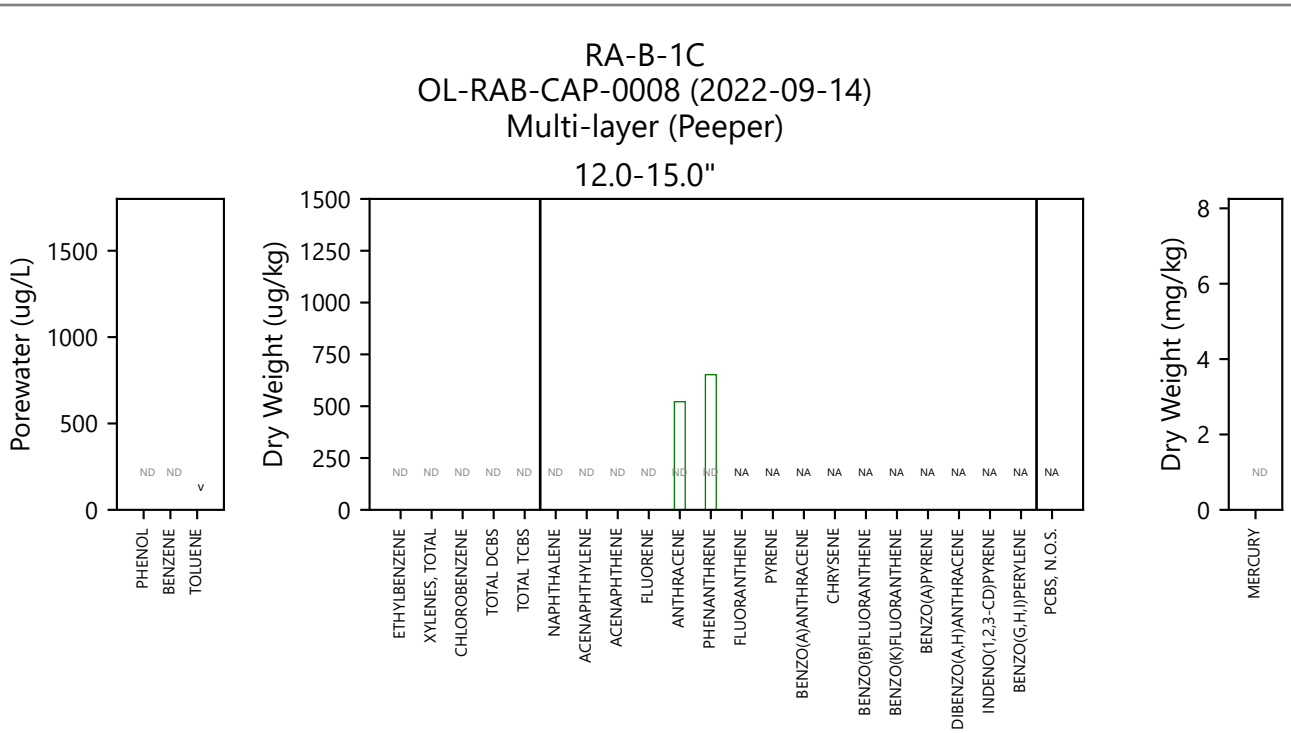
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Figure 1-60

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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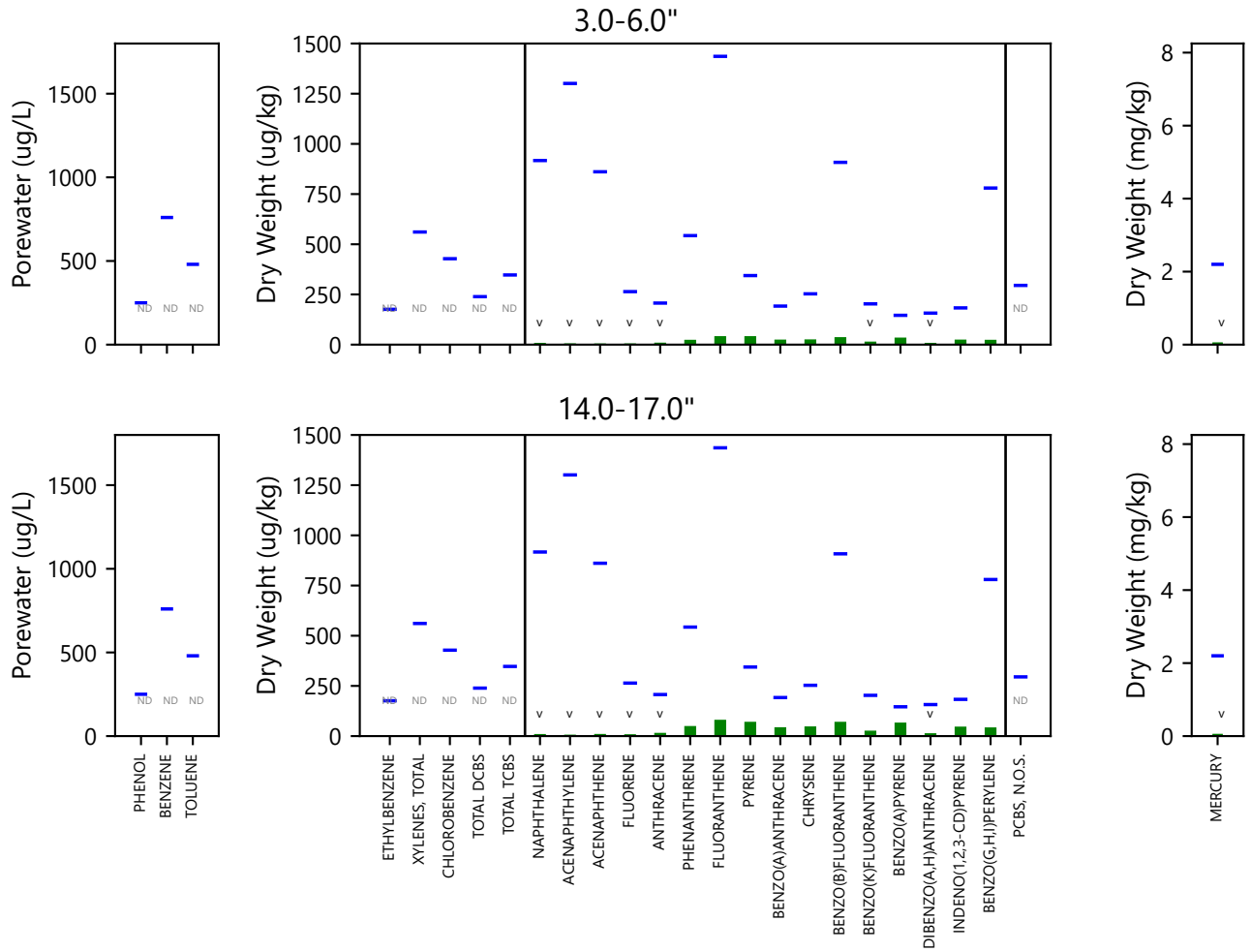
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Figure 1-61

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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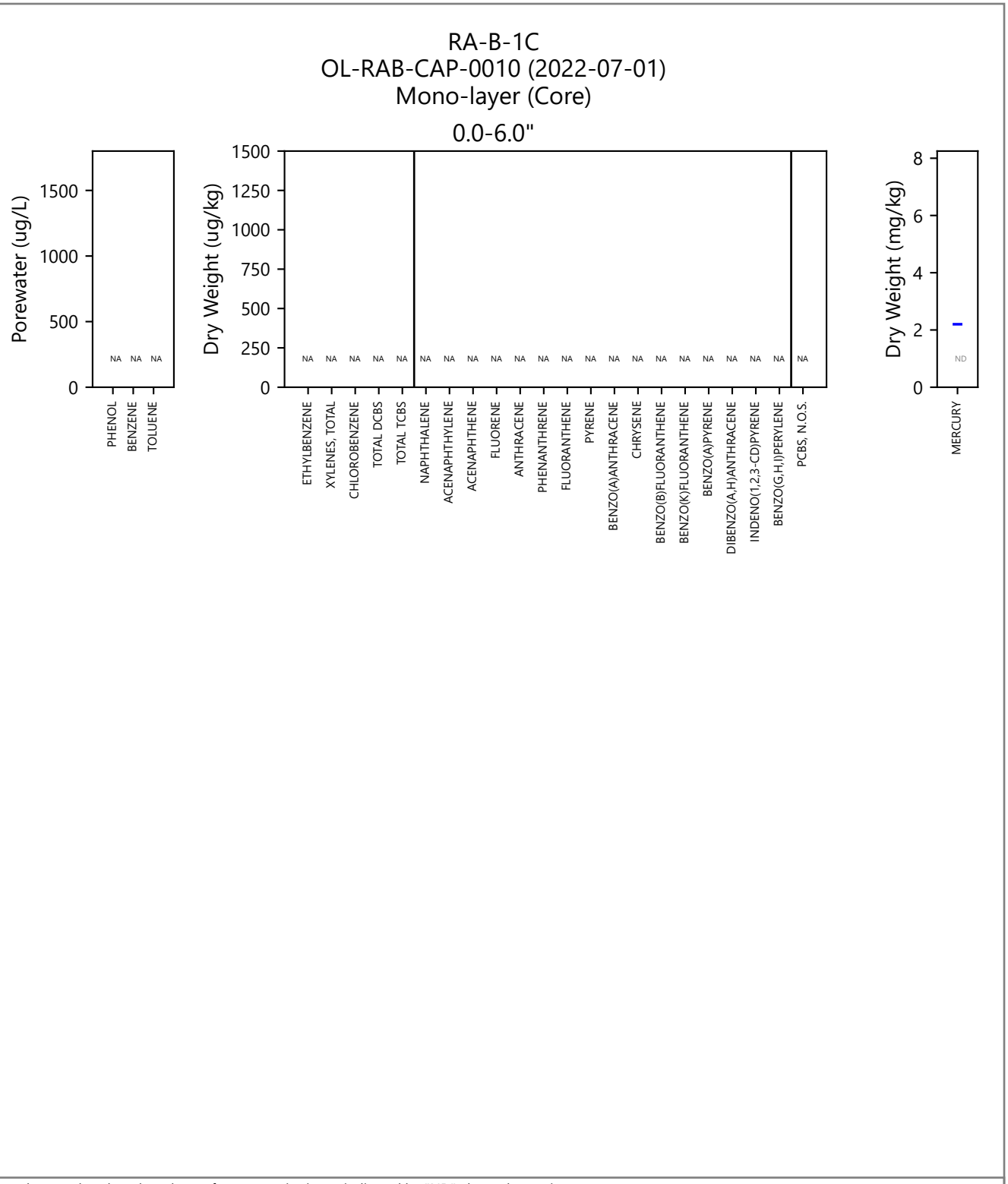
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Figure 1-62

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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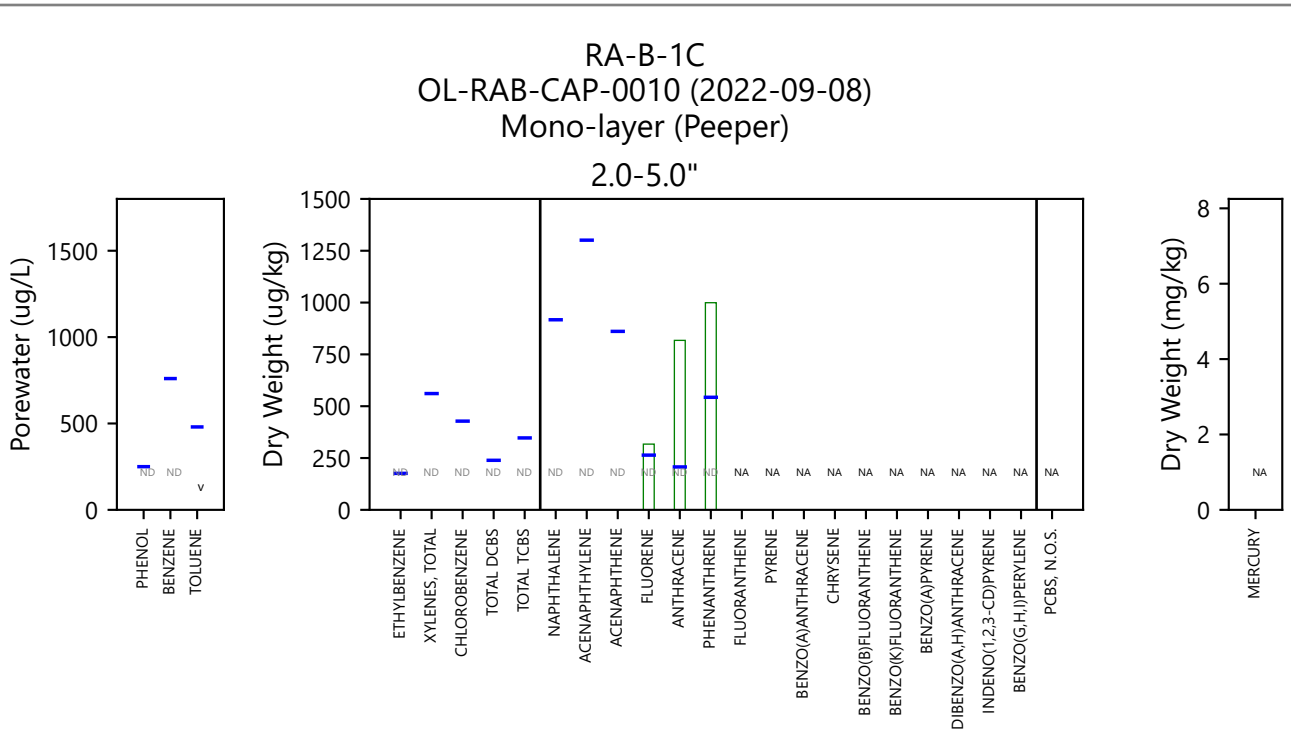
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Figure 1-63

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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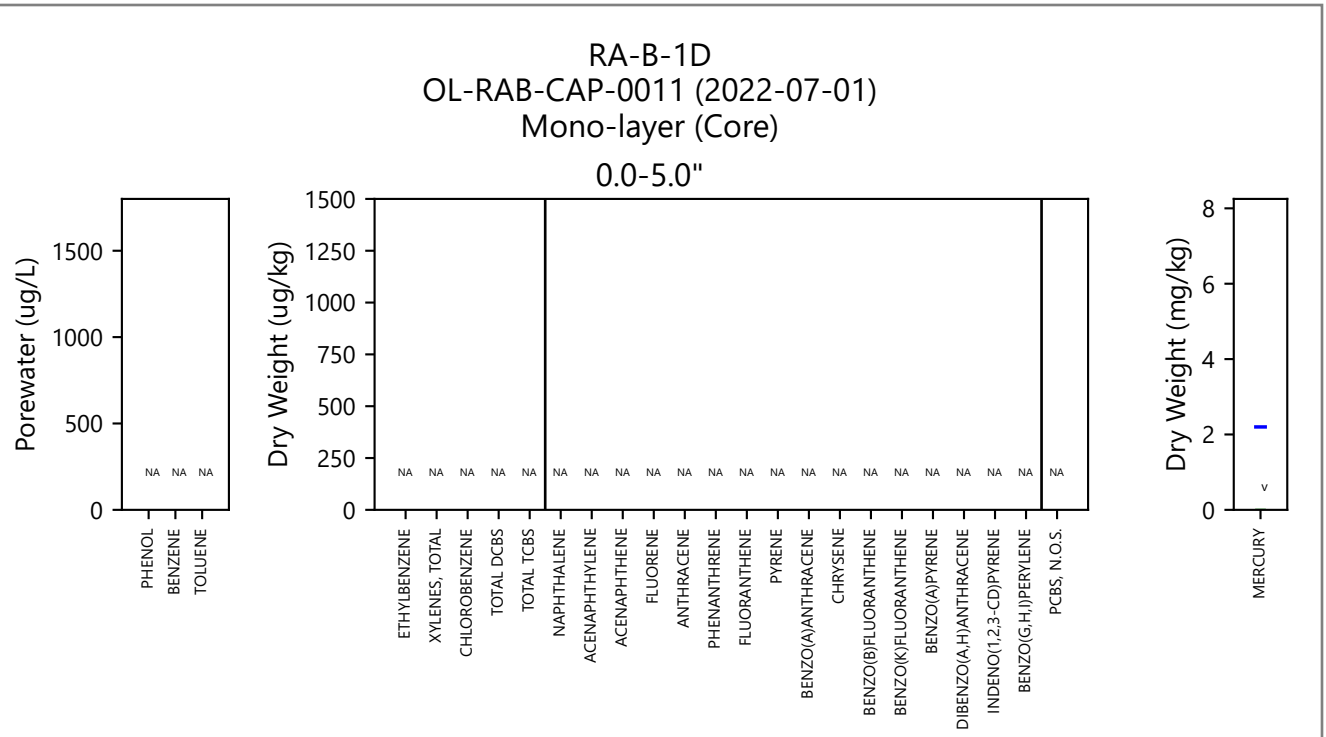
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Figure 1-64

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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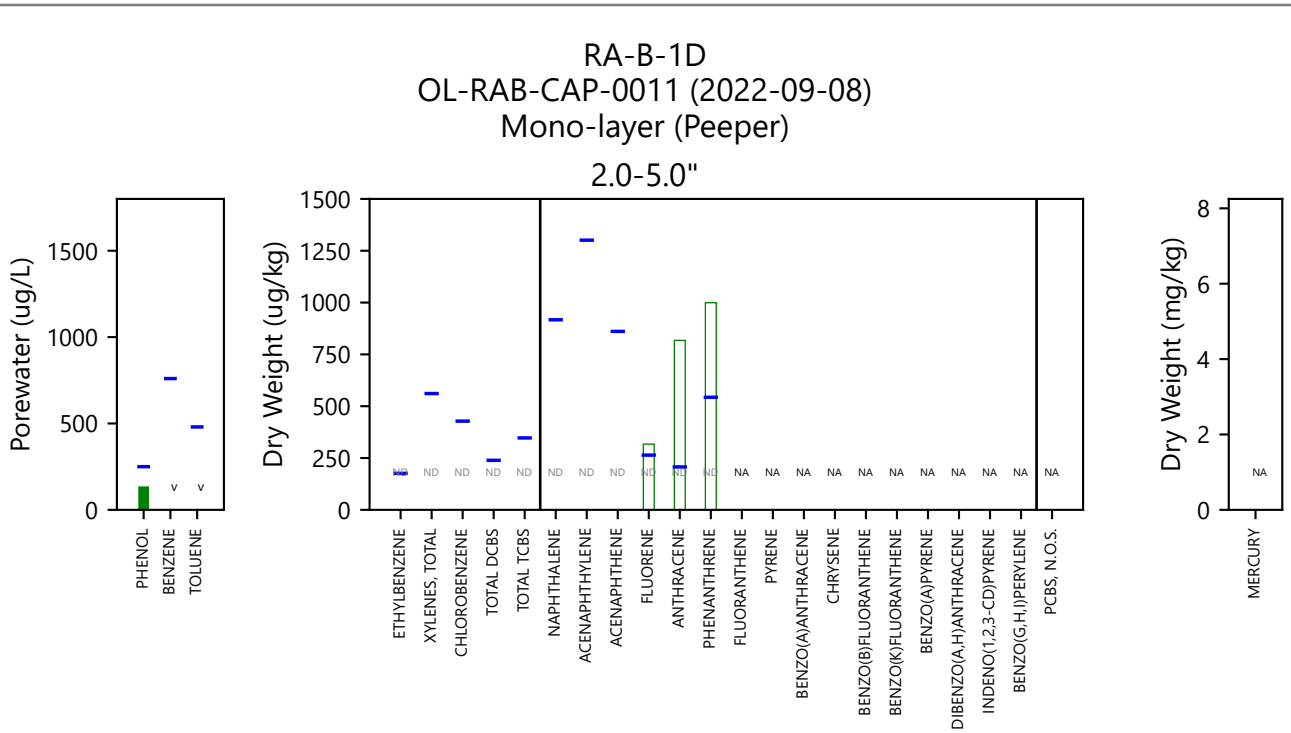
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Figure 1-65

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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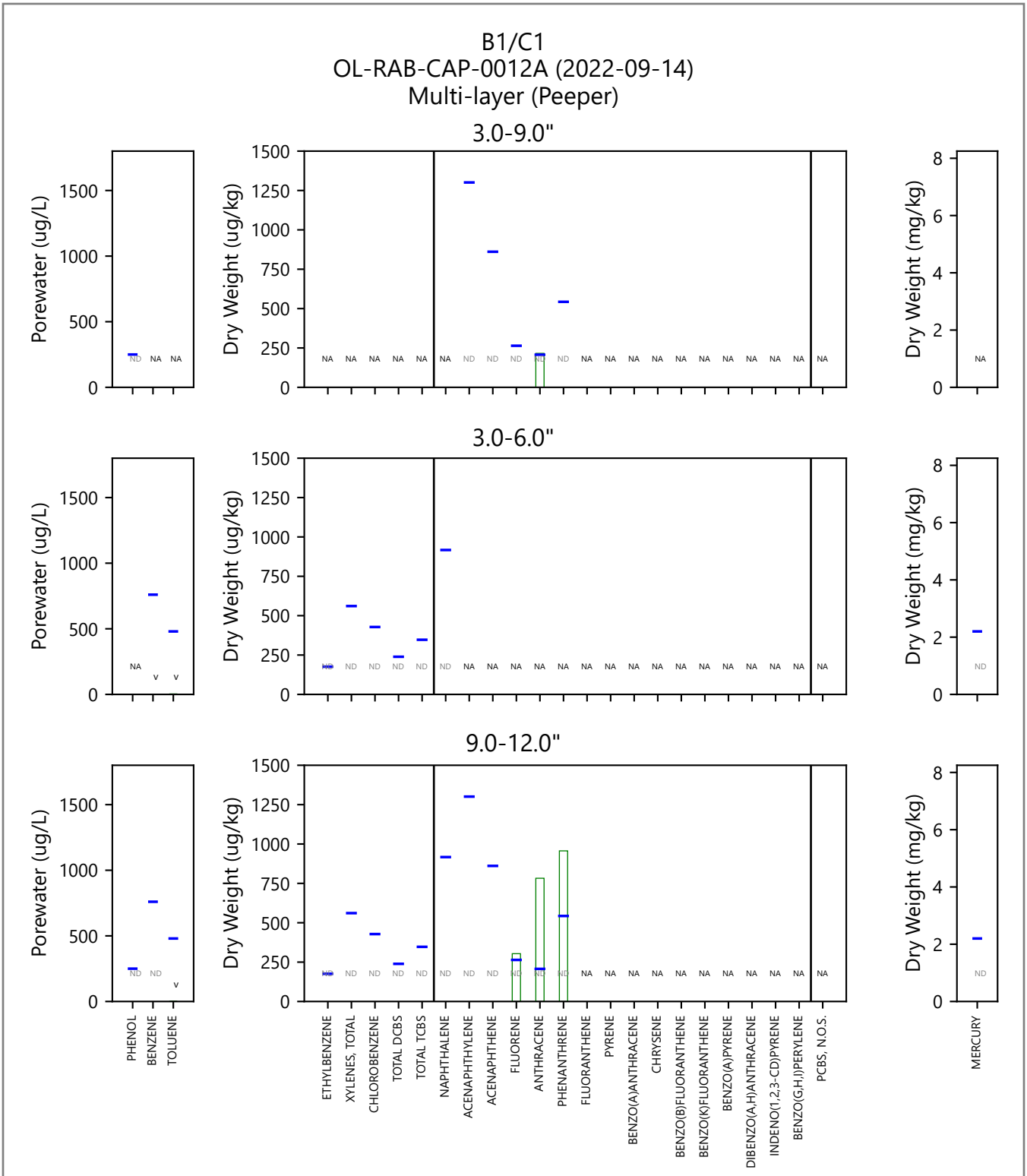
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Figure 1-66

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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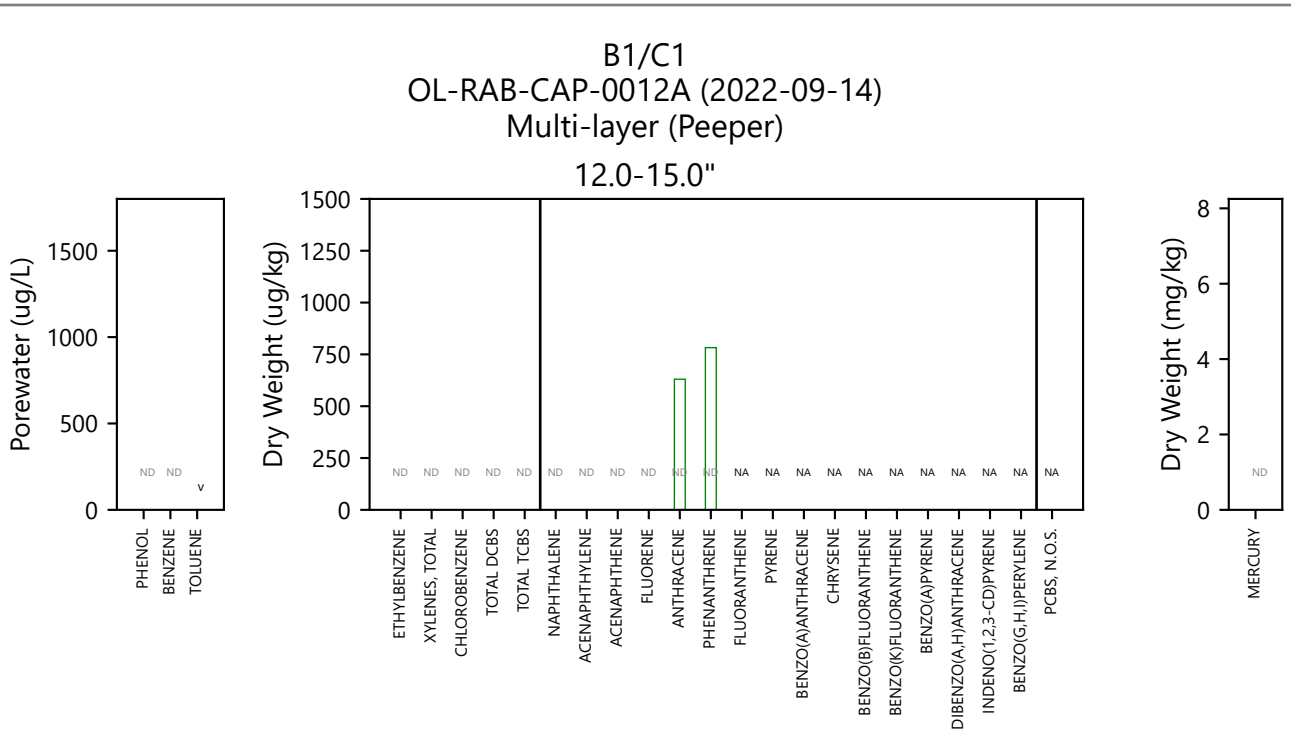
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Figure 1-67

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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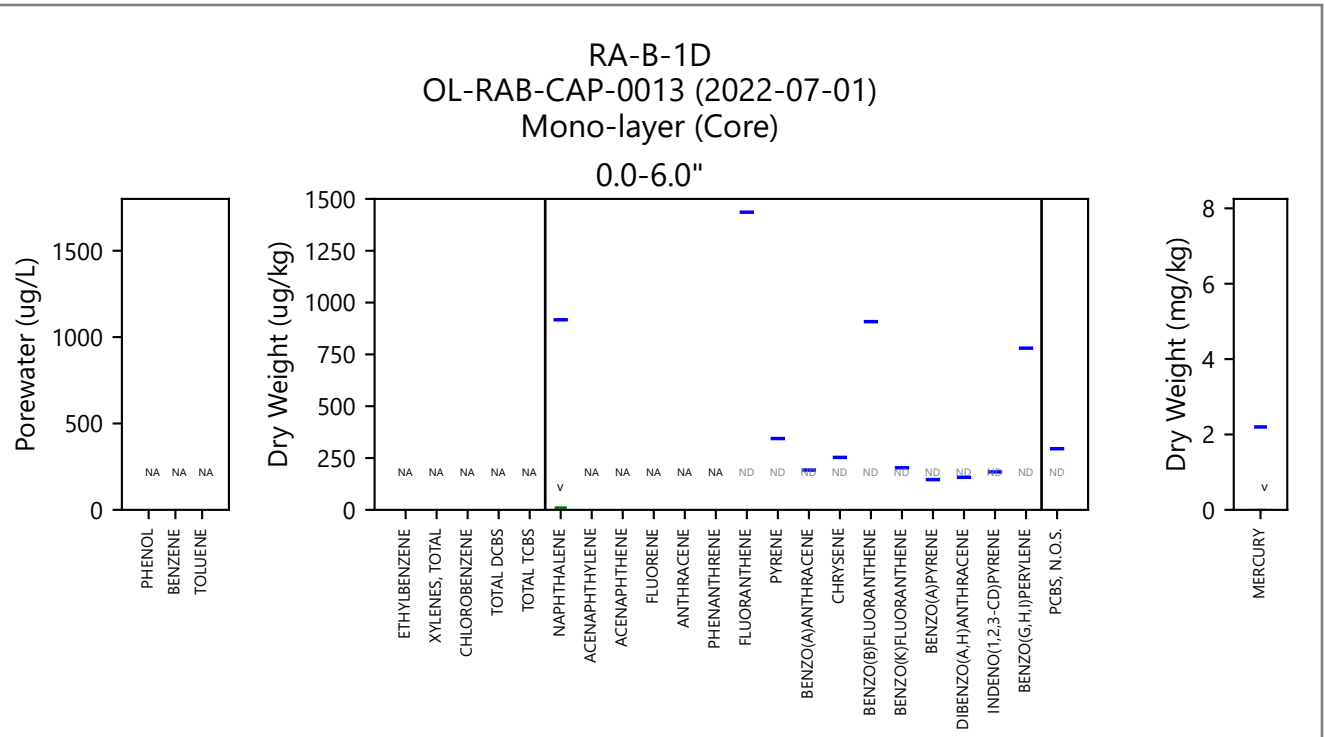
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Figure 1-68

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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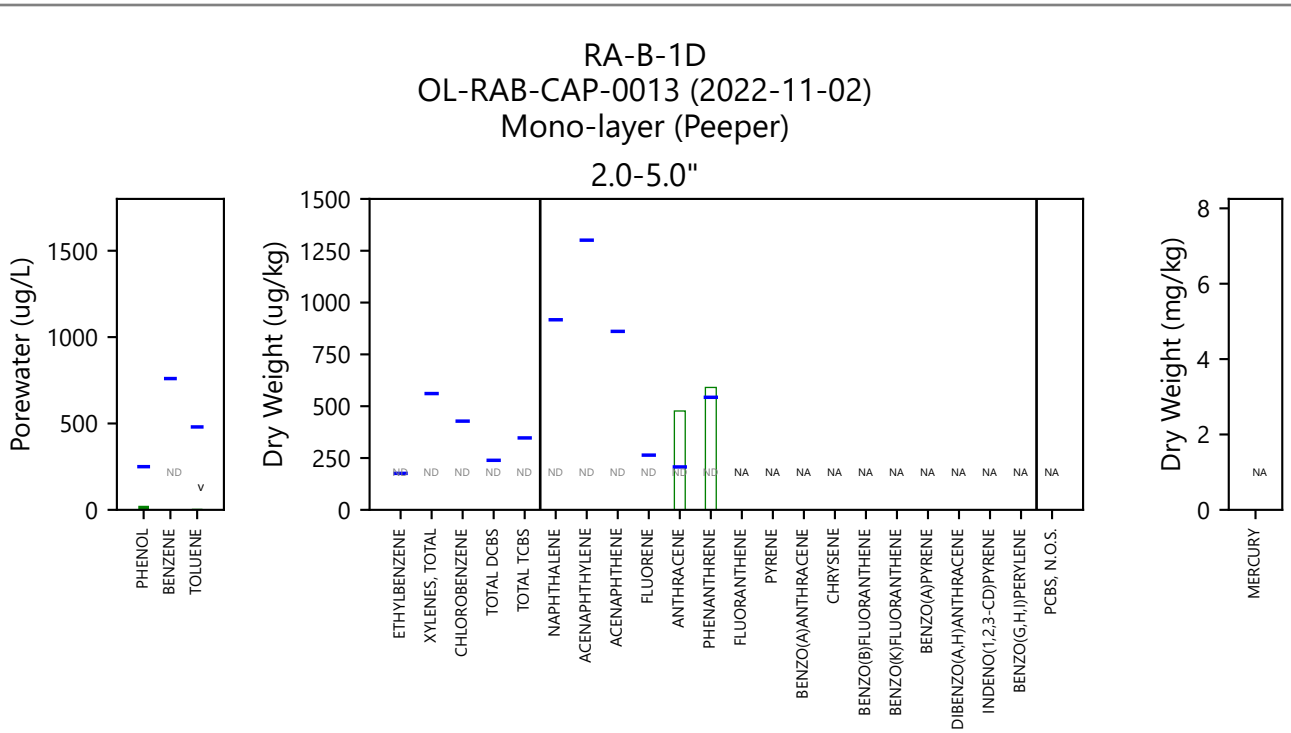
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Figure 1-69

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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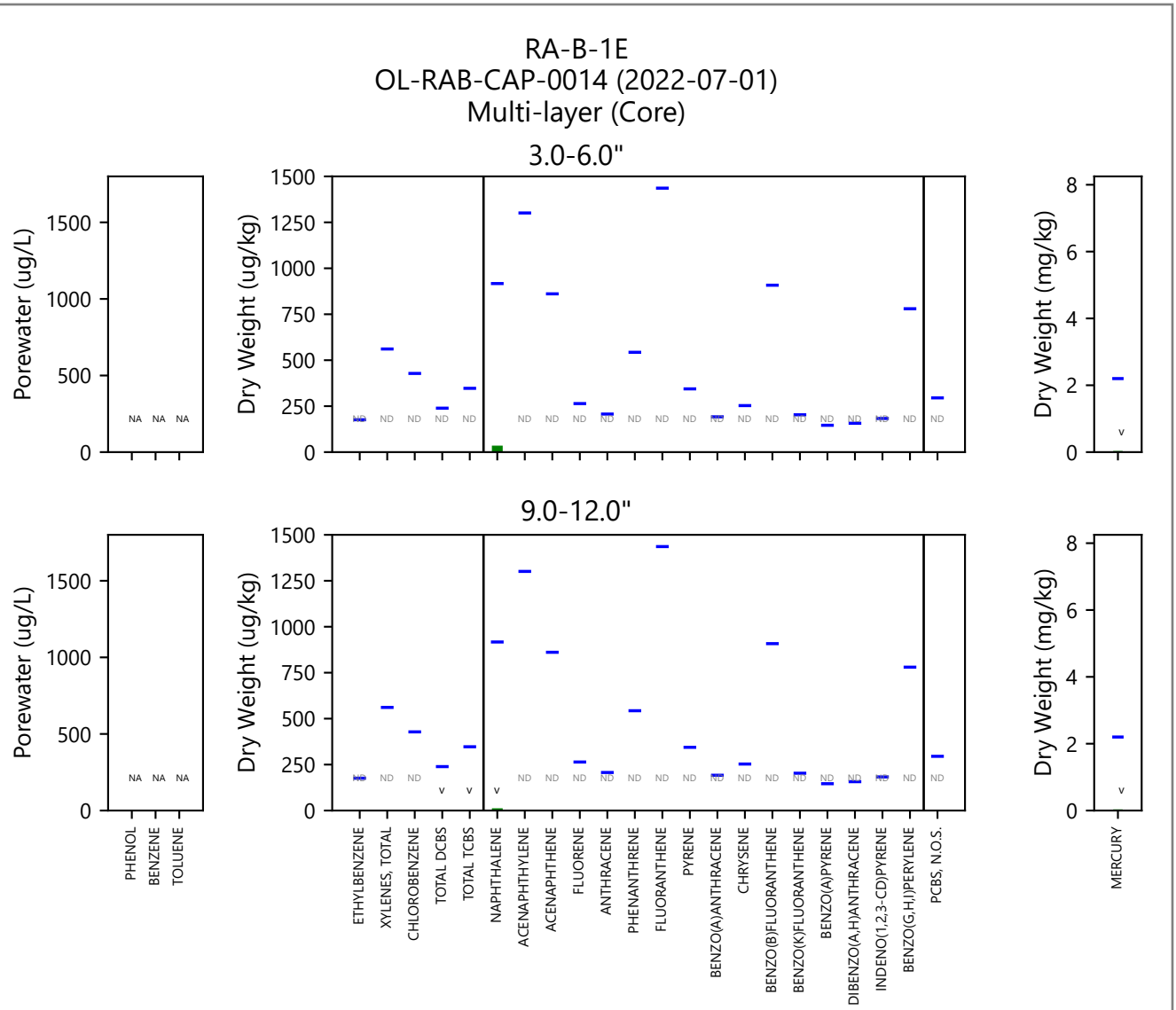
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Figure 1-70

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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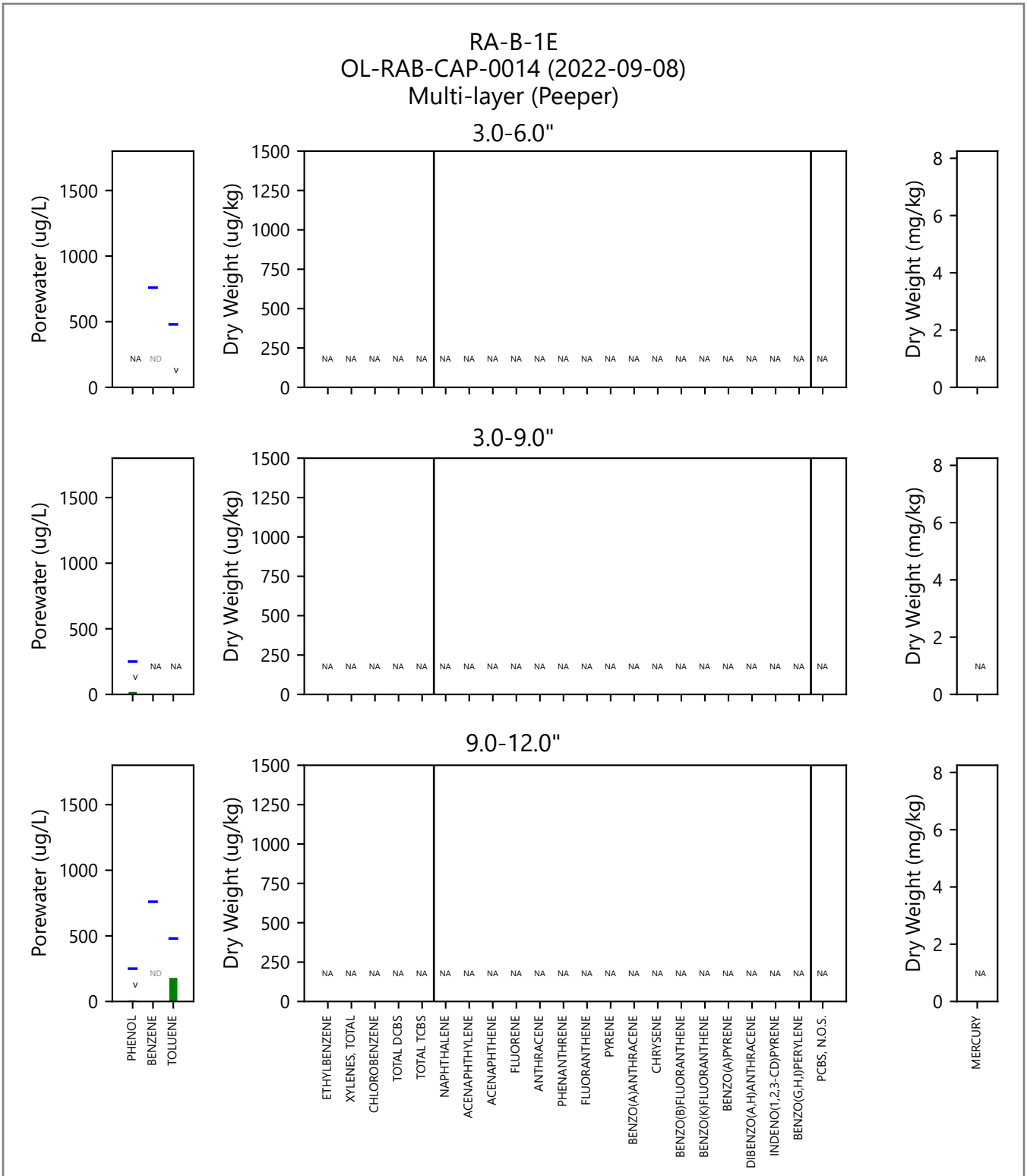
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Figure 1-71

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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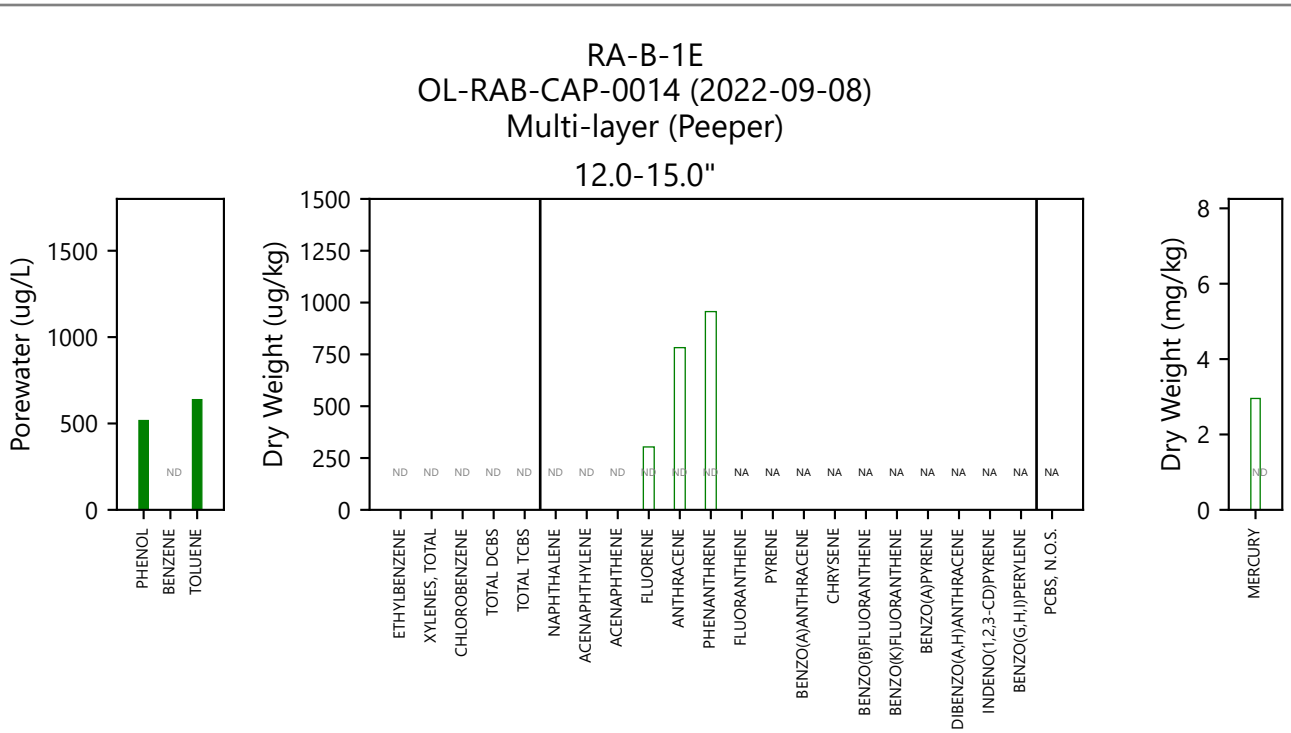
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Figure 1-72

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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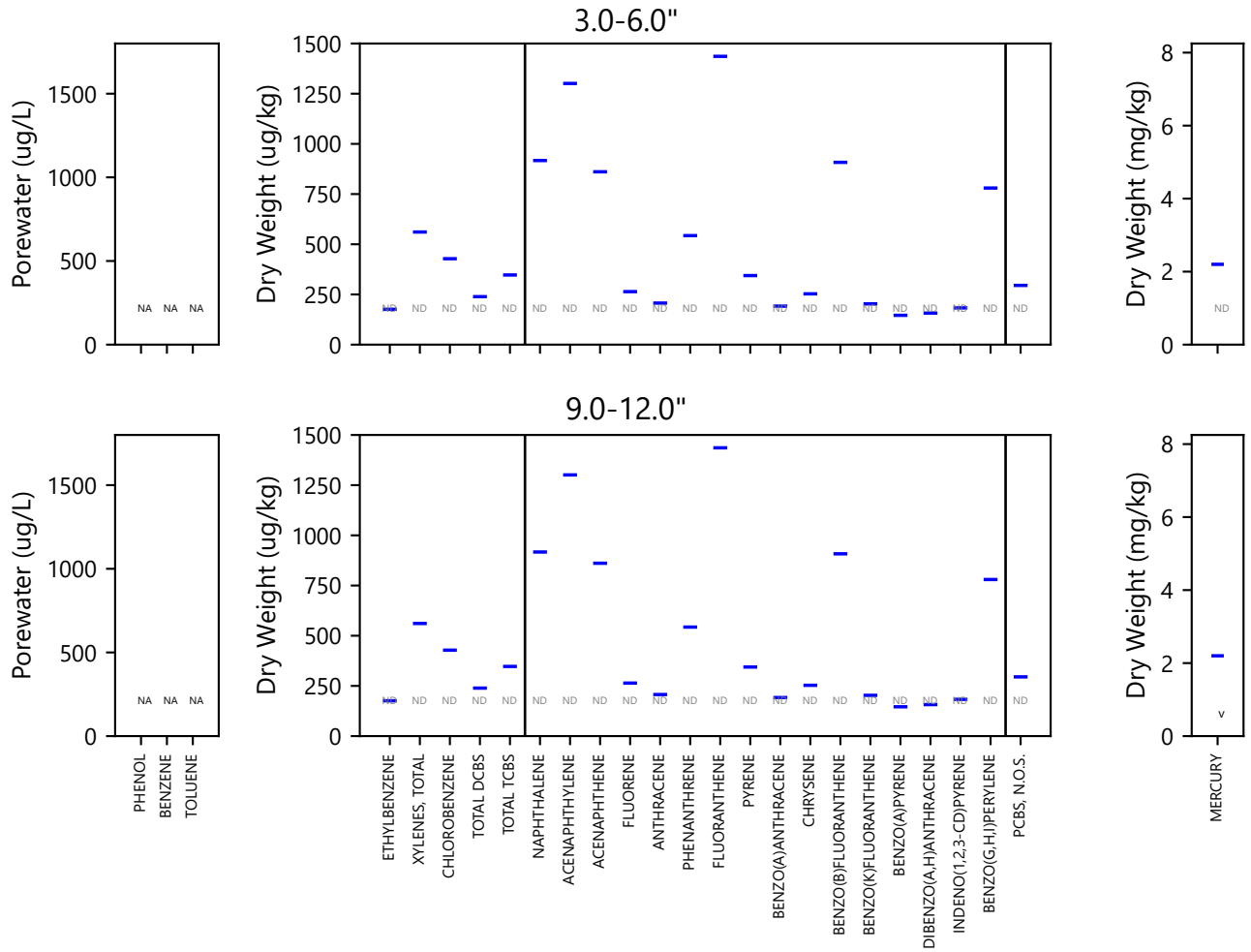
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Figure 1-73

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

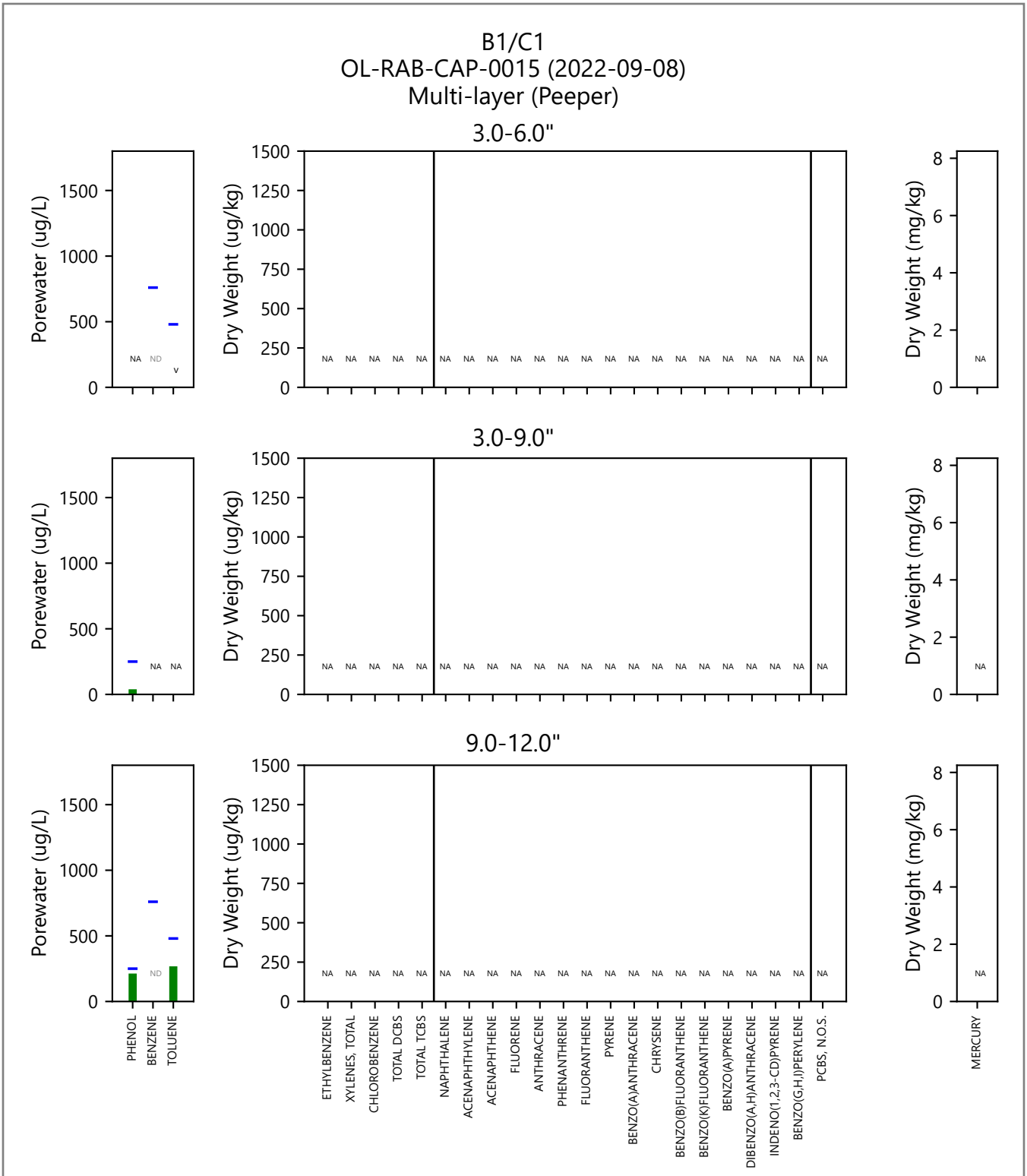
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Figure 1-74

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
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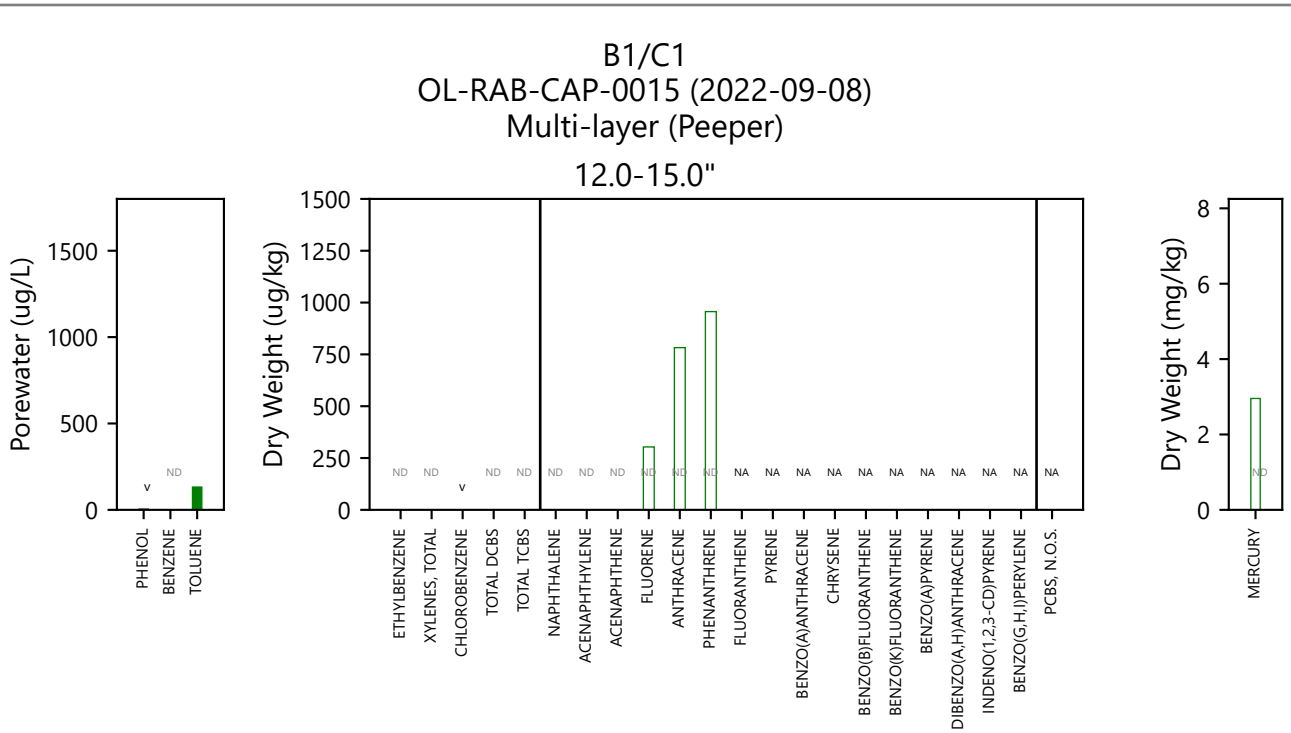
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Figure 1-75

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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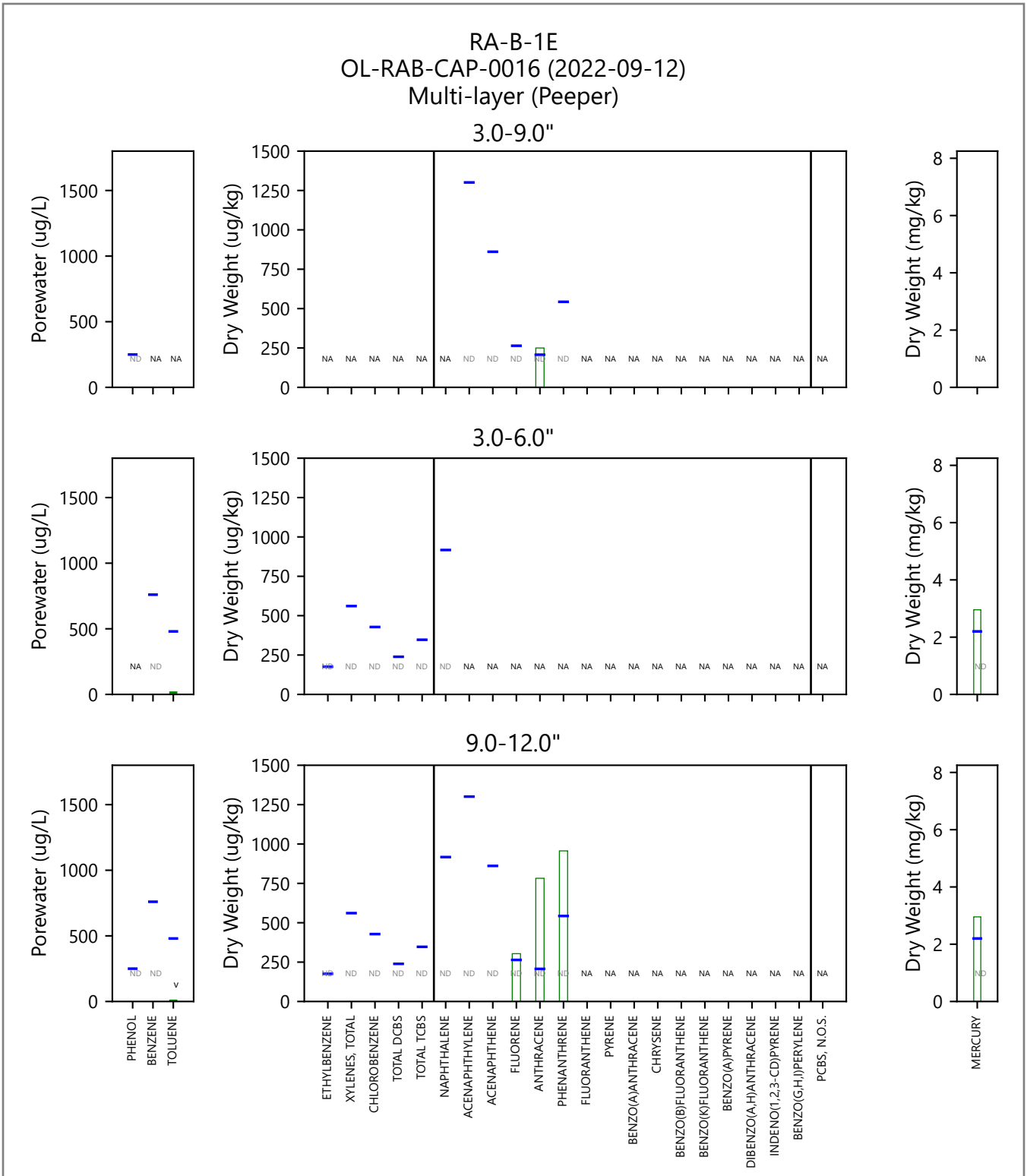
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Figure 1-76

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
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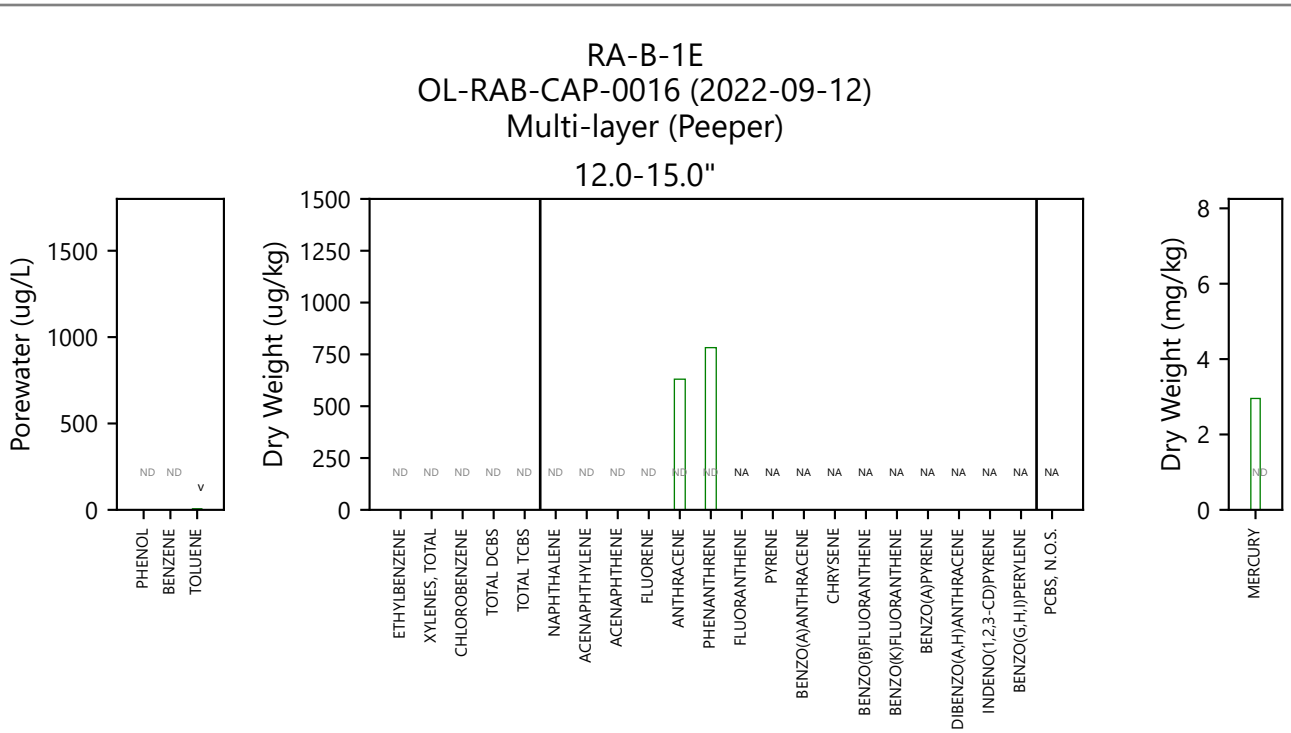
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Figure 1-77

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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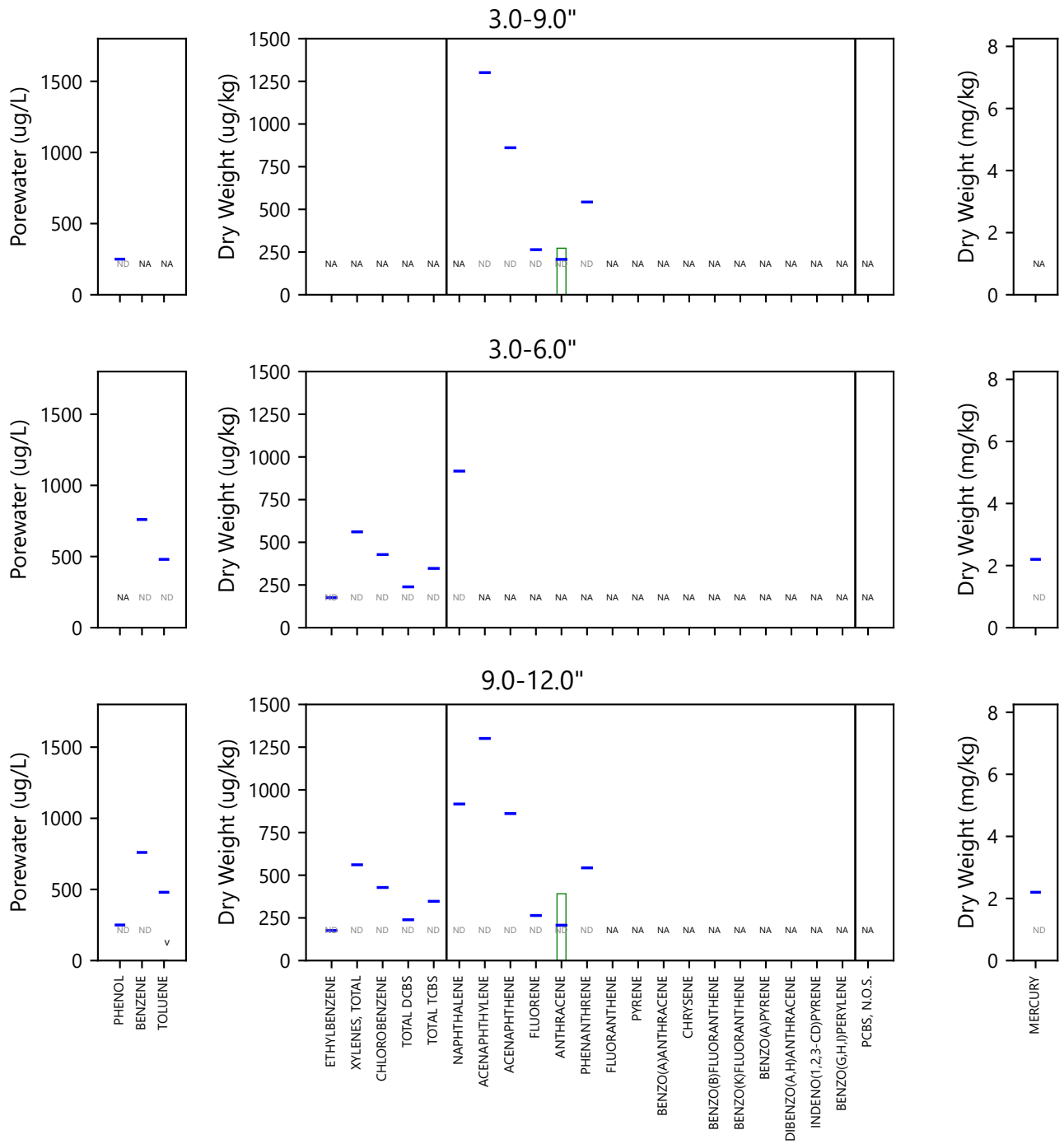
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Figure 1-78

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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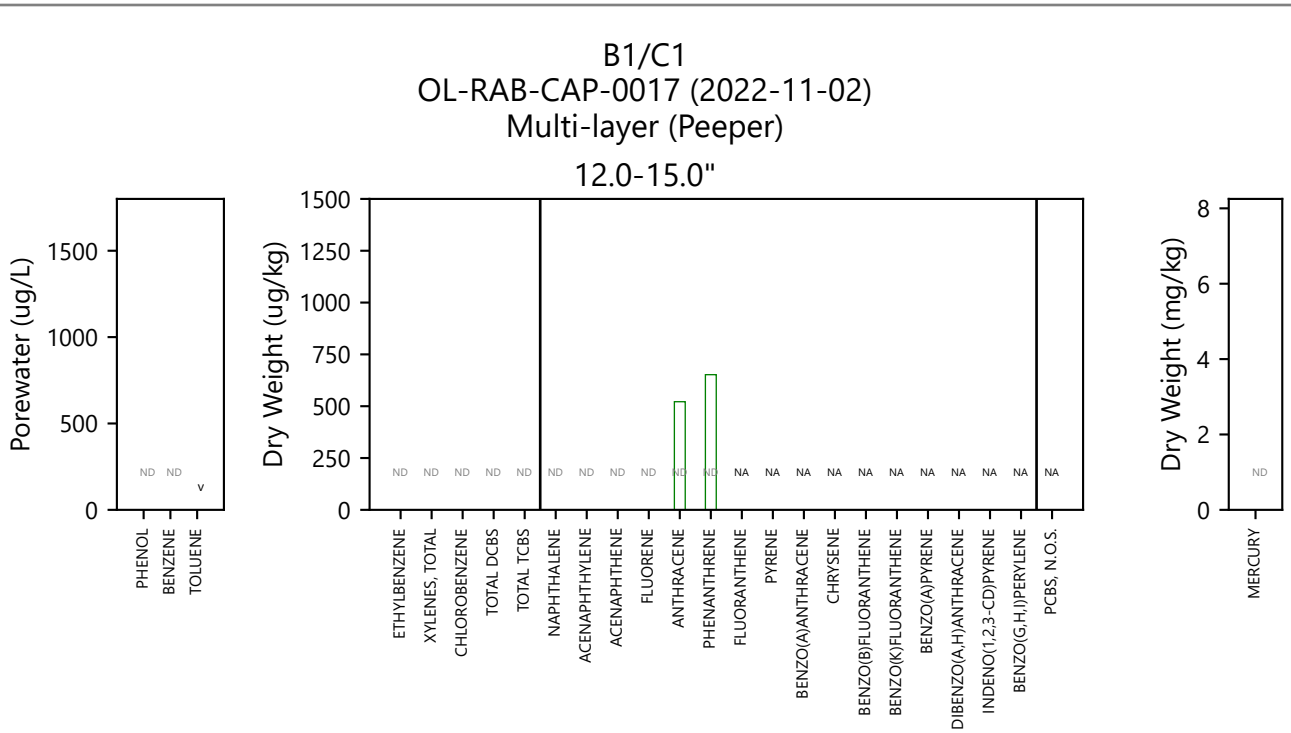
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Figure 1-79

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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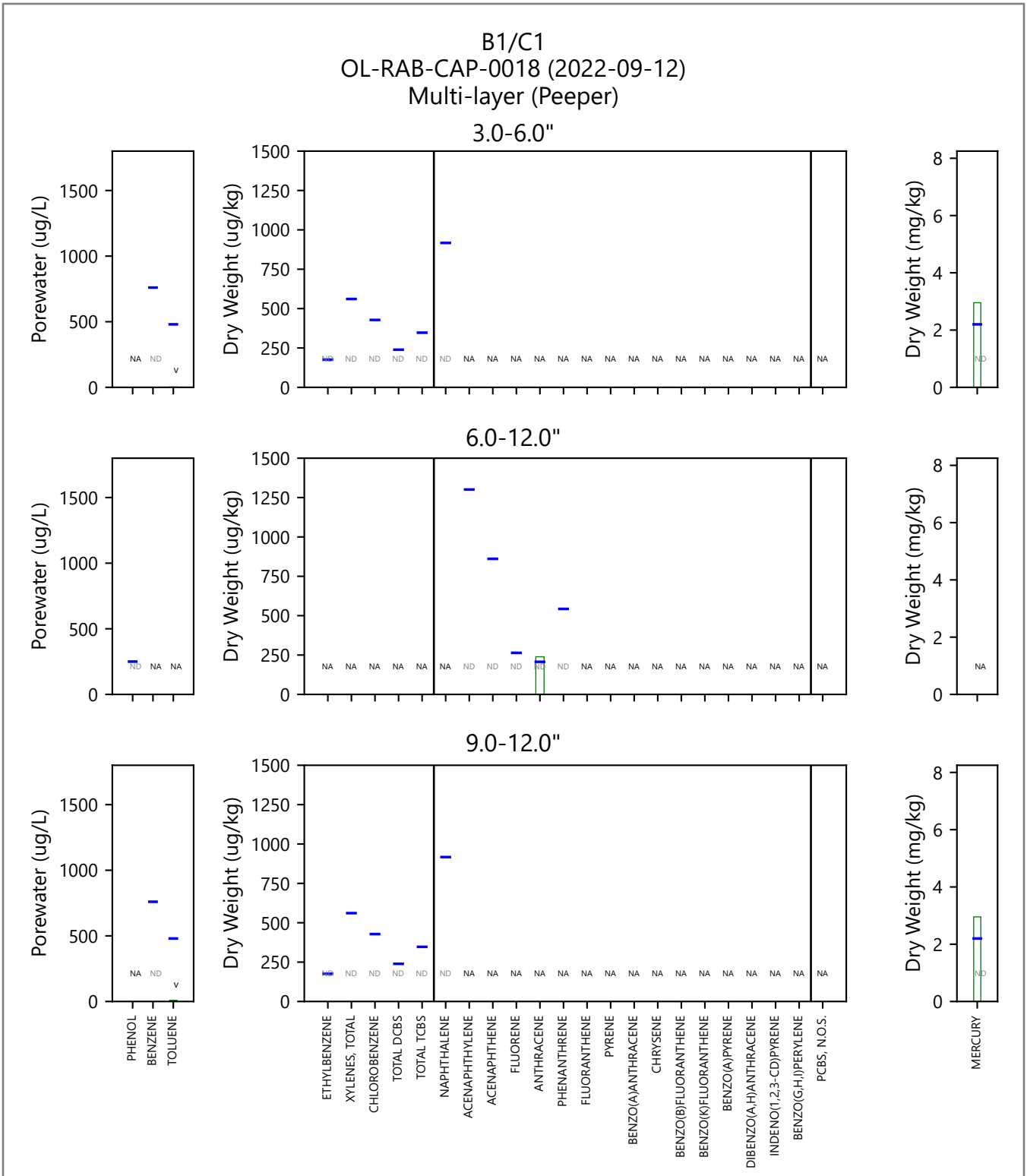
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Figure 1-80

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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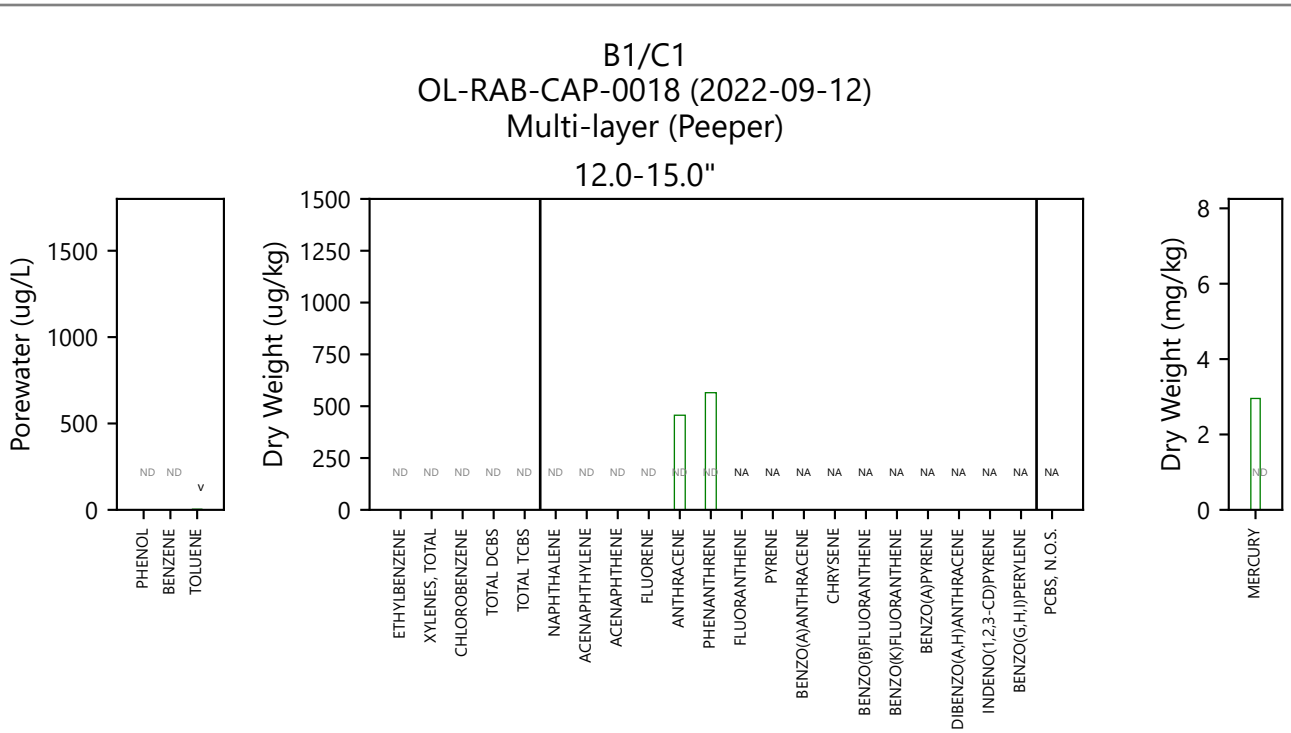
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Figure 1-81

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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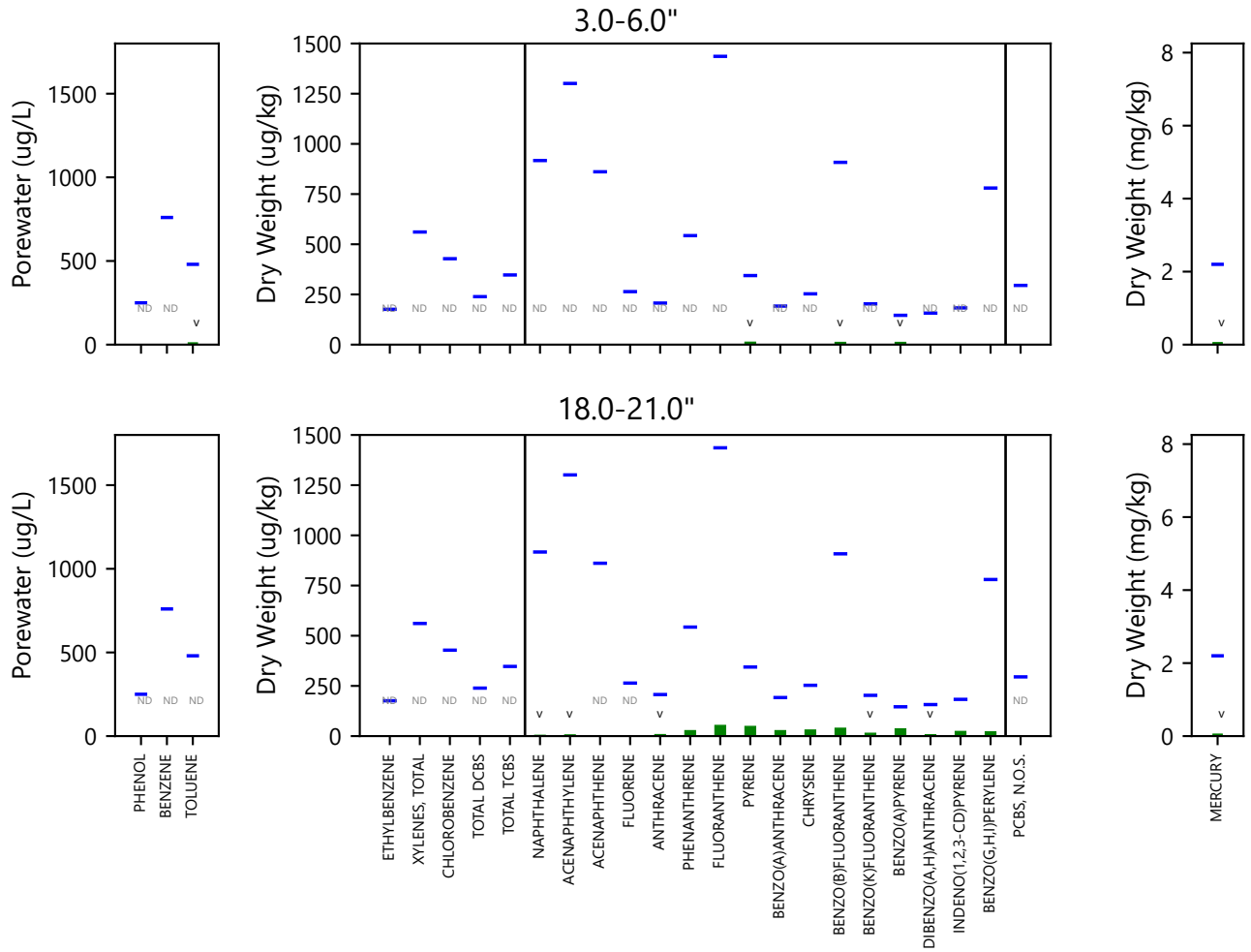
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Figure 1-82

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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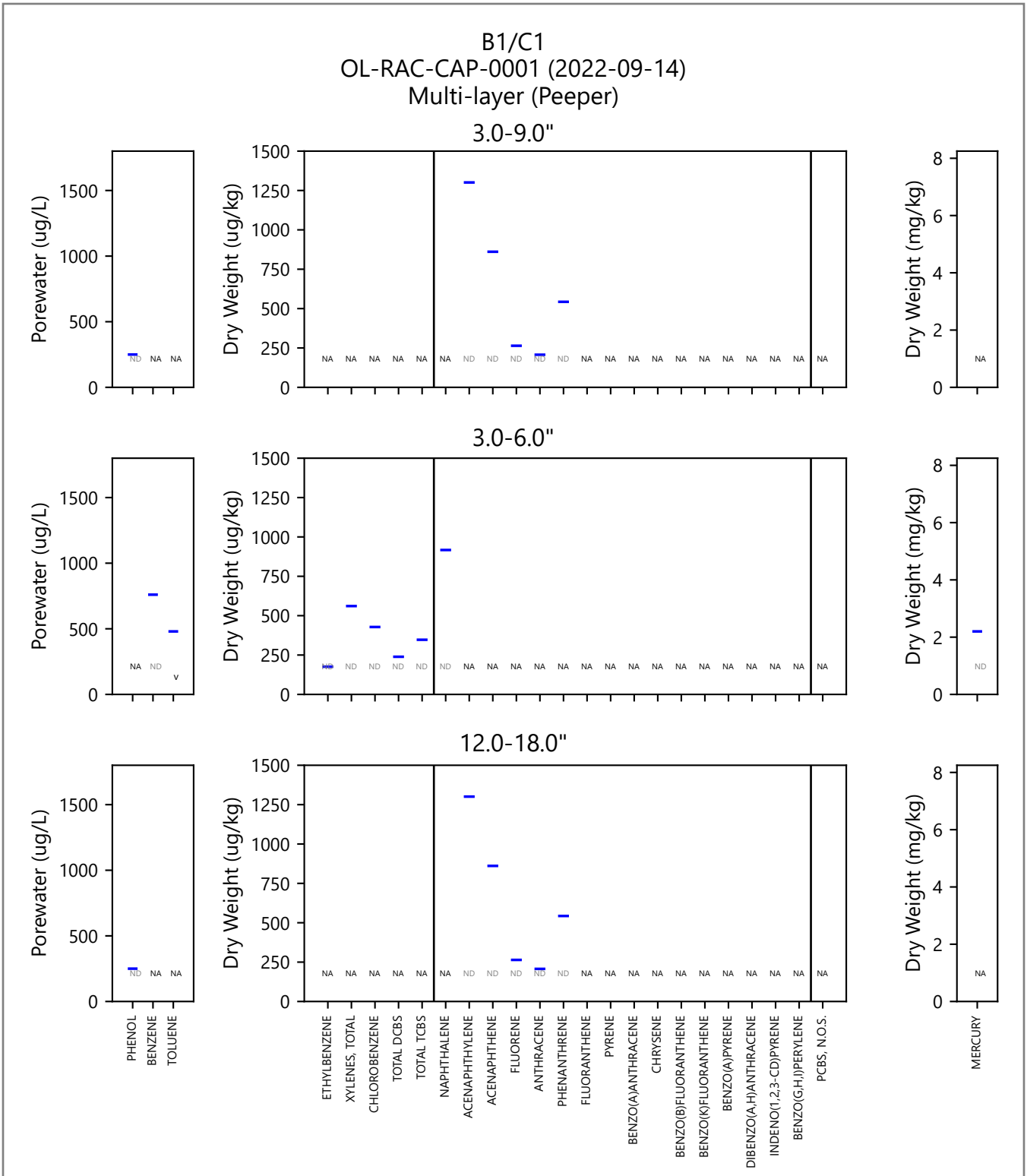
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Figure 1-83

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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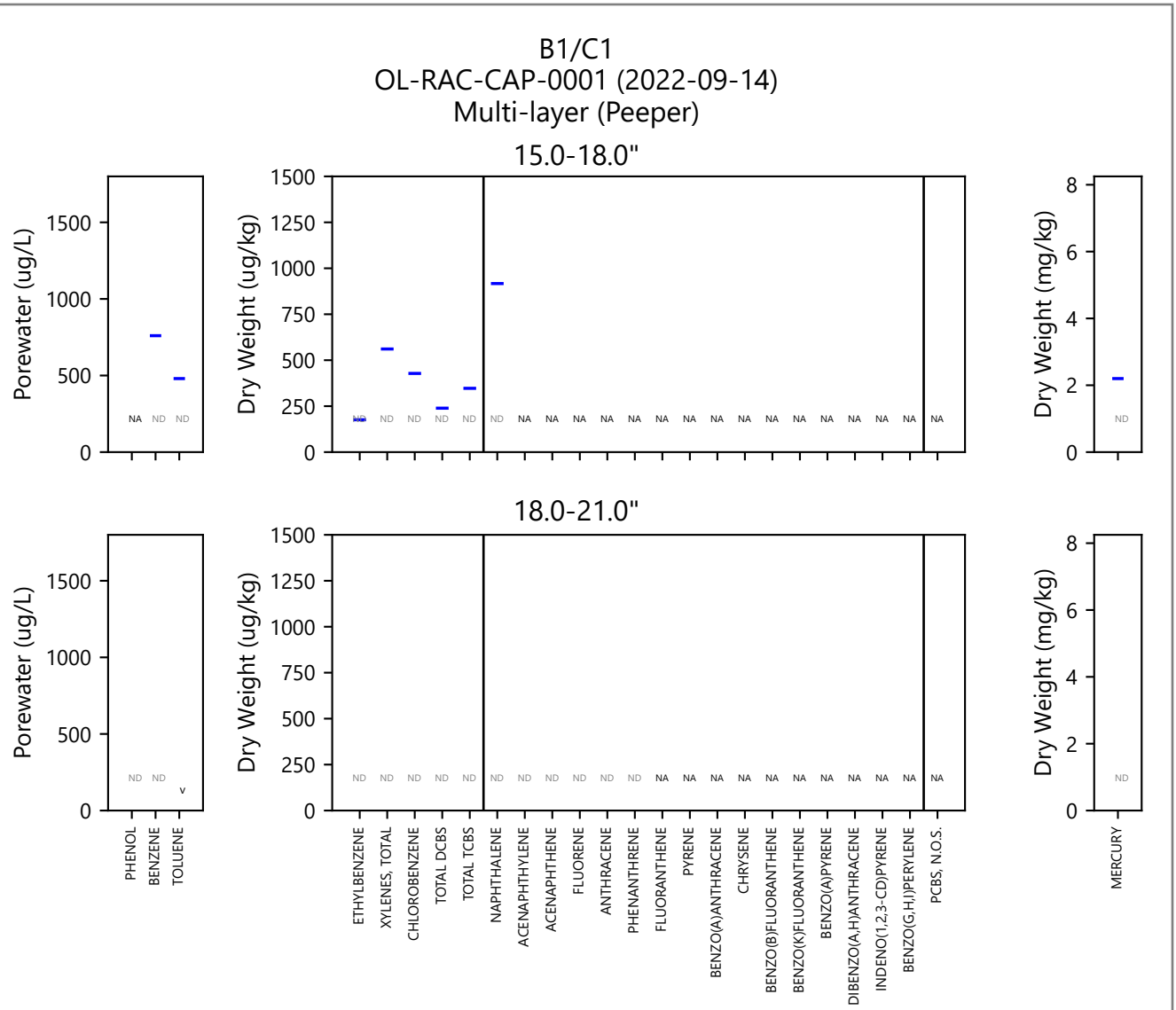
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Figure 1-84

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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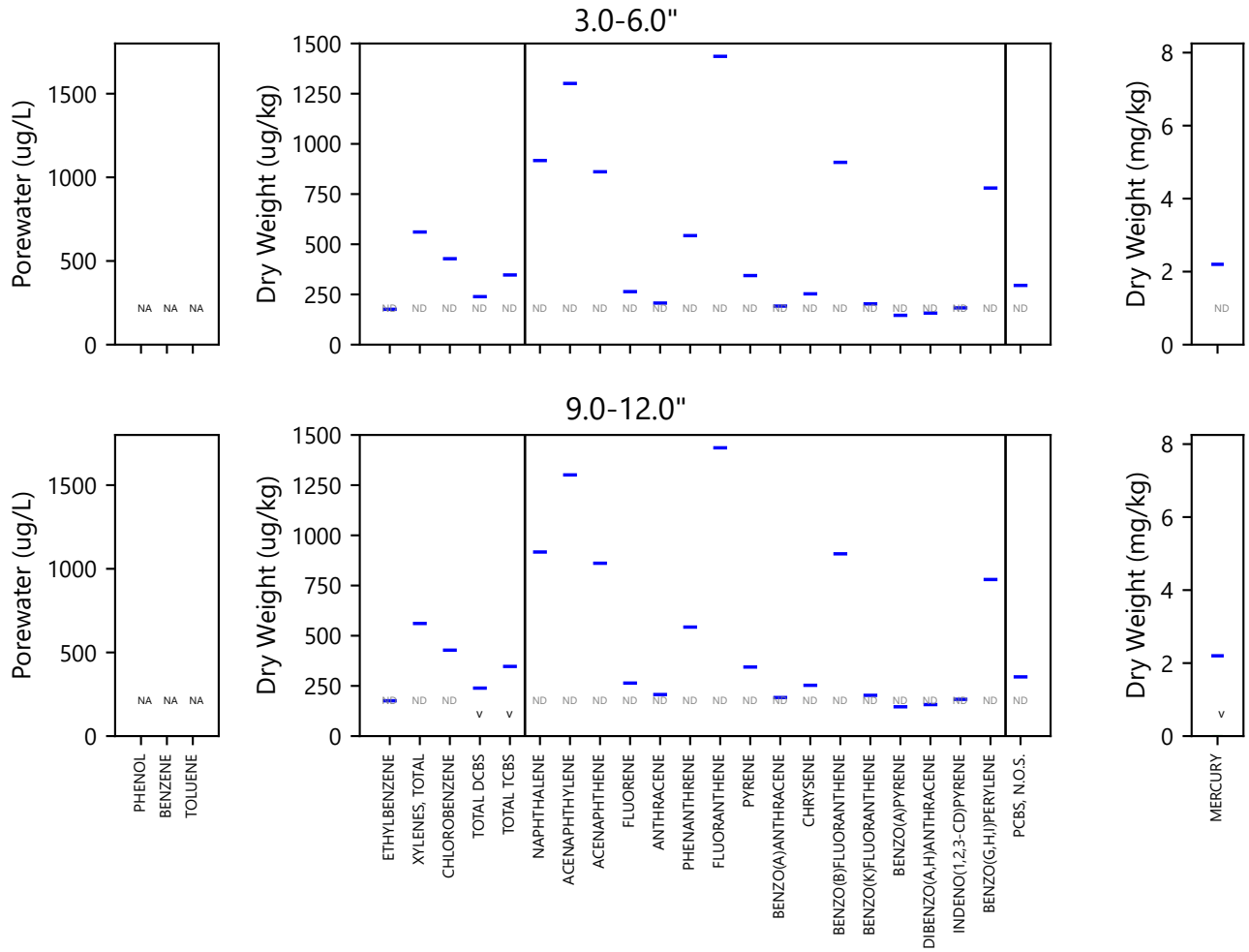
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Figure 1-85

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

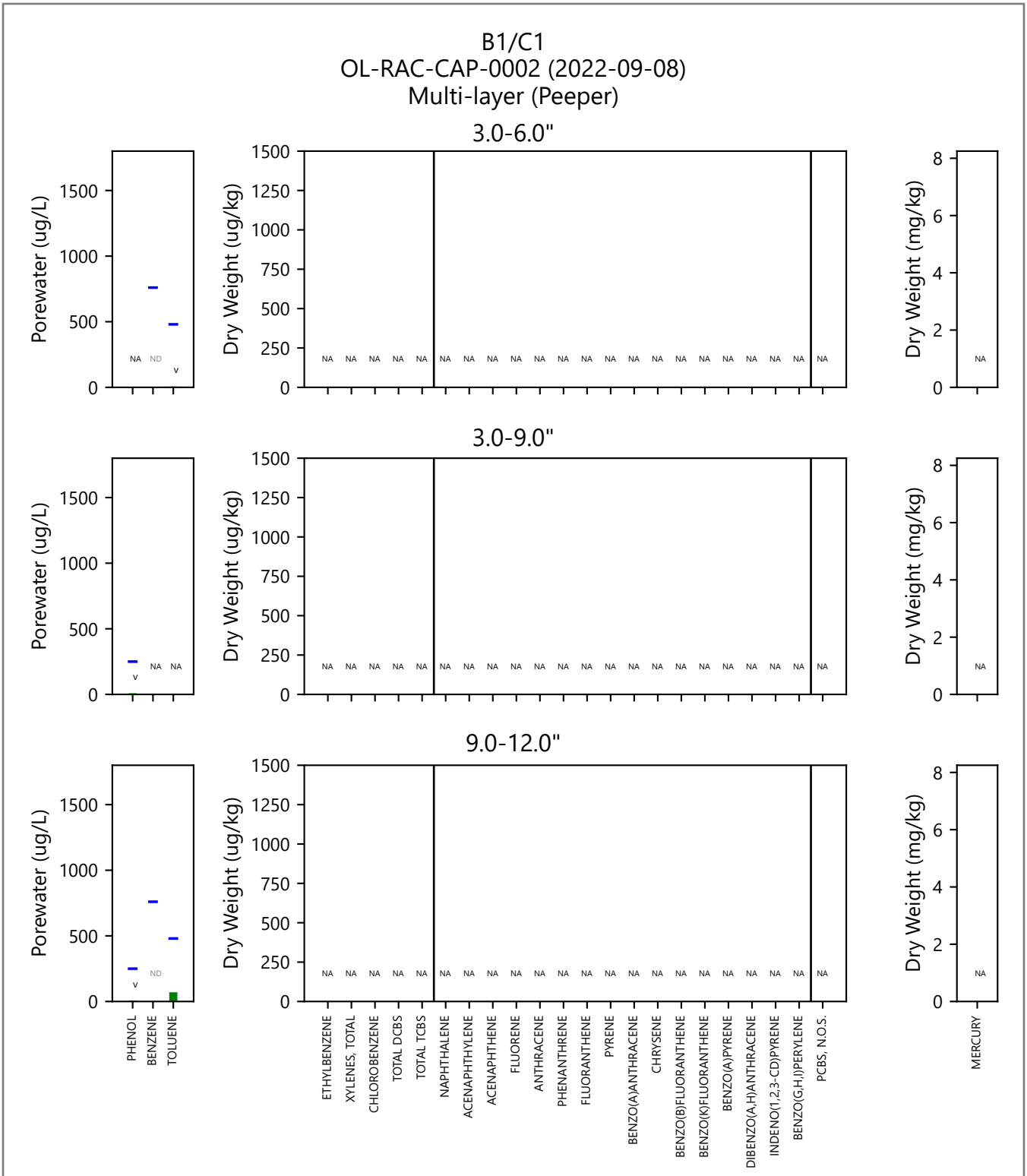
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Figure 1-86

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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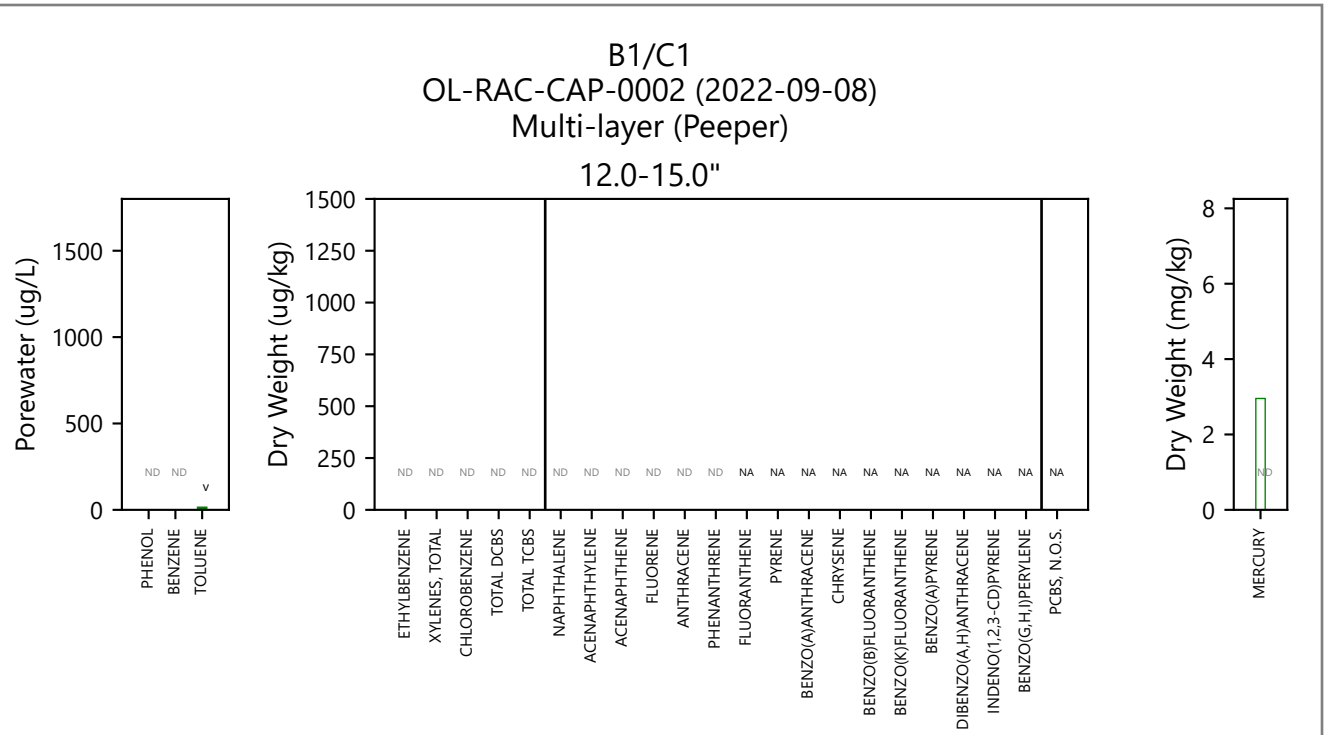
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Figure 1-87

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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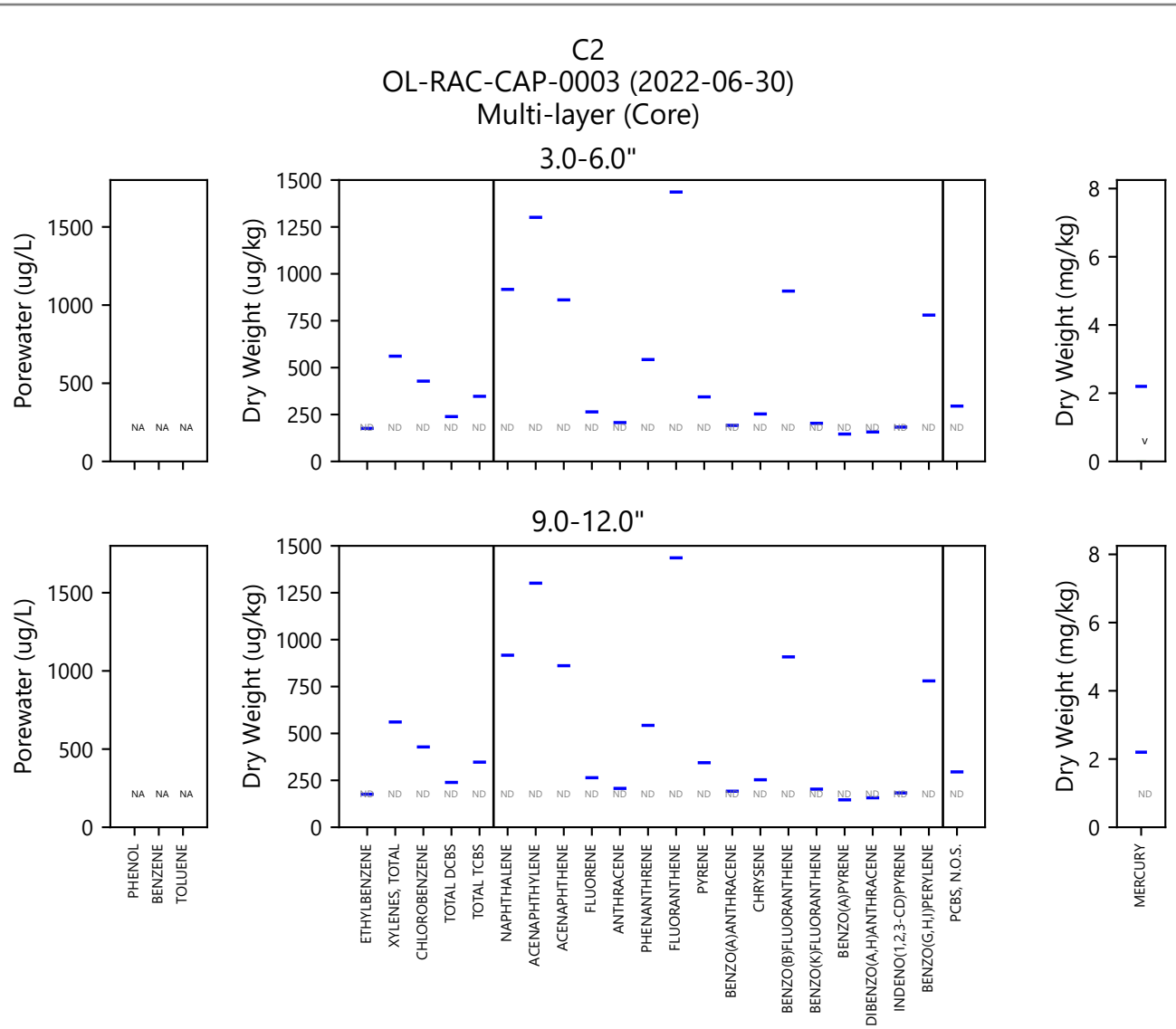
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Figure 1-88

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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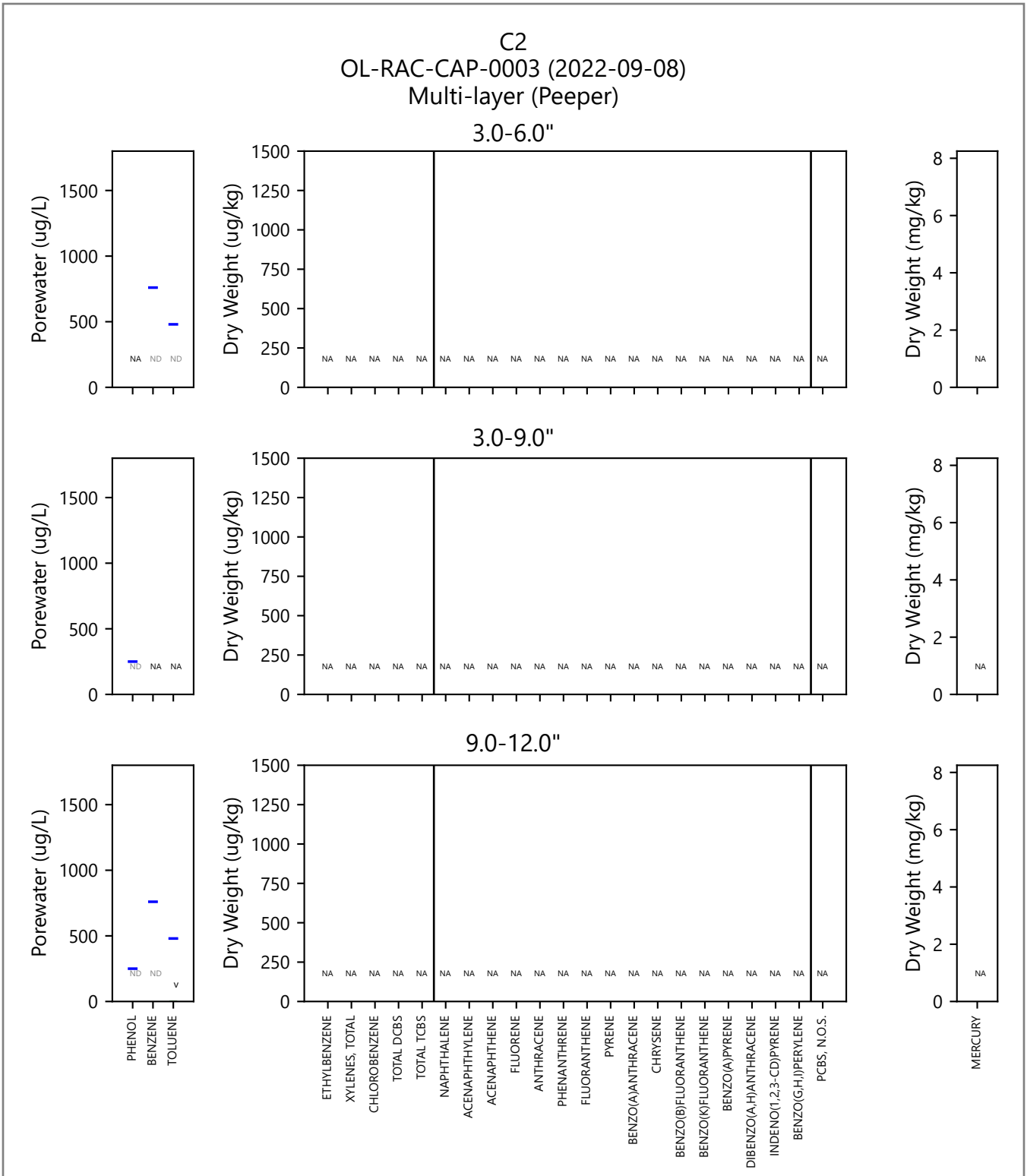
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Figure 1-89

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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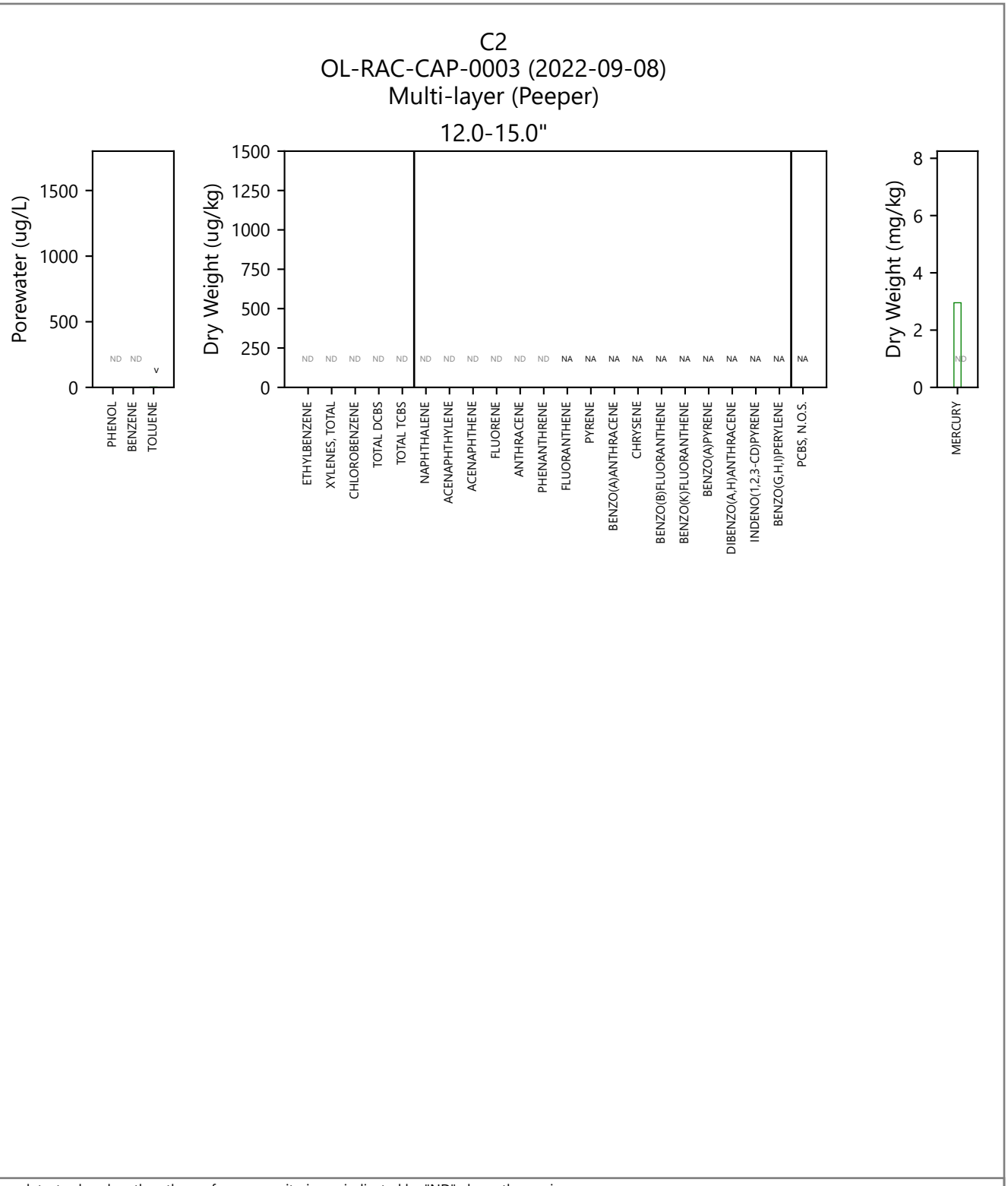
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Figure 1-90

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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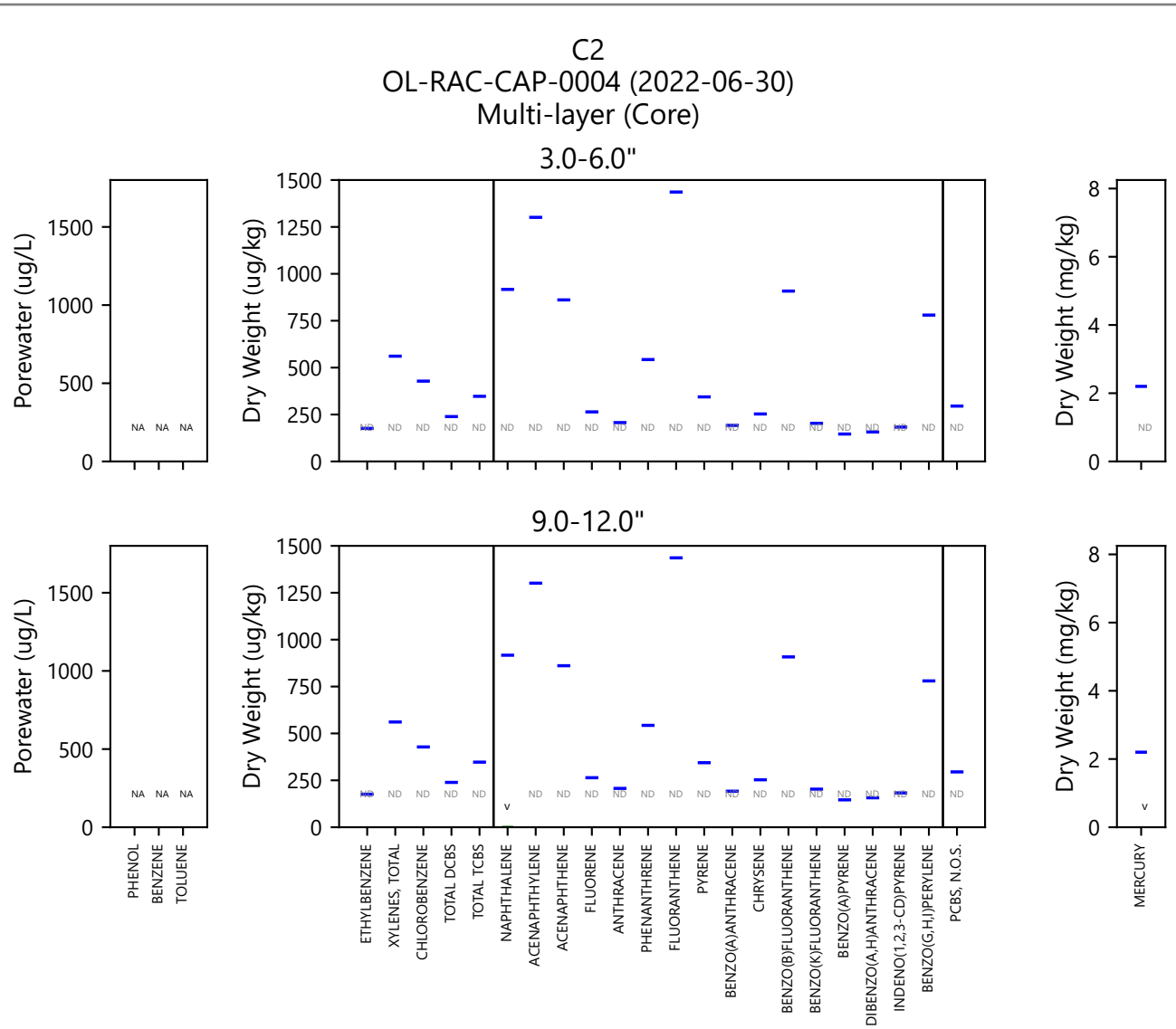
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Figure 1-91

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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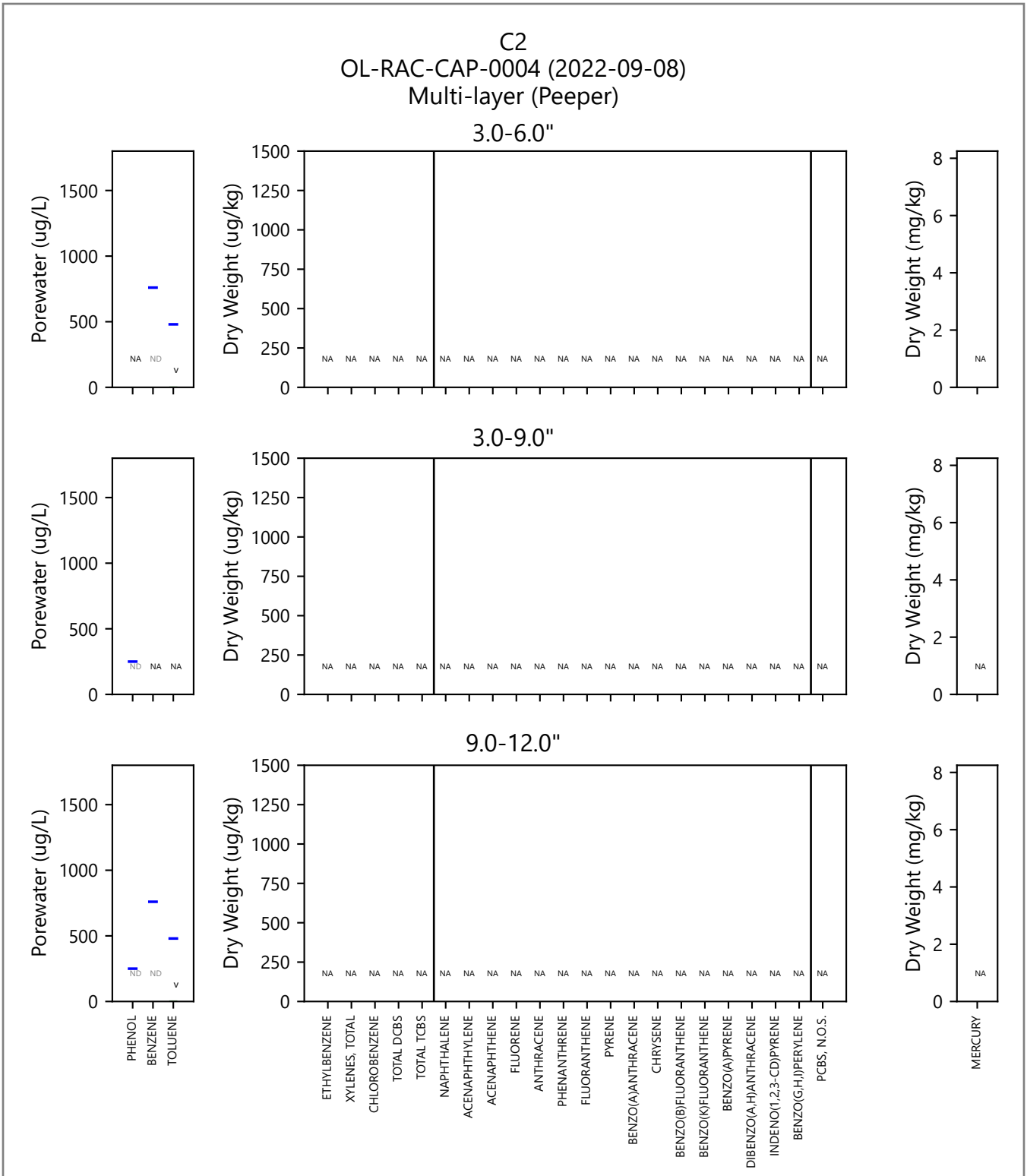
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Figure 1-92

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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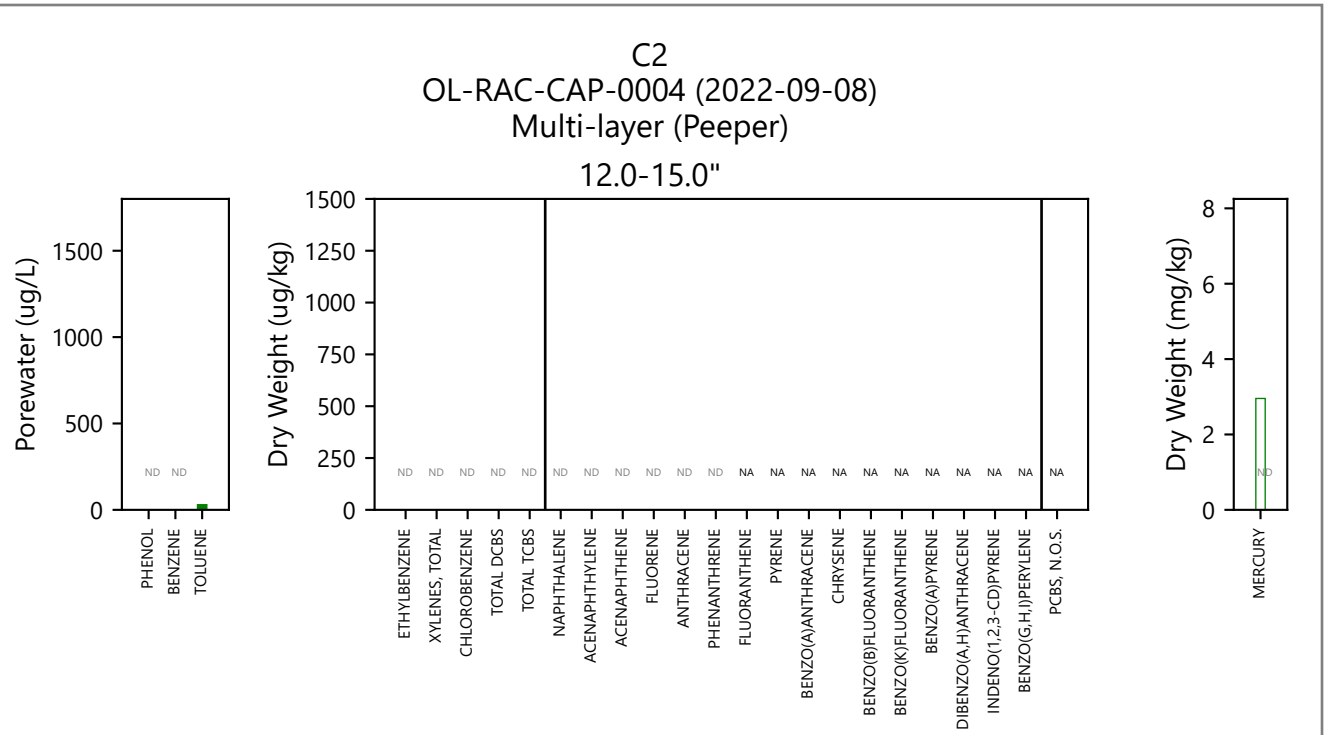
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Figure 1-93

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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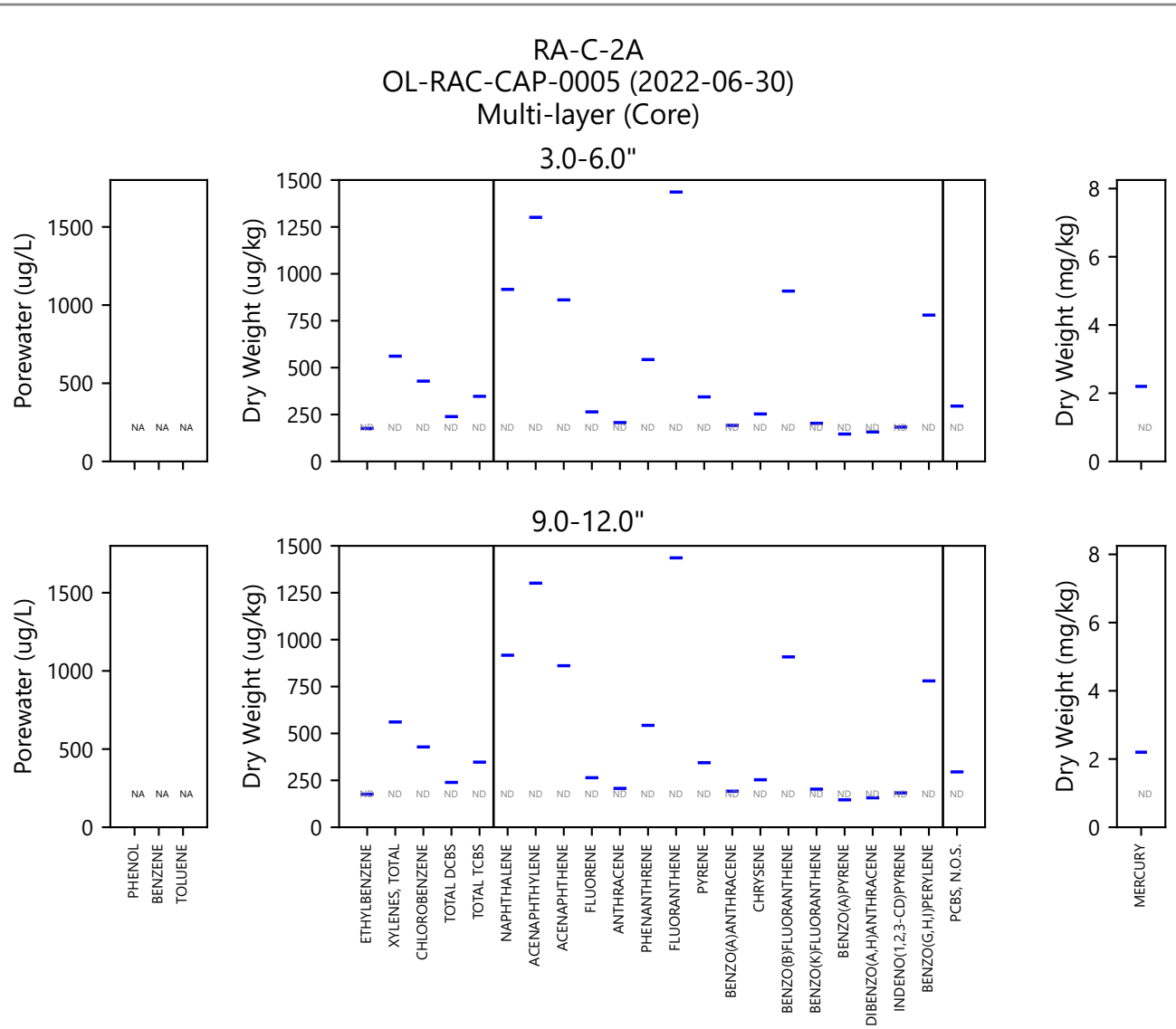
Habitat Layer Performance Criteria

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Figure 1-94

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

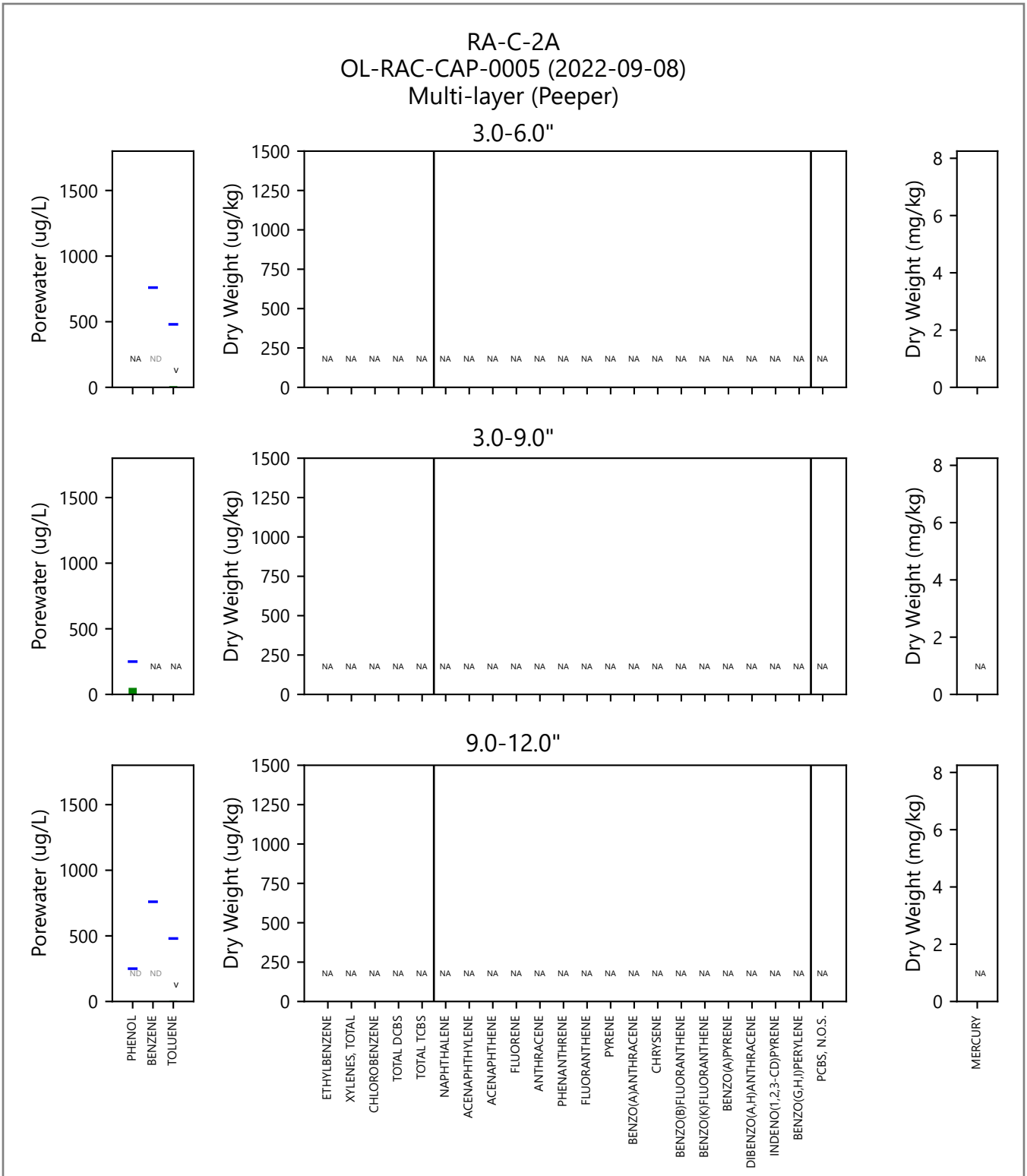
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Figure 1-95

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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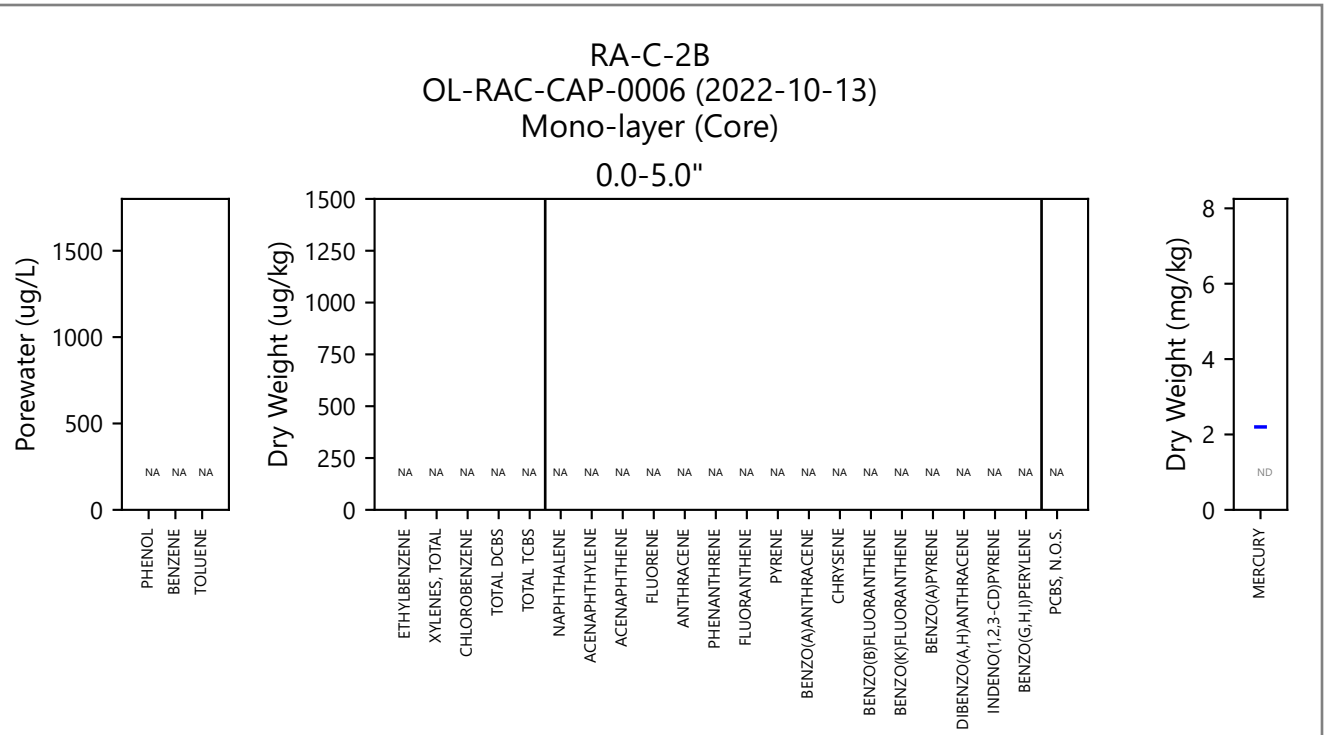
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Figure 1-96

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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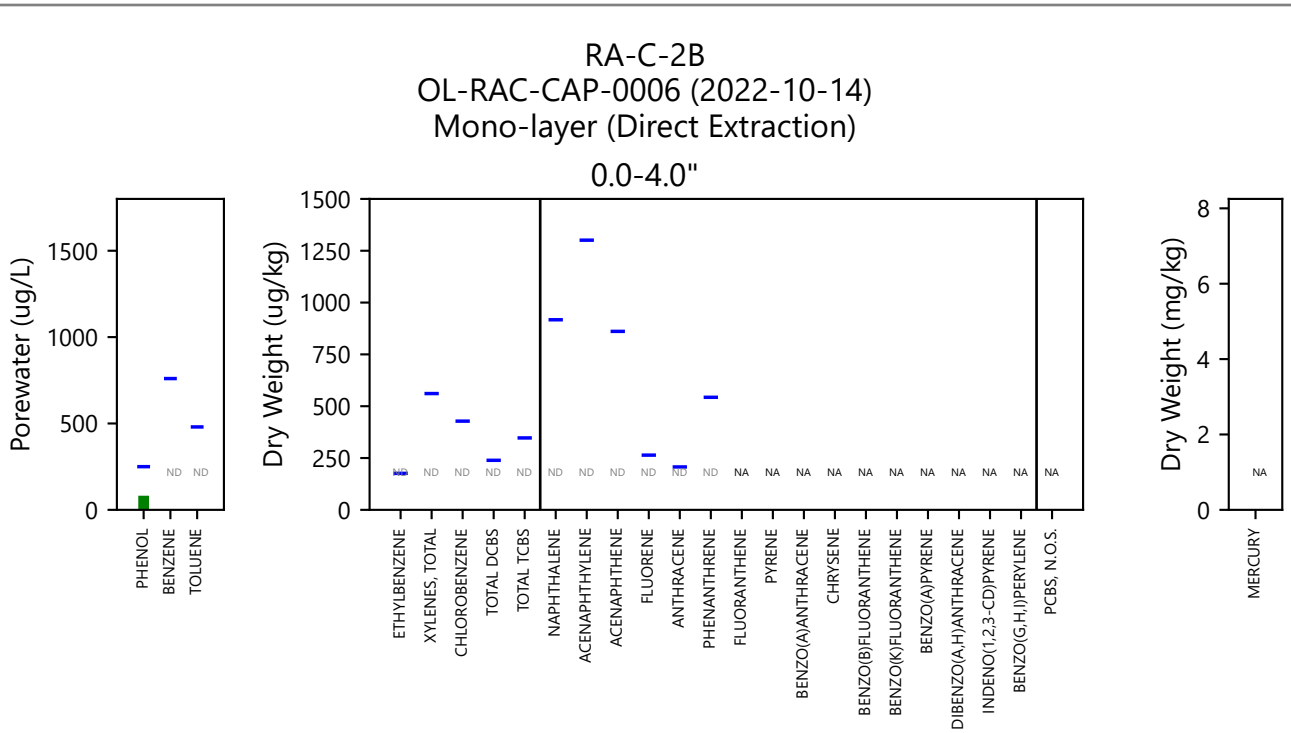
- Habitat Layer Performance Criteria

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Figure 1-97

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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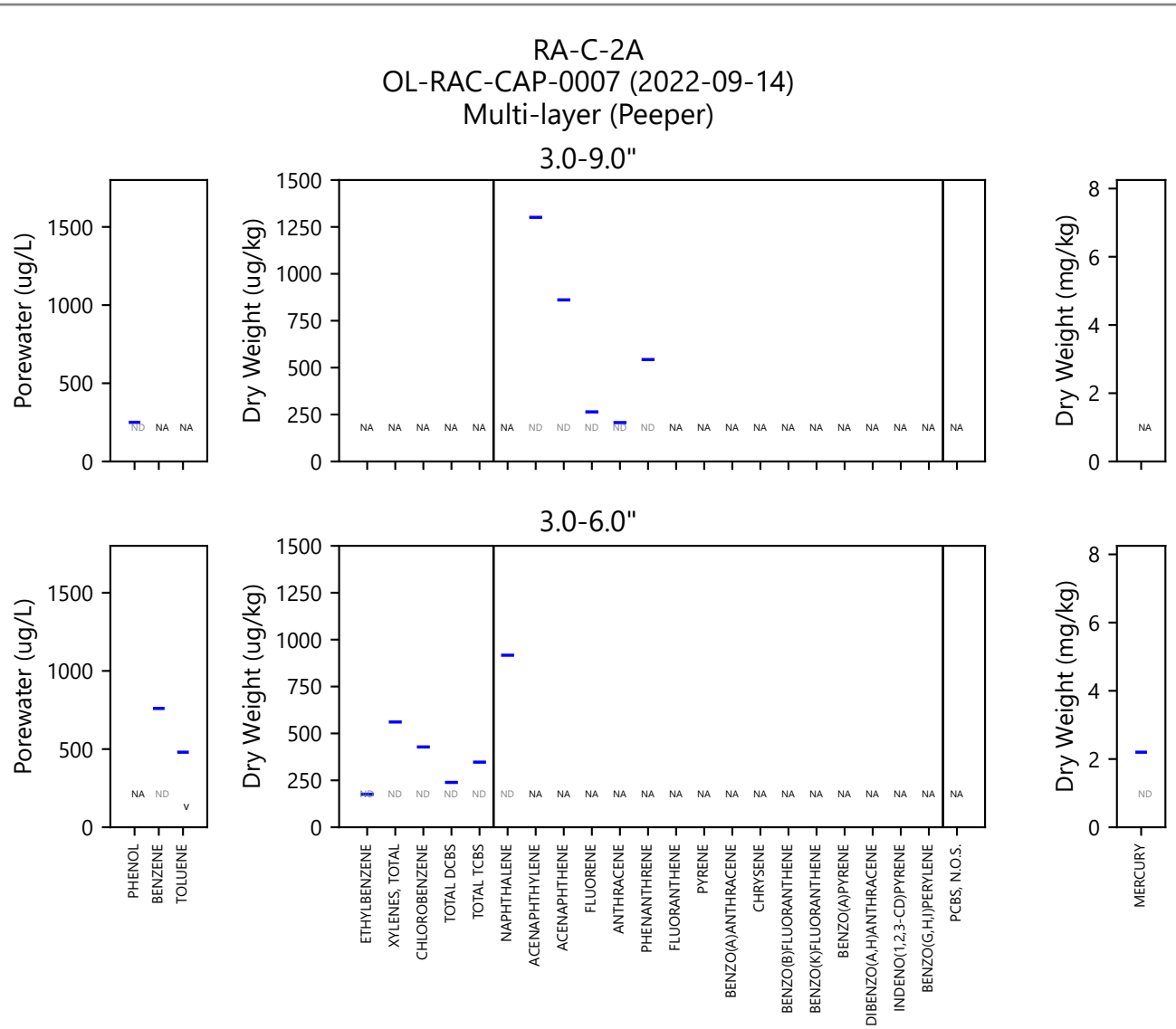
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Figure 1-98

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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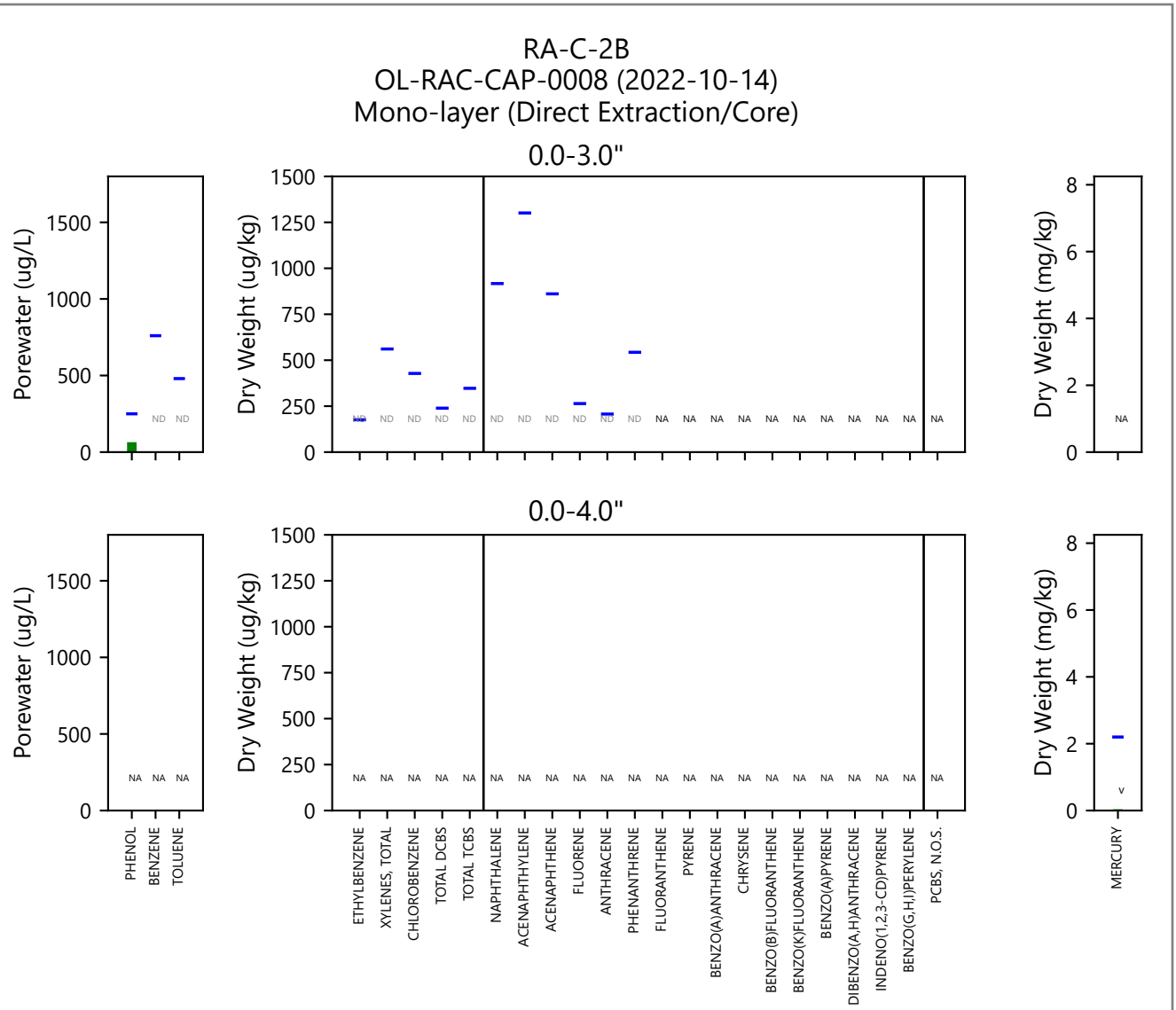
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Figure 1-99

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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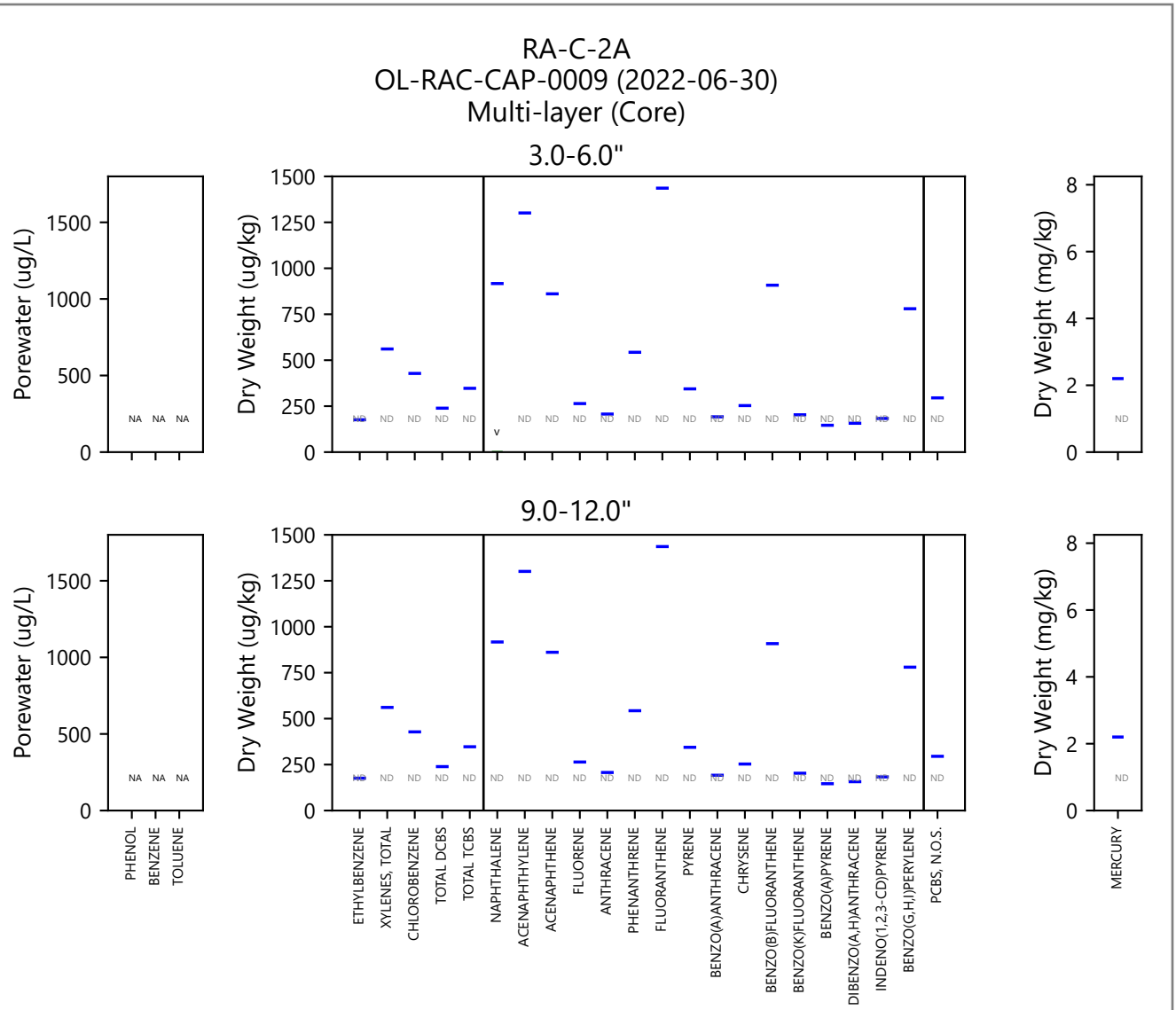
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Figure 1-100

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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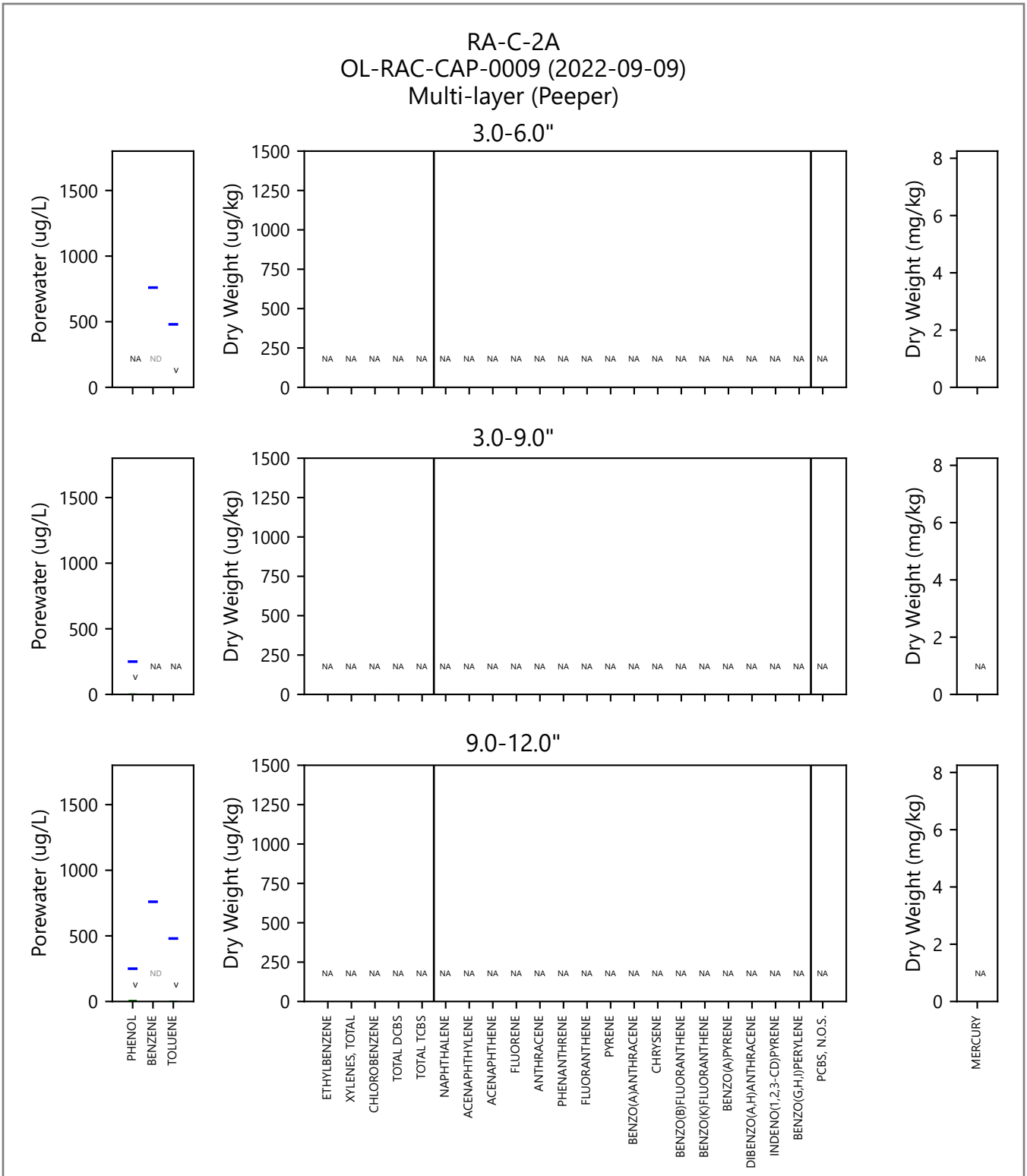
Habitat Layer Performance Criteria

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Figure 1-101

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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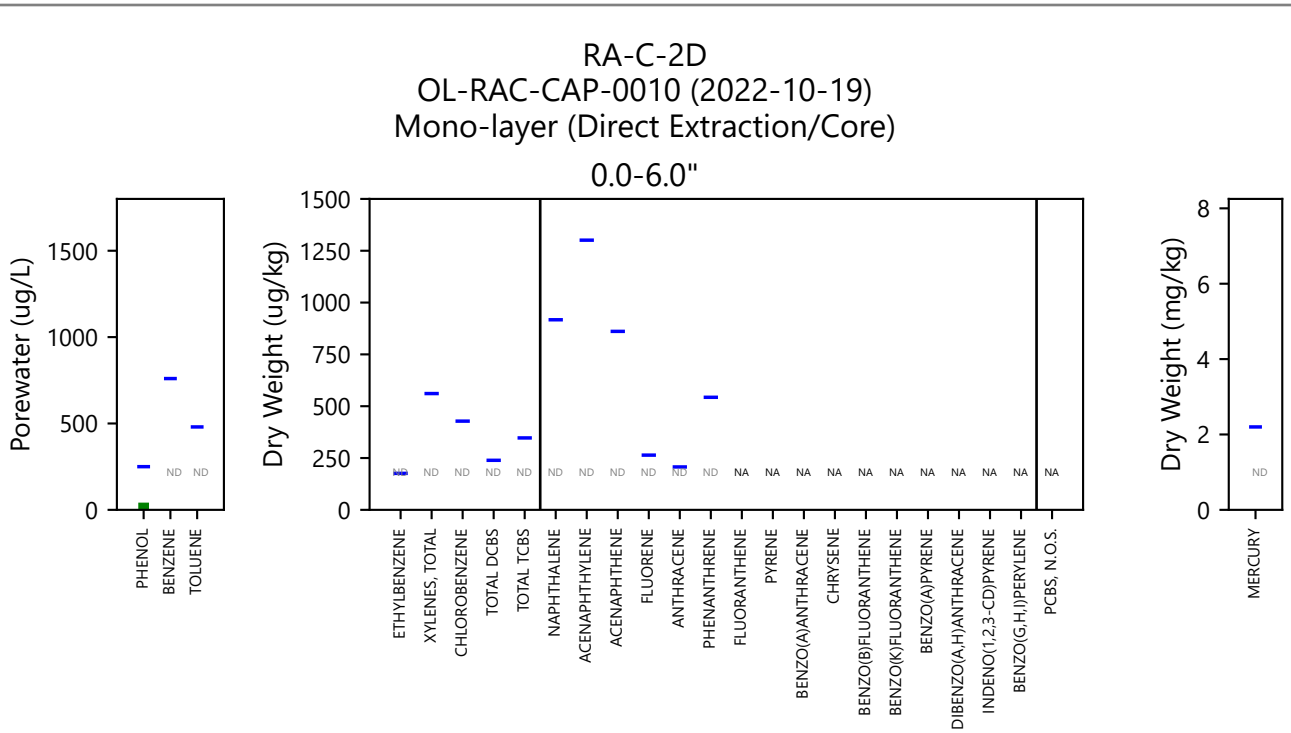
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Figure 1-102

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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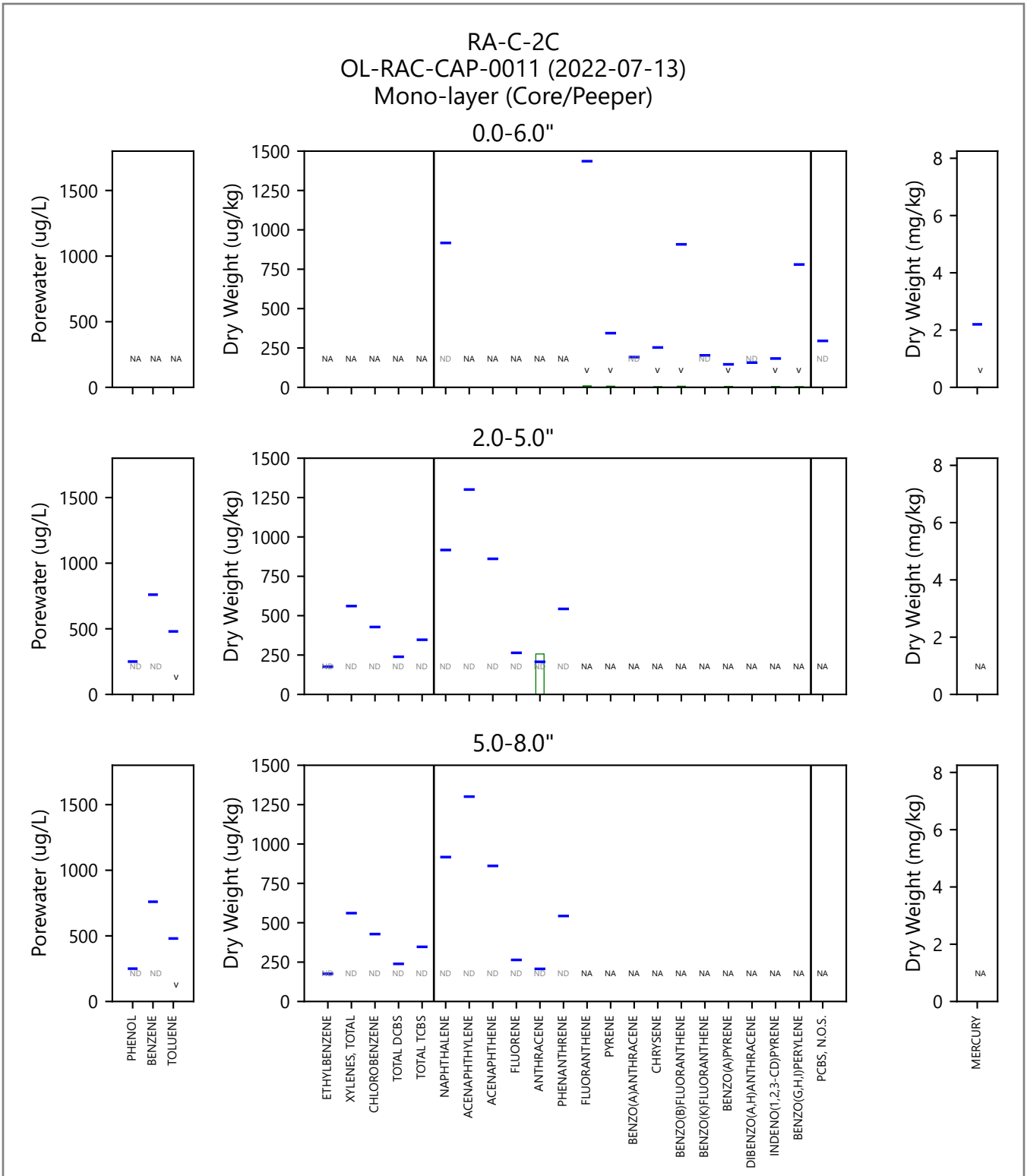
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Figure 1-103

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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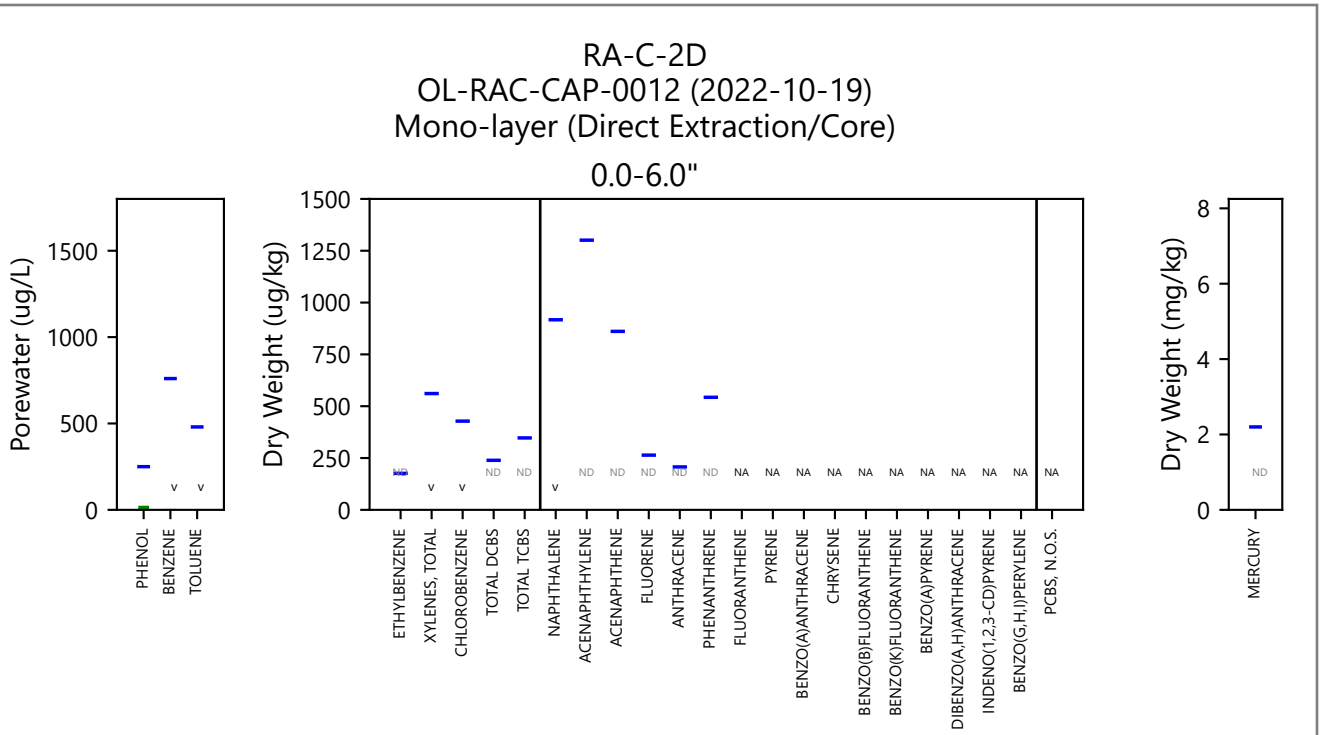
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Figure 1-104

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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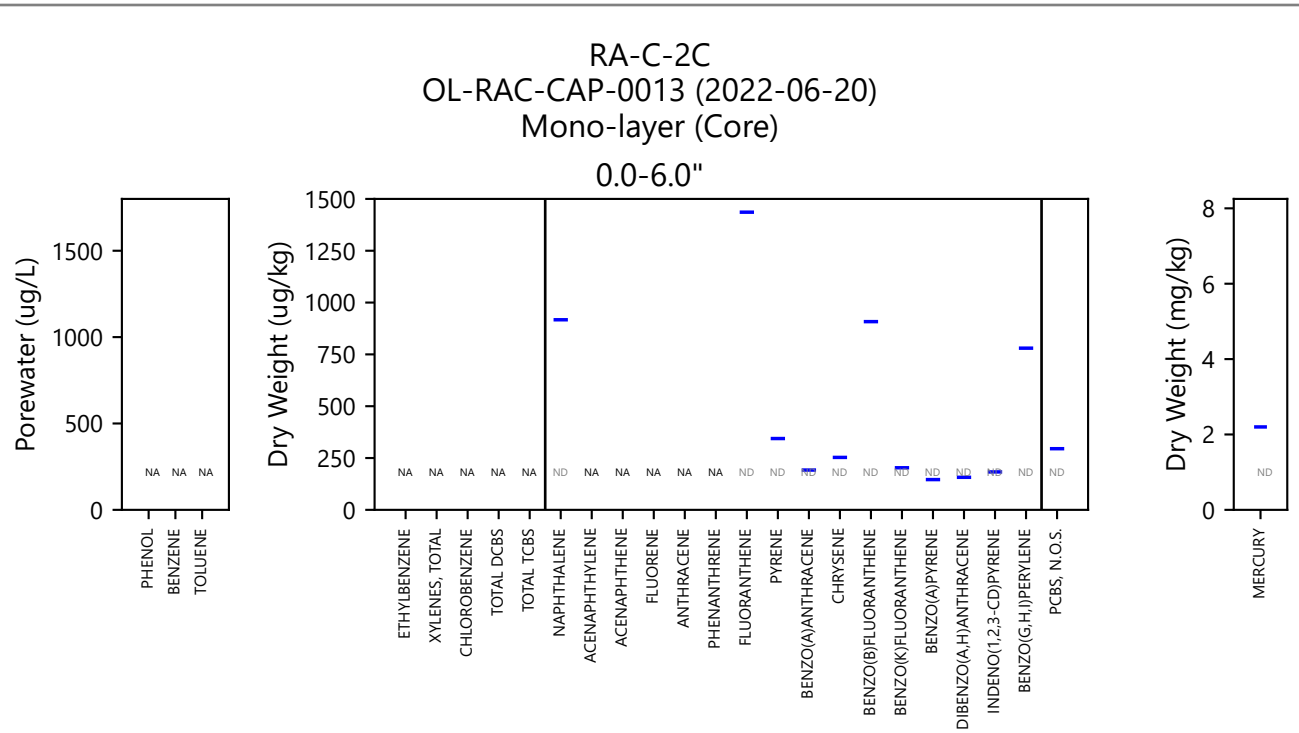
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Figure 1-105

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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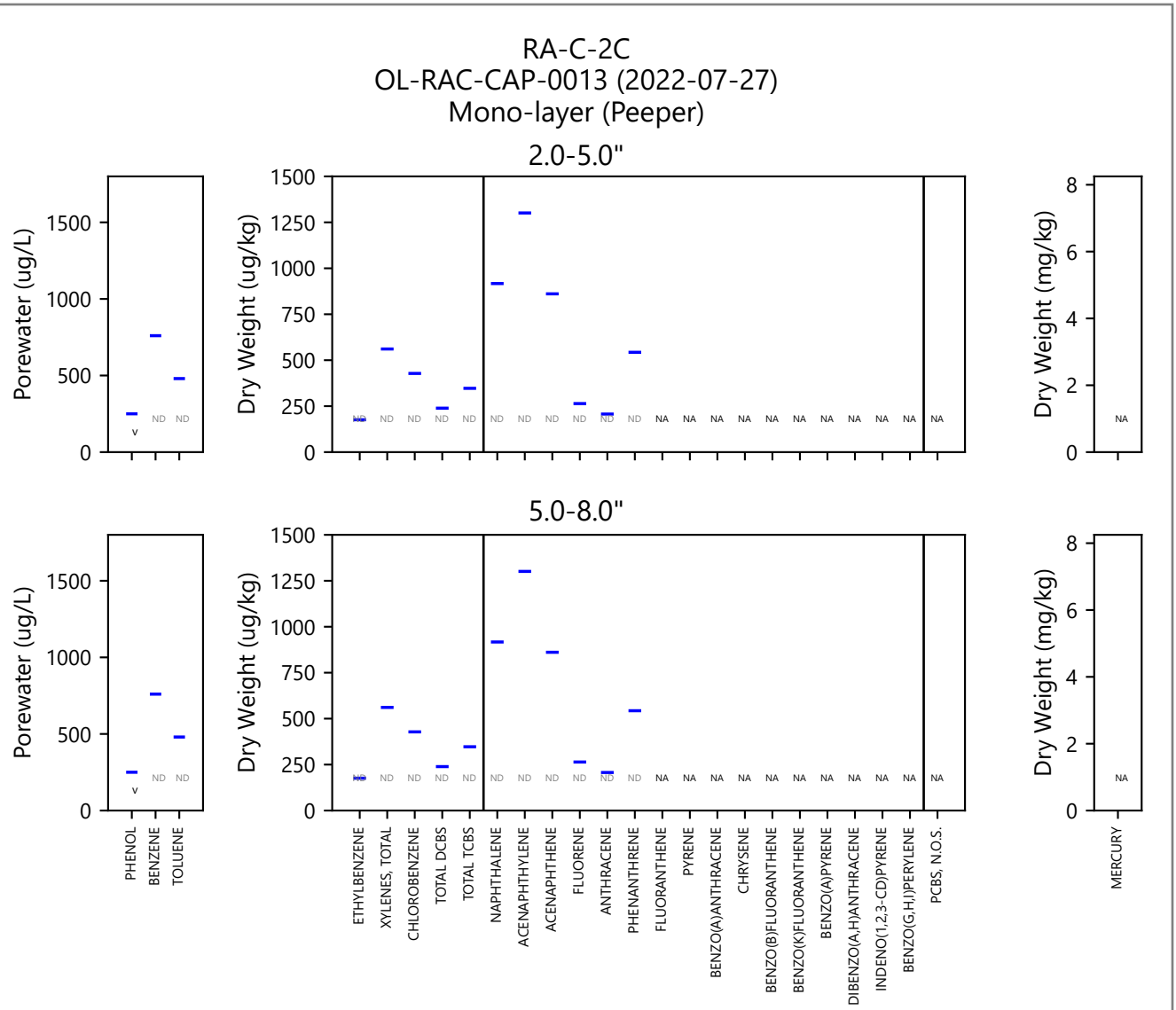
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Figure 1-106

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



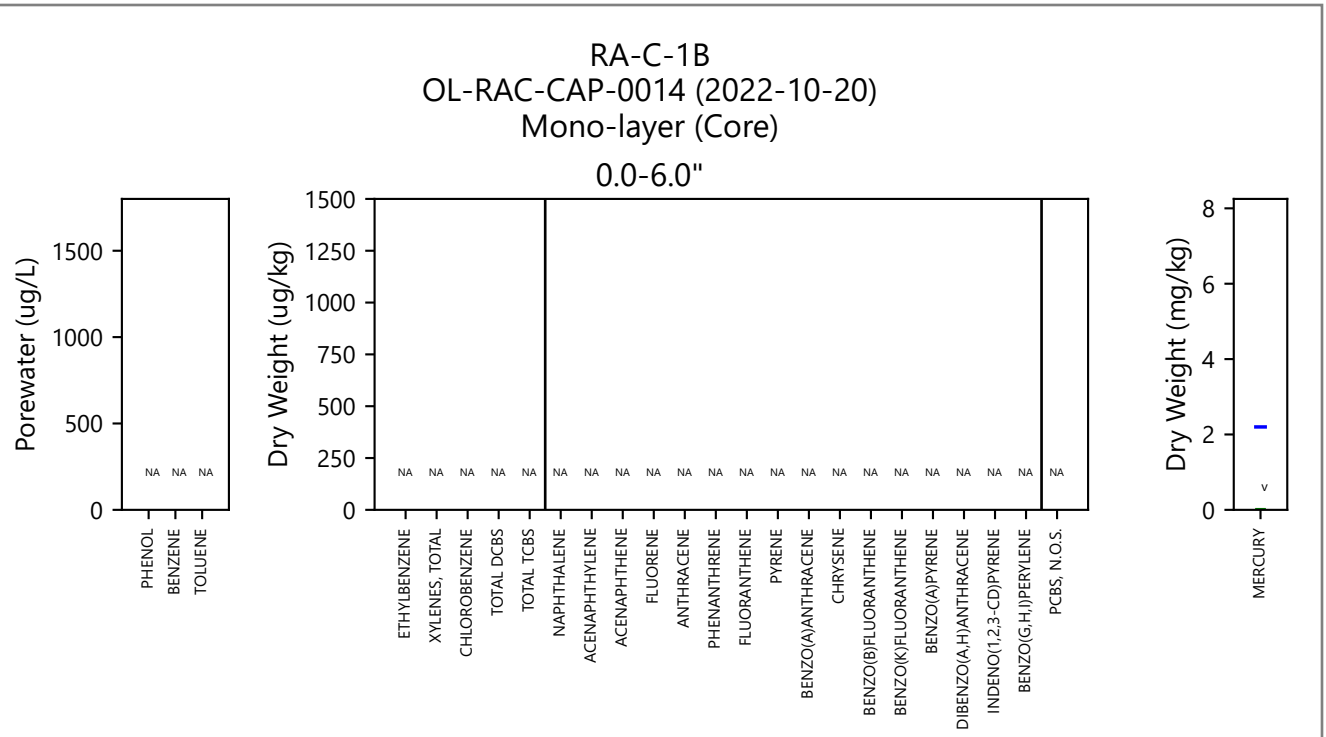
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Figure 1-107

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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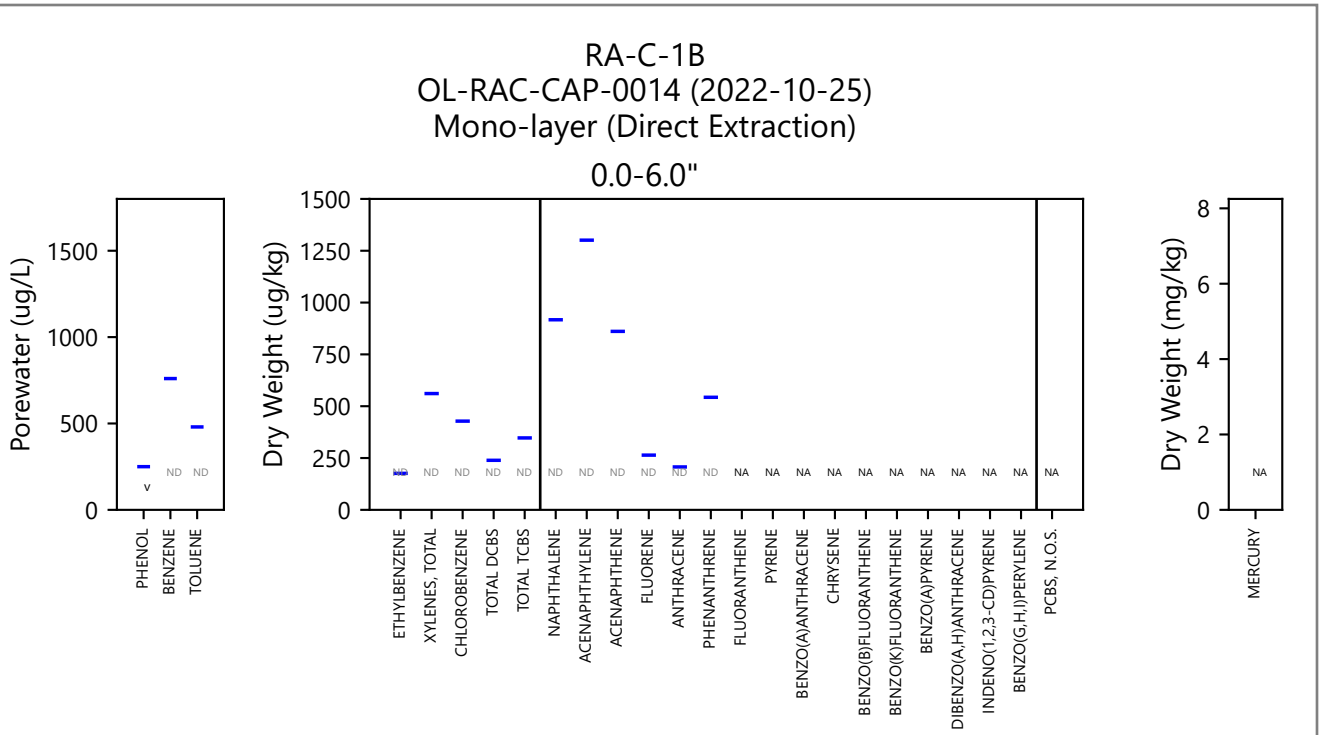
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Figure 1-108

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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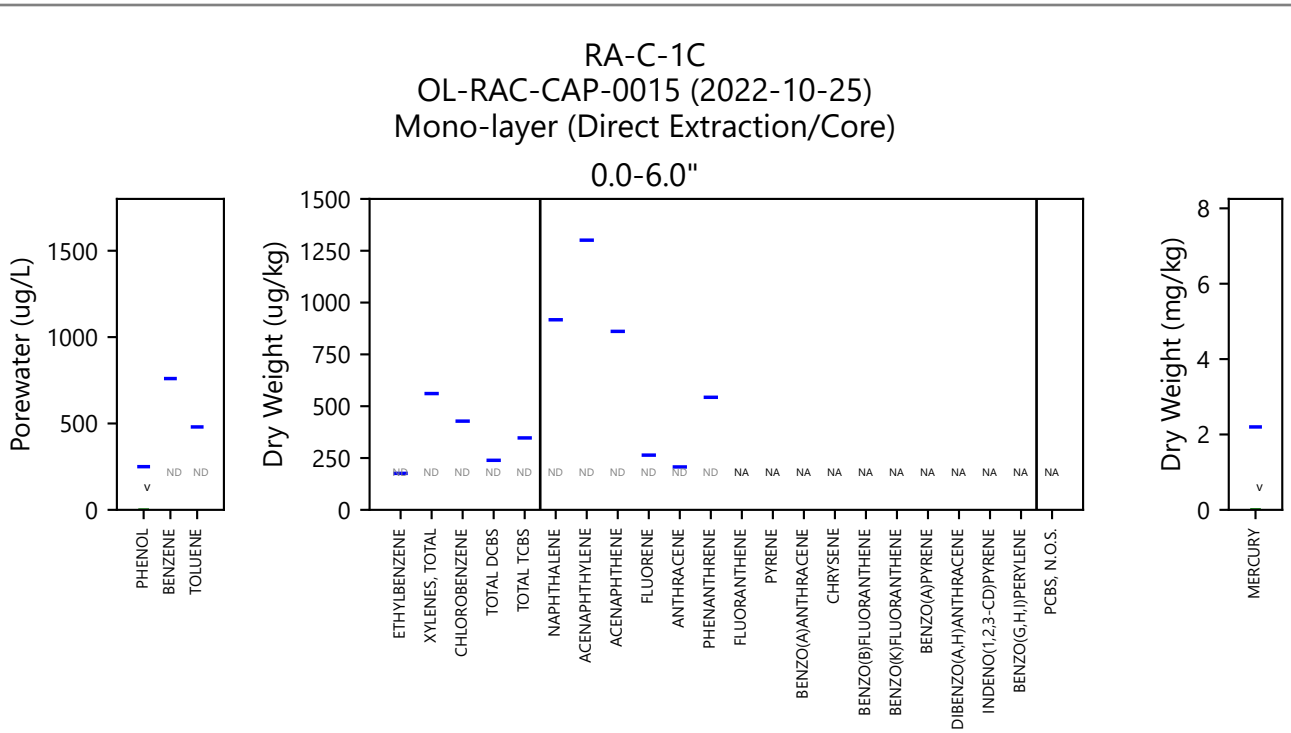
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Figure 1-109

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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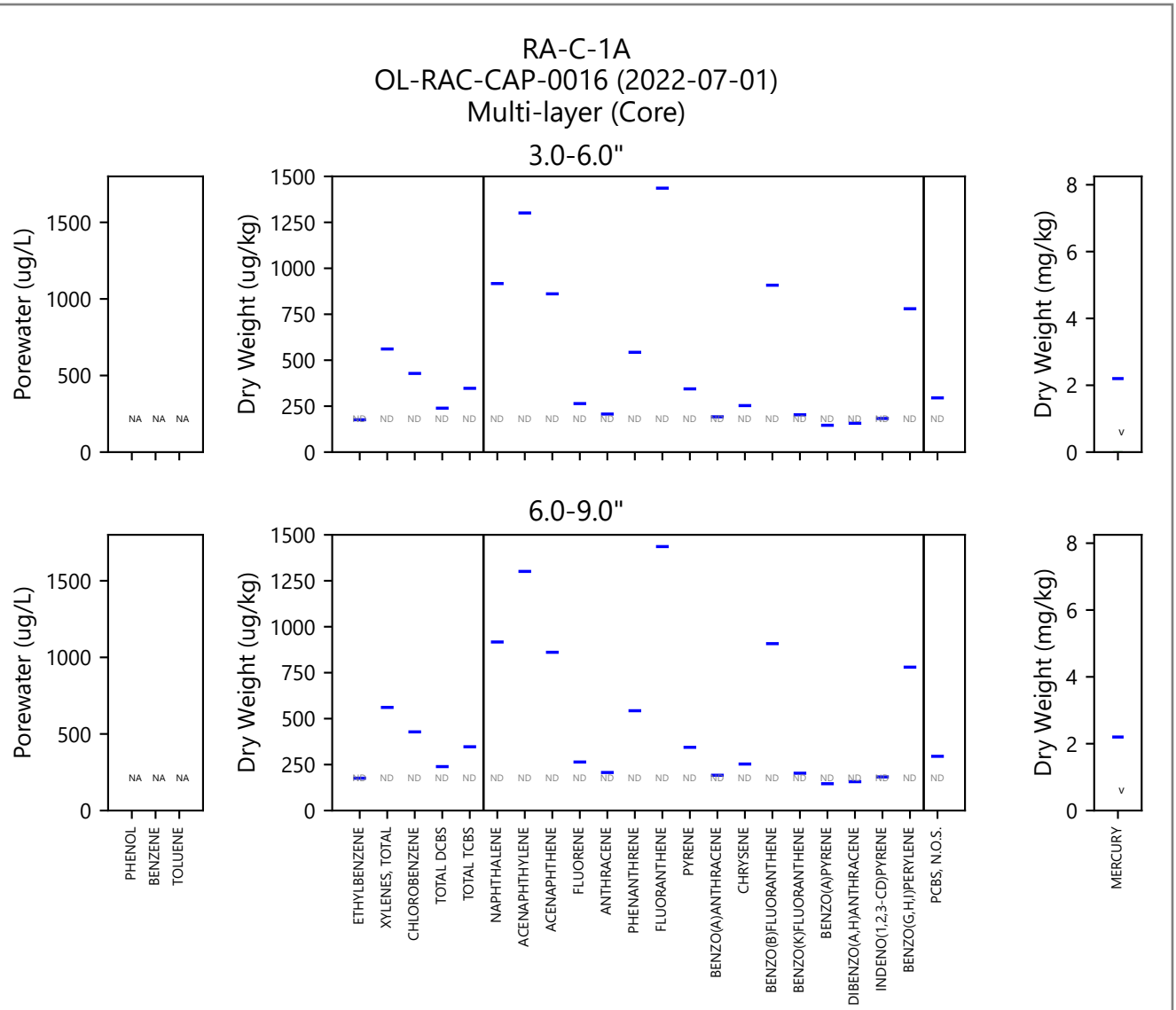
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Figure 1-110

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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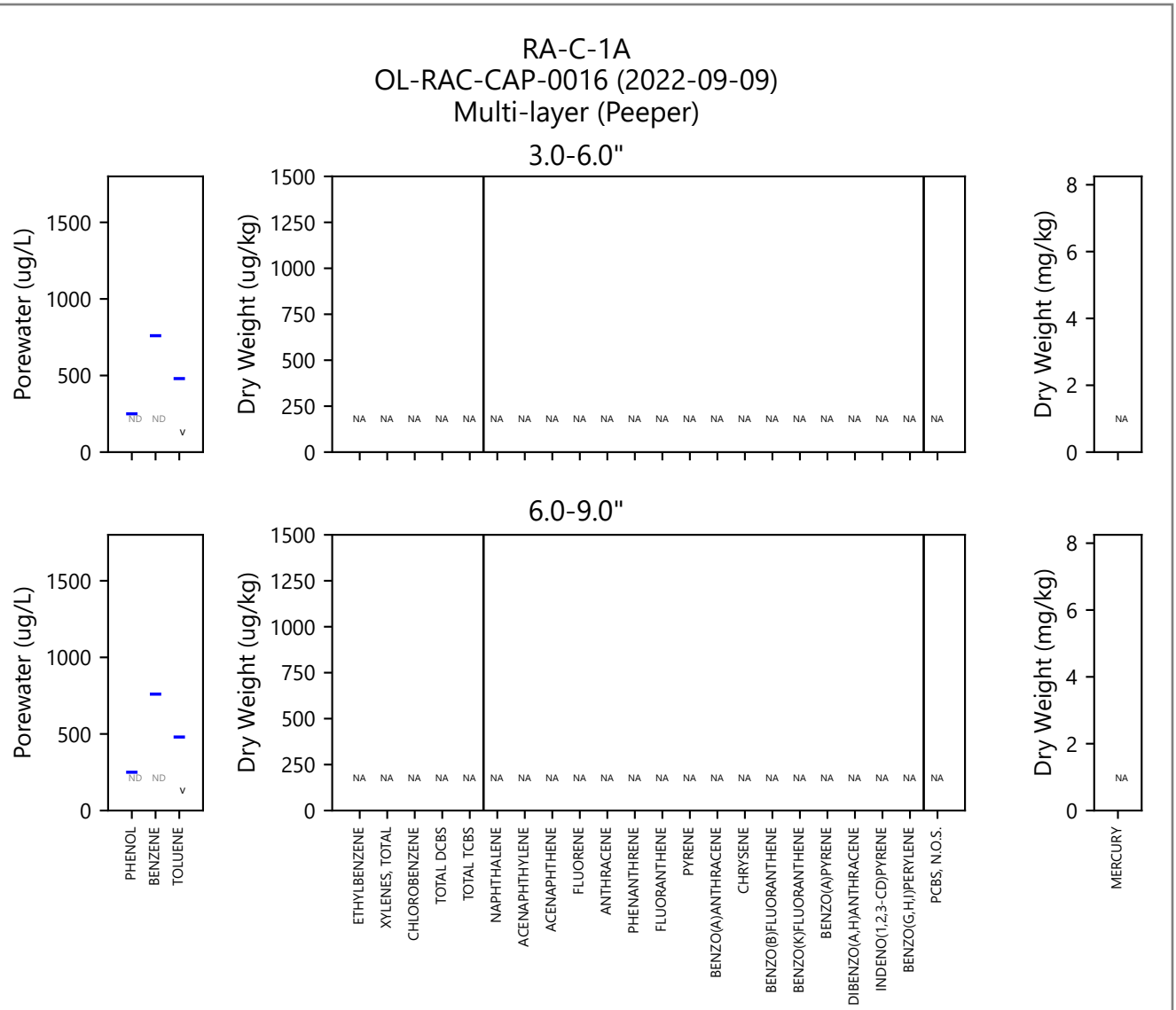
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Figure 1-111

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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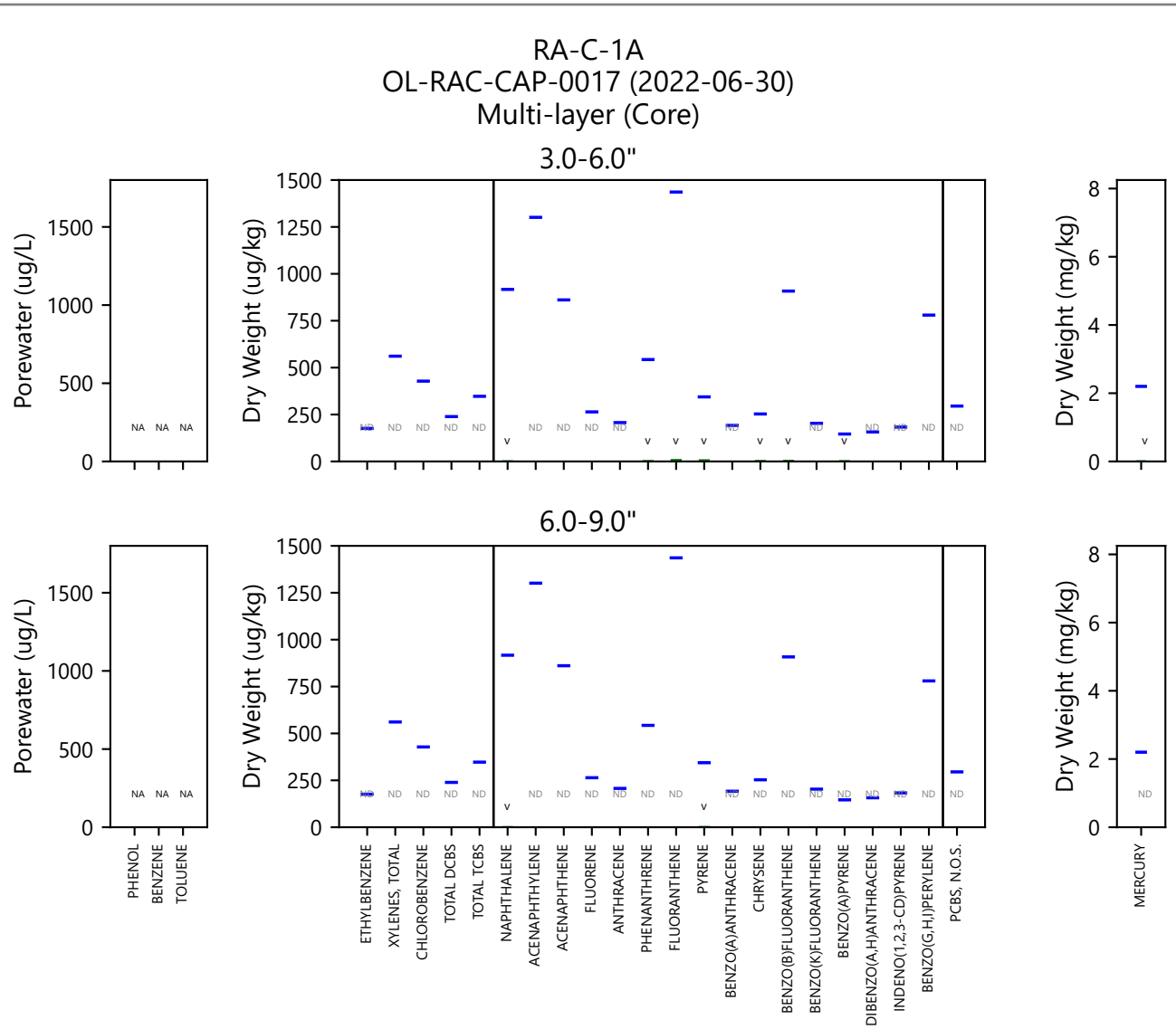
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Figure 1-112

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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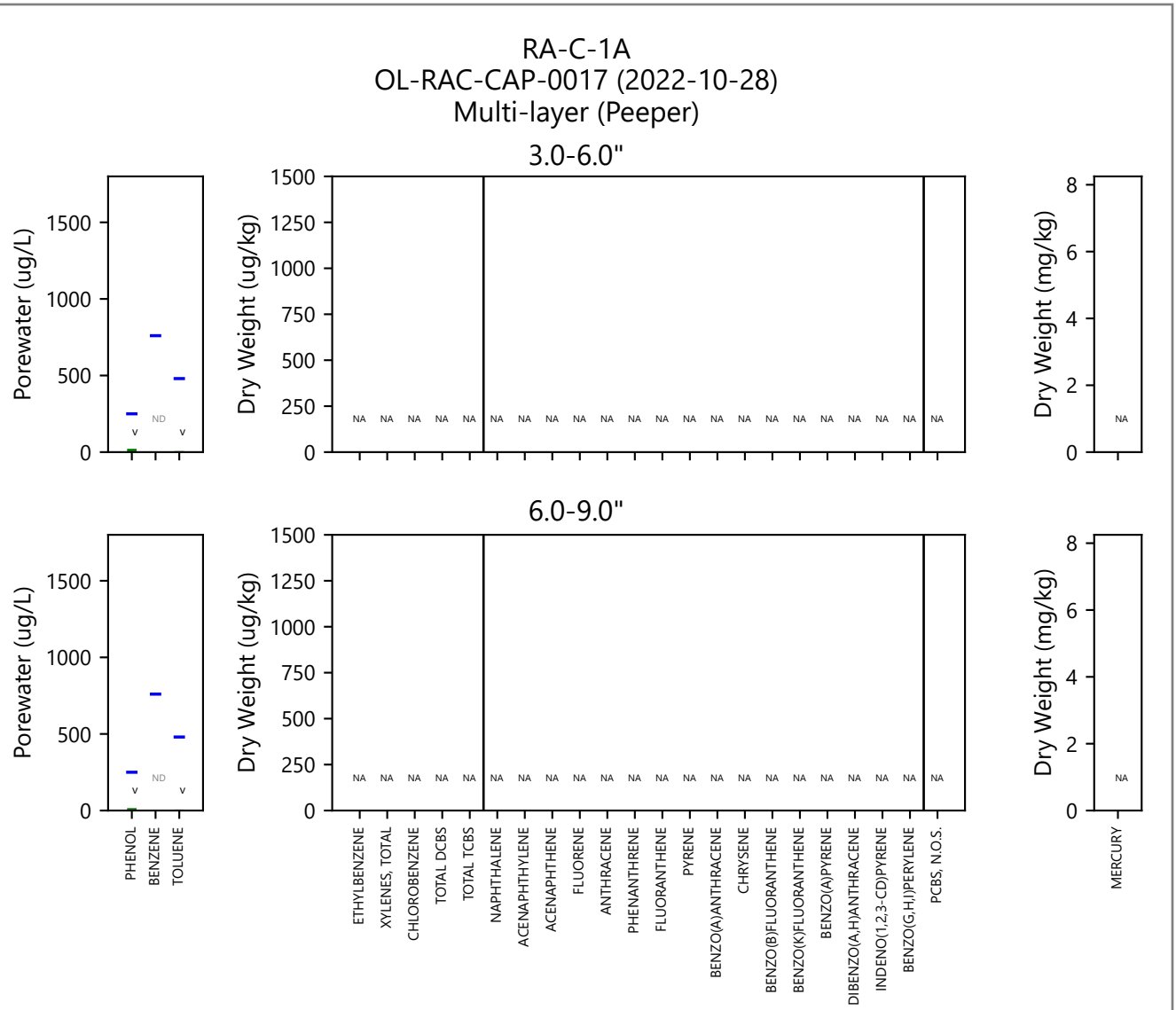
Habitat Layer Performance Criteria

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Figure 1-113

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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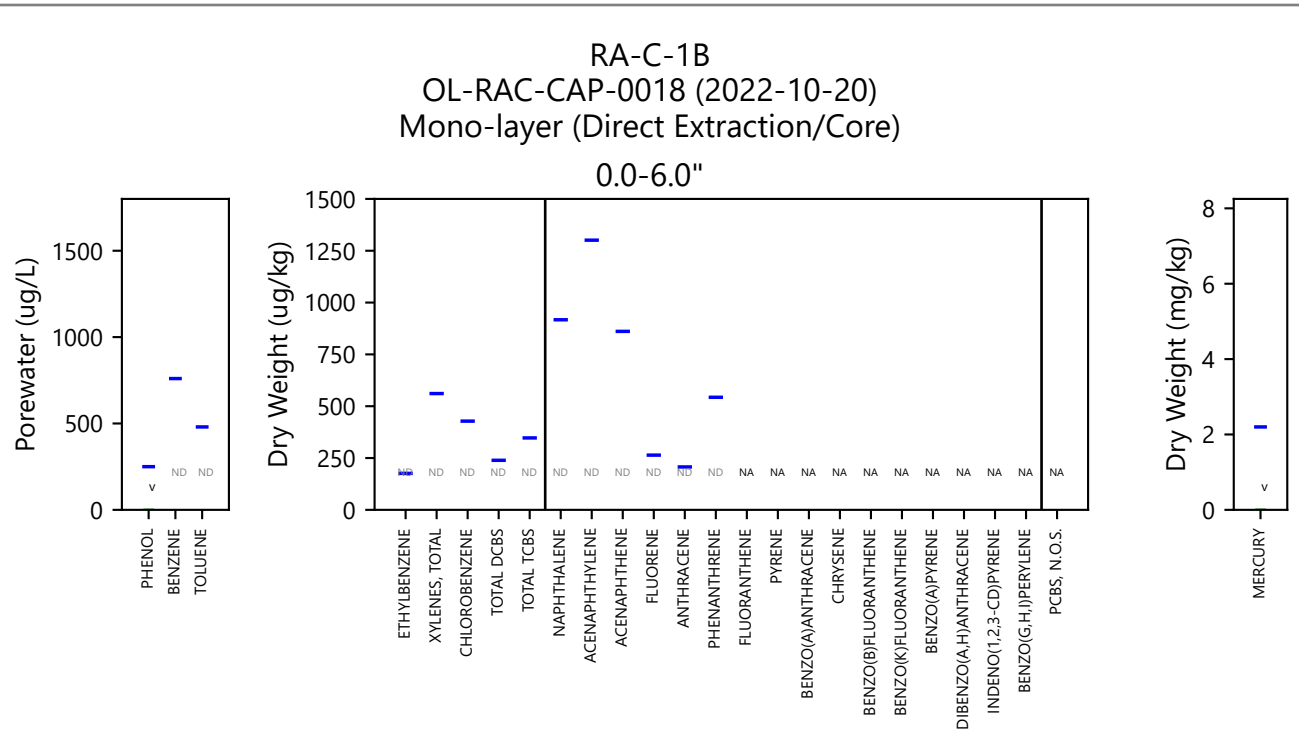
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Figure 1-114

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

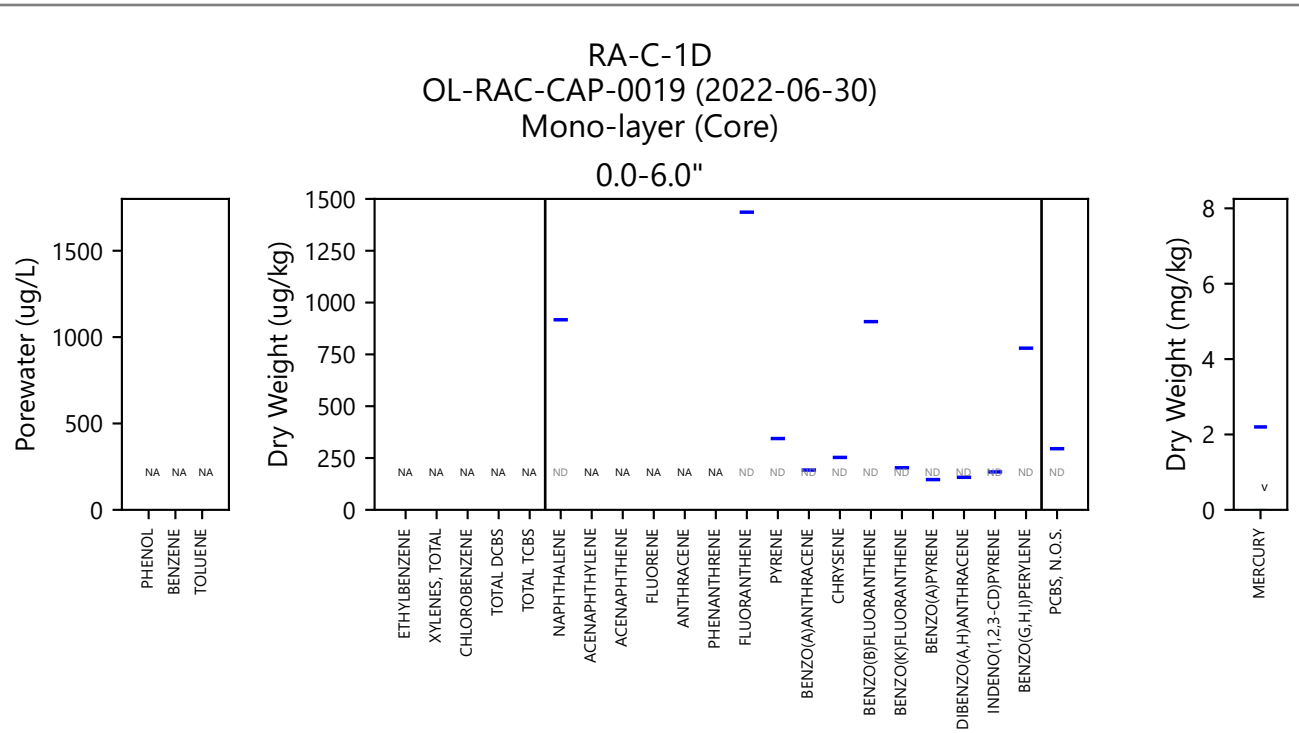
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Figure 1-115

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

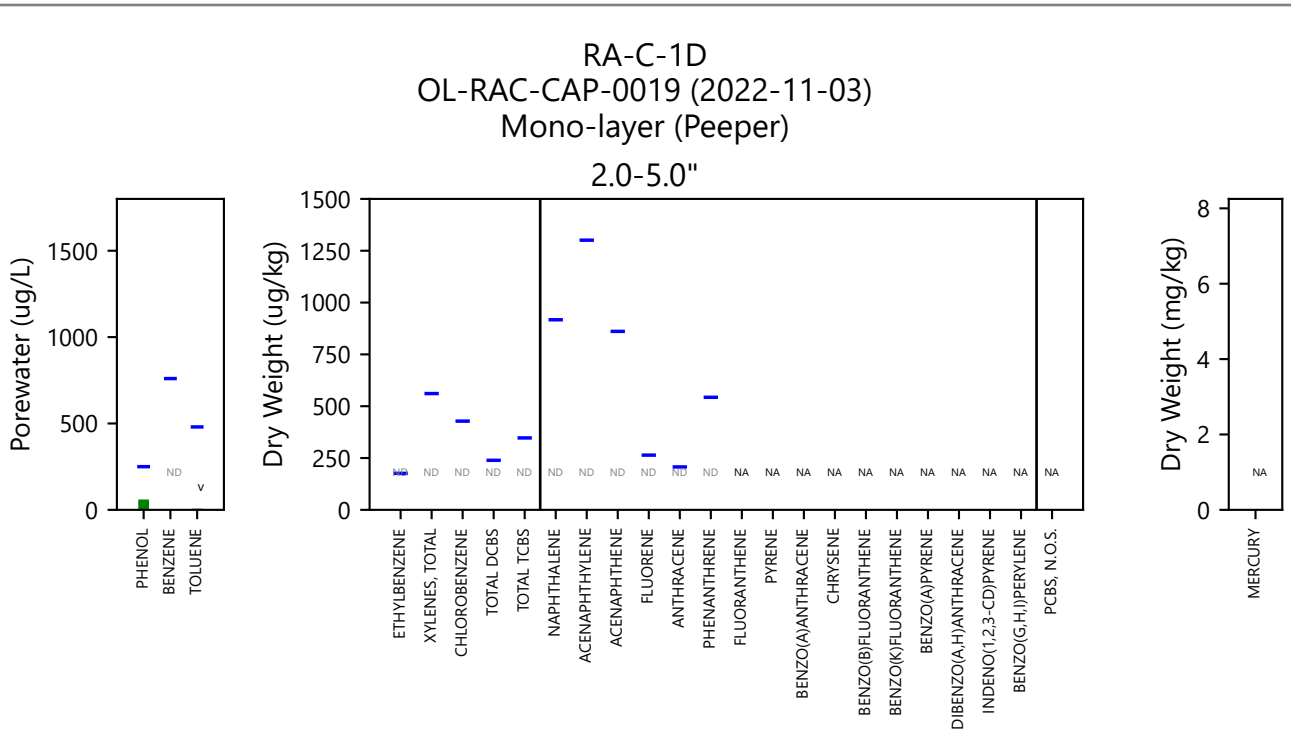
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Figure 1-116

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

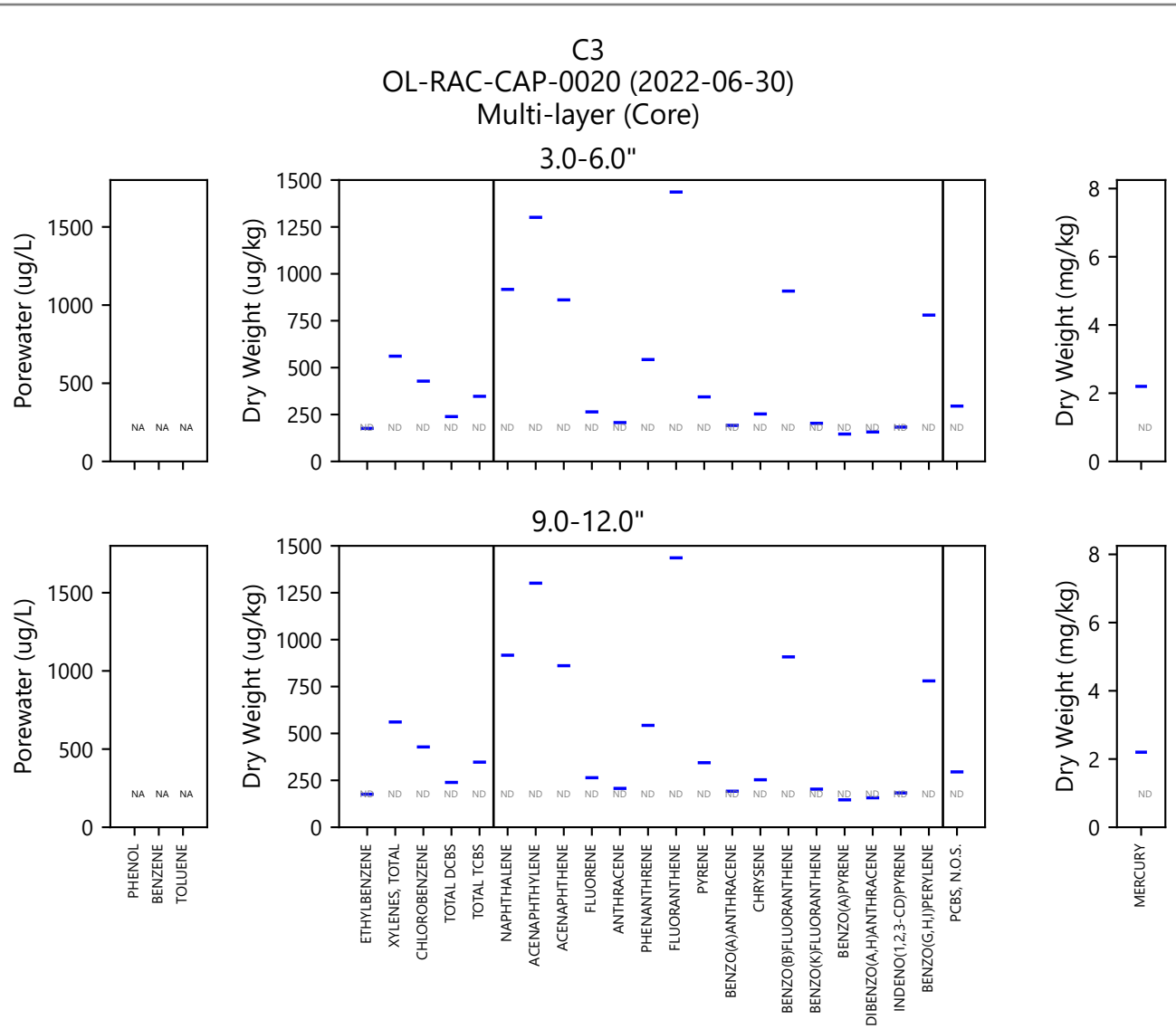
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Figure 1-117

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

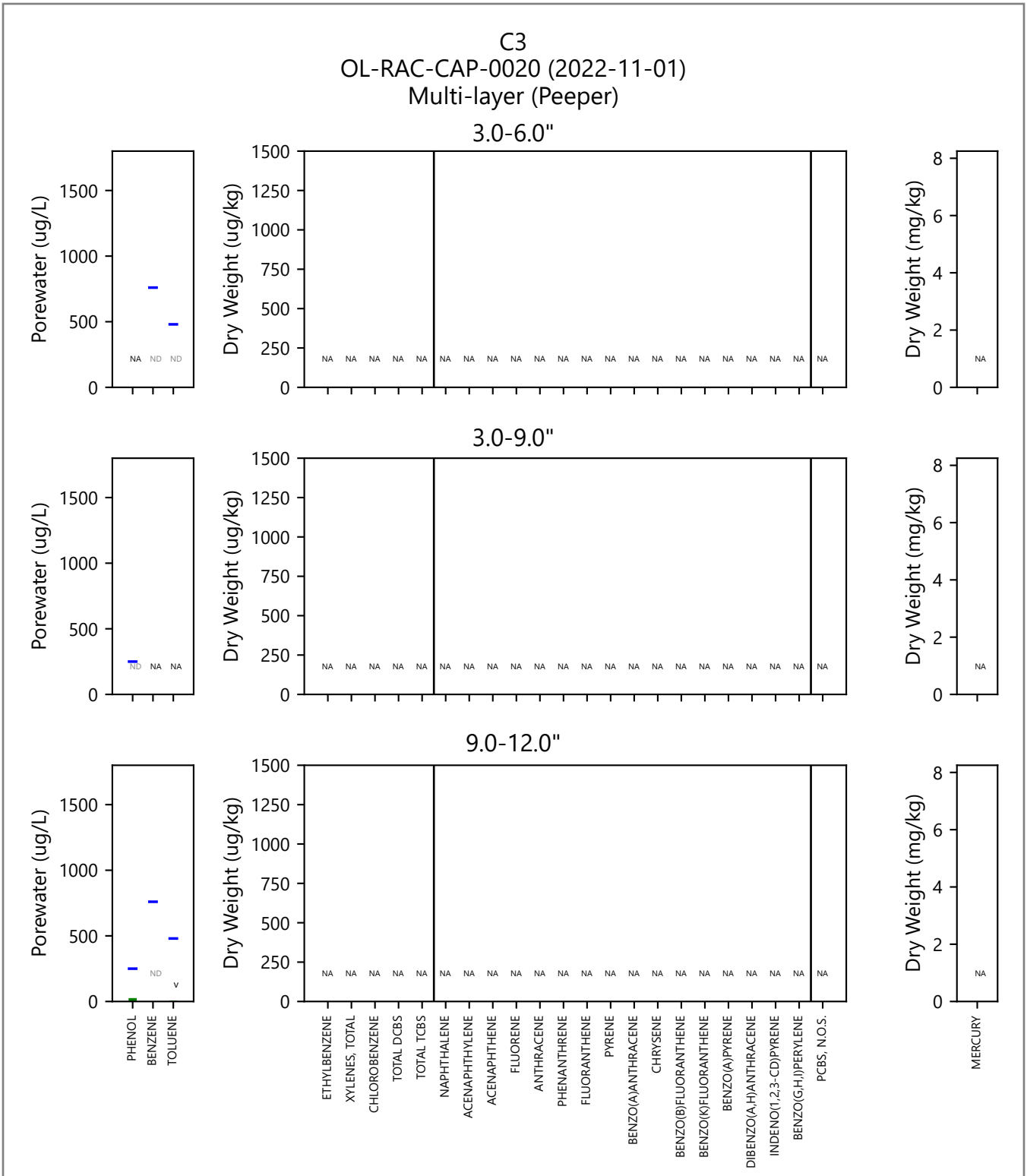
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Figure 1-118

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

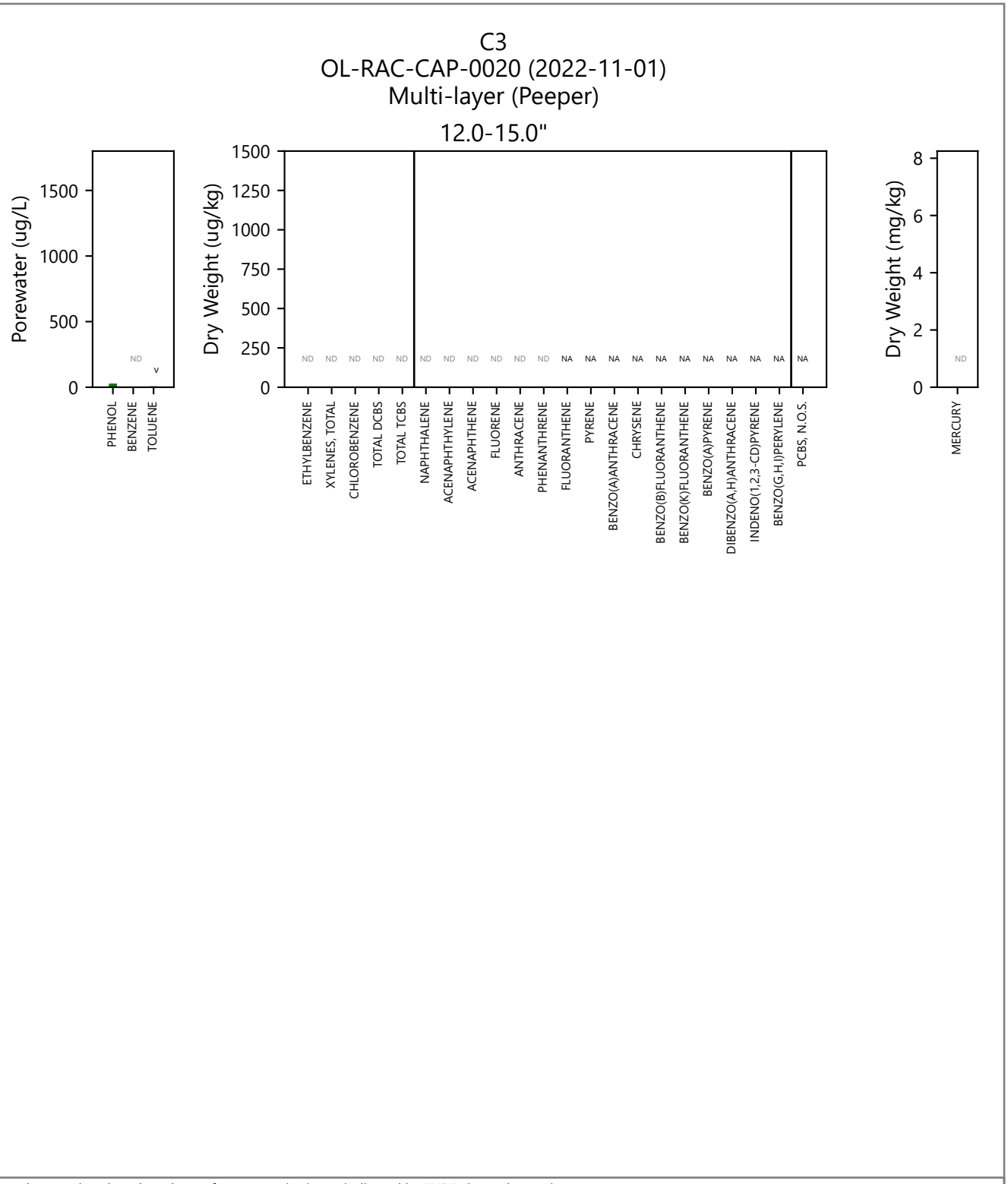
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Figure 1-119

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

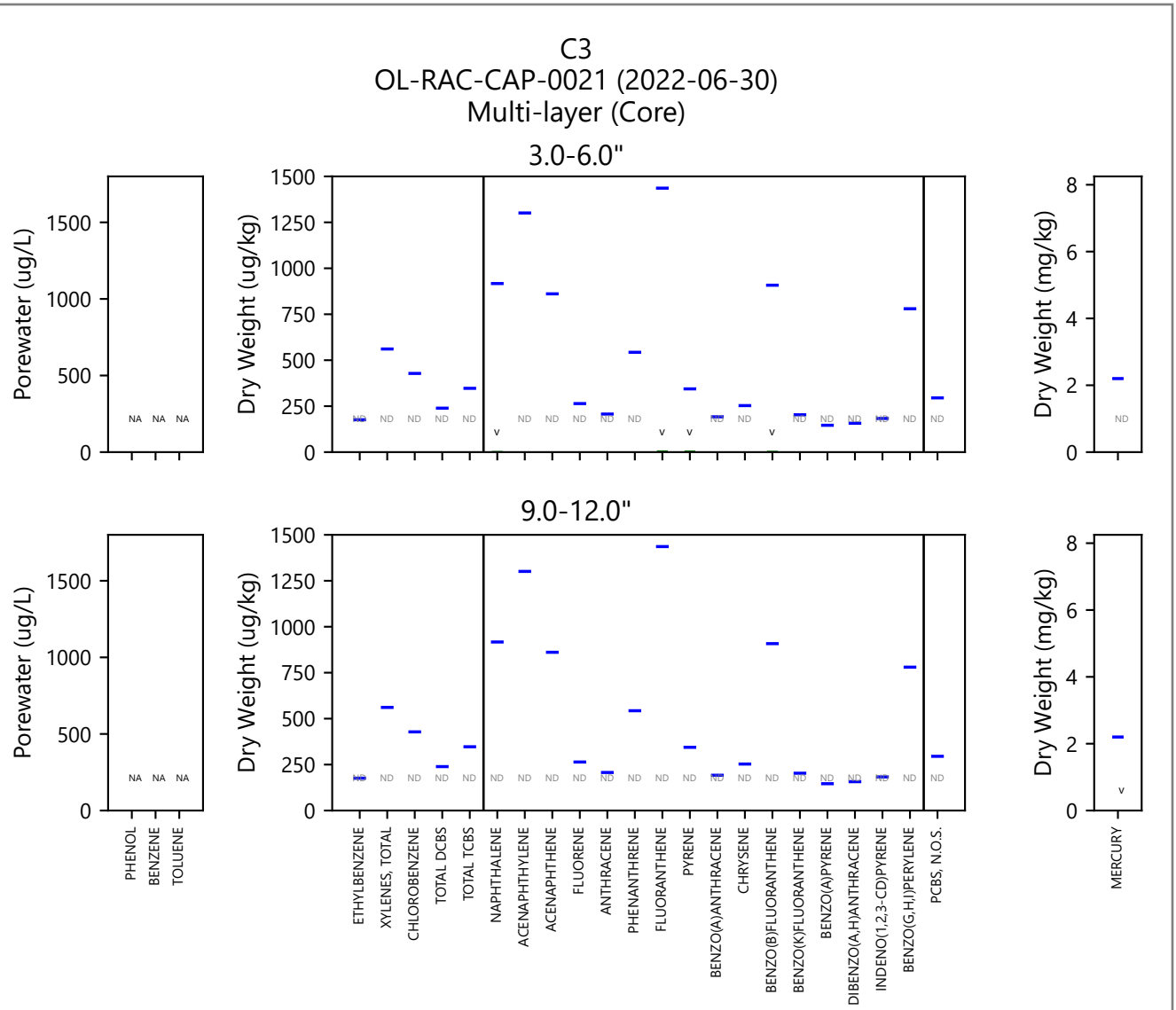
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Figure 1-120

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

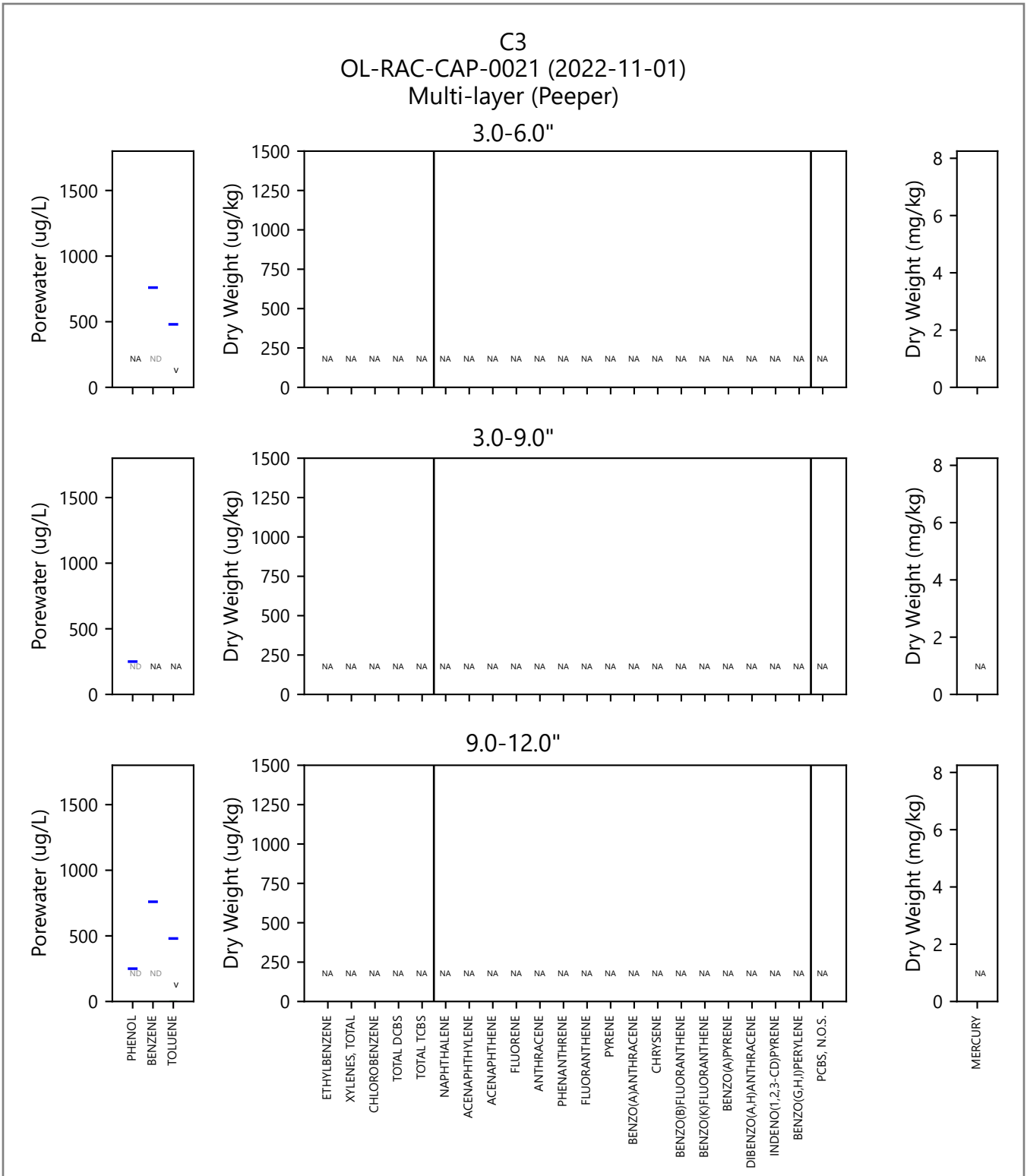
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Figure 1-121

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



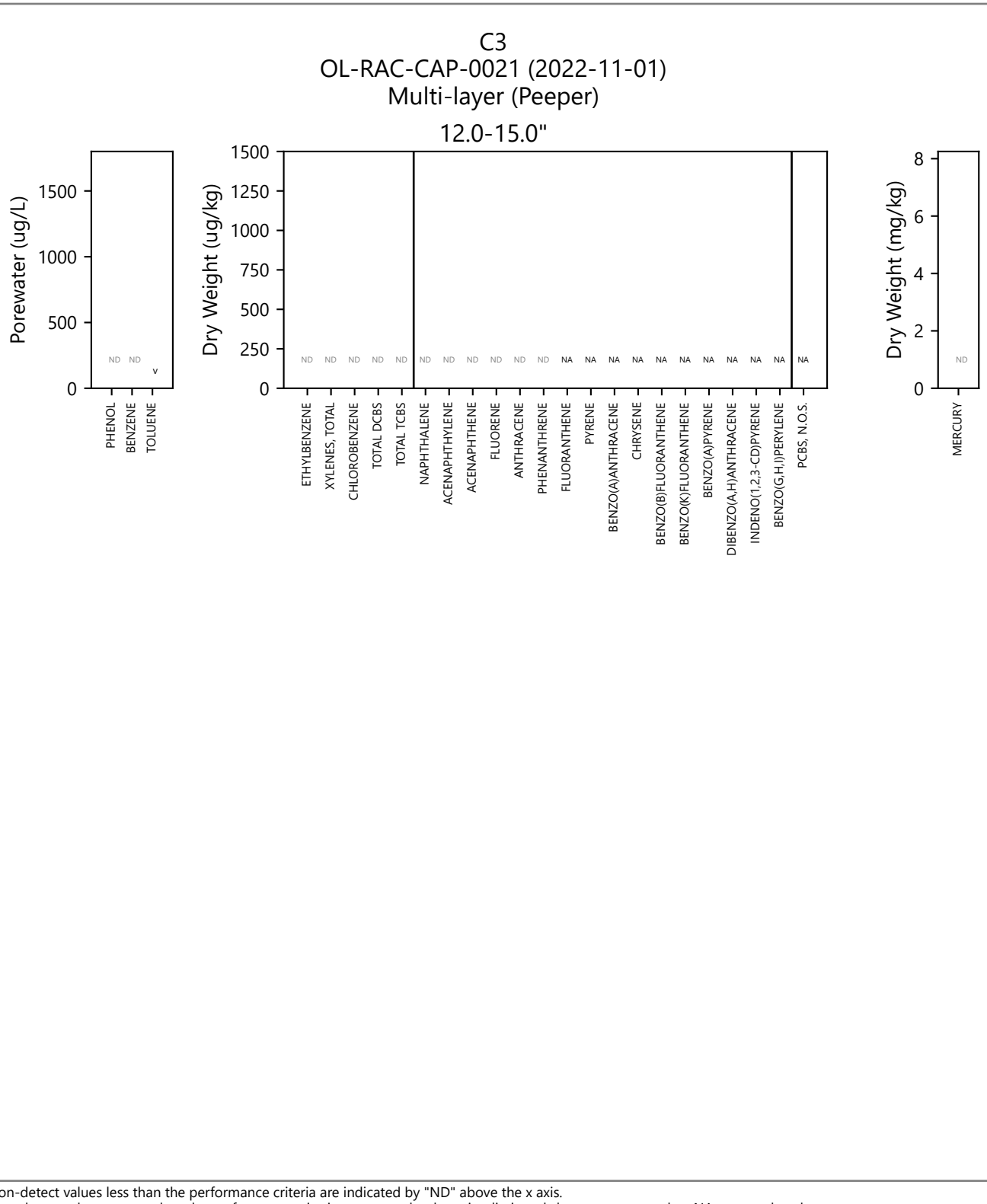
Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Figure 1-122

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

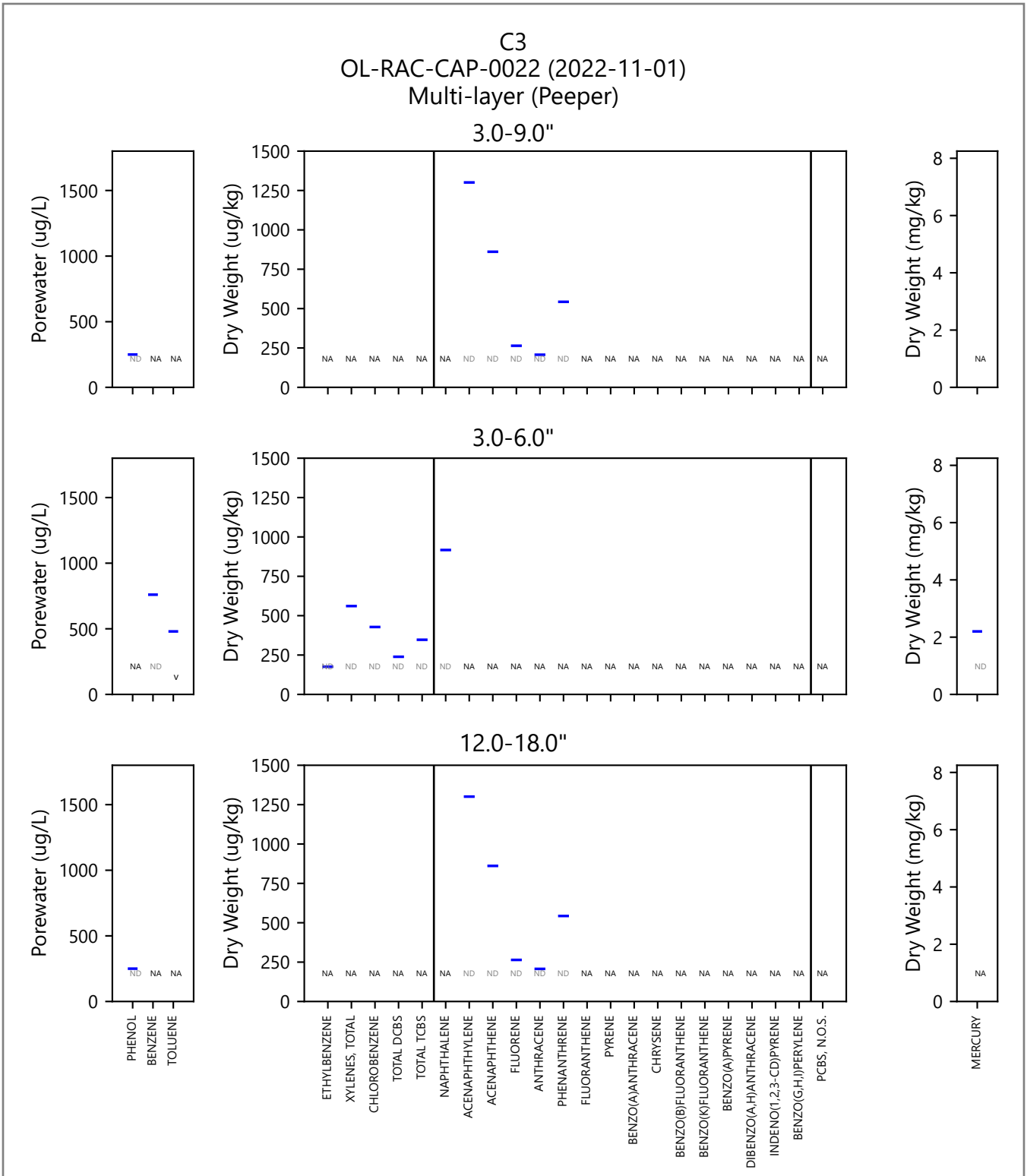
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Figure 1-123

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

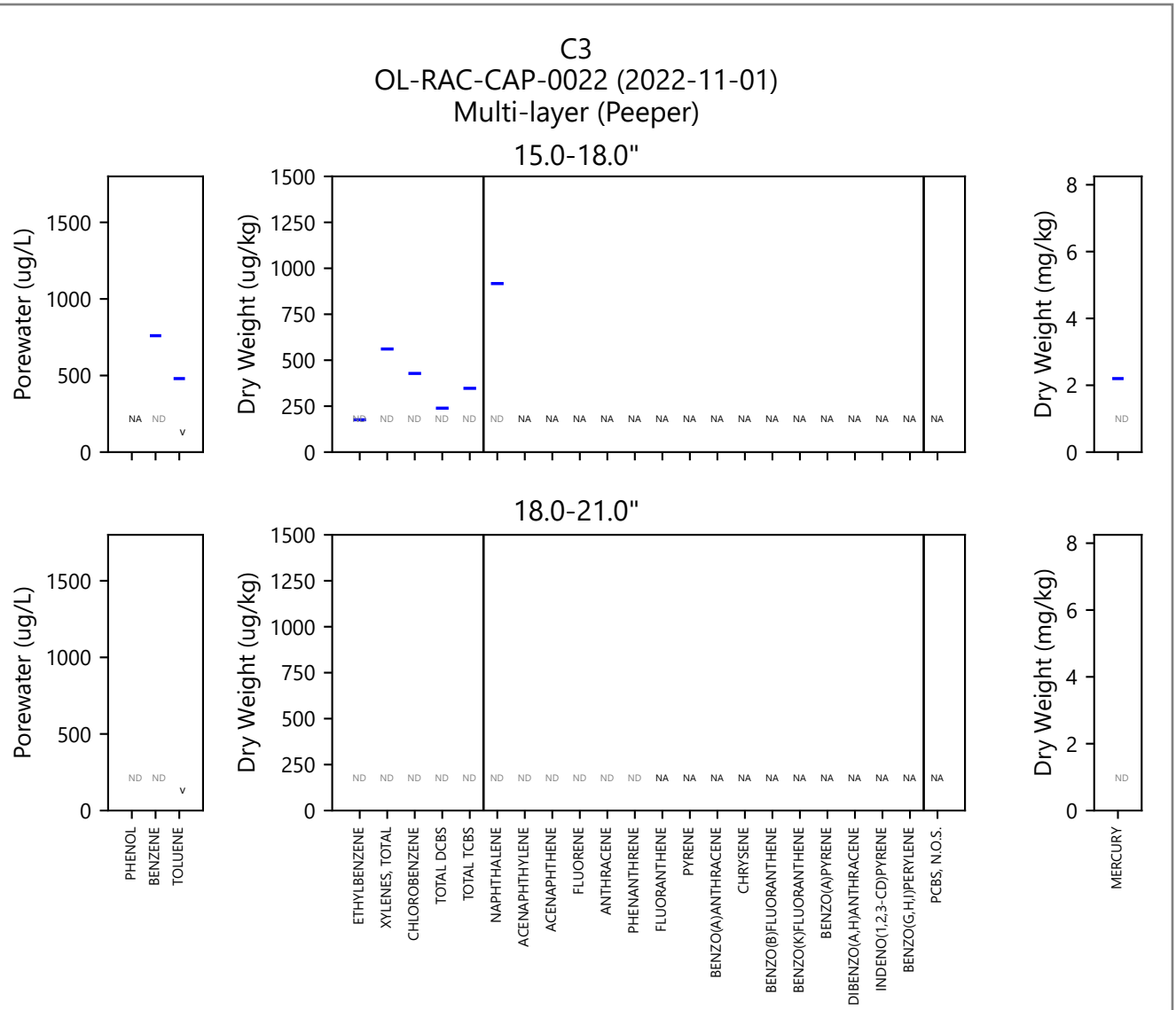
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Figure 1-124

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

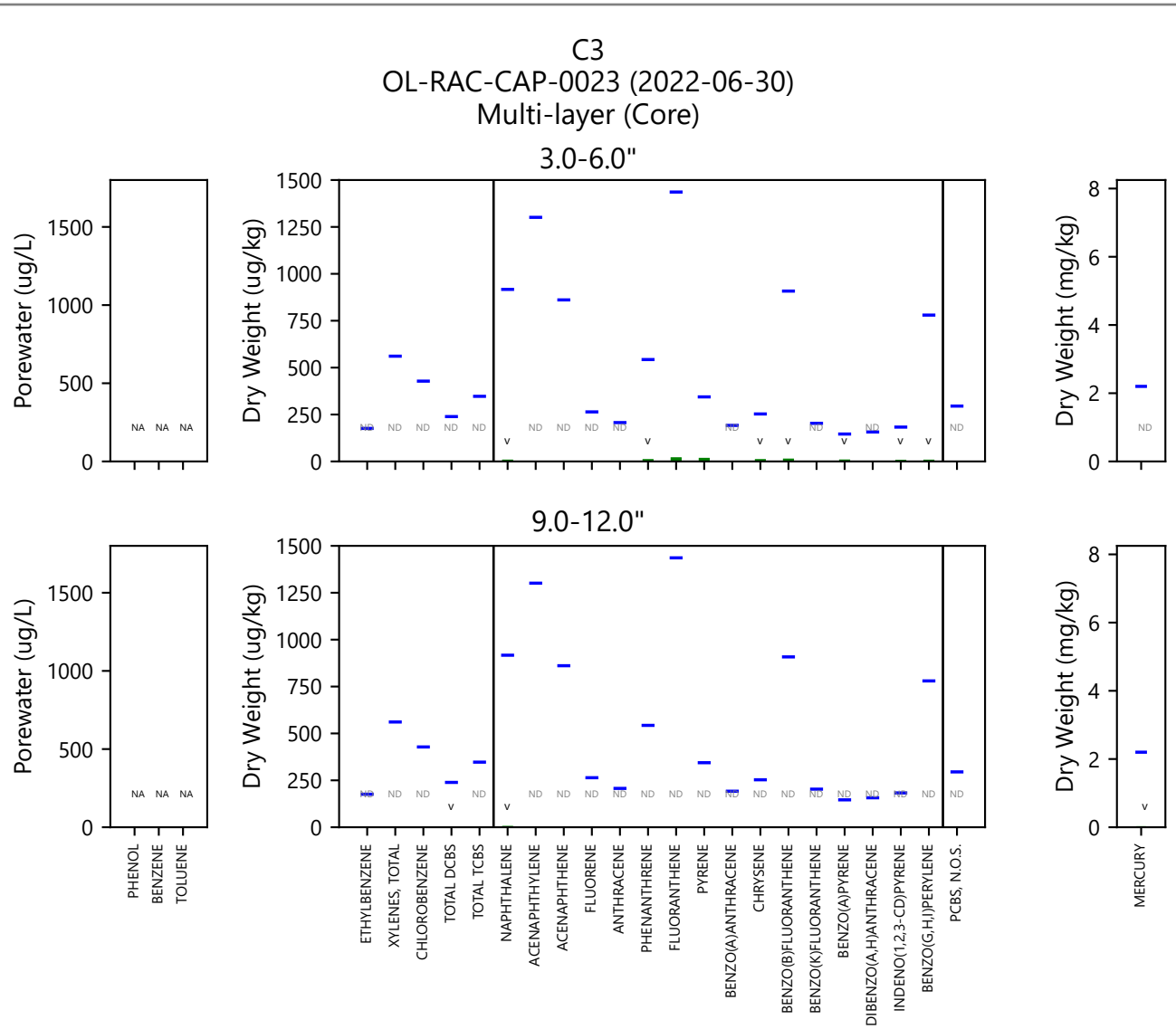
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Figure 1-125

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

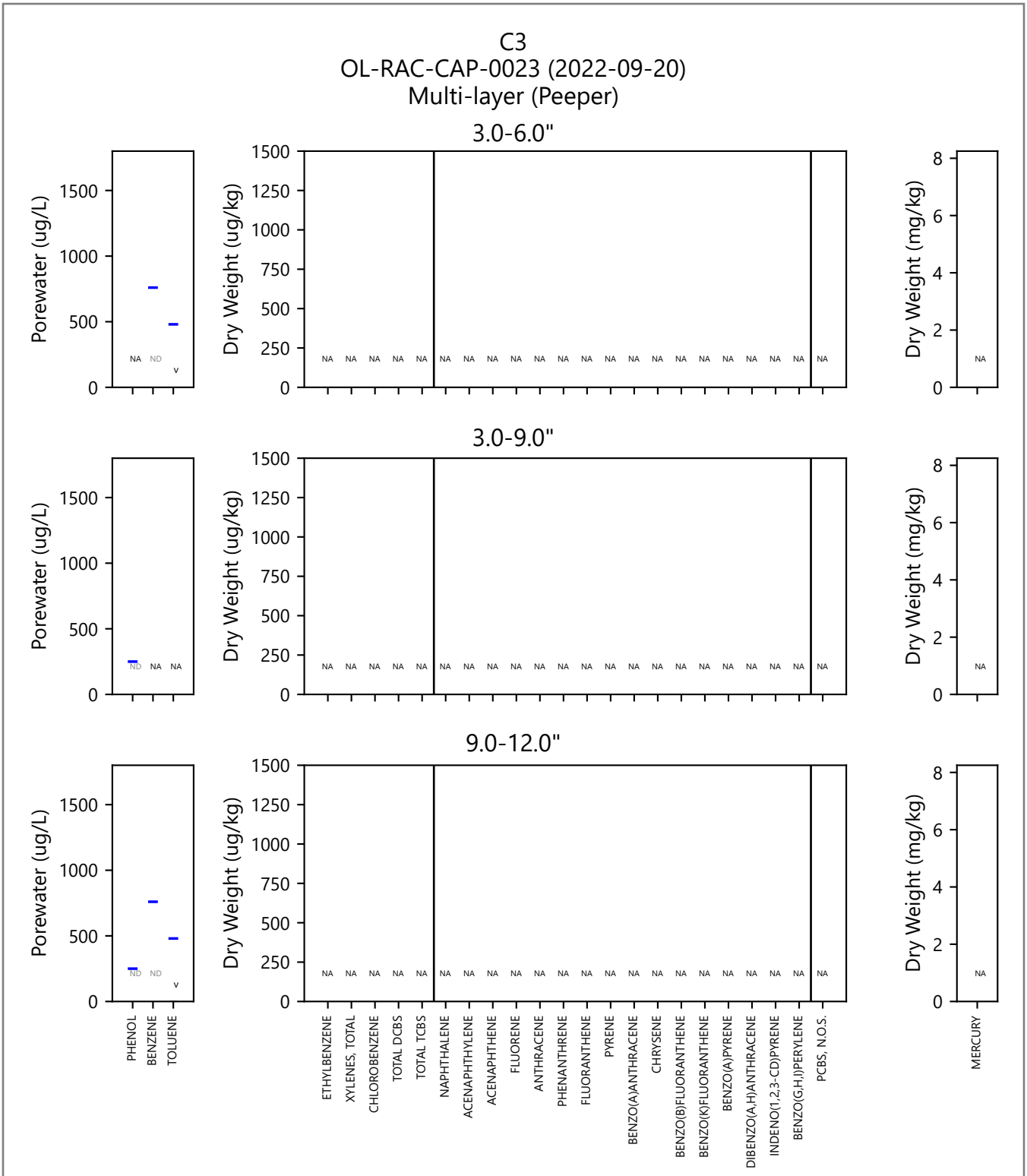
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Figure 1-126

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



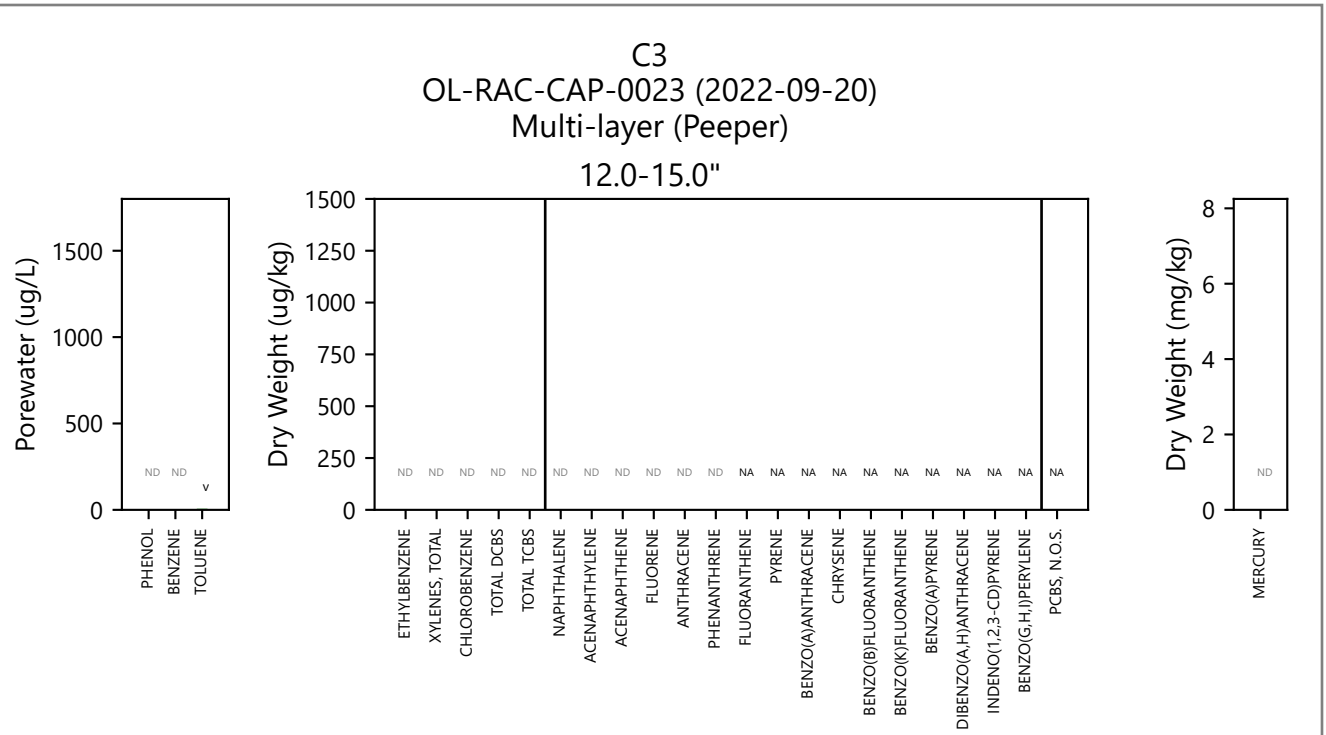
Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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Figure 1-127

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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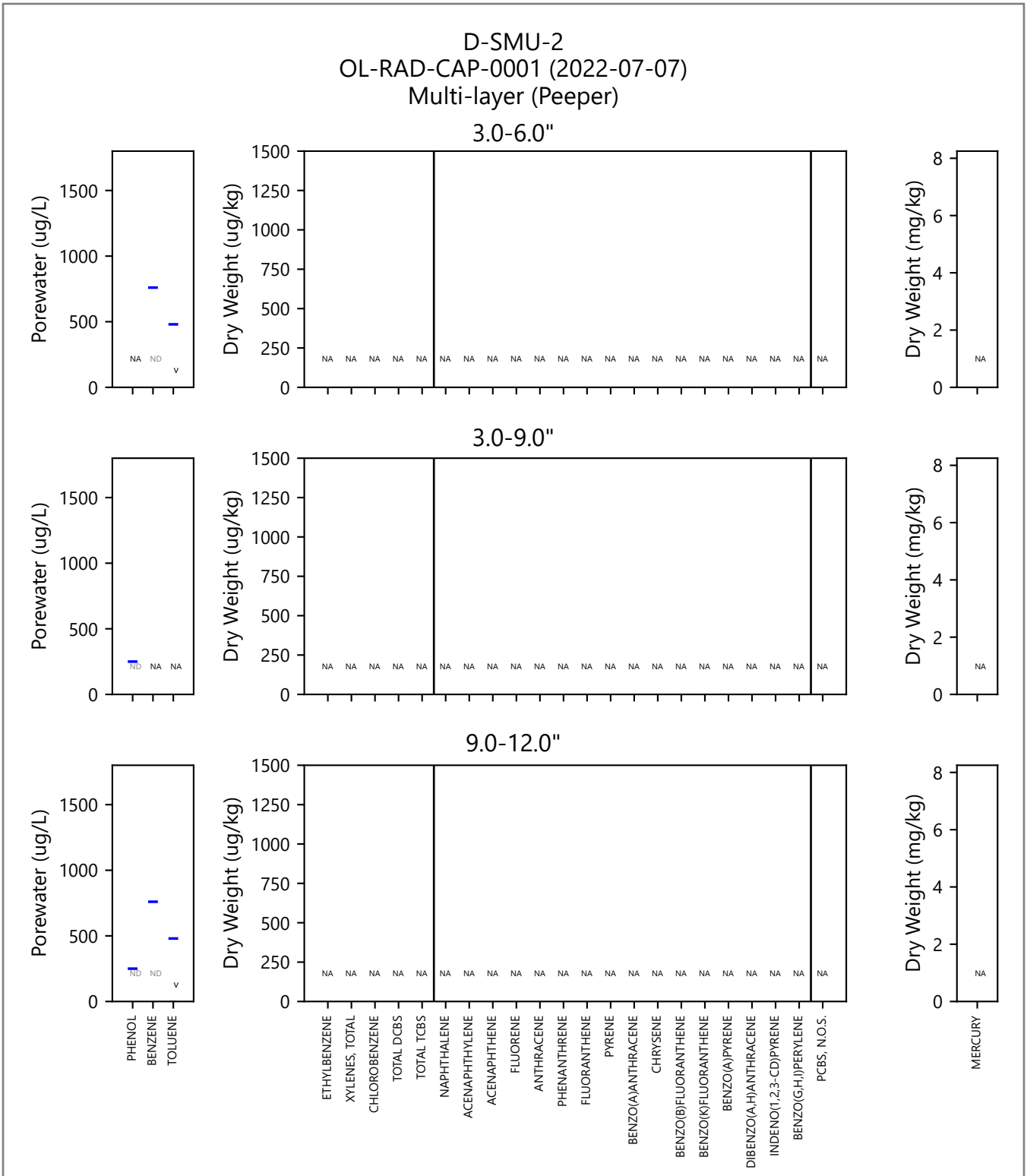
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Figure 1-128

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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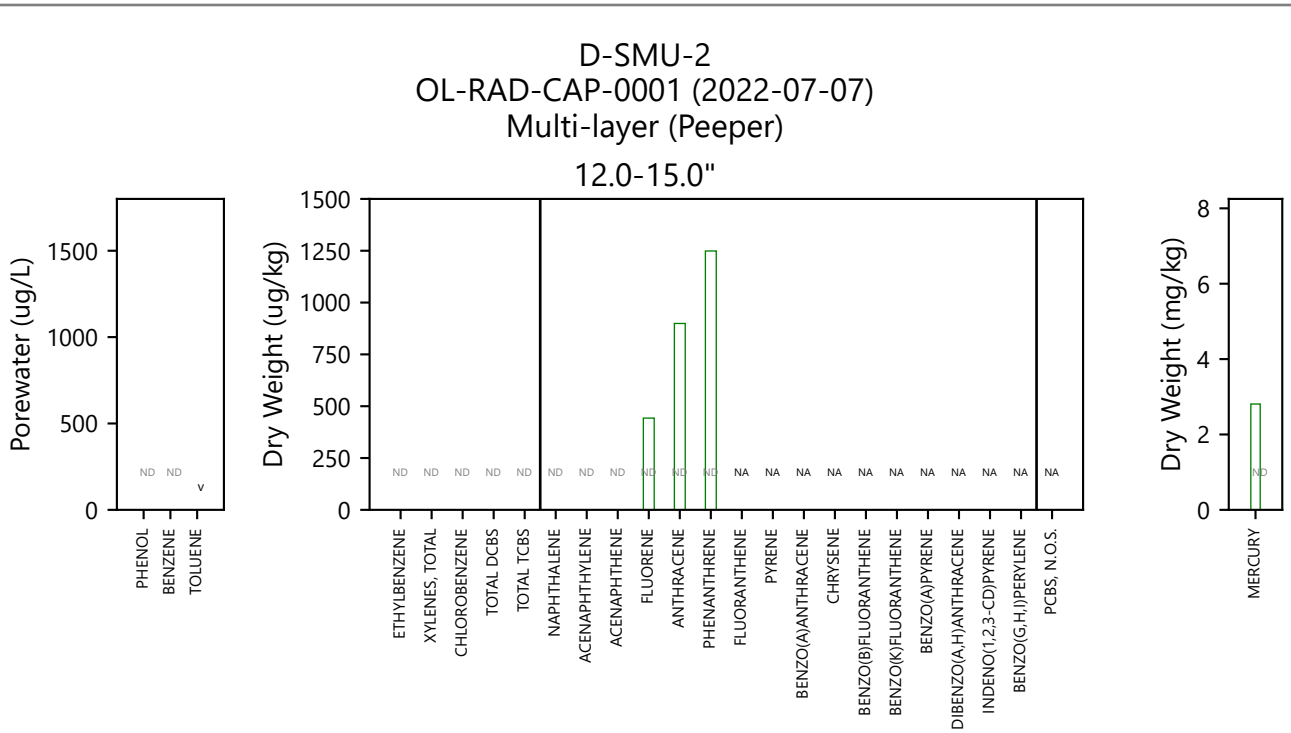
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Figure 1-129

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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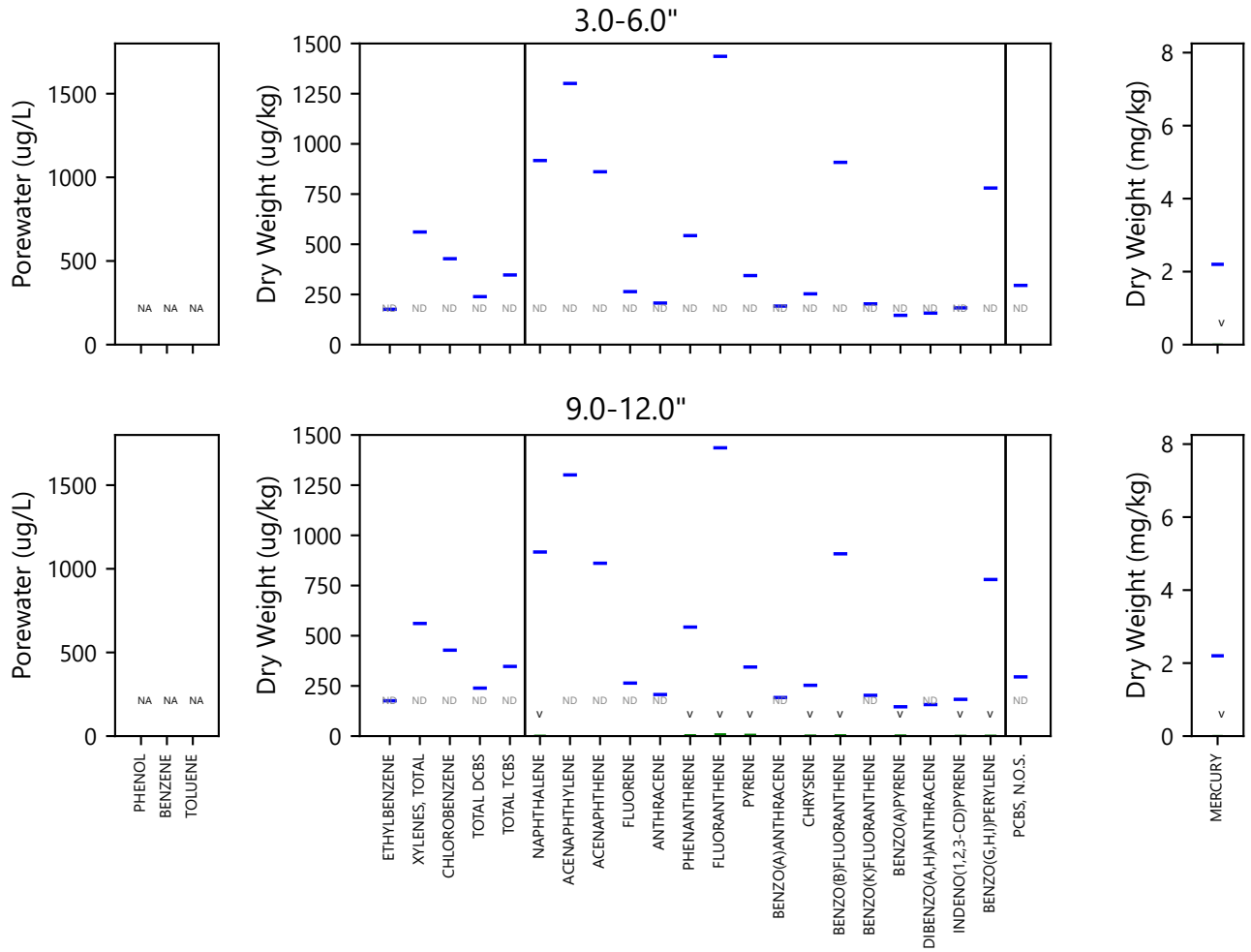
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Figure 1-130

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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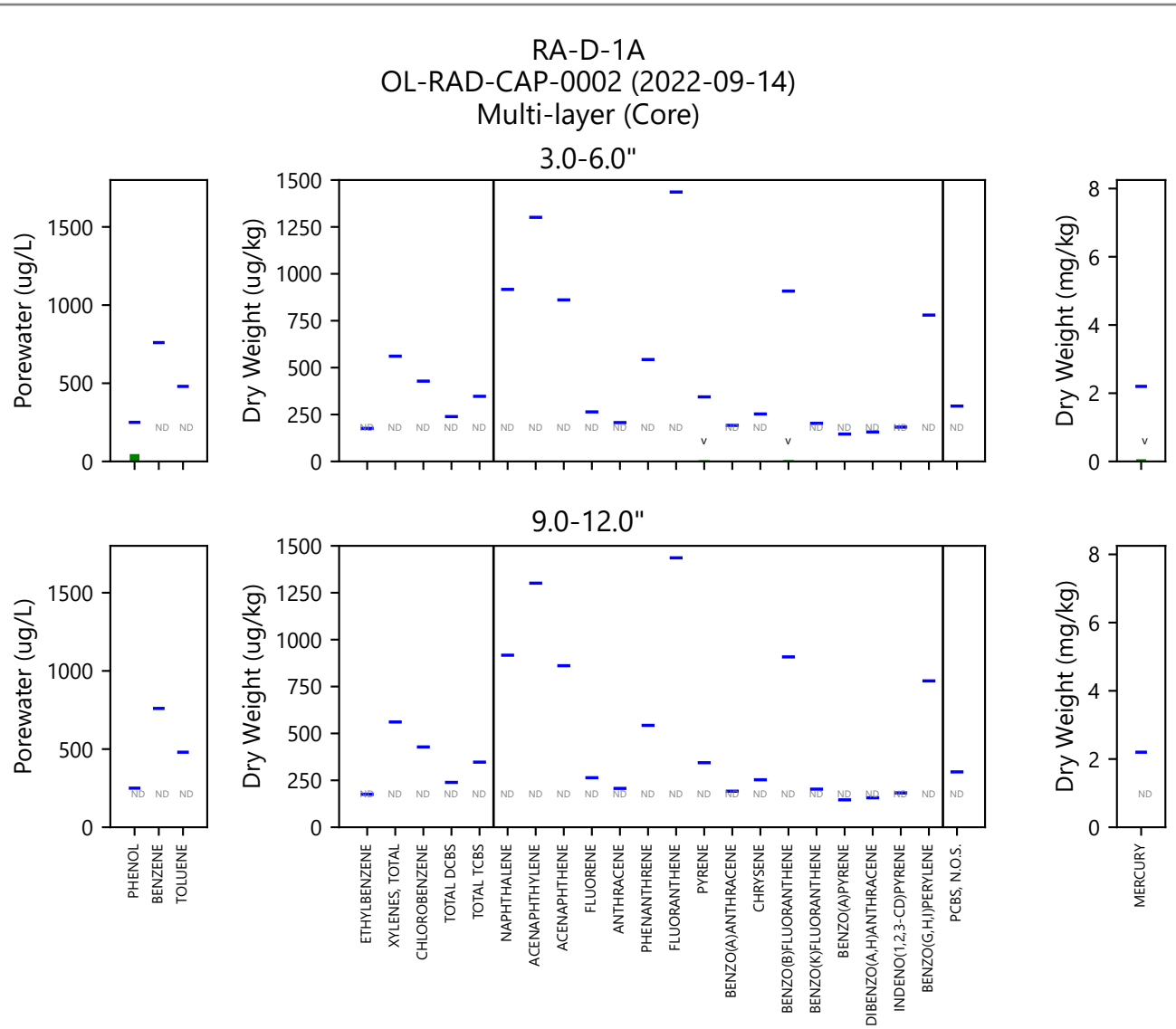
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Figure 1-131

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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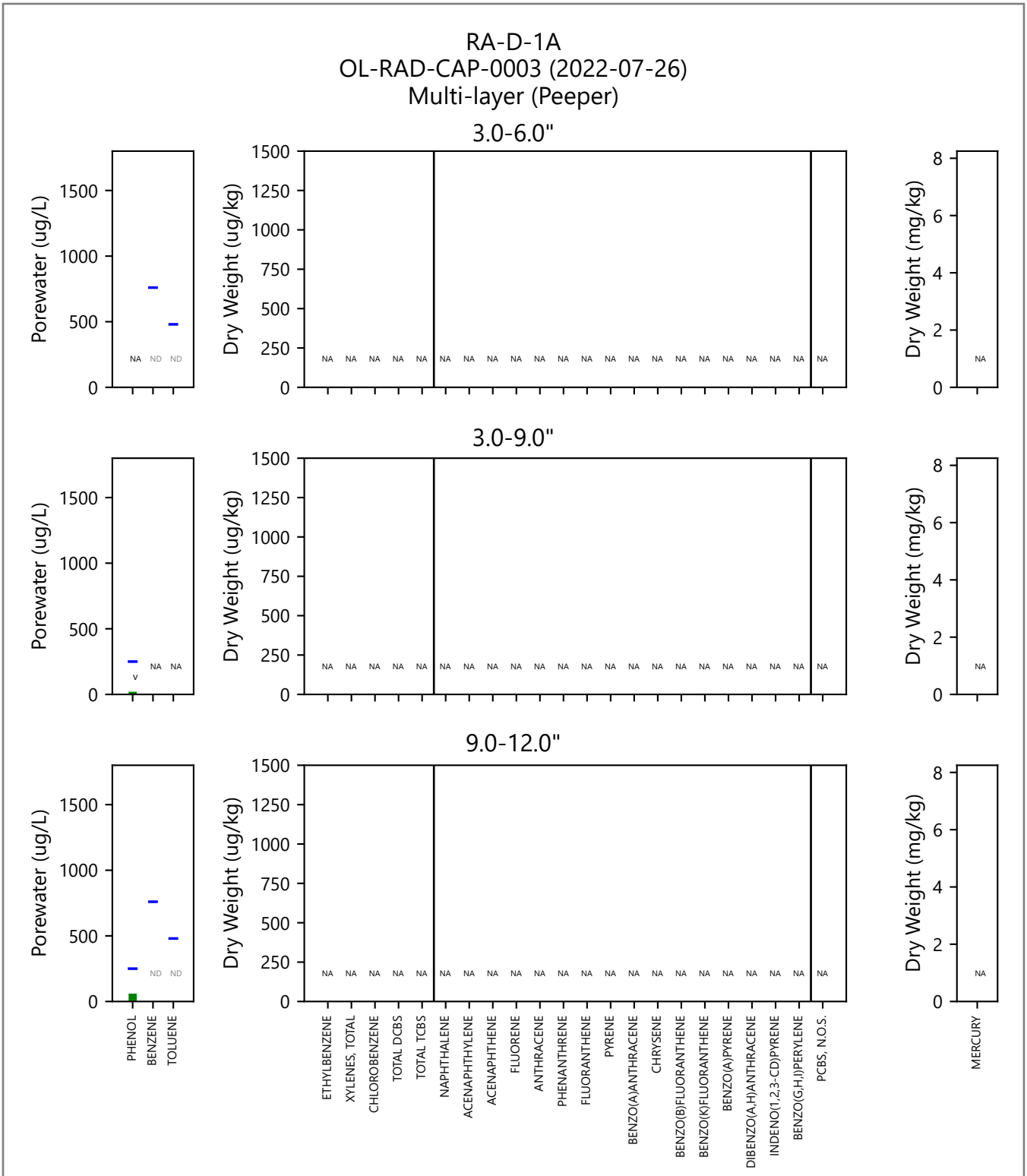
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Figure 1-132

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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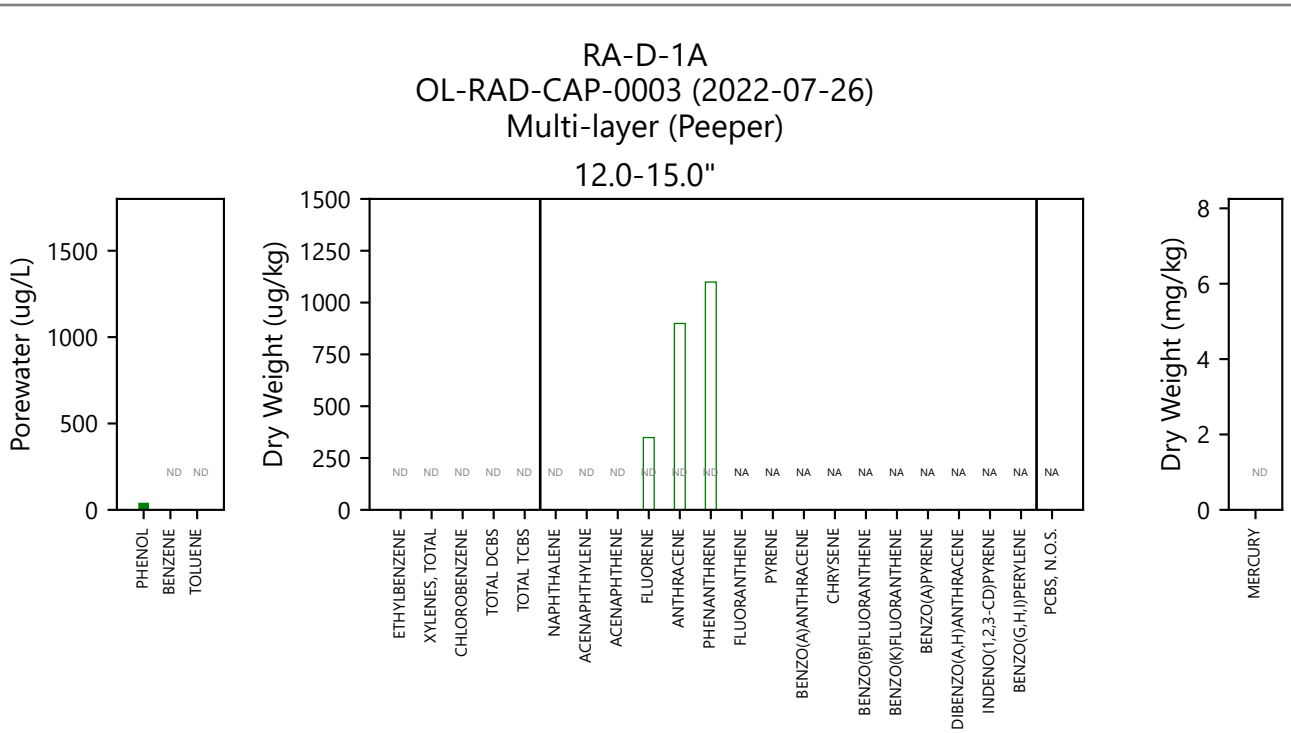
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Figure 1-133

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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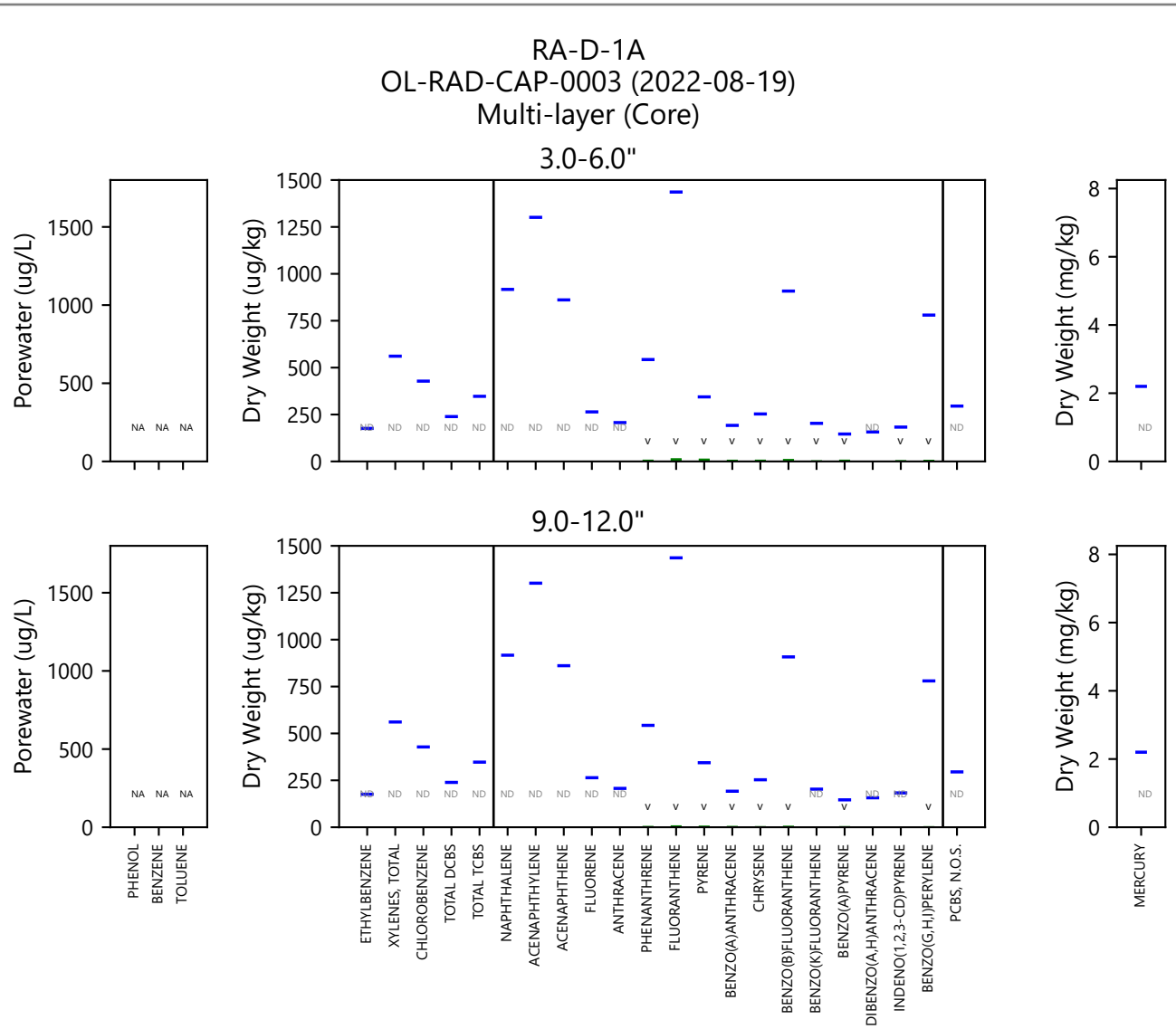
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Figure 1-134

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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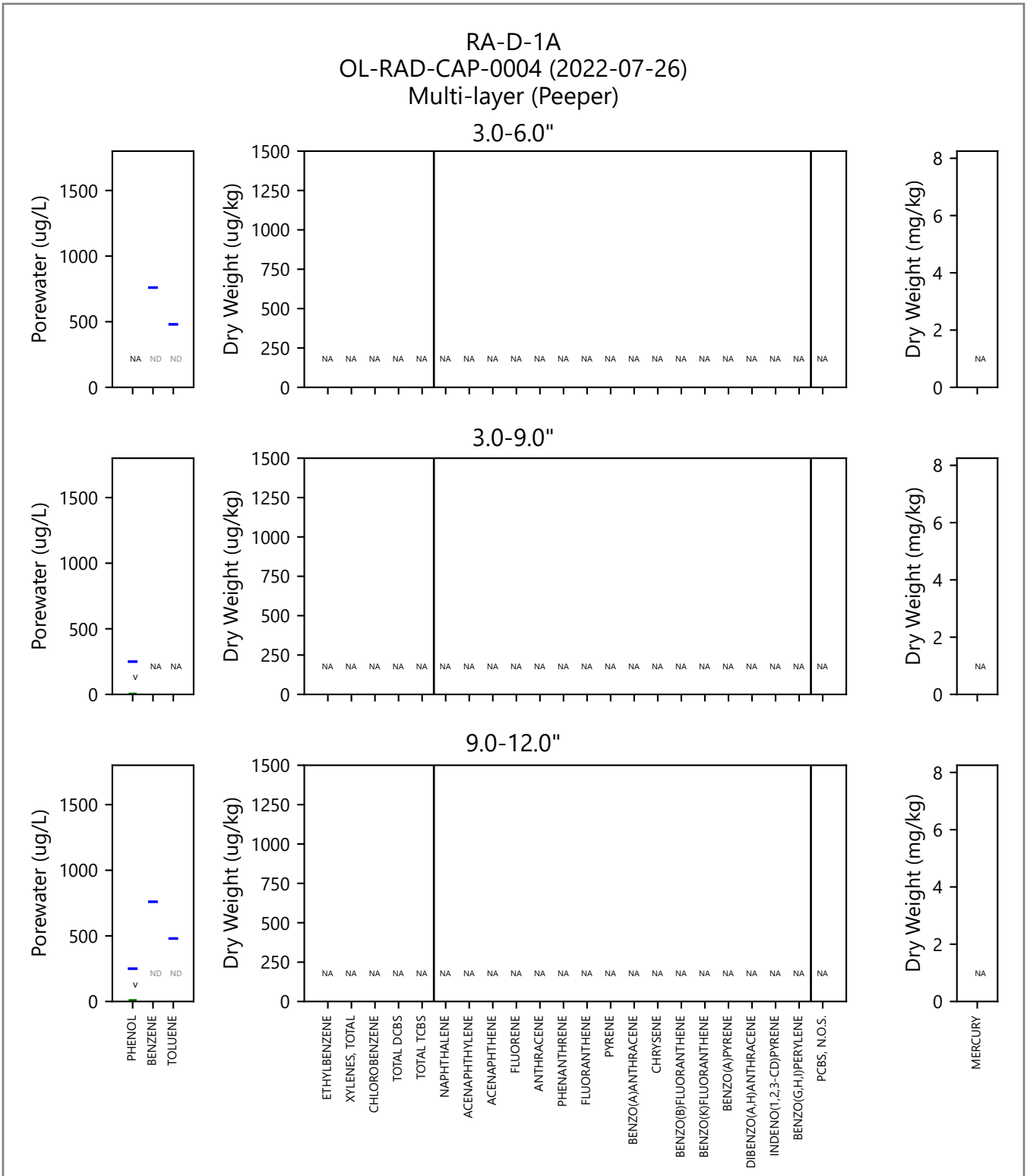
Habitat Layer Performance Criteria

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File Path: \\WCL-FS1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Cap_Chemistry\Python\Forensics\OLCap_Forensic_Bar_Plots_CapMaterial_Criteria_HLine_2019_wHB.py

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Figure 1-135

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

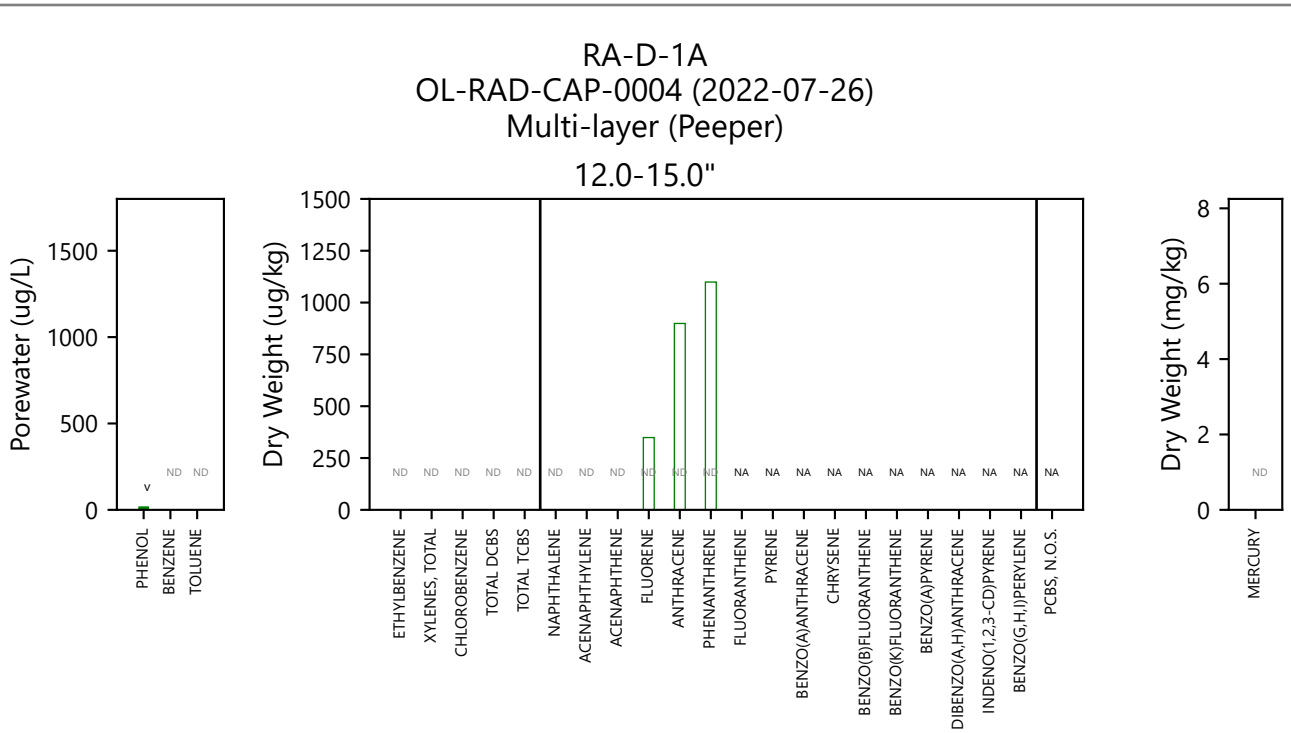
Habitat Layer Performance Criteria

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Figure 1-136

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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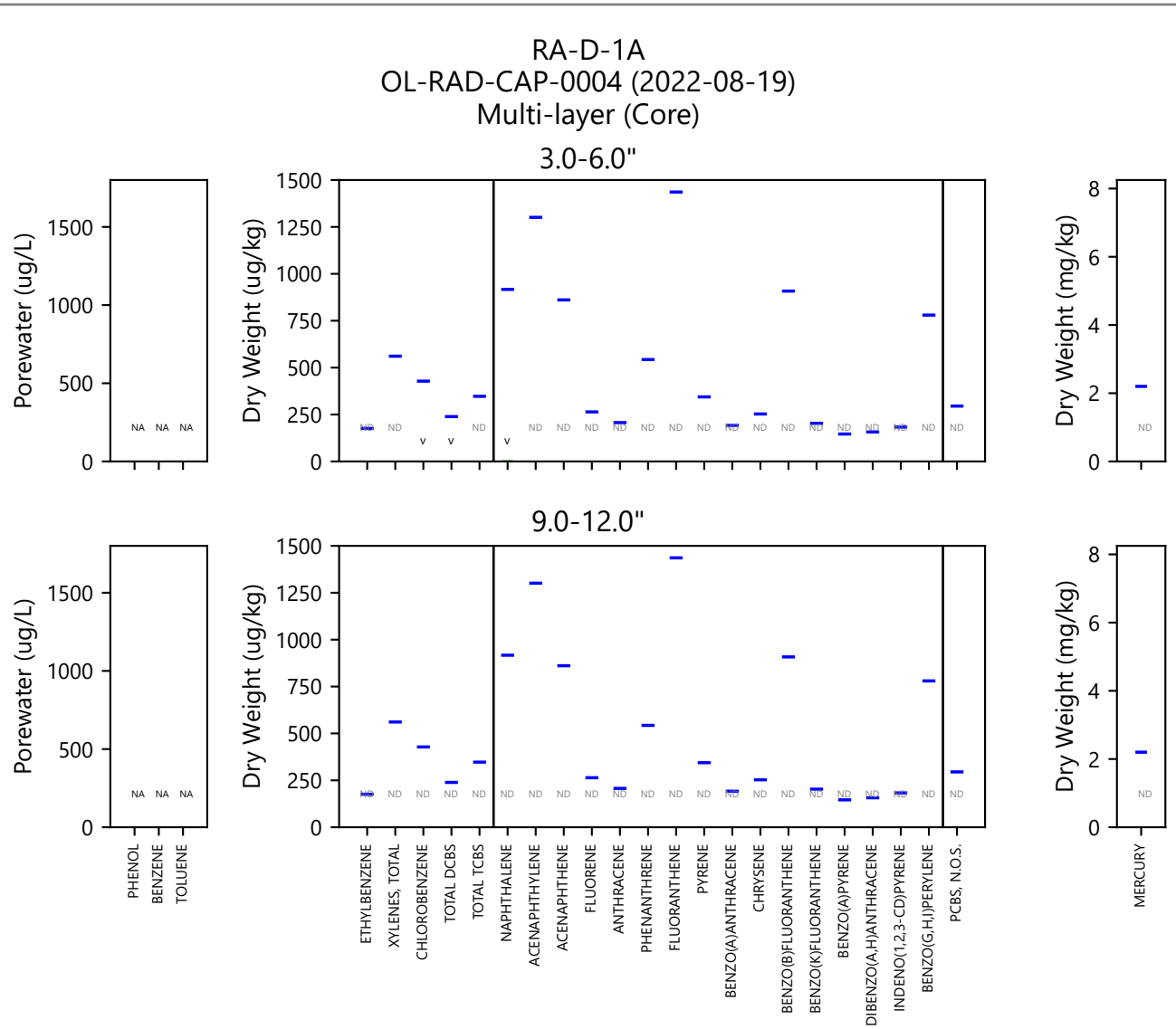
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Figure 1-137

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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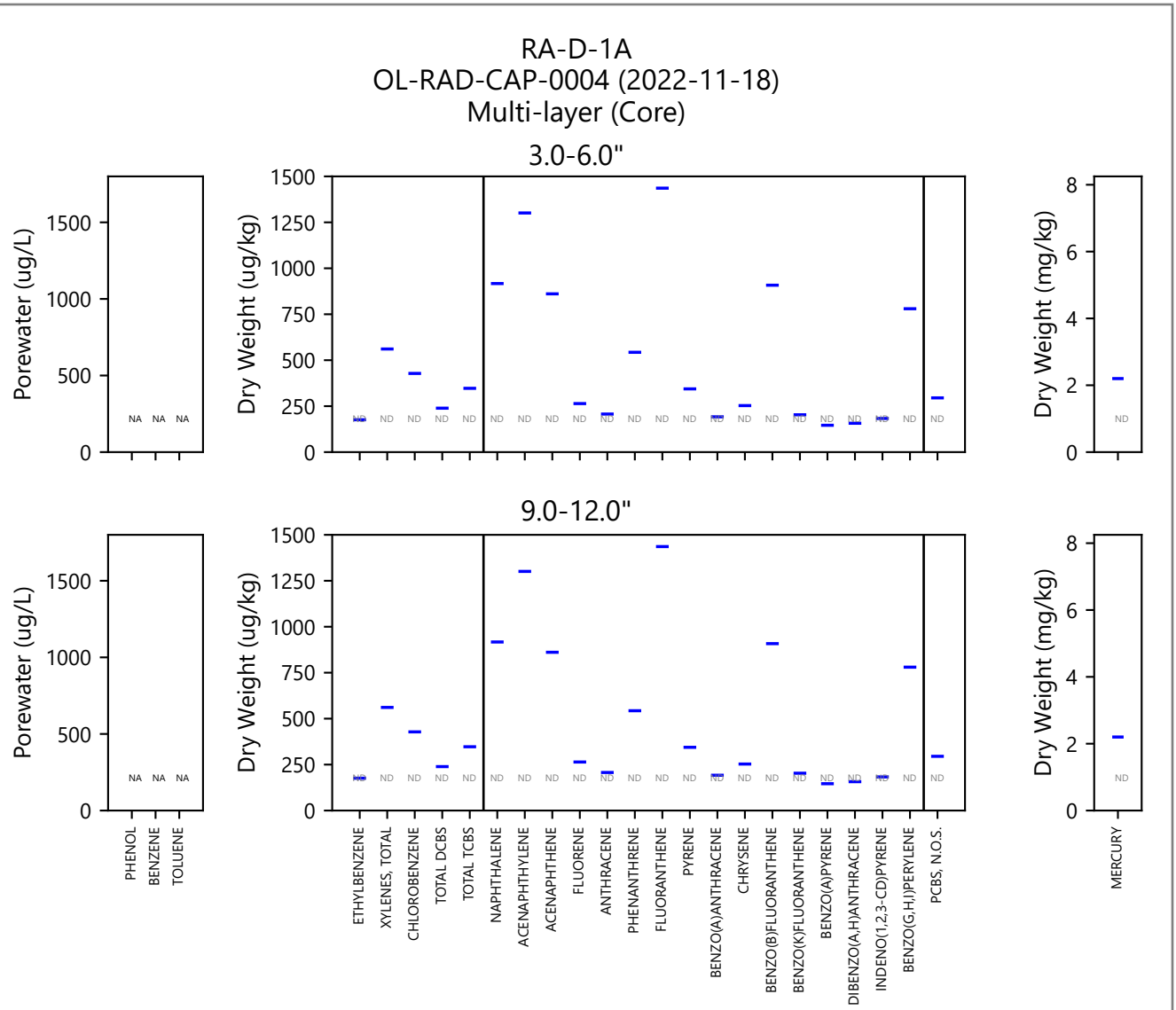
Habitat Layer Performance Criteria

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Figure 1-138

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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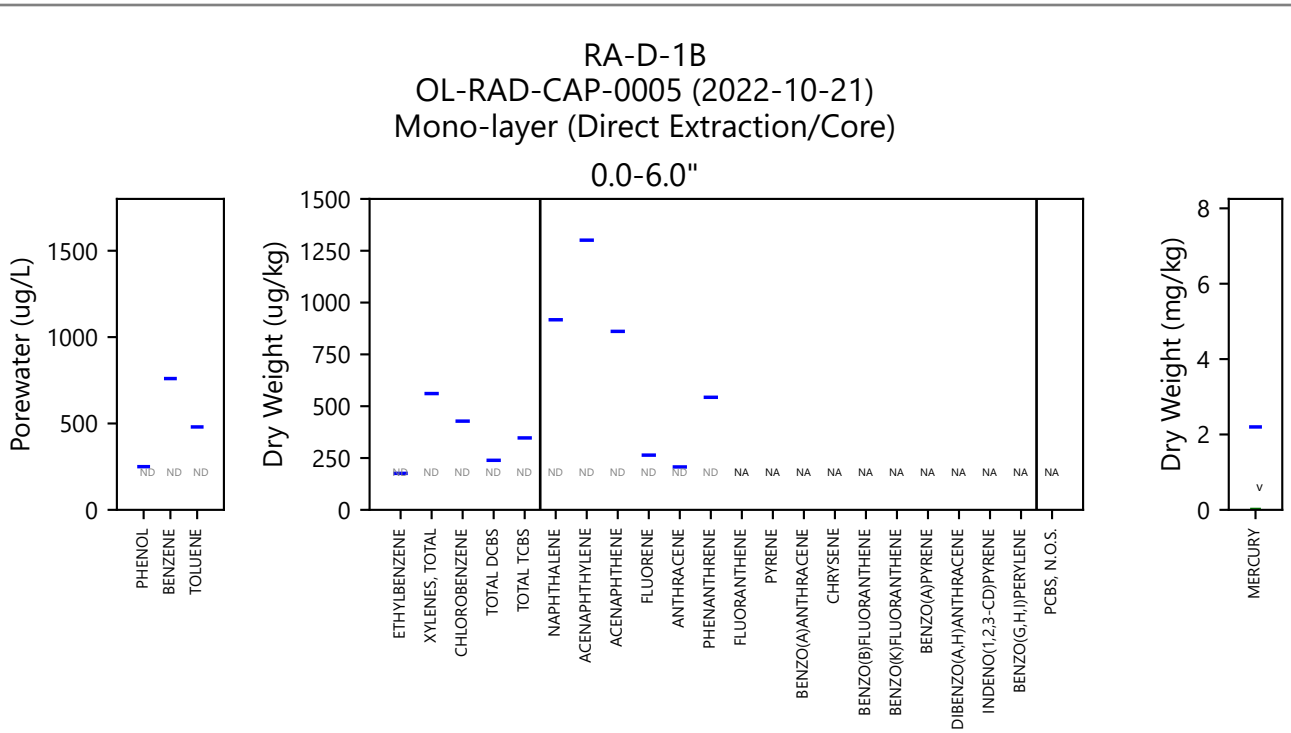
Habitat Layer Performance Criteria

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Figure 1-139

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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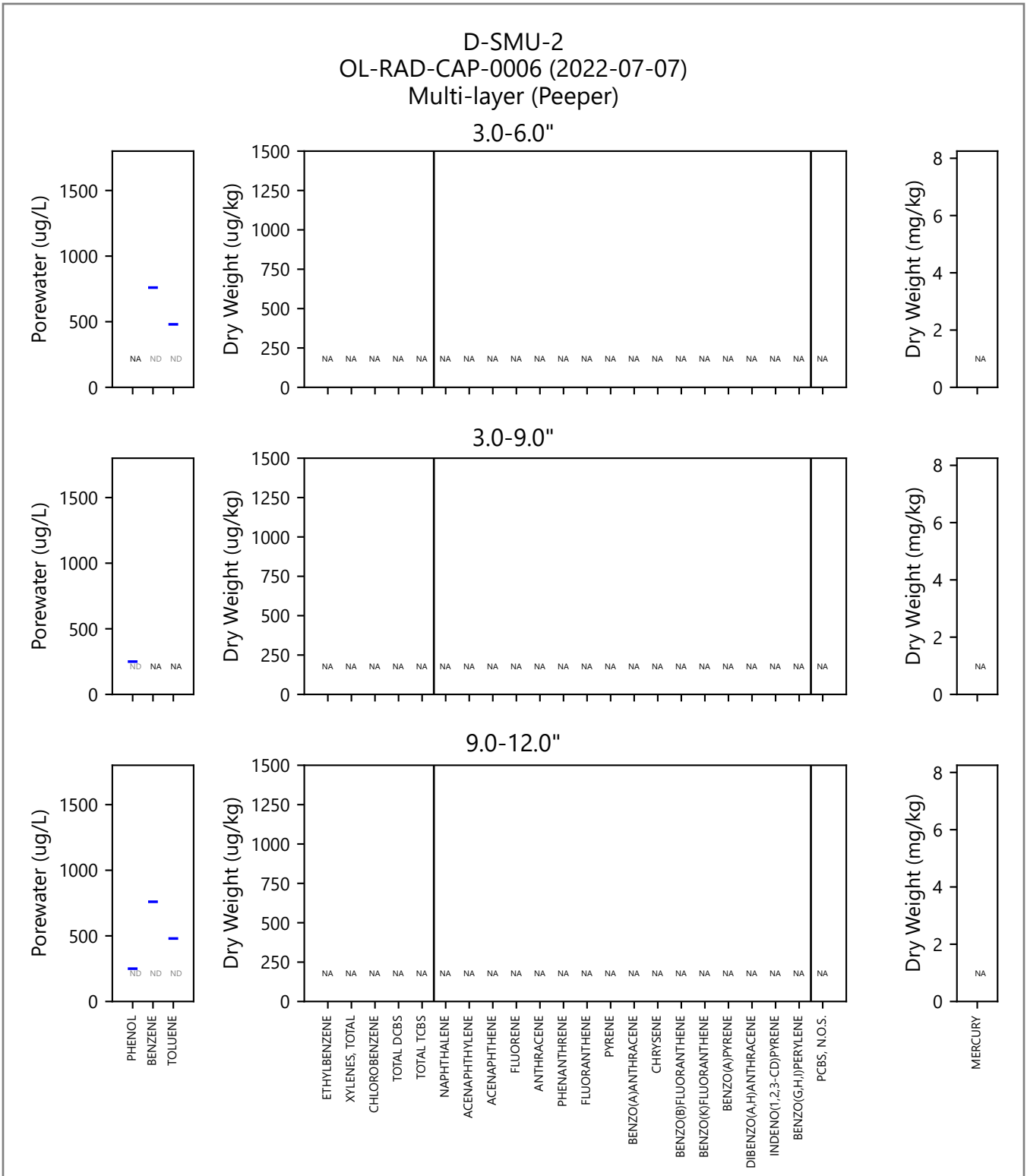
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Figure 1-140

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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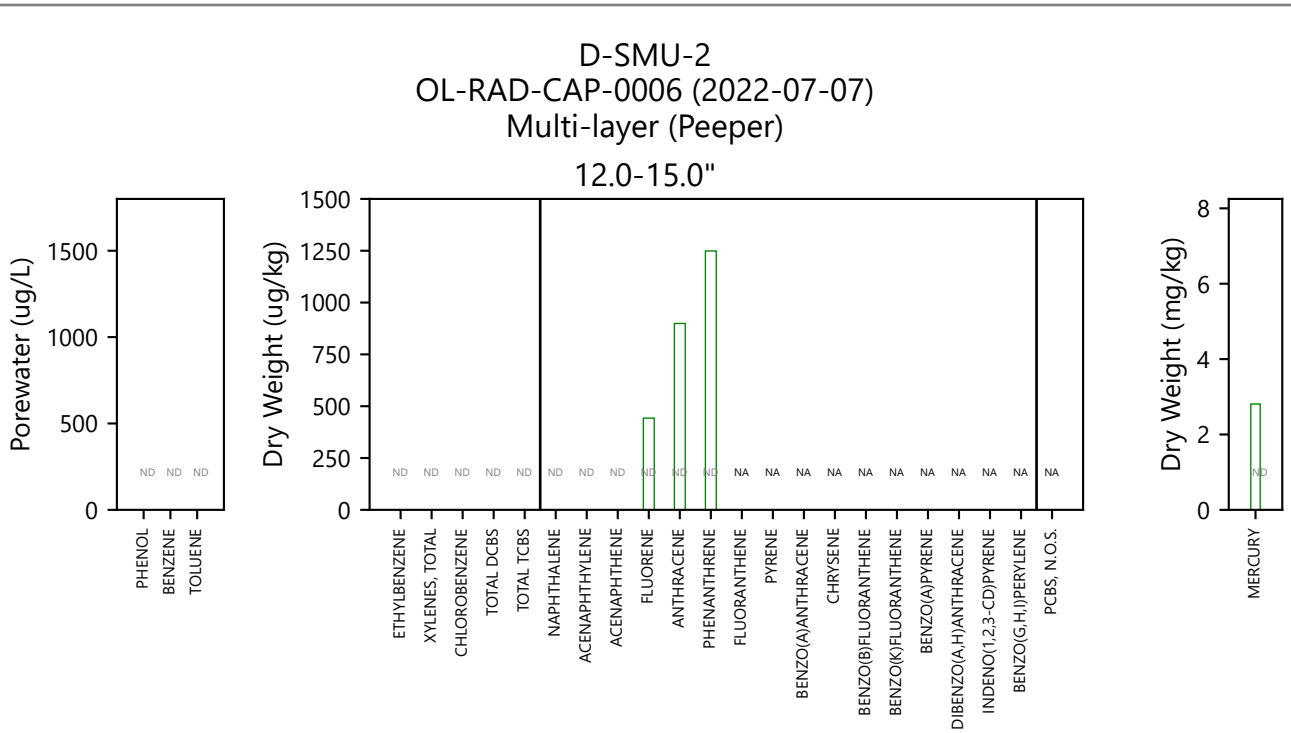
Habitat Layer Performance Criteria

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Figure 1-141

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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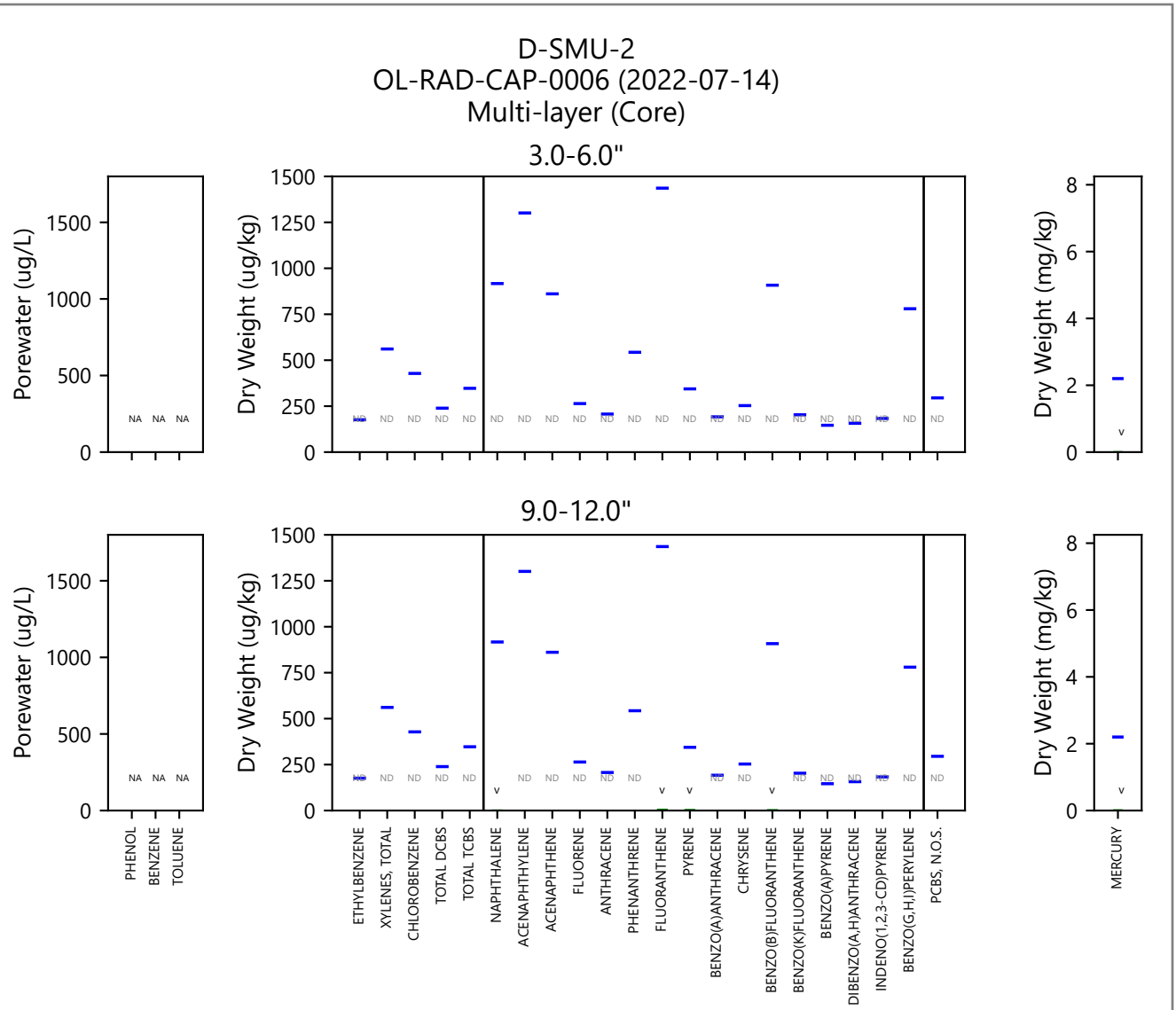
Habitat Layer Performance Criteria

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Figure 1-142

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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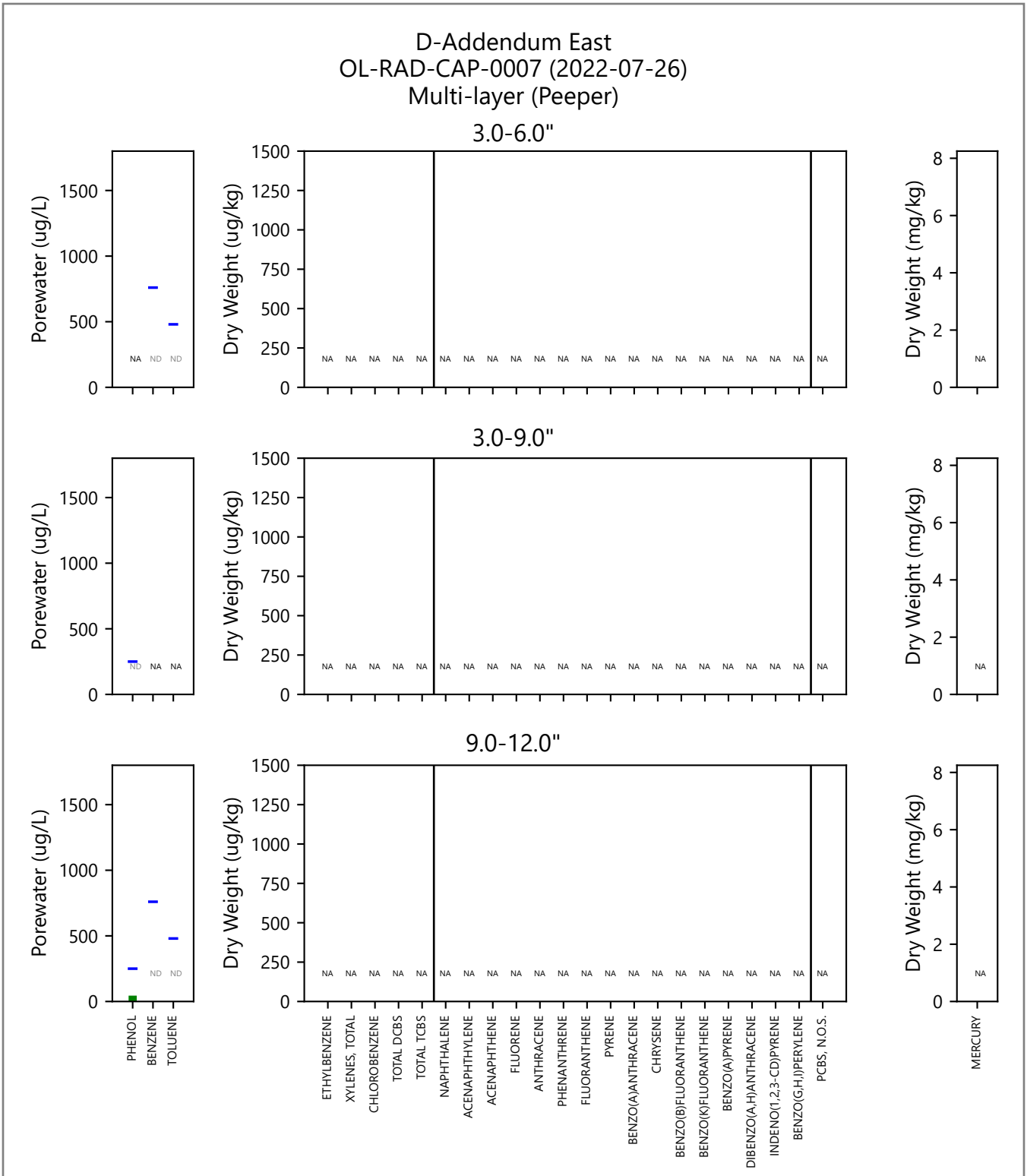
Habitat Layer Performance Criteria

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Figure 1-143

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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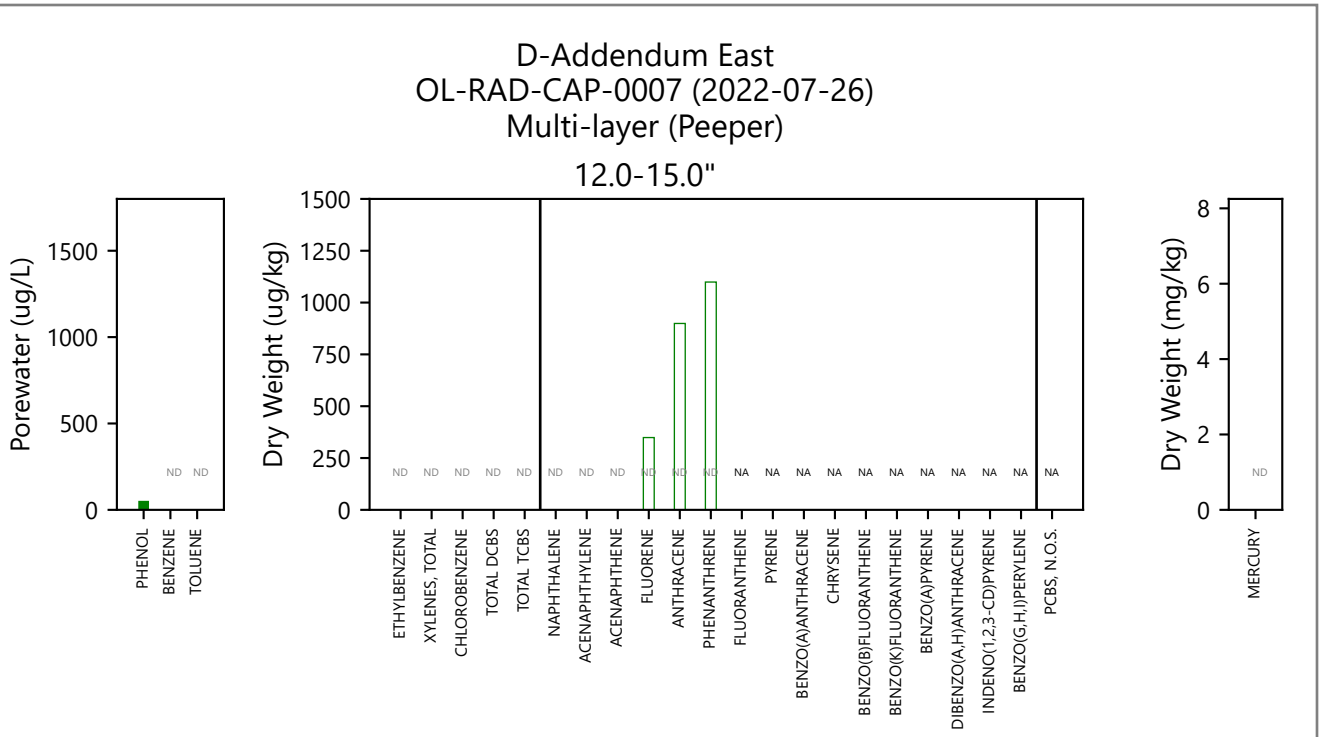
Habitat Layer Performance Criteria

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Figure 1-144

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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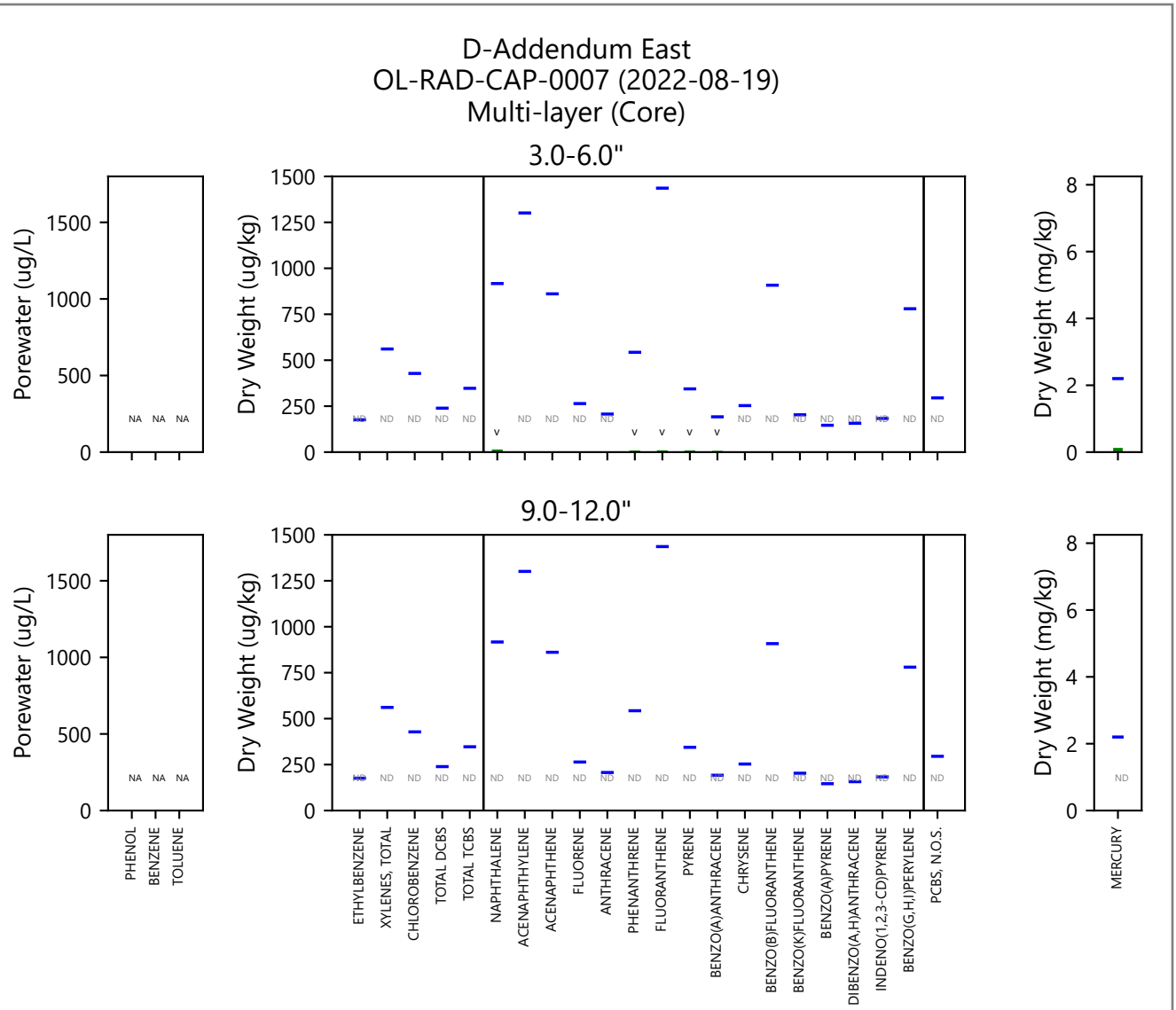
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Figure 1-145

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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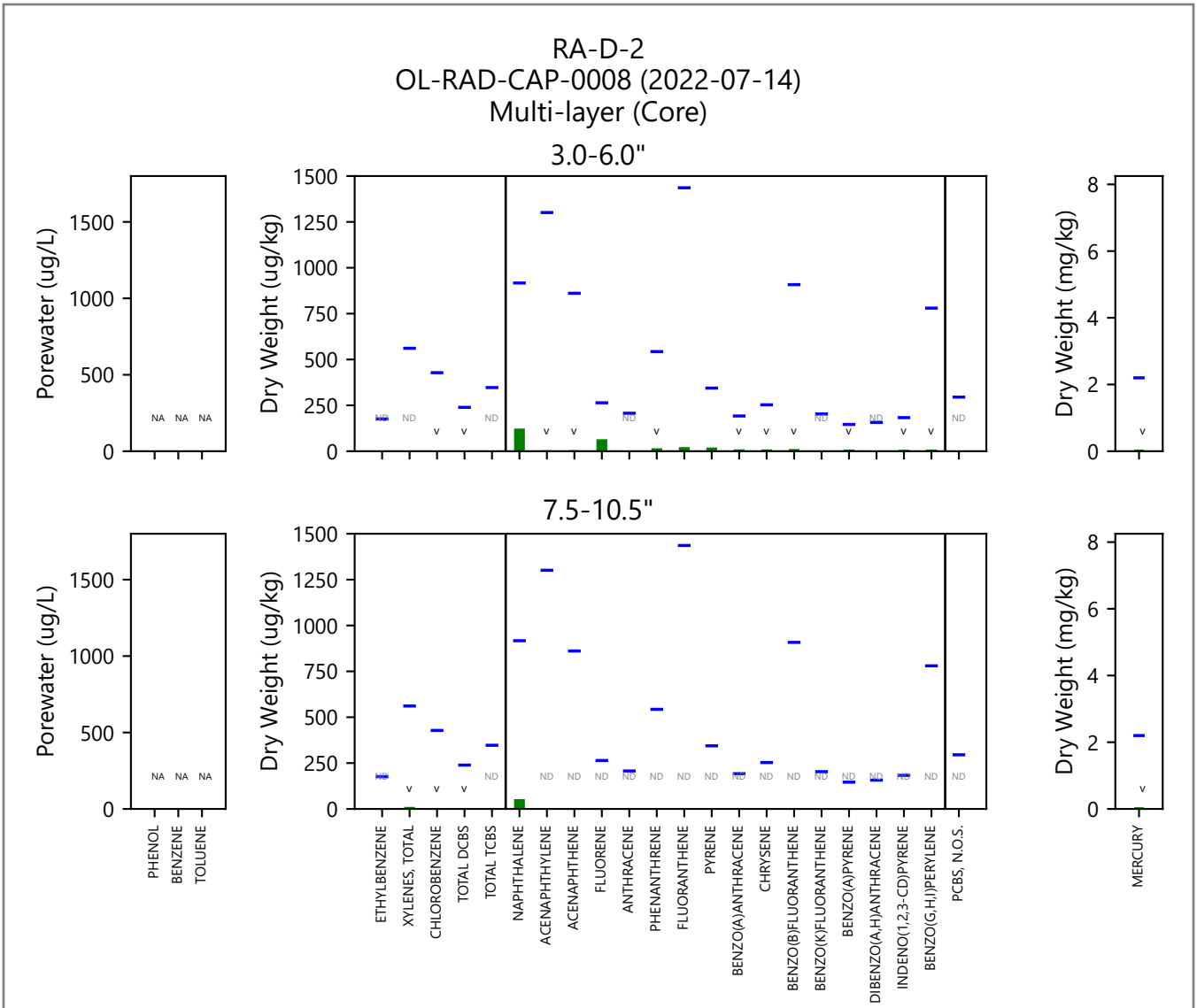
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Figure 1-146

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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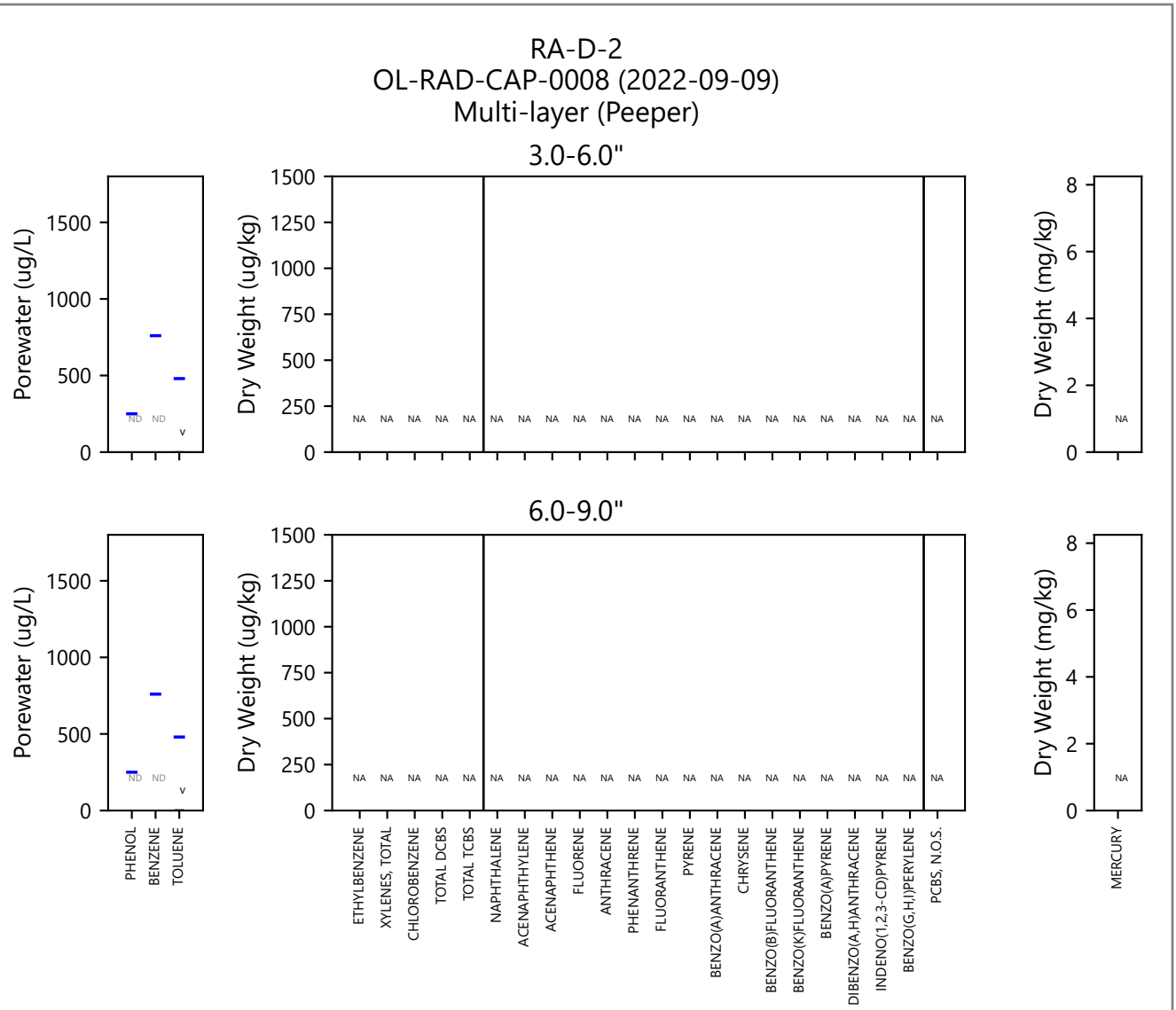
Habitat Layer Performance Criteria

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Figure 1-147

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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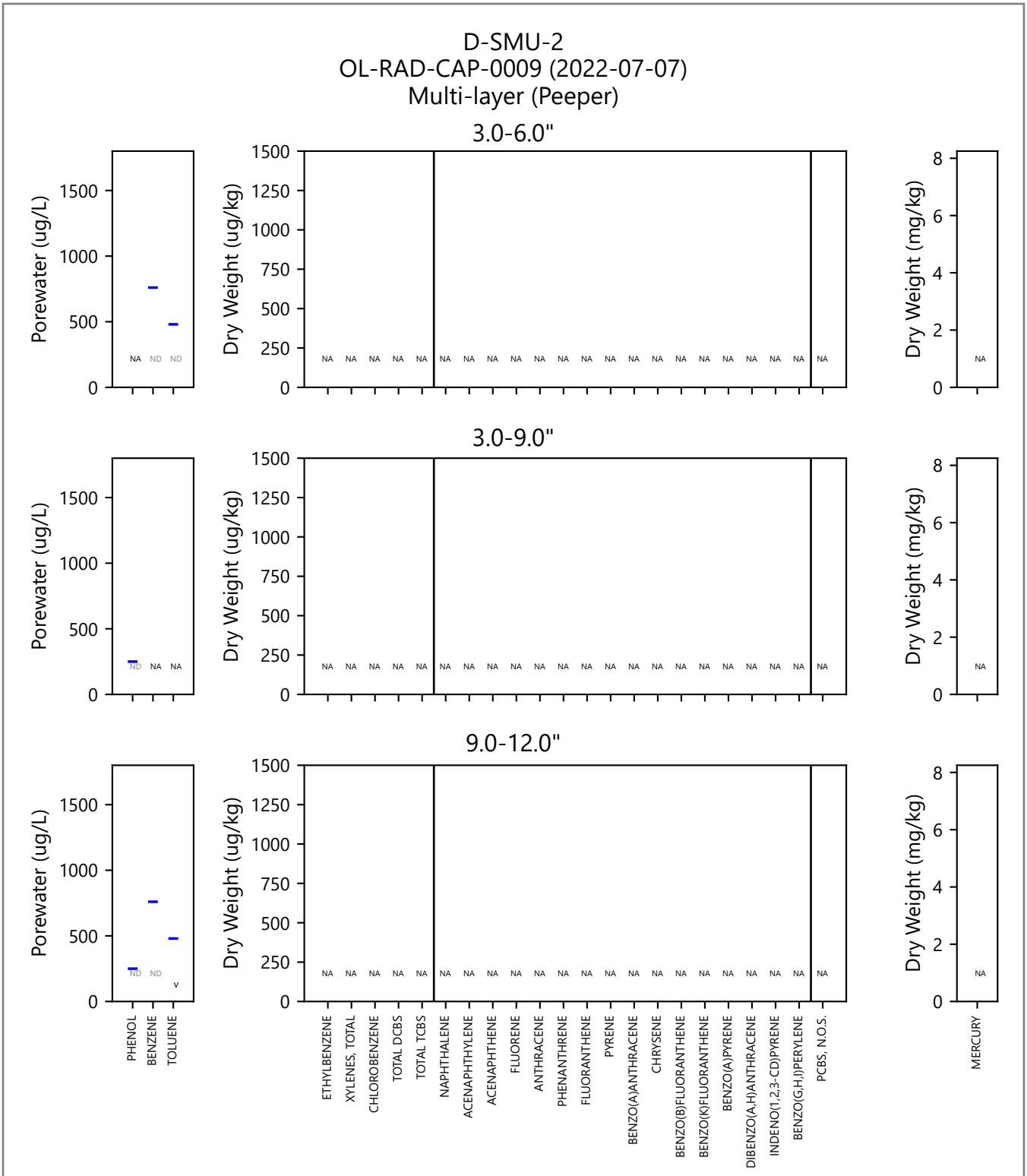
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Figure 1-148

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



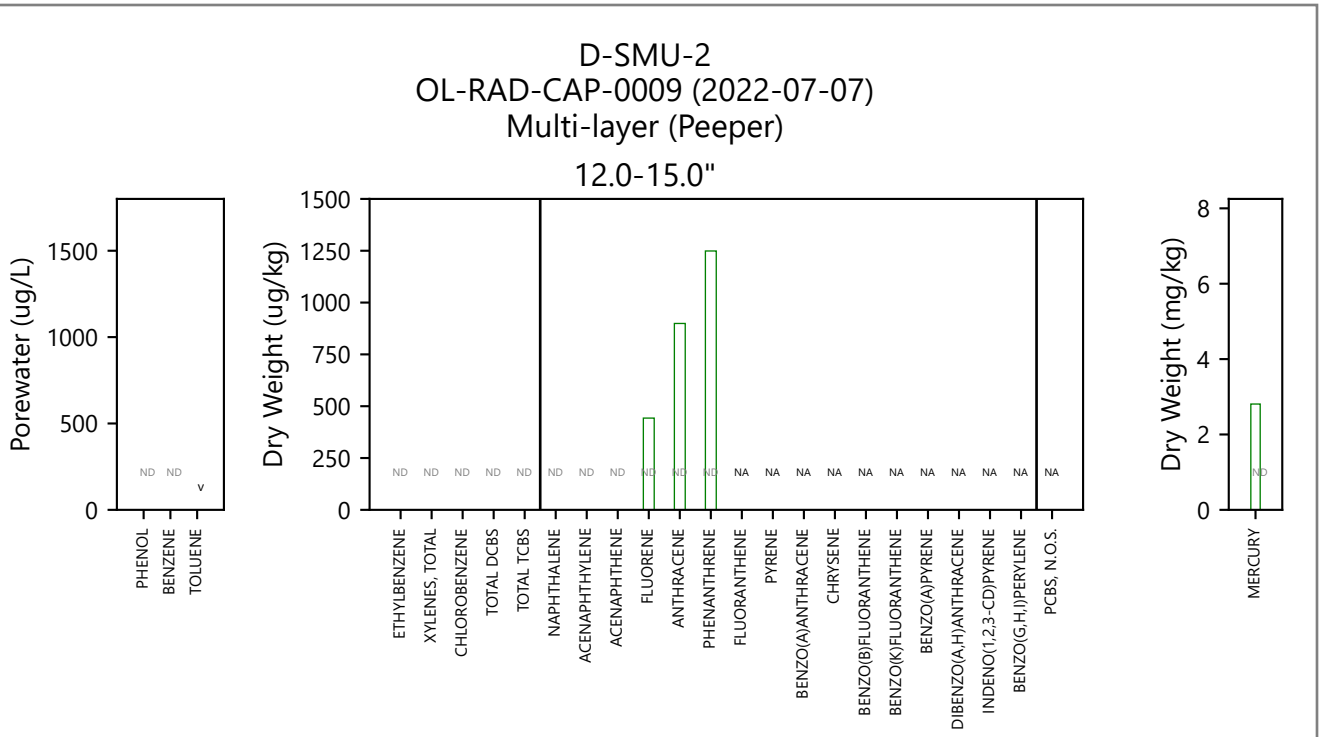
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Figure 1-149

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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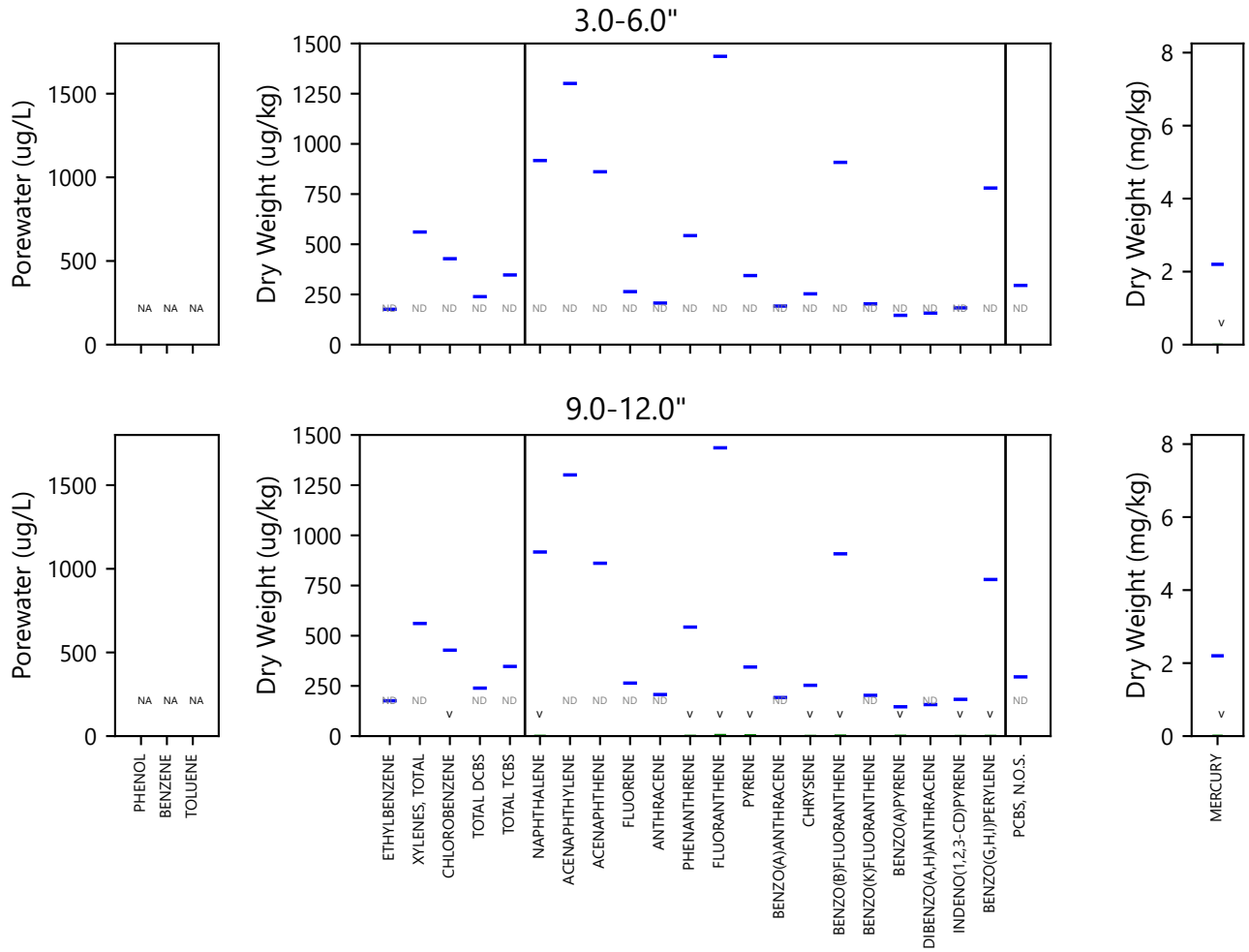
Habitat Layer Performance Criteria

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Figure 1-150

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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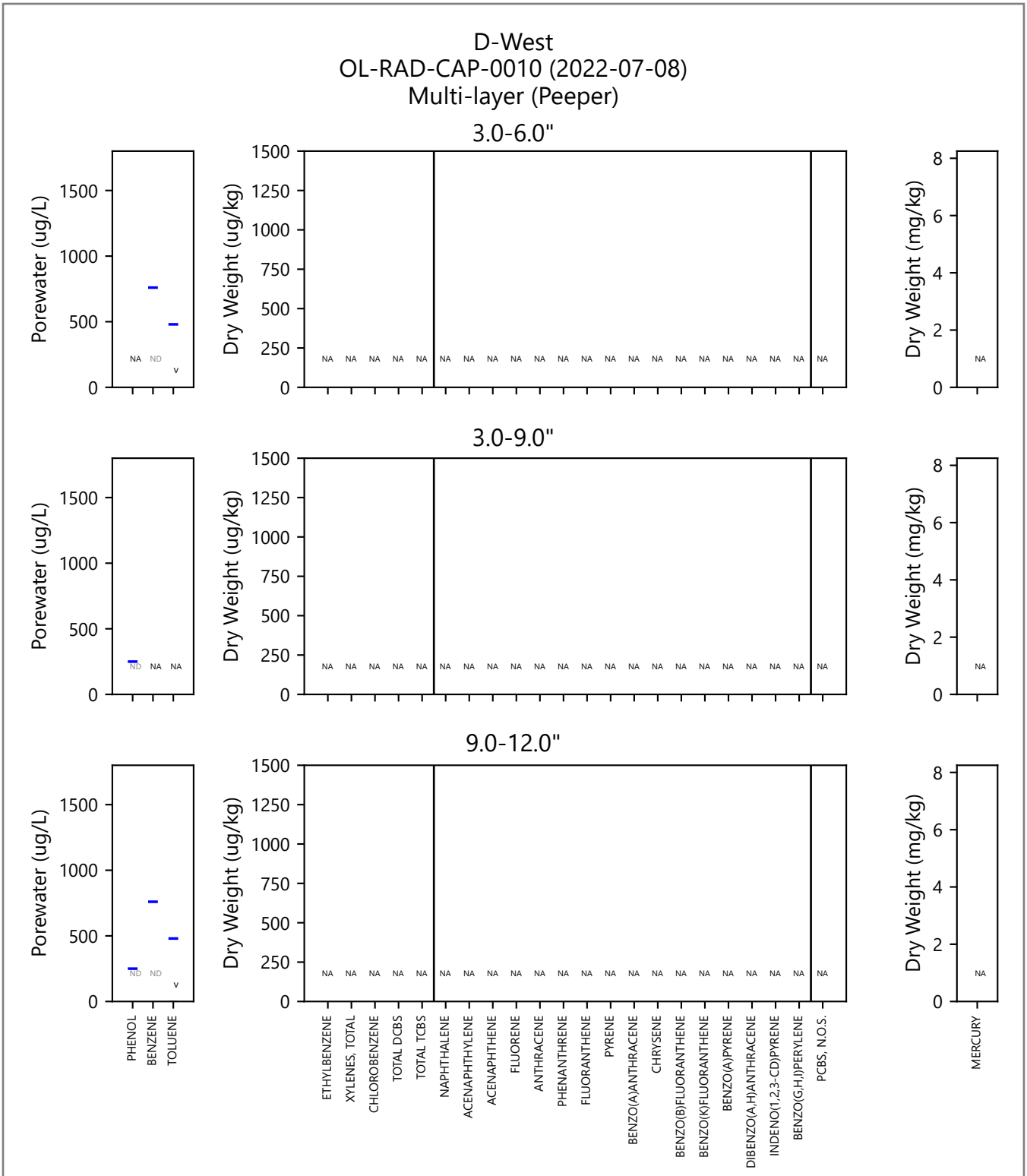
Habitat Layer Performance Criteria

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Figure 1-151

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



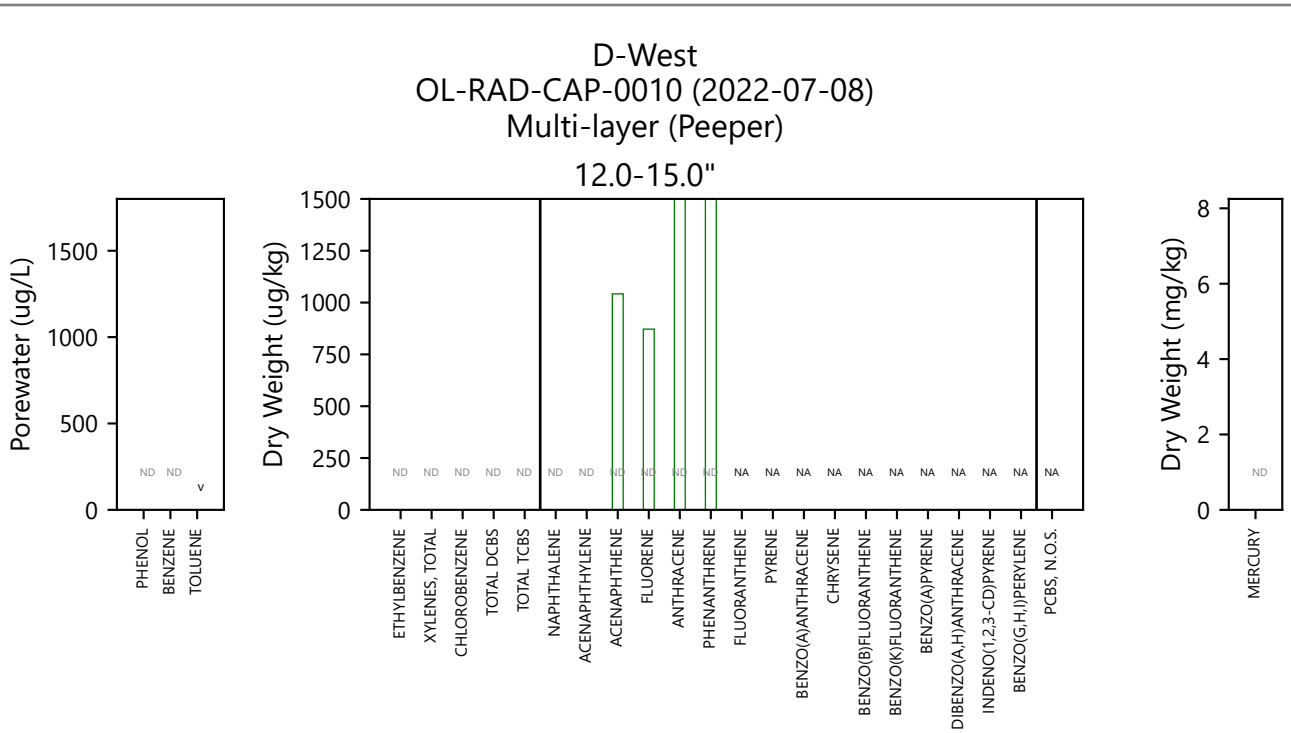
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Figure 1-152

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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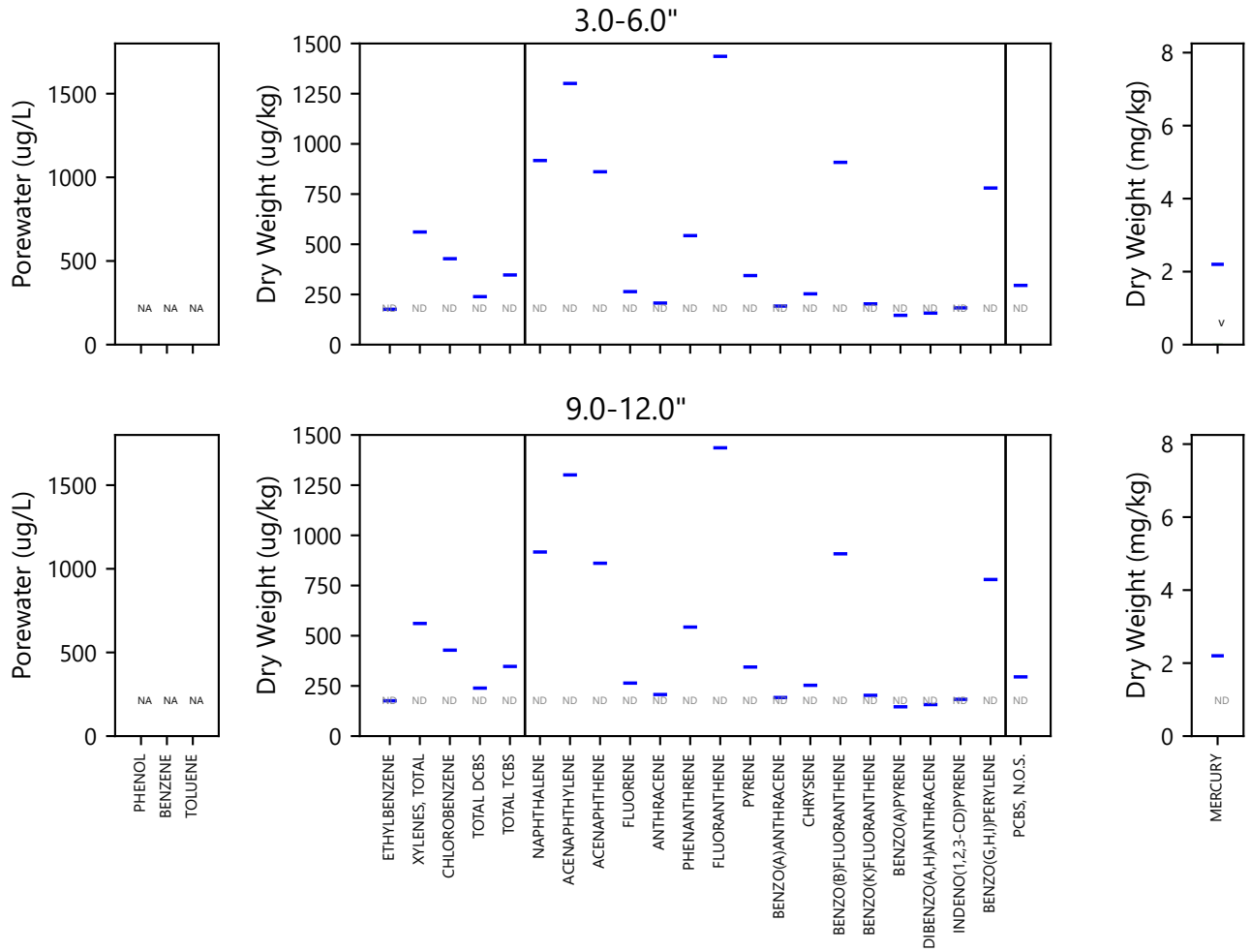
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Figure 1-153

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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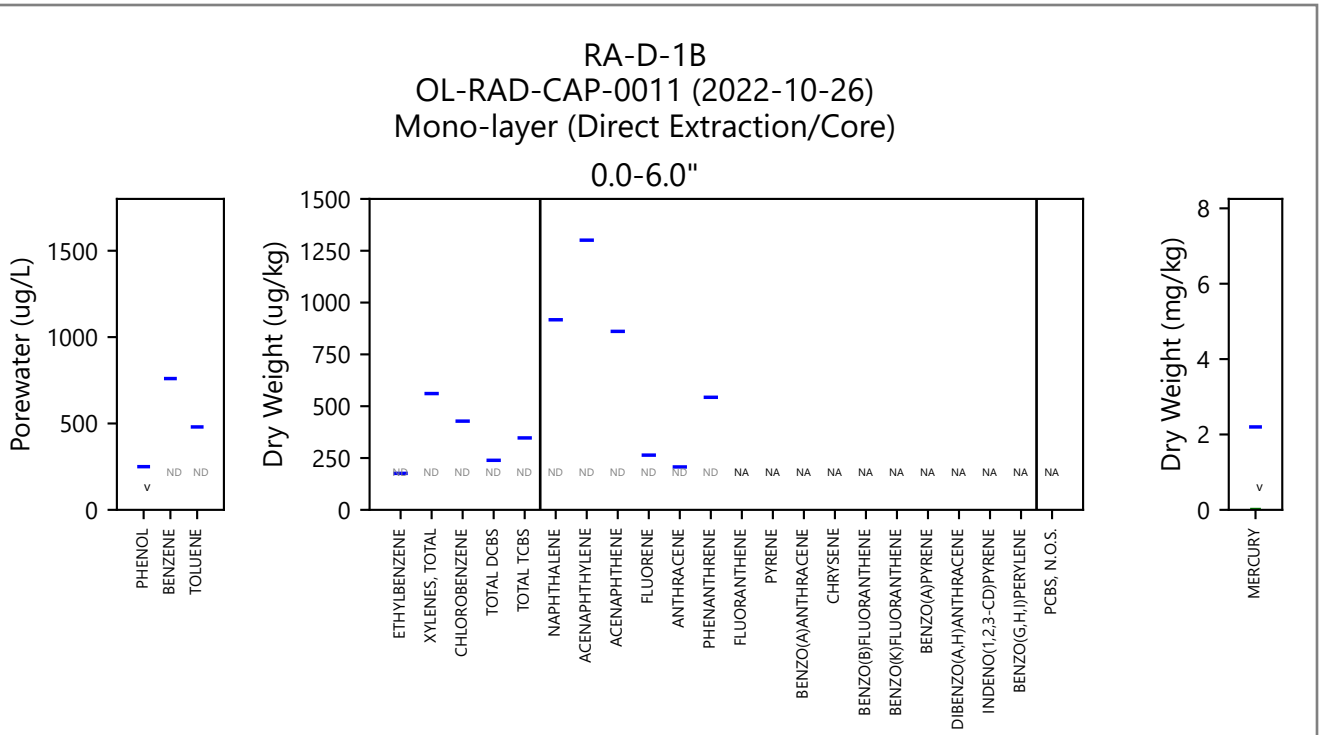
Habitat Layer Performance Criteria

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Figure 1-154

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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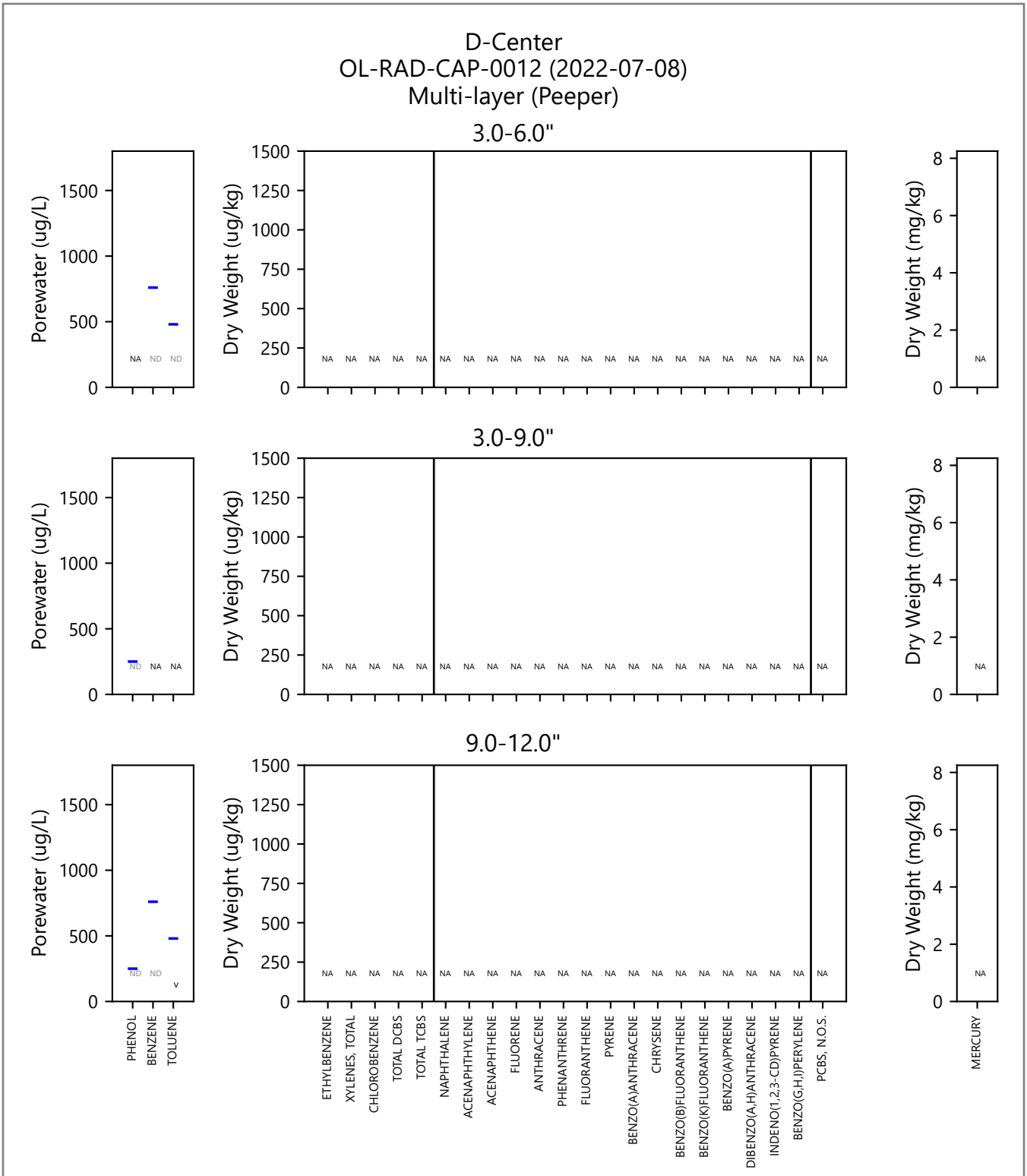
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Figure 1-155

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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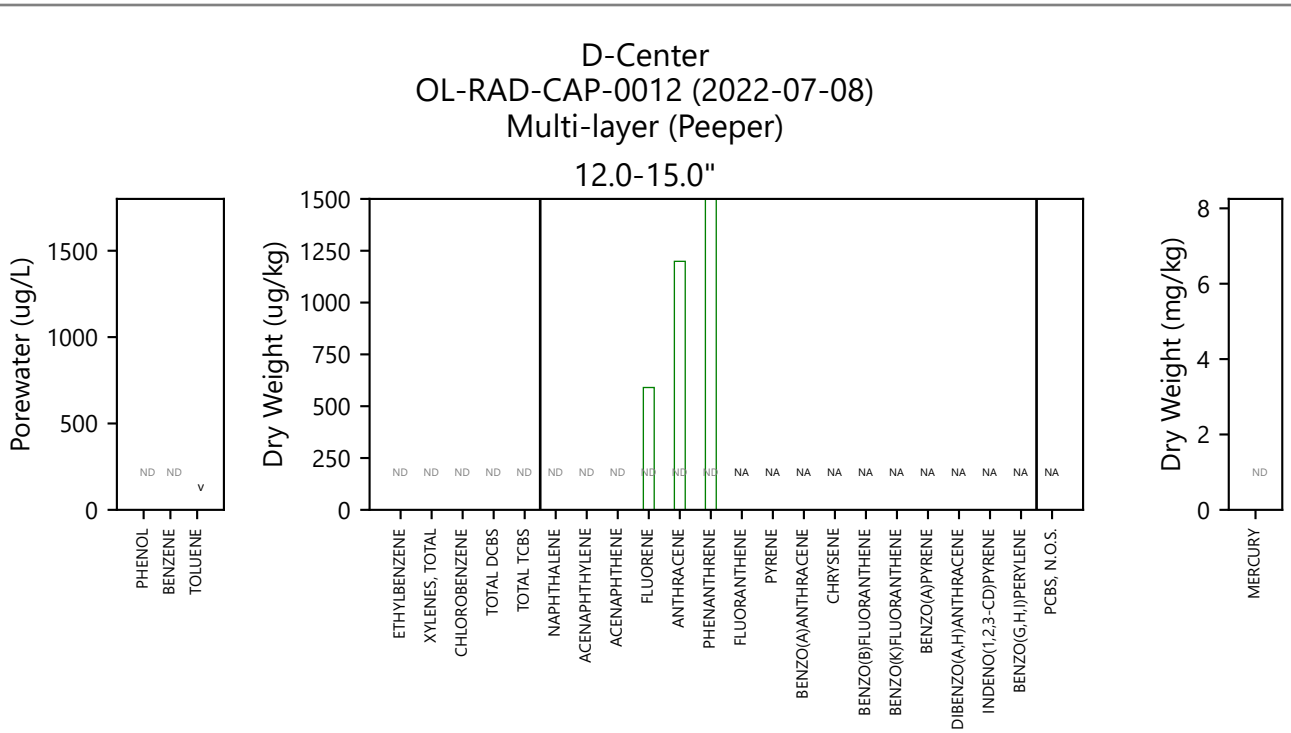
Habitat Layer Performance Criteria

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Figure 1-156

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
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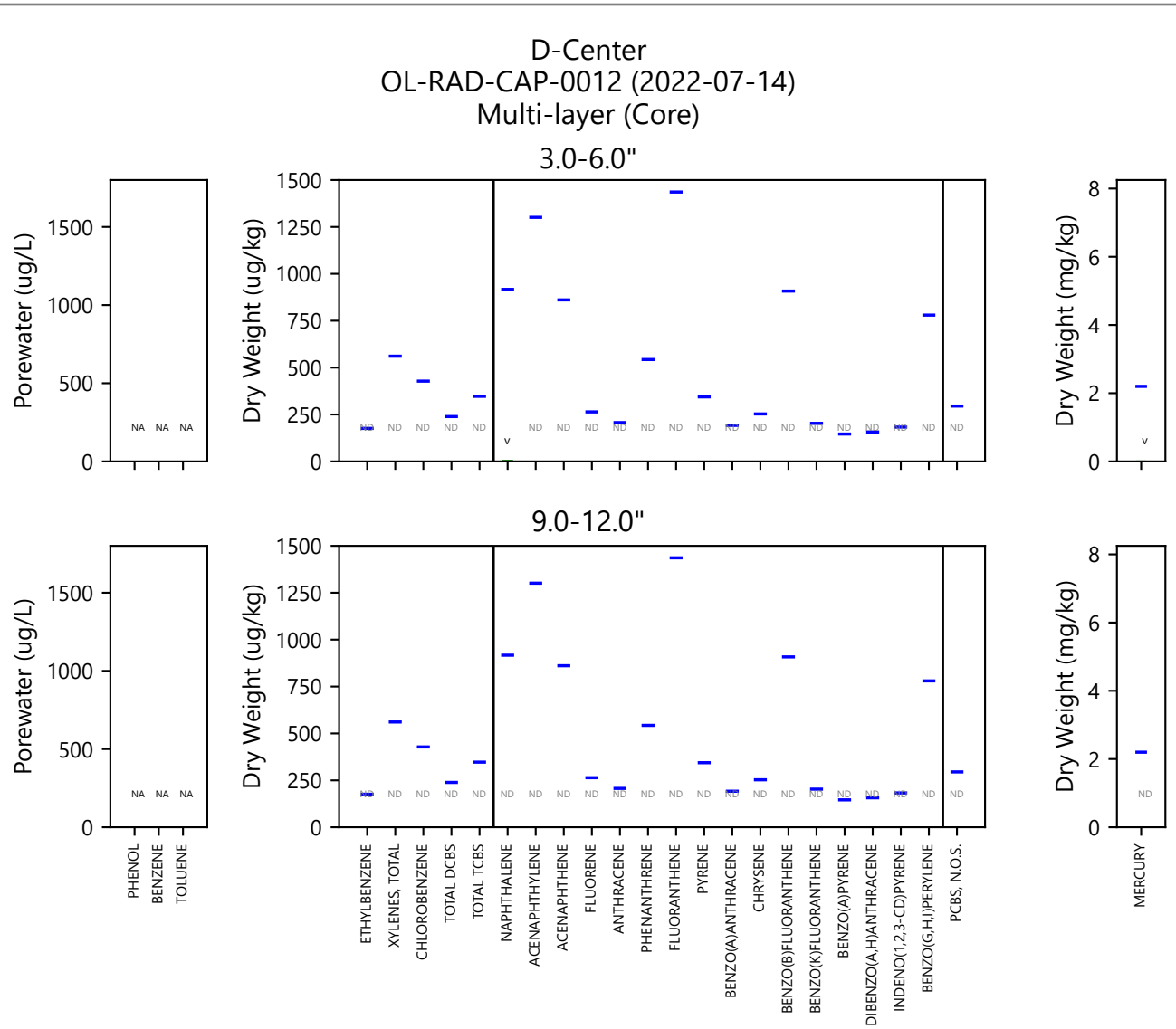
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Figure 1-157

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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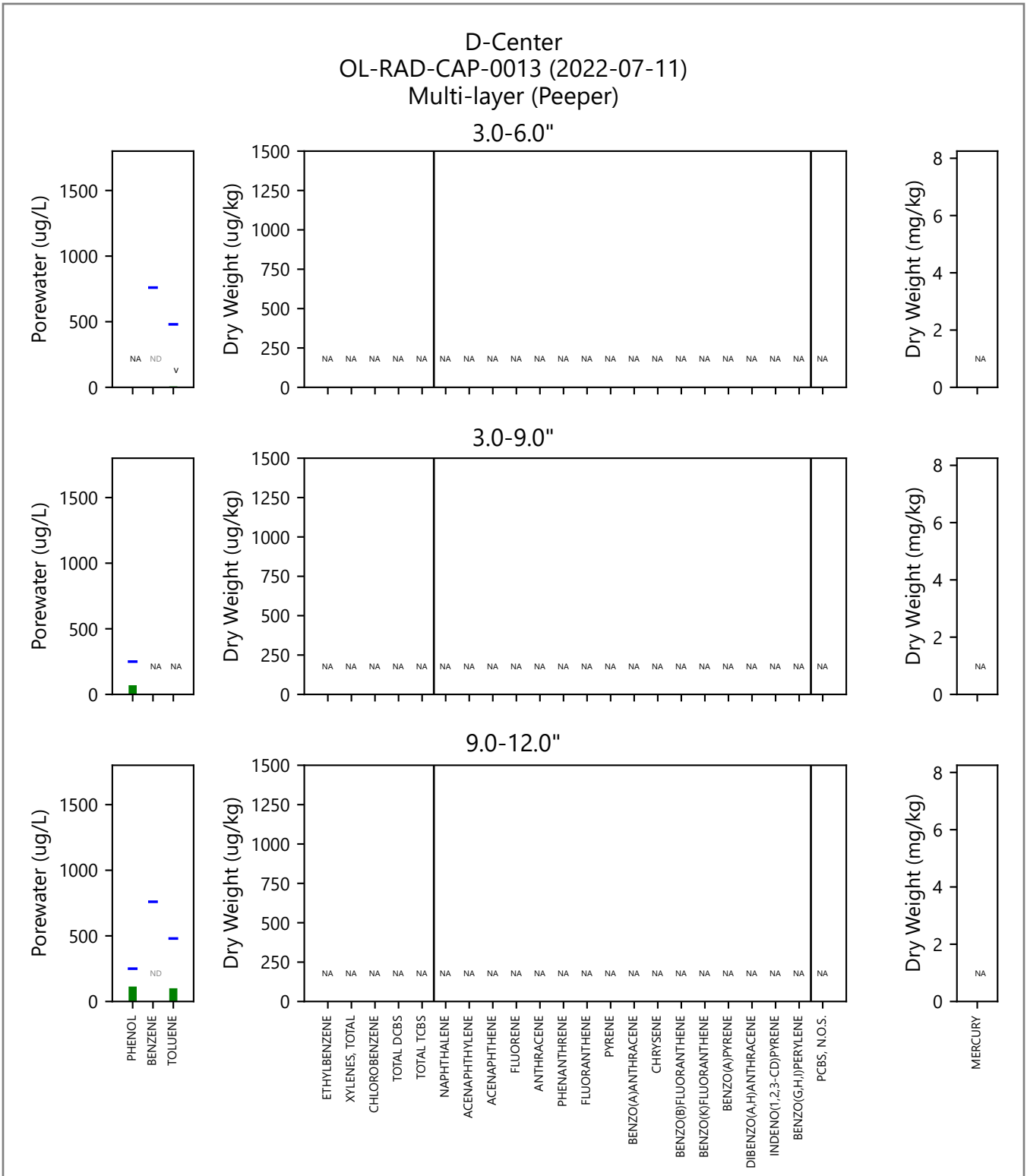
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Figure 1-158

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



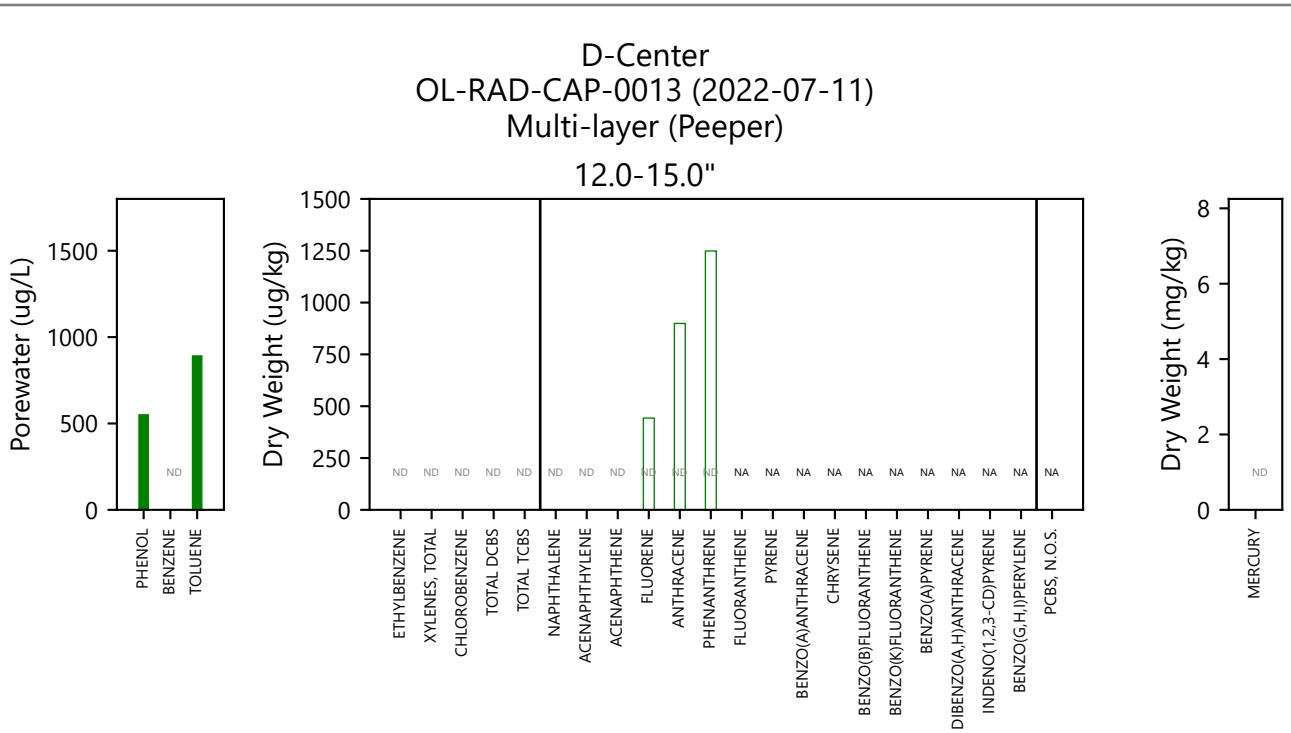
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Figure 1-159

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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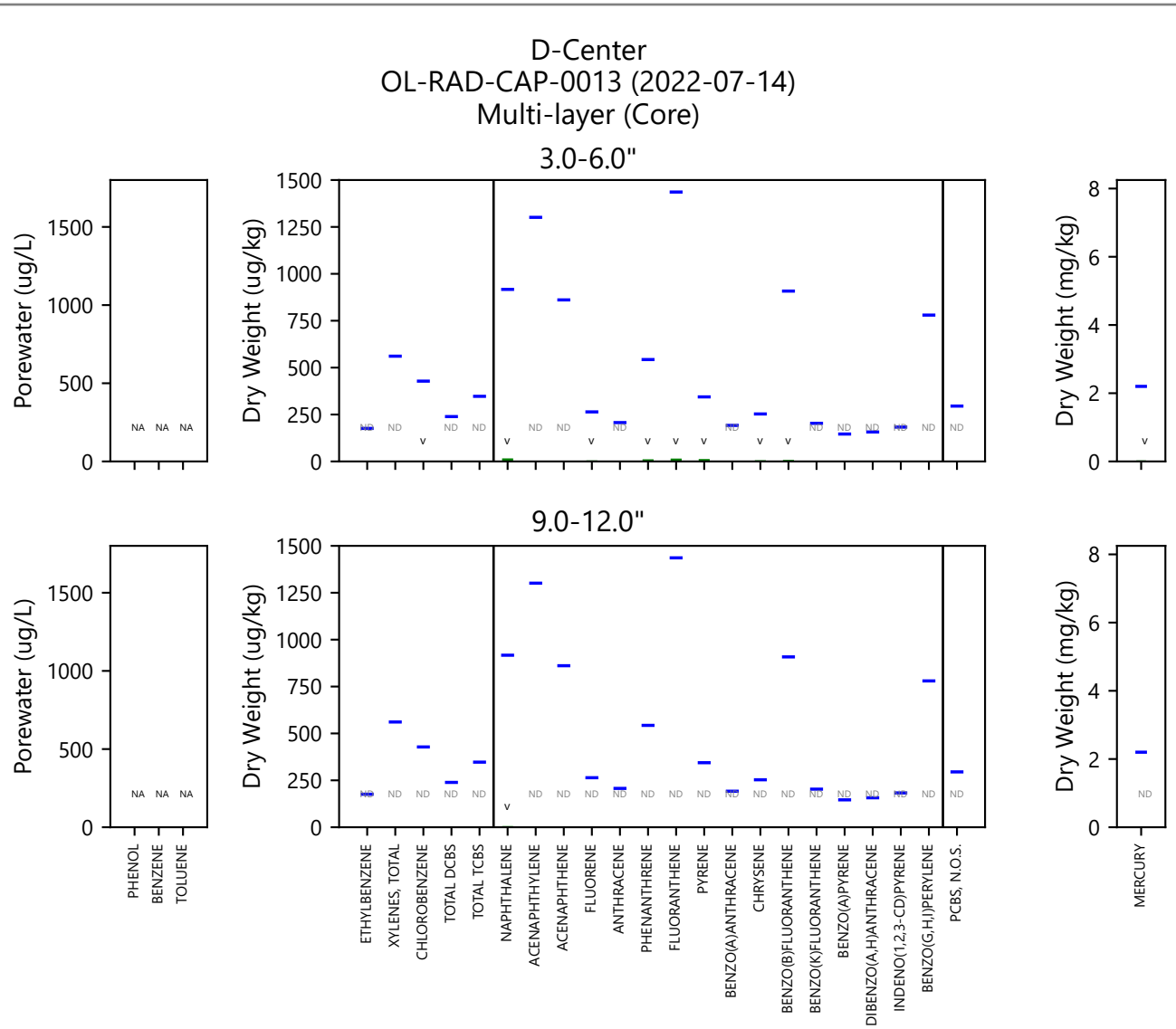
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Figure 1-160

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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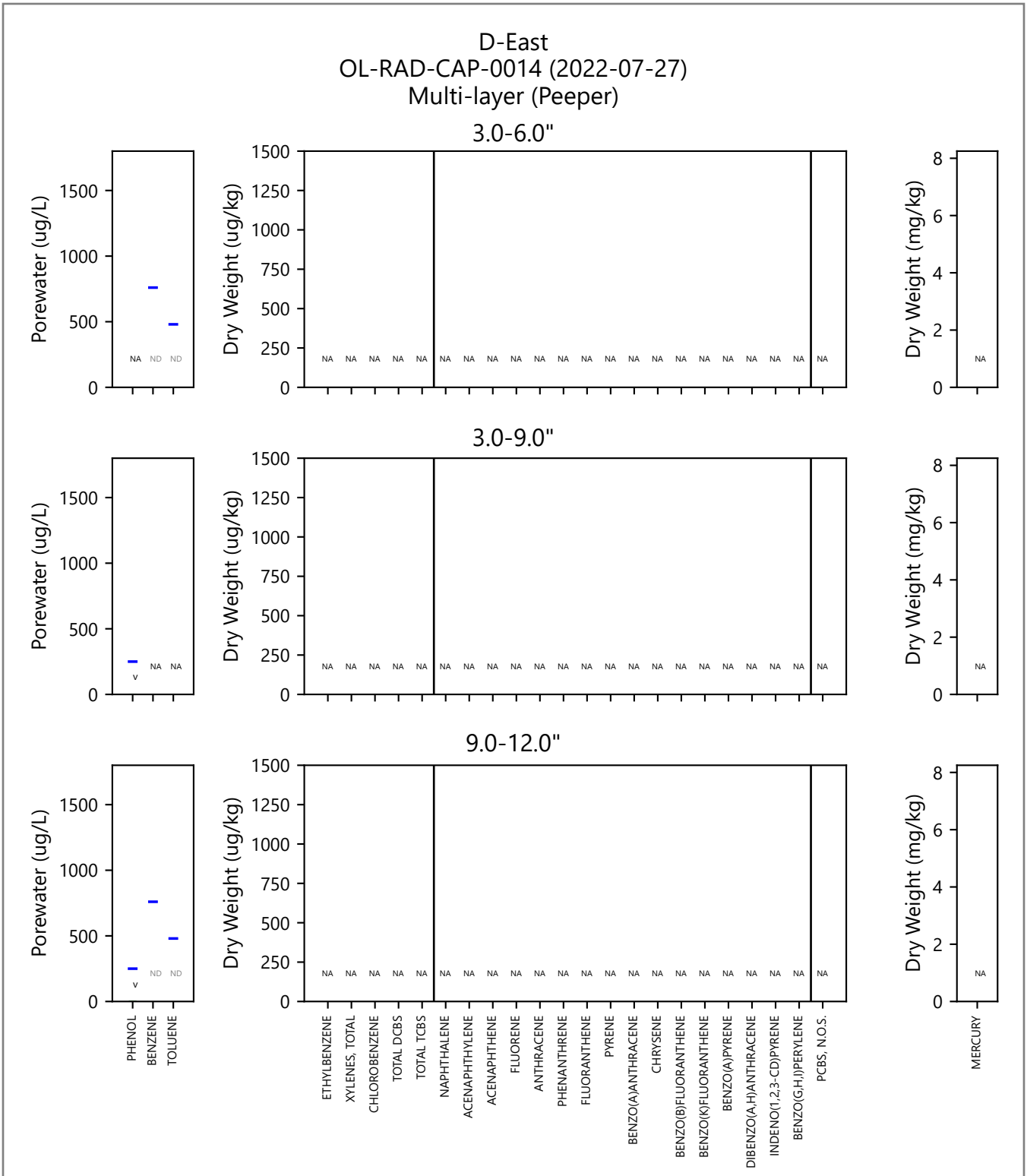
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Figure 1-161

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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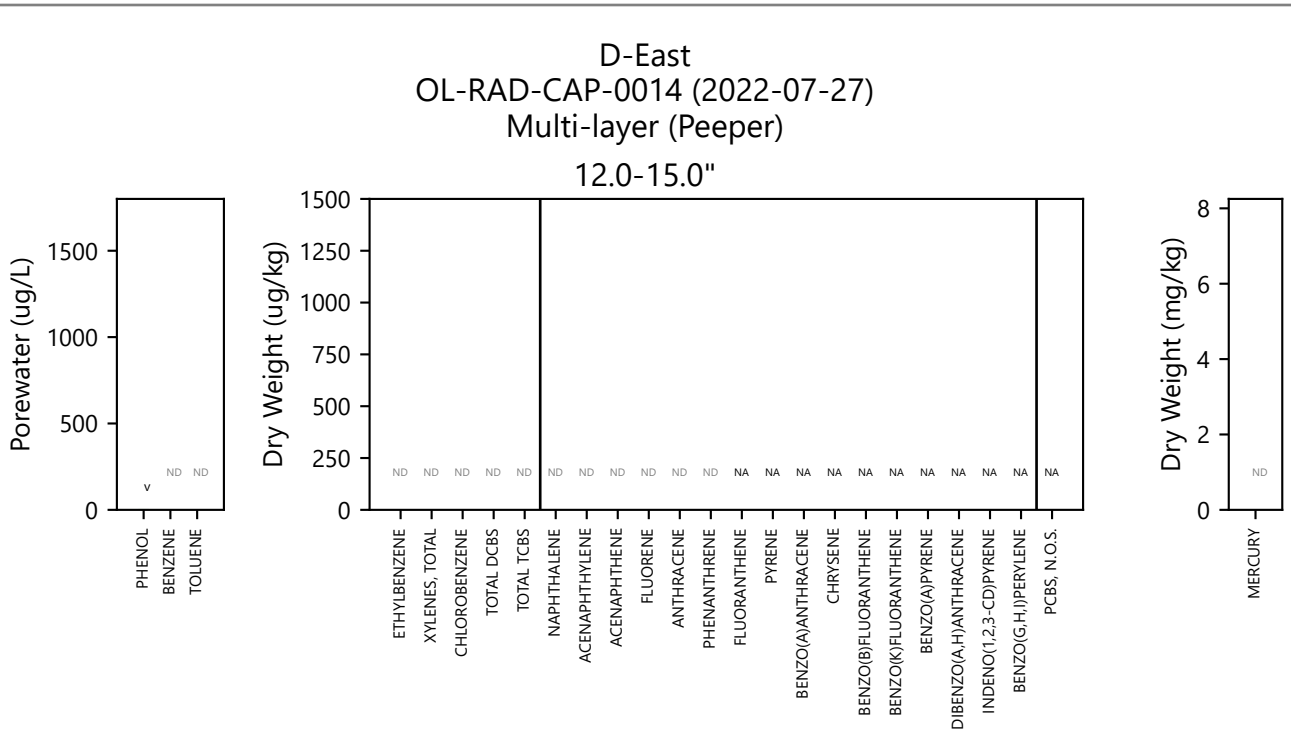
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Figure 1-162

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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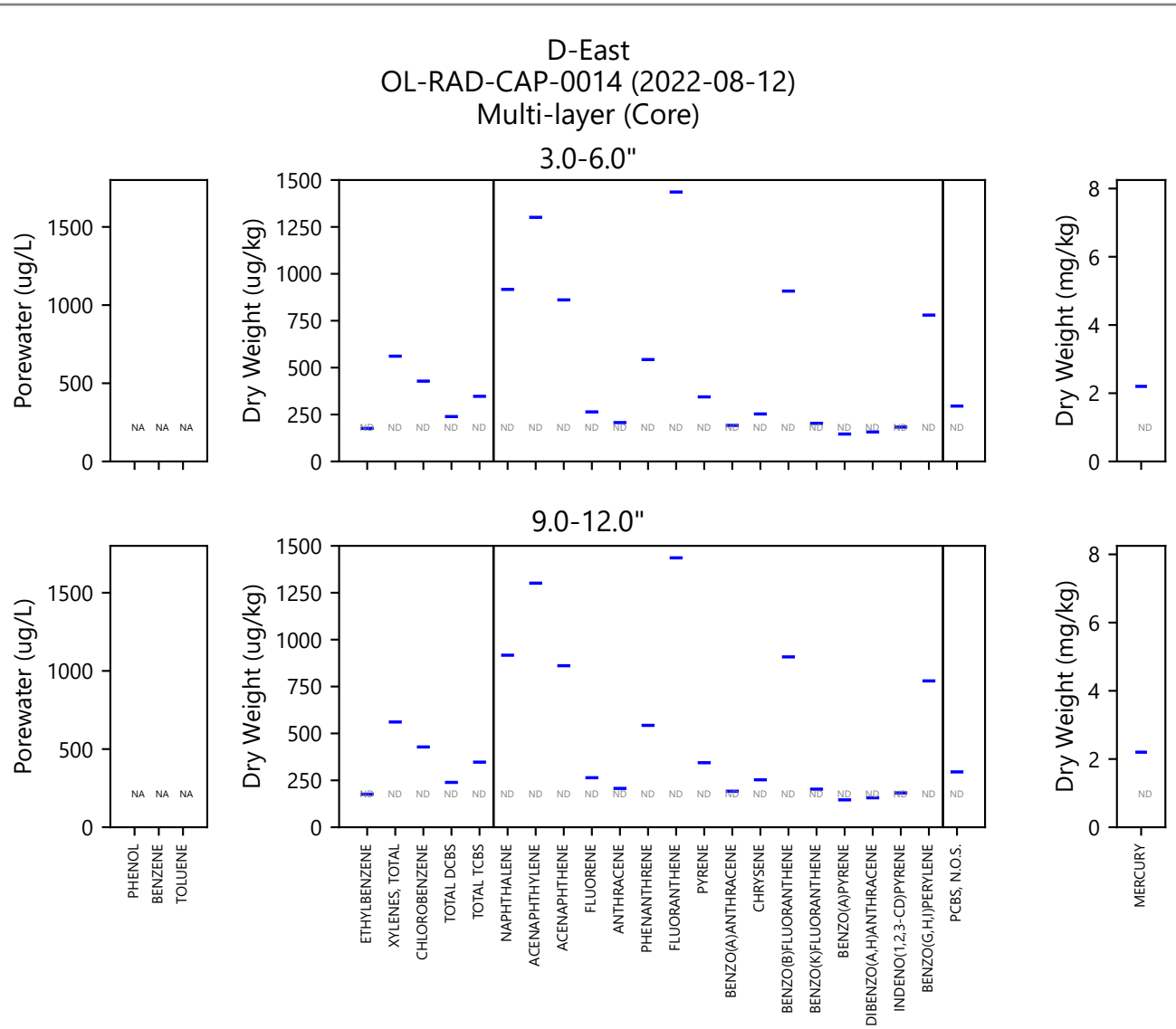
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Figure 1-163

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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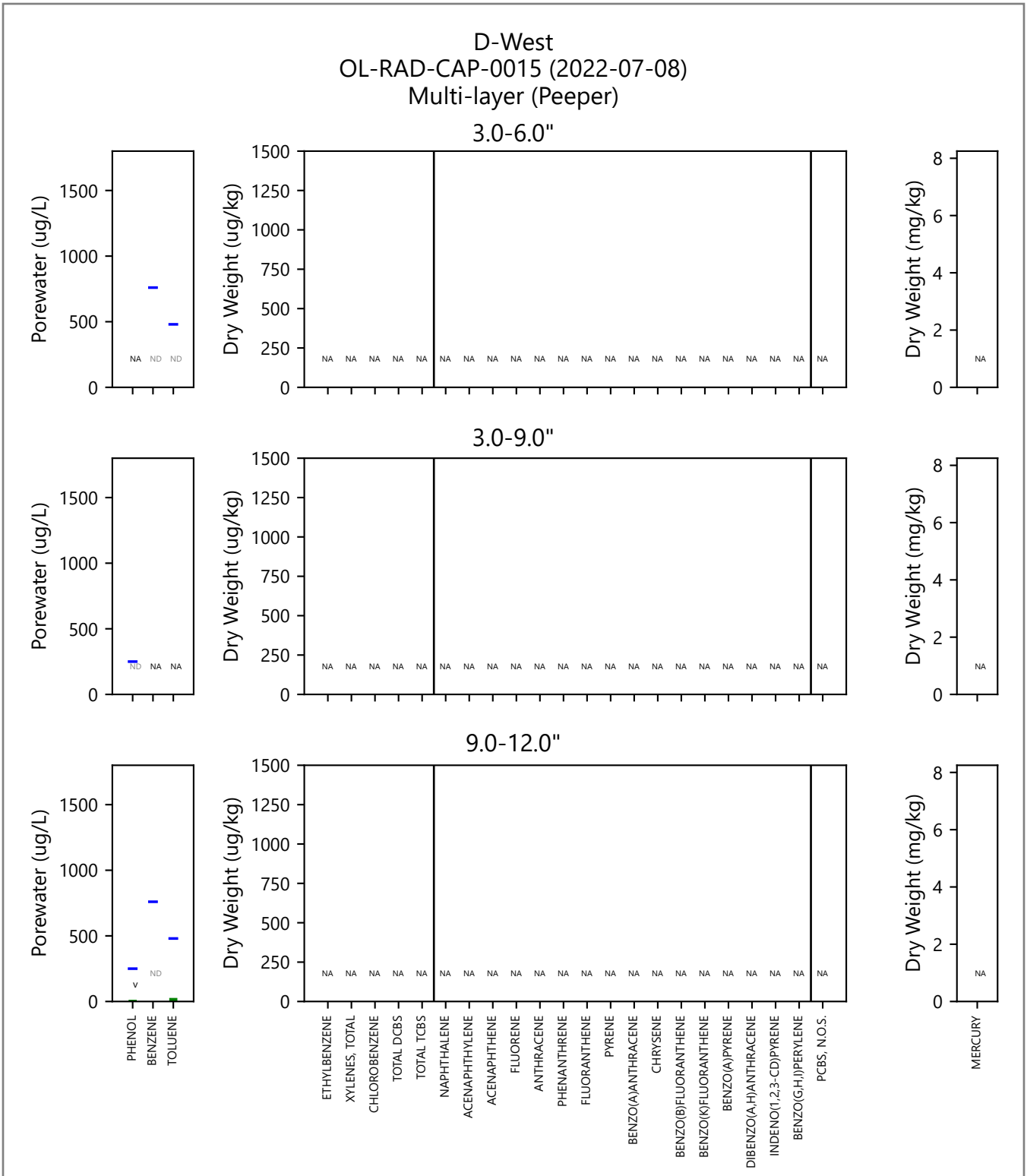
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Figure 1-164

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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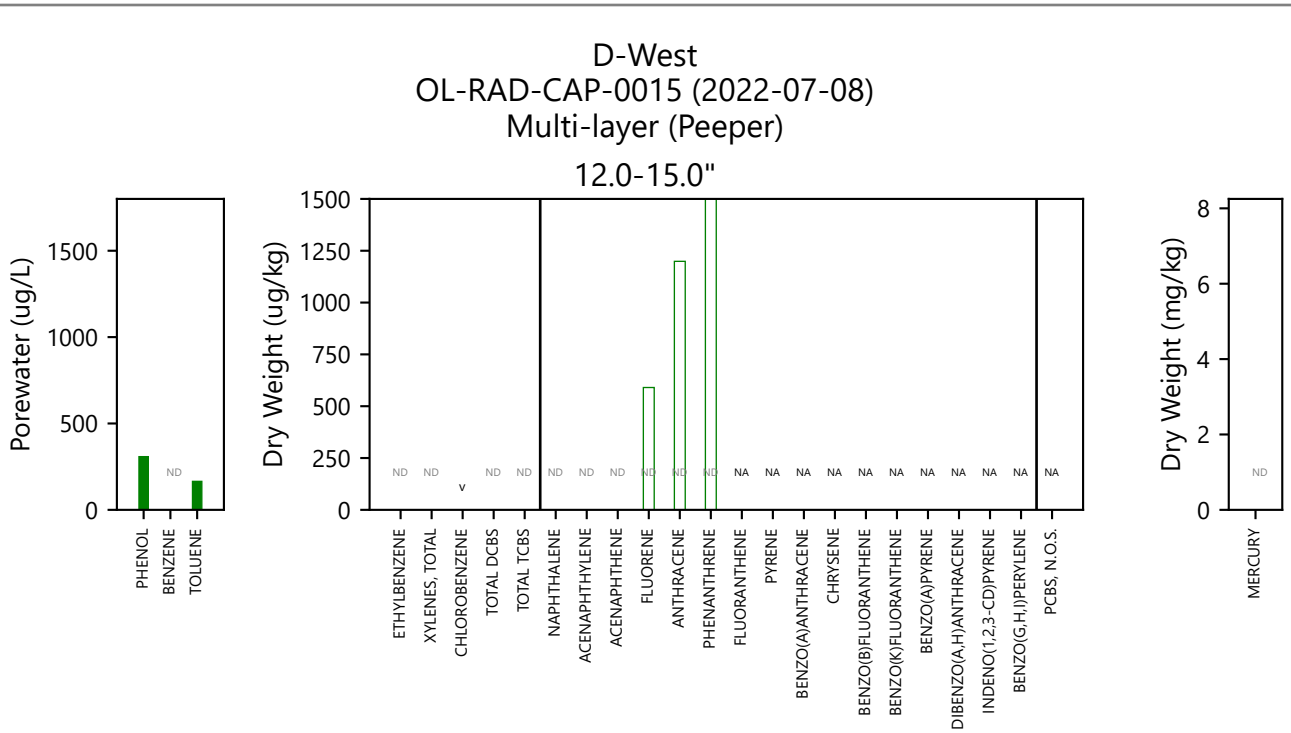
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Figure 1-165

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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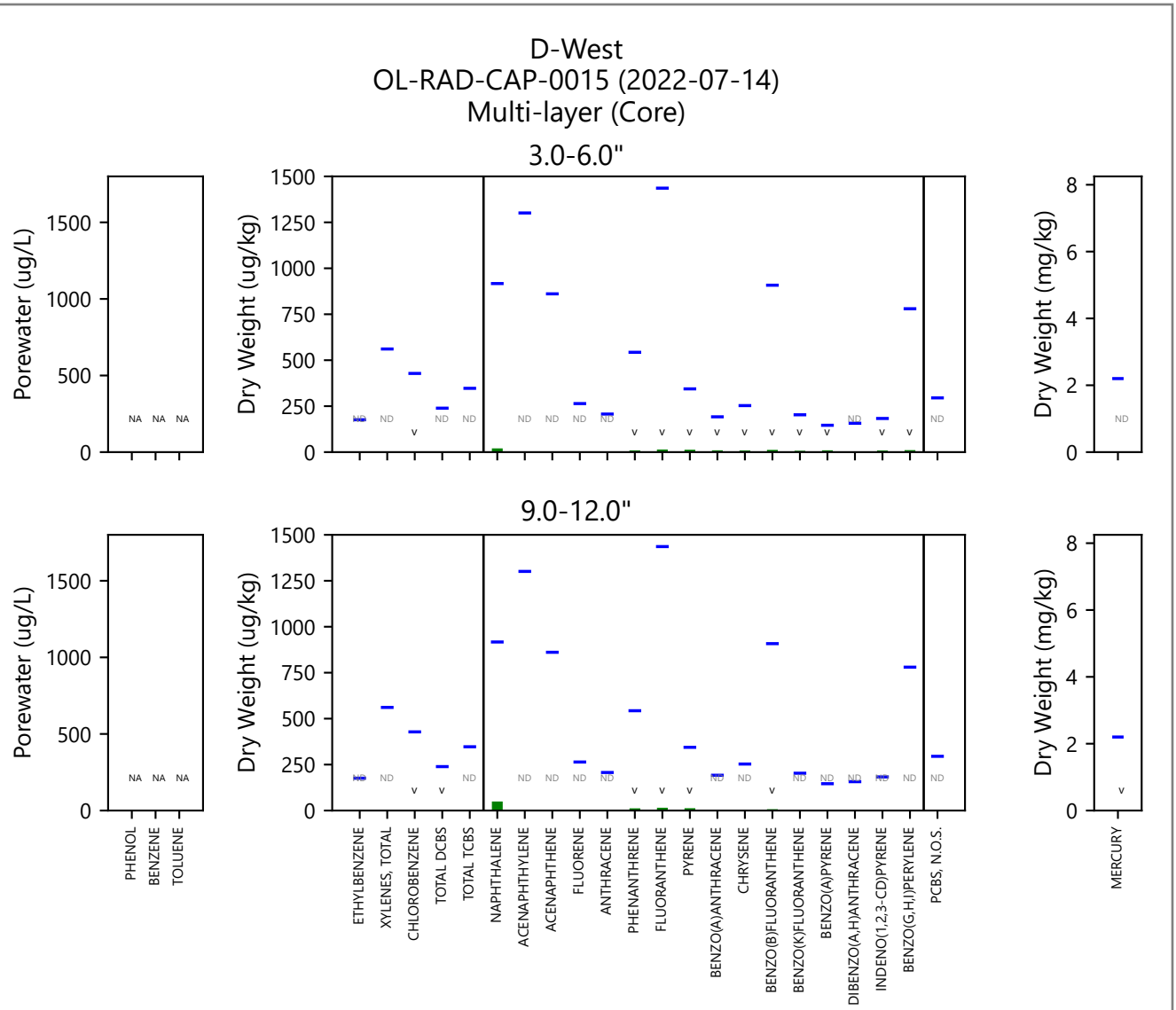
- Habitat Layer Performance Criteria

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Figure 1-166

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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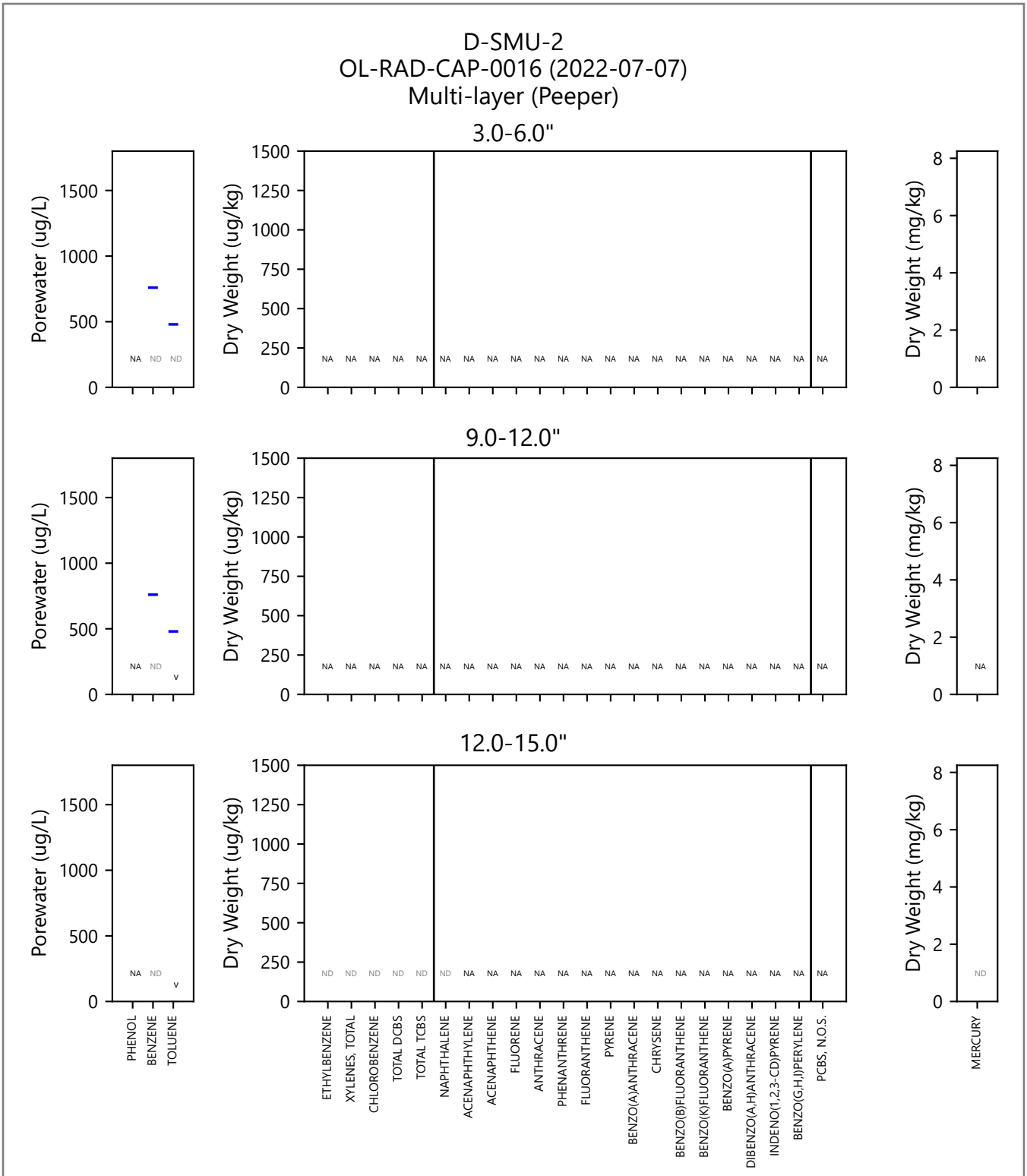
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Figure 1-167

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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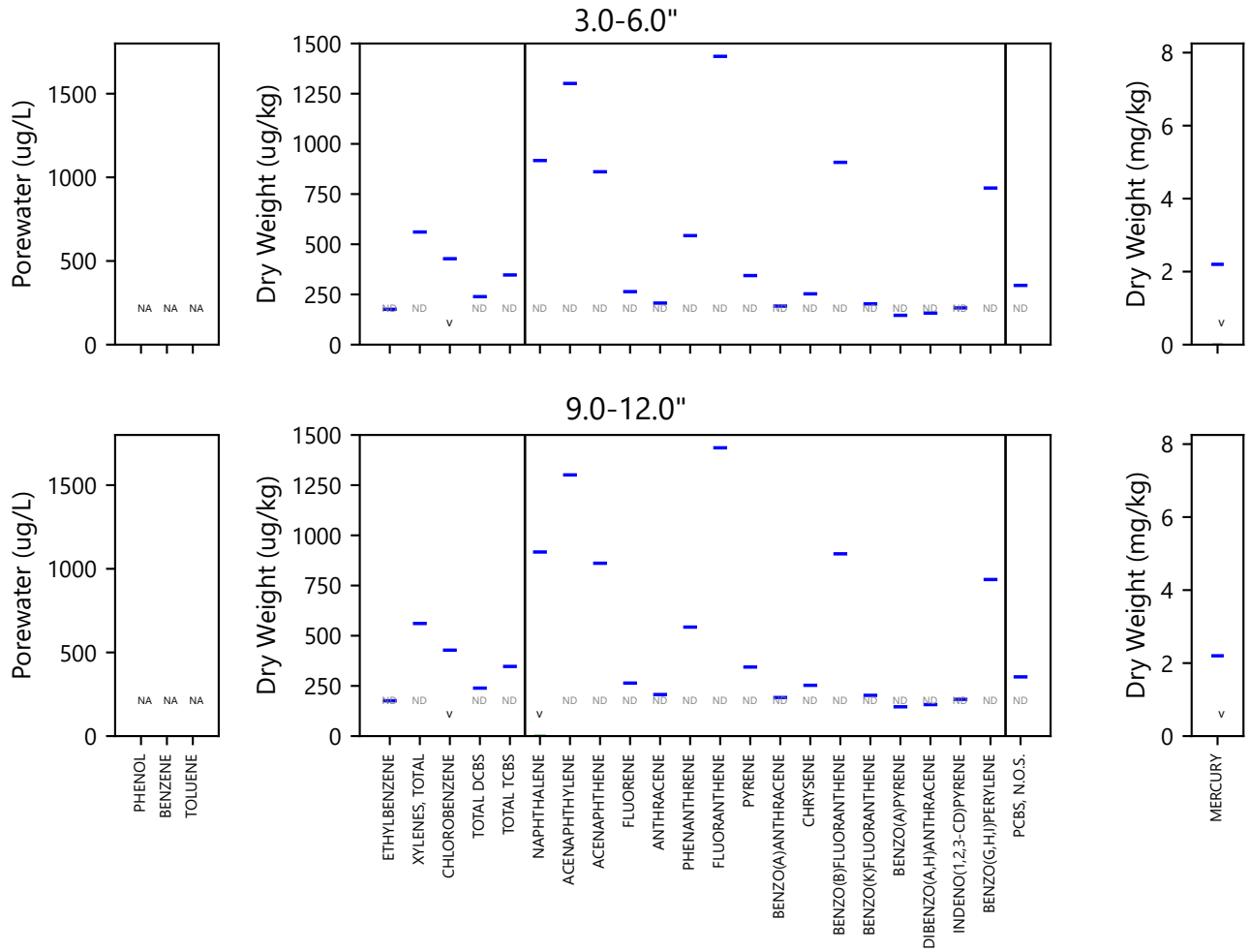
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Figure 1-168

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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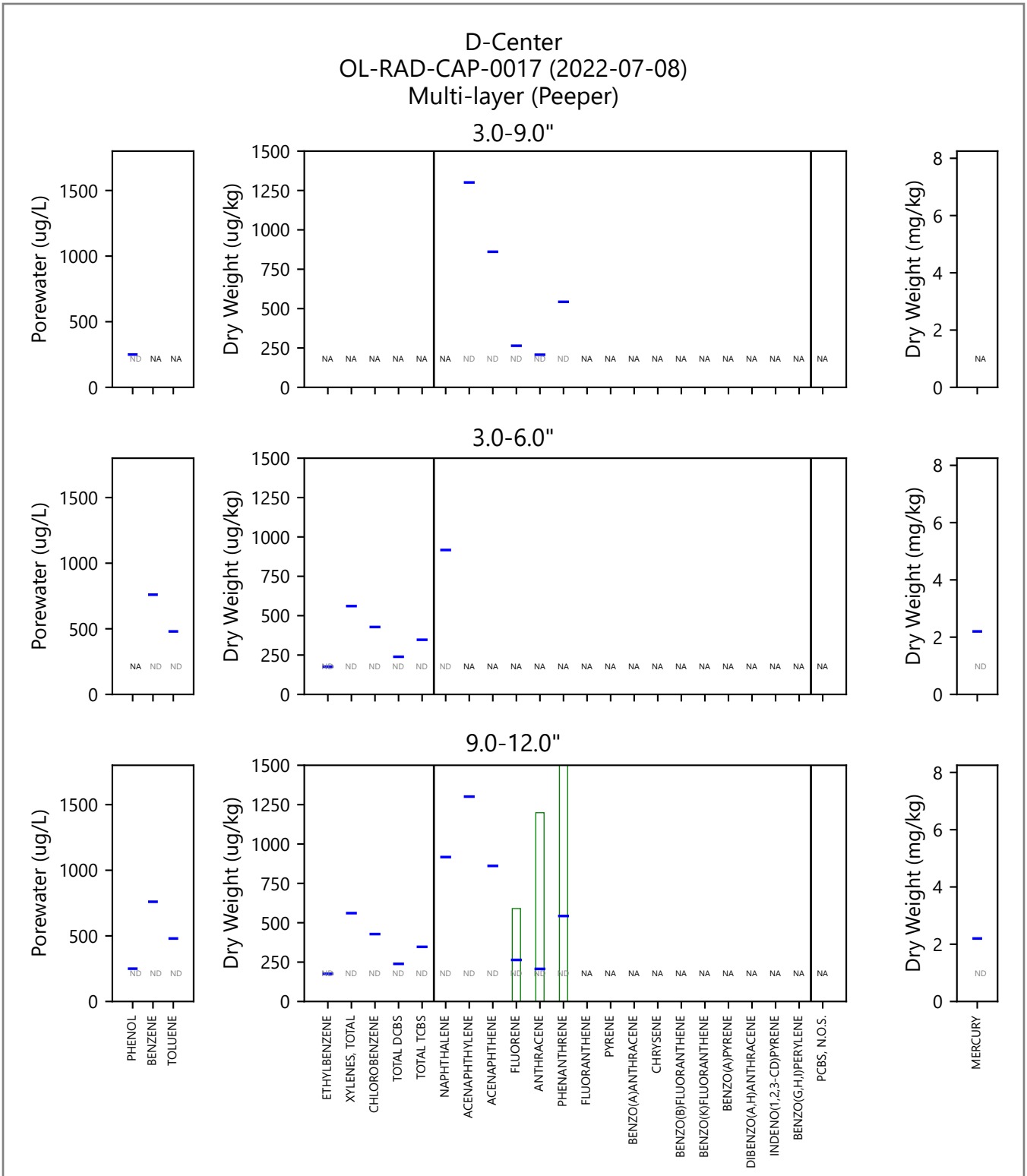
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Figure 1-169

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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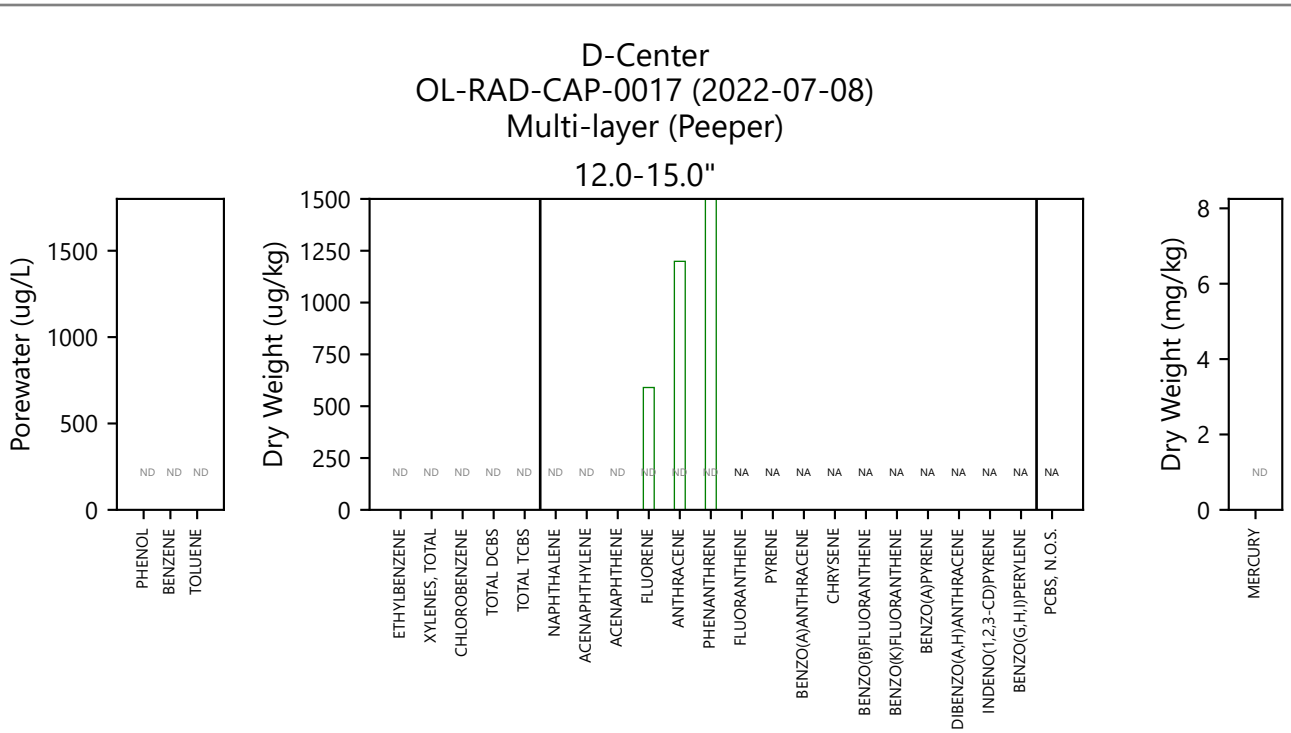
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Figure 1-170

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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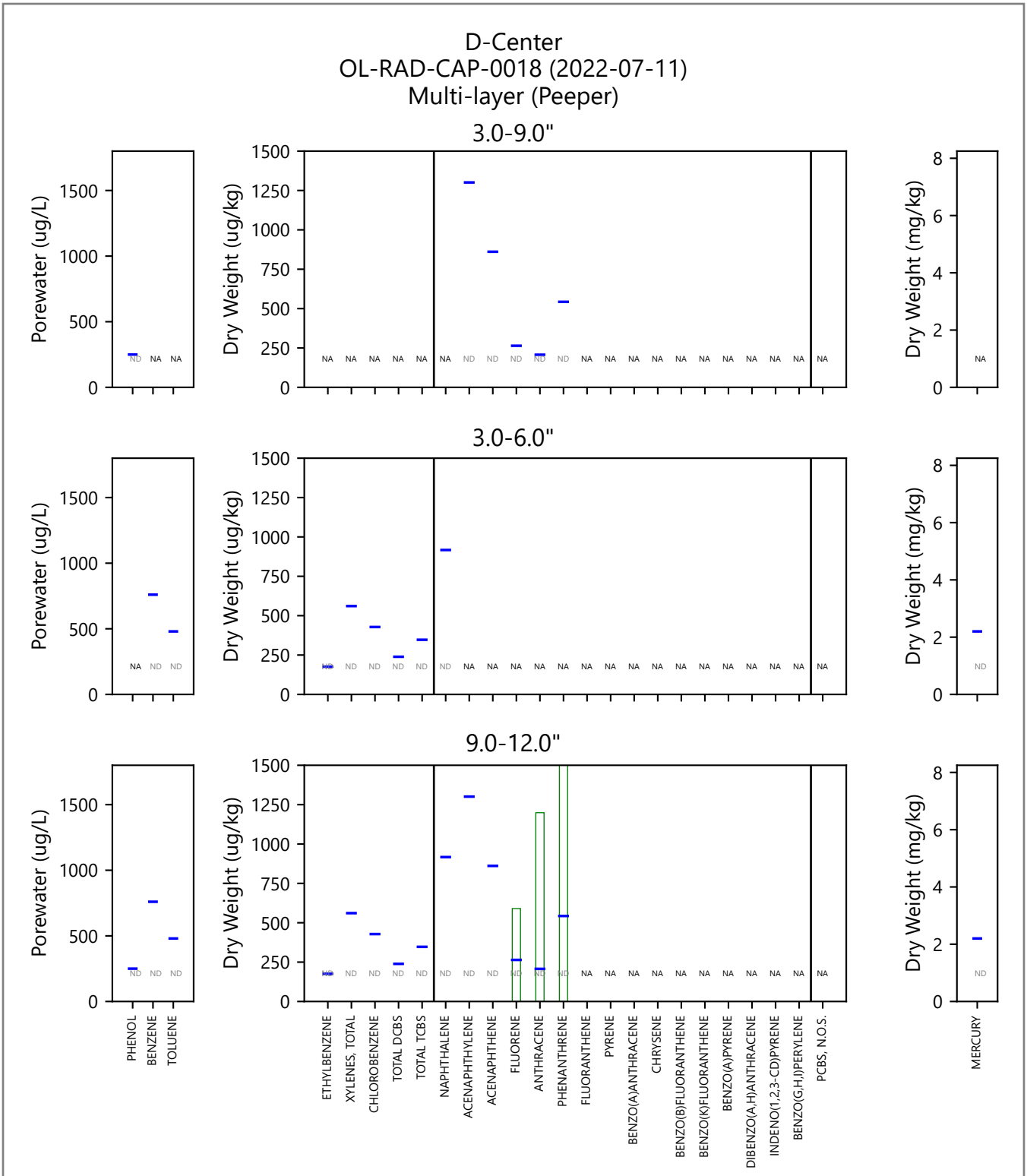
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Figure 1-171

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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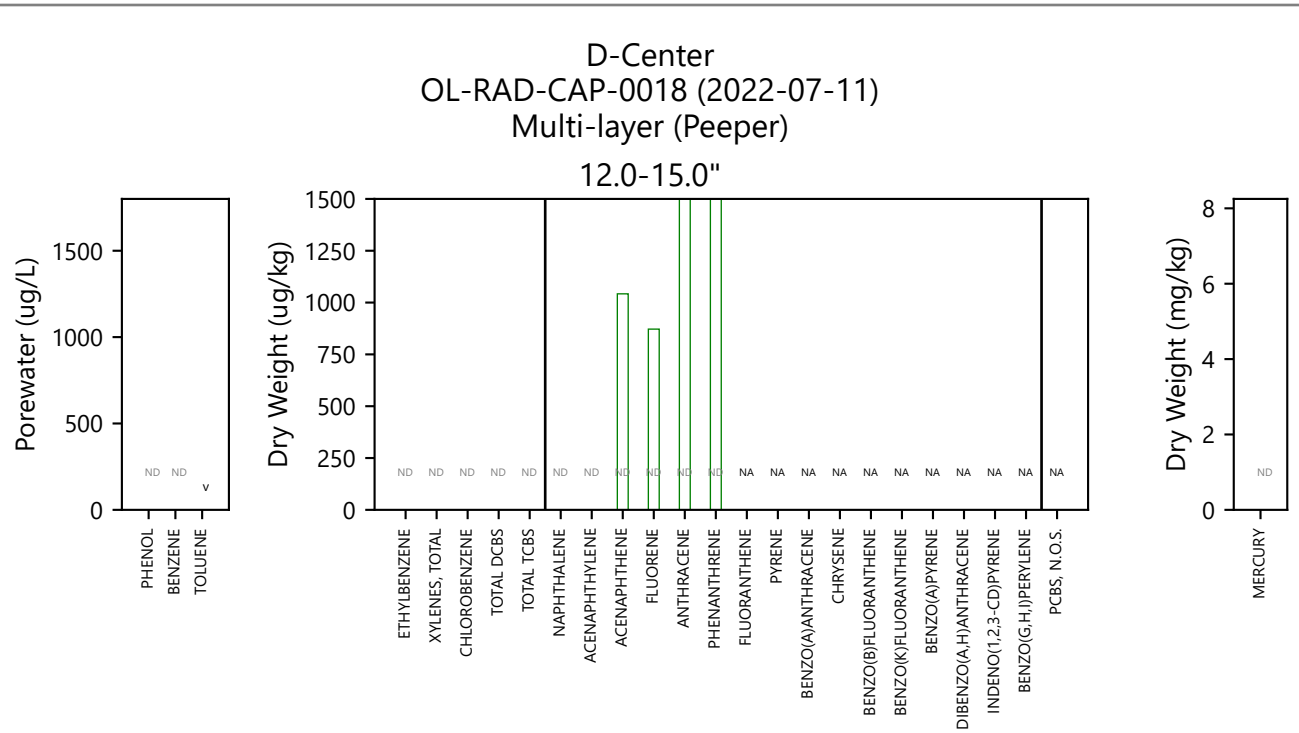
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Figure 1-172

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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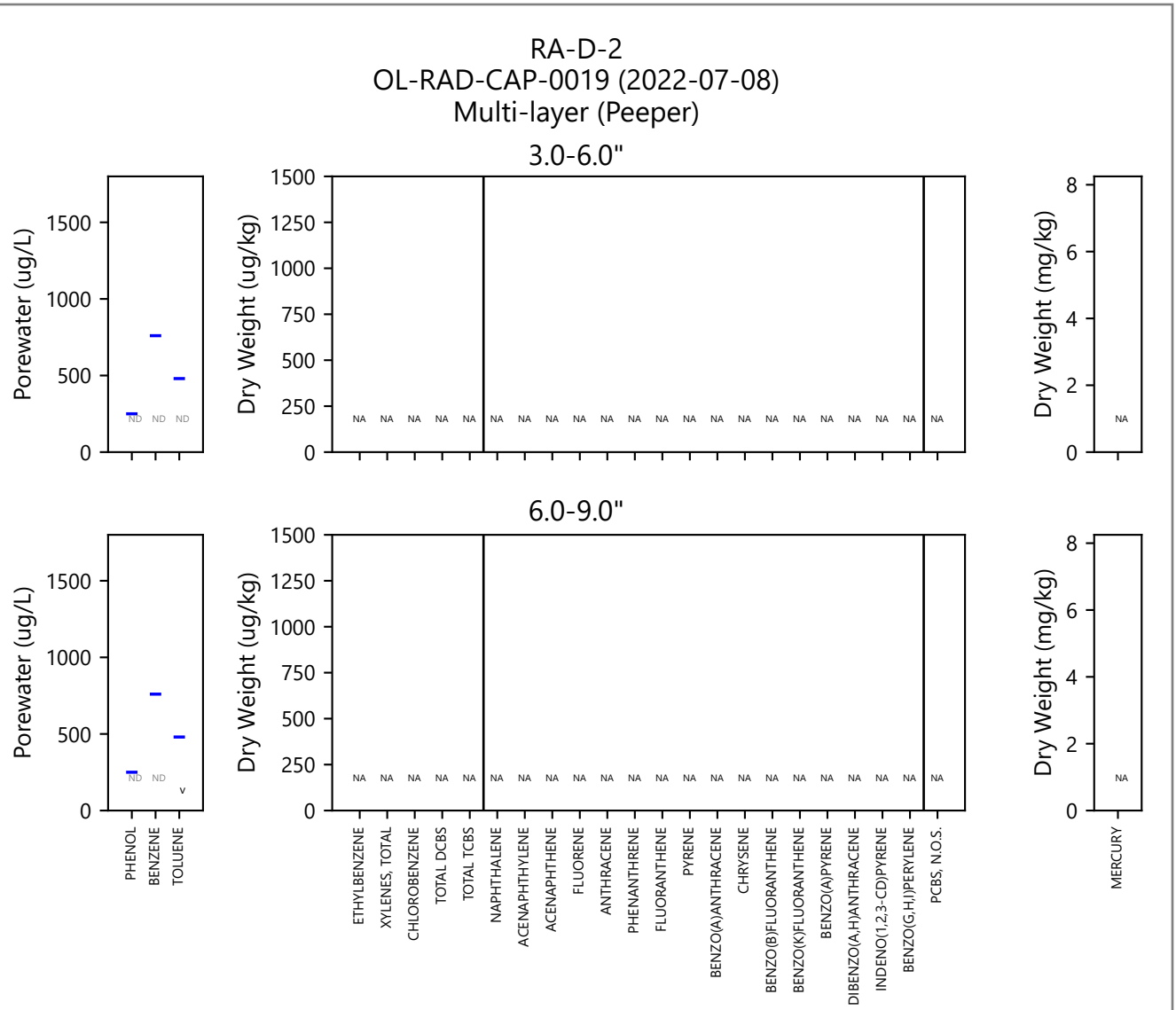
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Figure 1-173

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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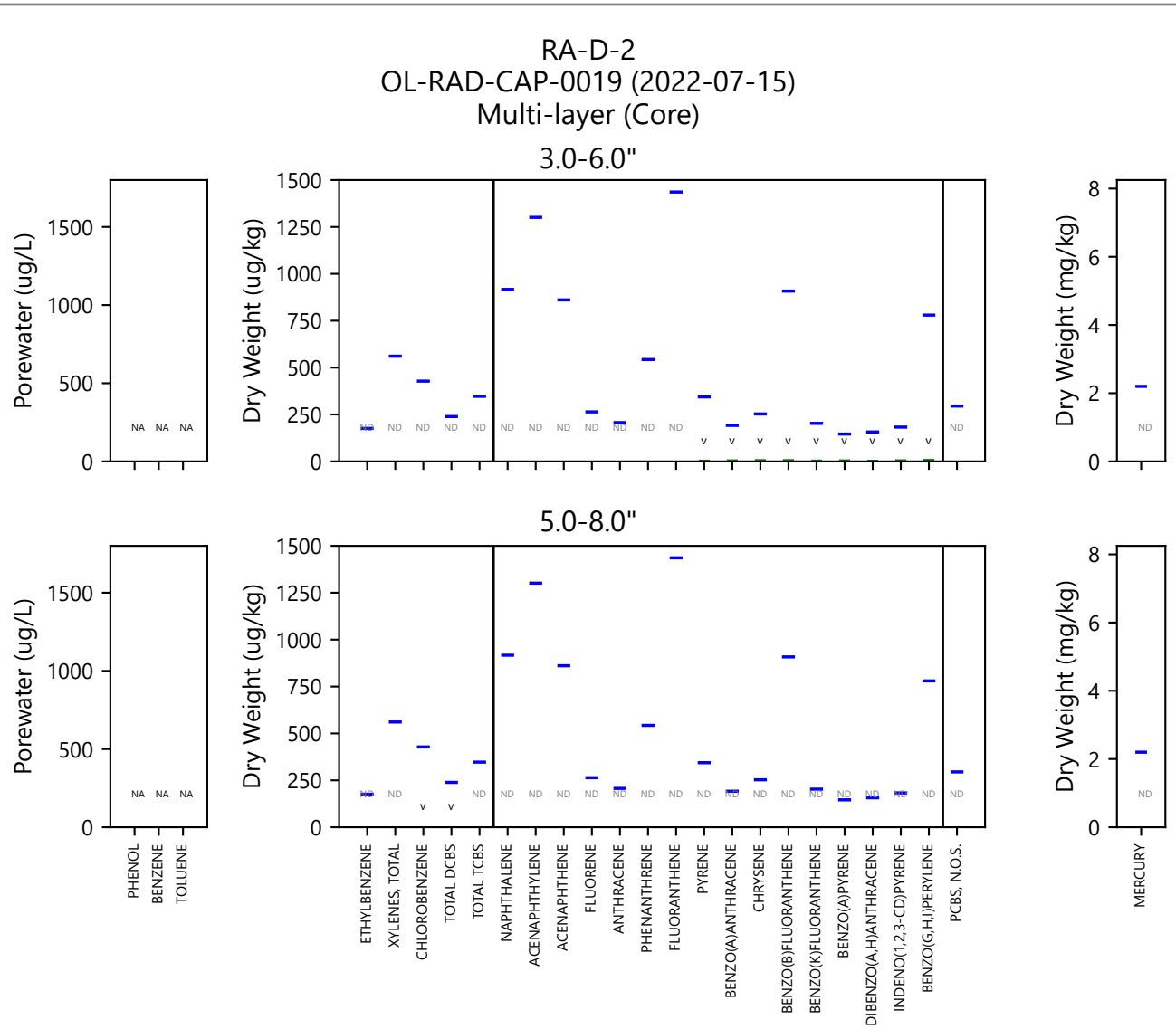
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Figure 1-174

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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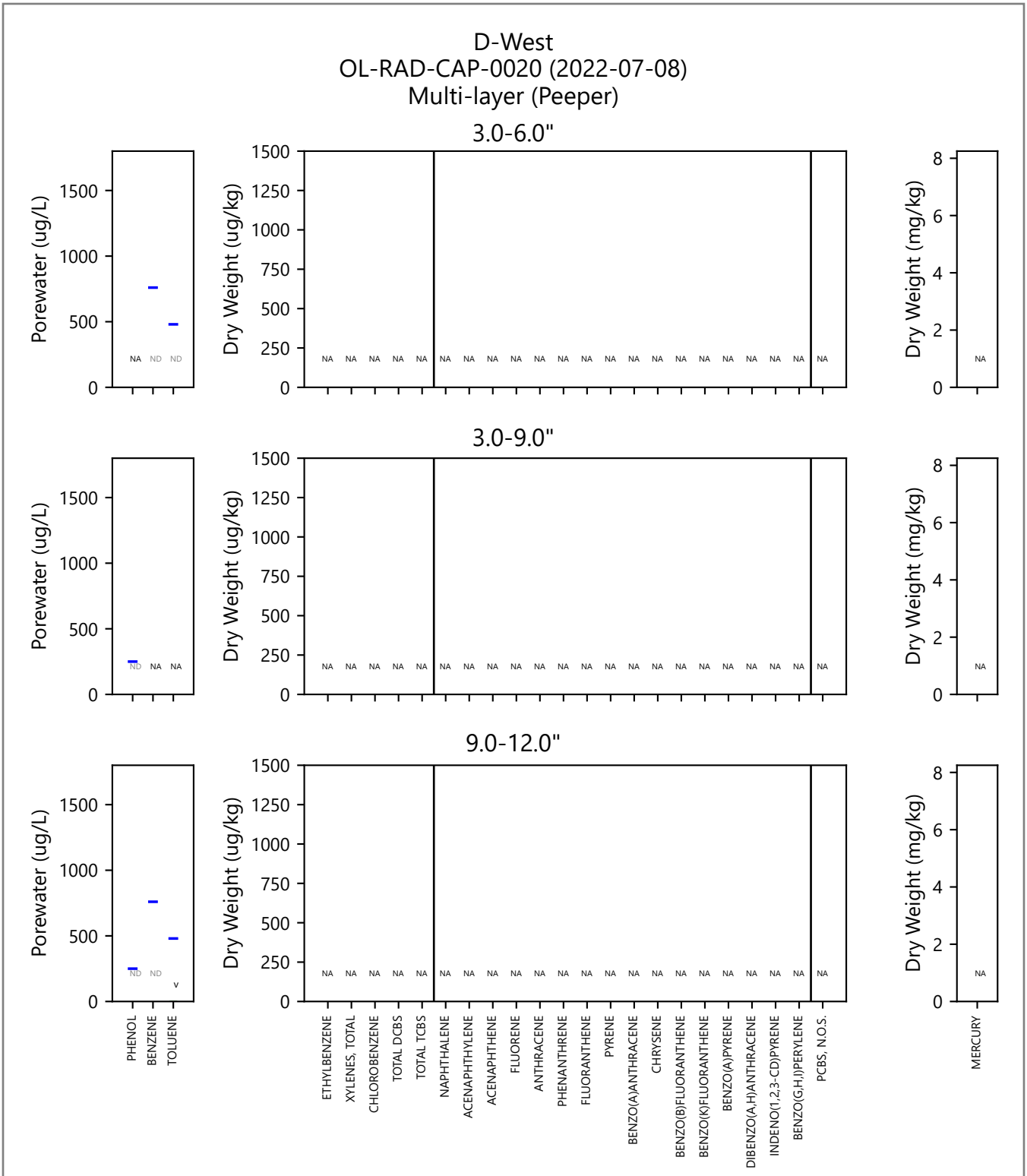
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Figure 1-175

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



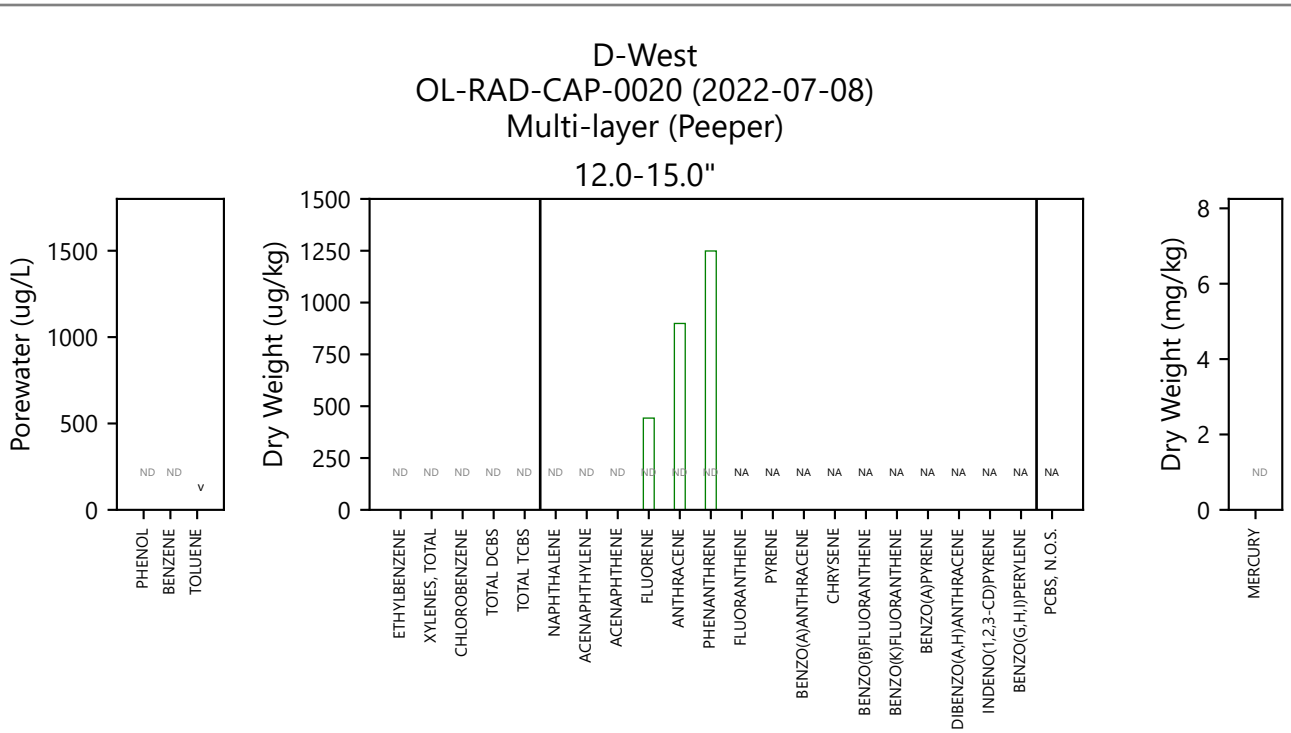
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File Path: \\WCL-FS1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Cap_Chemistry\Python\Forensics\OLCap_Forensic_Bar_Plots_CapMaterial_Criteria_HLine_2019_wHB.py

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Figure 1-176

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

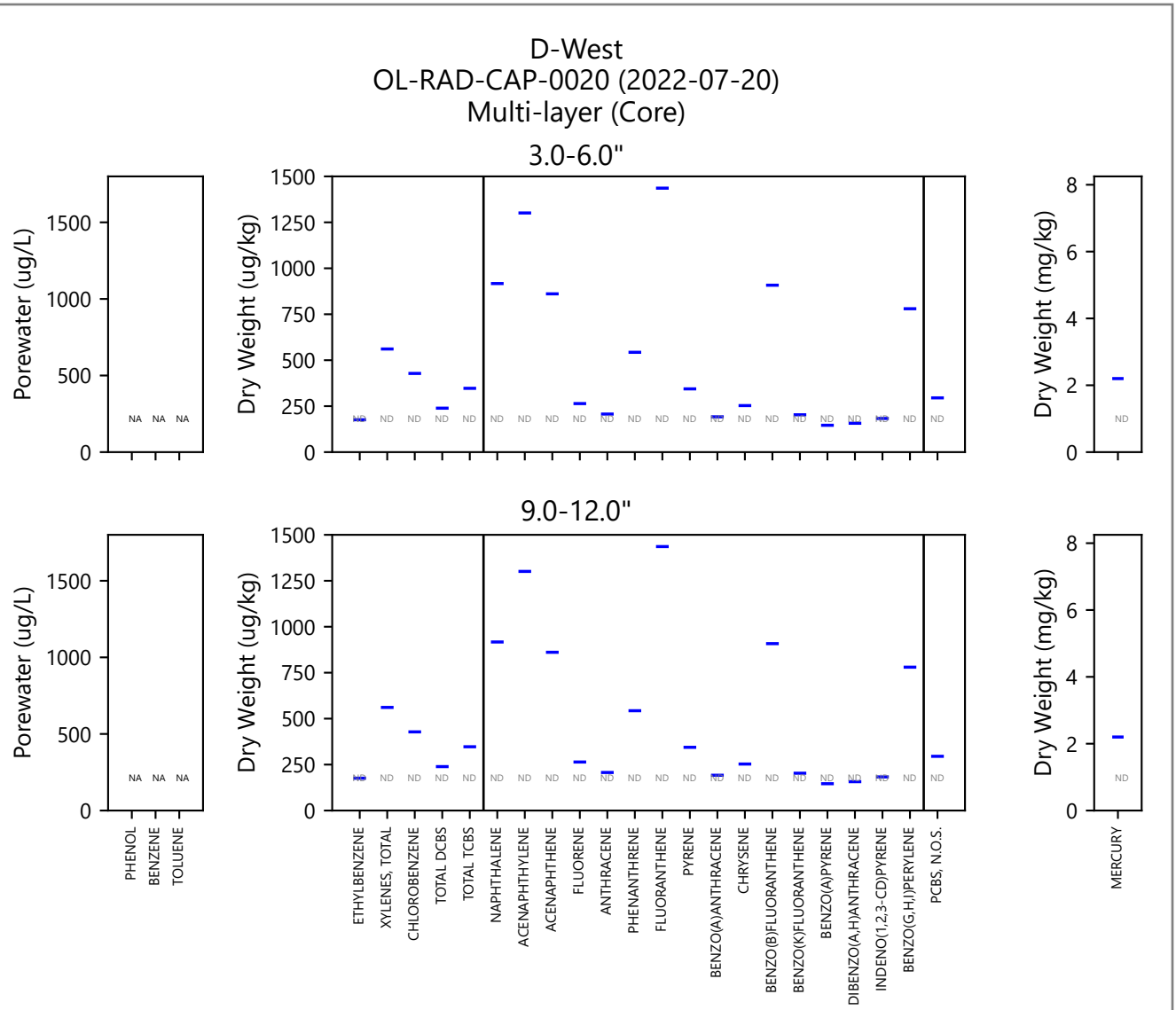
Habitat Layer Performance Criteria

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Figure 1-177

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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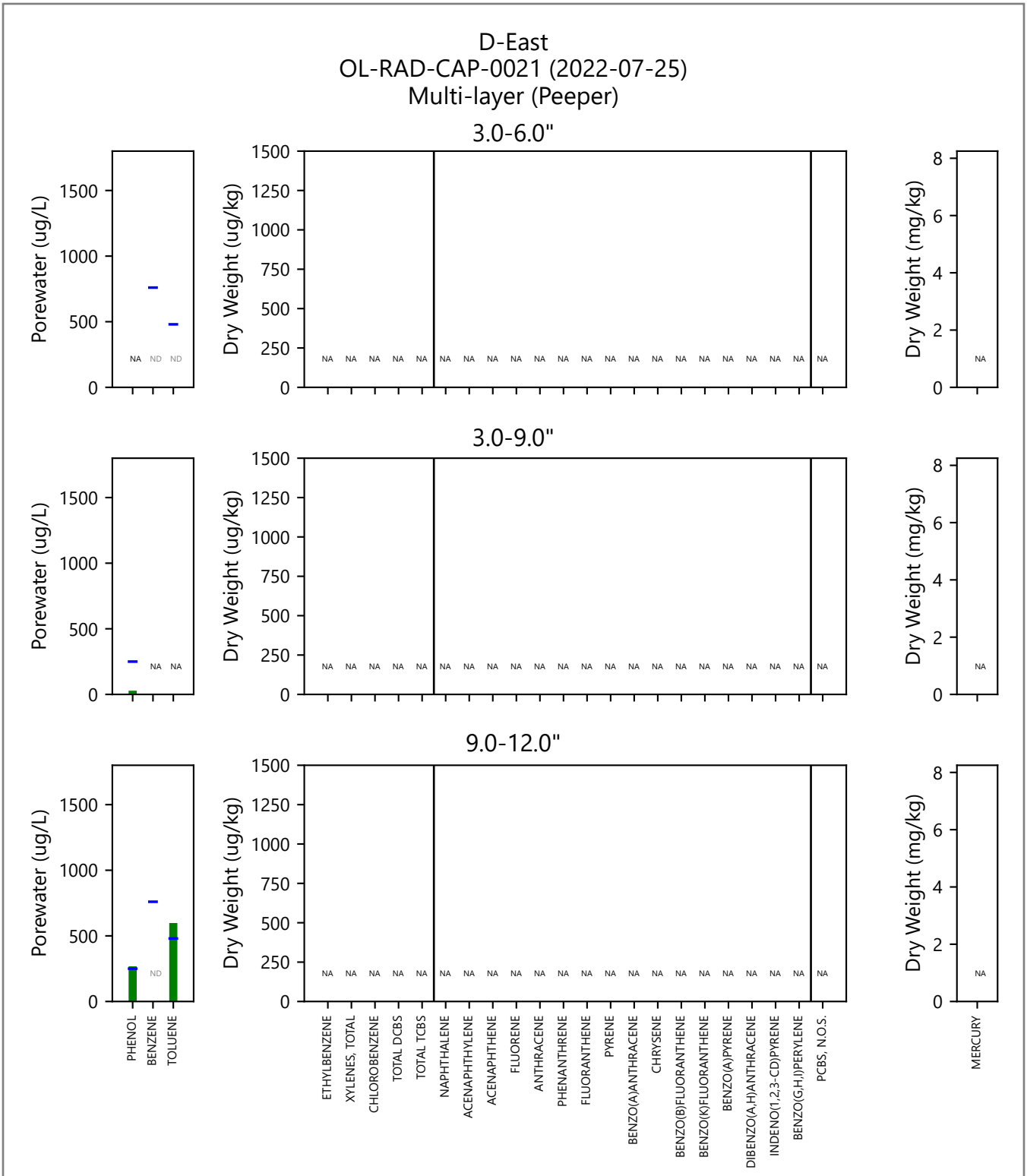
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Figure 1-178

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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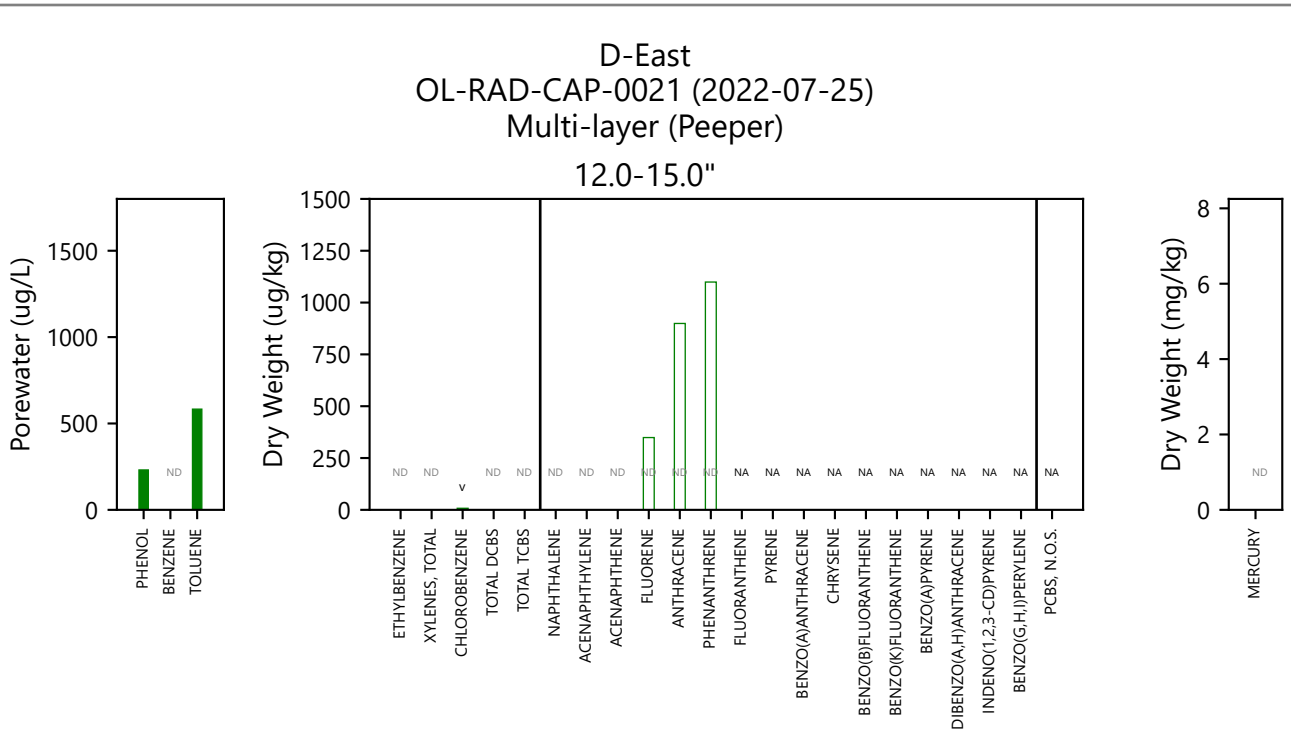
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Figure 1-179

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

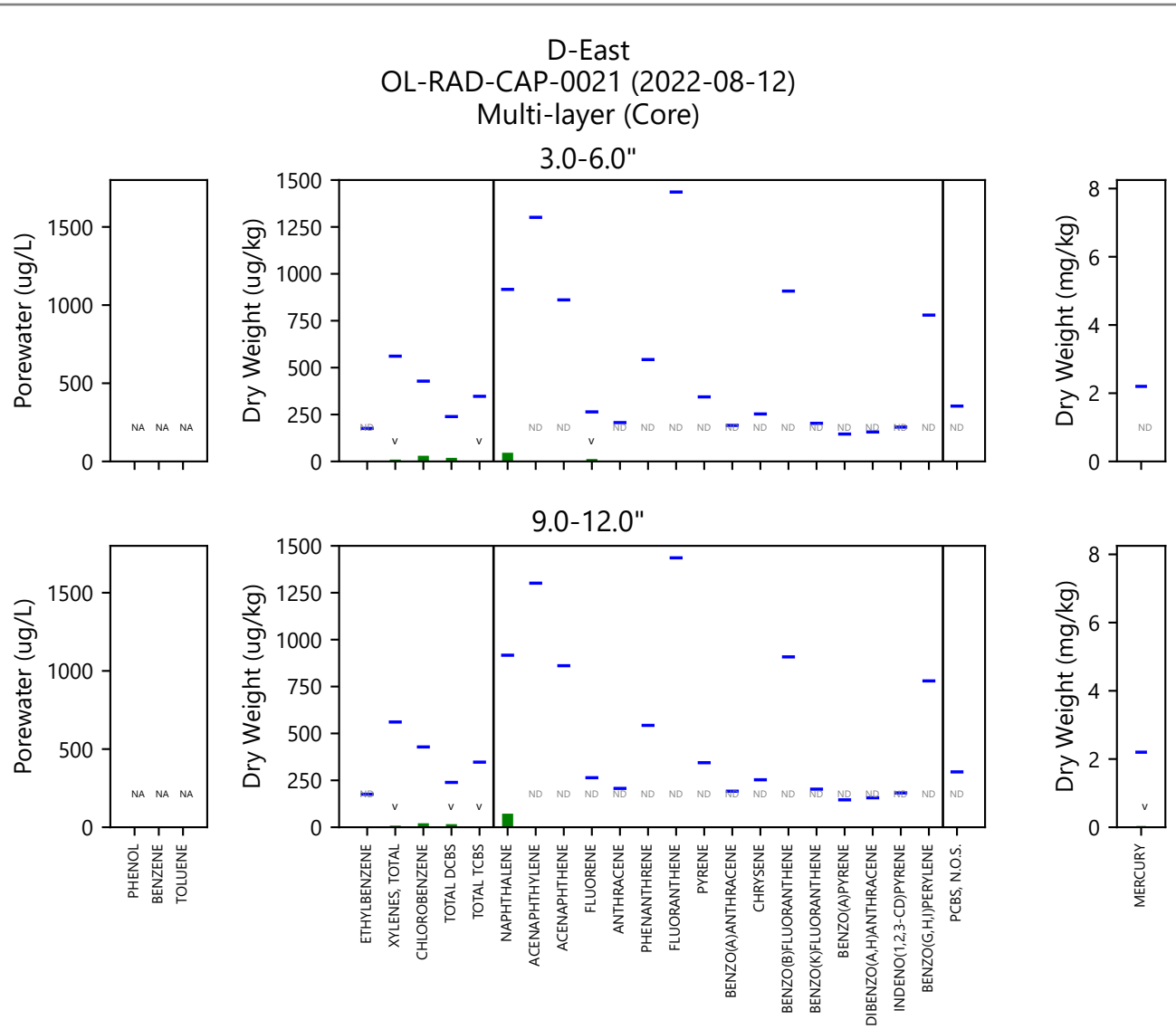
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Figure 1-180

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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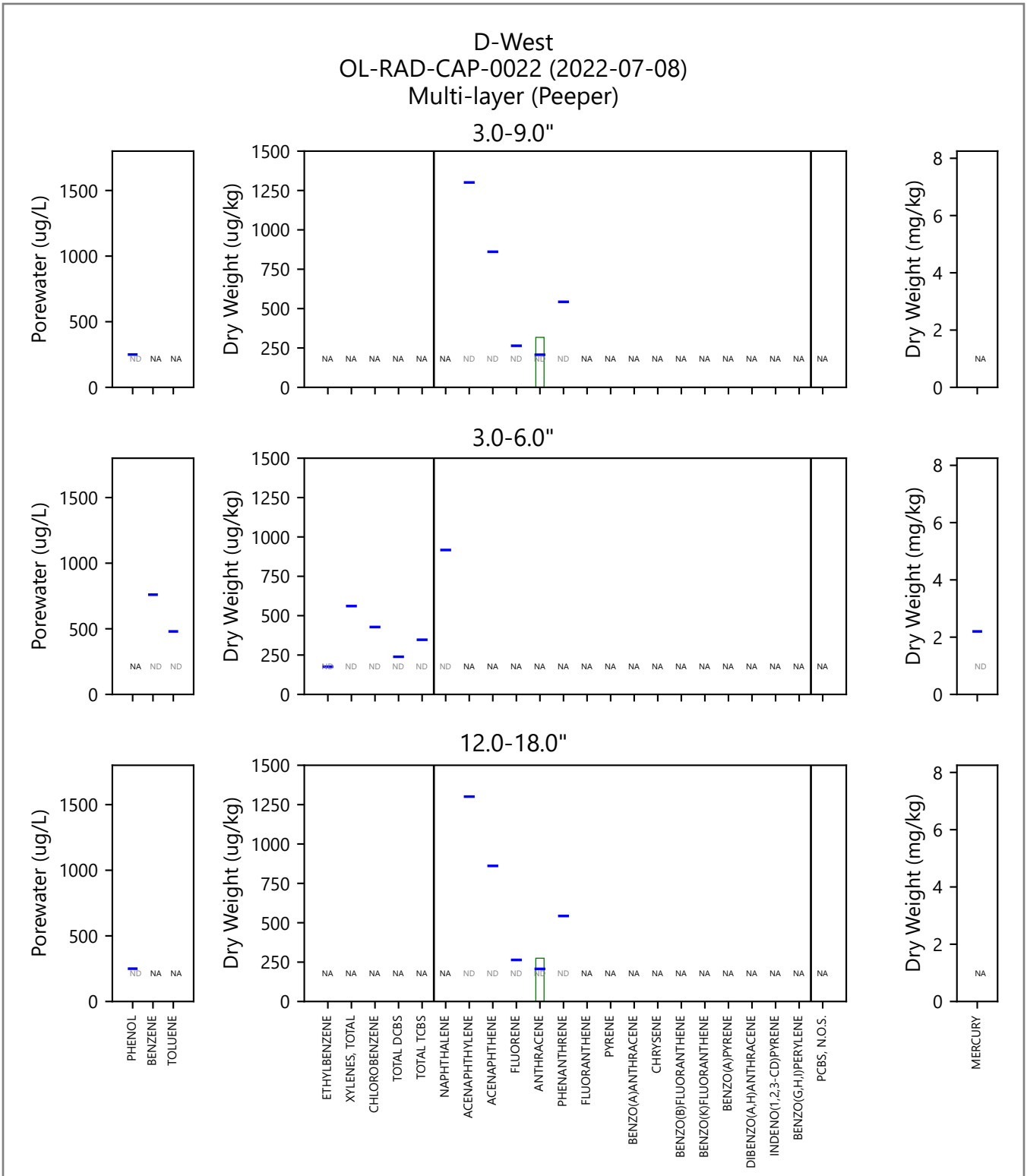
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Figure 1-181

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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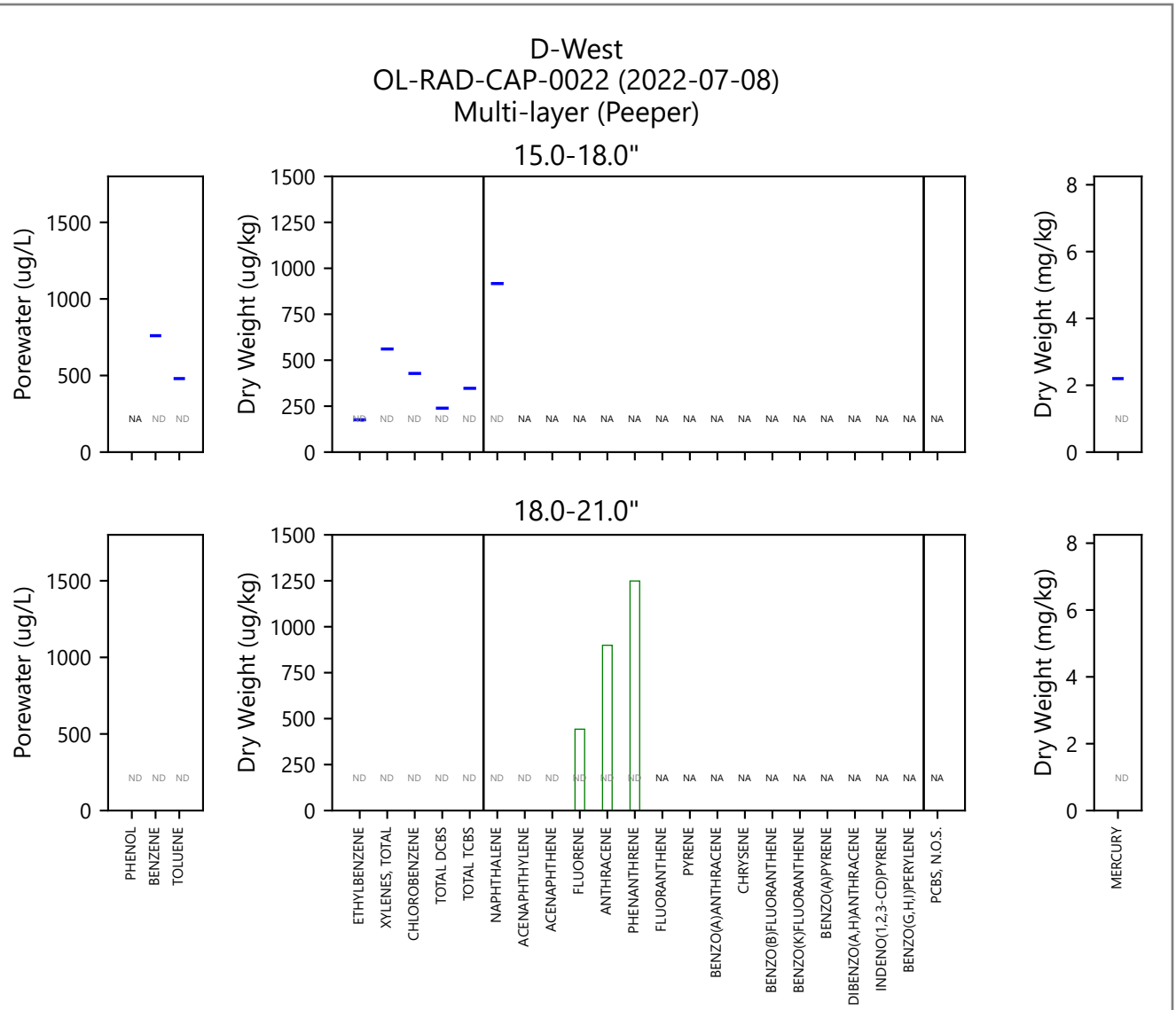
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Figure 1-182

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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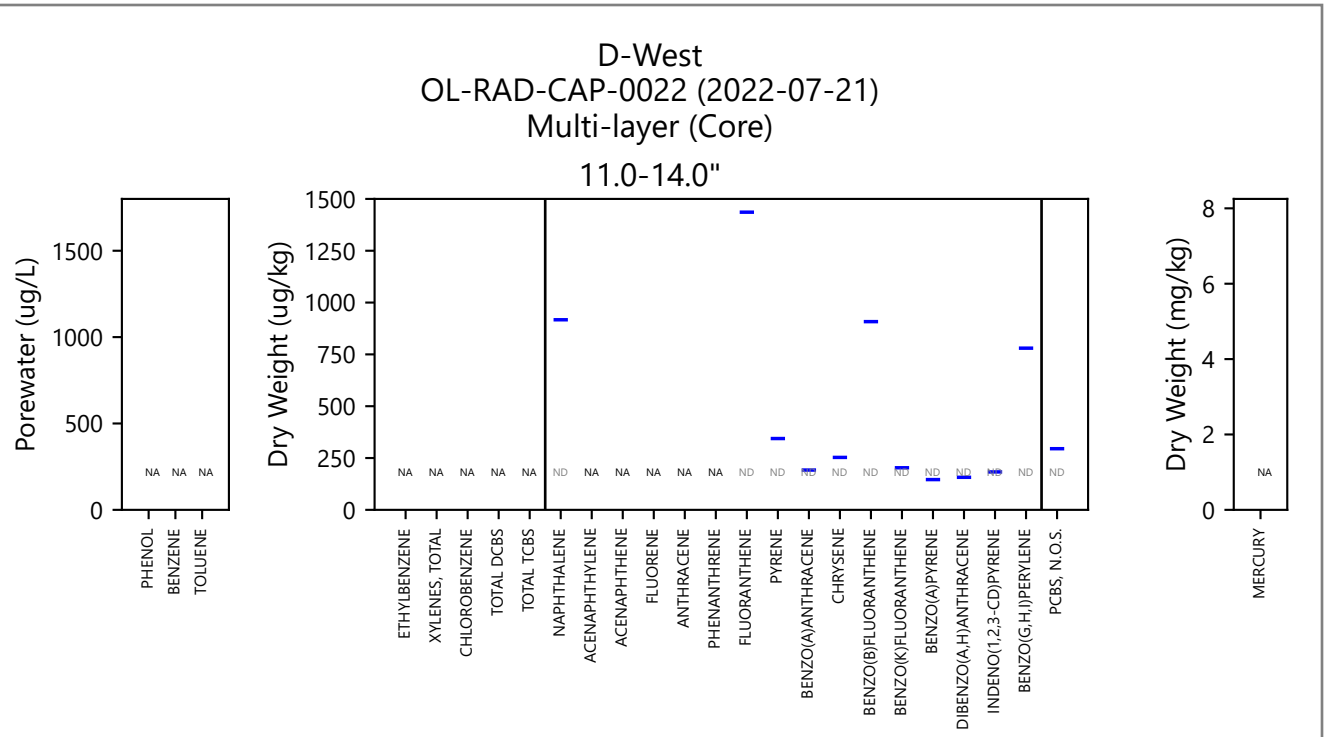
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Figure 1-183

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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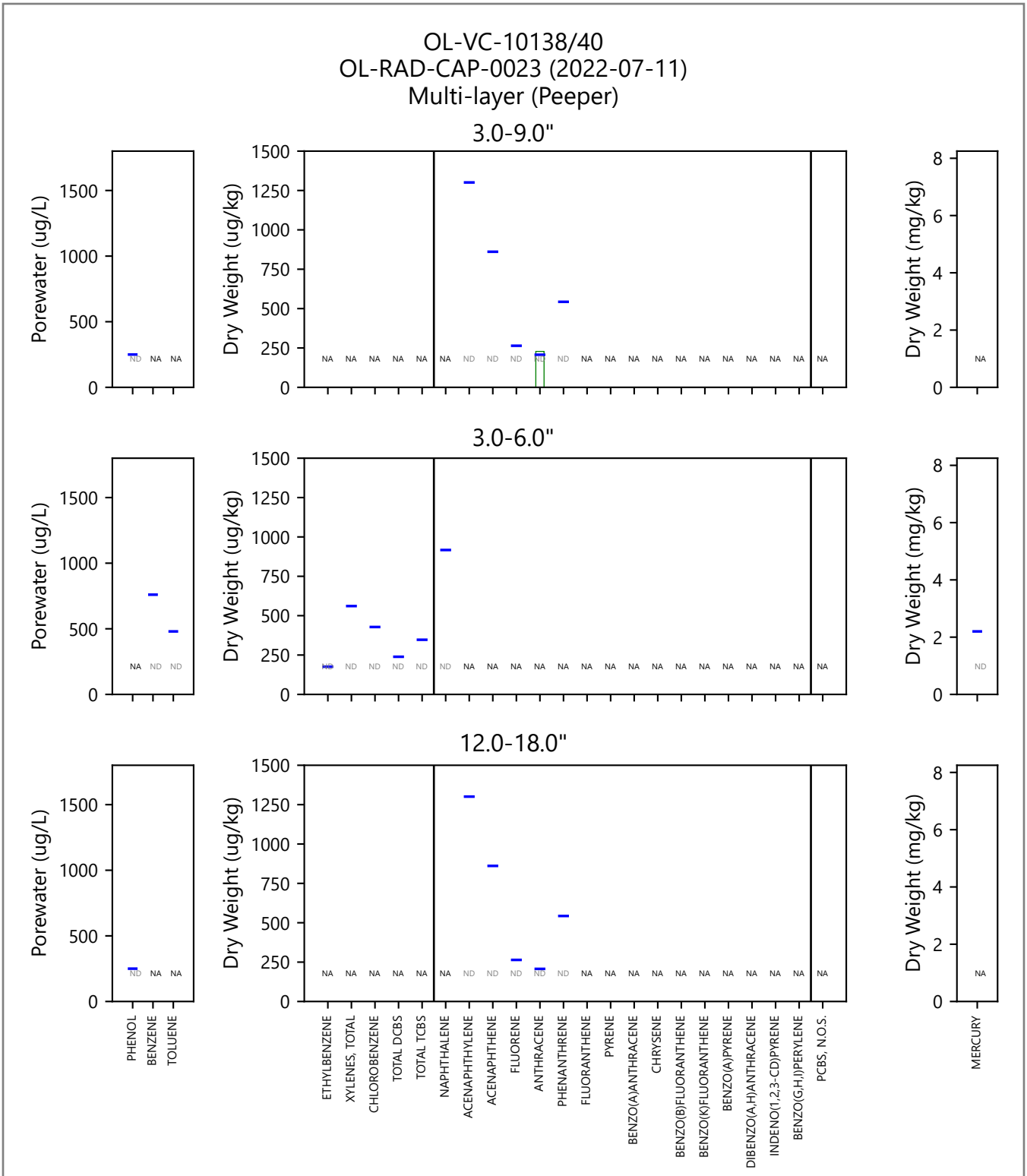
Habitat Layer Performance Criteria

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Figure 1-184

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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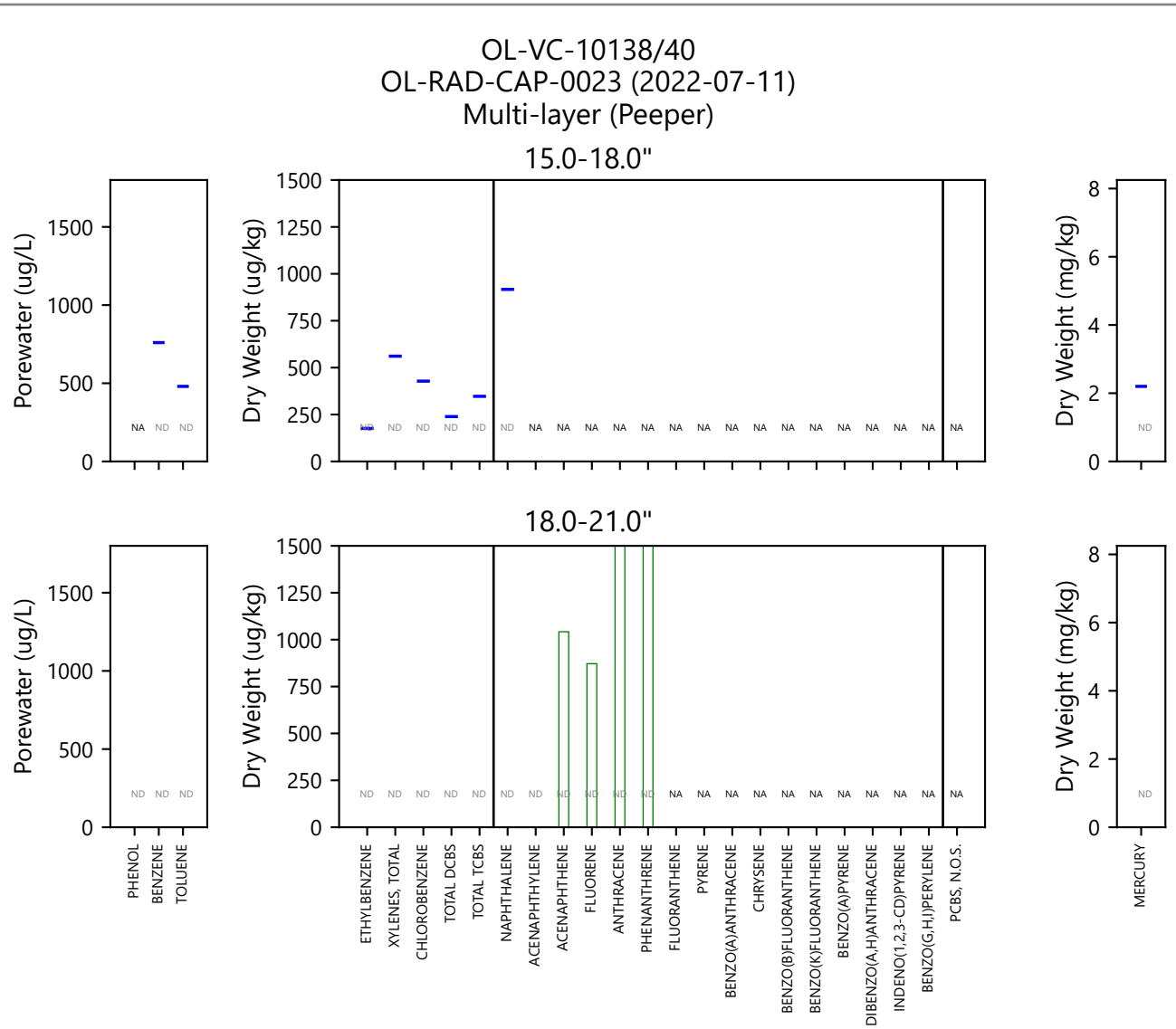
Habitat Layer Performance Criteria

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Figure 1-185

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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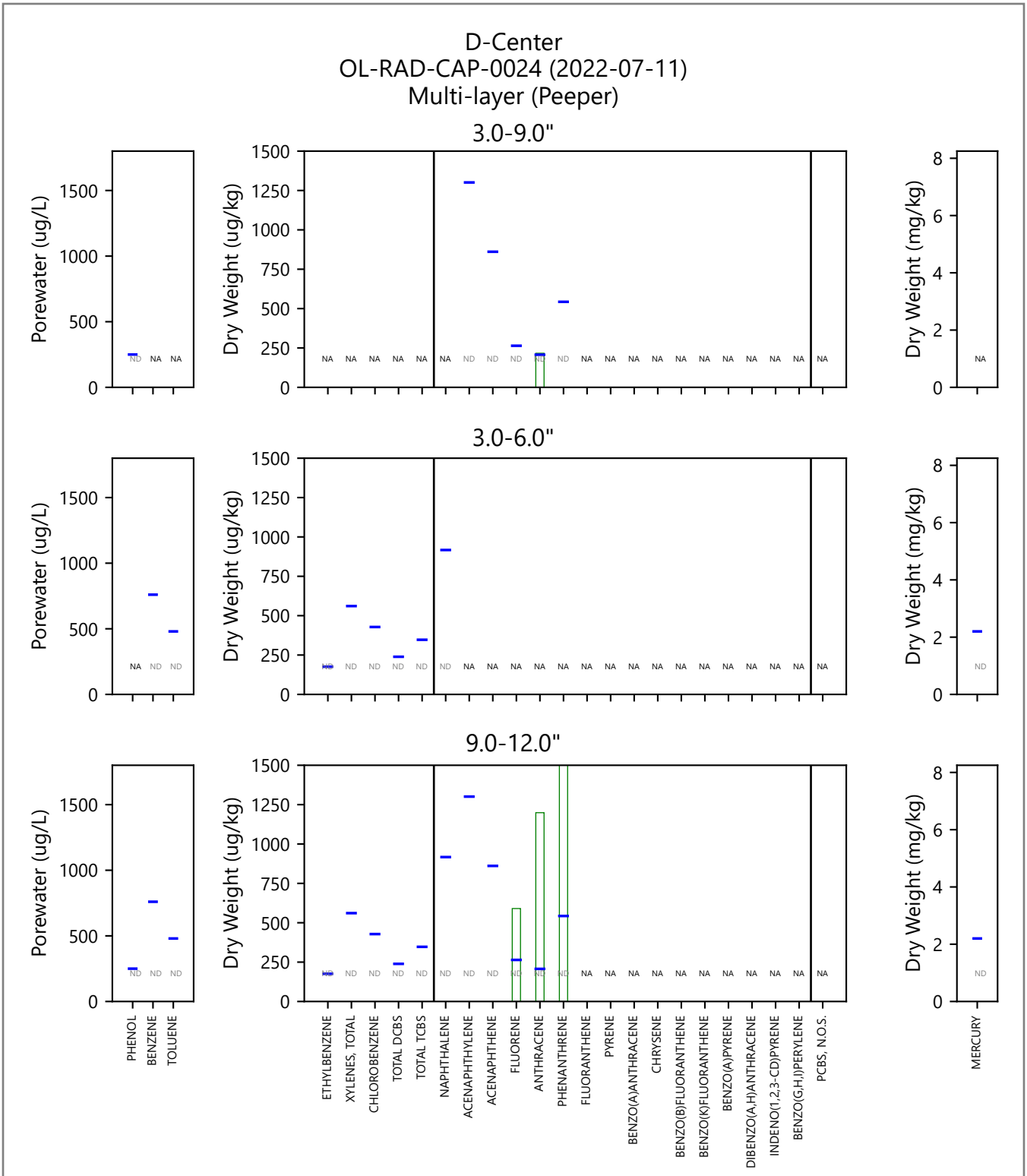
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Figure 1-186

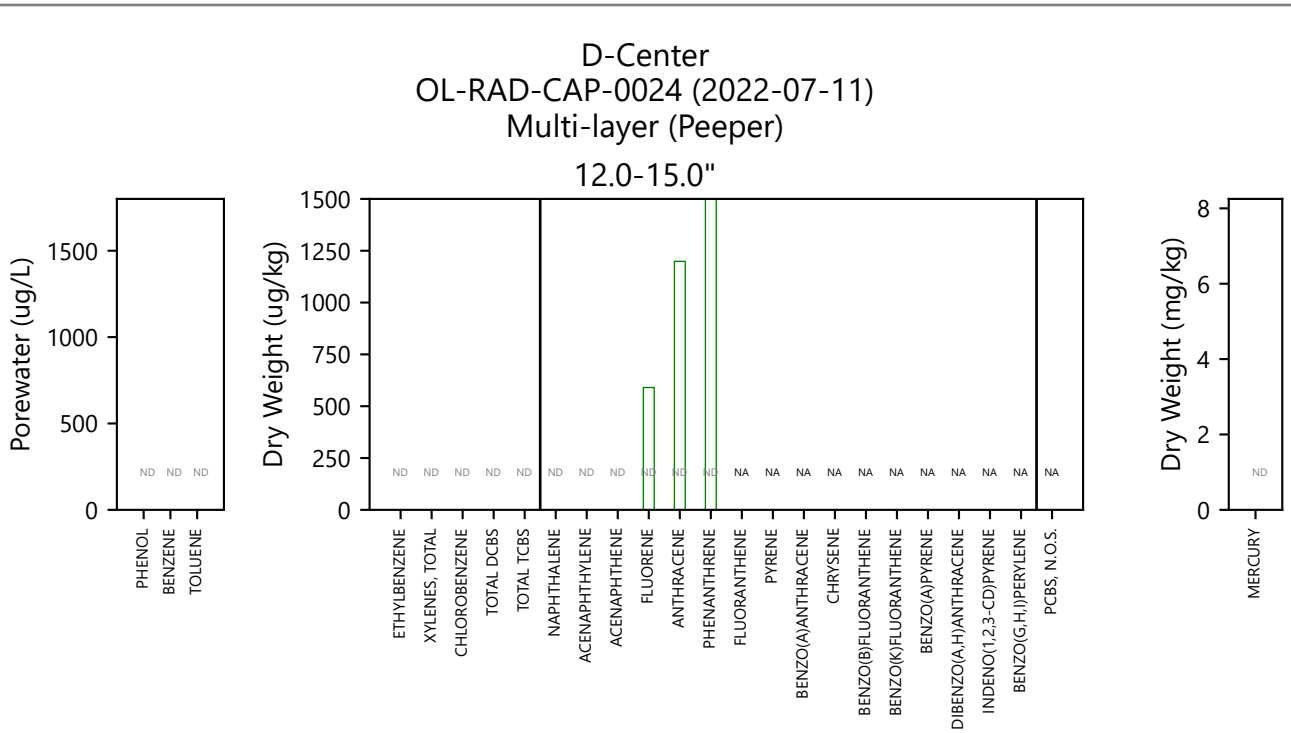
Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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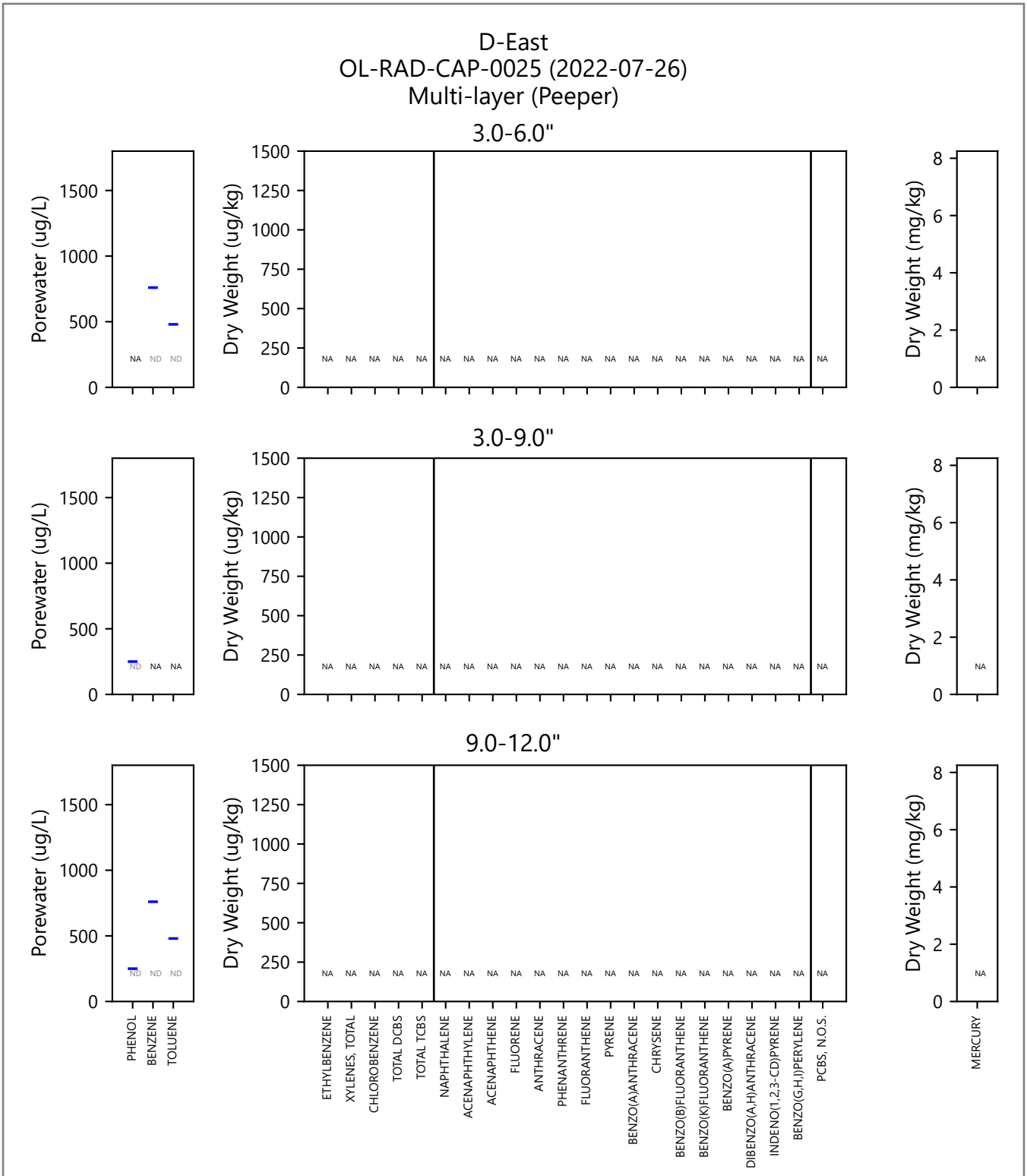
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Figure 1-188

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



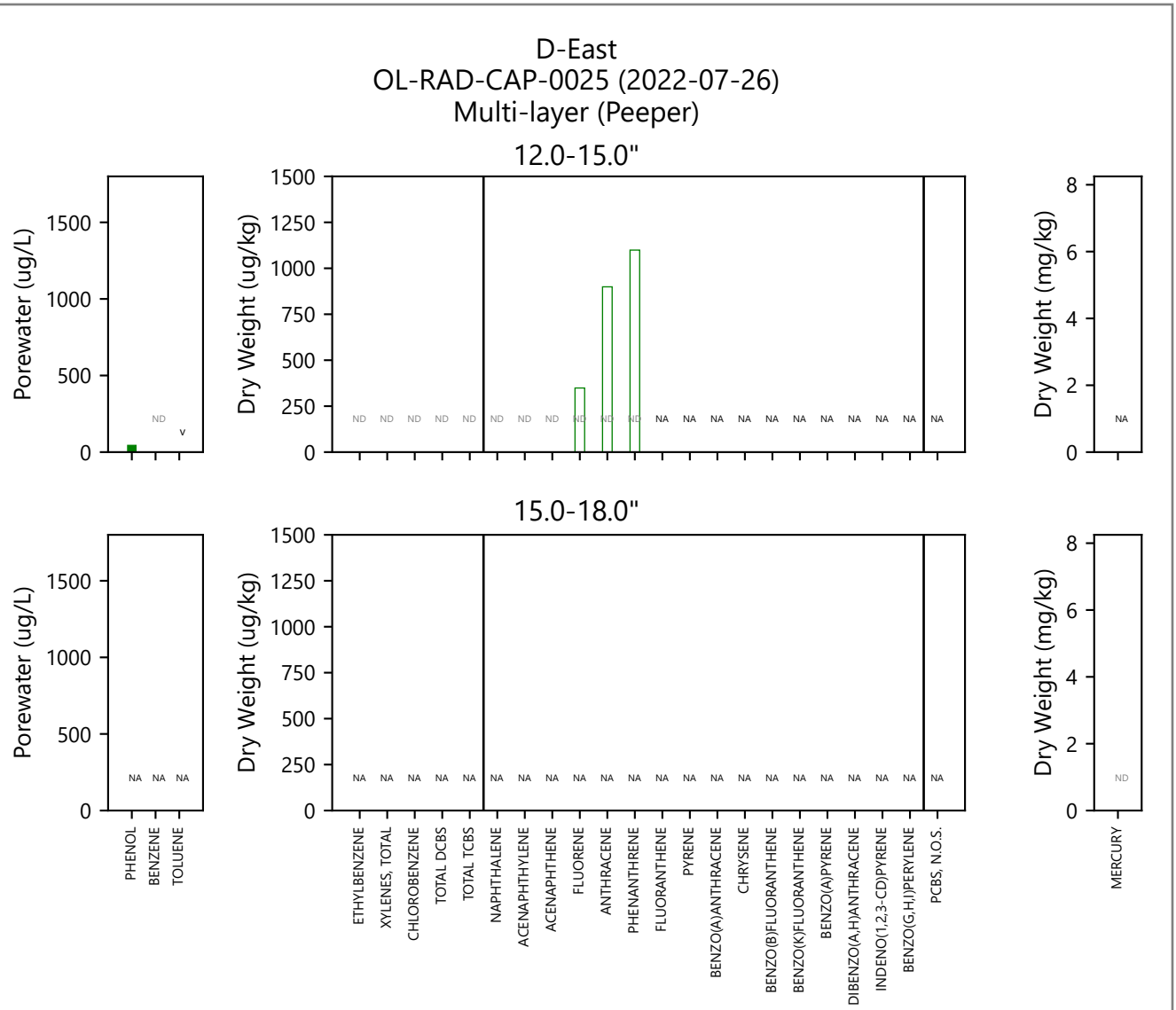
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Figure 1-189

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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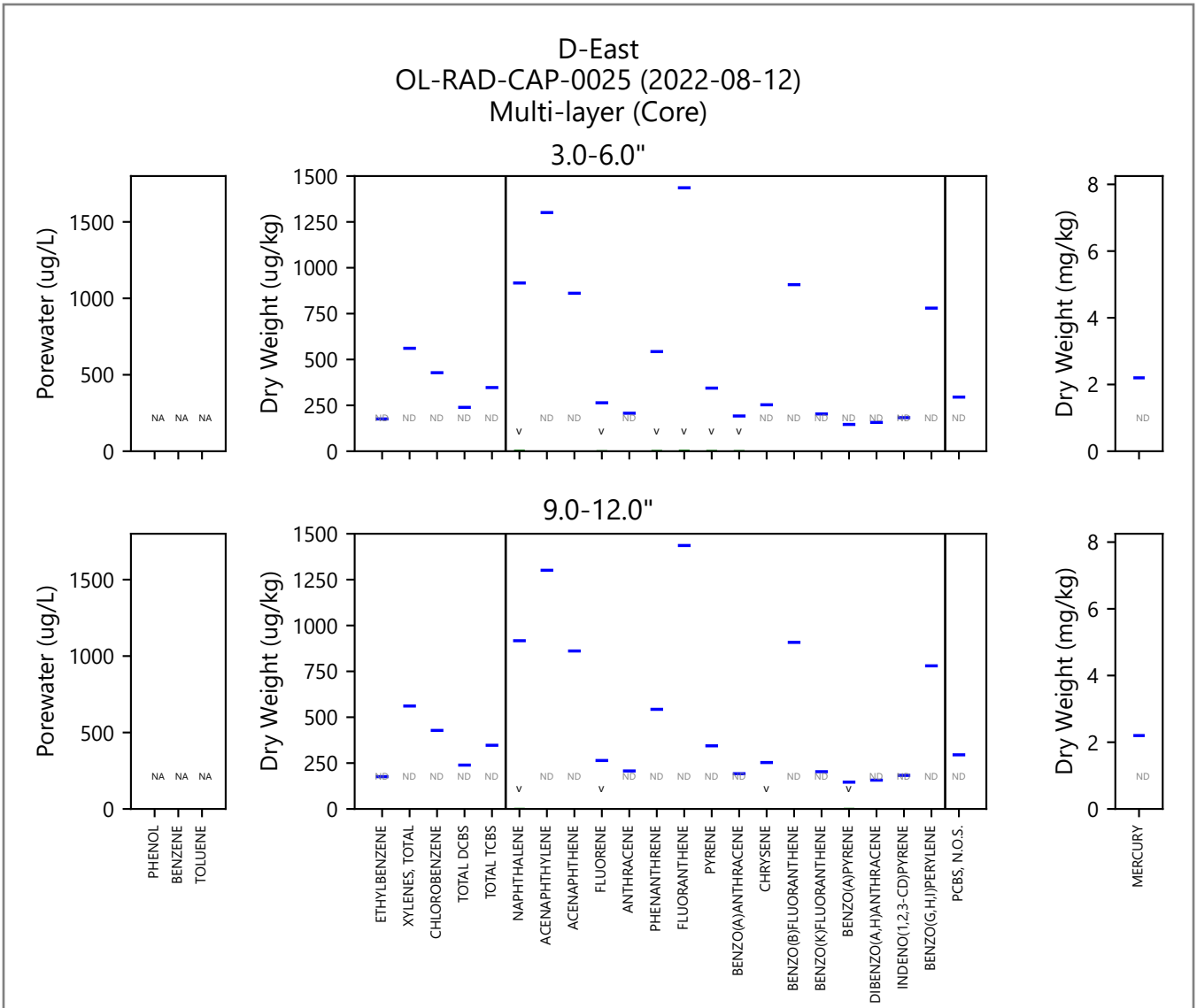
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Figure 1-190

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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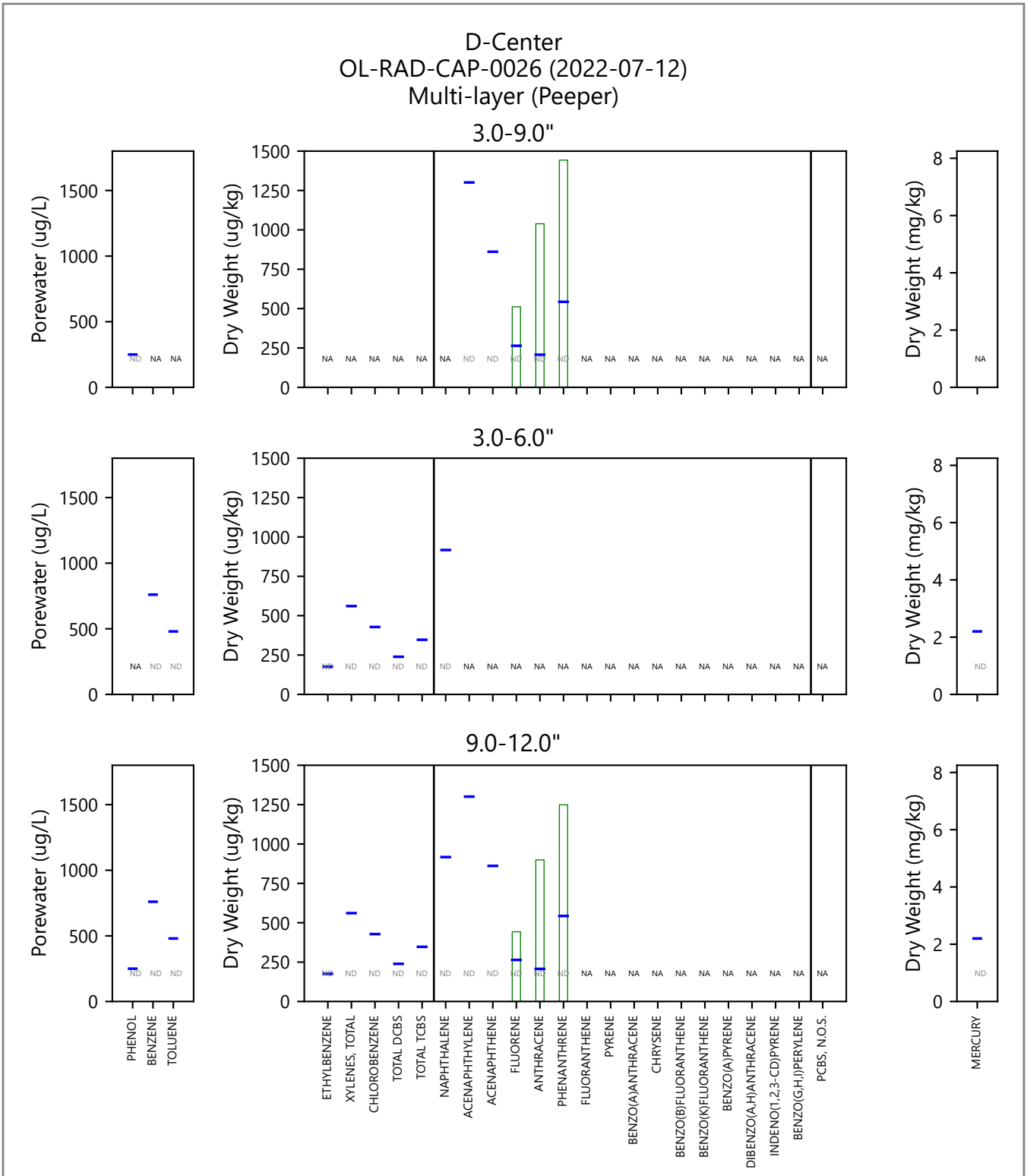
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Figure 1-191

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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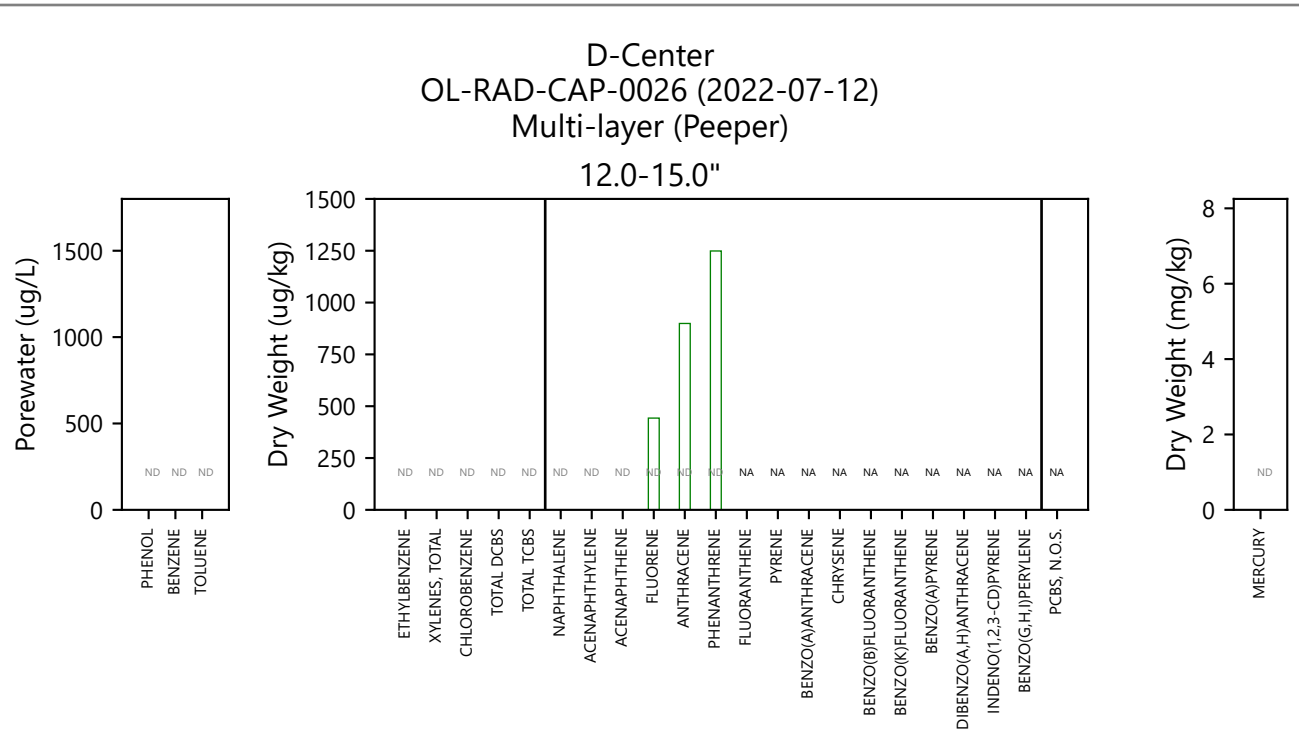
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Figure 1-192

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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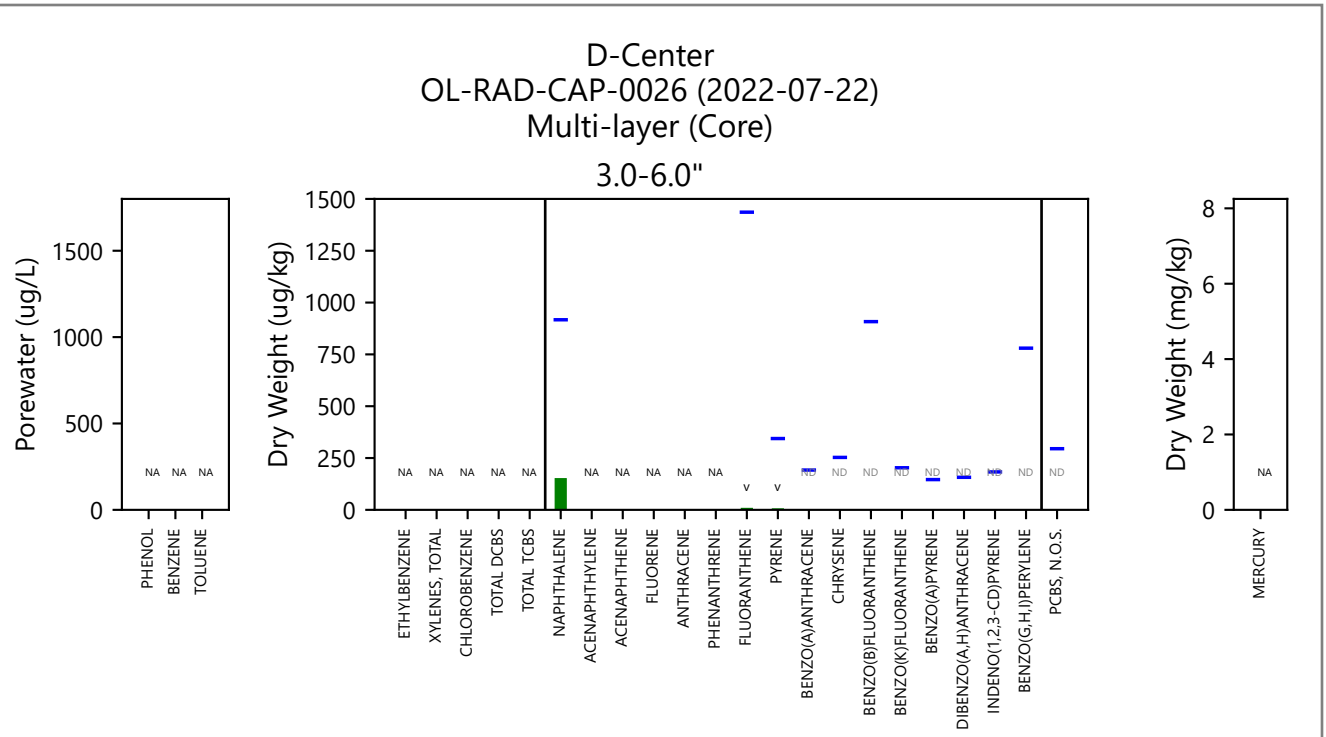
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Figure 1-193

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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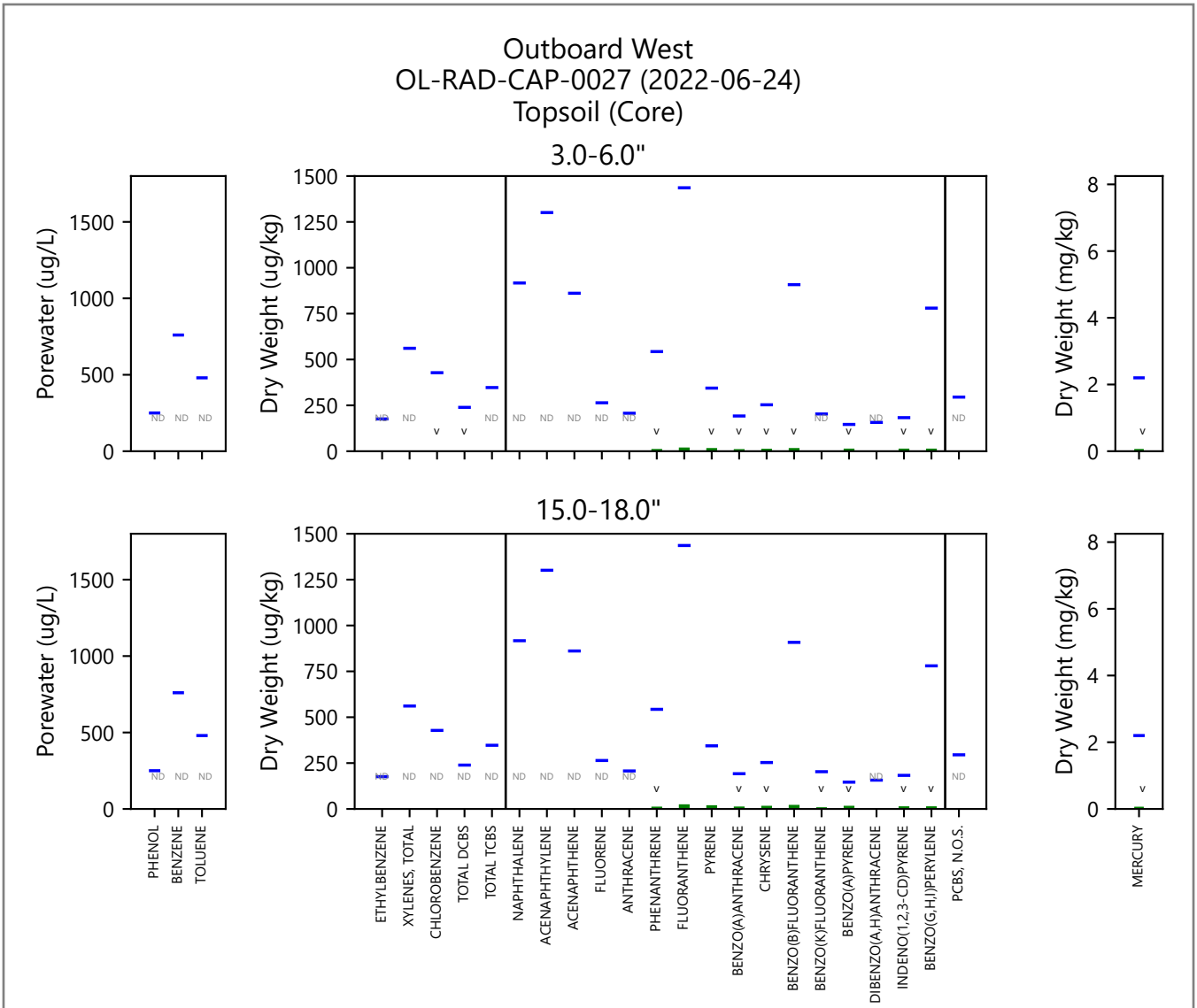
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Figure 1-194

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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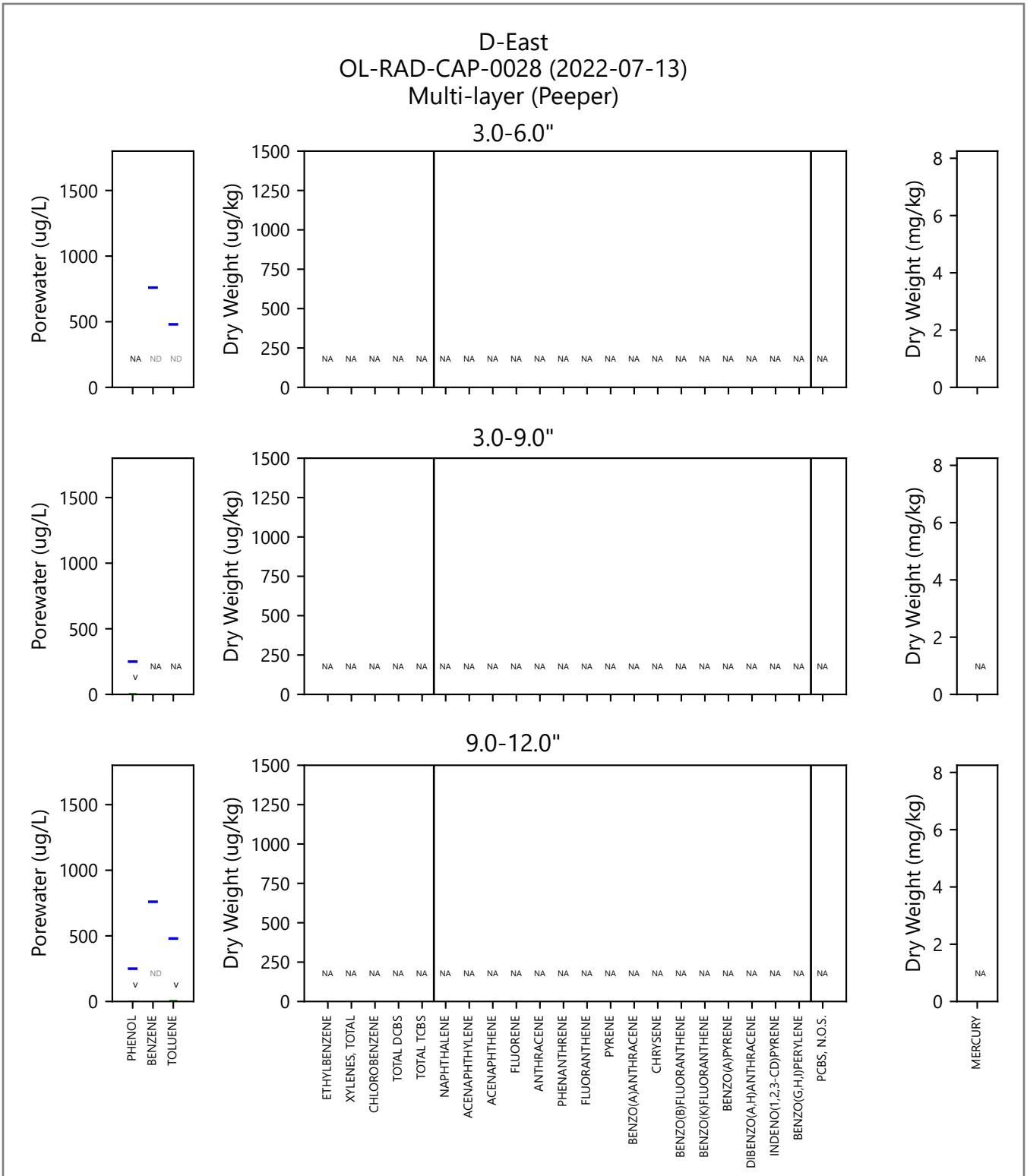
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Figure 1-195

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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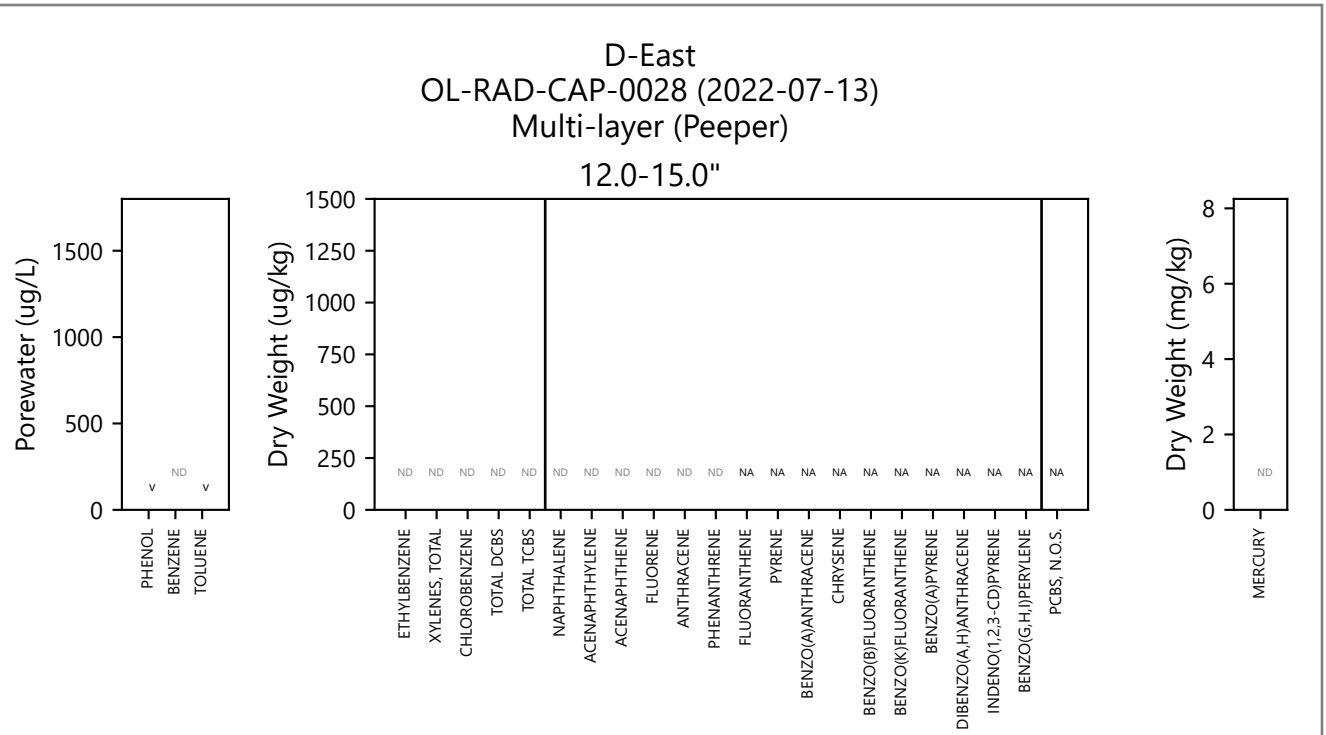
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Figure 1-196

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

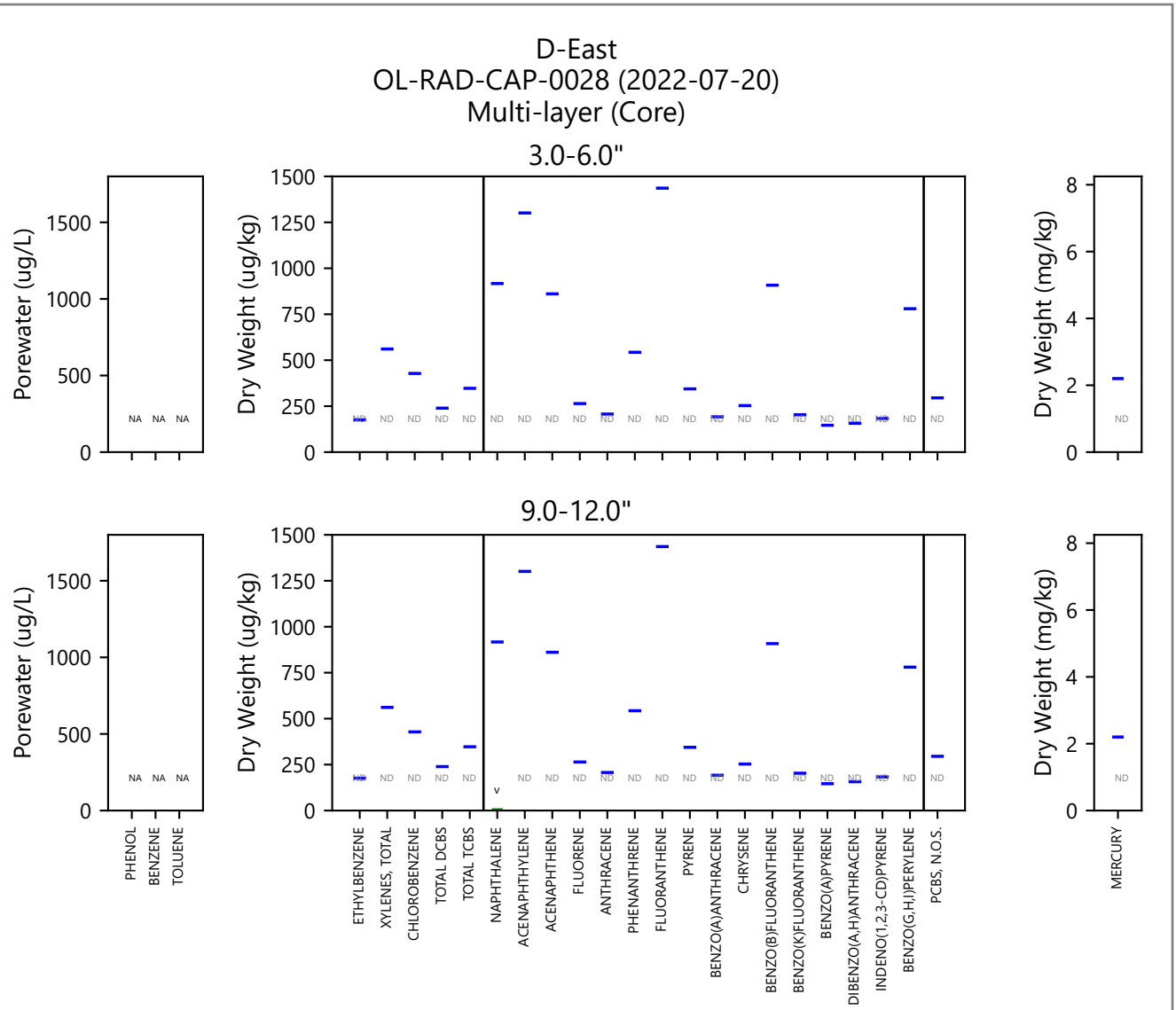
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Figure 1-197

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

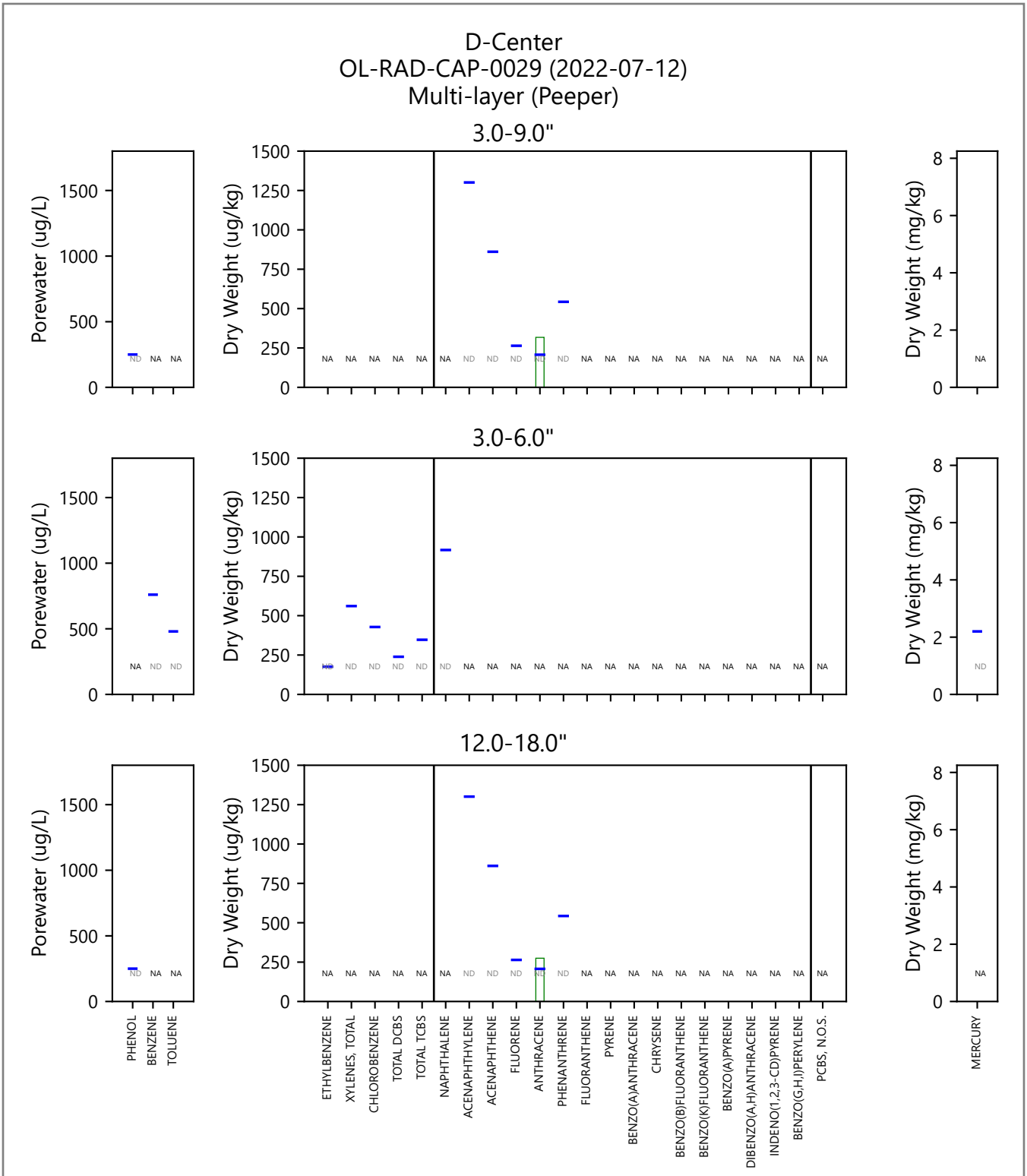
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Figure 1-198

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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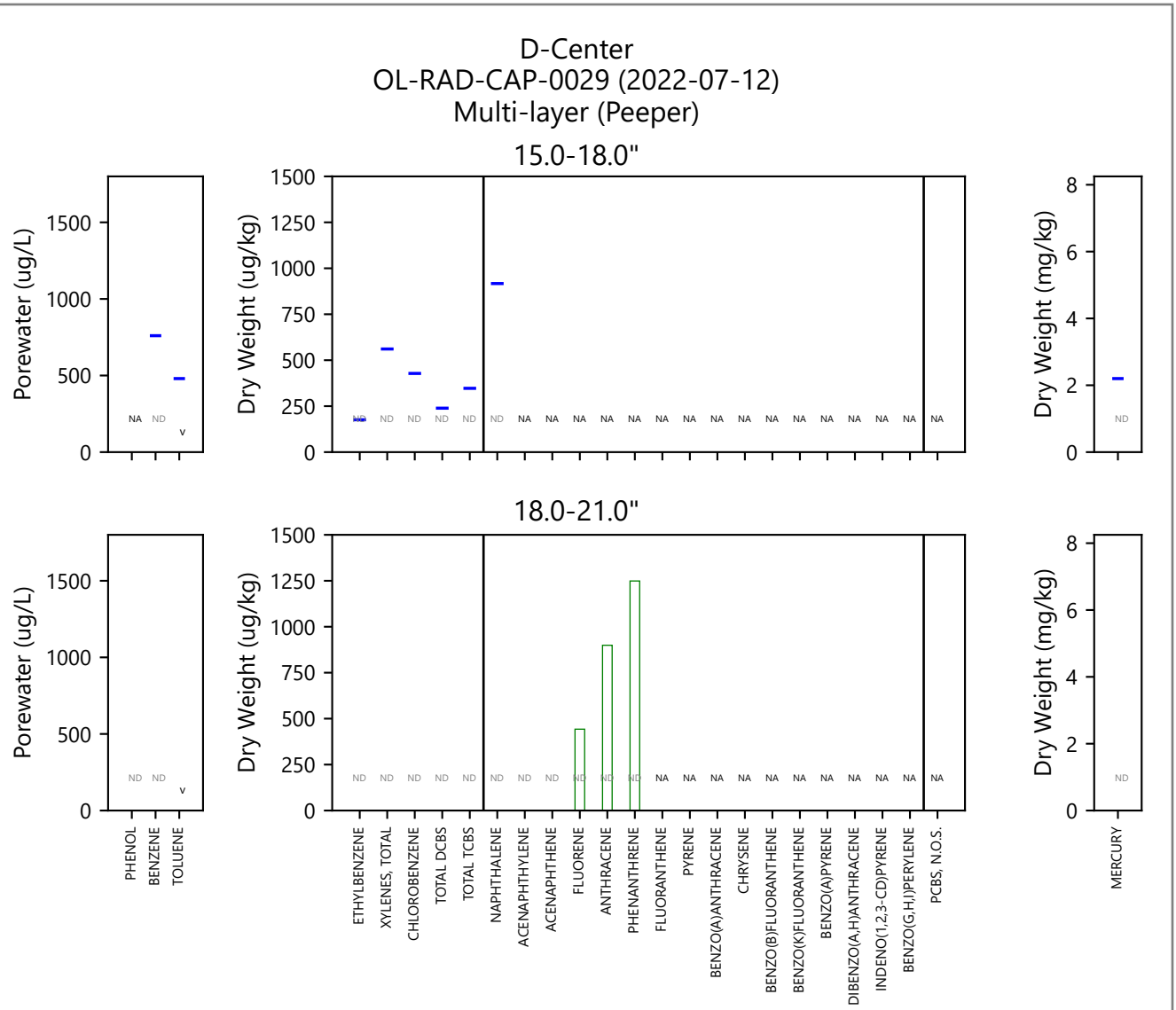
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Figure 1-199

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
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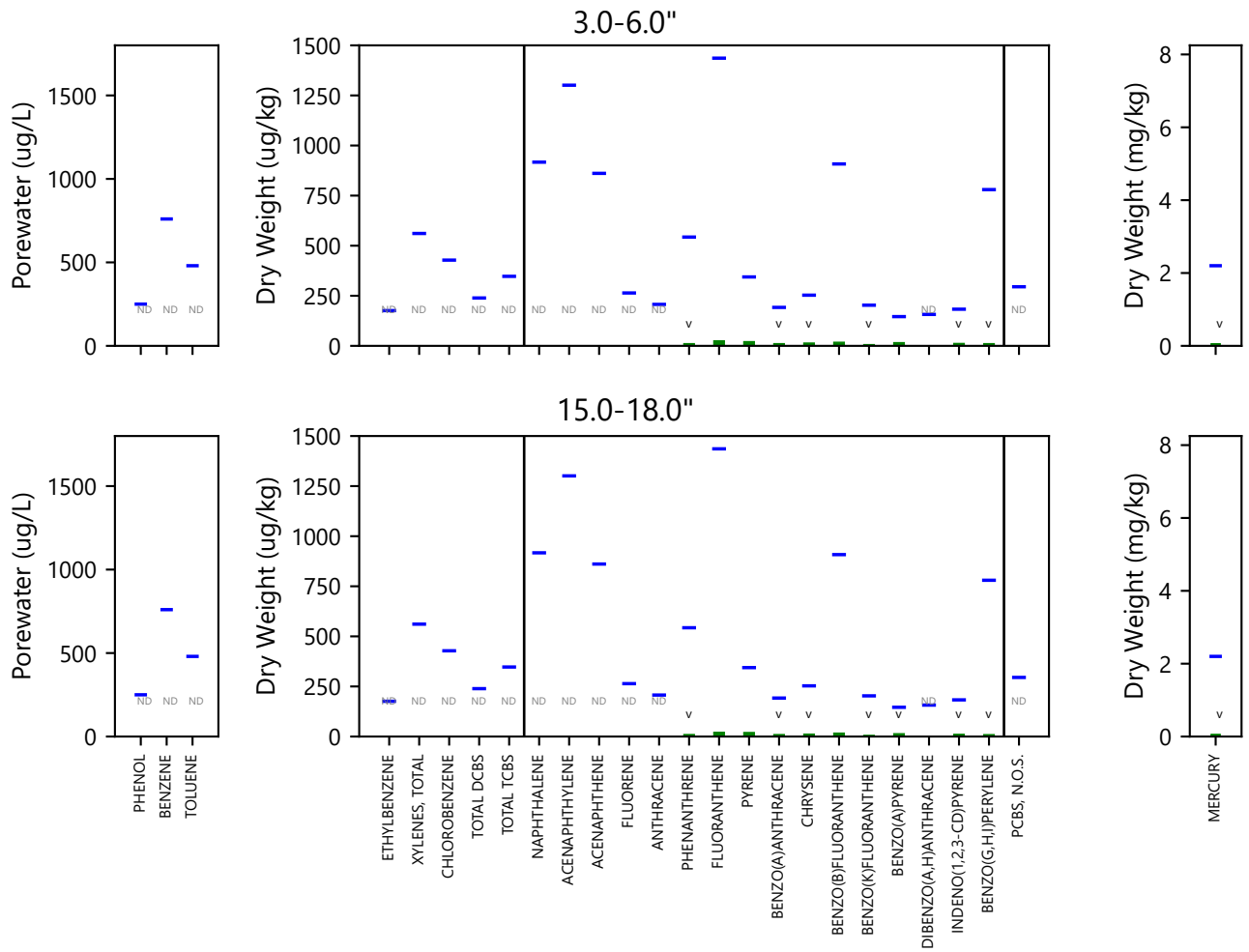
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Figure 1-200

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
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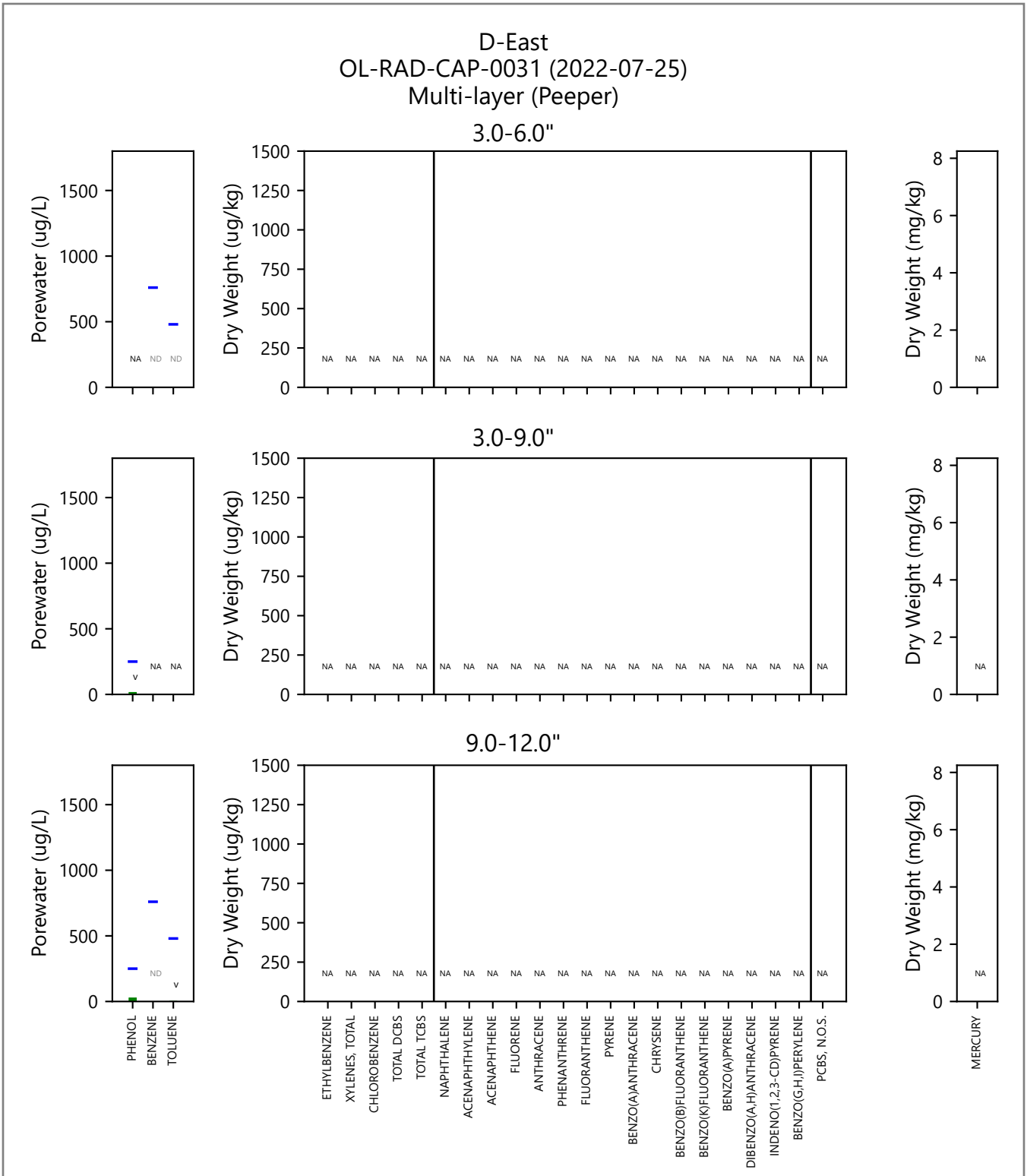
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Figure 1-201

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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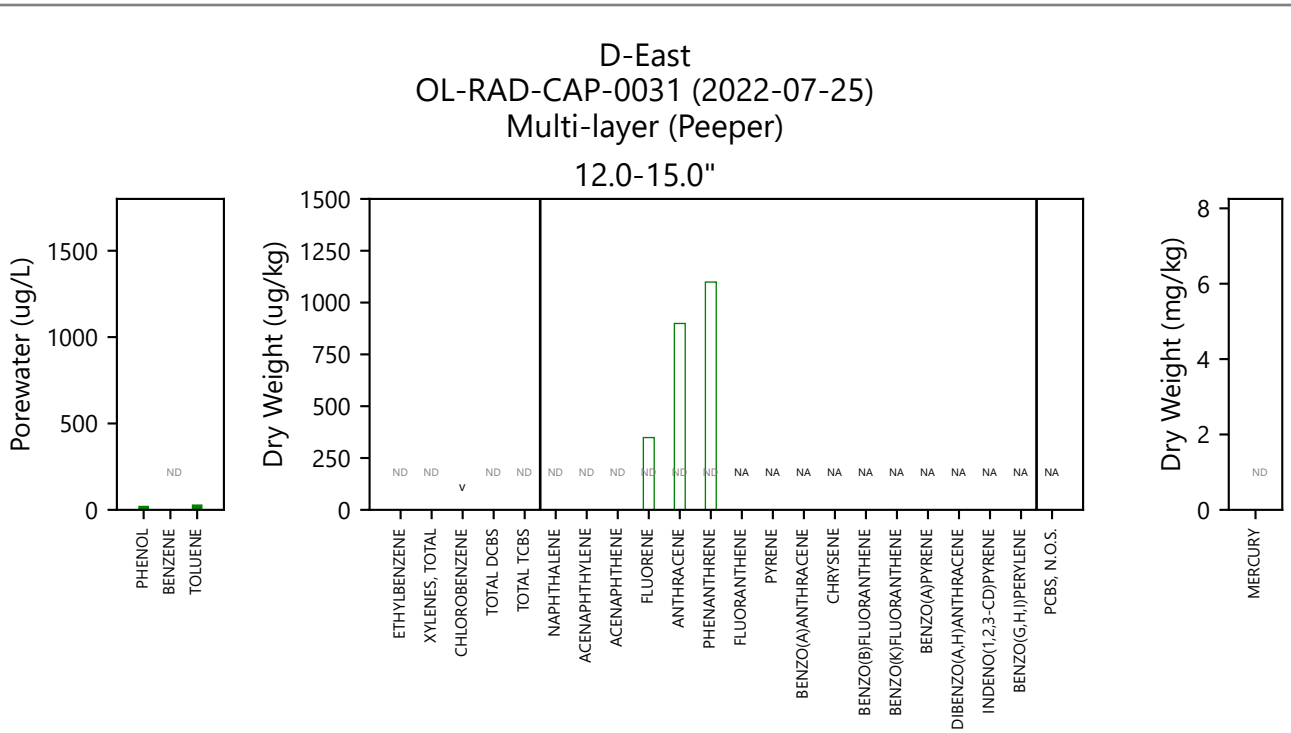
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Figure 1-202

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

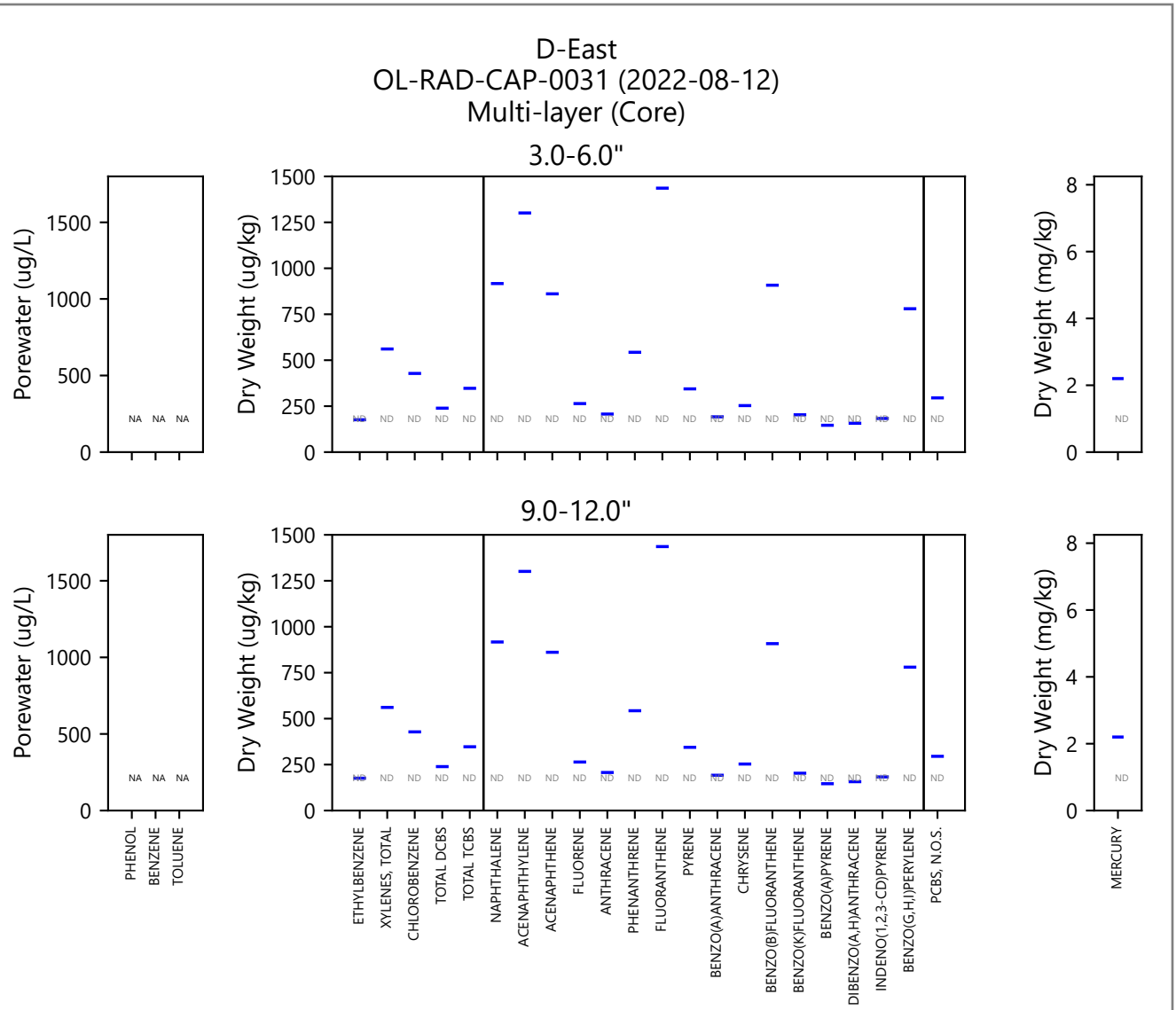
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Figure 1-203

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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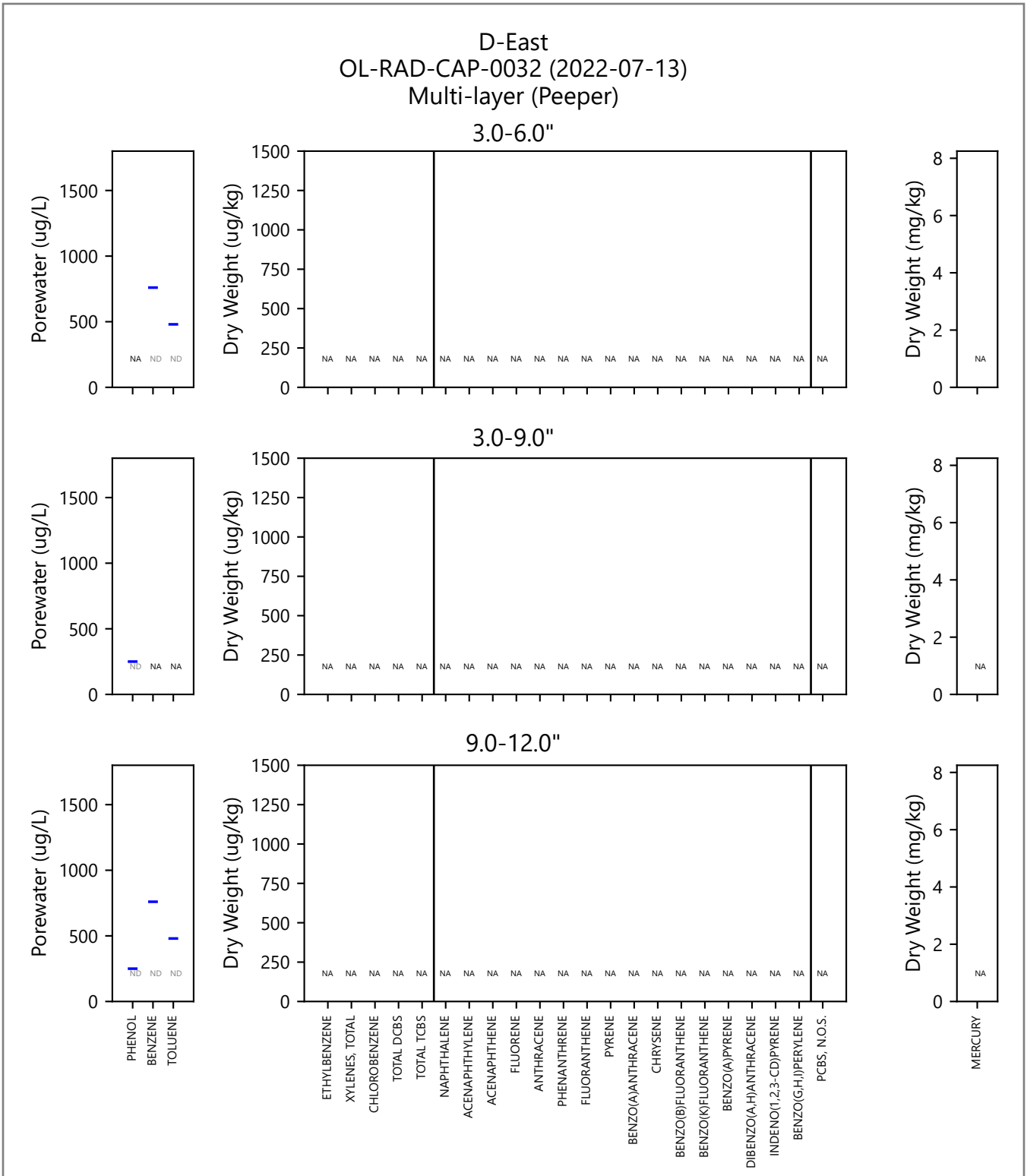
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Figure 1-204

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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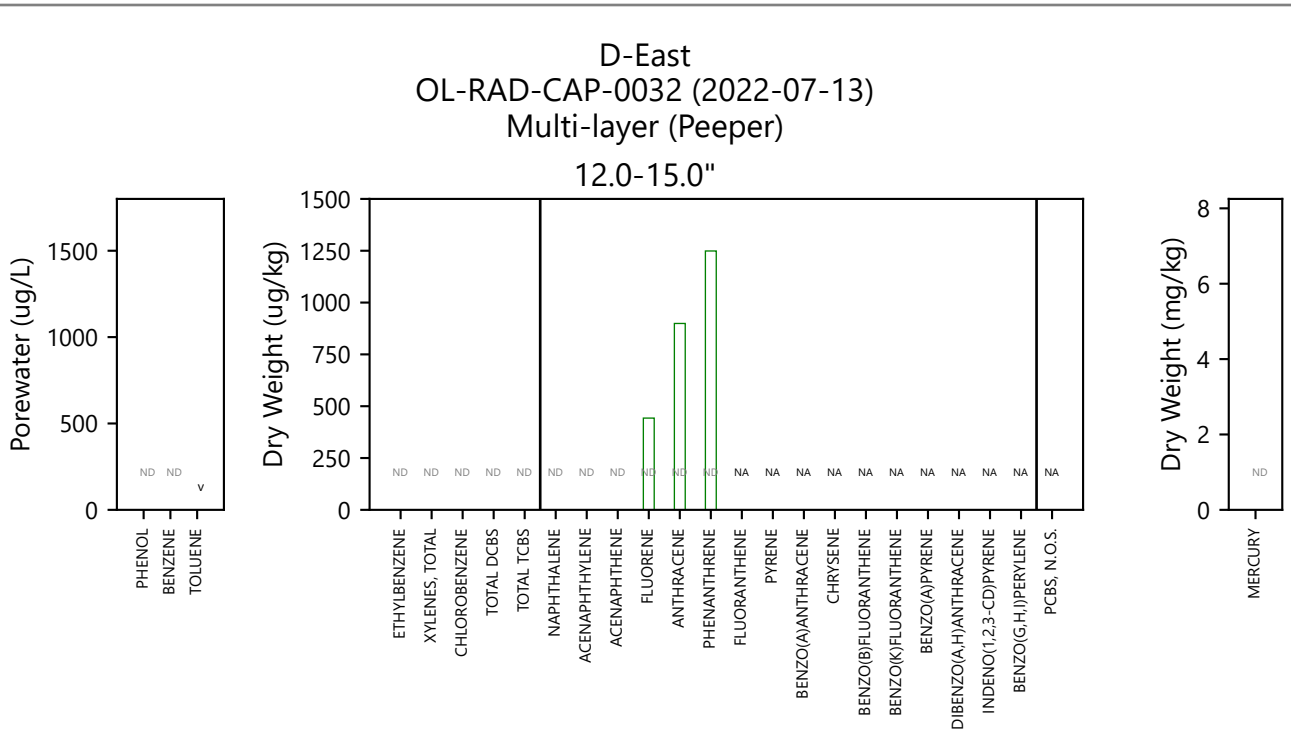
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Figure 1-205

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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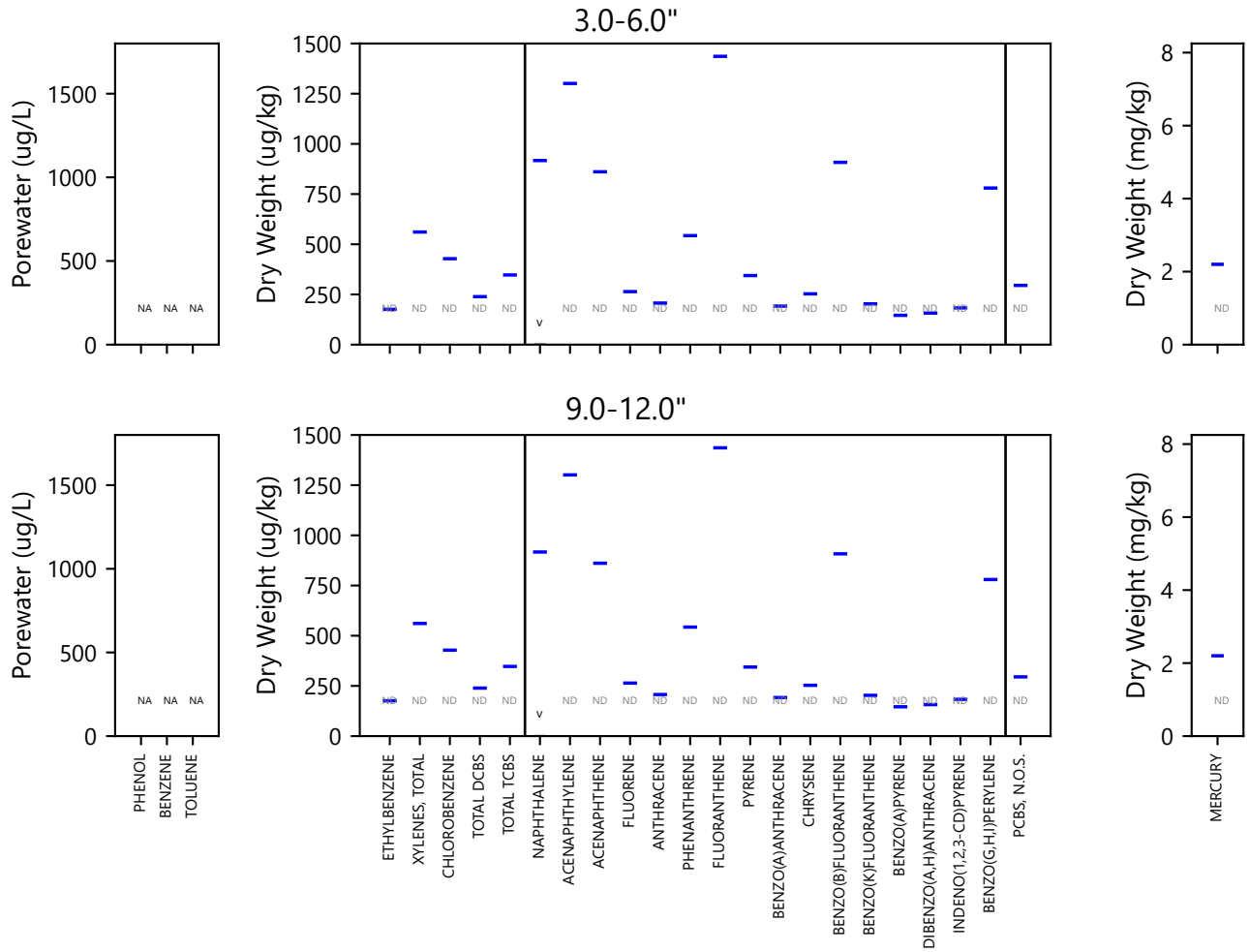
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Figure 1-206

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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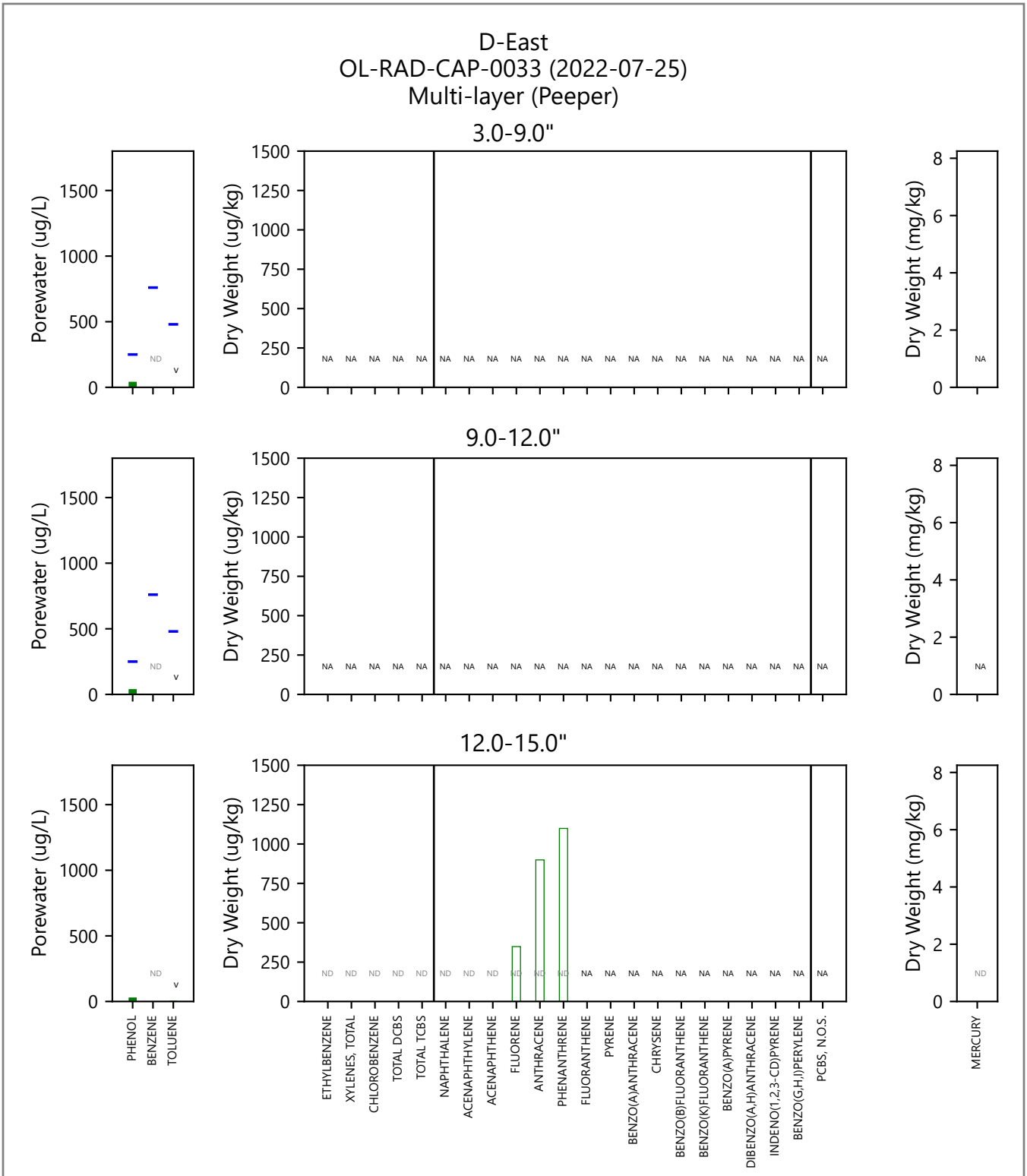
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Figure 1-207

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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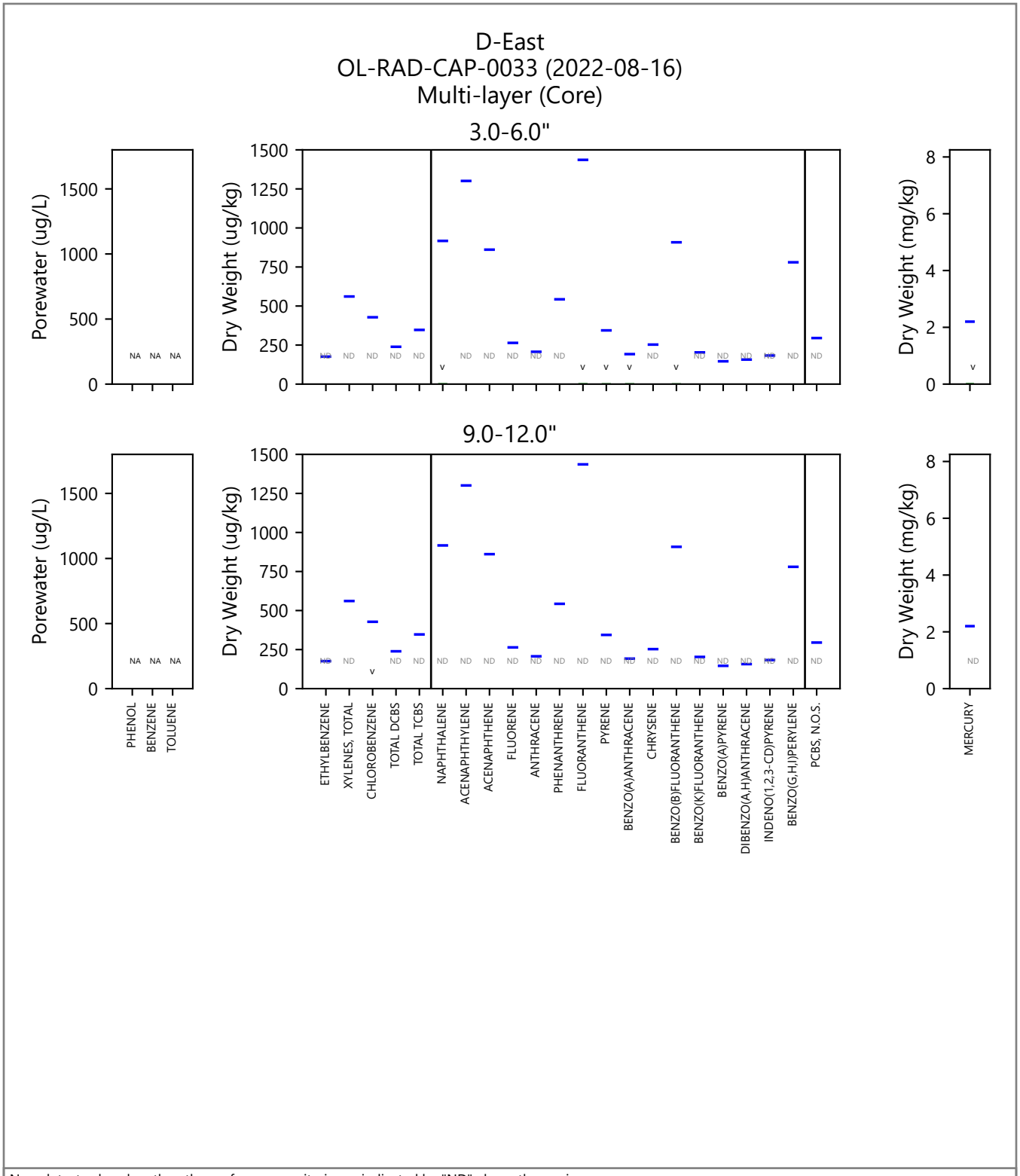
- Habitat Layer Performance Criteria

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Figure 1-208

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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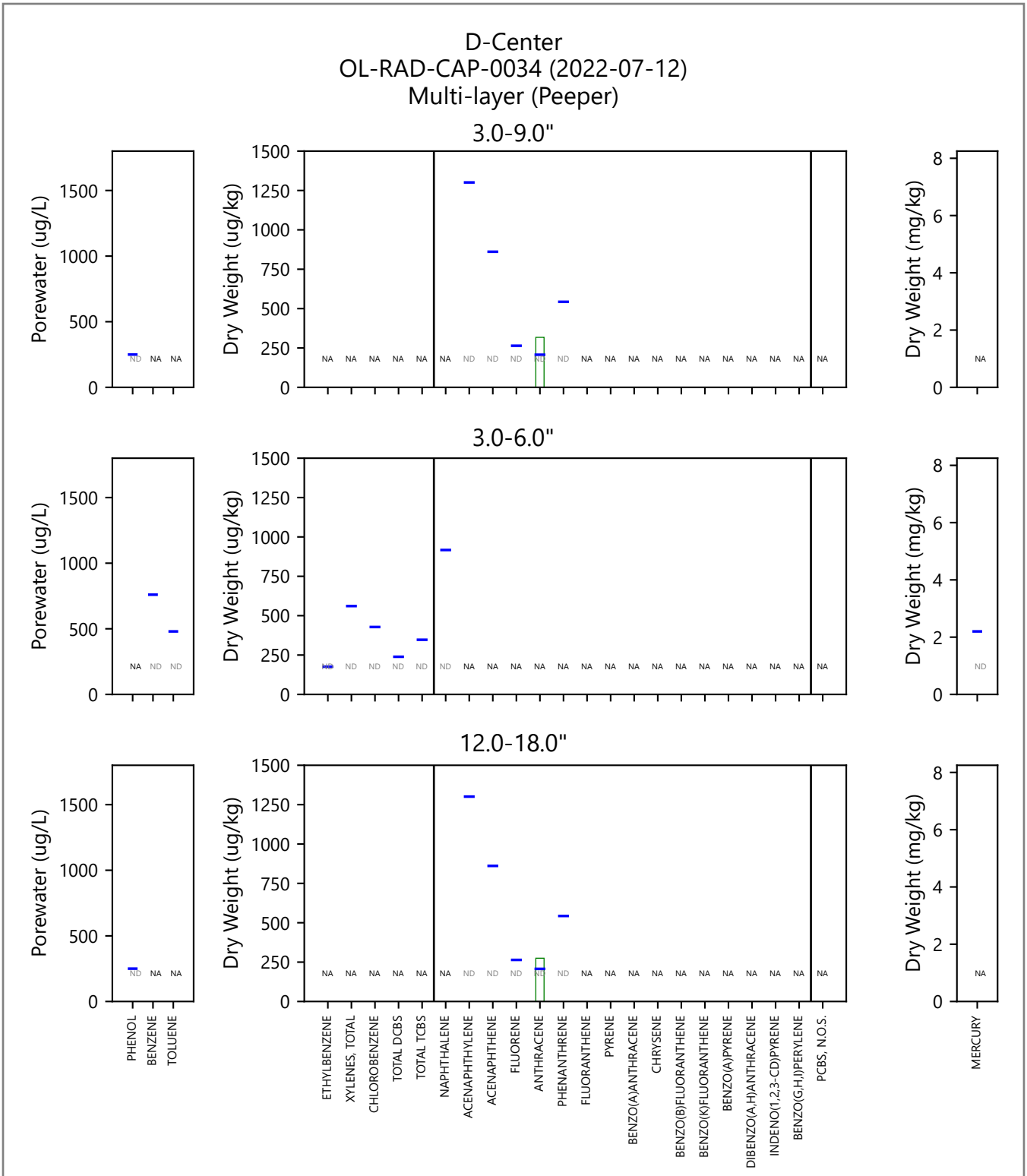
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Figure 1-209

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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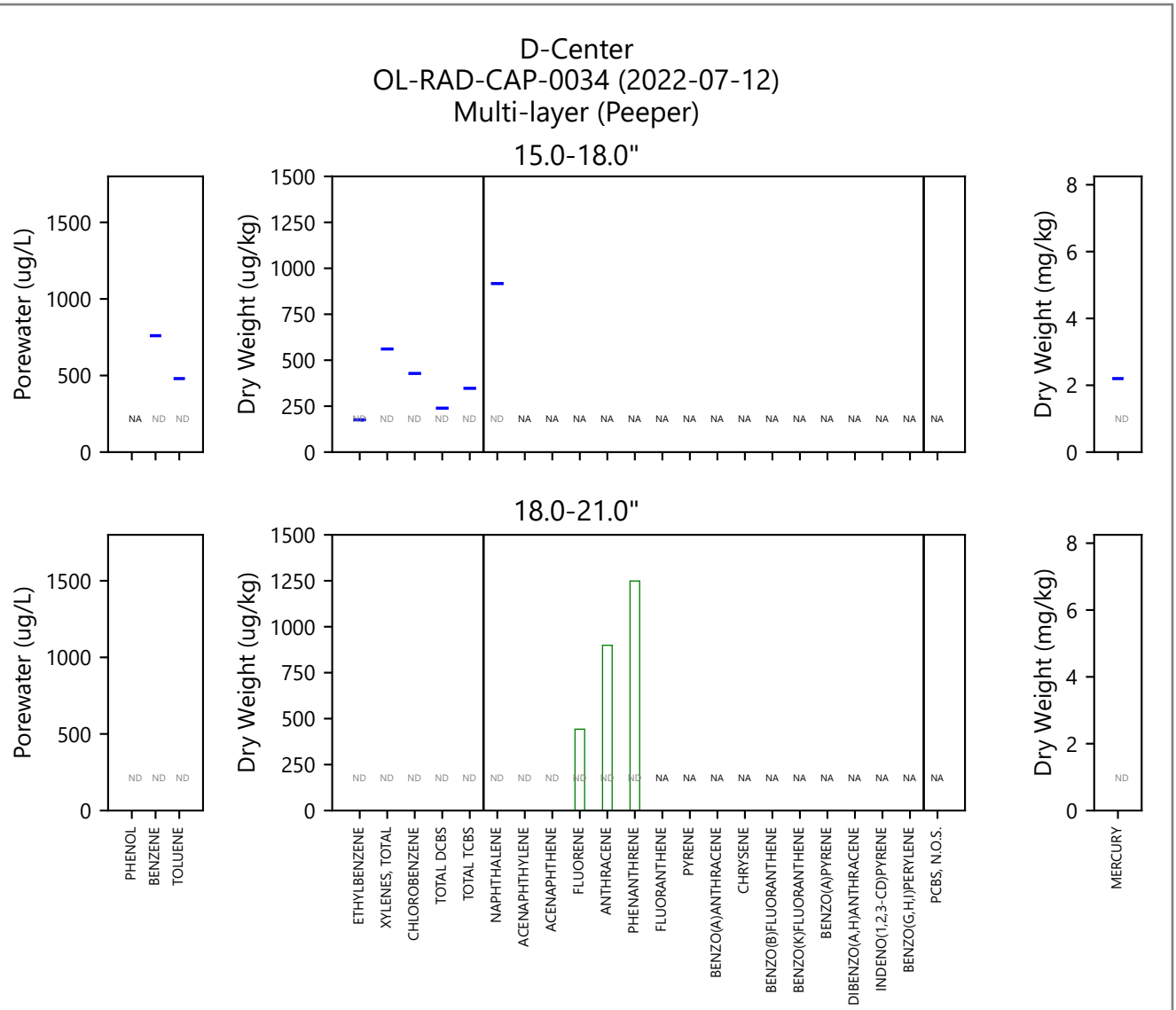
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Figure 1-210

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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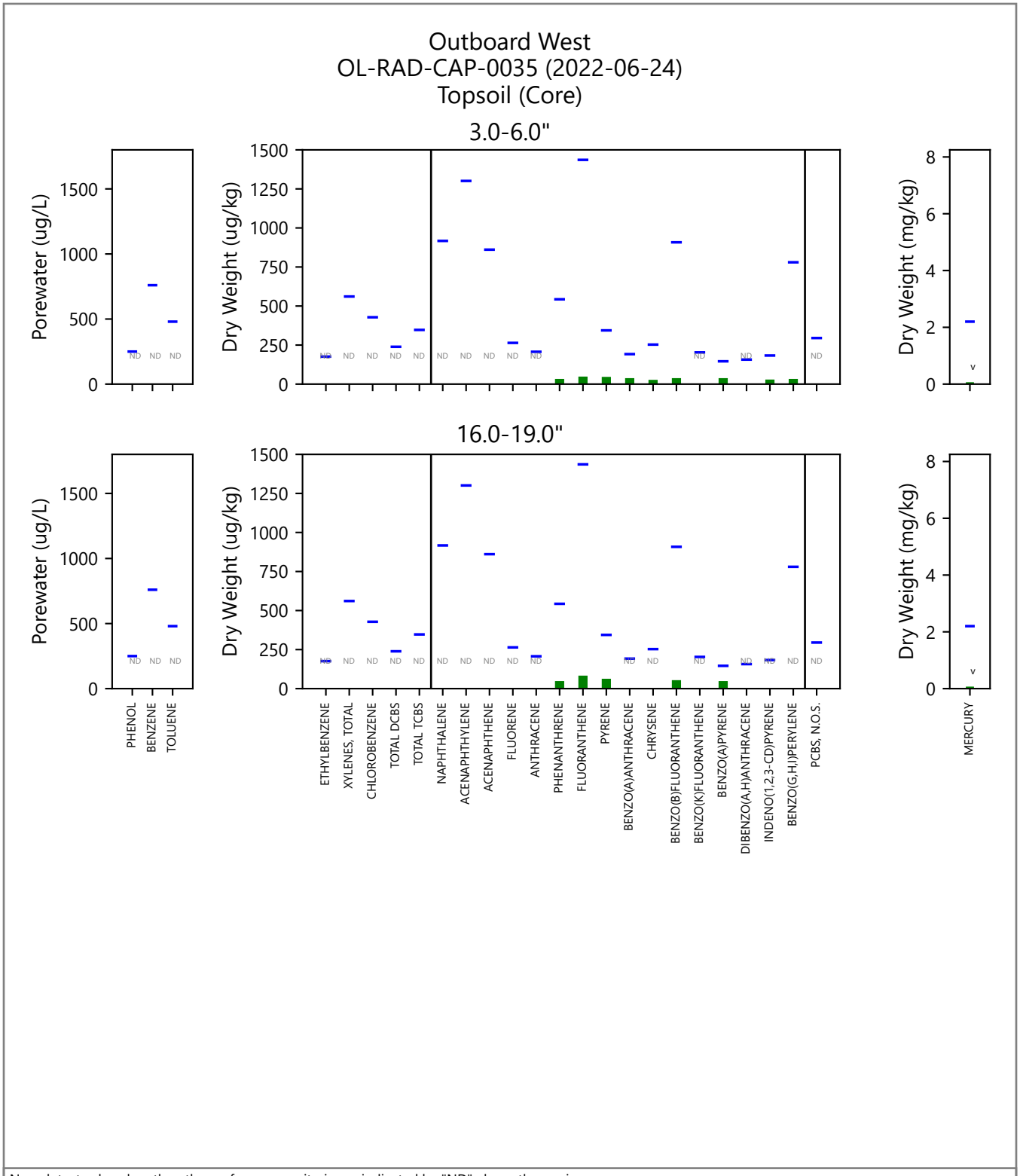
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Figure 1-211

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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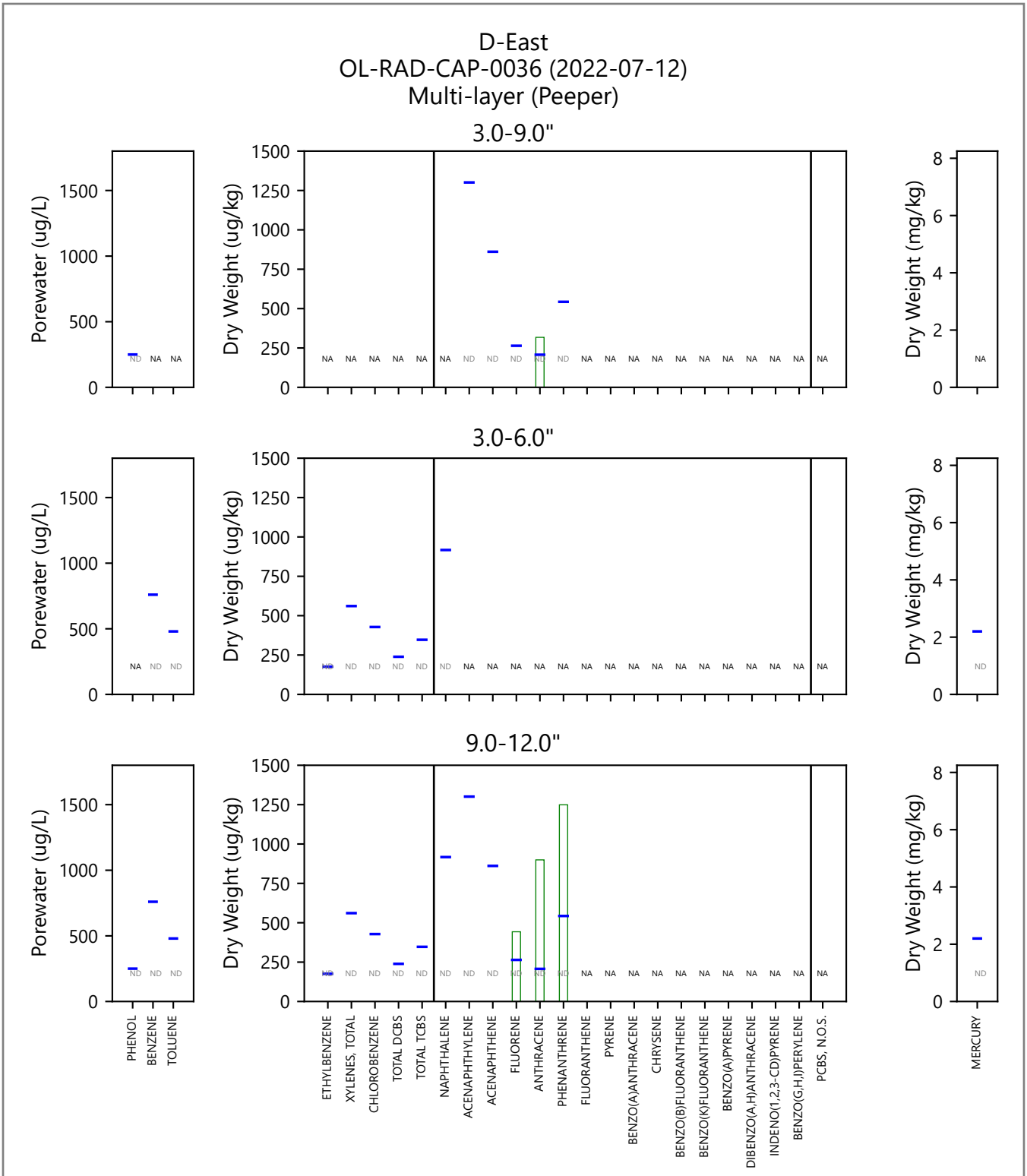
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Figure 1-212

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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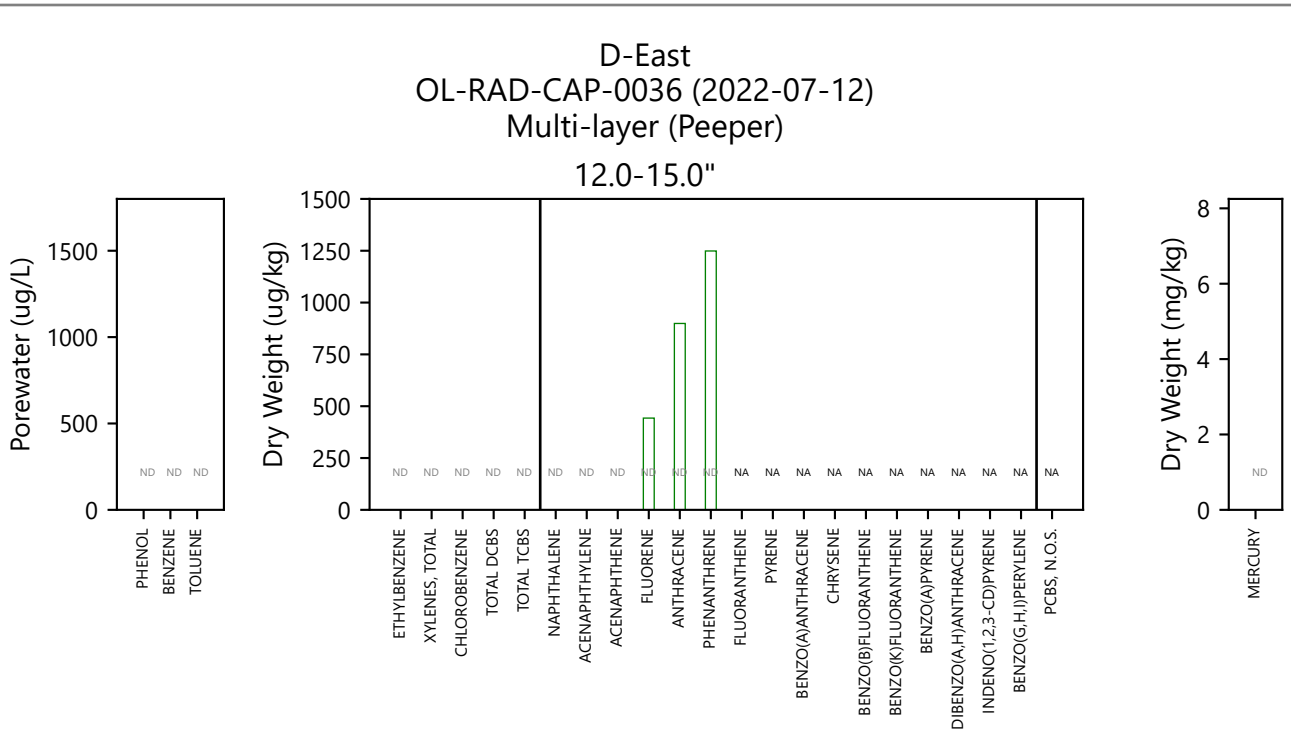
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Figure 1-213

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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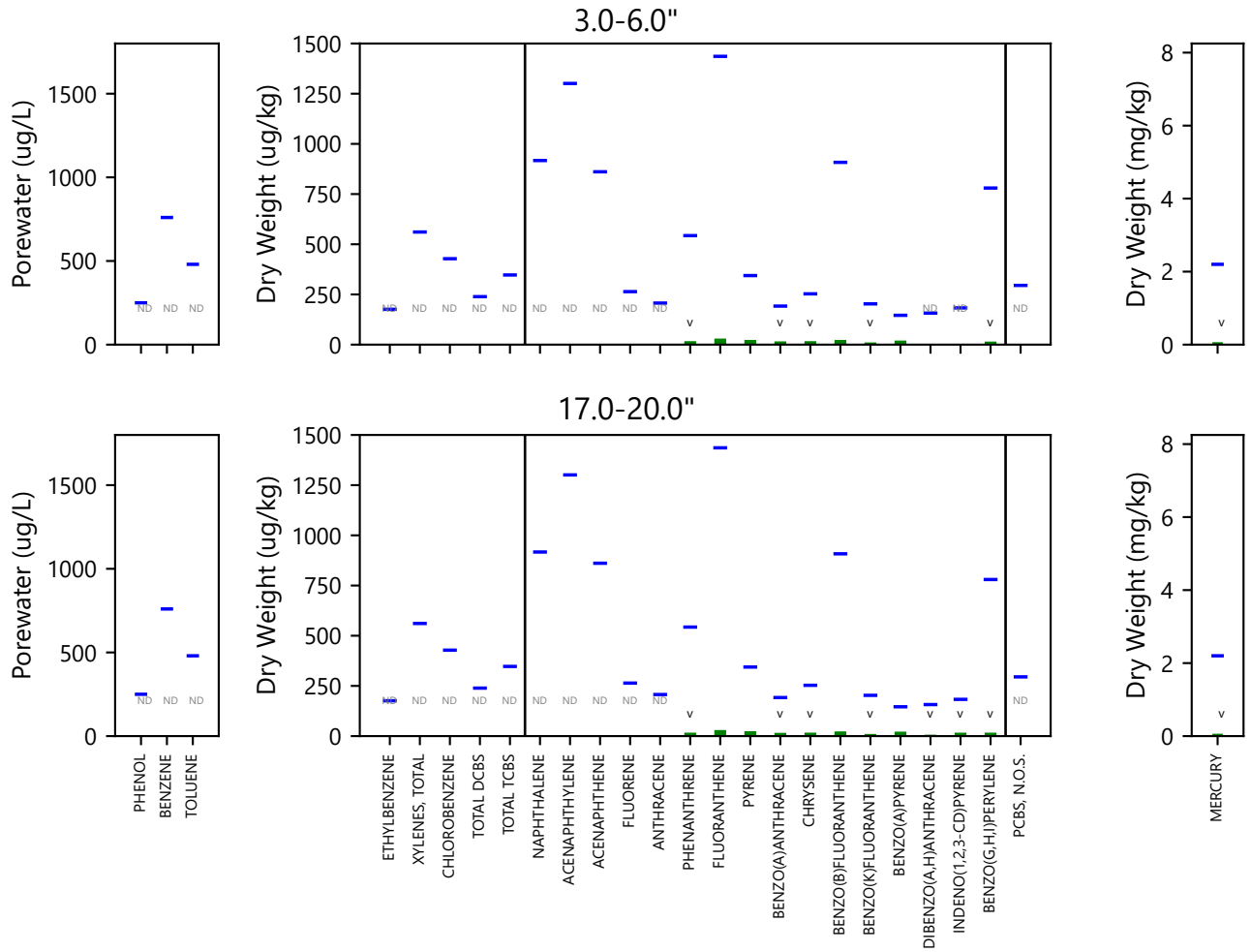
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Figure 1-214

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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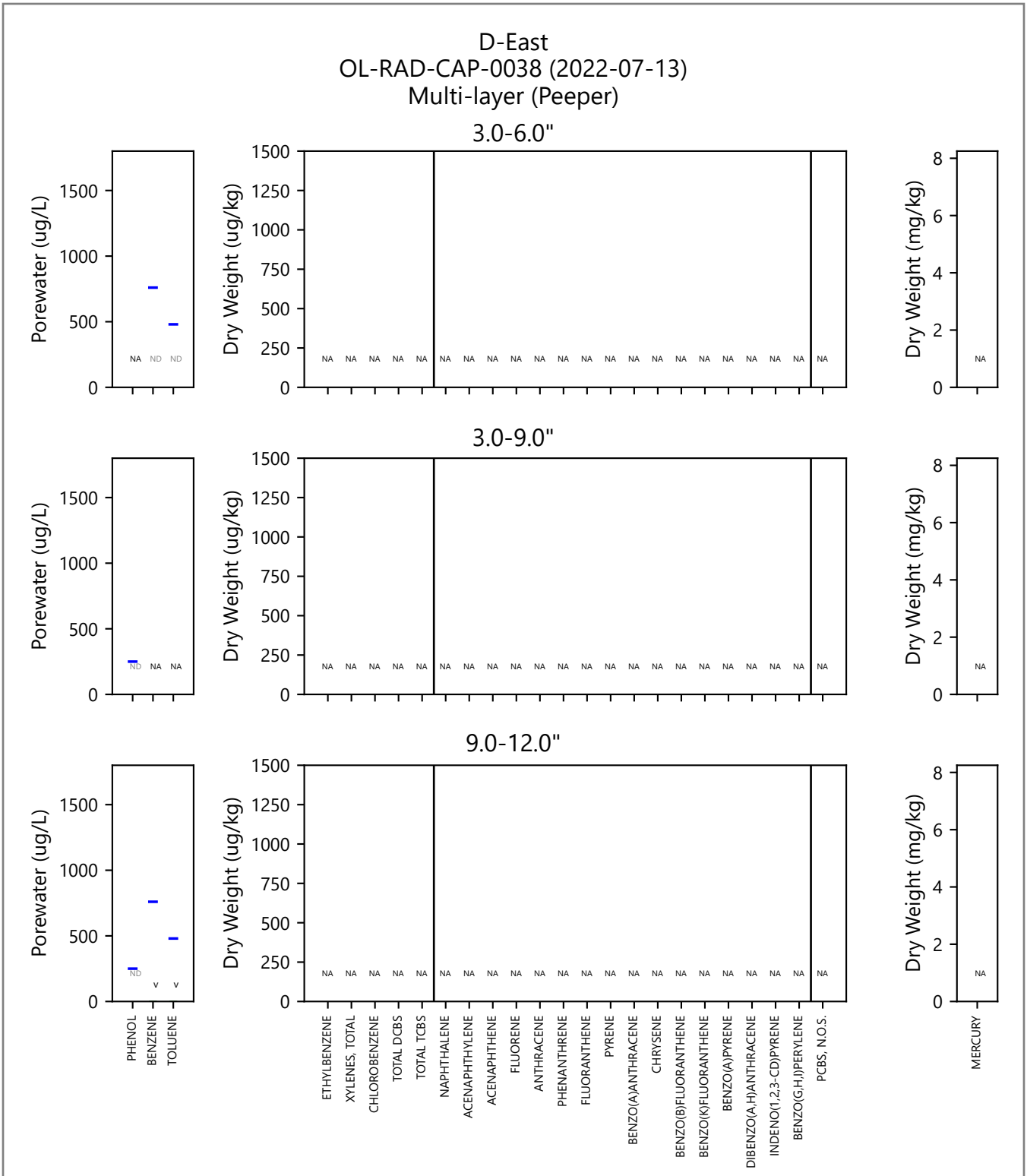
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Figure 1-215

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



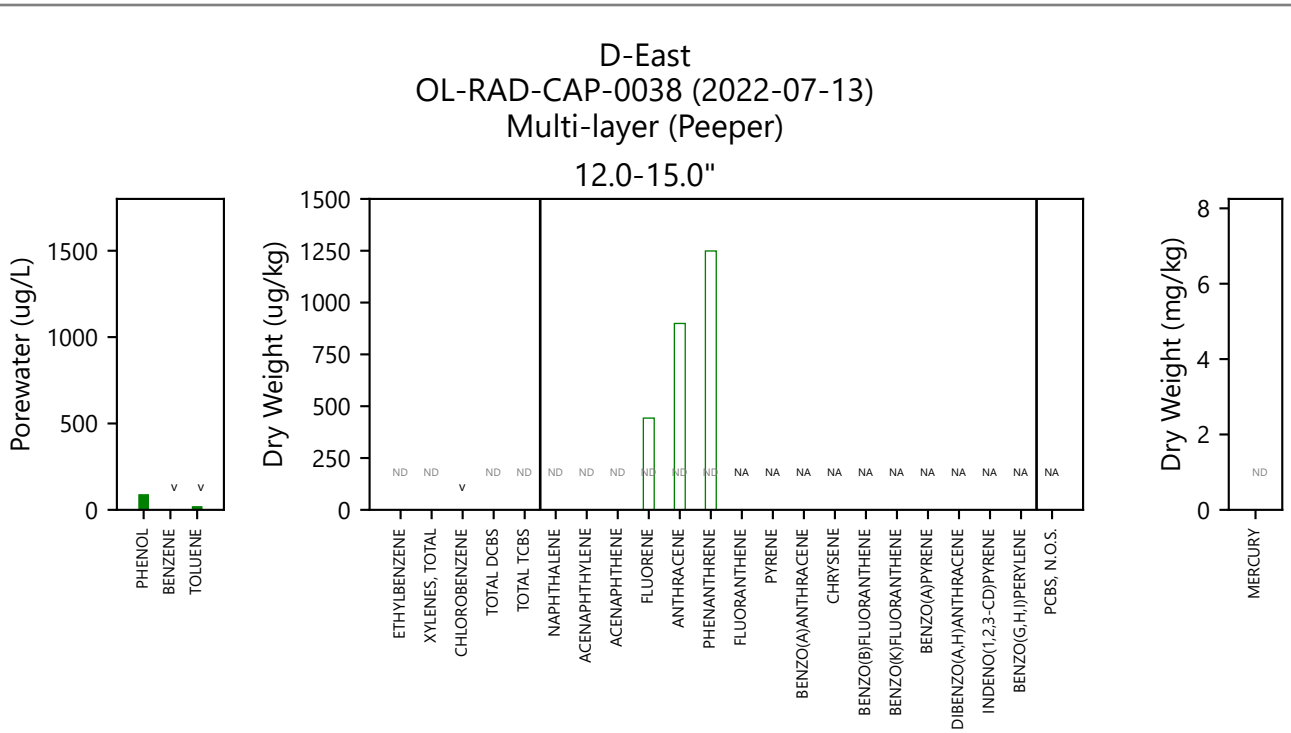
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Figure 1-216

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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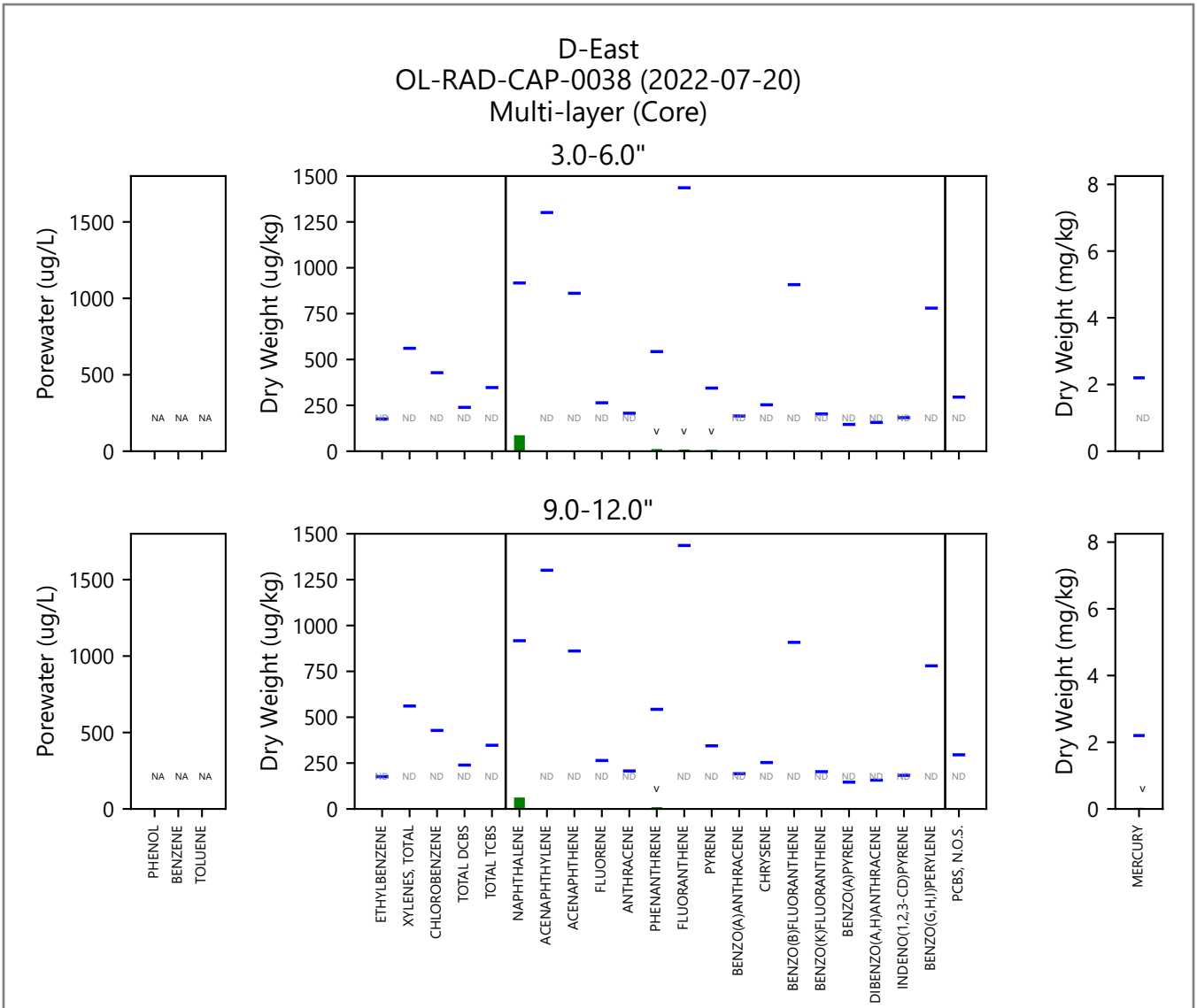
- Habitat Layer Performance Criteria

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Figure 1-217

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

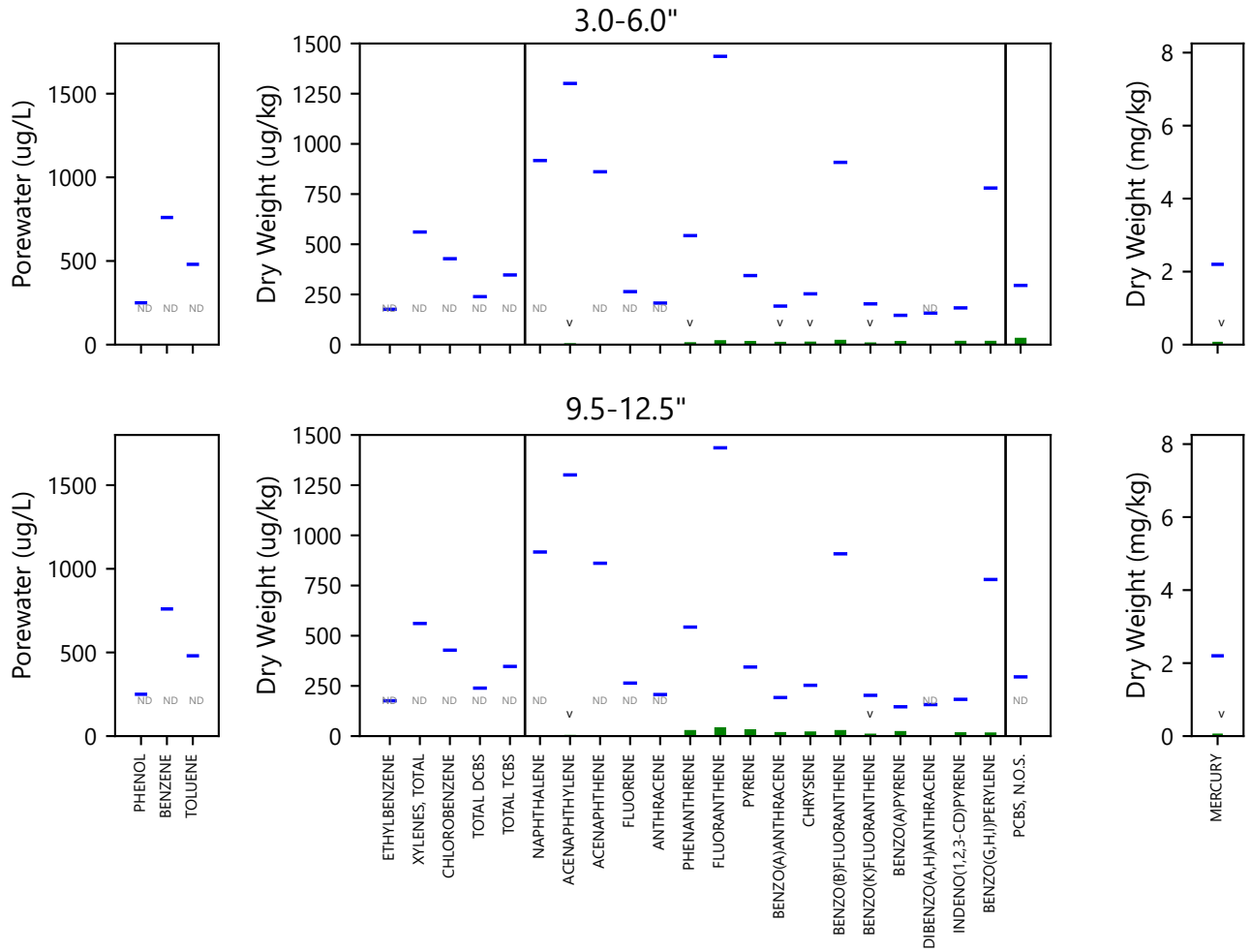
Habitat Layer Performance Criteria

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Figure 1-218

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

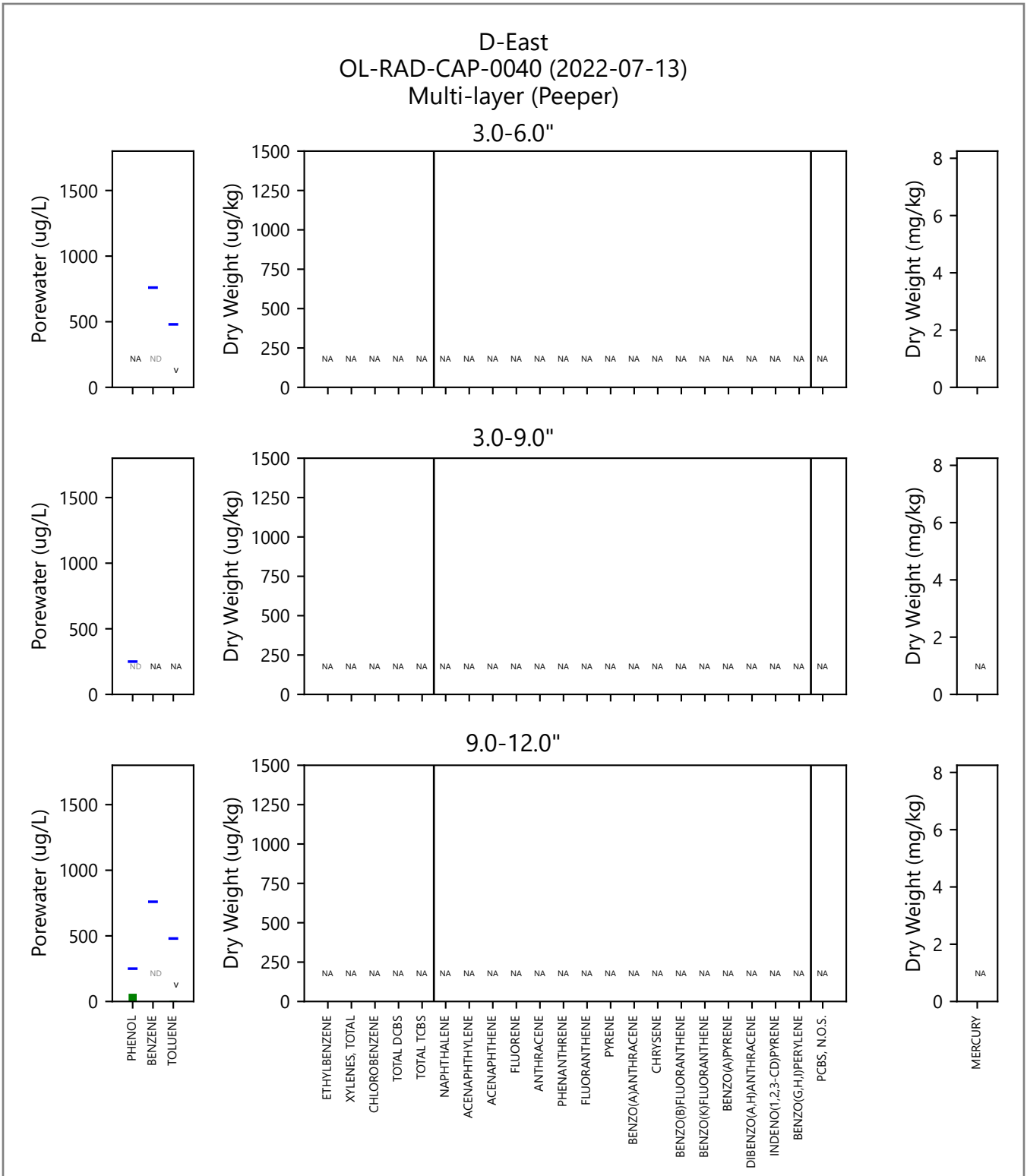
Habitat Layer Performance Criteria

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Figure 1-219

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



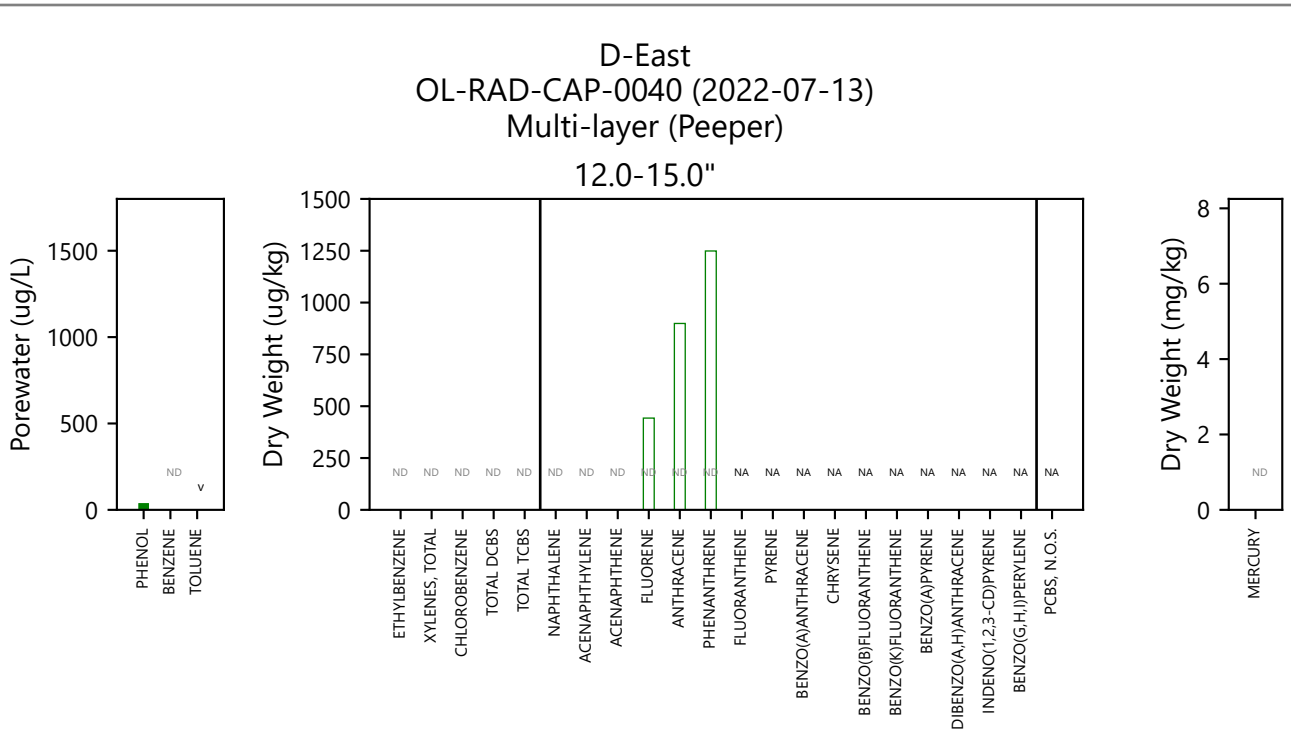
Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Figure 1-220

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

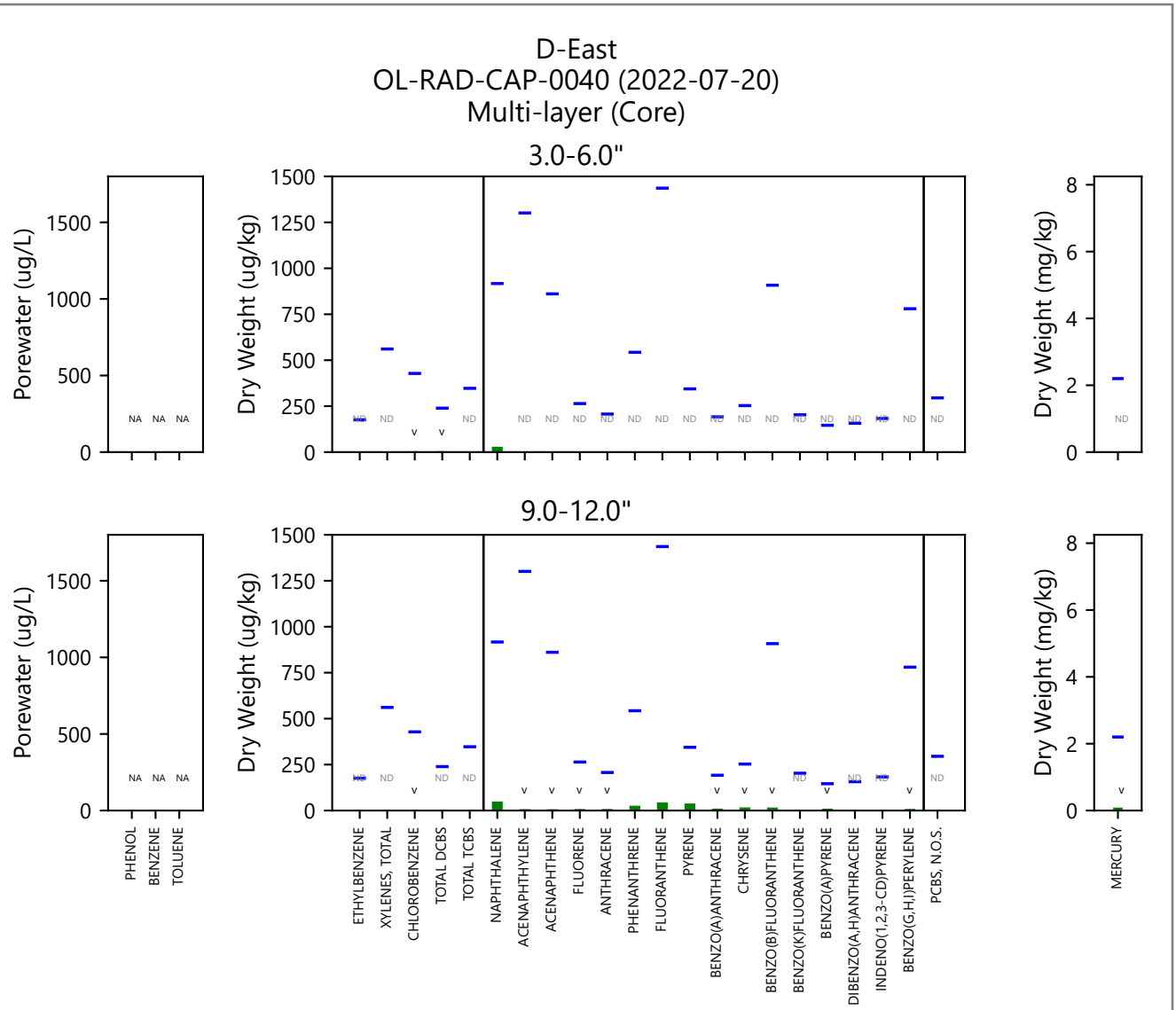
Habitat Layer Performance Criteria

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Figure 1-221

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

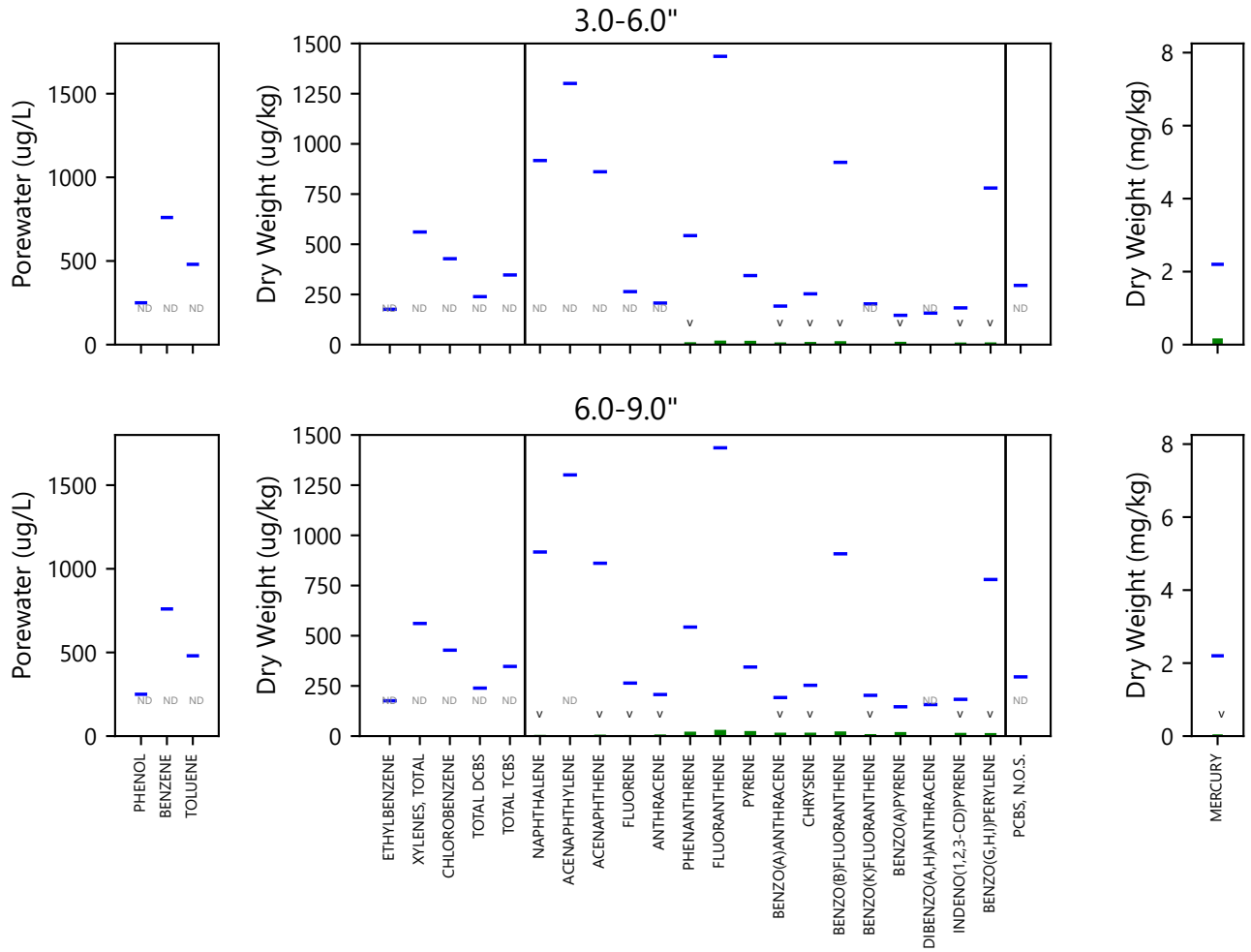
Habitat Layer Performance Criteria

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Figure 1-222

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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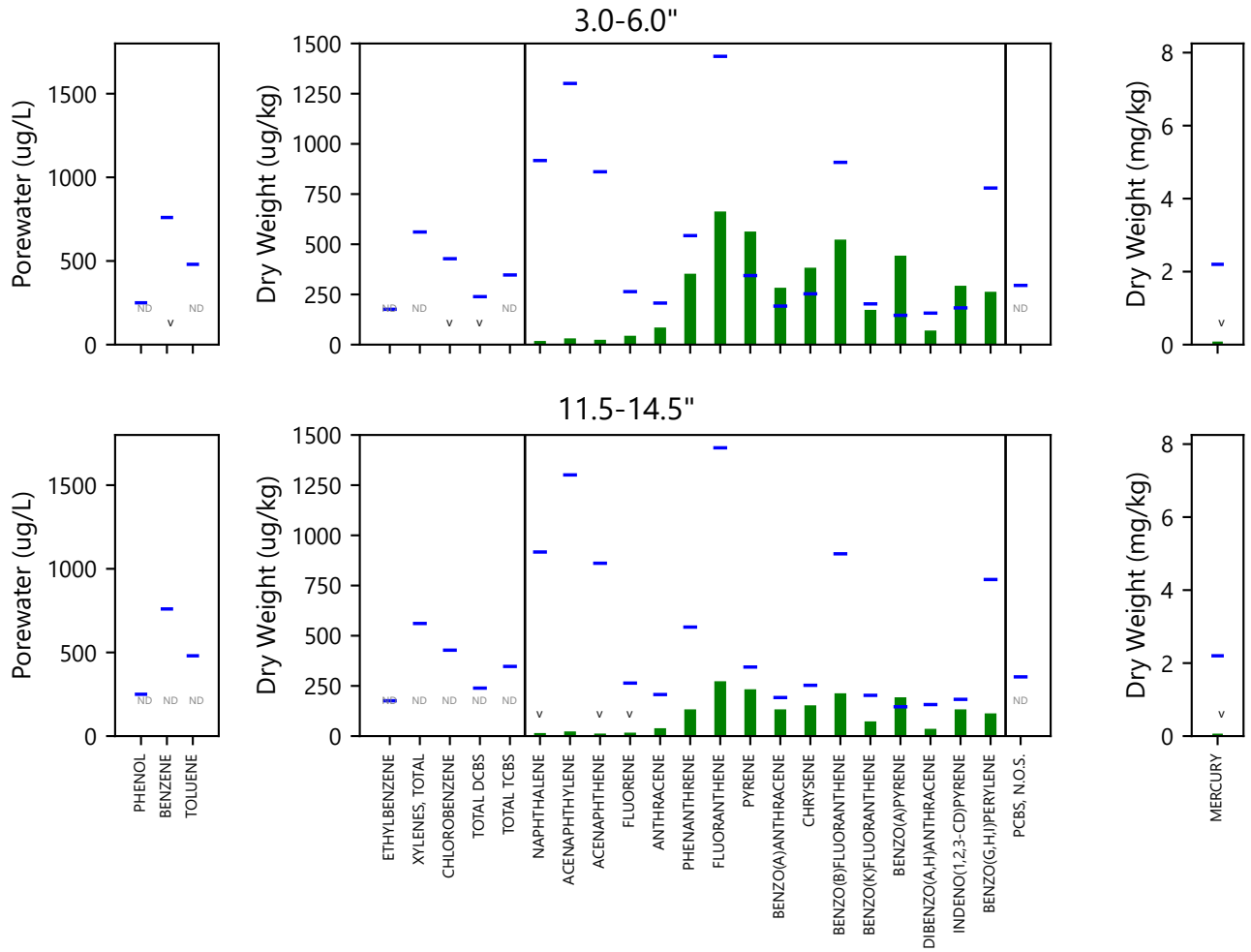
Habitat Layer Performance Criteria

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Figure 1-223

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

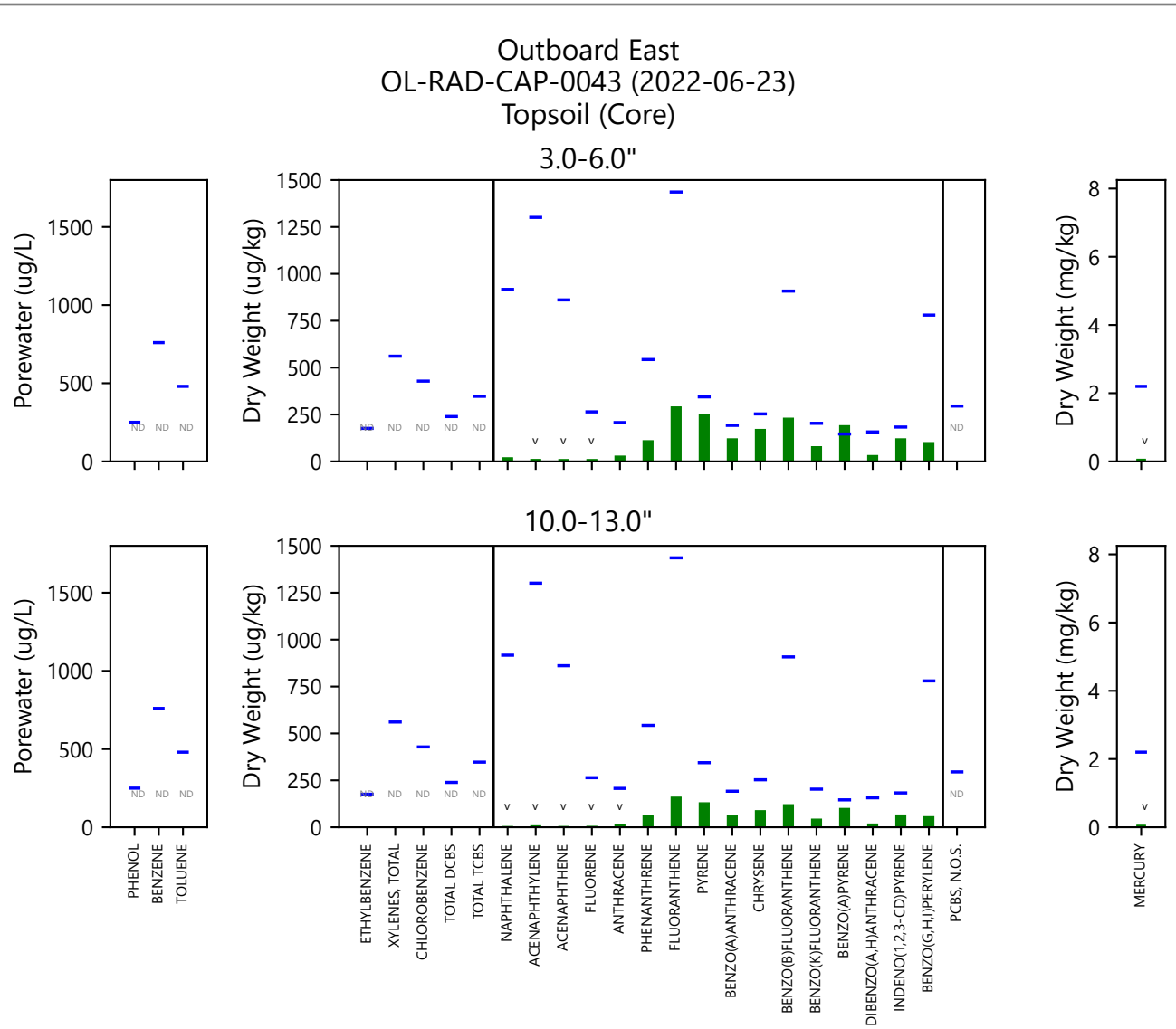
Habitat Layer Performance Criteria

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Figure 1-224

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

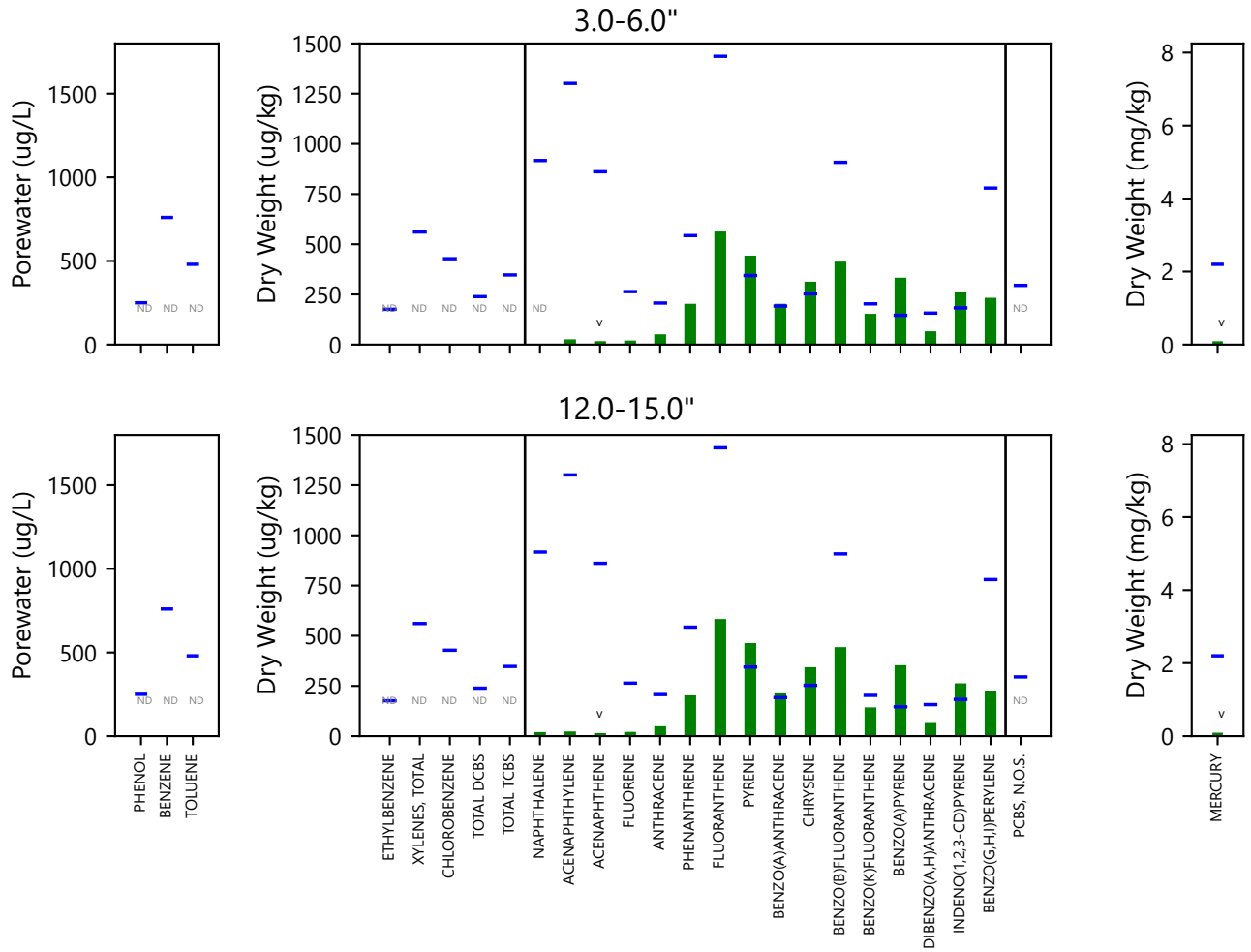
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Figure 1-225

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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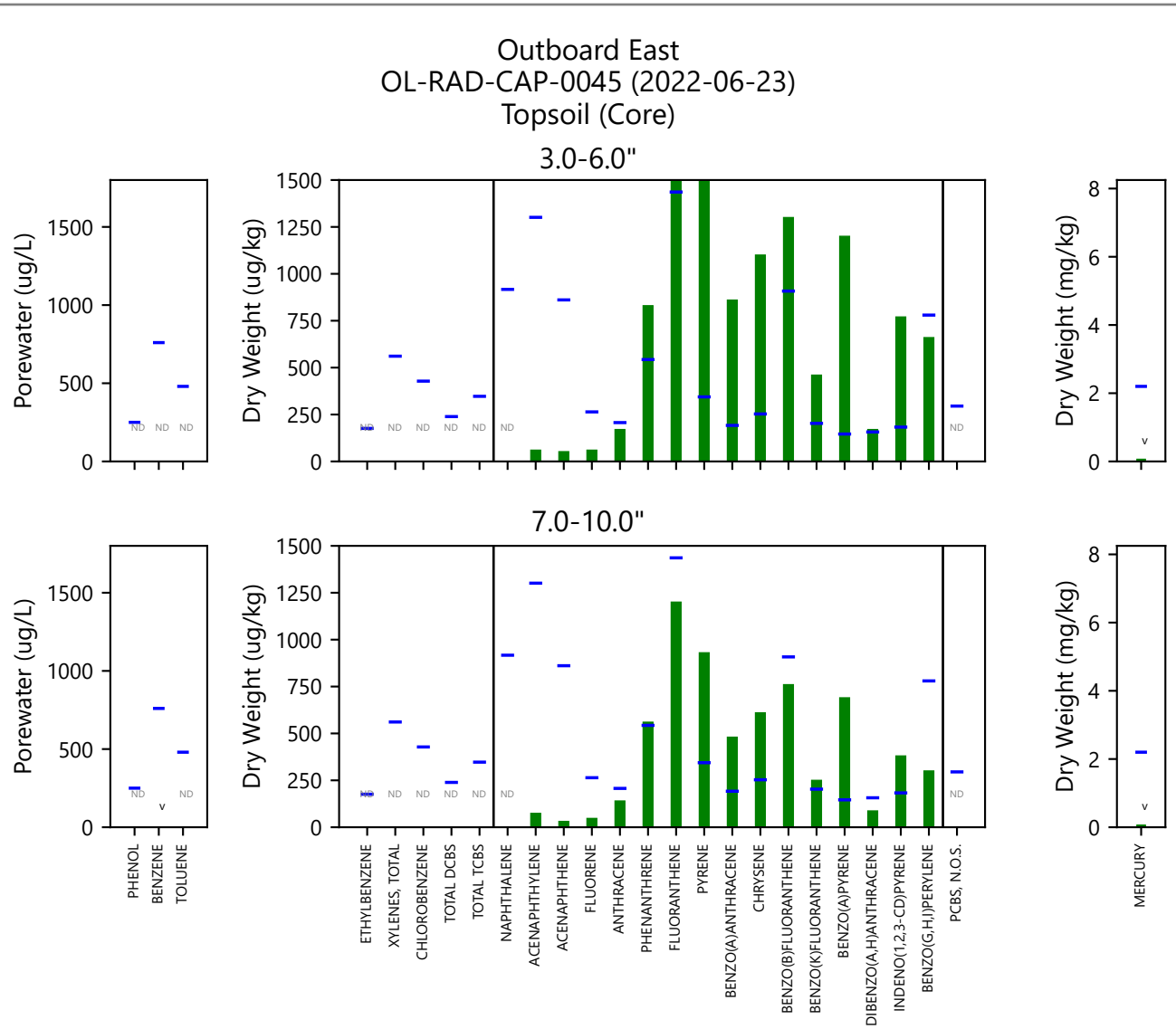
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Figure 1-226

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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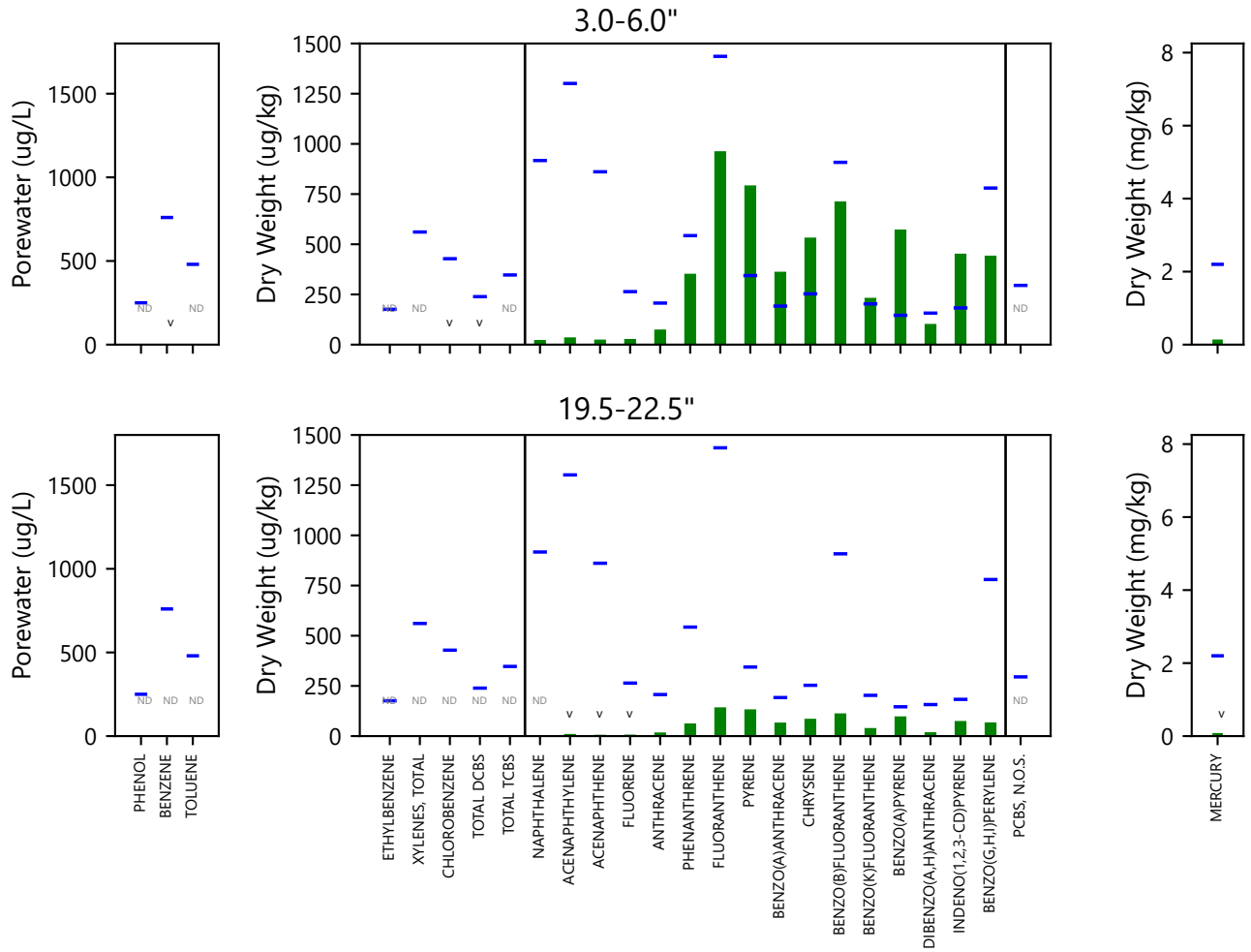
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Figure 1-227

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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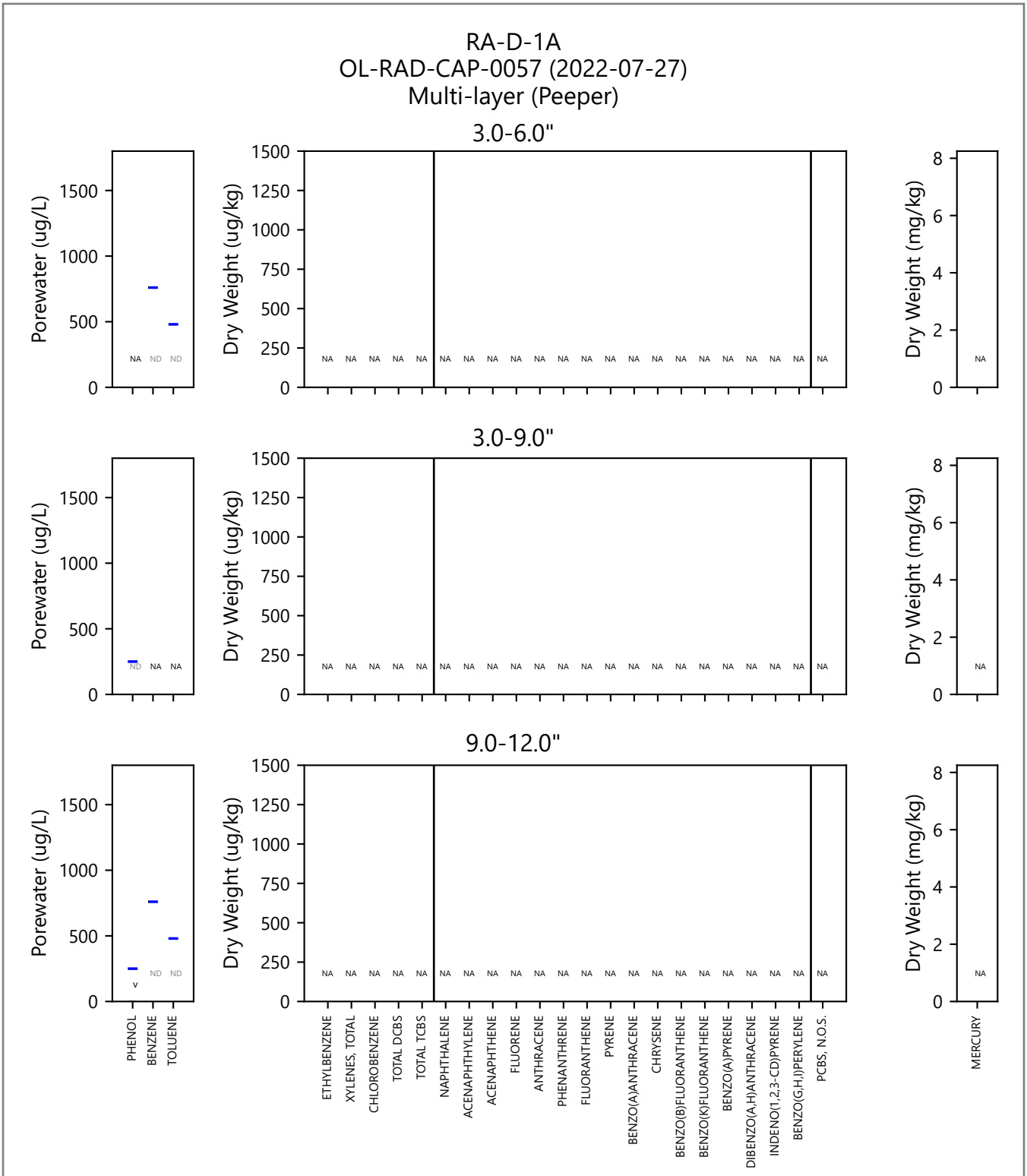
Habitat Layer Performance Criteria

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Figure 1-228

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

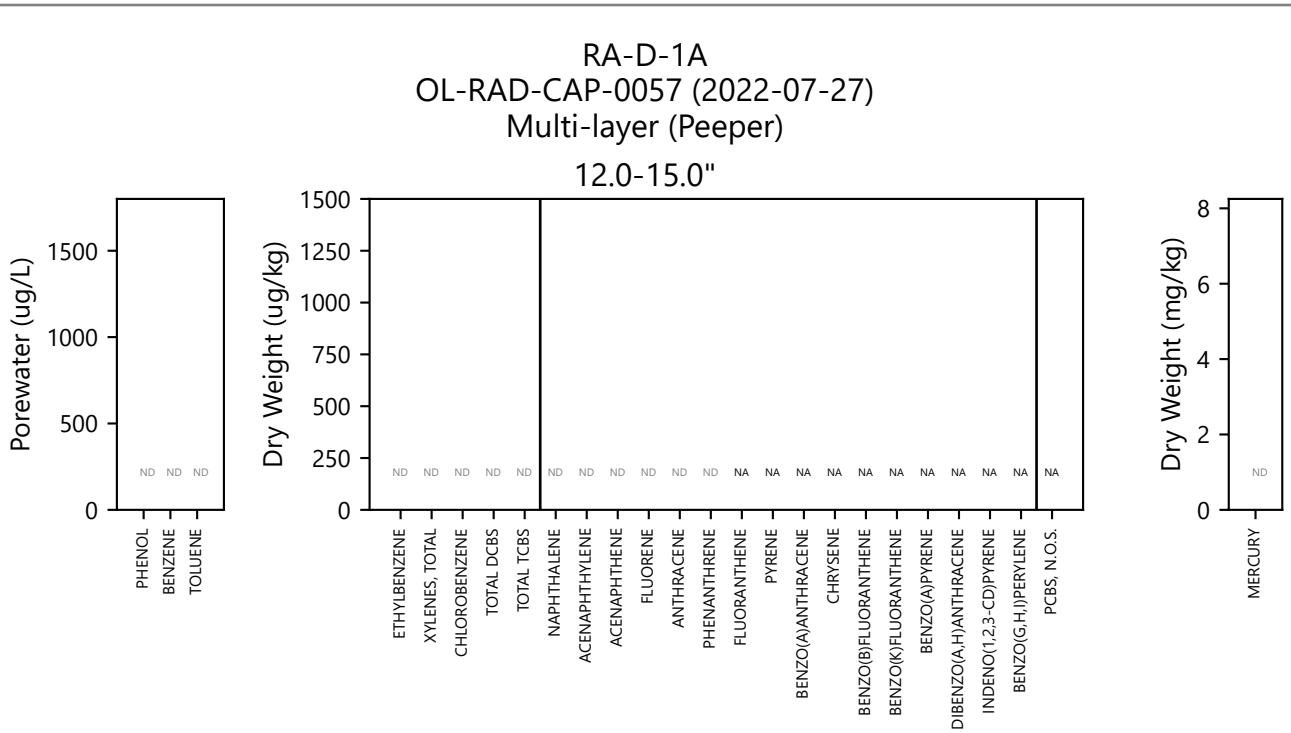
Habitat Layer Performance Criteria

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Figure 1-229

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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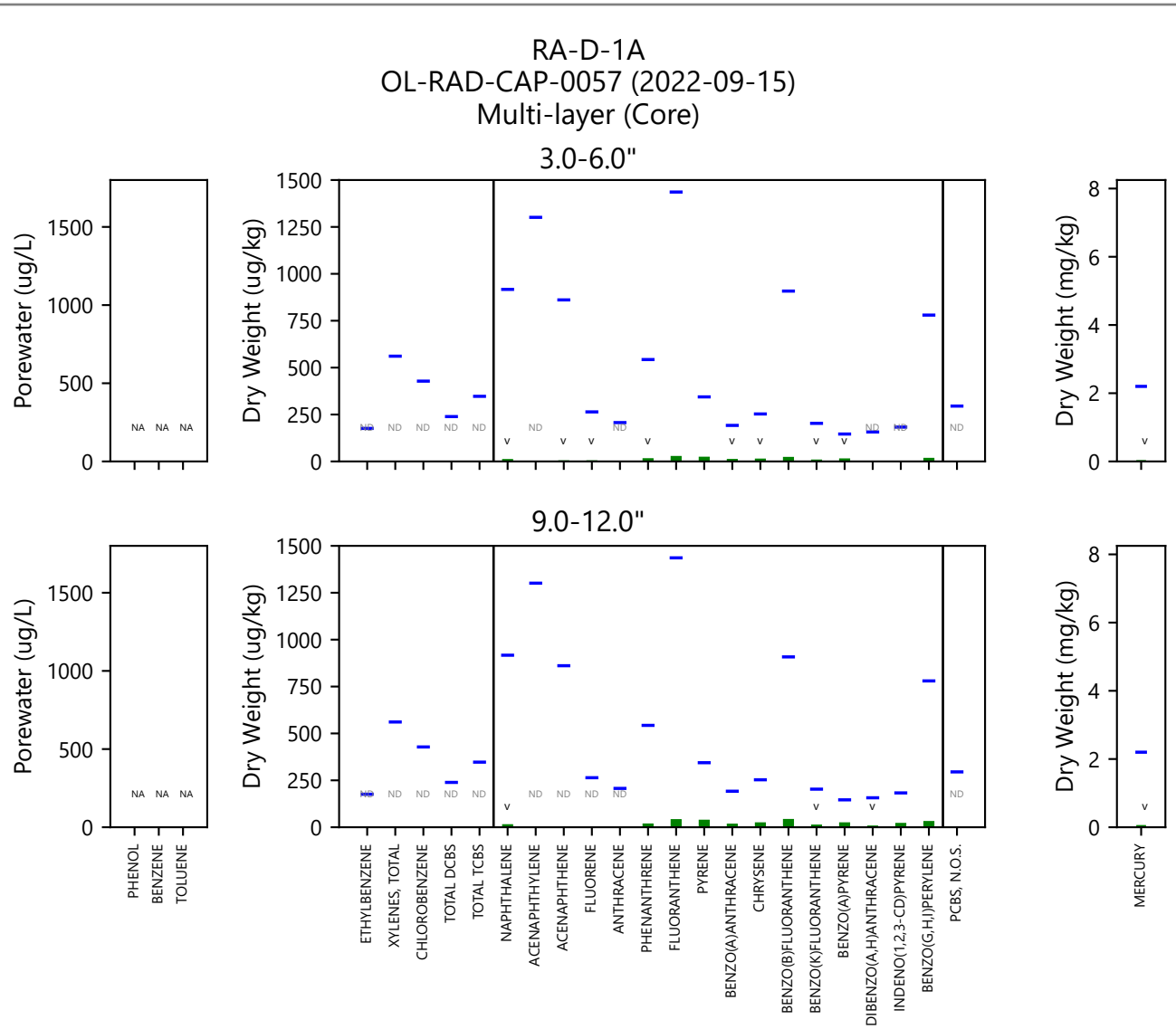
- Habitat Layer Performance Criteria

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Figure 1-230

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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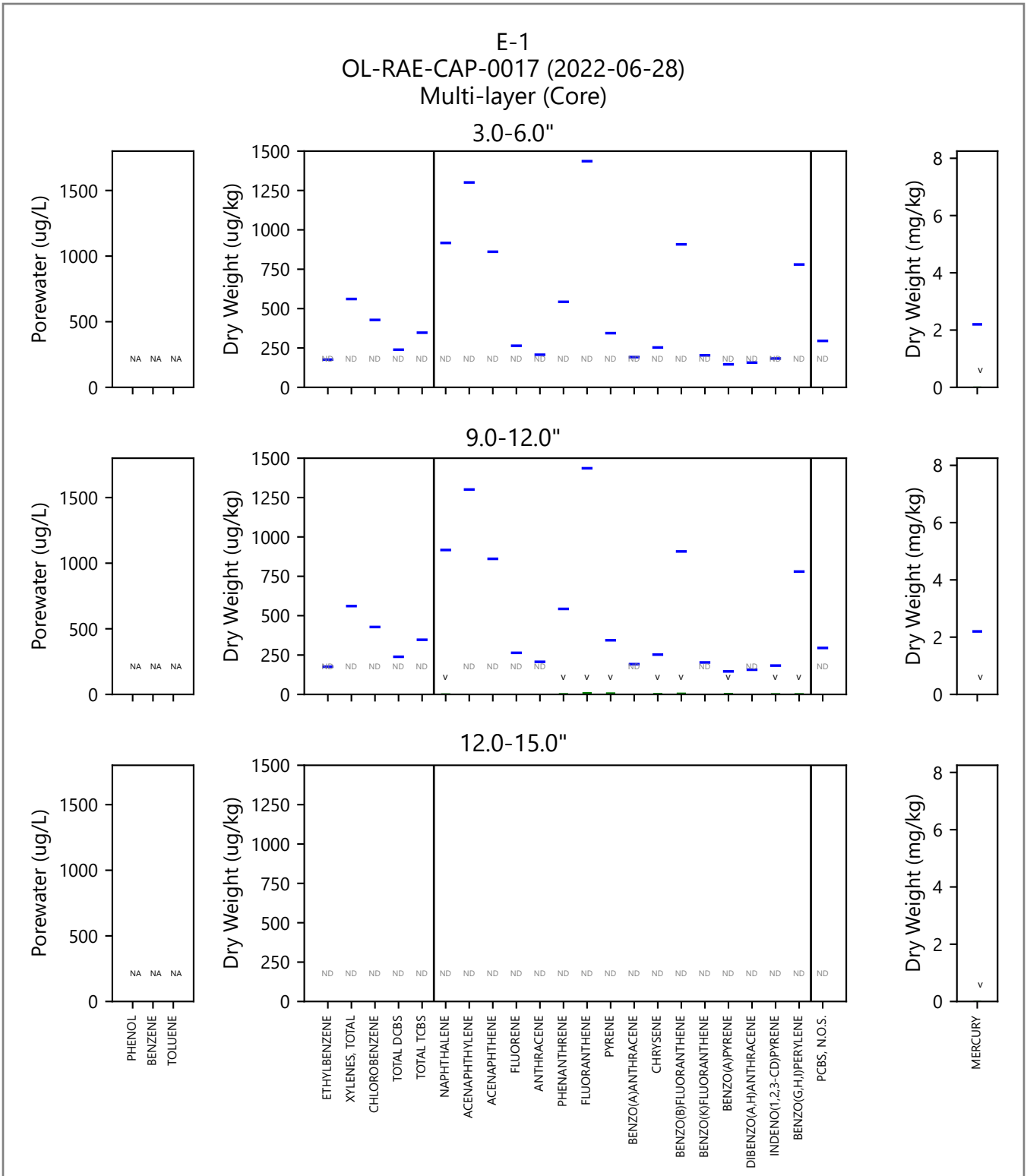
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Figure 1-231

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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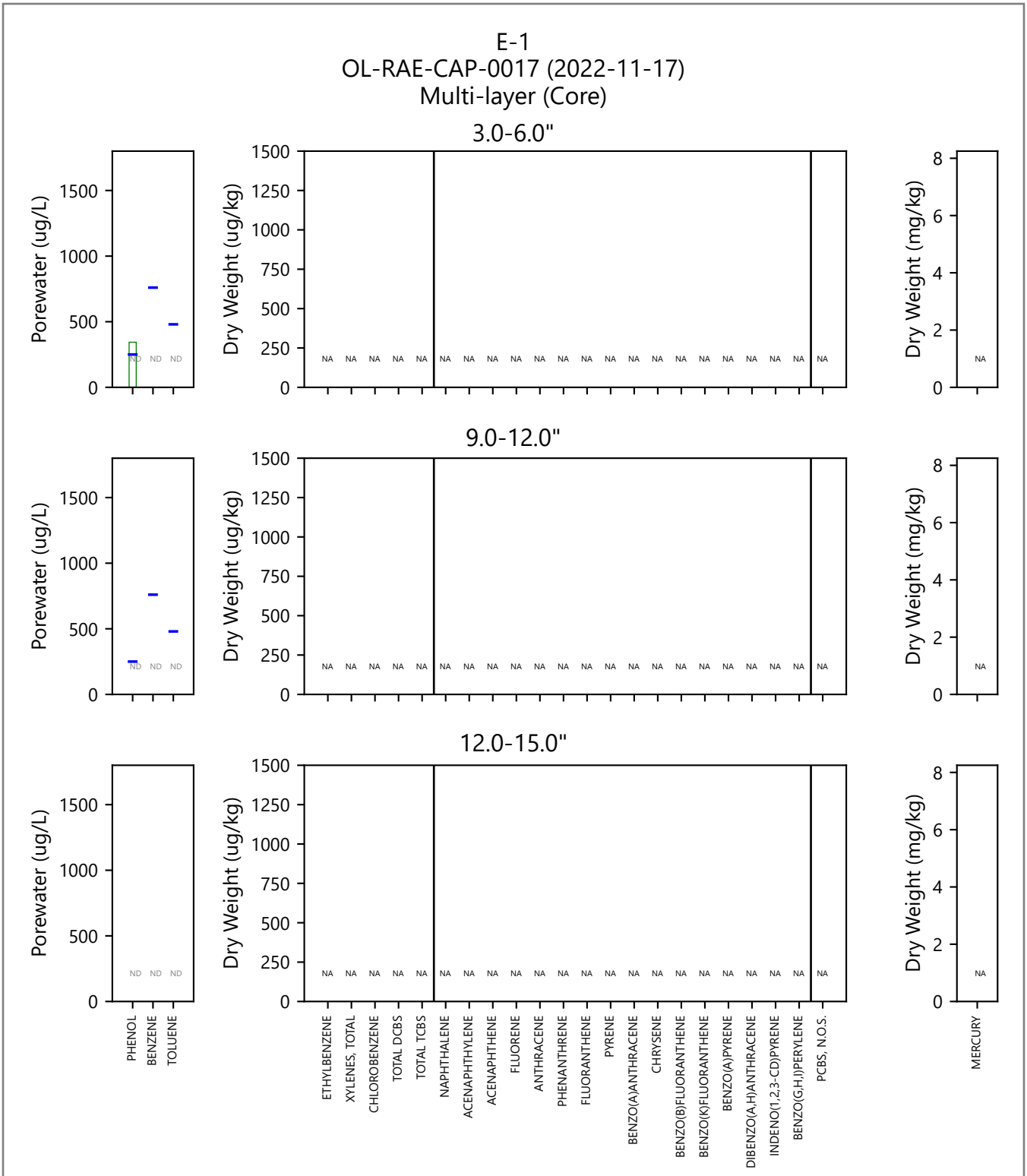
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Figure 1-232

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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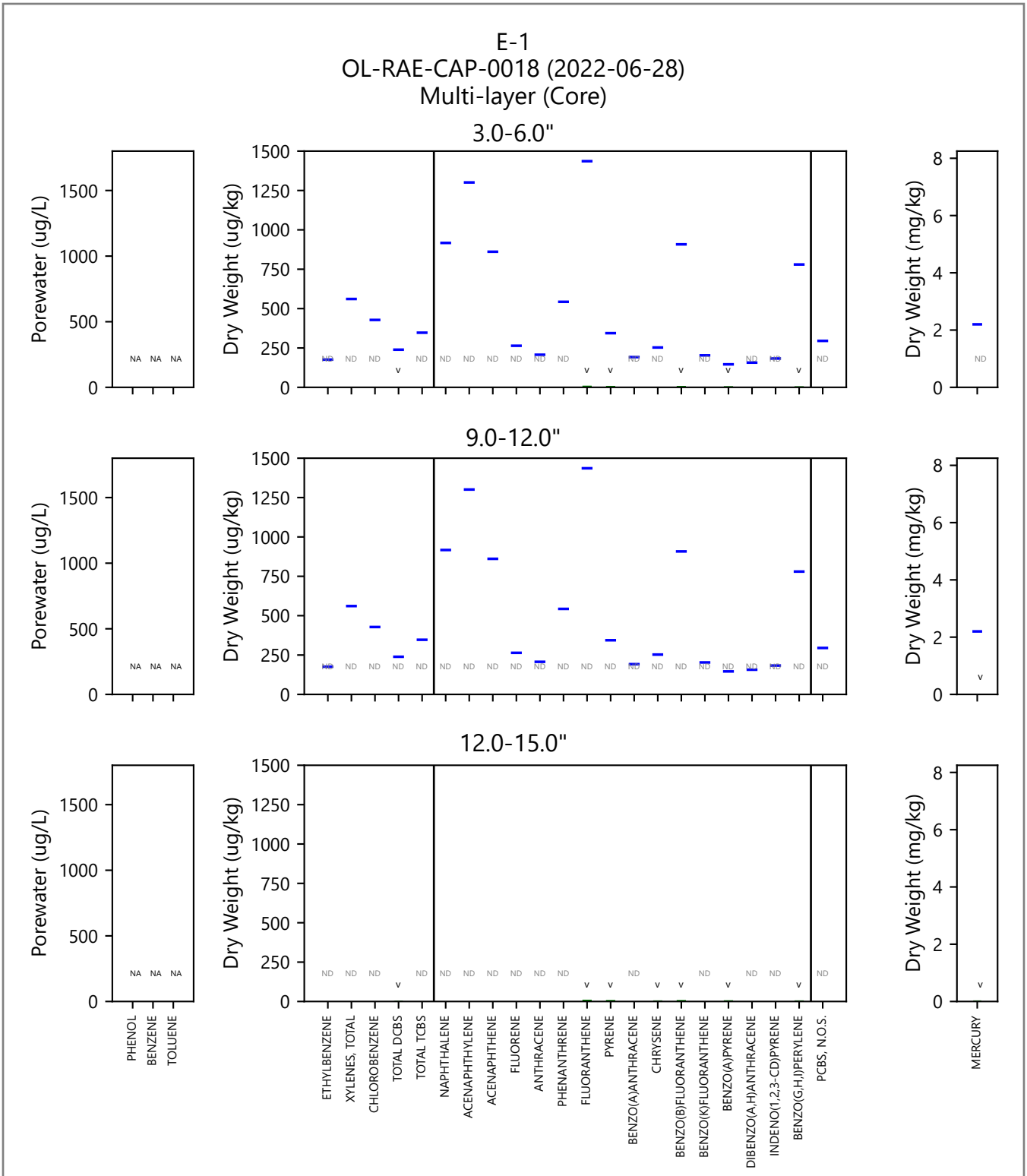
Habitat Layer Performance Criteria

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Figure 1-233

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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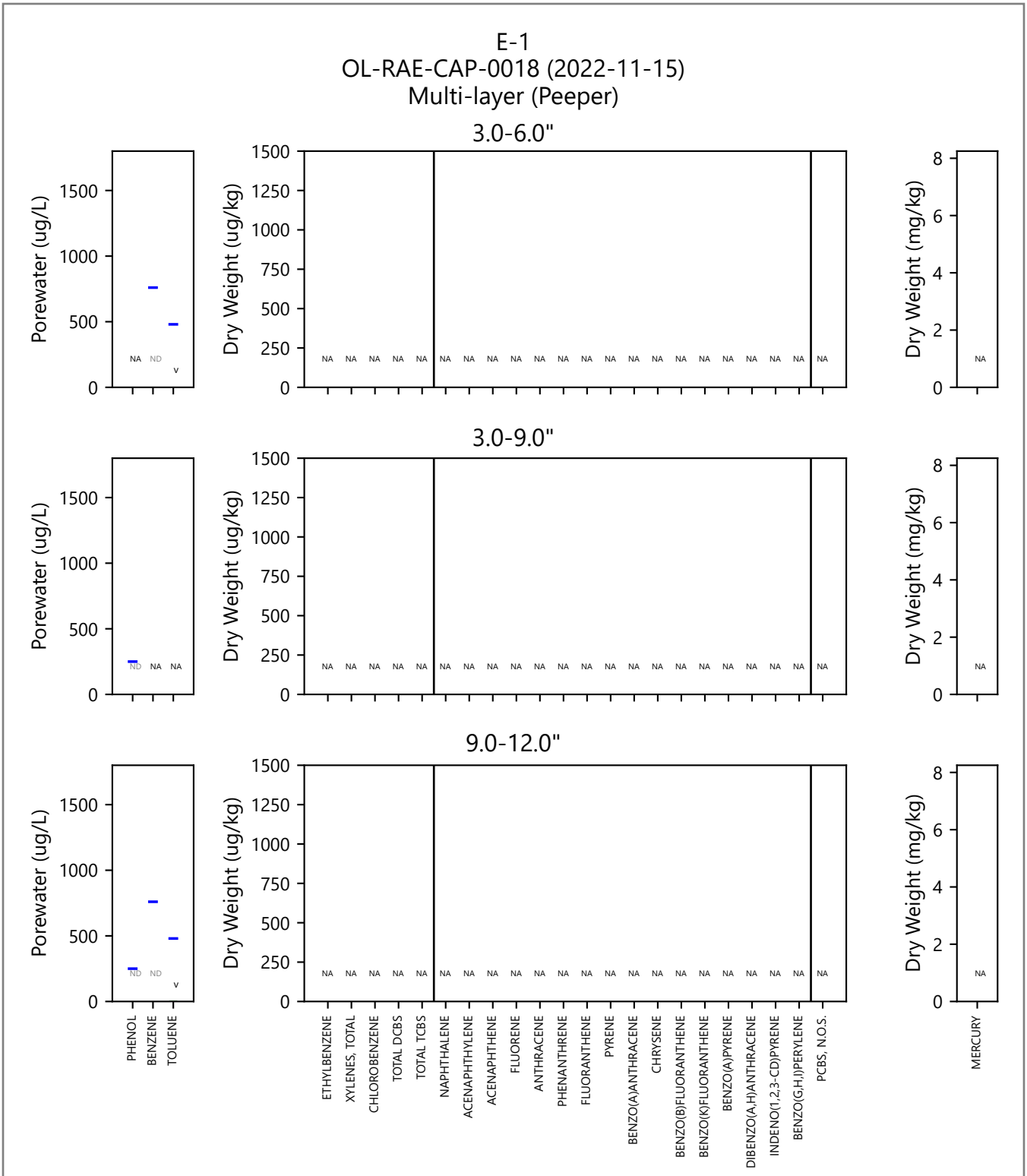
Habitat Layer Performance Criteria

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Figure 1-234

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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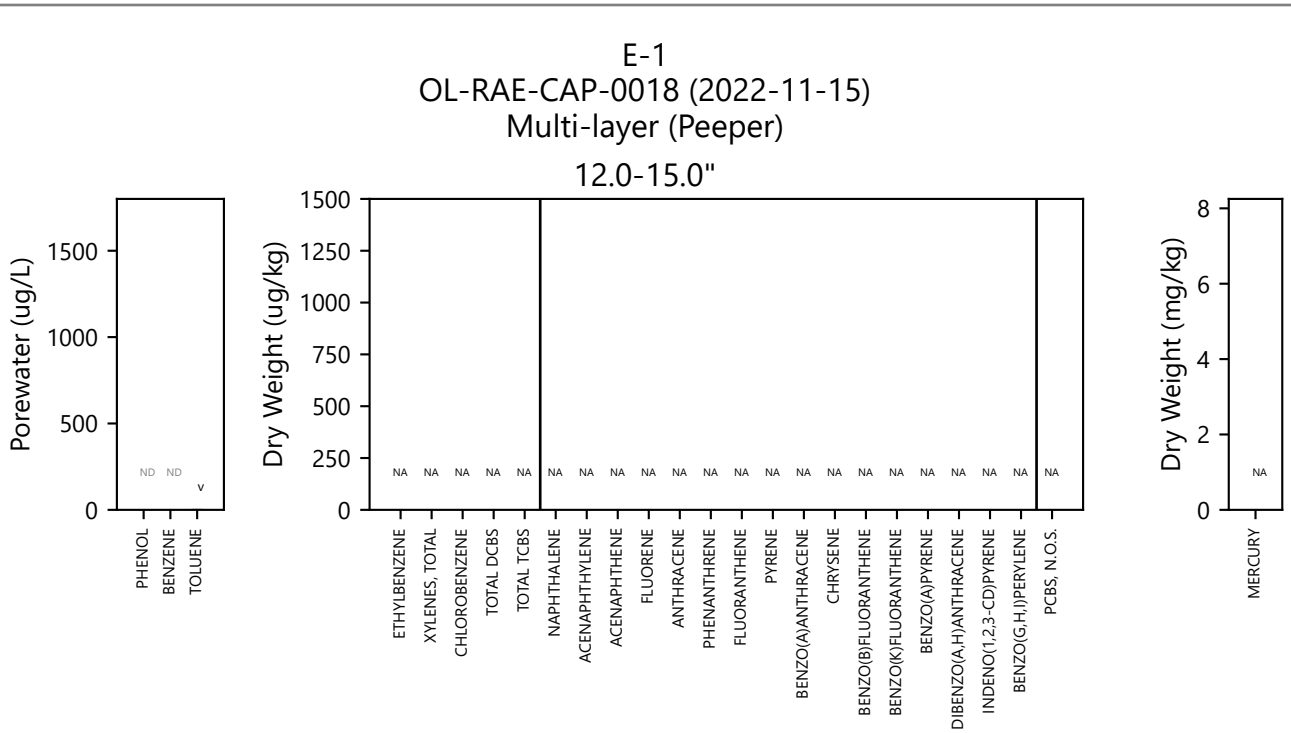
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Figure 1-235

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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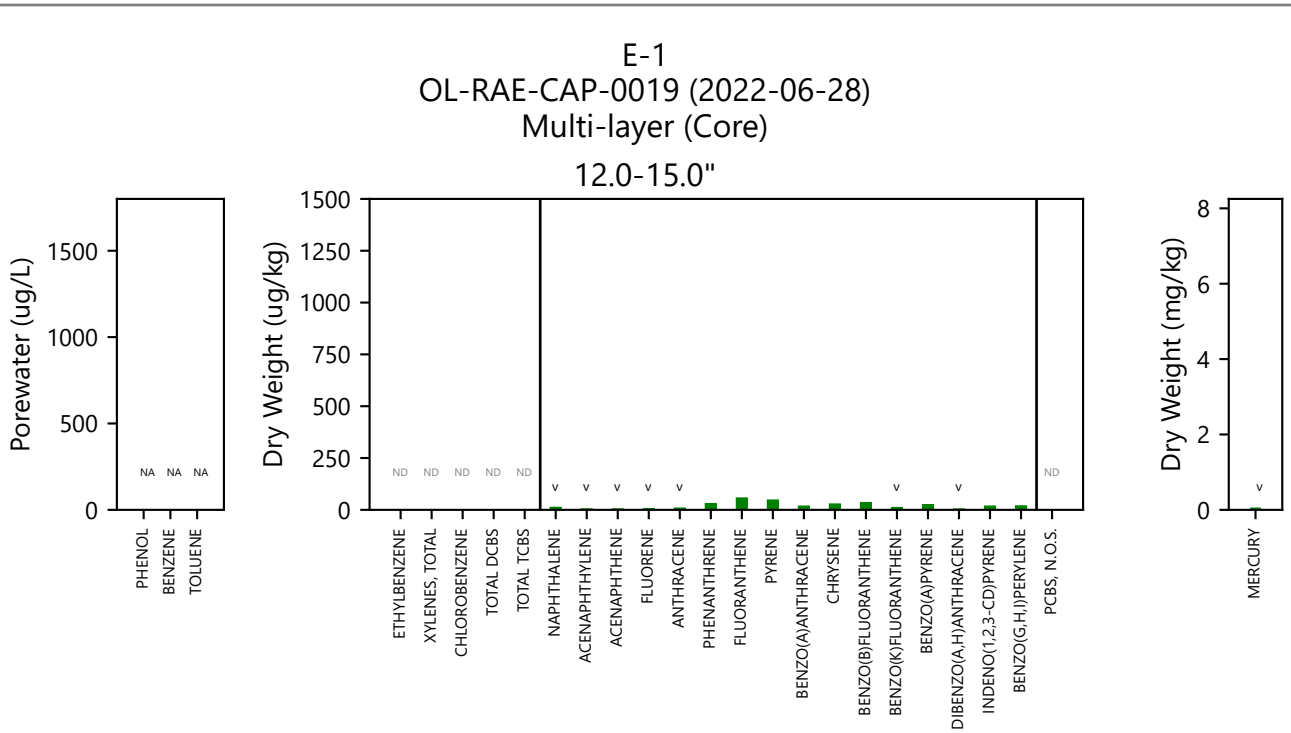
- Habitat Layer Performance Criteria

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Figure 1-236

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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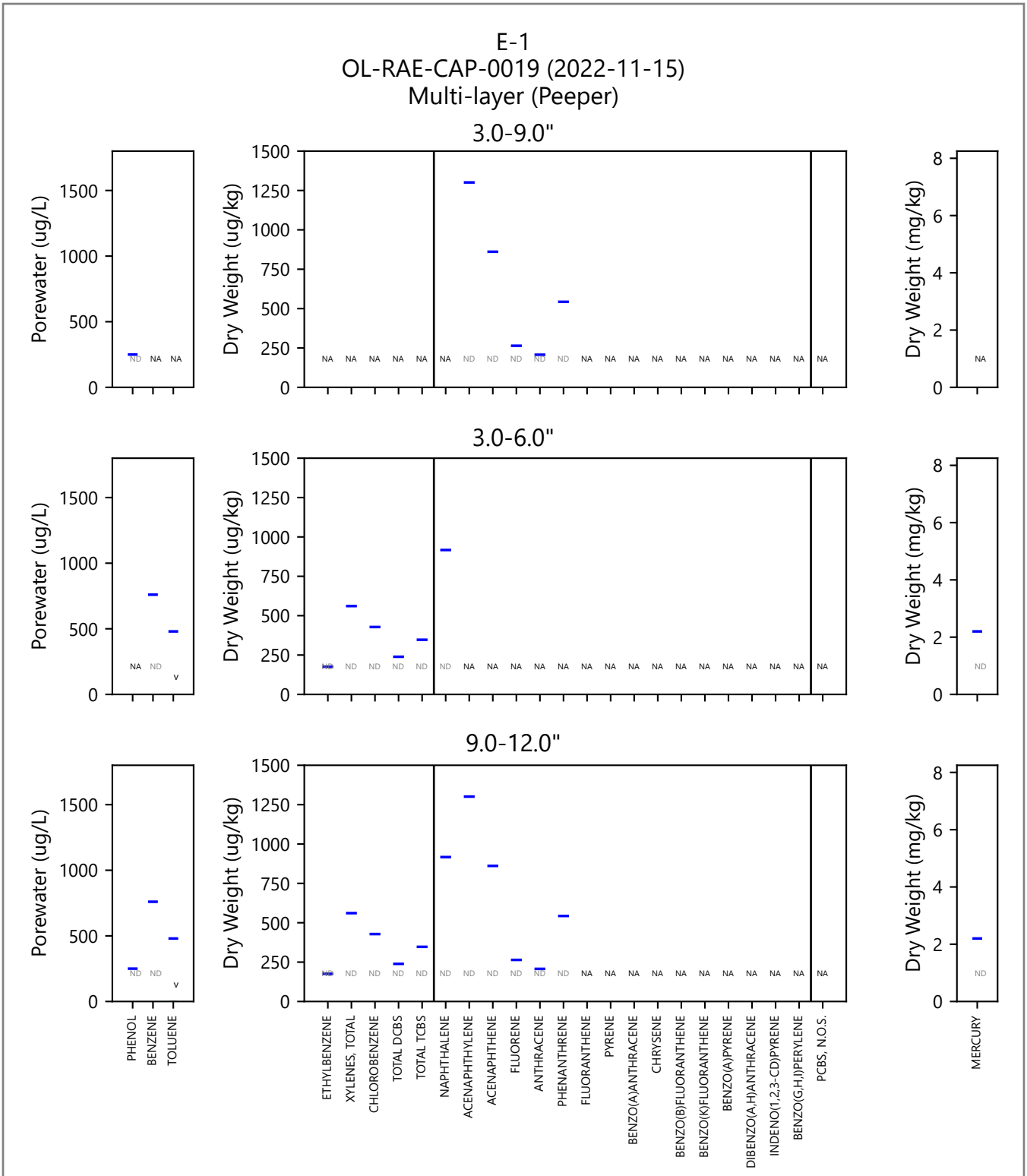
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Figure 1-237

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

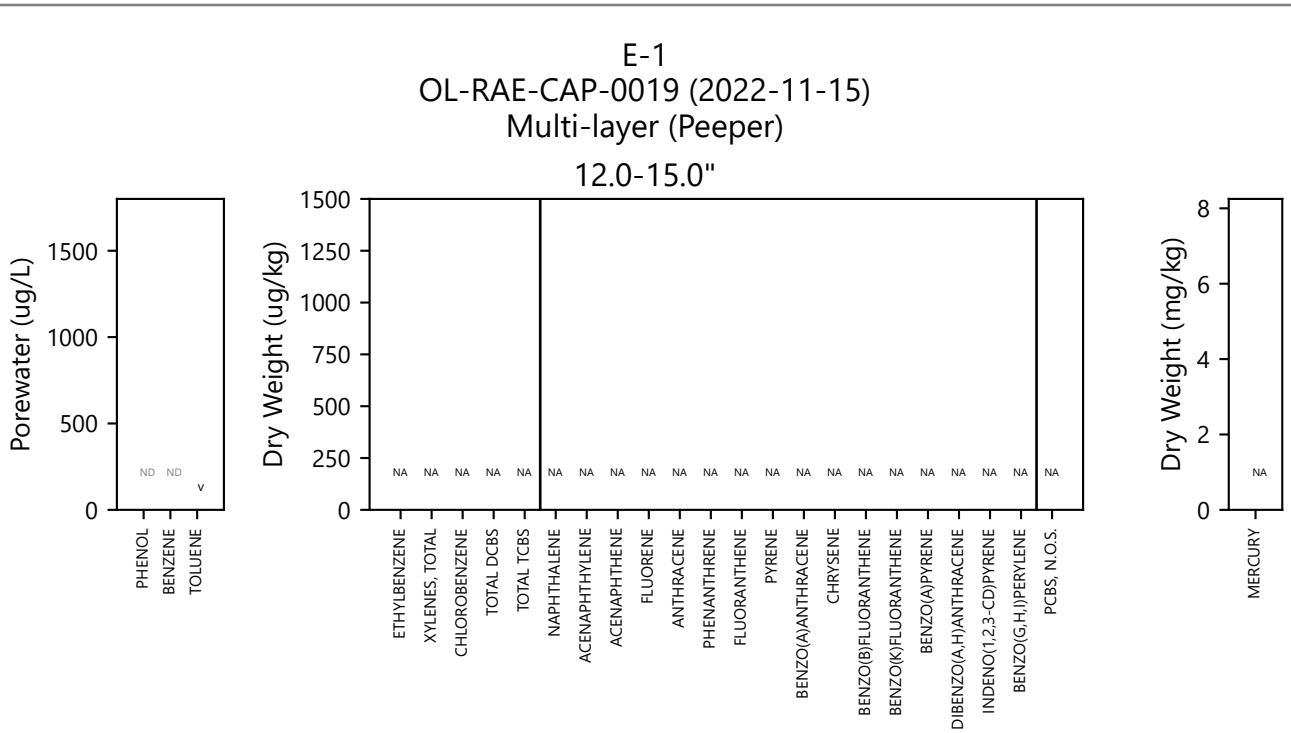
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Figure 1-238

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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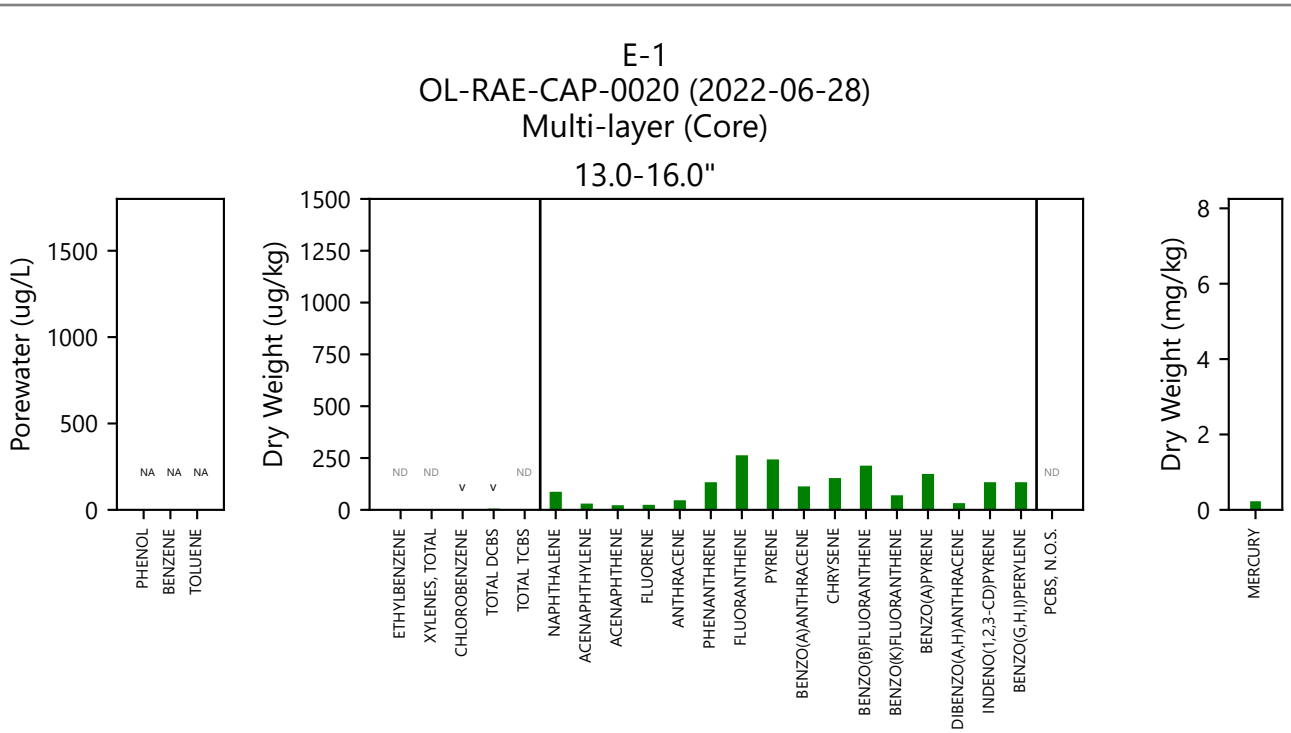
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Figure 1-239

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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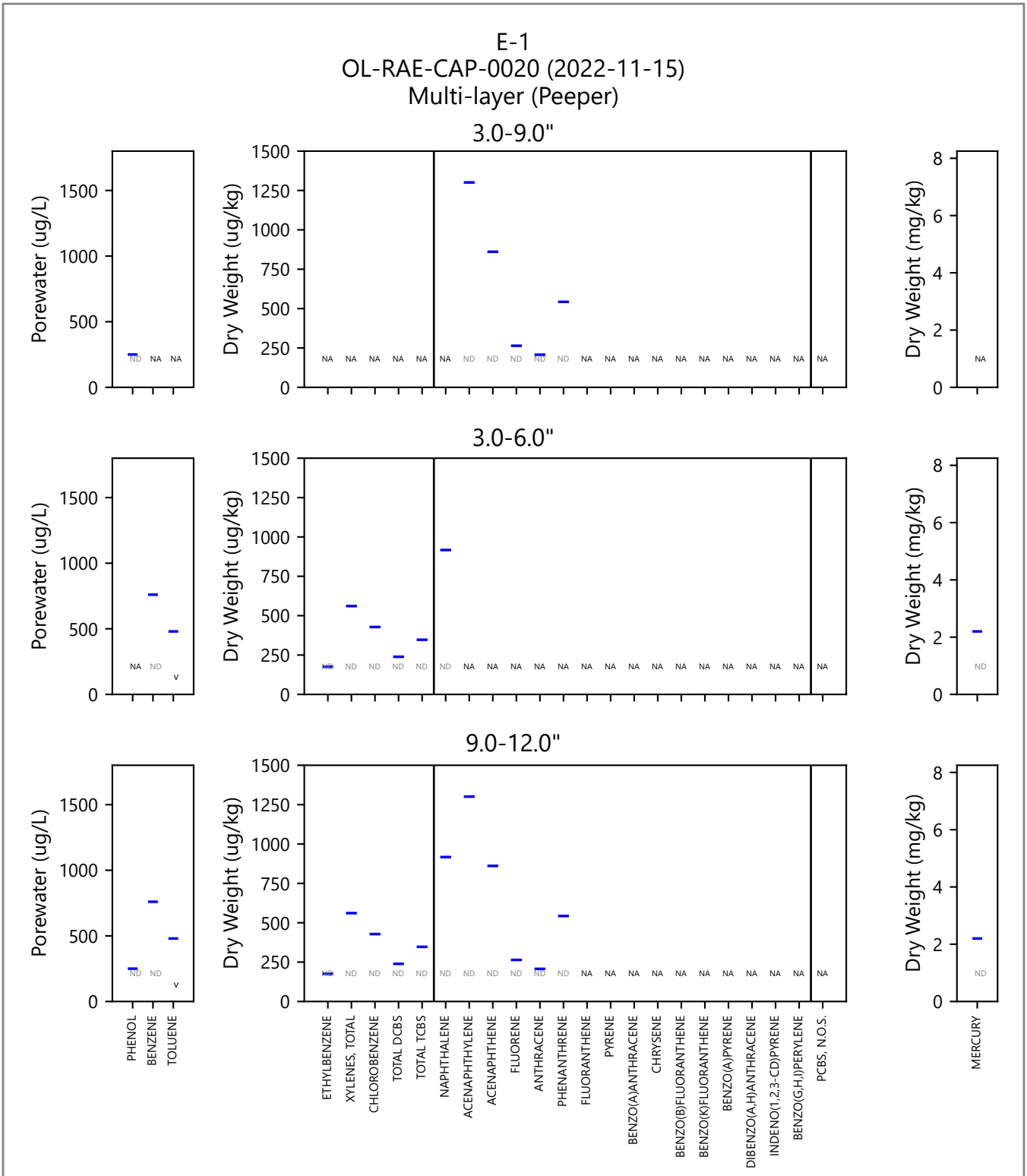
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Figure 1-240

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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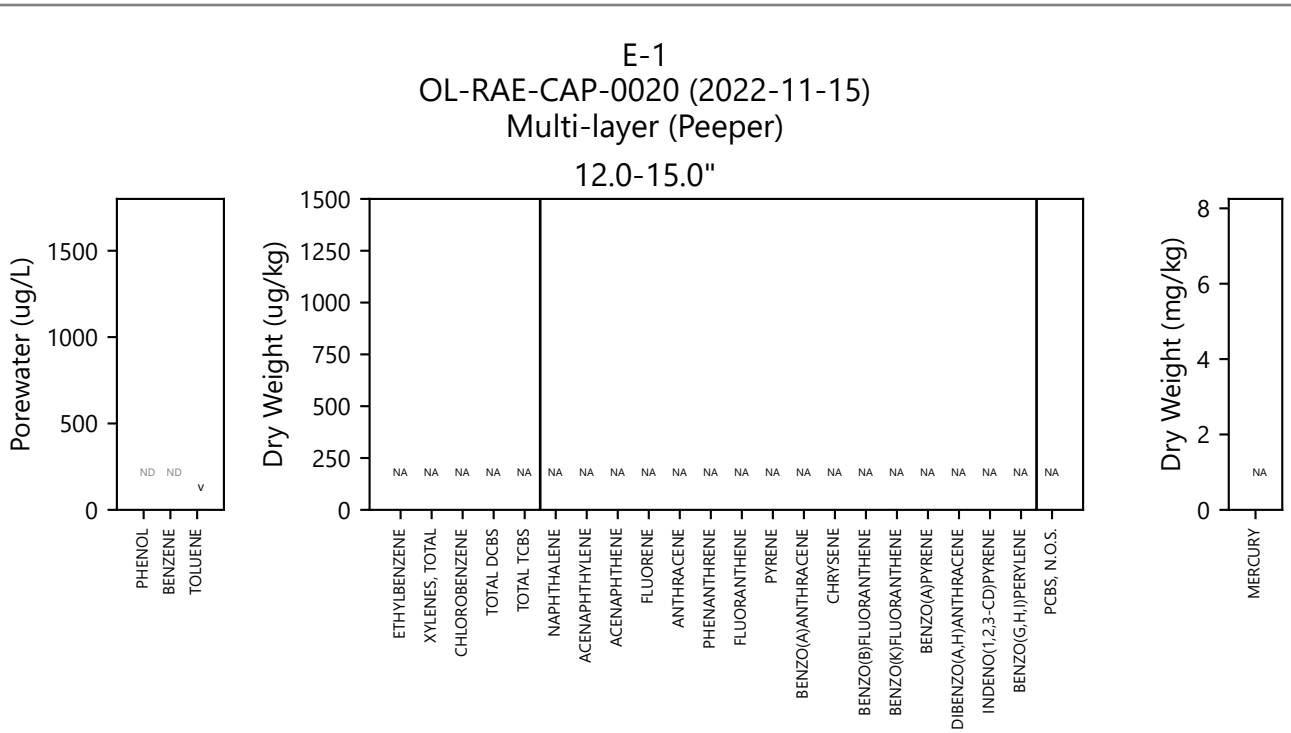
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Figure 1-241

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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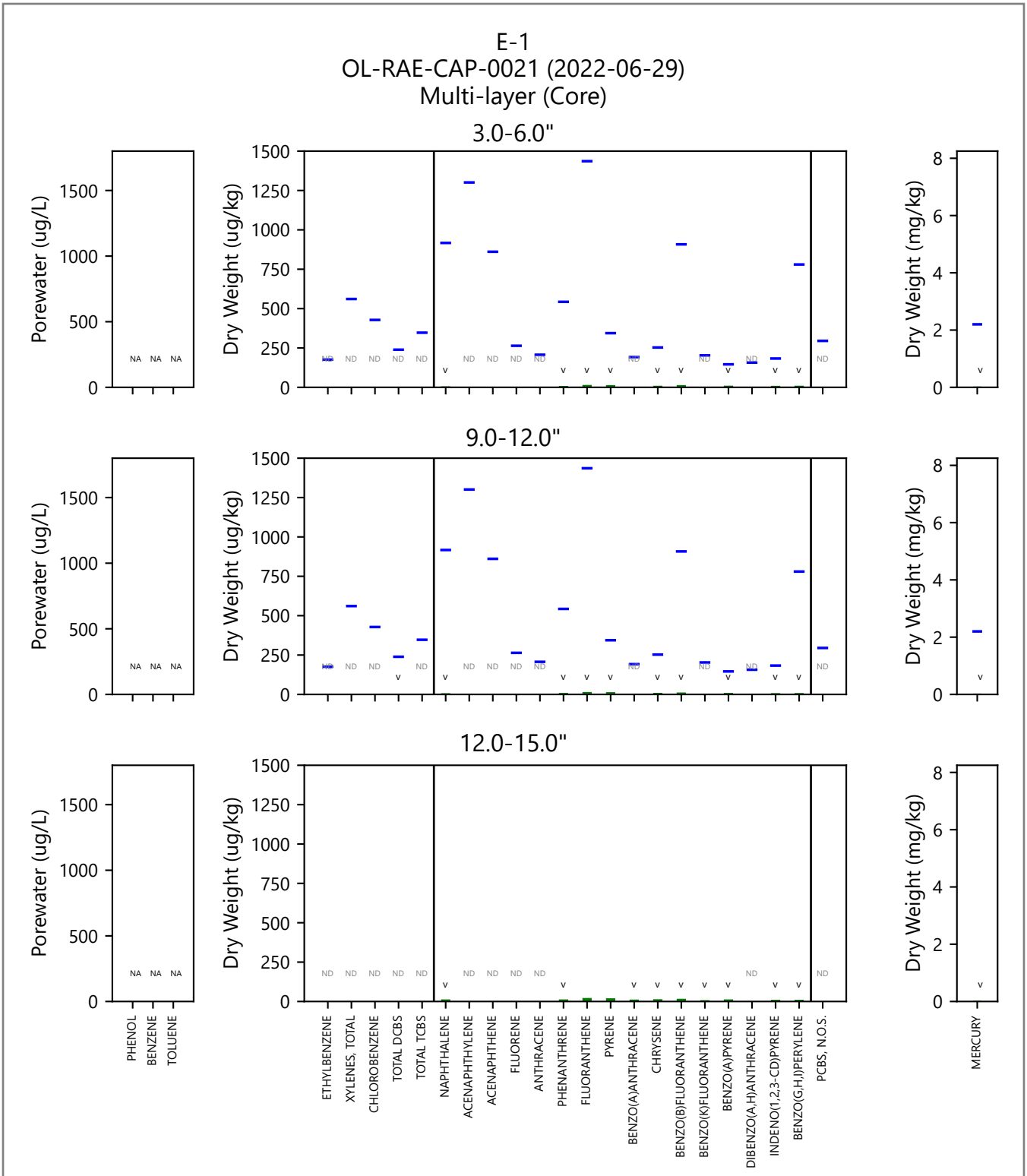
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Figure 1-242

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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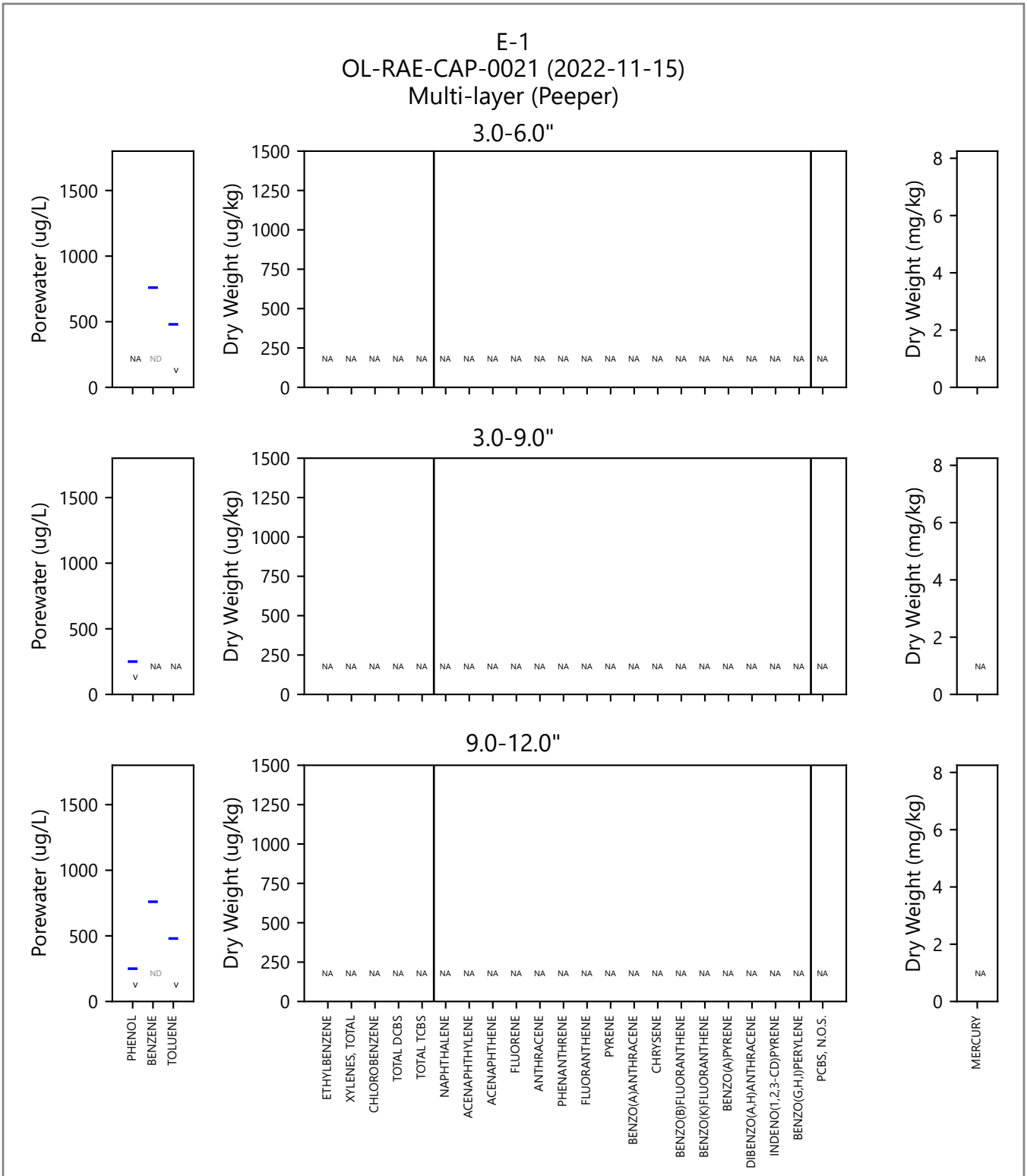
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Figure 1-243

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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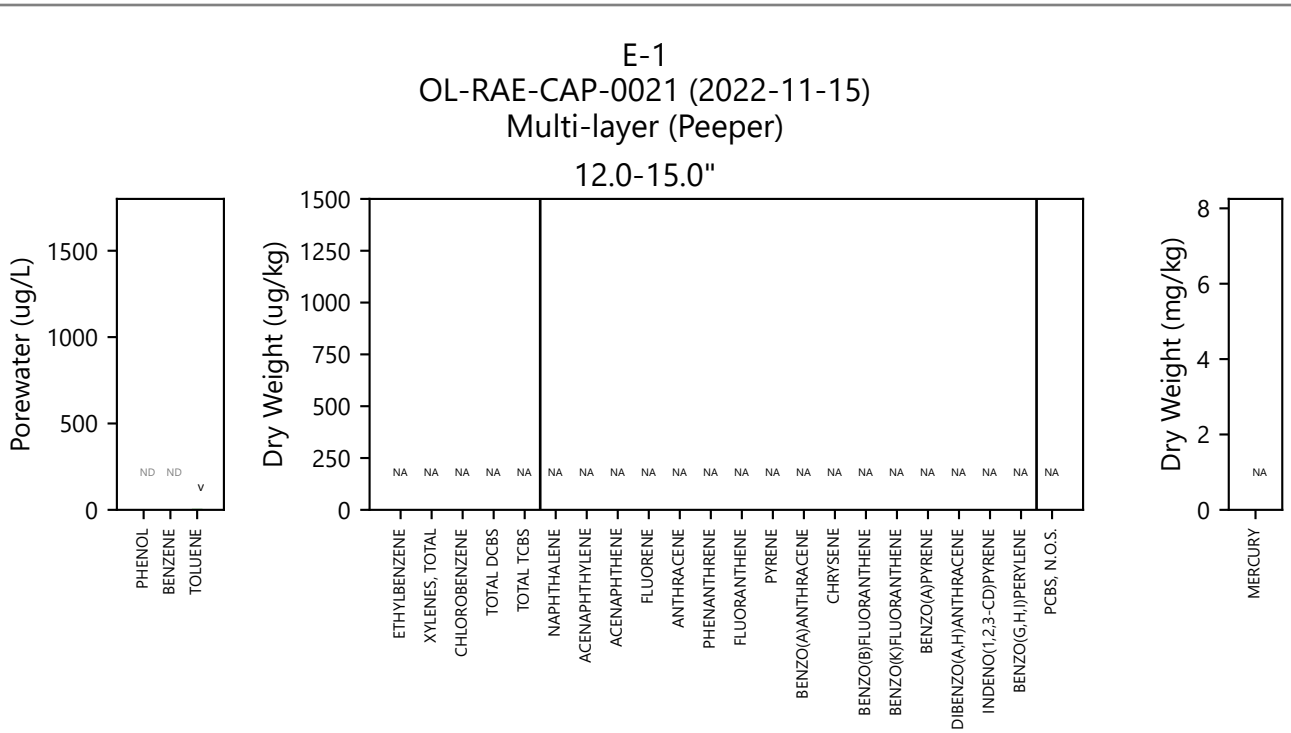
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Figure 1-244

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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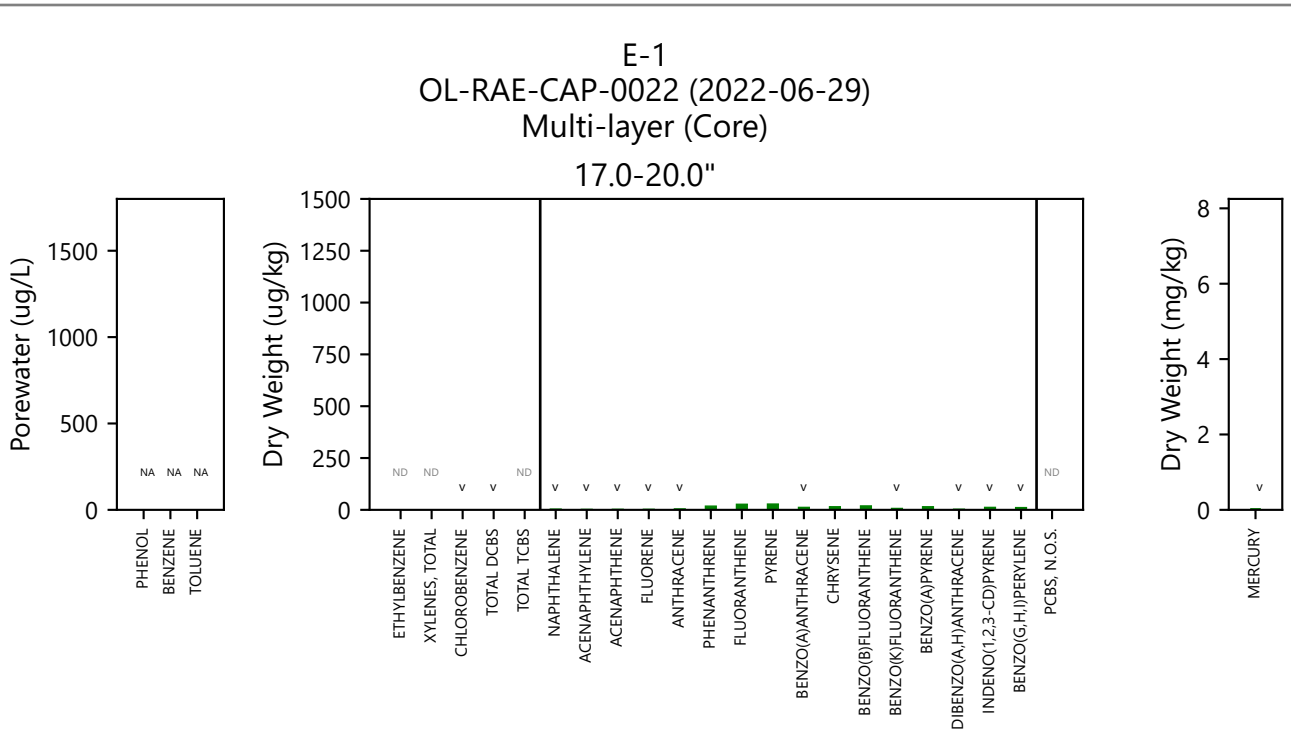
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Figure 1-245

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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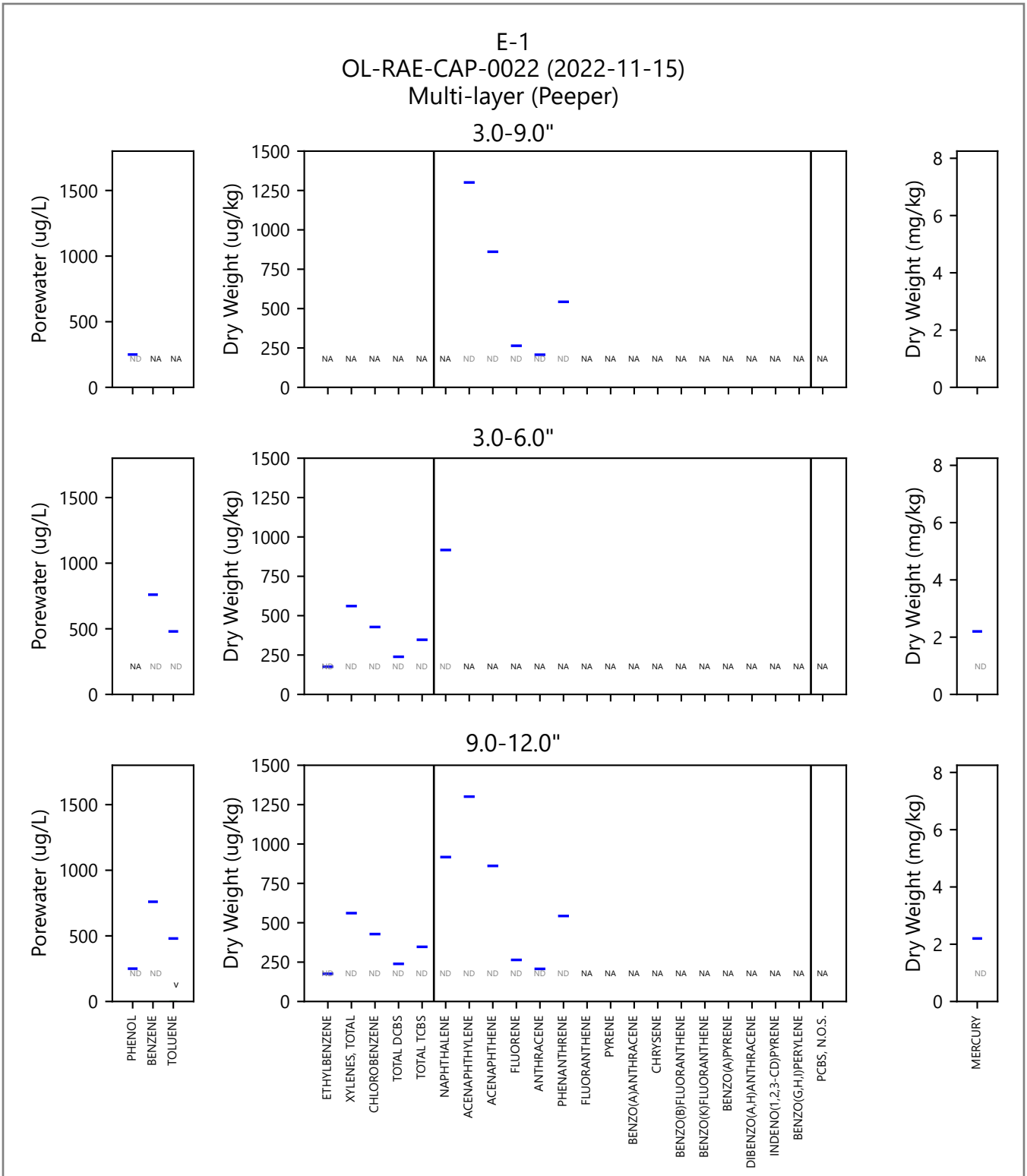
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Figure 1-246

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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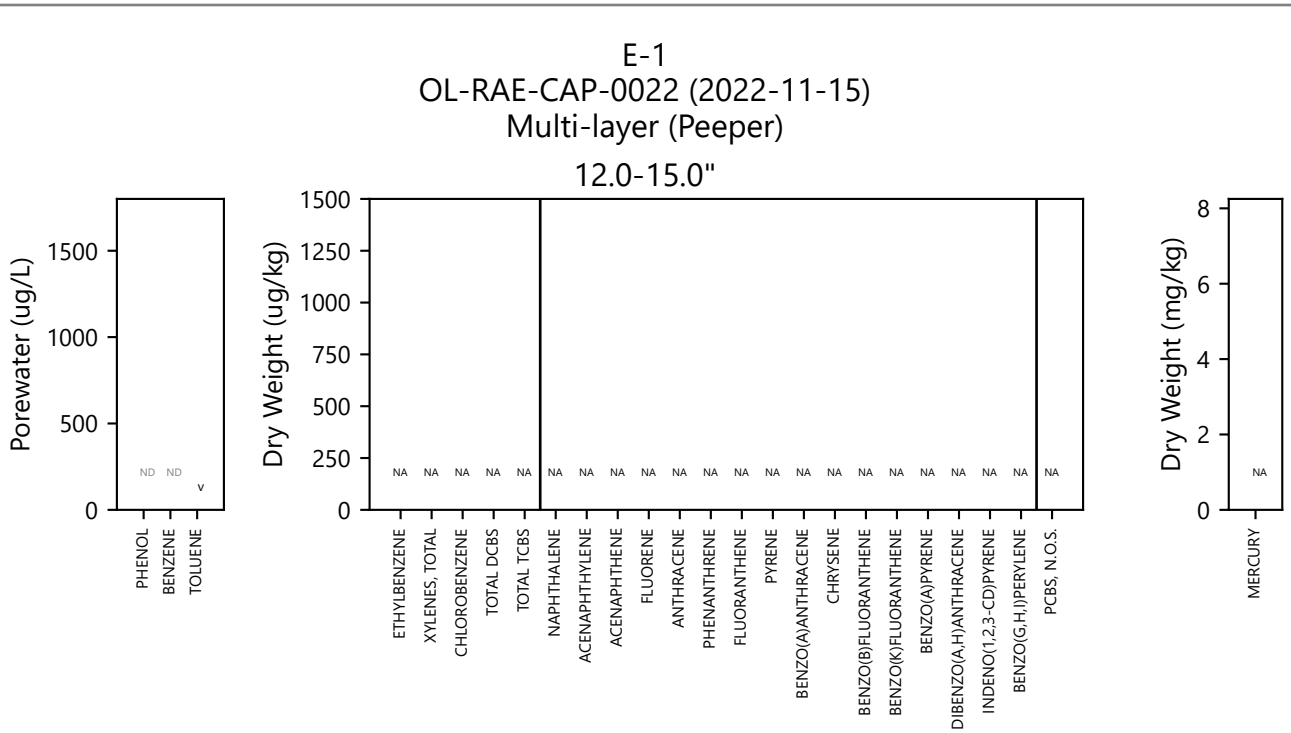
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Figure 1-247

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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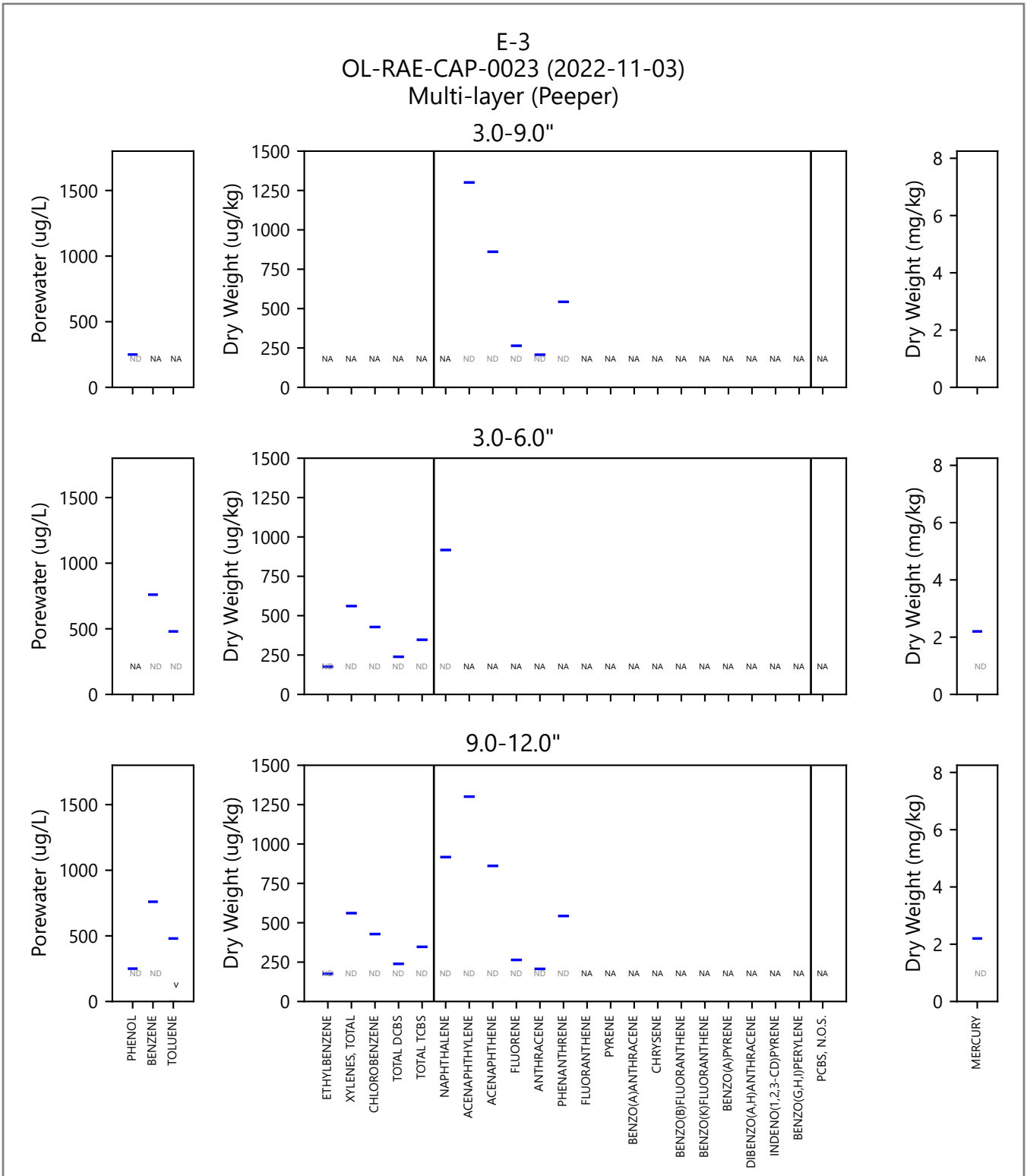
- Habitat Layer Performance Criteria

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Figure 1-248

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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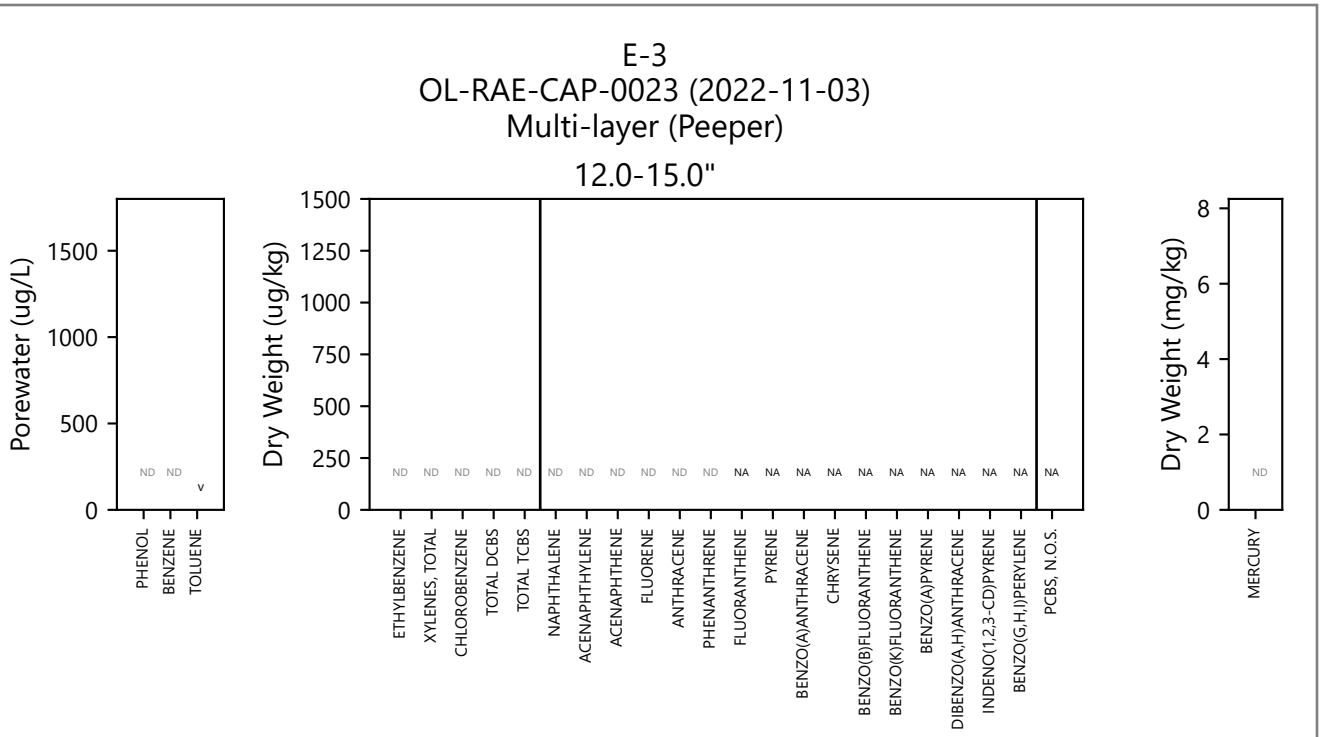
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Figure 1-249

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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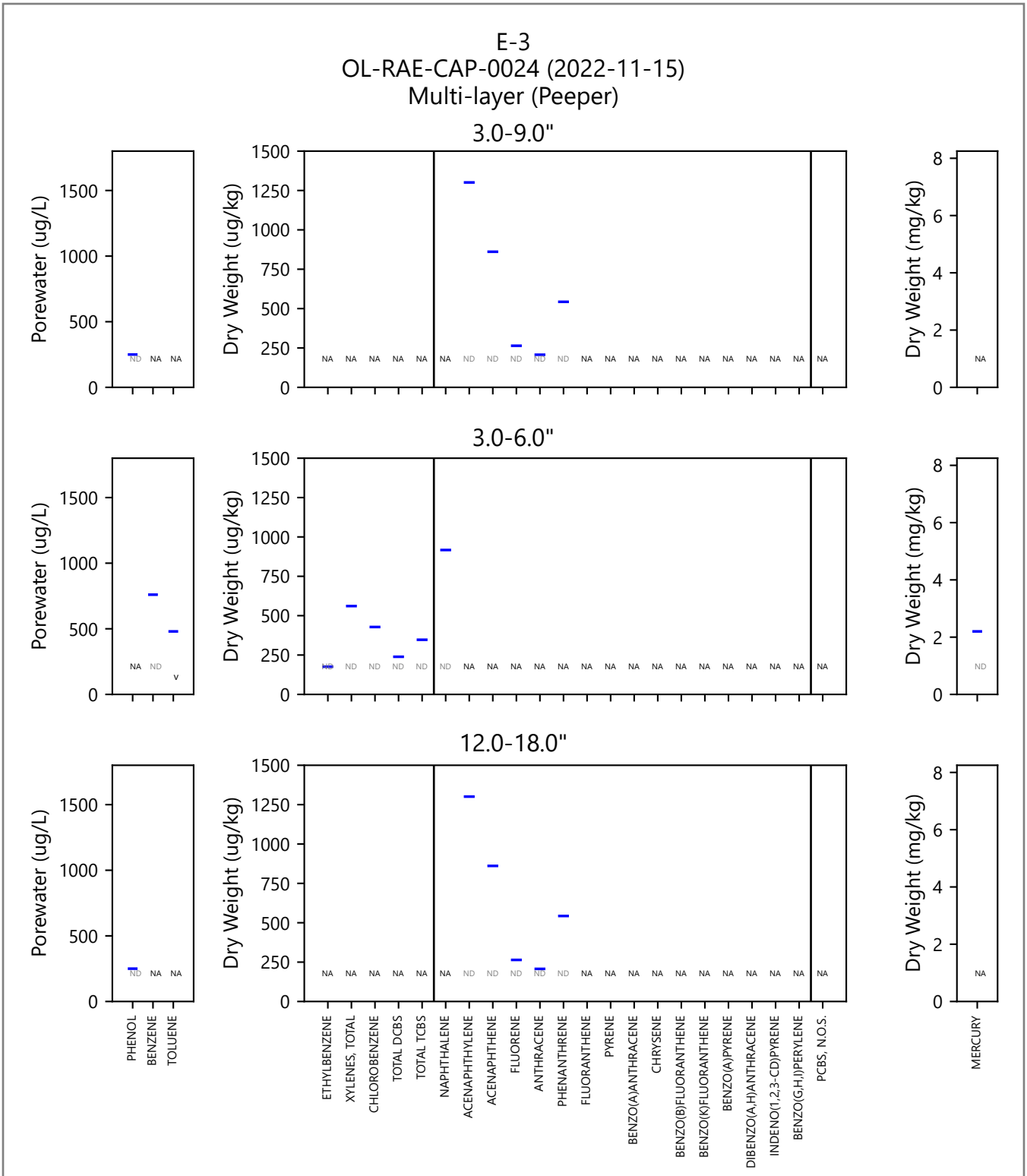
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Figure 1-250

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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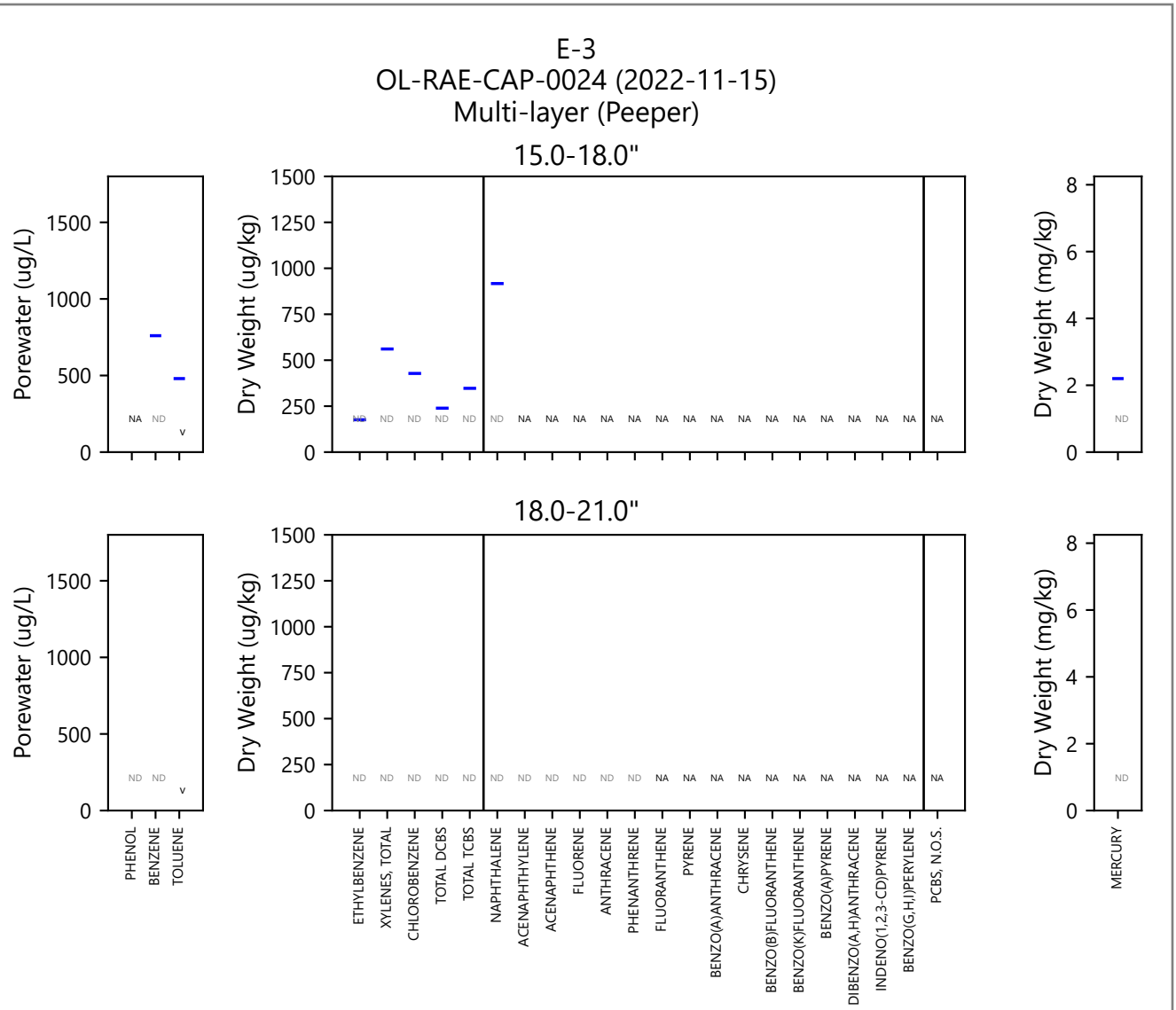
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Figure 1-251

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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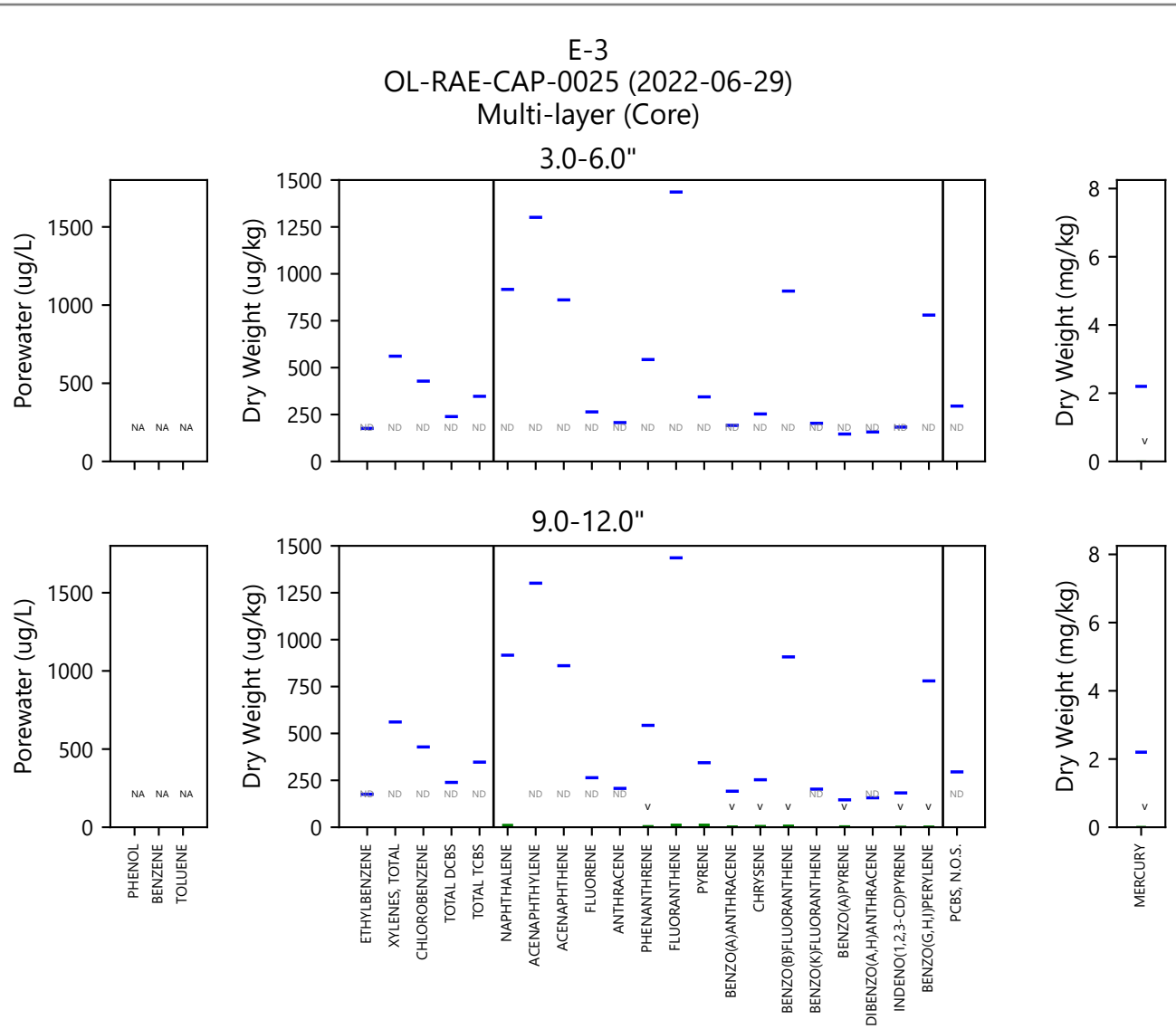
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Figure 1-252

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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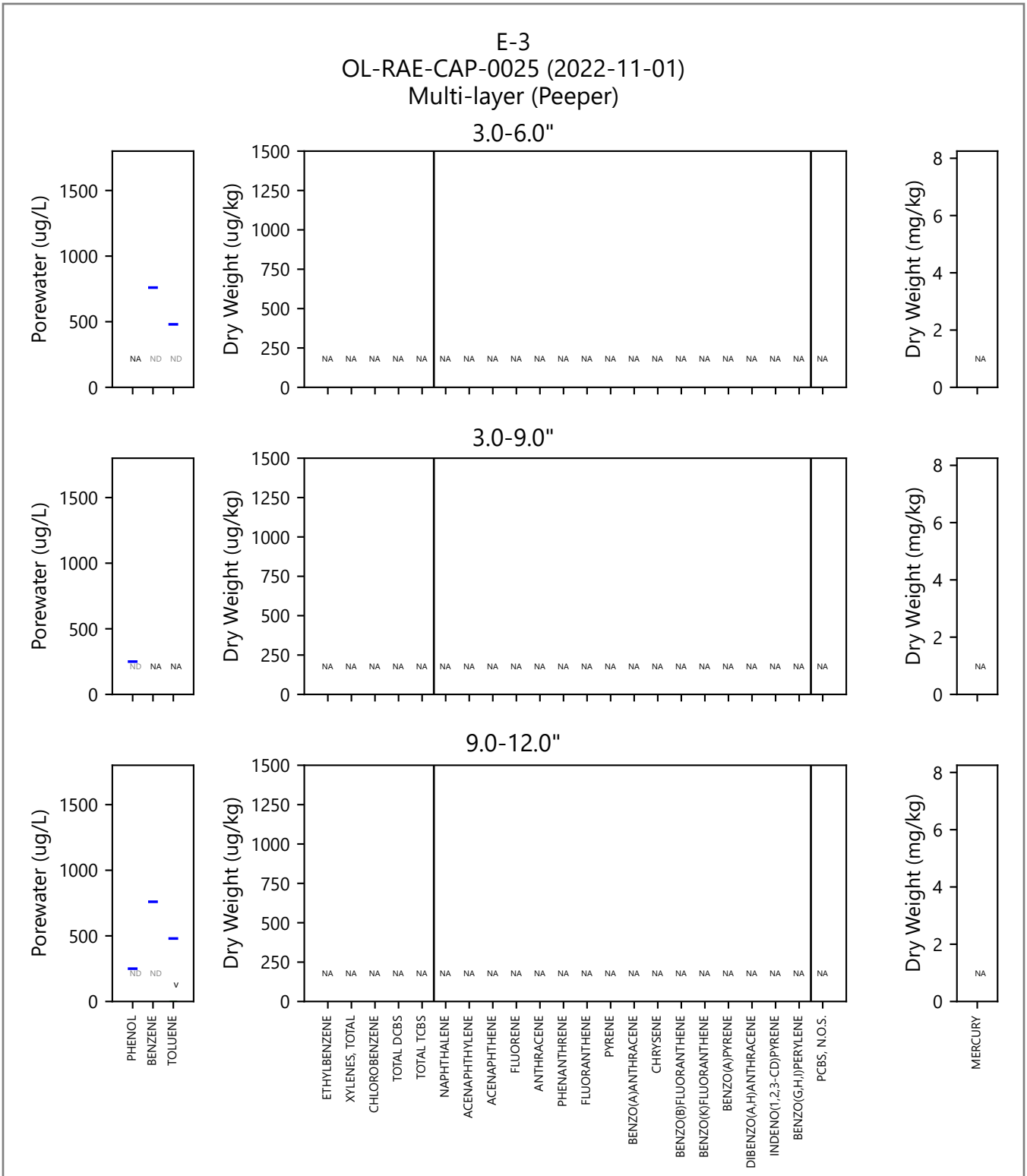
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Figure 1-253

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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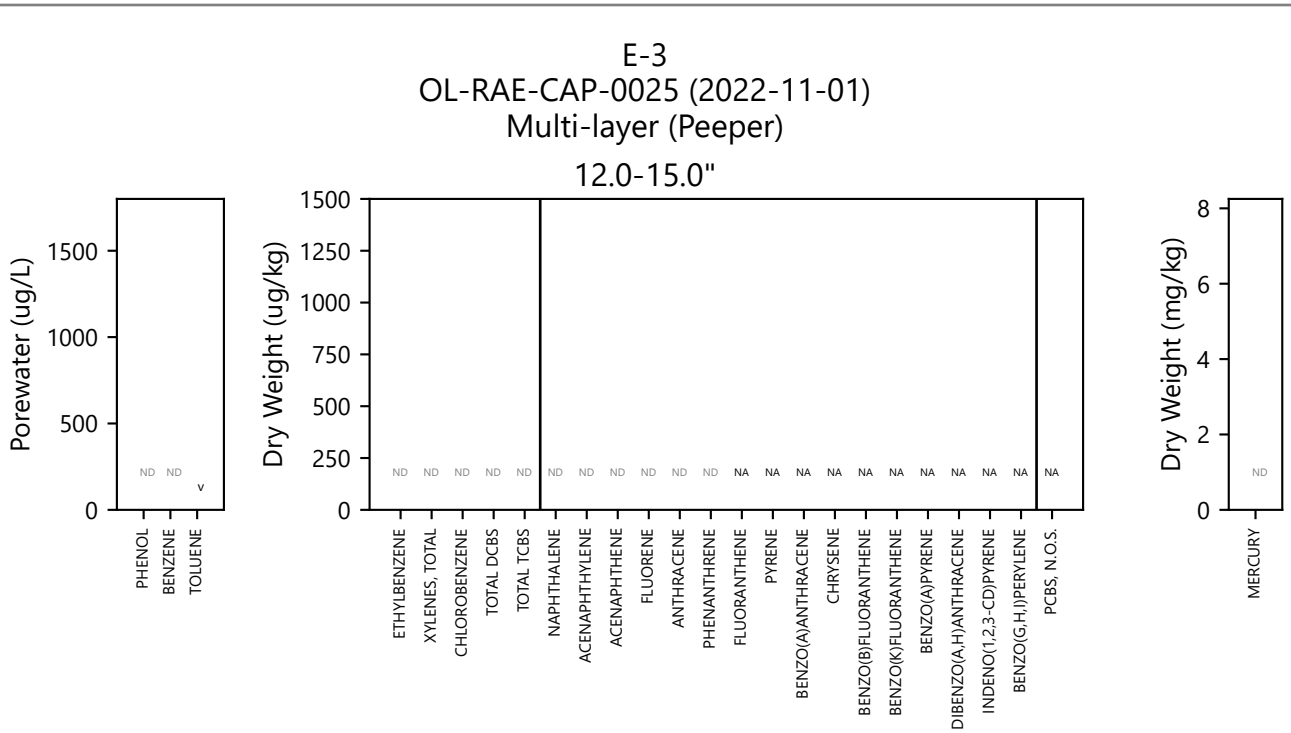
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Figure 1-254

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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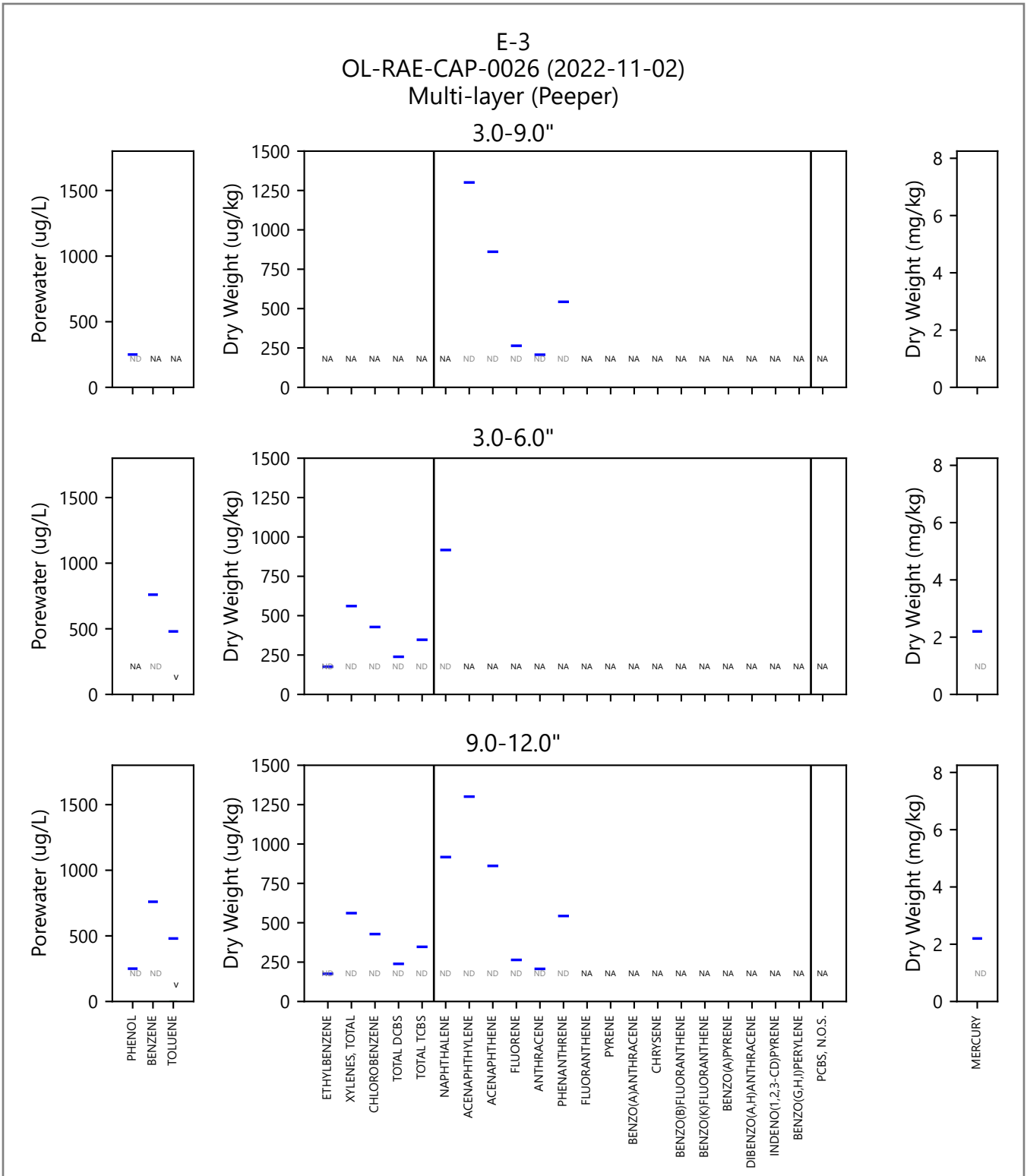
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Figure 1-255

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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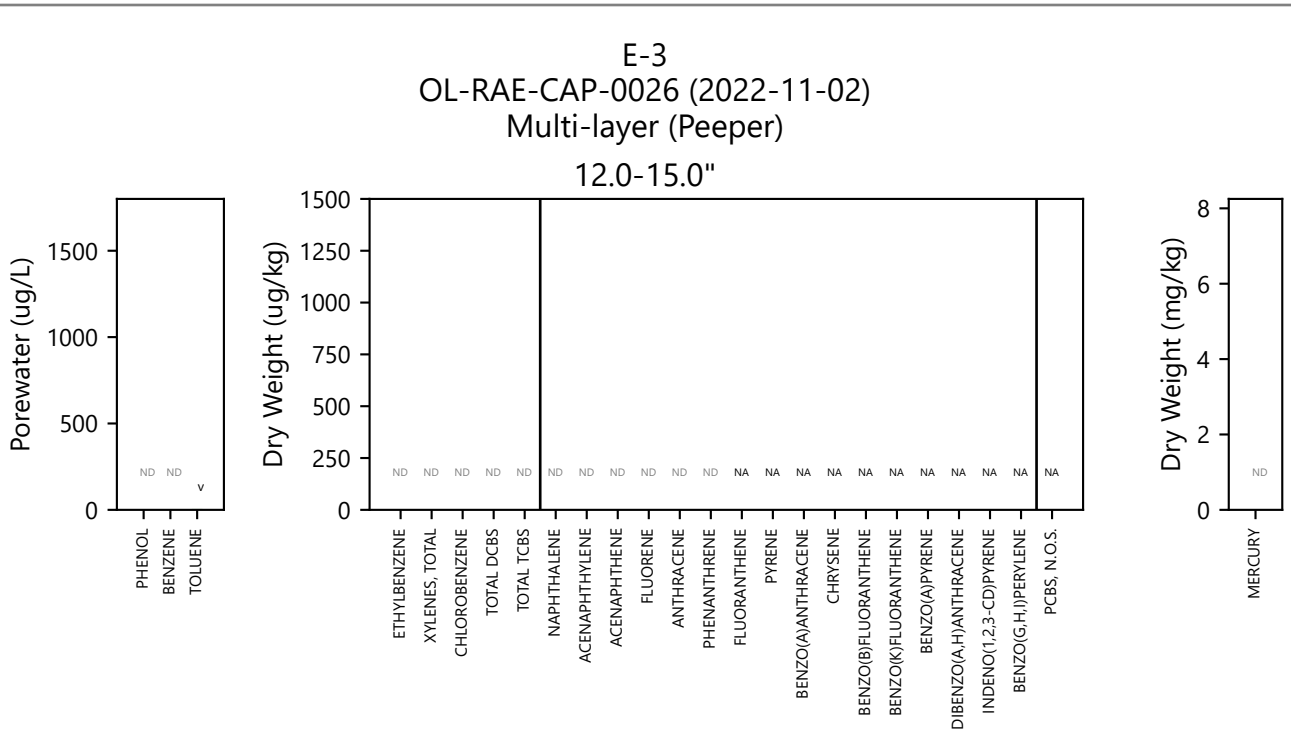
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Figure 1-256

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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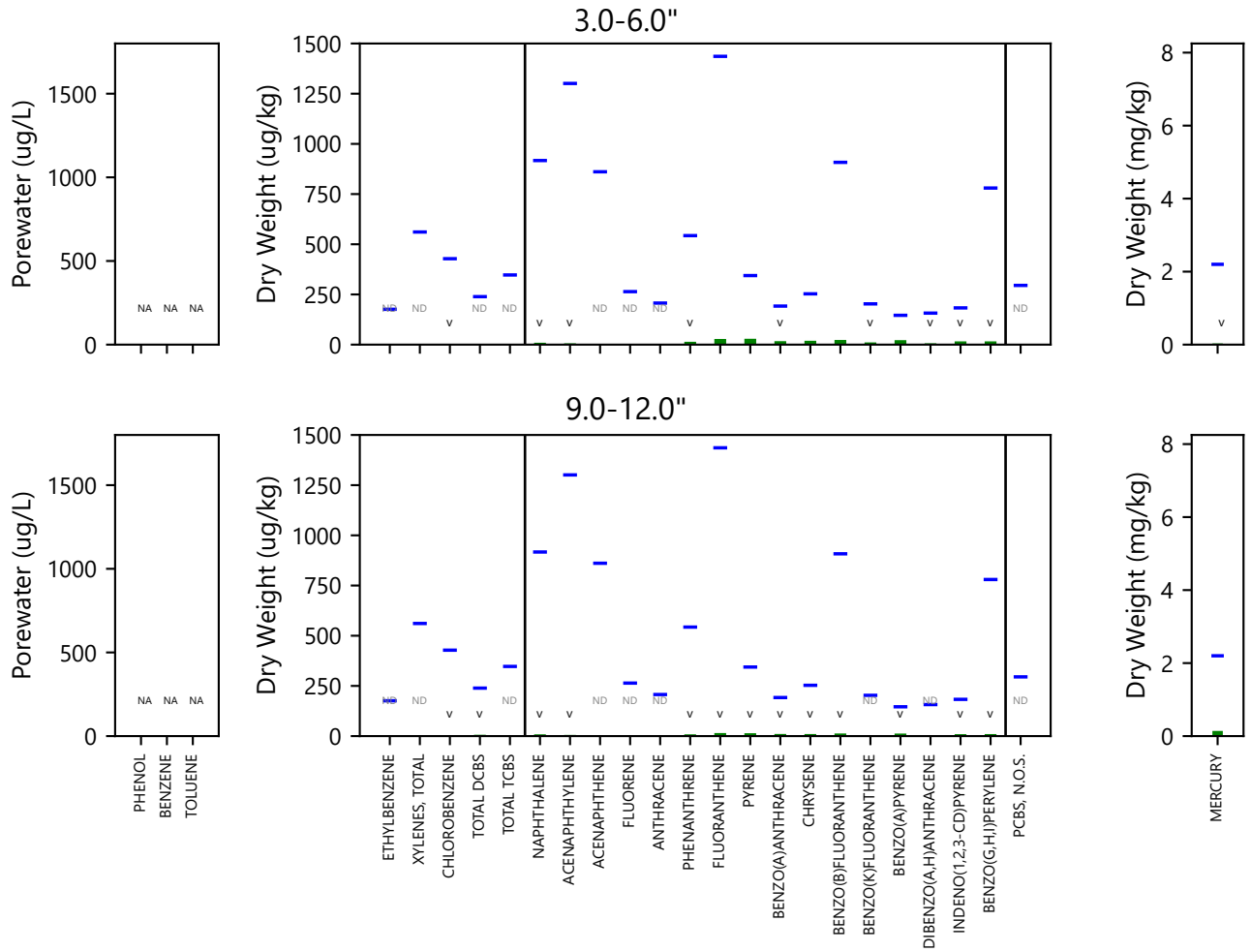
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Figure 1-257

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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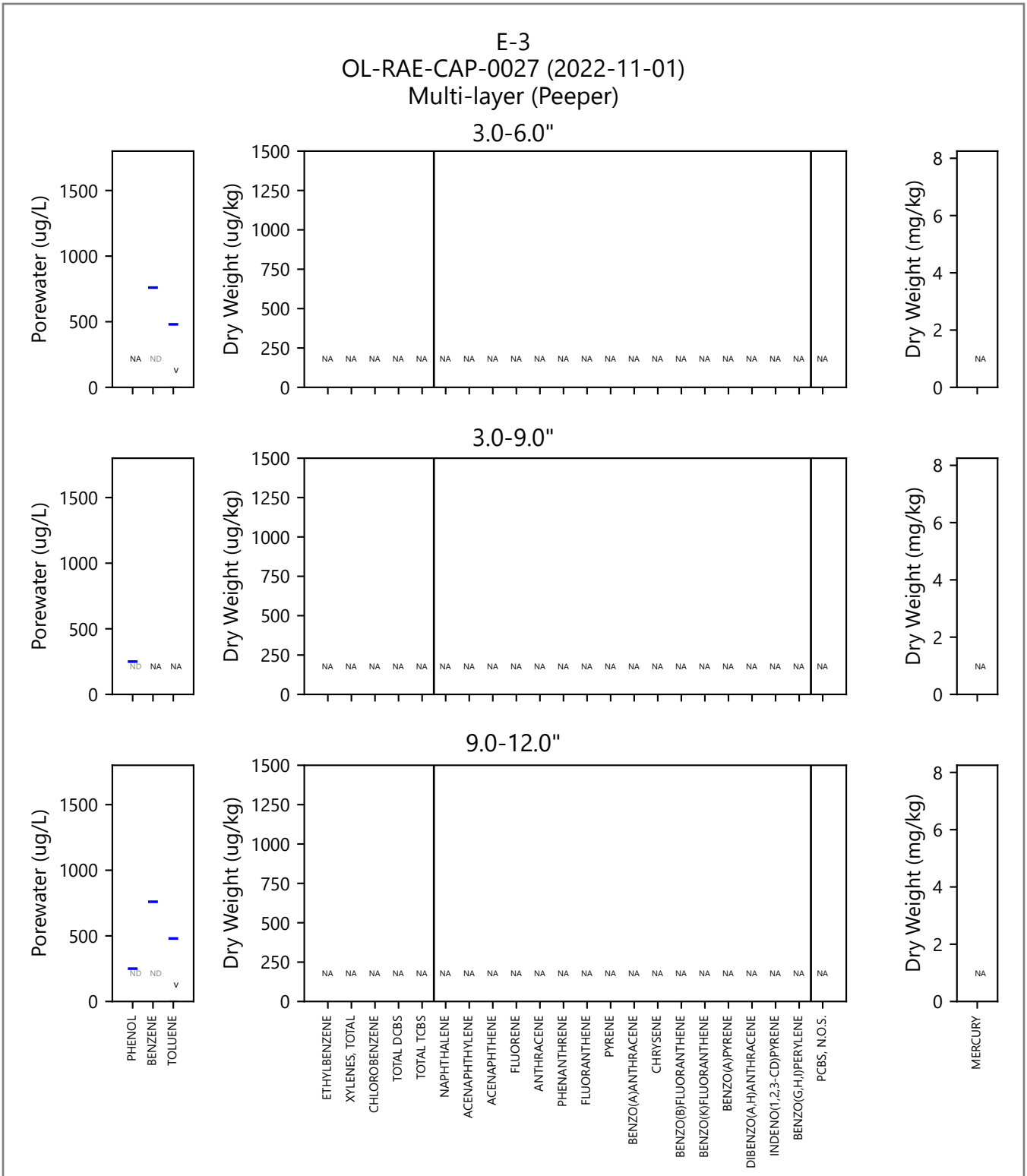
Habitat Layer Performance Criteria

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File Path: \\WCL-FS1\syracuse\Projects\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Cap_Chemistry\Python\Forensics\OLCap_Forensic_Bar_Plots_CapMaterial_Criteria_HLine_2019_wHB.py

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Figure 1-258

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM

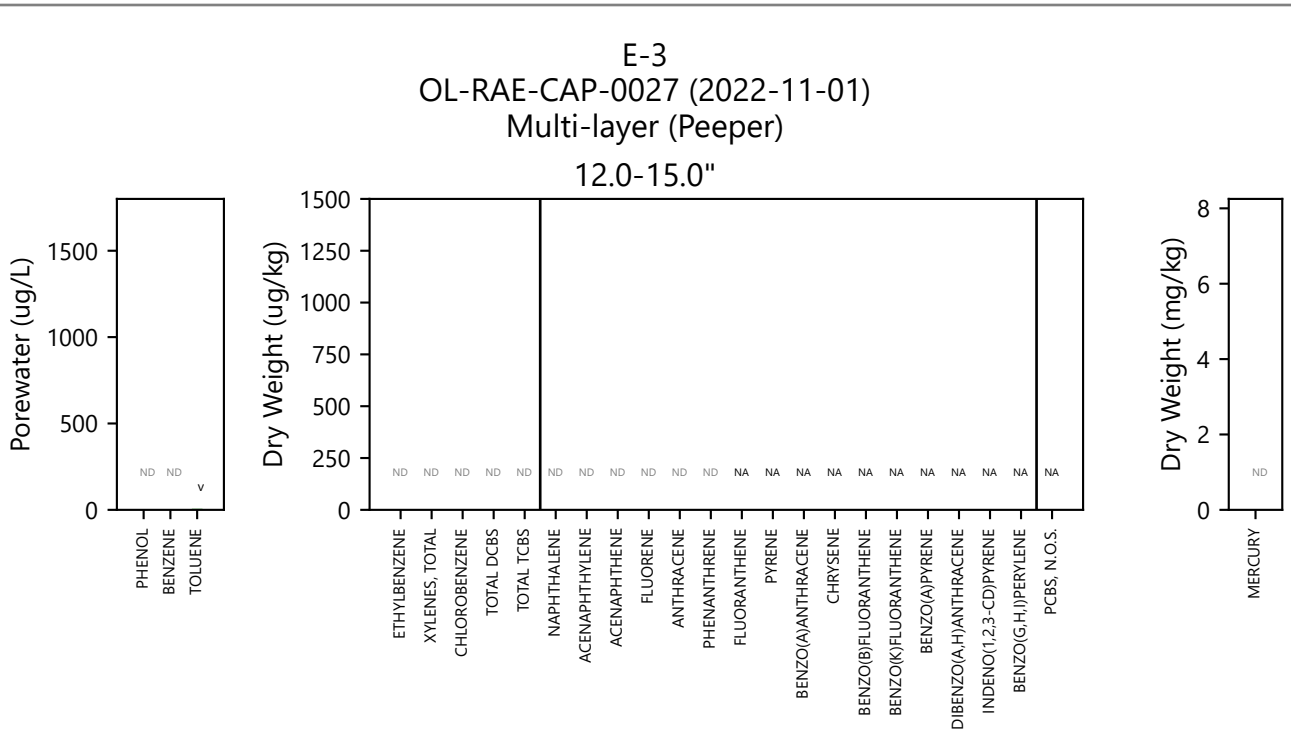


Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
v=Detected concentration is not visible at the scale shown.
For duplicates, the maximum detected concentration was used.
Chemical groups are separated by vertical lines.
Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

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Figure 1-259

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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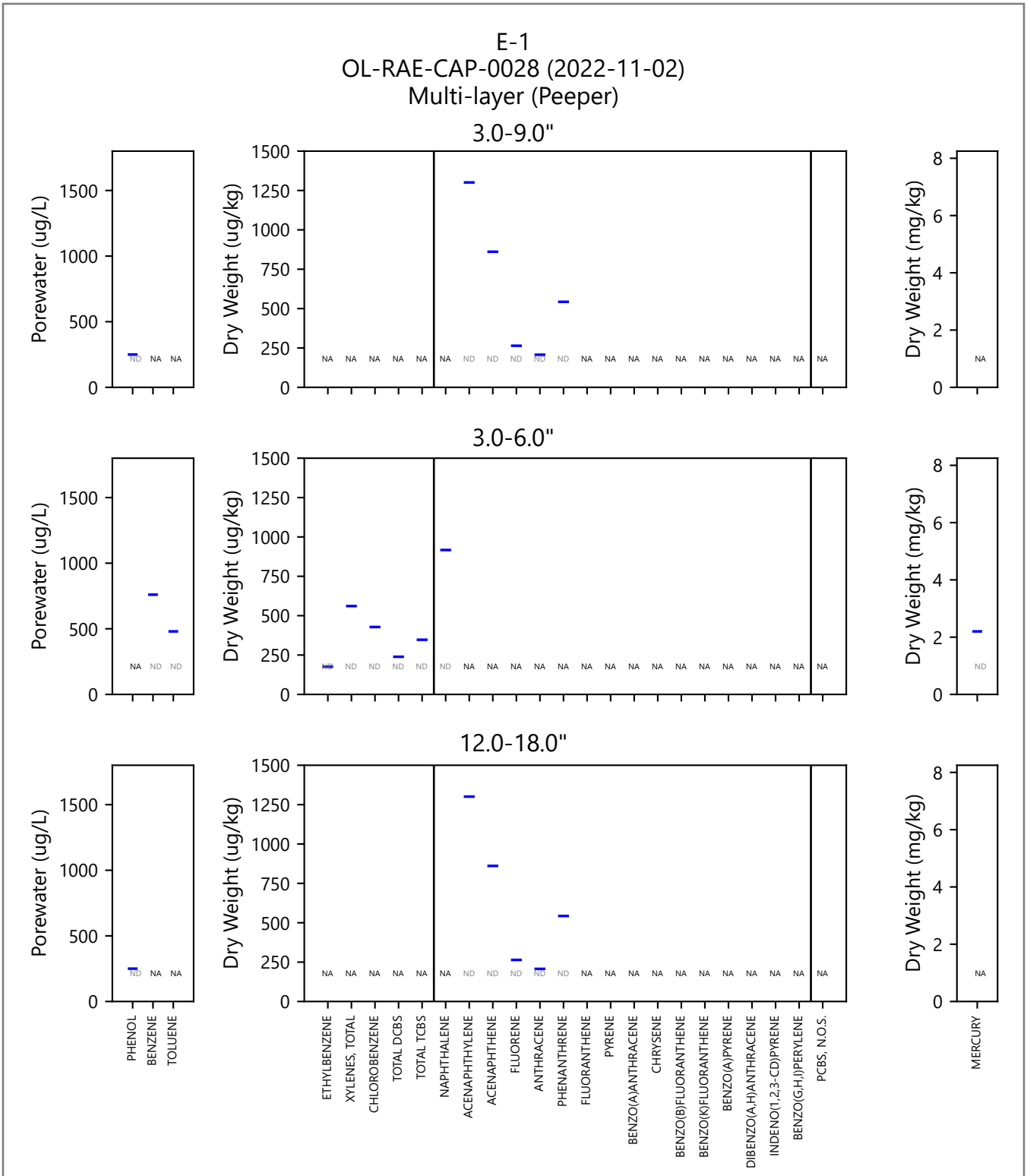
Habitat Layer Performance Criteria

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Figure 1-260

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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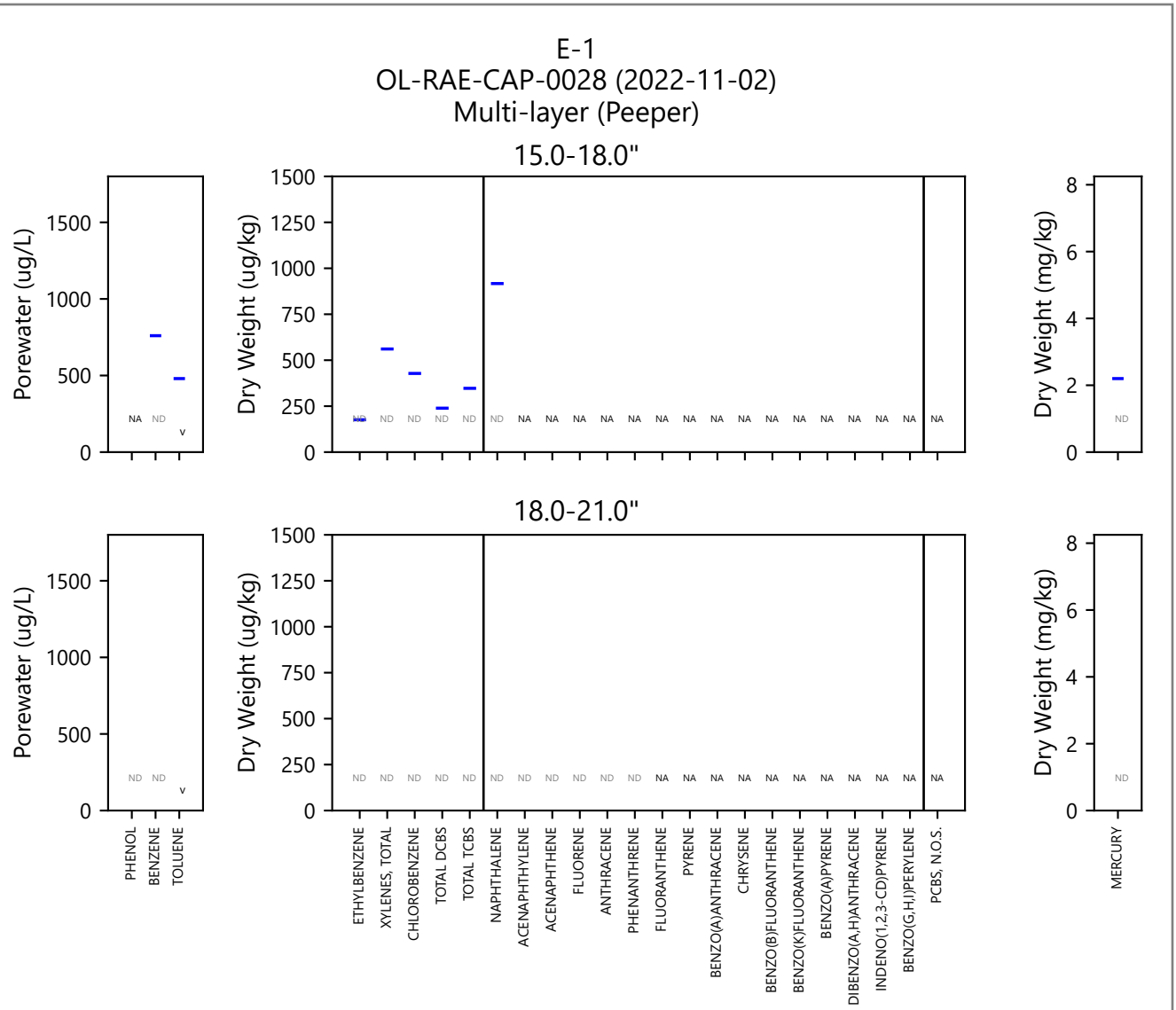
Habitat Layer Performance Criteria

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Figure 1-261

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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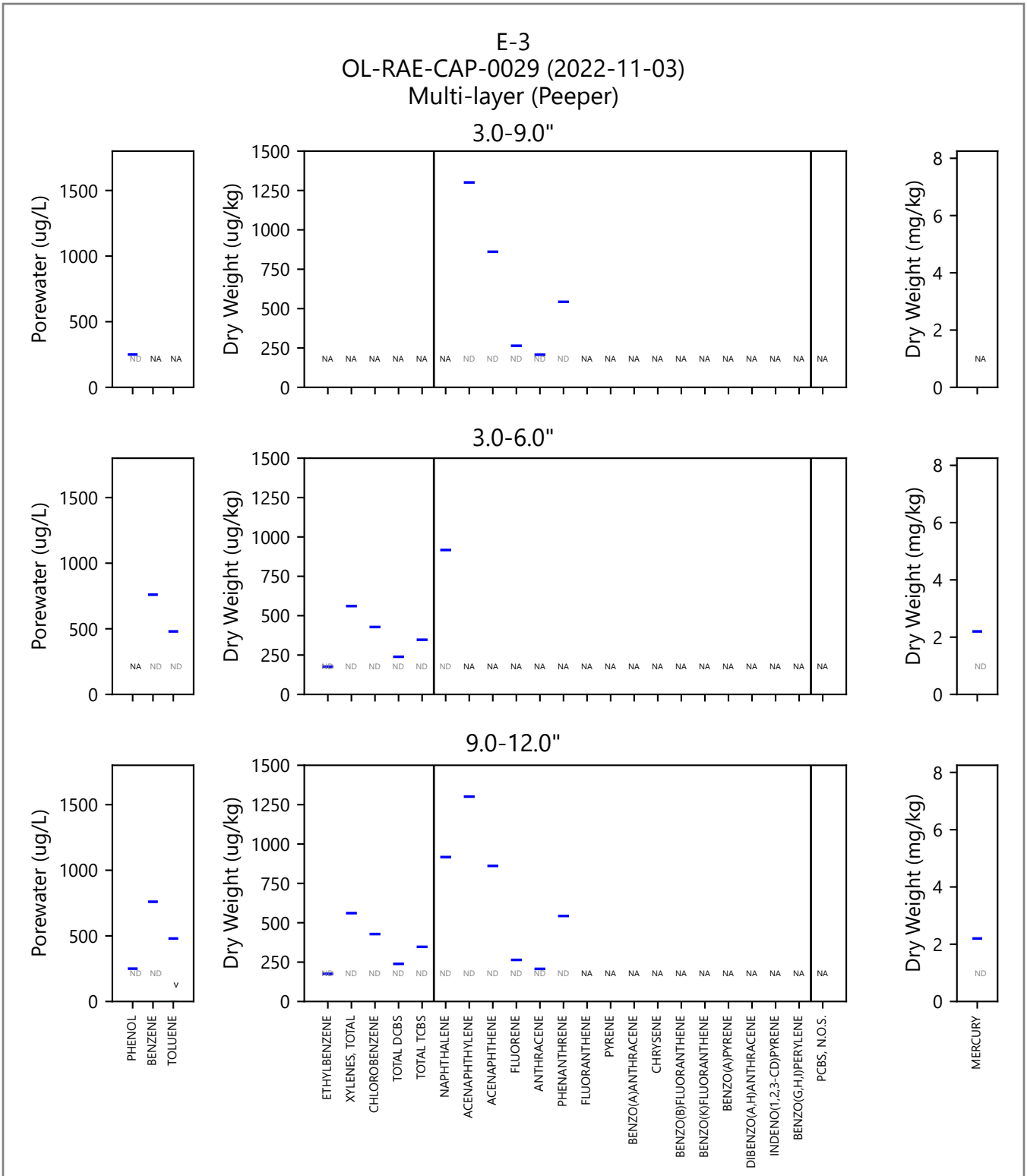
Habitat Layer Performance Criteria

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Figure 1-262

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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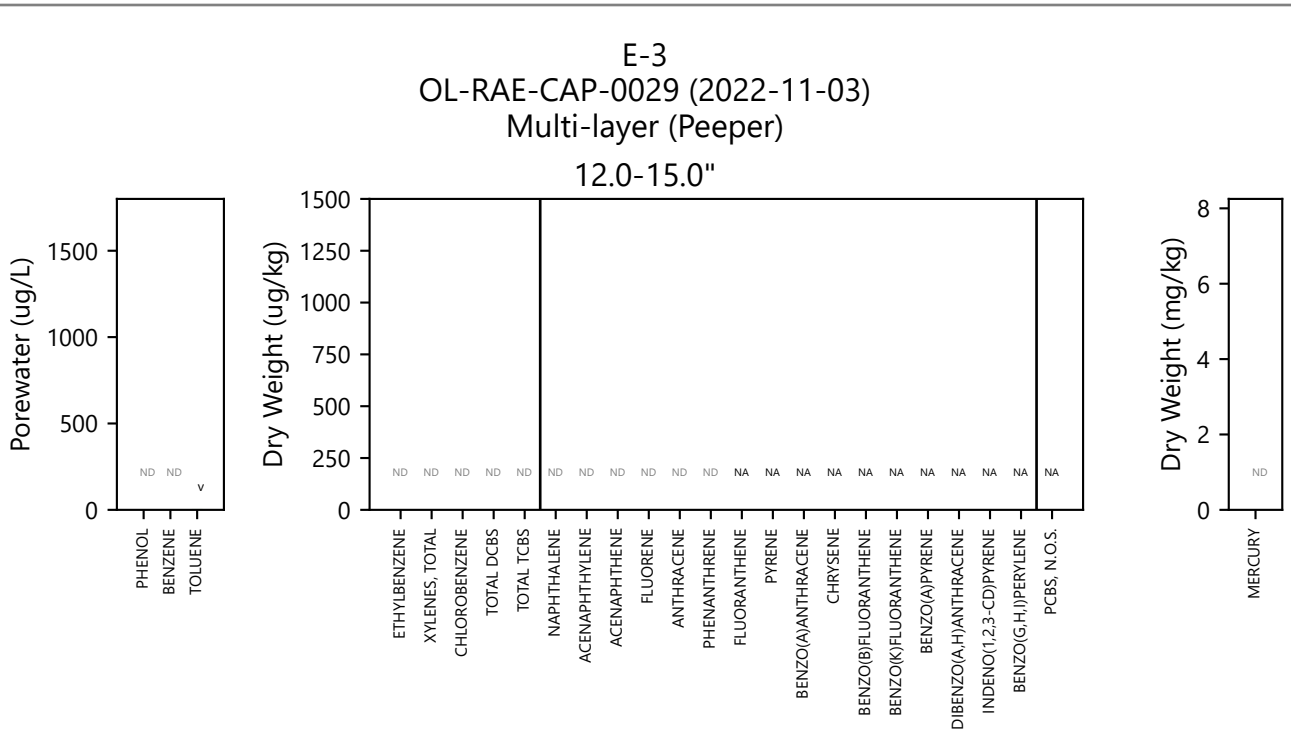
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Figure 1-263

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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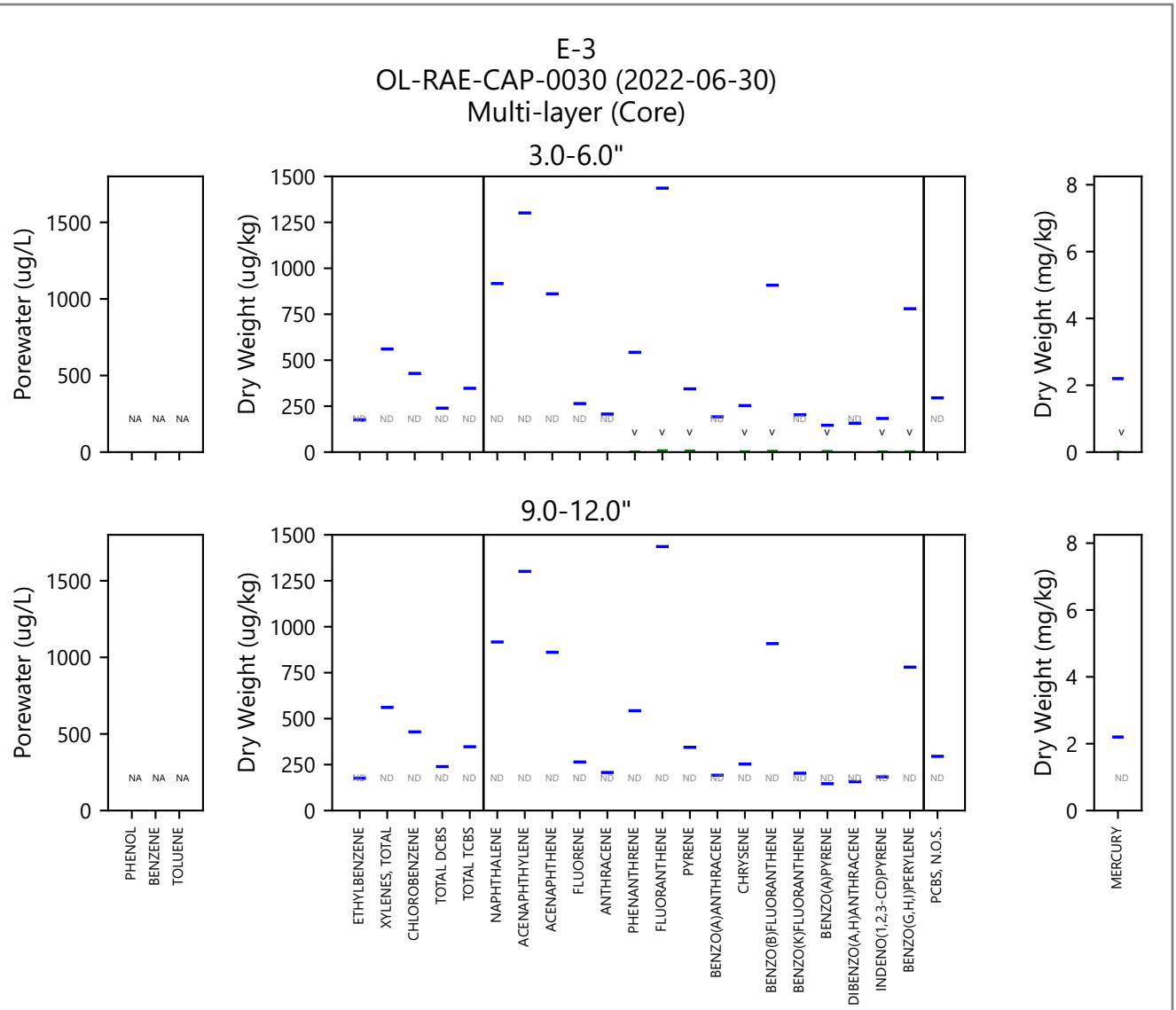
Habitat Layer Performance Criteria

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Figure 1-264

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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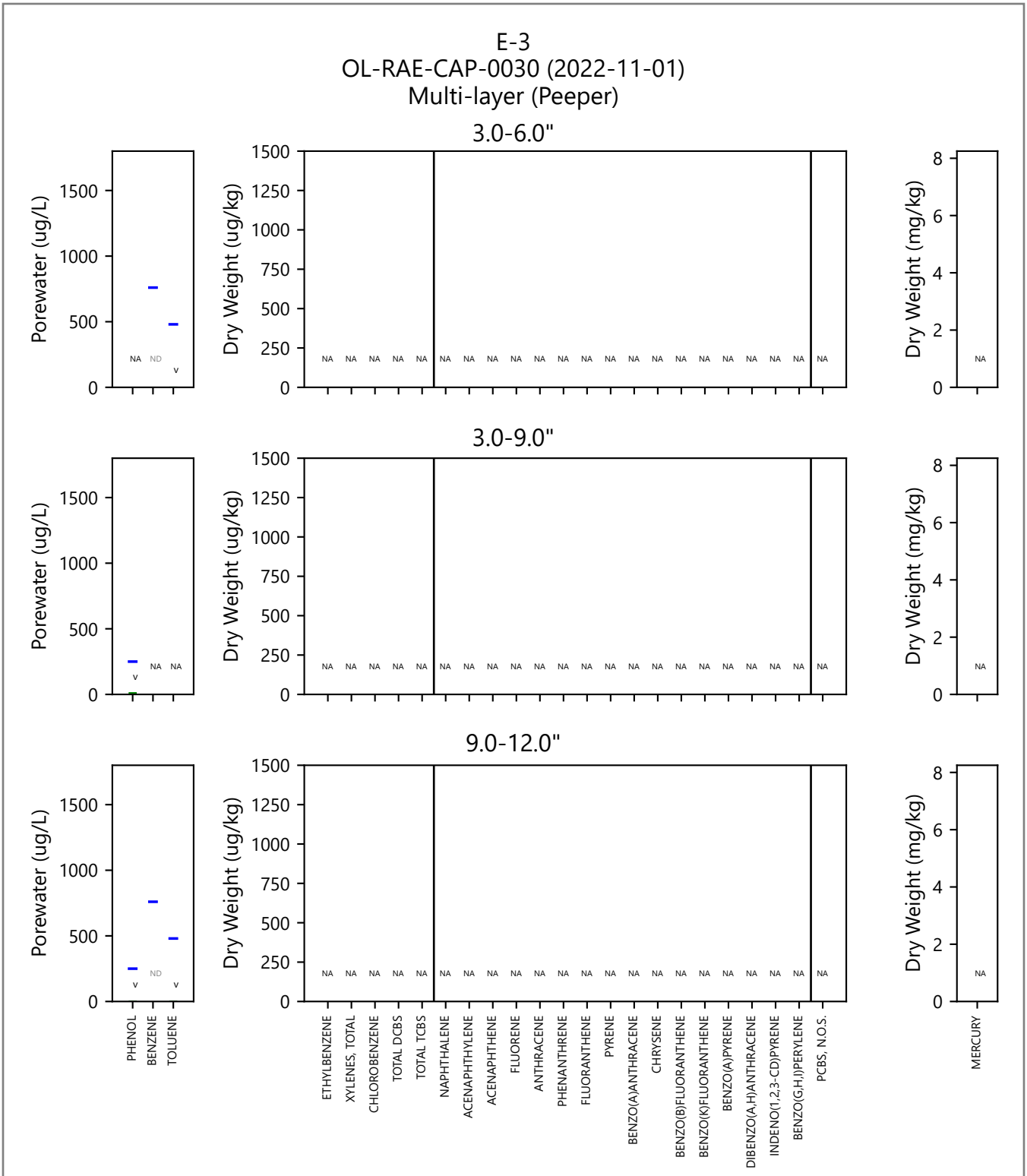
Habitat Layer Performance Criteria

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Figure 1-265

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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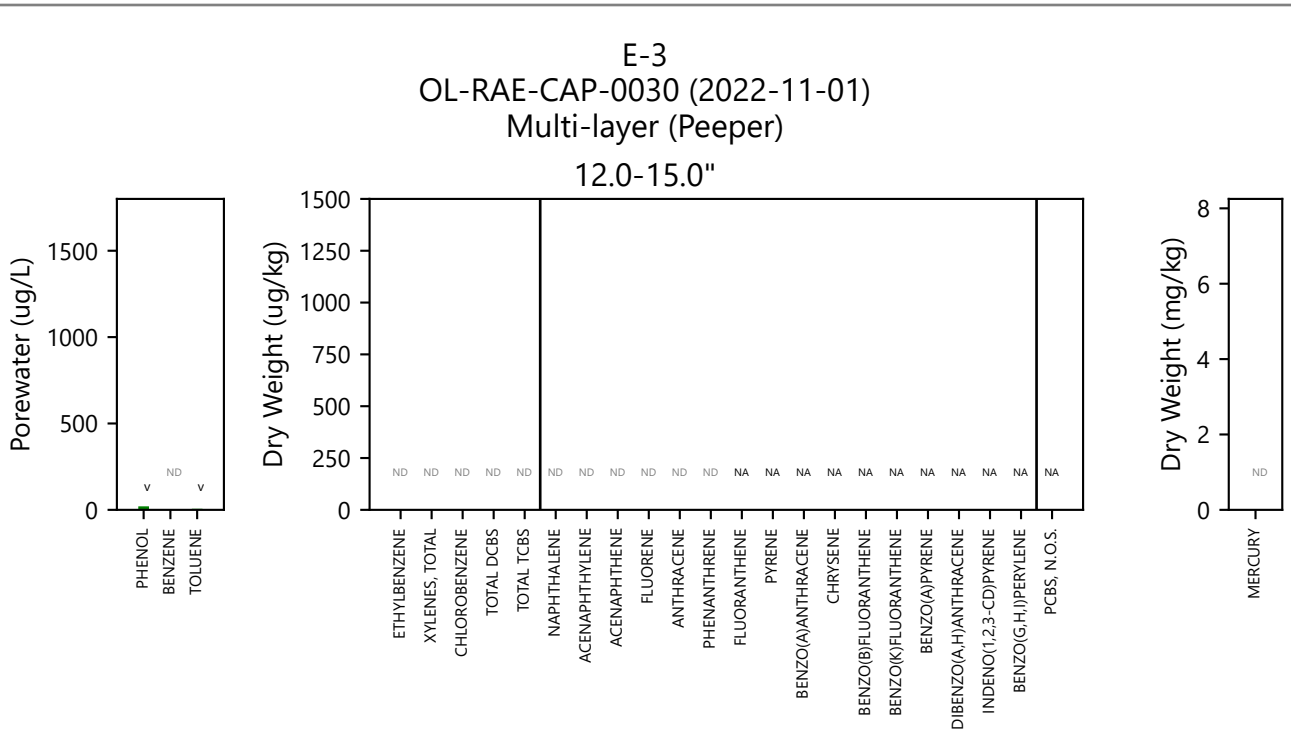
Habitat Layer Performance Criteria

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Figure 1-266

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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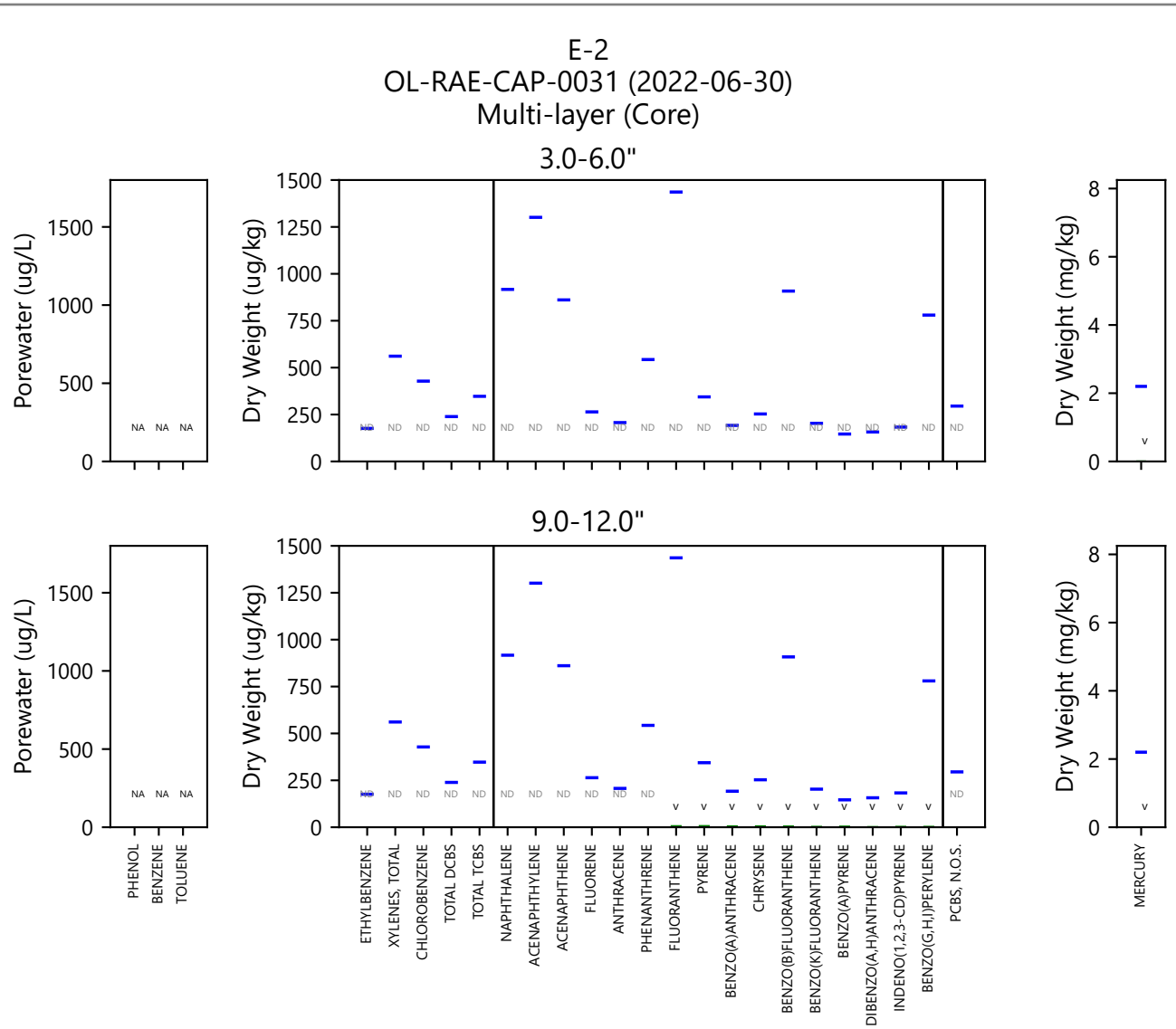
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Figure 1-267

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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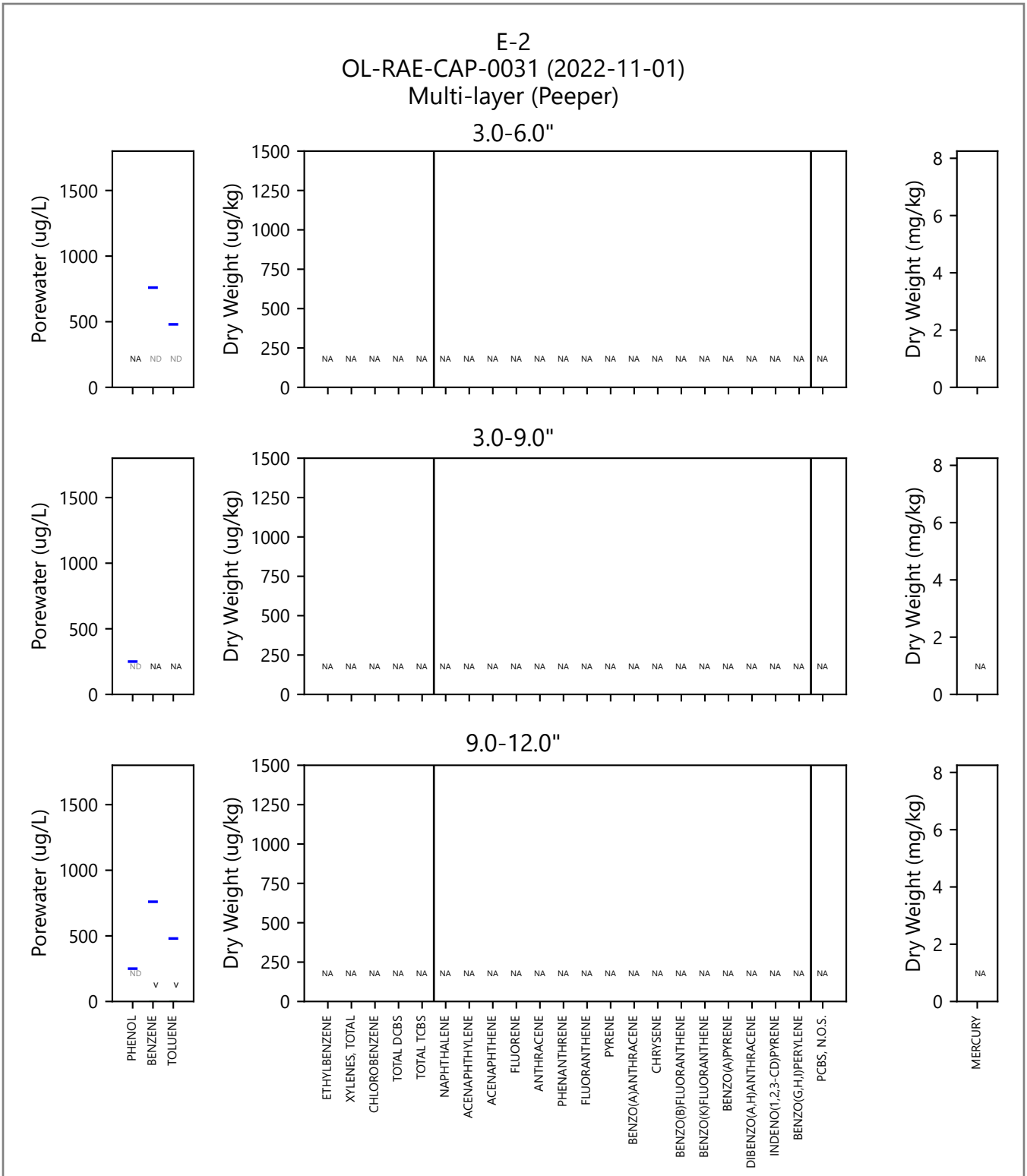
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Figure 1-268

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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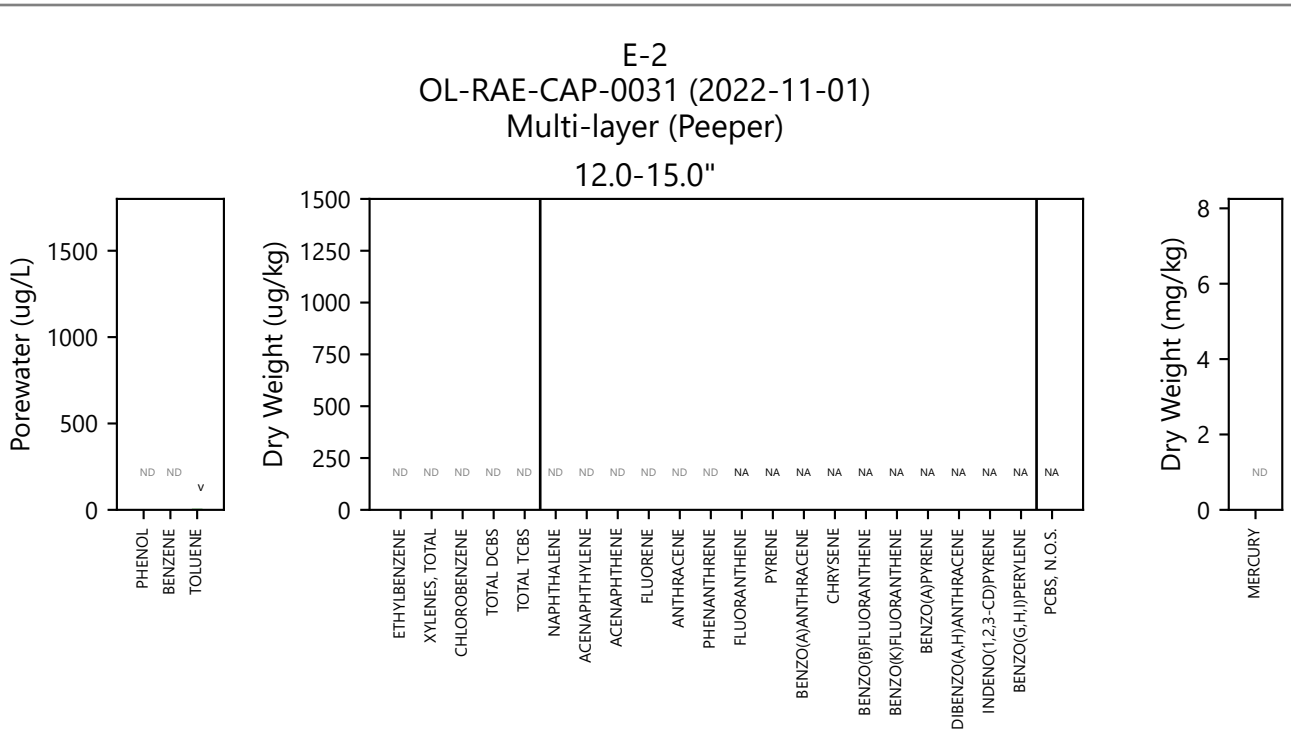
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Figure 1-269

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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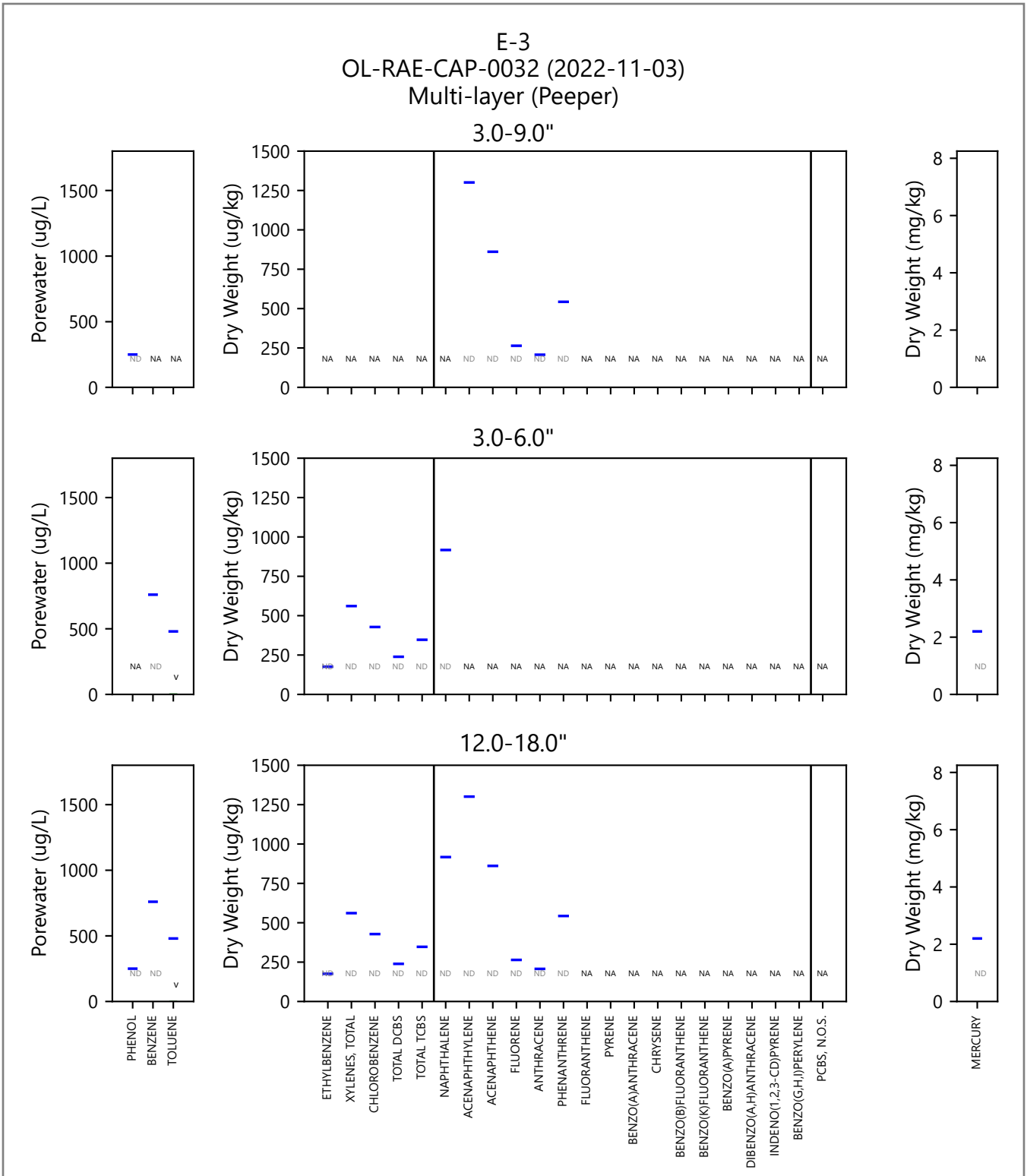
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Figure 1-270

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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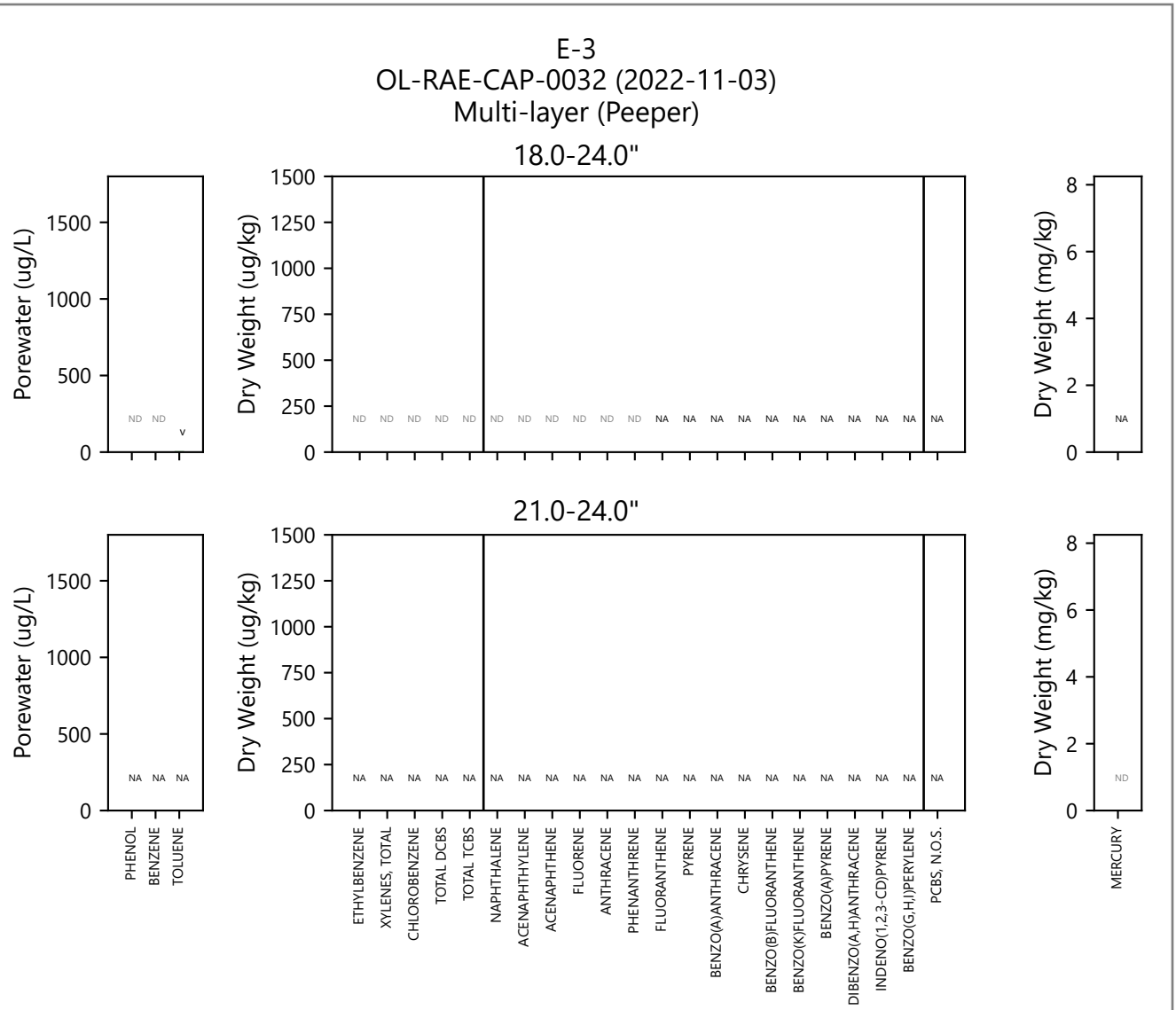
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Figure 1-271

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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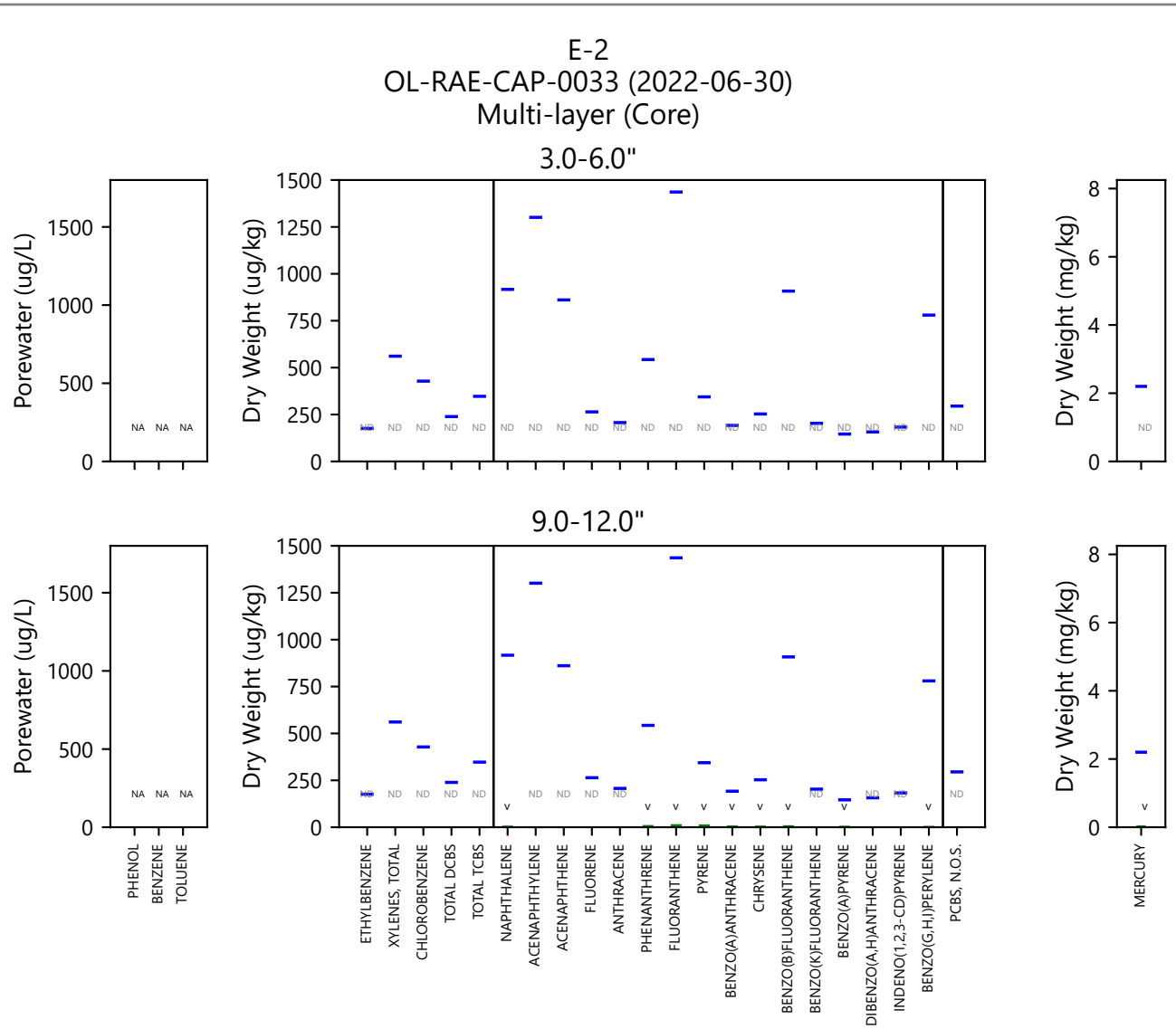
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Figure 1-272

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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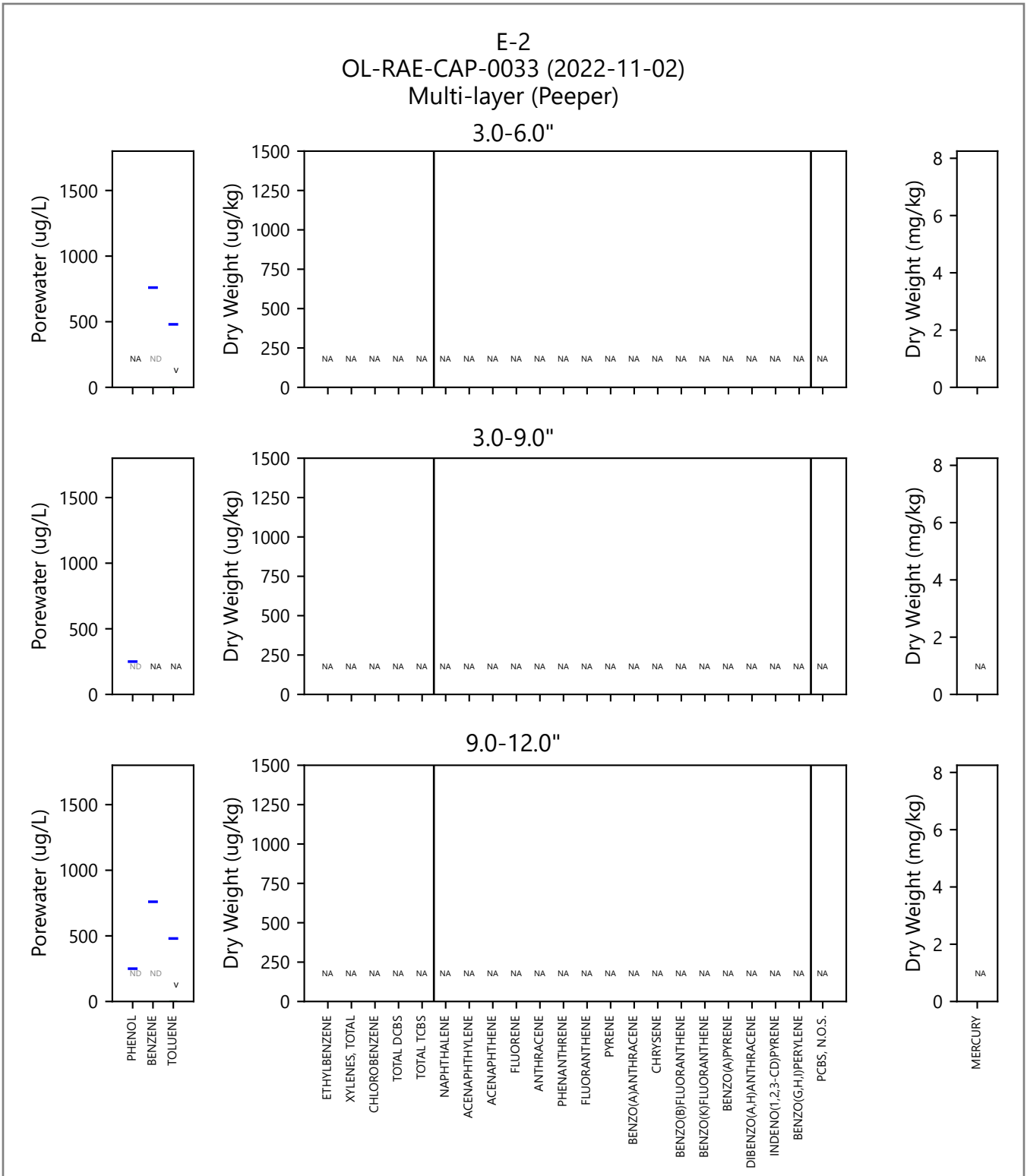
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Figure 1-273

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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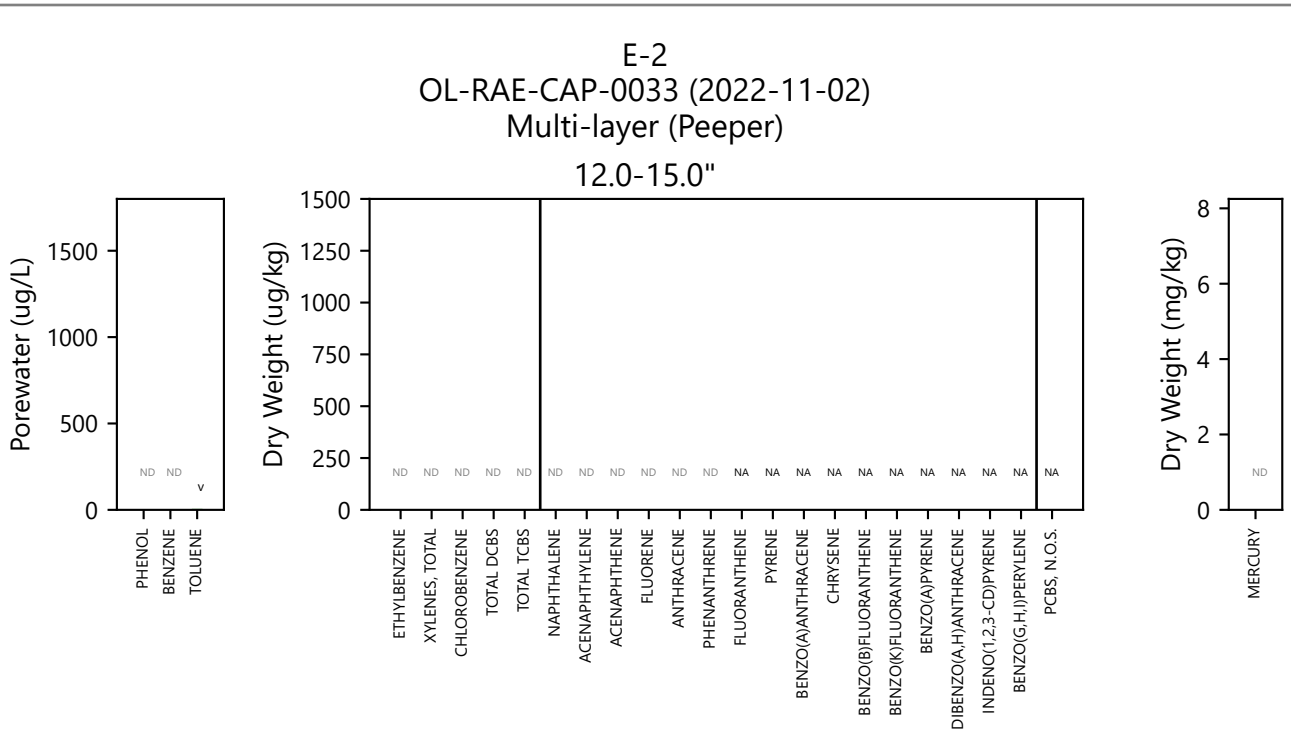
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Figure 1-274

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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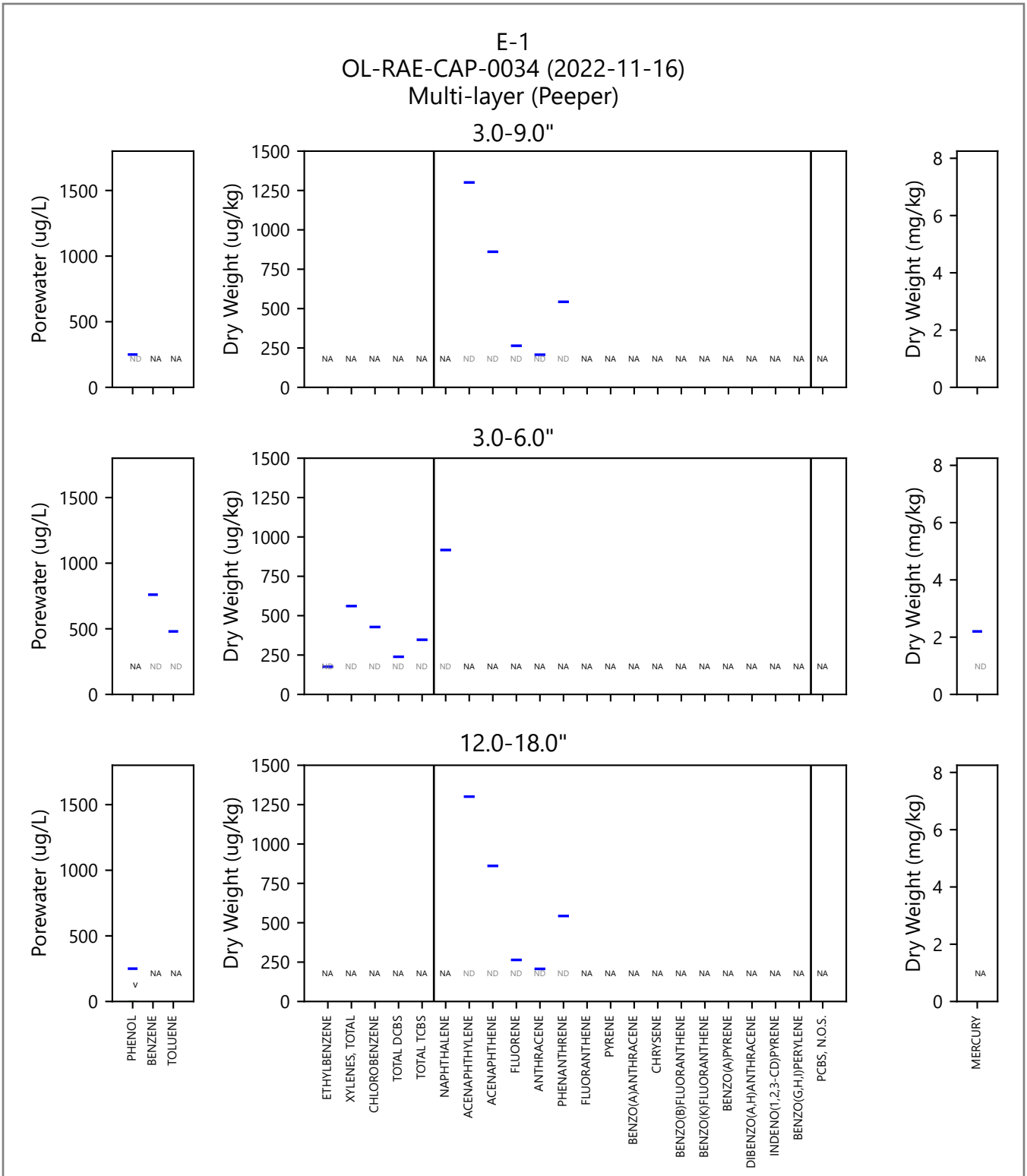
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Figure 1-275

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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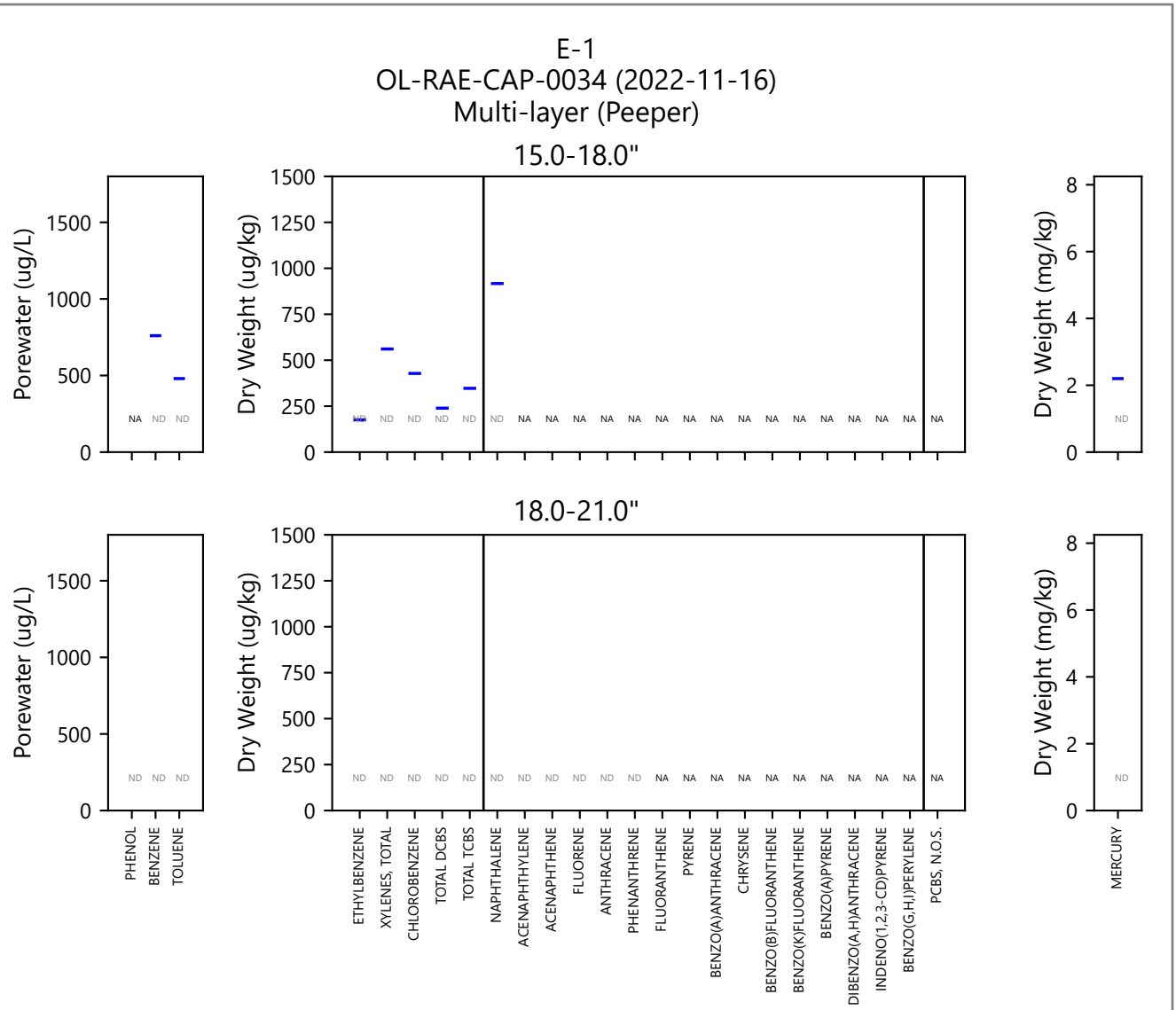
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Figure 1-276

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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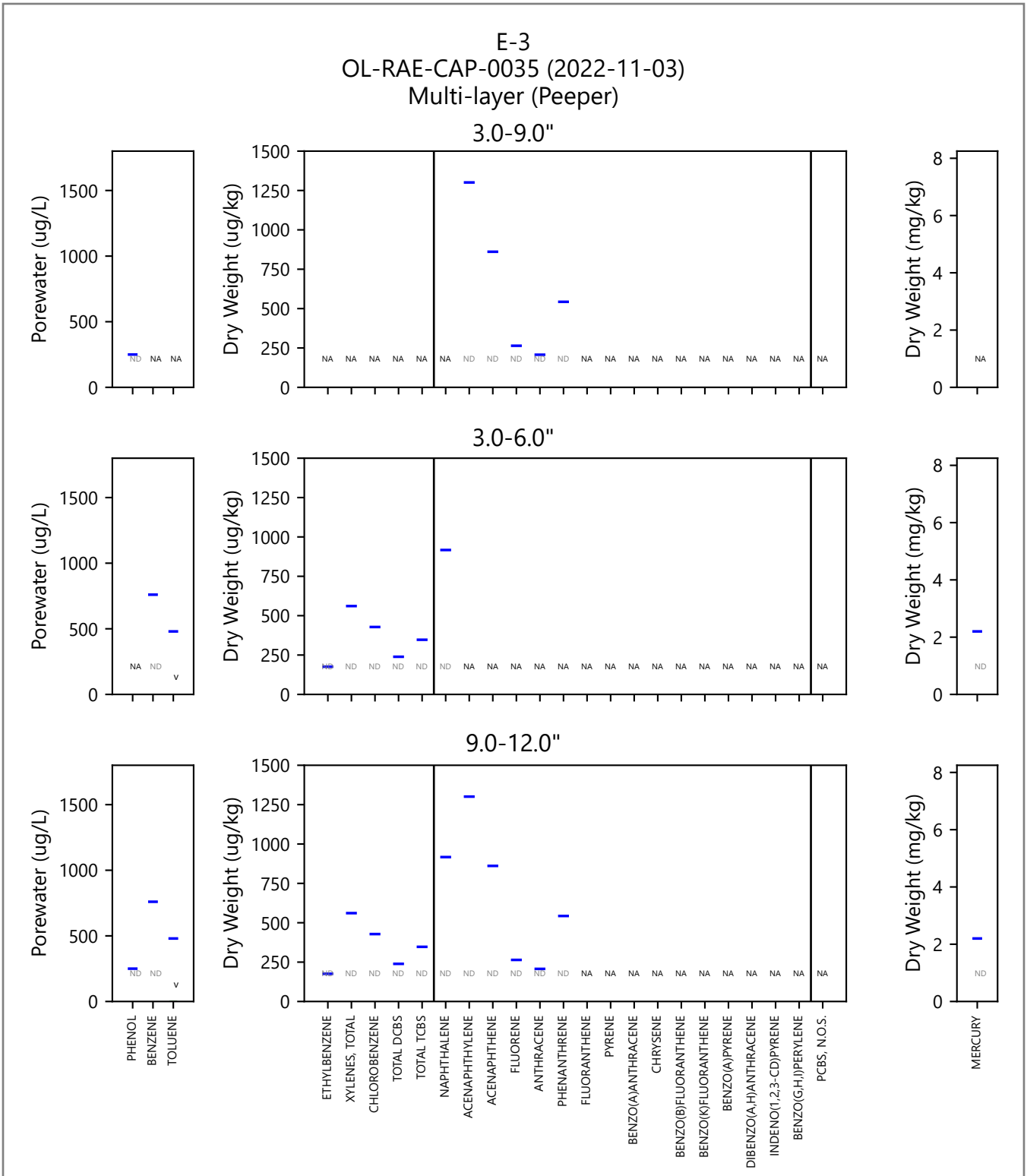
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Figure 1-277

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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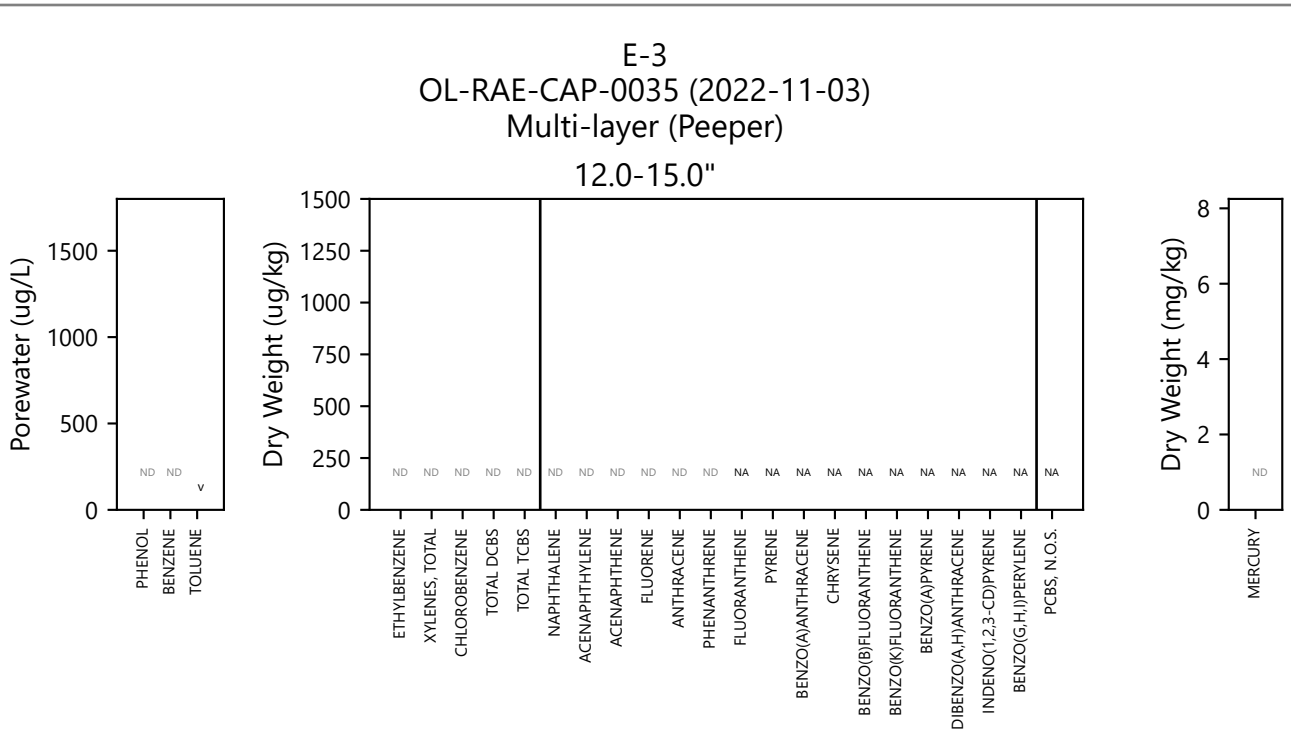
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Figure 1-278

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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Total DCBs is the sum of the detected DCB isomers. Total TCBs is the sum of the detected TCB isomers.

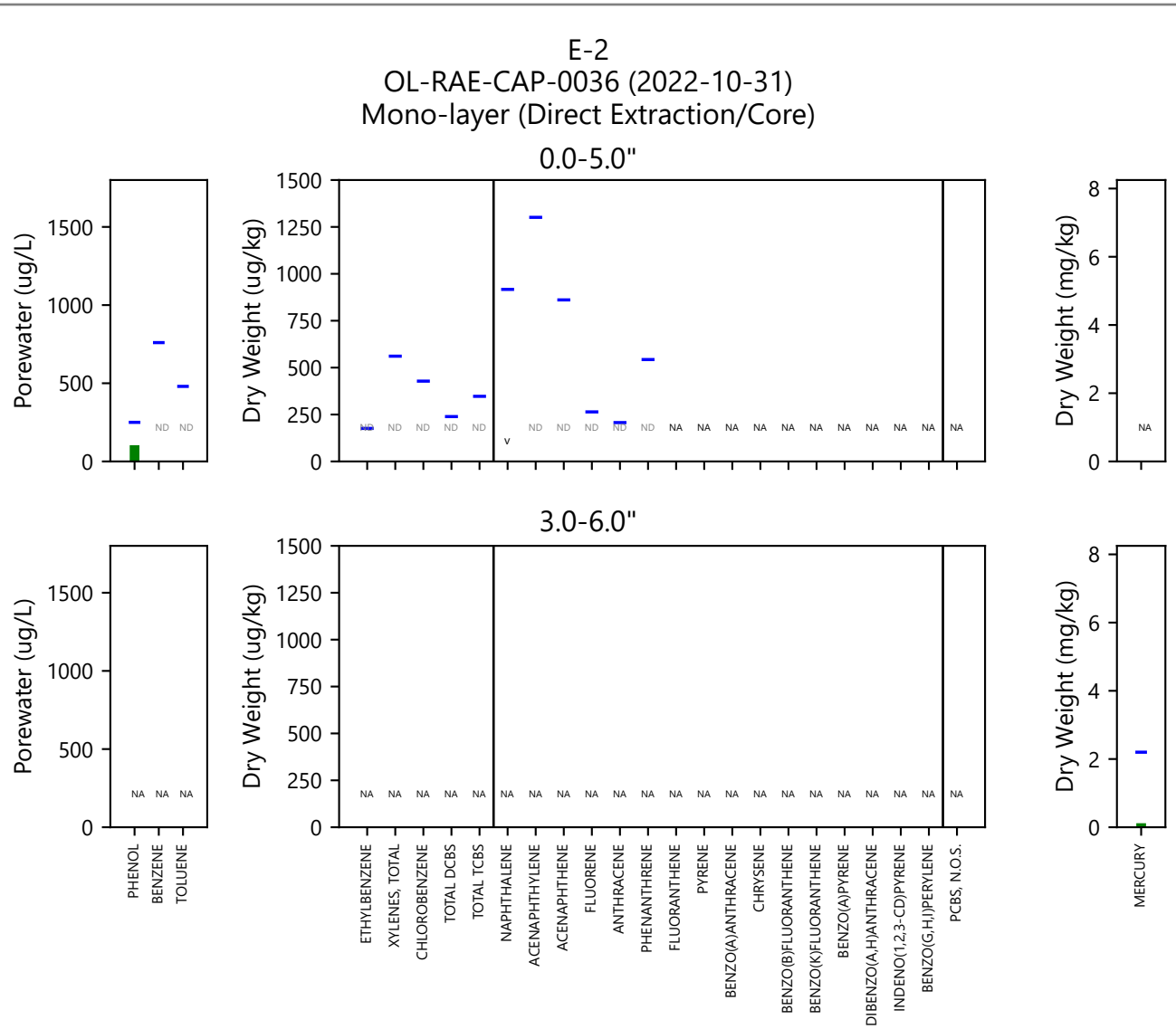
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Figure 1-279

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
Non-detect values greater than the performance criteria are set to the detection limit and shown as an open bar. NA=not analyzed.
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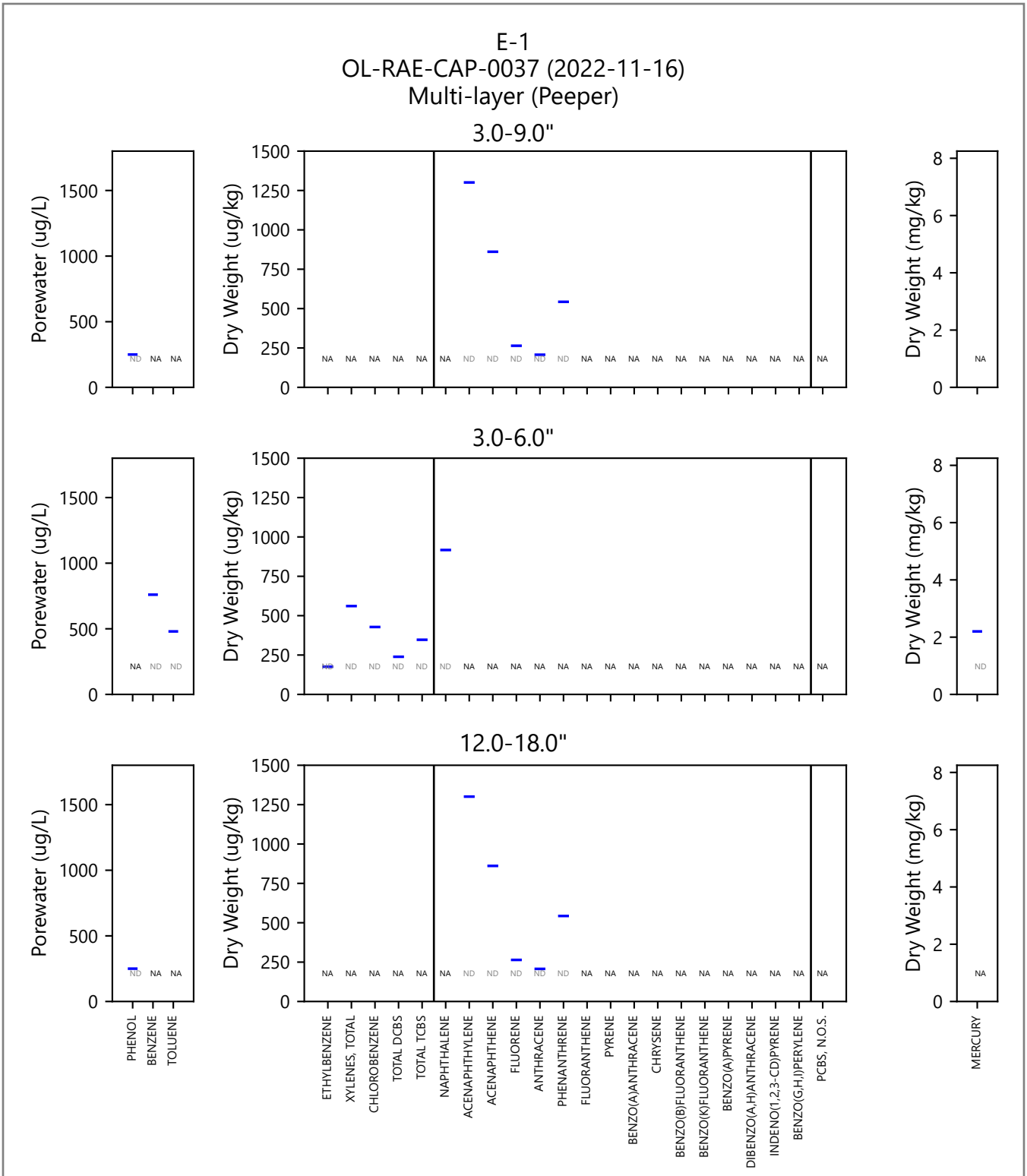
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Figure 1-280

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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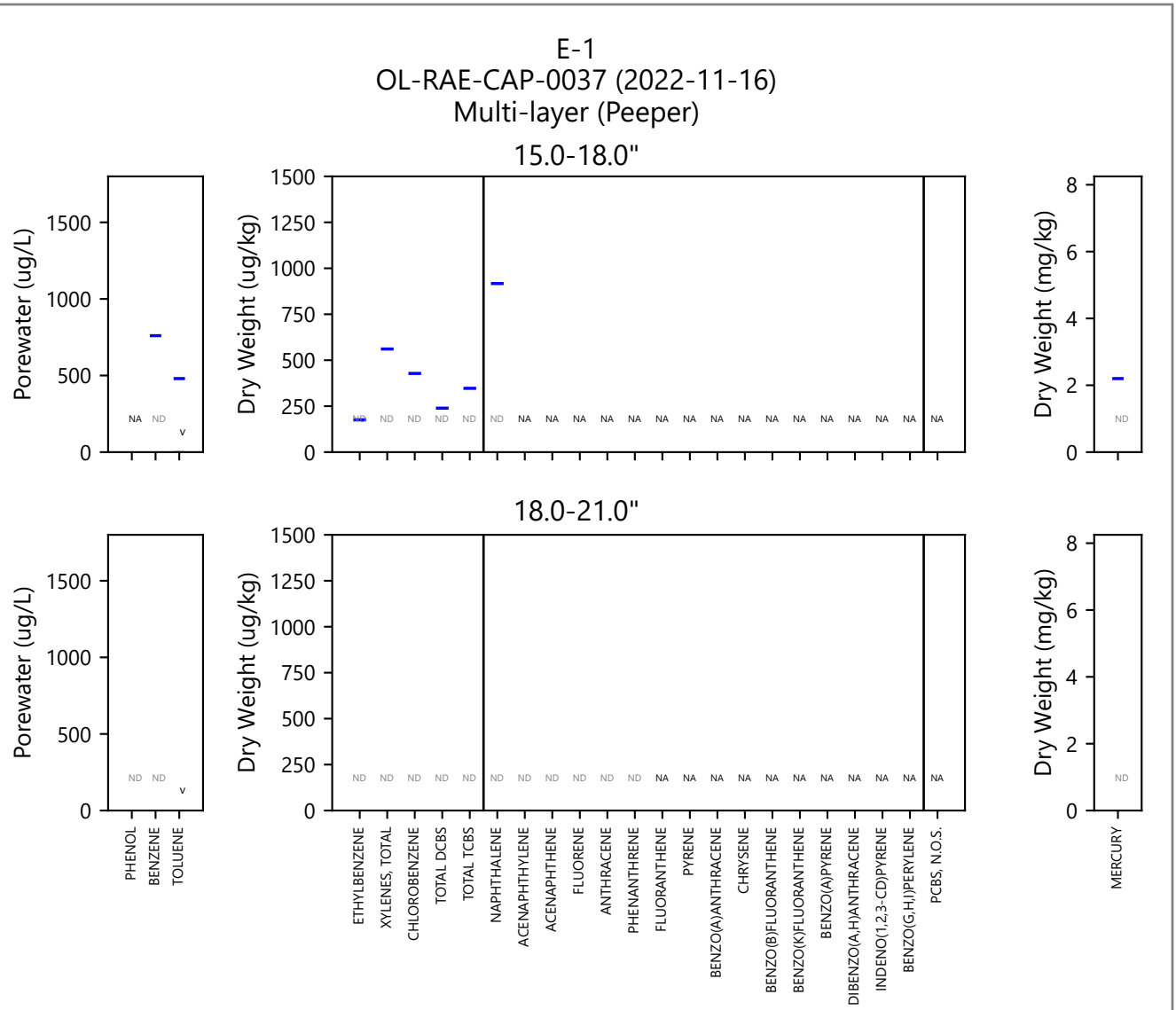
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Figure 1-281

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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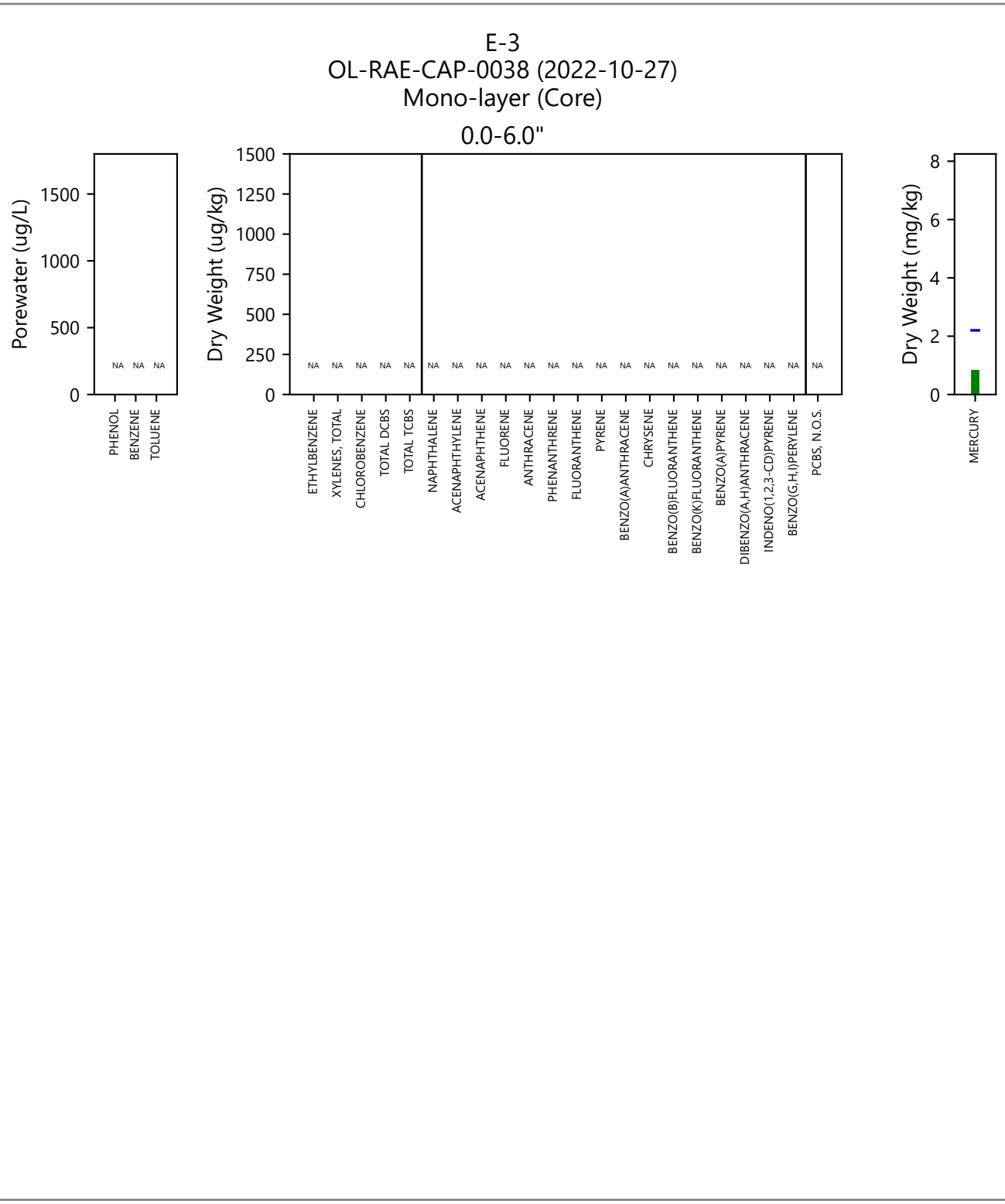
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Figure 1-282

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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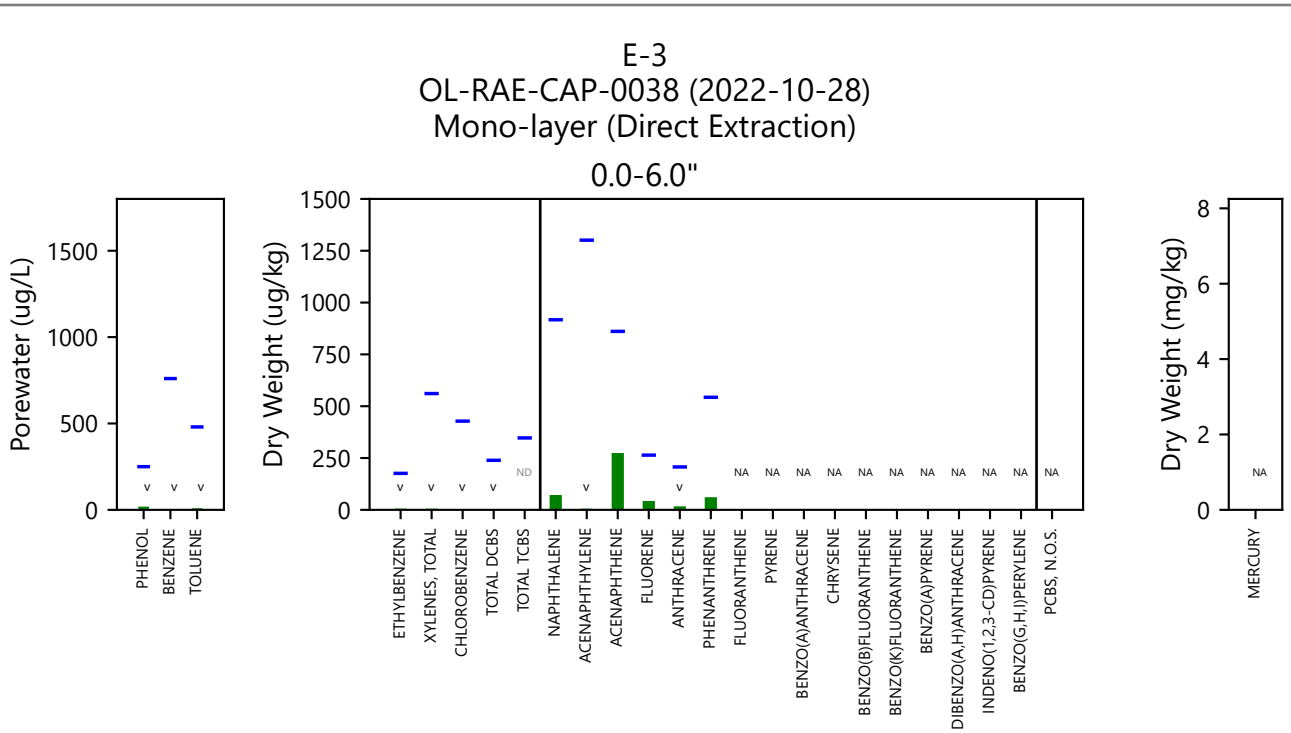
- Habitat Layer Performance Criteria

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Figure 1-283

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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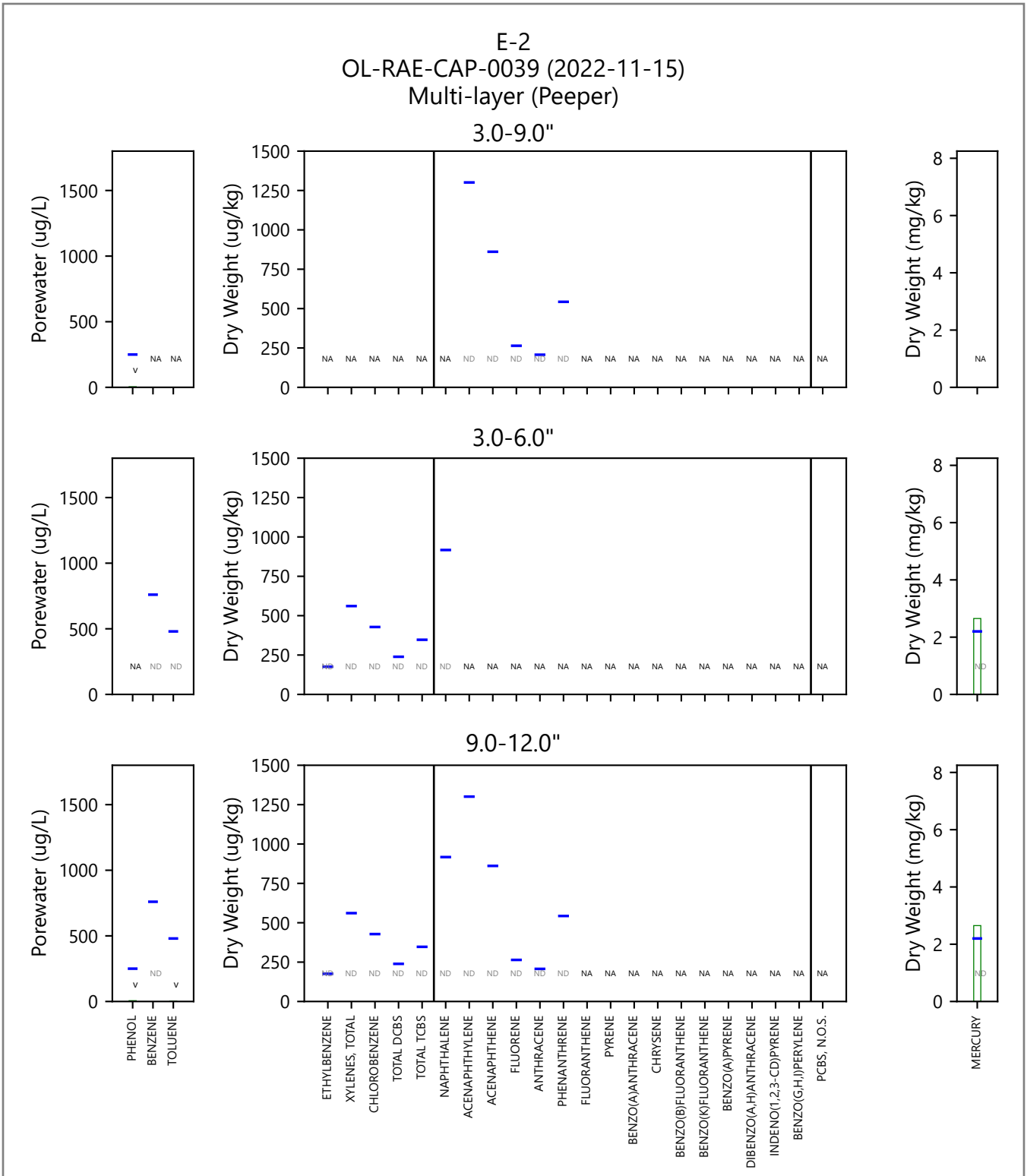
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Figure 1-284

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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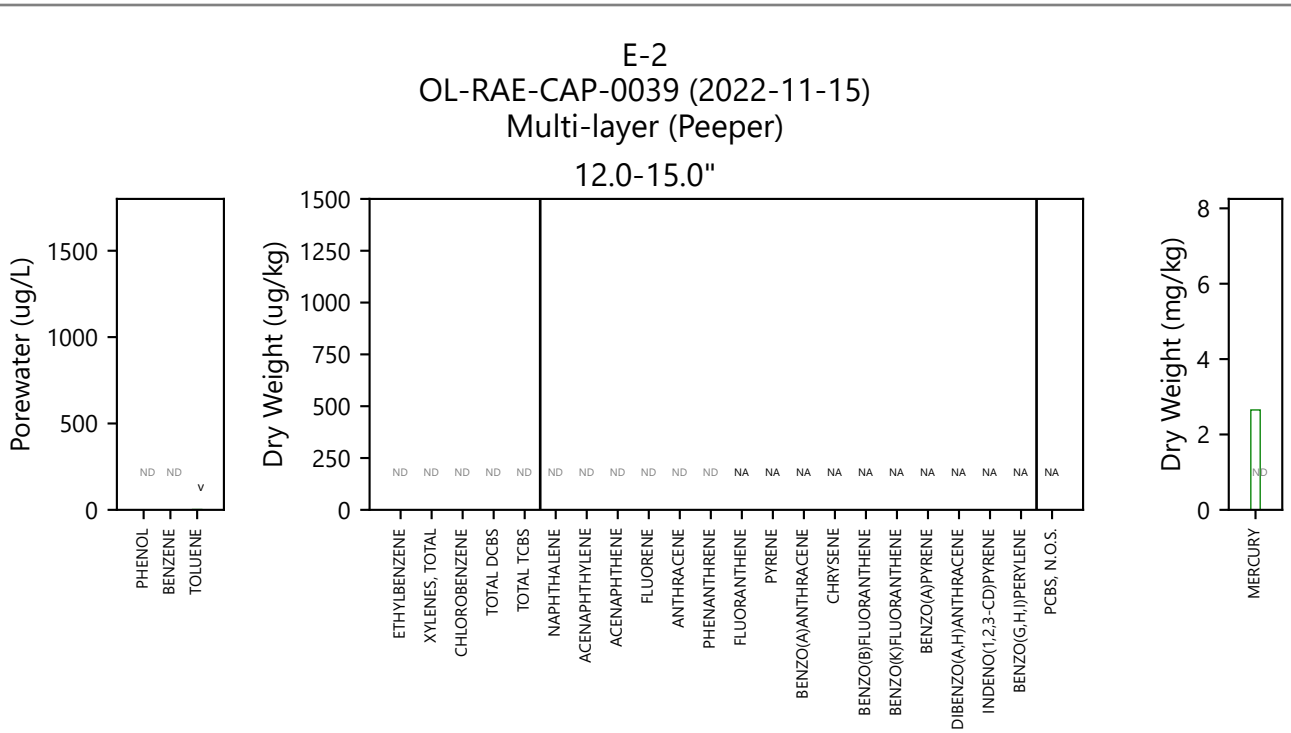
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Figure 1-285

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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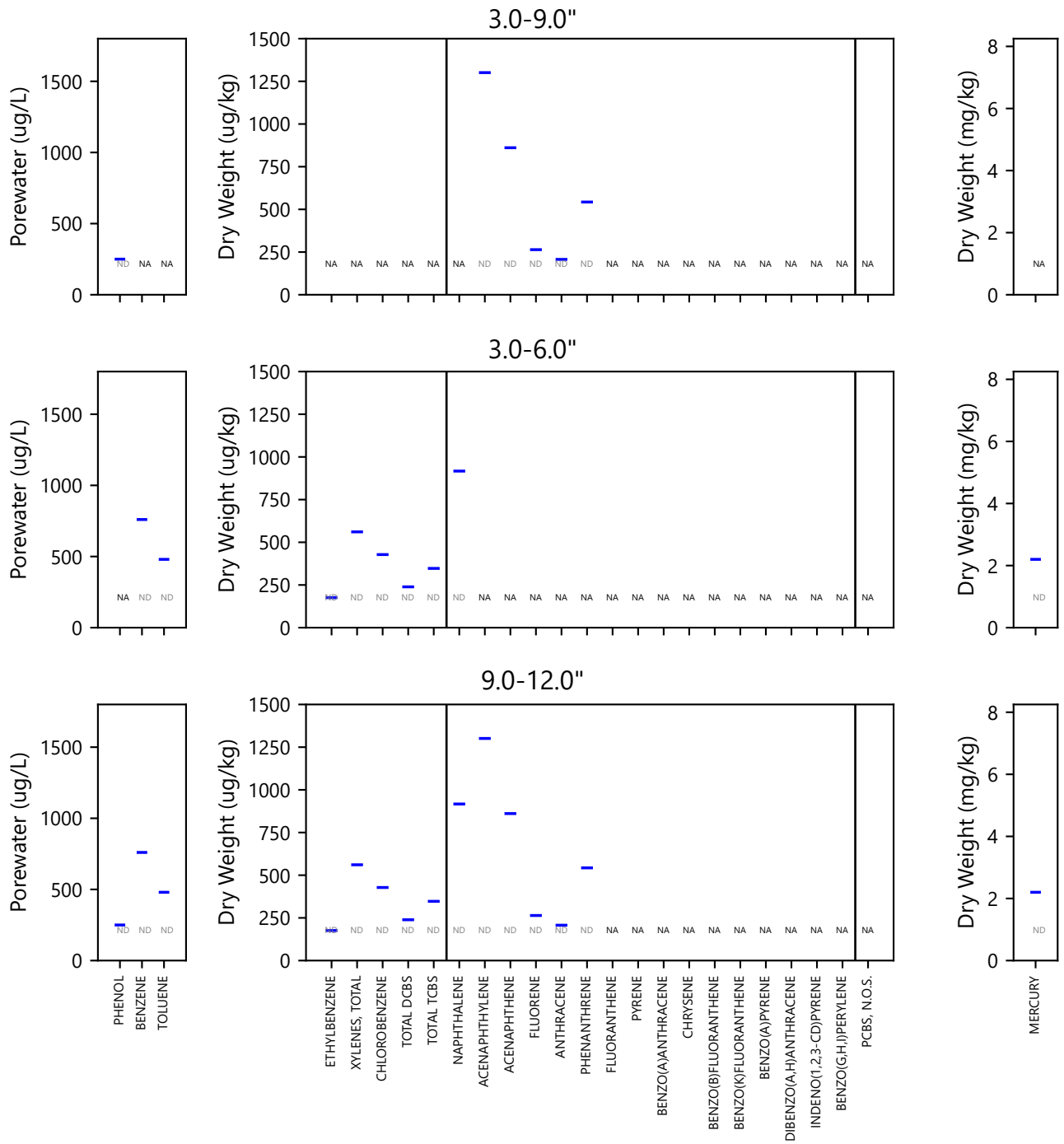
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Figure 1-286

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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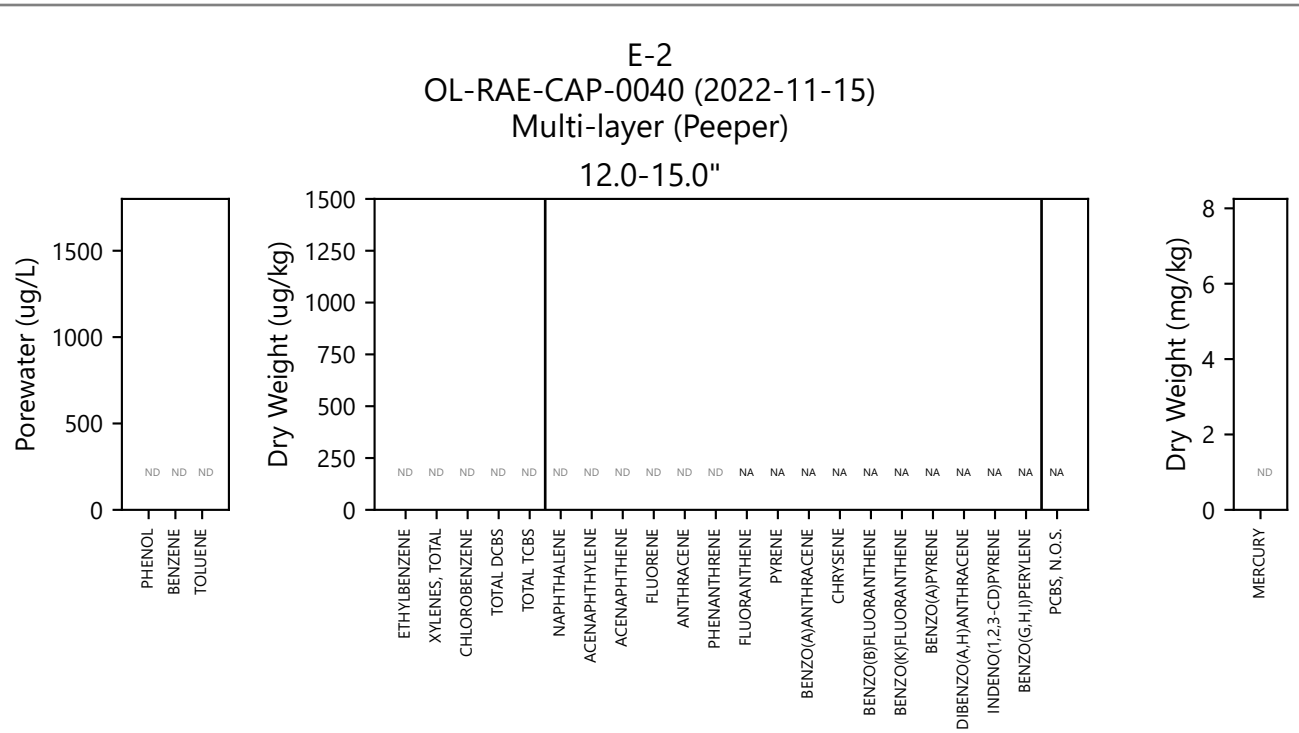
Habitat Layer Performance Criteria

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Figure 1-287

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



Non-detect values less than the performance criteria are indicated by "ND" above the x axis.
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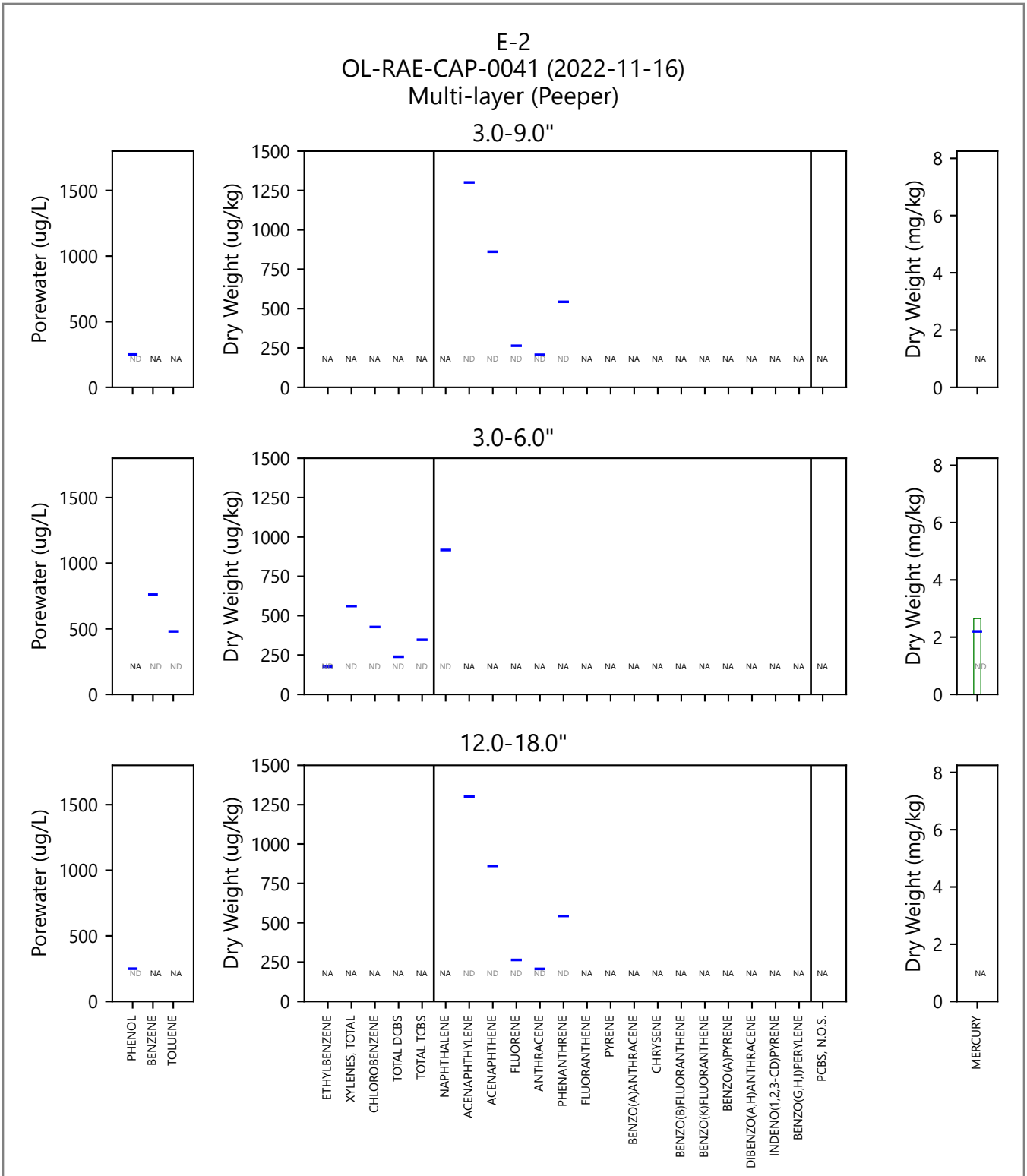
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Figure 1-288

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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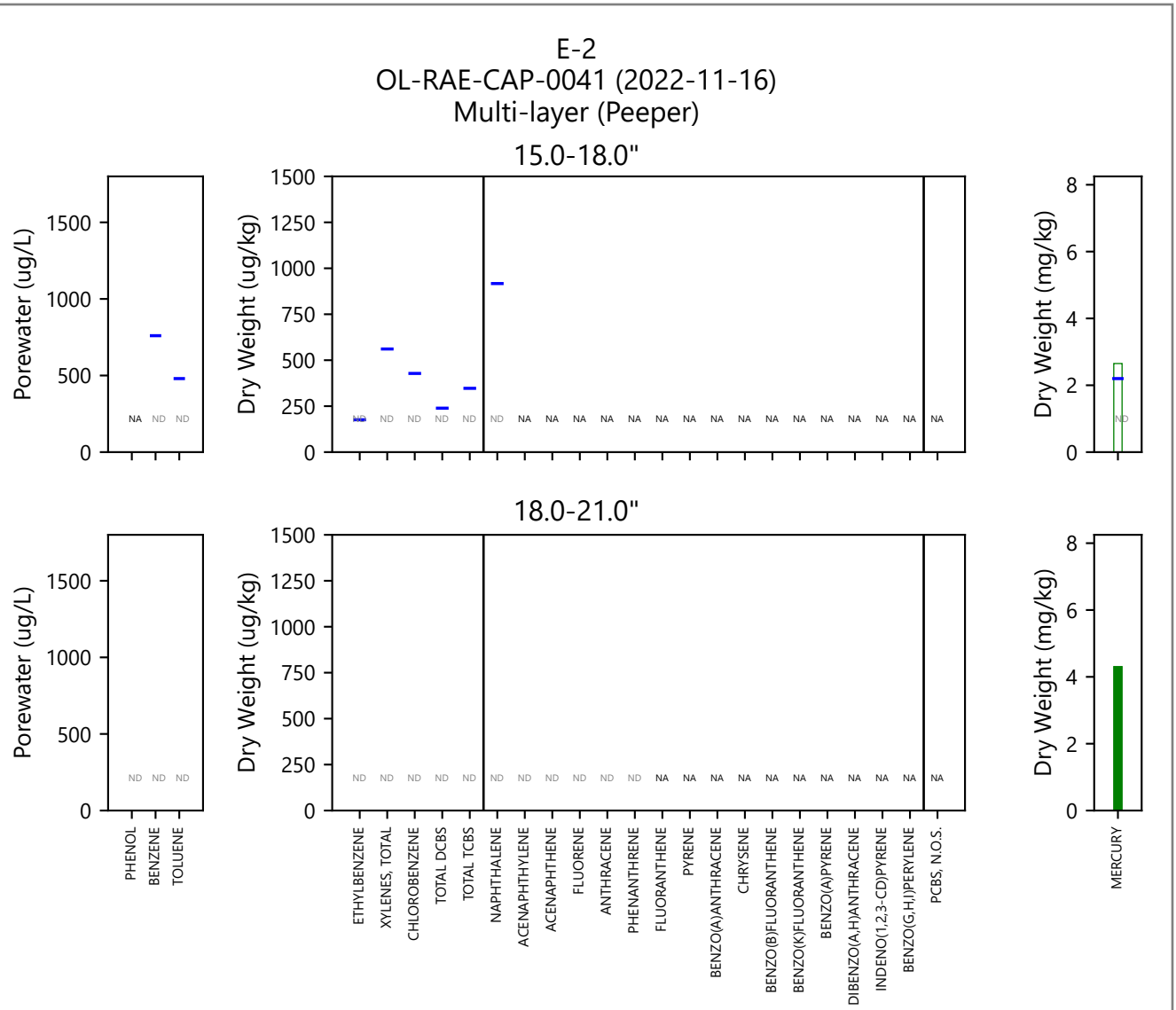
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Figure 1-289

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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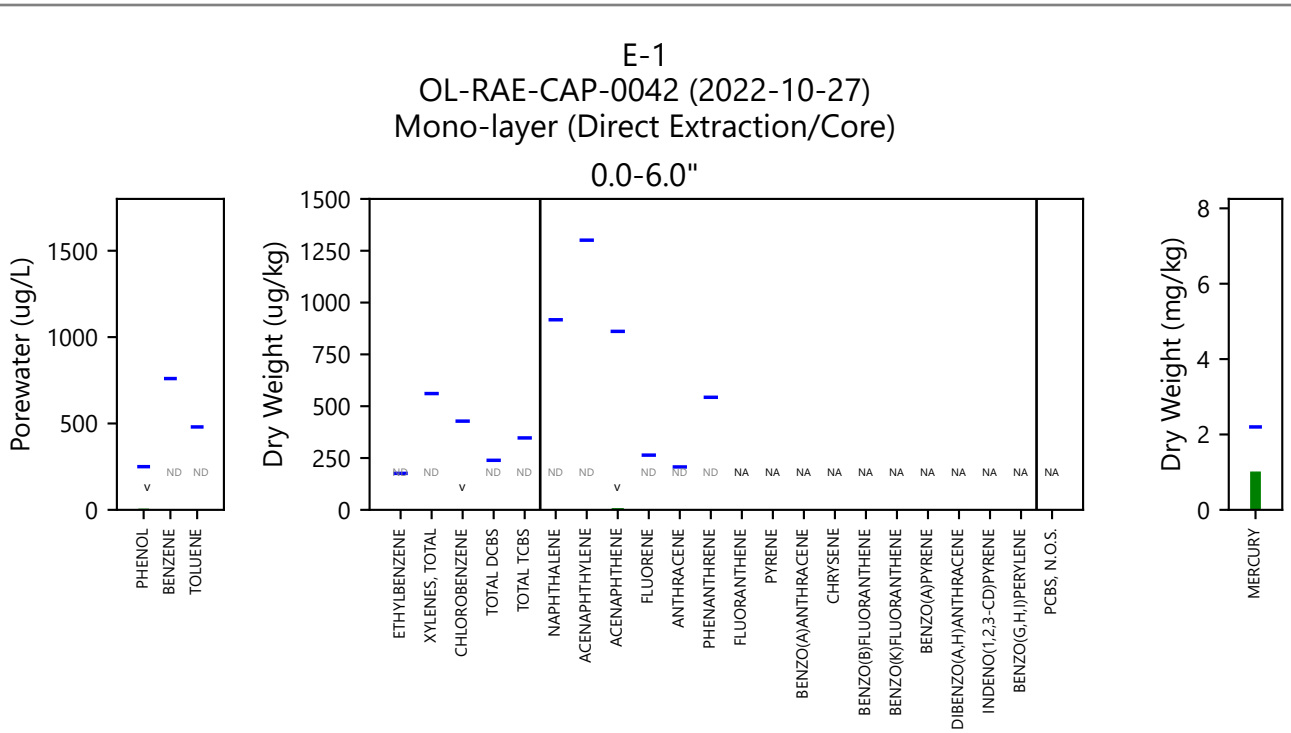
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Figure 1-290

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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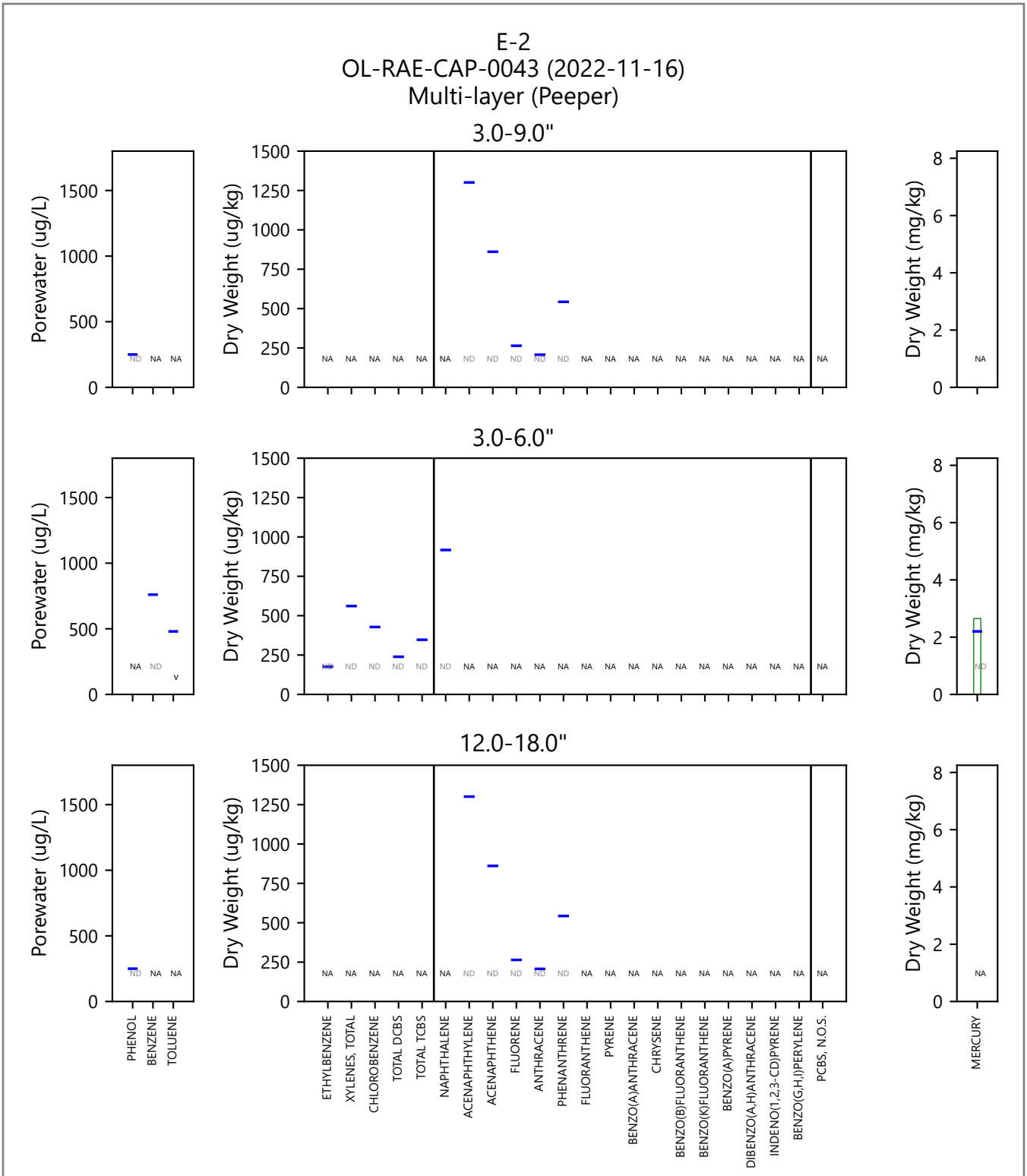
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Figure 1-291

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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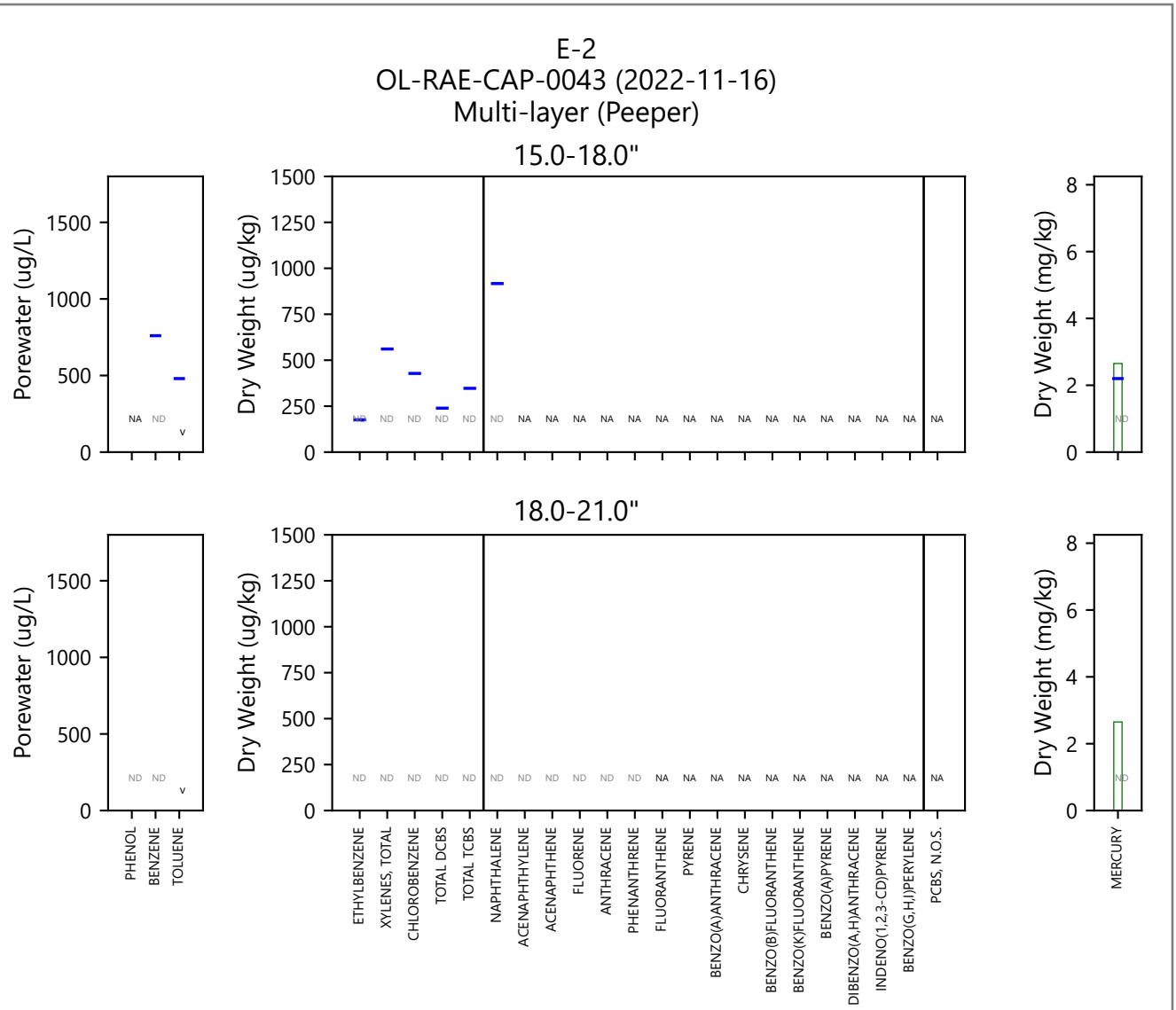
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Figure 1-292

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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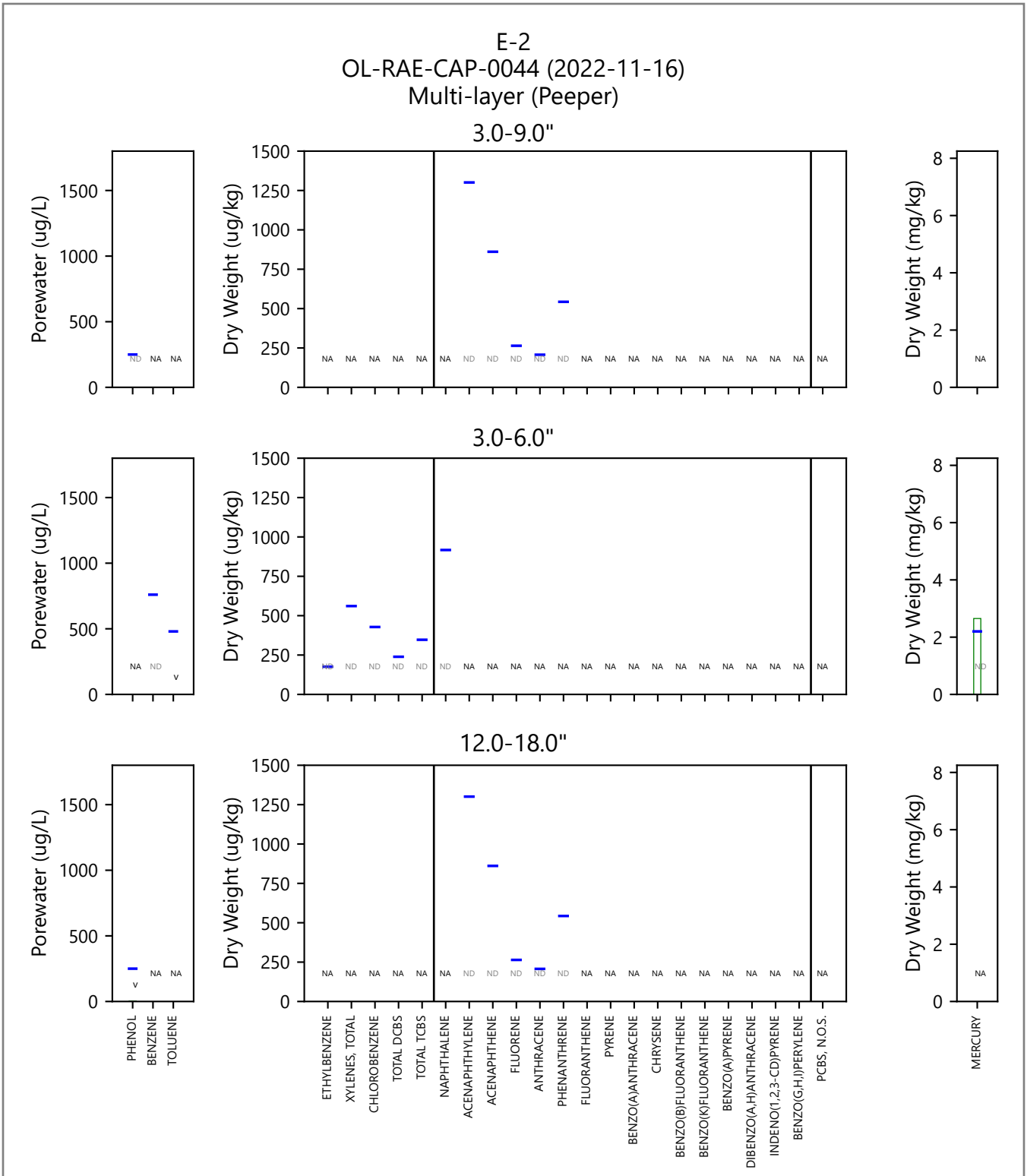
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Figure 1-293

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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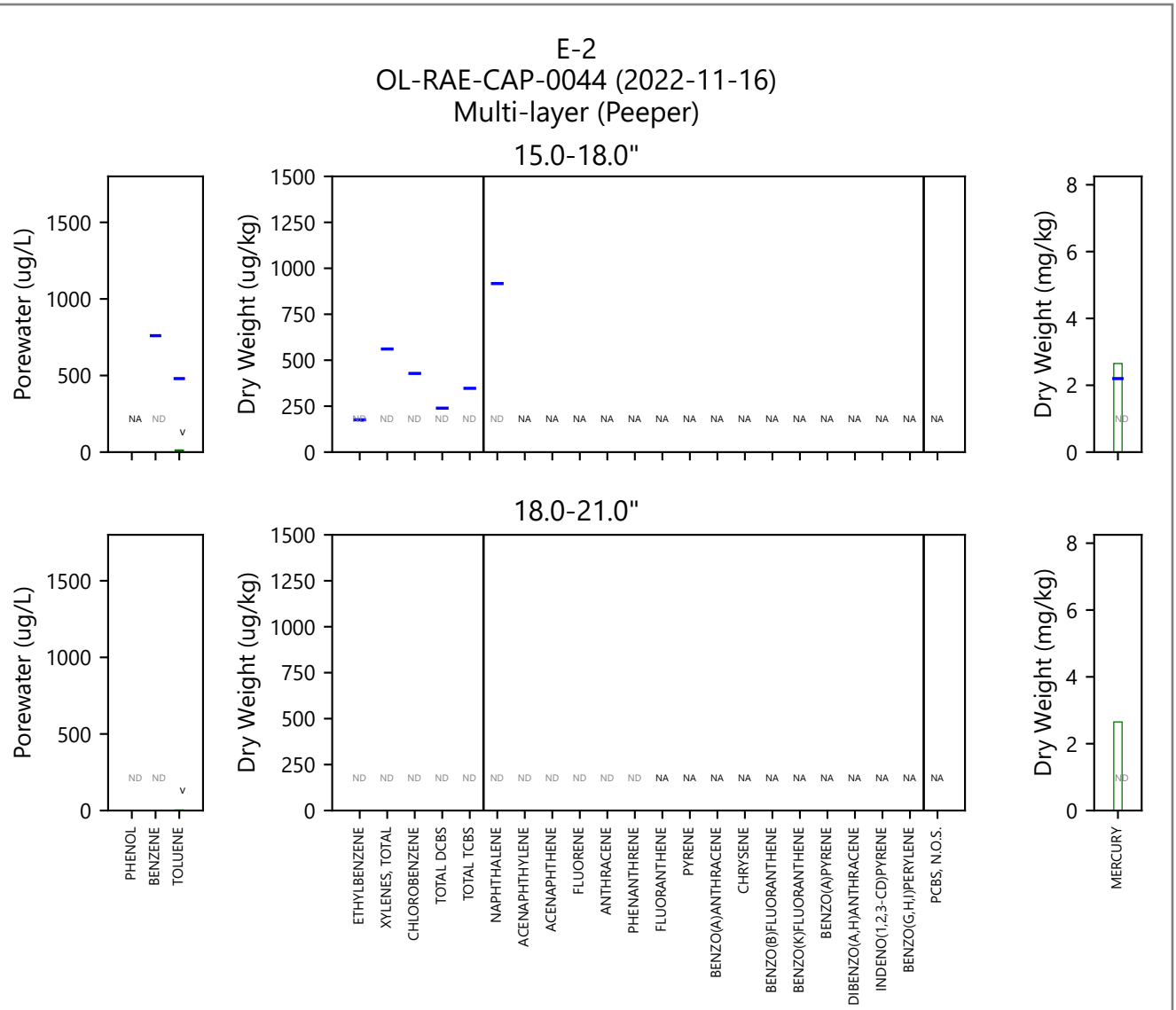
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Figure 1-294

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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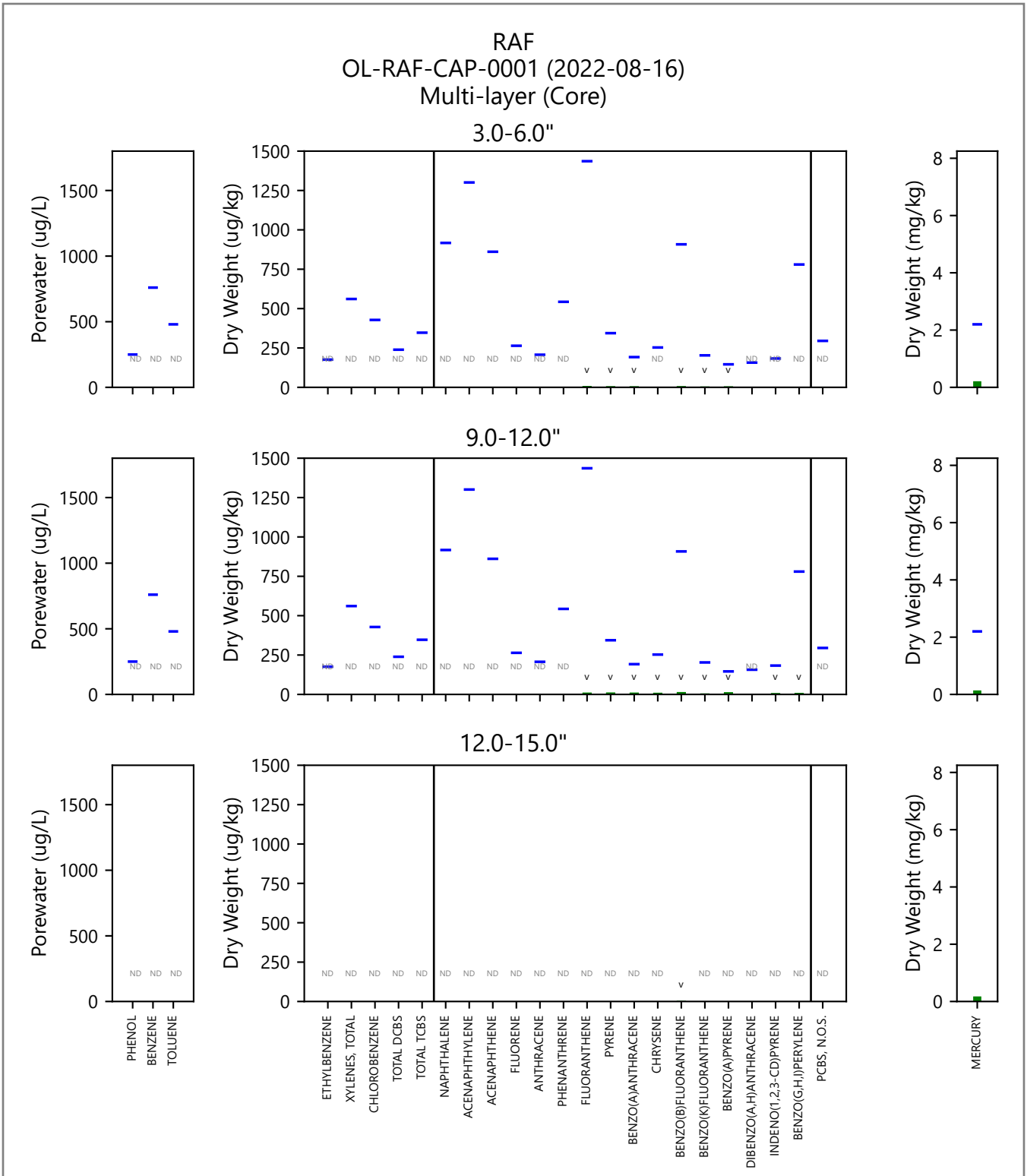
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Figure 1-295

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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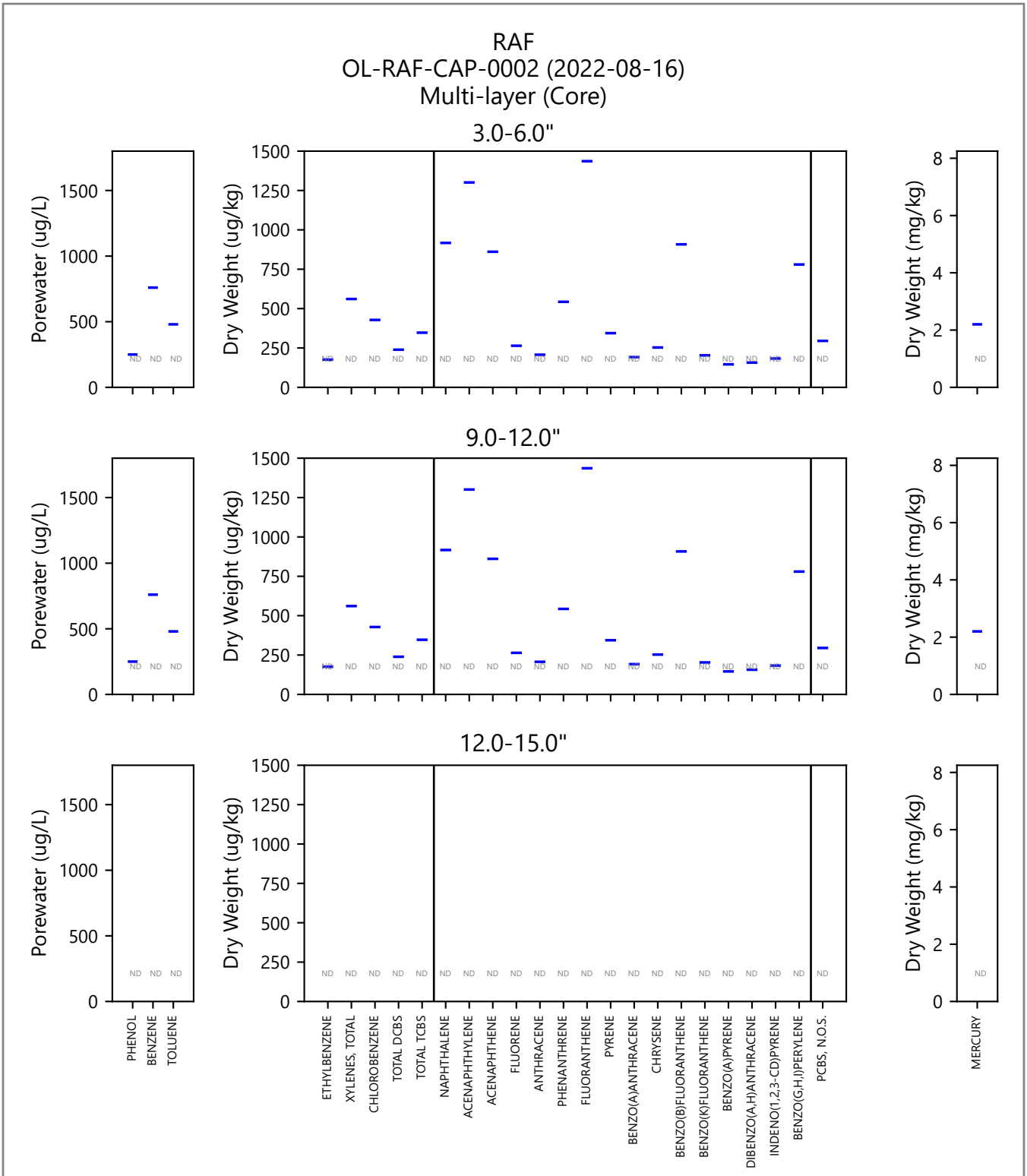
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Figure 1-296

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM



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Habitat Layer Performance Criteria

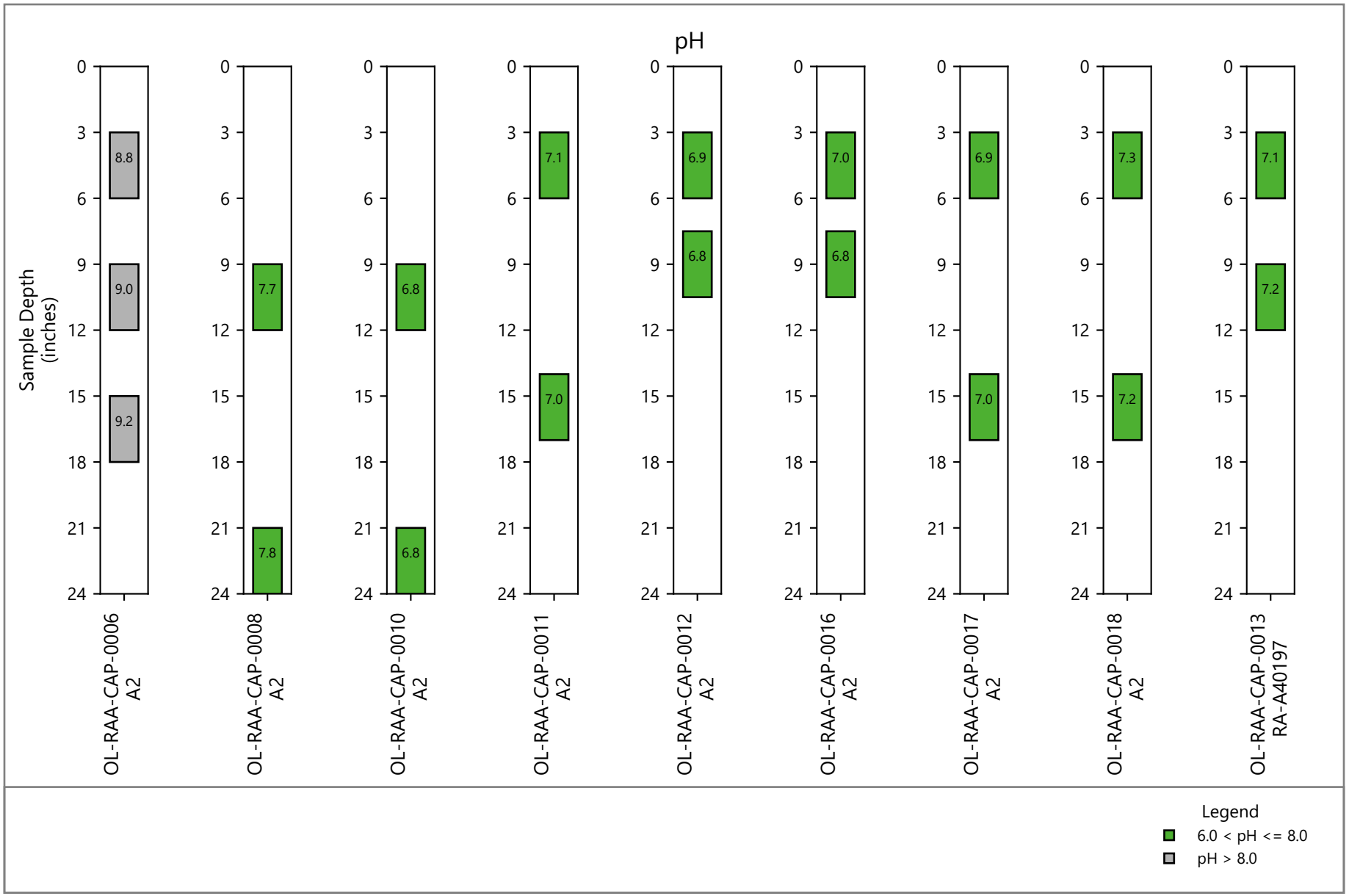
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Figure 1-297

Onondaga Lake Cap Monitoring Results
Onondaga Lake OMM

APPENDIX 6G – 2022 PH BAR CHARTS

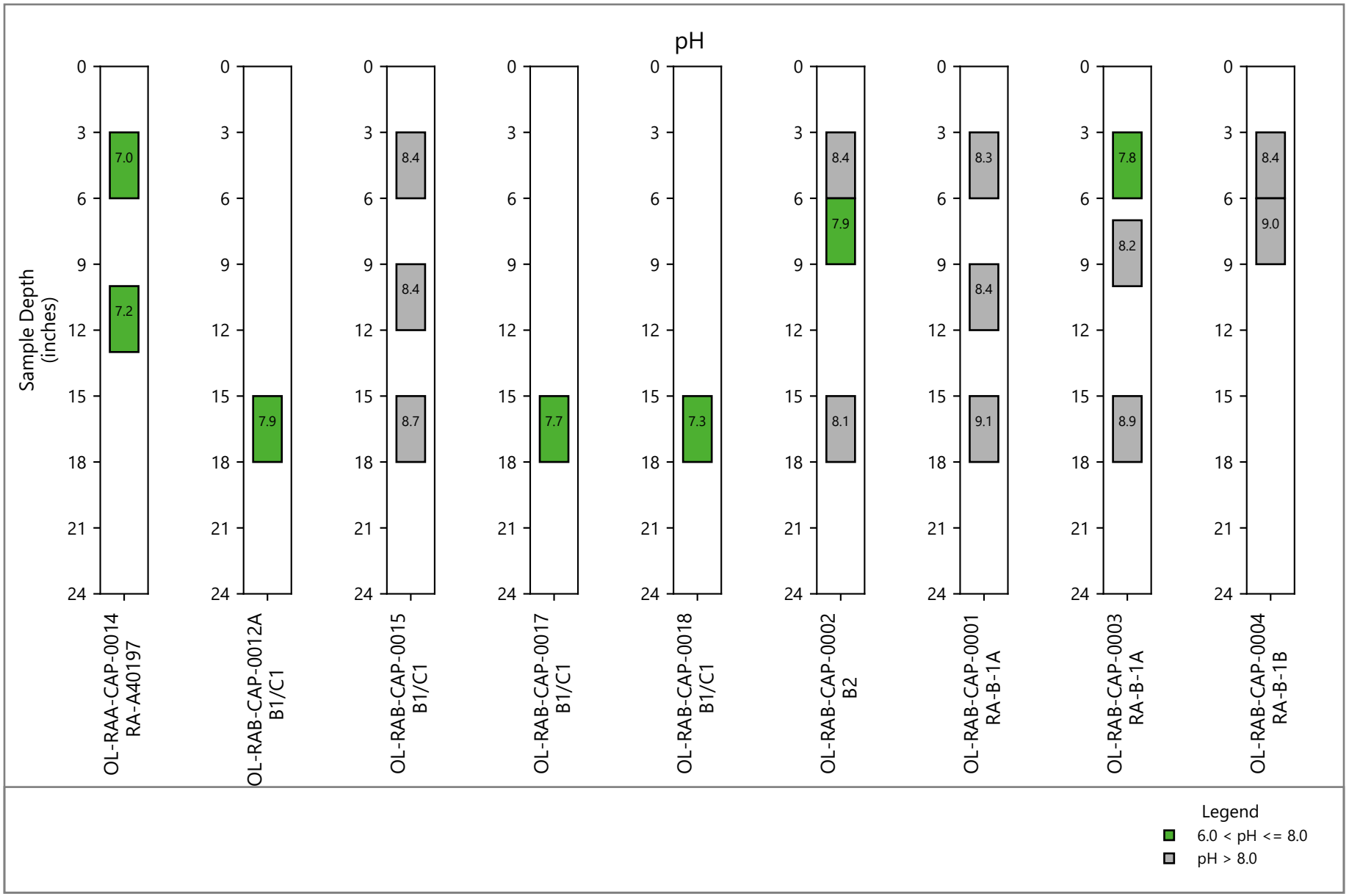


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Figure 1

Onondaga Lake Cap Monitoring Results: pH Profiles in Siderite Areas
Onondaga Lake OMM

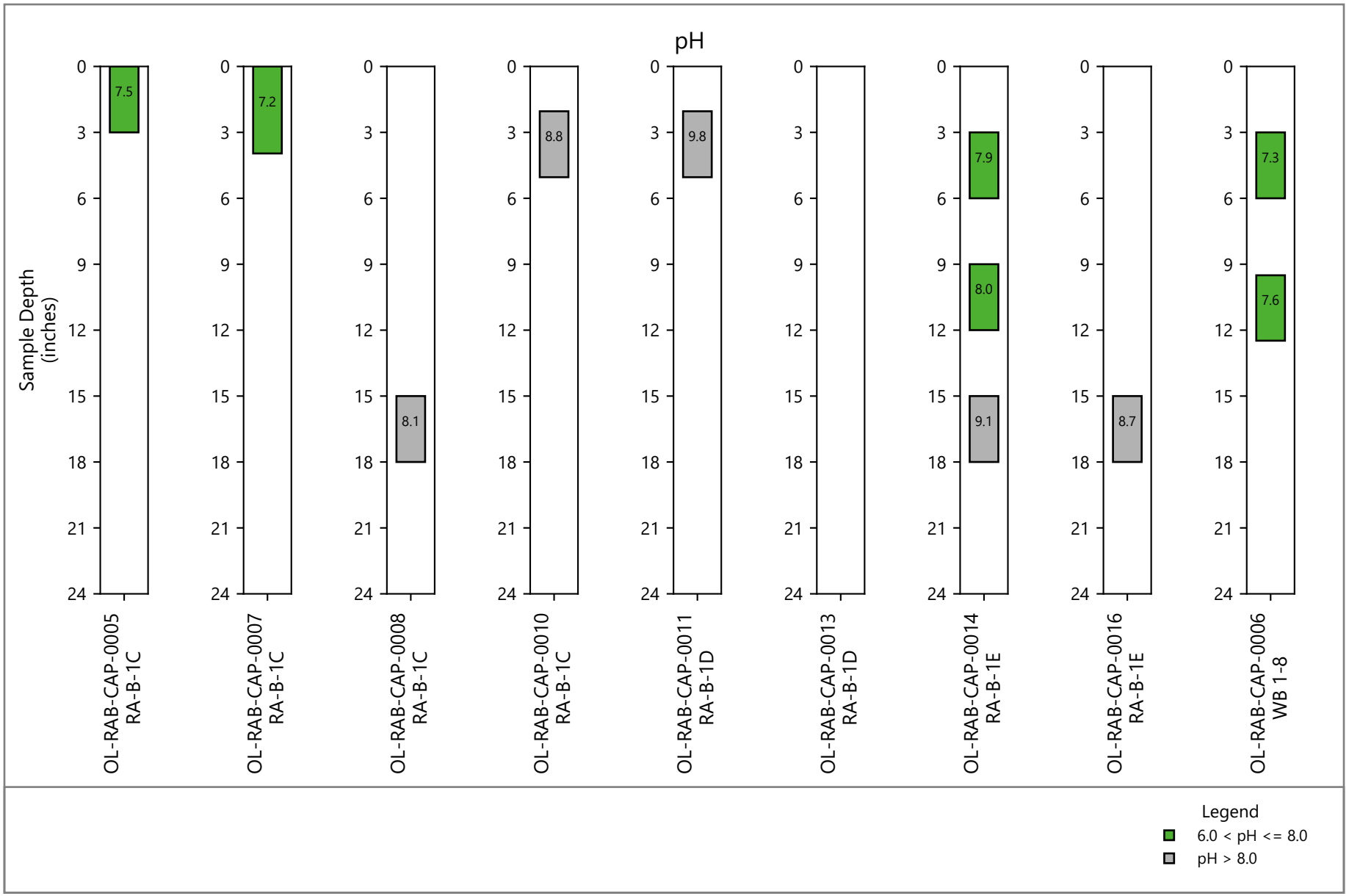


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Figure 2

Onondaga Lake Cap Monitoring Results: pH Profiles in Siderite Areas
Onondaga Lake OMM

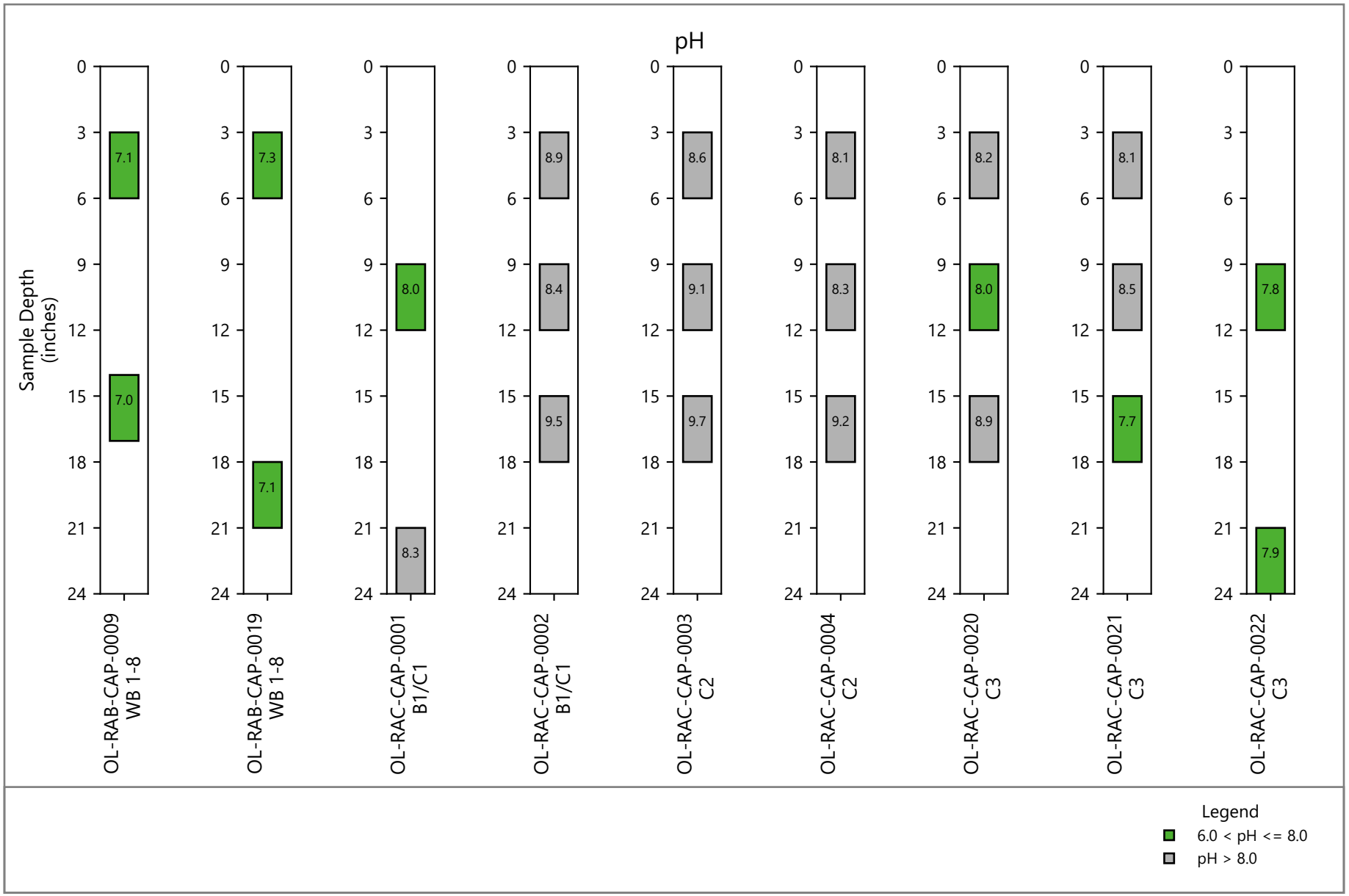


Publish Date: 03/29/2023 13:15 PM | User: BOSWKST3
File Path: \\WCL-FS1\Syracuse\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Cap_Chemistry\Python\Forensics\OLCap_Forensic_Stick_Plots_Cap_pH_ExceedanceColoration_REPORT_Y1.py

ANCHOR QEA

Figure 3

Onondaga Lake Cap Monitoring Results: pH Profiles in Siderite Areas
Onondaga Lake OMM

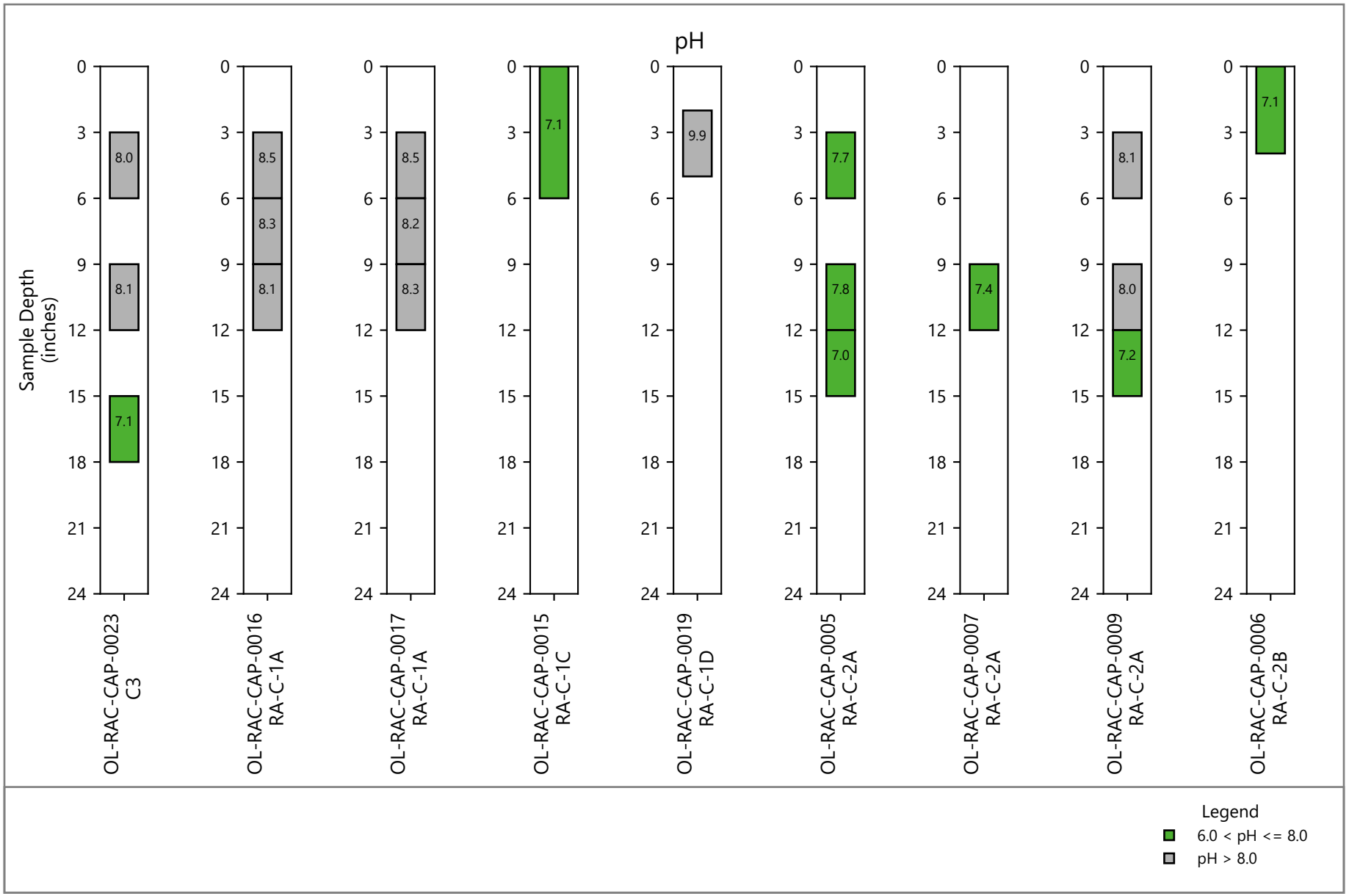


Publish Date: 03/29/2023 13:15 PM | User: BOSWKST3
File Path: \\WCL-FS1\Syracuse\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Cap_Chemistry\Python\Forensics\OLCap_Forensic_Stick_Plots_Cap_pH_ExceedanceColoration_REPORT_Y1.py

ANCHOR QEA

Figure 4

Onondaga Lake Cap Monitoring Results: pH Profiles in Siderite Areas
Onondaga Lake OMM

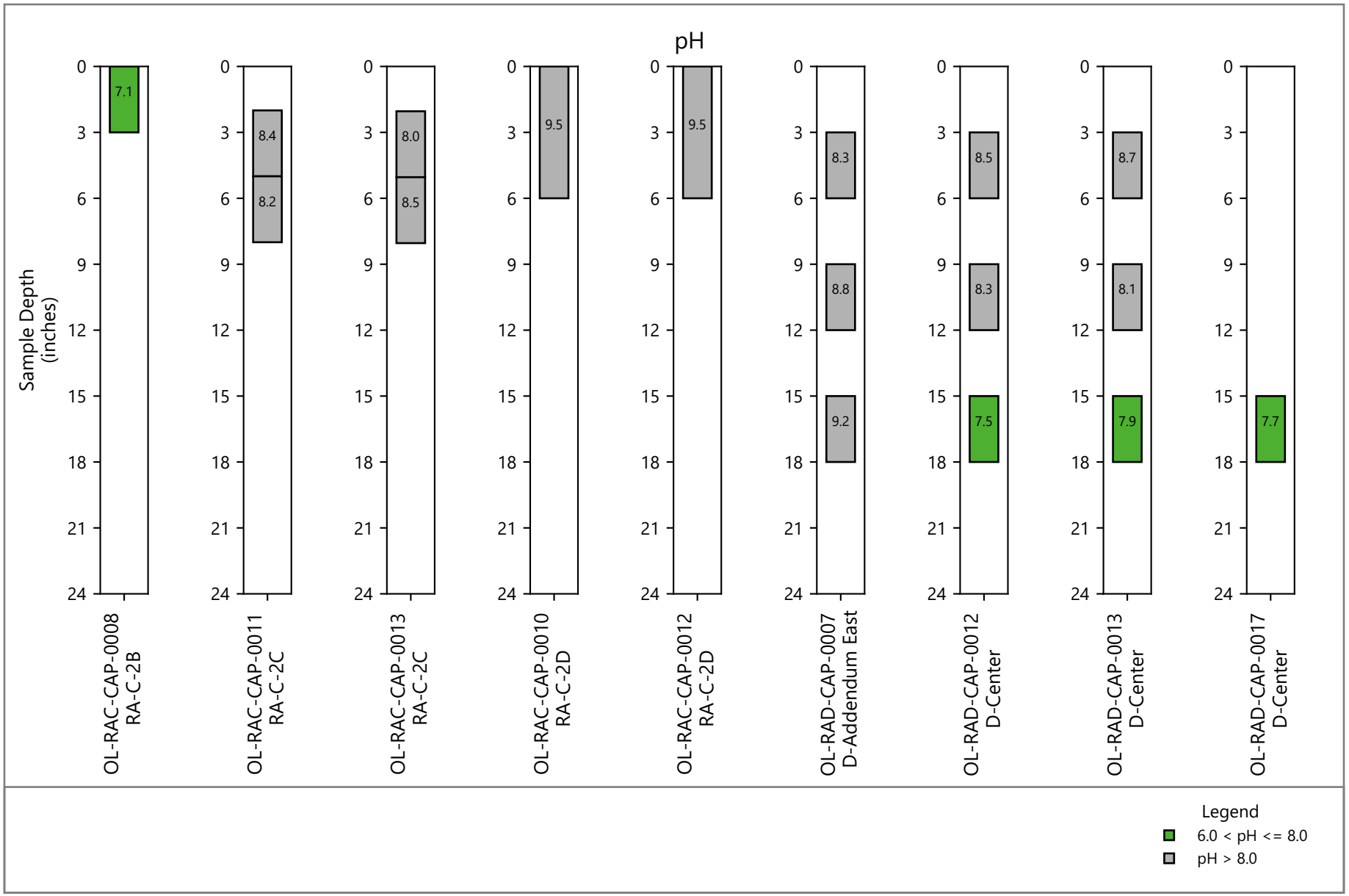


Publish Date: 03/29/2023 13:15 PM | User: BOSWKST3
File Path: \\WCL-FS1\Syracuse\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Cap_Chemistry\Python\Forensics\OLCap_Forensic_Stick_Plots_Cap_pH_ExceedanceColoration_REPORT_Y1.py

ANCHOR QEA

Figure 5

Onondaga Lake Cap Monitoring Results: pH Profiles in Siderite Areas
Onondaga Lake OMM

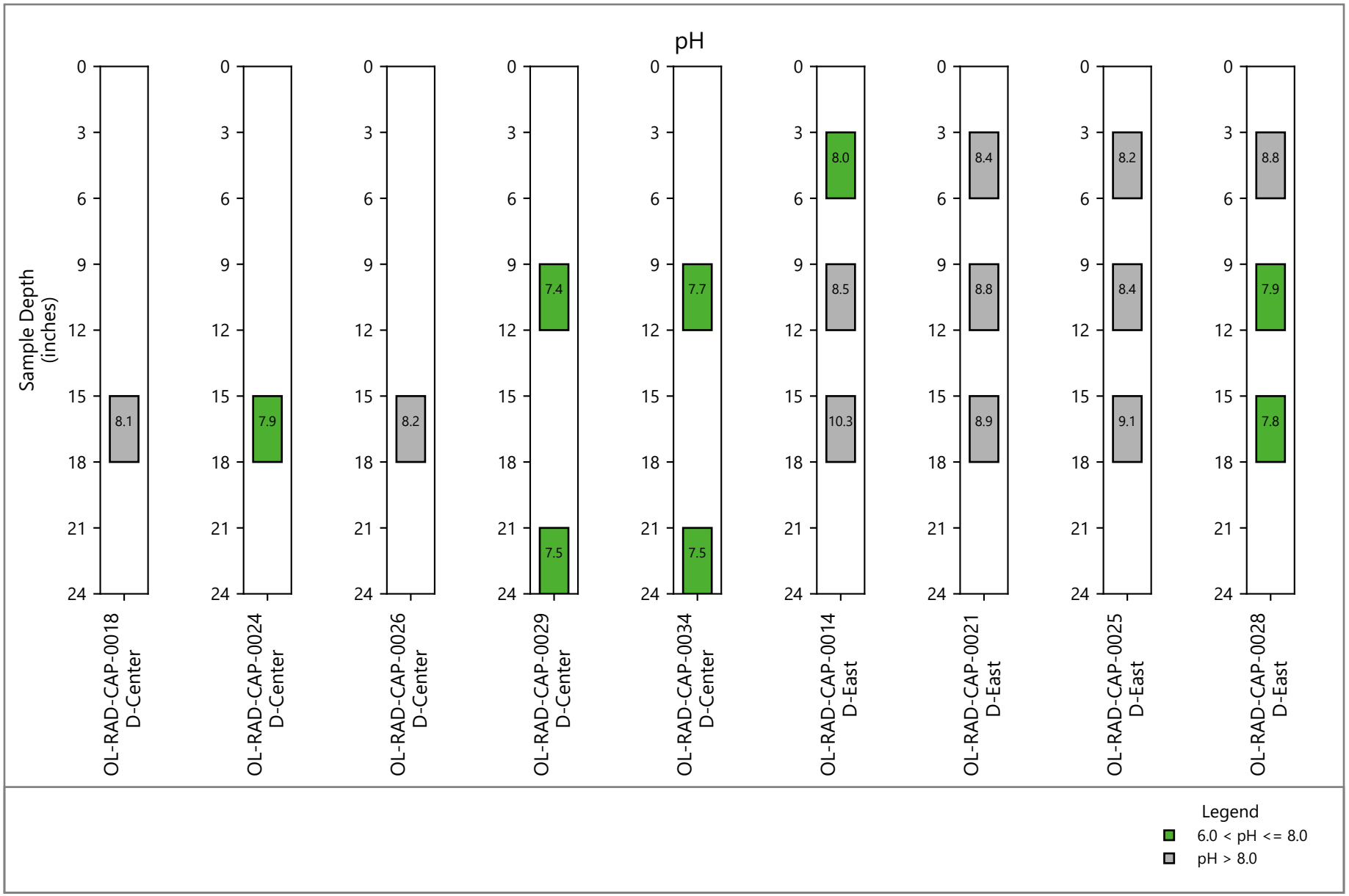


Publish Date: 03/29/2023 13:15 PM | User: BOSWKST3
File Path: \\WCL-FS1\Syracuse\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Cap_Chemistry\Python\Forensics\OLCap_Forensic_Stick_Plots_Cap_pH_ExceedanceColoration_REPORT_Y1.py

ANCHOR QEA

Figure 6

Onondaga Lake Cap Monitoring Results: pH Profiles in Siderite Areas
Onondaga Lake OMM

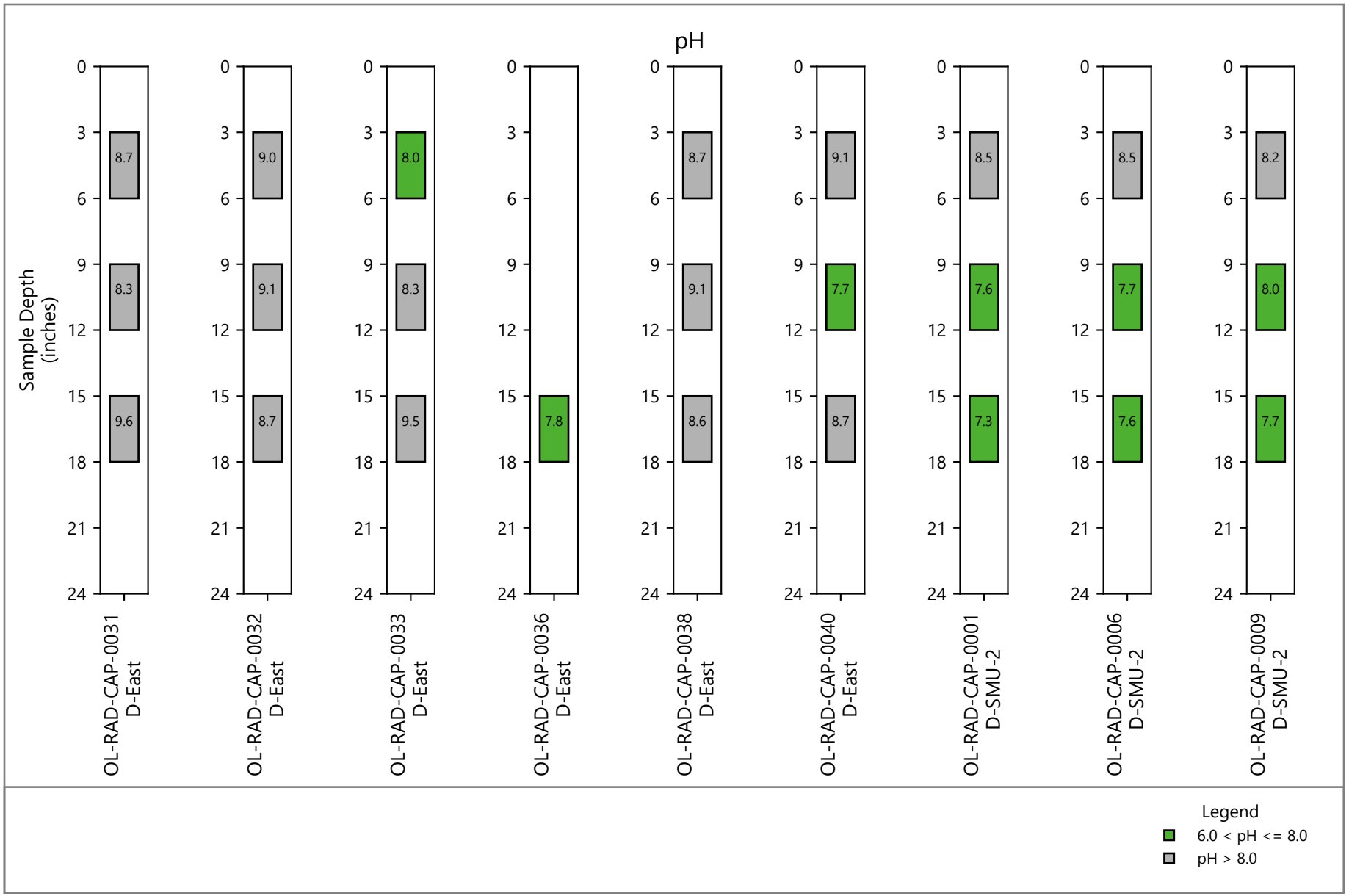


Publish Date: 03/29/2023 13:15 PM | User: BOSWKST3
File Path: \\WCL-FS1\Syracuse\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Cap_Chemistry\Python\Forensics\OLCap_Forensic_Stick_Plots_Cap_pH_ExceedanceColoration_REPORT_Y1.py

ANCHOR QEA

Figure 7

Onondaga Lake Cap Monitoring Results: pH Profiles in Siderite Areas
Onondaga Lake OMM

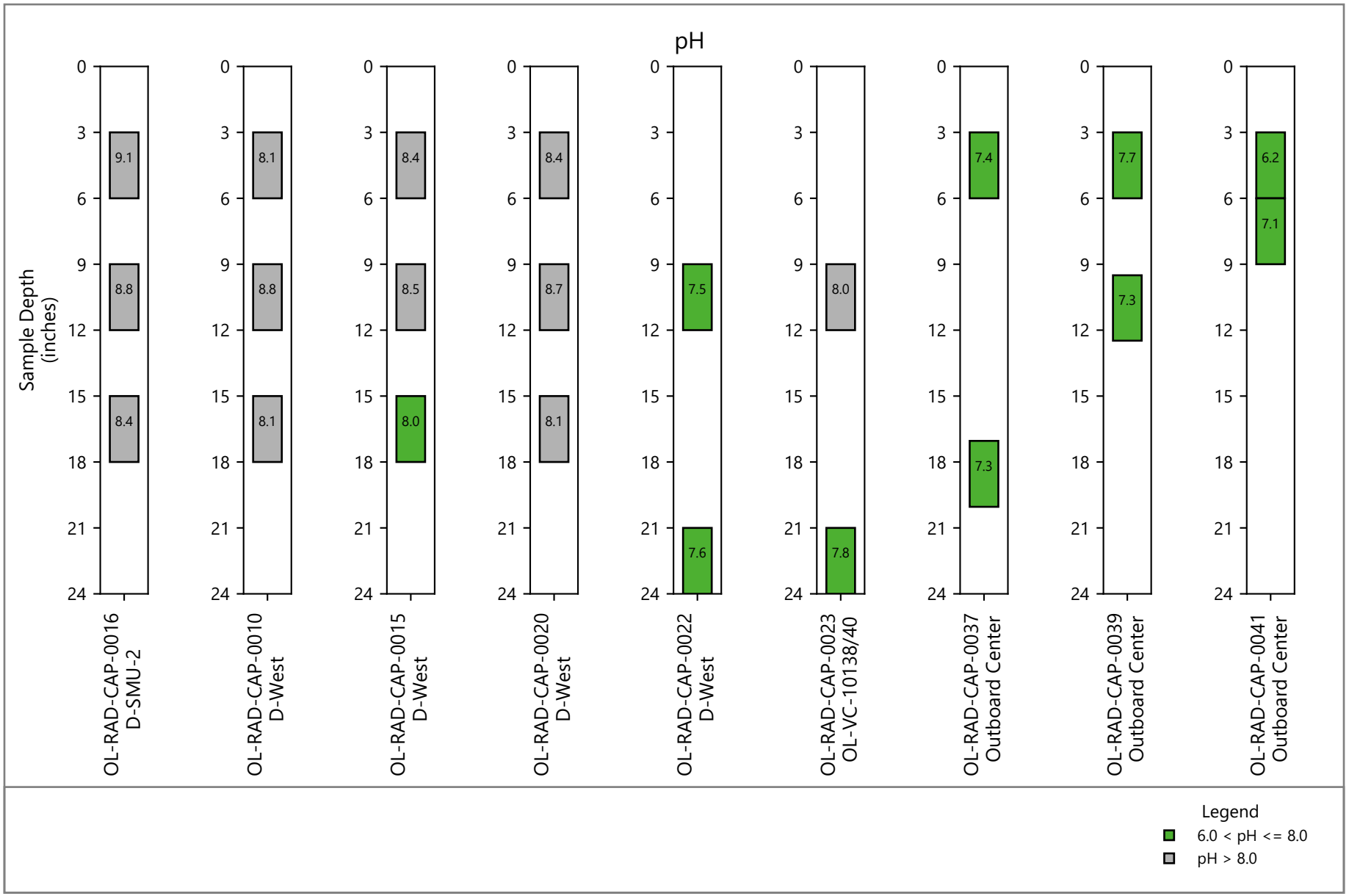


Publish Date: 03/29/2023 13:15 PM | User: BOSWKST3
File Path: \\WCL-FS1\Syracuse\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Cap_Chemistry\Python\Forensics\OLCap_Forensic_Stick_Plots_Cap_pH_ExceedanceColoration_REPORT_Y1.py

ANCHOR QEA

Figure 8

Onondaga Lake Cap Monitoring Results: pH Profiles in Siderite Areas
Onondaga Lake OMM

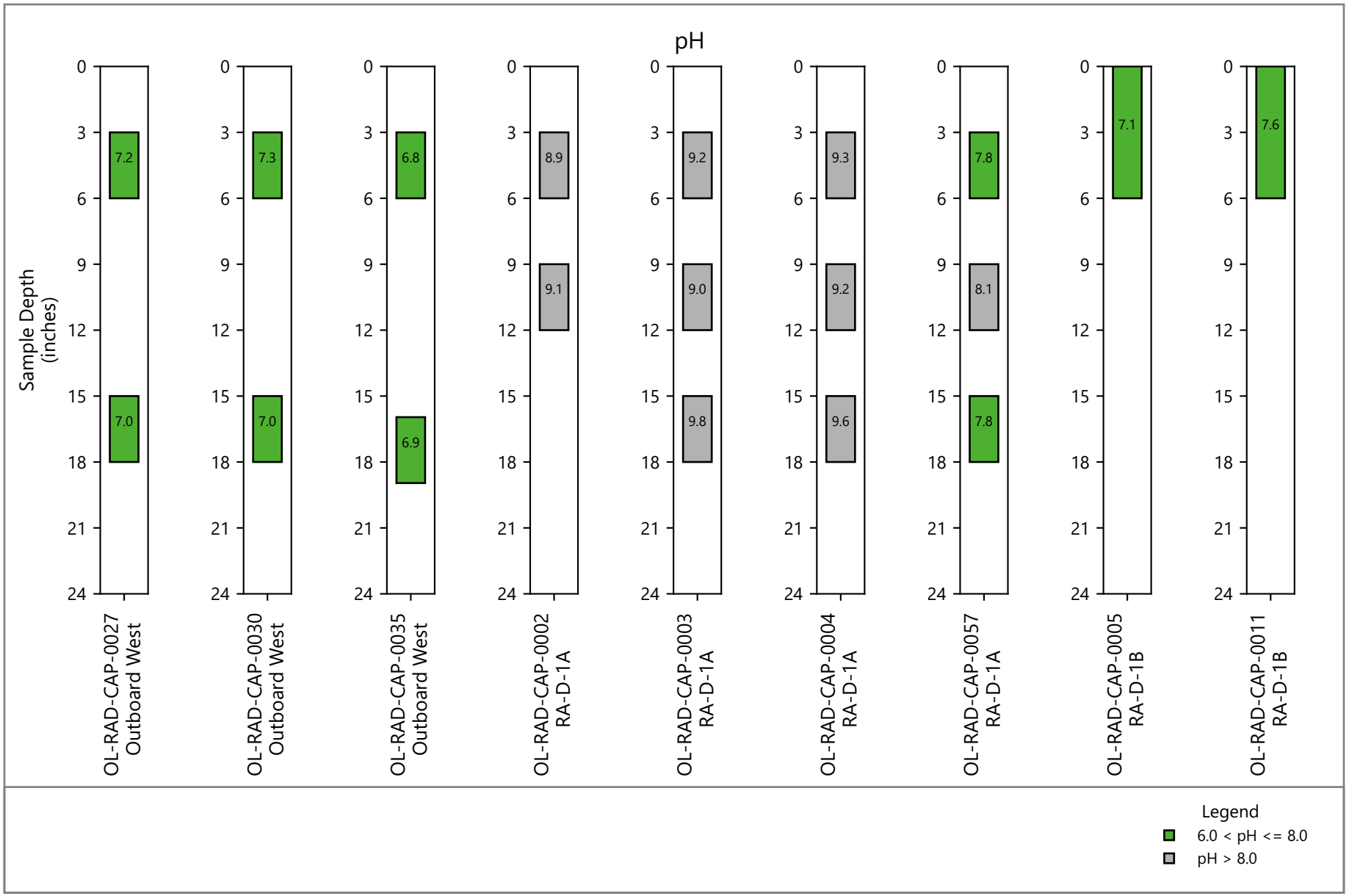


Publish Date: 03/29/2023 13:15 PM | User: BOSWKST3
File Path: \\WCL-FS1\Syracuse\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Cap_Chemistry\Python\Forensics\OLCap_Forensic_Stick_Plots_Cap_pH_ExceedanceColoration_REPORT_Y1.py

ANCHOR QEA

Figure 9

Onondaga Lake Cap Monitoring Results: pH Profiles in Siderite Areas
Onondaga Lake OMM

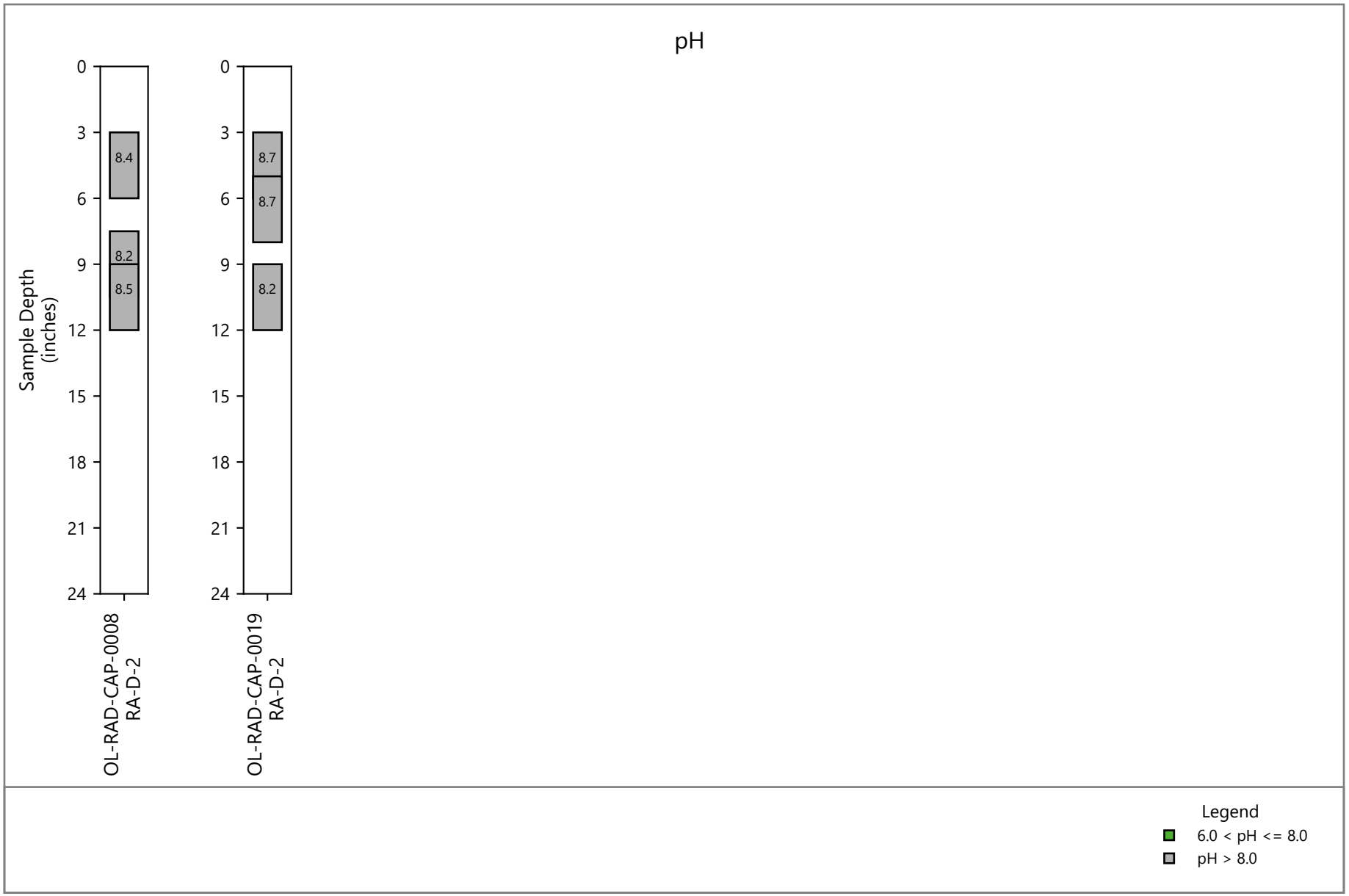


Publish Date: 03/29/2023 13:16 PM | User: BOSWKST3
File Path: \\WCL-FS1\Syracuse\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Cap_Chemistry\Python\Forensics\OLCap_Forensic_Stick_Plots_Cap_pH_ExceedanceColoration_REPORT_Y1.py

ANCHOR QEA

Figure 10

Onondaga Lake Cap Monitoring Results: pH Profiles in Siderite Areas
Onondaga Lake OMM



Publish Date: 03/29/2023 13:16 PM | User: BOSWKST3
File Path: \\WCL-FS1\Syracuse\Honeywell\Onondaga_Lake_OLMMS_(E60287)\ANALYSIS\Cap_Chemistry\Python\Forensics\OLCap_Forensic_Stick_Plots_Cap_pH_ExceedanceColoration_REPORT_Y1.py

ANCHOR QEA

Figure 11

Onondaga Lake Cap Monitoring Results: pH Profiles in Siderite Areas
Onondaga Lake OMM

APPENDIX 6H – FILTERED VOC AND UNFILTERED SVOC AND PHENOL DATA (NOT USED)

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area B			Cap Habitat Layer Performance Criteria	Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAB-CAP-0005-H 0-3 in OL-4051-01 R2209794-001 10/11/2022 17:00 SOIL-CALC B1 RA-B-1C 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAB-CAP-0005-H 0-3 in OL-4051-01 R2209794-001 10/11/2022 17:00 WATER B1 RA-B-1C 1 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAB-CAP-0007-H 0-4 in OL-4052-01 R2209872-001 10/12/2022 15:00 SOIL-CALC B1 RA-B-1C 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAB-CAP-0007-H 0-4 in OL-4052-01 R2209872-001 10/12/2022 15:00 WATER B1 RA-B-1C 1 Gravity Core SPWE (Direct Extraction) ug/L
CAS NO.	COMPOUND	FILTERED						
	VOLATILES							
TCB_Summ	Trichlorobenzenes	Y	347 ug/kg		14 U	1.7 U	2.77 U	0.34 U
DCB_Summ	Dichlorobenzenes	Y	239 ug/kg		3.19 U	1 U	0.64 U	0.2 U
108-90-7	Chlorobenzene	Y	428 ug/kg		1.36 U	1 U	0.27 UJ	0.2 UJ
100-41-4	Ethylbenzene	Y	176 ug/kg		2.85 U	1 U	0.57 UJ	0.2 UJ
1330-20-7	Xylenes	Y	561 ug/kg		3 U	1.2 U	0.58 UJ	0.23 UJ
91-20-3	Naphthalene	Y	917 ug/kg		6 U	2.8 U	1.18 UJ	0.55 UJ
71-43-2	Benzene	Y	760 ug/L		0.36 U	1 U	0.07 UJ	0.2 UJ
108-88-3	Toluene	Y	480 ug/L		1.11 U	1 U	0.22 UJ	0.2 UJ
	SEMIVOLATILES							
108-95-2	Phenol	N	250 ug/L		0.39 UJ	0.21 UJ	16 J	8.7 J
83-32-9	Acenaphthene	N	861 ug/kg		33 U	0.21 U	31 U	0.2 U
208-96-8	Acenaphthylene	N	1301 ug/kg		13 U	0.21 U	13 U	0.2 U
120-12-7	Anthracene	N	207 ug/kg		62 U	0.3 U	60 U	0.29 U
86-73-7	Fluorene	N	264 ug/kg		24 U	0.22 U	23 U	0.21 U
85-01-8	Phenanthrene	N	543 ug/kg		76 U	0.37 U	74 U	0.36 U

Notes:

U - Not Detected

J - Estimated Value

SOIL-CALC - soil values have been calculated from porewater results

WATER-CALC - porewater values have been calculated from soil results

Peepers results have been adjusted by a 1.1 correction factor per the OLMMP

Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

Honeywell

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0006-H 0-4 in OL-4054-01 R2209909-001 10/14/2022 10:30 SOIL-CALC C2 RA-C-2B 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAC-CAP-0006-H 0-4 in OL-4054-01 R2209909-001 10/14/2022 10:30 WATER C2 RA-C-2B 1 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAC-CAP-0008-H 0-3 in OL-4054-02 R2209909-003 10/14/2022 13:30 SOIL-CALC C2 RA-C-2B 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAC-CAP-0008-H 0-3 in OL-4054-02 R2209909-003 10/14/2022 13:30 WATER C2 RA-C-2B 1 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAC-CAP-0010-H 0-6 in OL-4057-01 R2210038-001 10/19/2022 14:00 SOIL-CALC C2 RA-C-2D 2 Gravity Core SPWE (Direct Extraction) ug/kg
CAS NO.	COMPOUND	FILTERED								
	VOLATILES									
TCB_Summ	Trichlorobenzenes	Y	347	ug/kg		0.44 U	0.34 U	0.44 U	0.34 U	4.41 U
DCB_Summ	Dichlorobenzenes	Y	239	ug/kg		0.1 U	0.2 U	0.1 U	0.2 U	1.02 U
108-90-7	Chlorobenzene	Y	428	ug/kg		0.04 U	0.2 U	0.04 U	0.2 U	0.43 U
100-41-4	Ethylbenzene	Y	176	ug/kg		0.09 U	0.2 U	0.09 U	0.2 U	0.91 U
1330-20-7	Xylenes	Y	561	ug/kg		0.09 U	0.23 U	0.09 U	0.23 U	0.92 U
91-20-3	Naphthalene	Y	917	ug/kg		0.19 U	0.55 U	0.19 U	0.55 U	1.88 U
71-43-2	Benzene	Y	760	ug/L		0.01 U	0.2 U	0.01 U	0.2 U	0.11 U
108-88-3	Toluene	Y	480	ug/L		0.04 U	0.2 U	0.04 U	0.2 U	0.35 U
	SEMIVOLATILES									
108-95-2	Phenol	N	250	ug/L		14 J	48 J			9.09
83-32-9	Acenaphthene	N	861	ug/kg		6.24 U	0.25 U			5.24 U
208-96-8	Acenaphthylene	N	1301	ug/kg		2.54 U	0.25 U			2.13 U
120-12-7	Anthracene	N	207	ug/kg		12 U	0.36 U			9.87 U
86-73-7	Fluorene	N	264	ug/kg		4.59 U	0.26 U			3.89 U
85-01-8	Phenanthrene	N	543	ug/kg		14 U	0.44 U			12 U

Notes:

U - Not Detected

J - Estimated Value

SOIL-CALC - soil values have been calculated from porewater results

WATER-CALC - porewater values have been calculated from soil results

Peepers results have been adjusted by a 1.1 correction factor per the OLMMP

Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

Honeywell

PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C					Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0010-H 0-6 in OL-4057-01 R2210038-001 10/19/2022 14:00 WATER C2 RA-C-2D 2 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAC-CAP-0012-H 0-6 in OL-4058-01 R2210132-001 10/19/2022 16:30 SOIL-CALC C2 RA-C-2D 2 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAC-CAP-0012-H 0-6 in OL-4058-01 R2210132-001 10/19/2022 16:30 WATER C2 RA-C-2D 2 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAC-CAP-0014-H 0-6 in OL-4062-01 R2210257-001 10/25/2022 12:10 SOIL-CALC C3 RA-C-1B 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAC-CAP-0014-H 0-6 in OL-4062-01 R2210257-001 10/25/2022 12:10 WATER C3 RA-C-1B 1 Gravity Core SPWE (Direct Extraction) ug/L
CAS NO.	COMPOUND	FILTERED	Cap Habitat Layer Performance Criteria							
	VOLATILES									
TCB_Summ	Trichlorobenzenes	Y	347	ug/kg		3.4 U	0.44 U	0.34 U	0.44 U	0.34 U
DCB_Summ	Dichlorobenzenes	Y	239	ug/kg		2 U	0.1 U	0.2 U	0.1 U	0.2 U
108-90-7	Chlorobenzene	Y	428	ug/kg		2 U	0.05 J	0.23 J	0.04 UJ	0.2 UJ
100-41-4	Ethylbenzene	Y	176	ug/kg		2 U	0.09 U	0.2 U	0.09 UJ	0.2 UJ
1330-20-7	Xylenes	Y	561	ug/kg		2.3 U	0.18 J	0.44 J	0.09 UJ	0.23 UJ
91-20-3	Naphthalene	Y	917	ug/kg		5.5 U	0.19 U	0.55 U	0.19 UJ	0.55 UJ
71-43-2	Benzene	Y	760	ug/L		2 U	0.07	1.3	0.01 UJ	0.2 UJ
108-88-3	Toluene	Y	480	ug/L		2 U	0.1 J	0.56 J	0.04 UJ	0.2 UJ
	SEMIVOLATILES									
108-95-2	Phenol	N	250	ug/L		31				
83-32-9	Acenaphthene	N	861	ug/kg		0.21 U				
208-96-8	Acenaphthylene	N	1301	ug/kg		0.21 U				
120-12-7	Anthracene	N	207	ug/kg		0.3 U				
86-73-7	Fluorene	N	264	ug/kg		0.22 U				
85-01-8	Phenanthrene	N	543	ug/kg		0.37 U				

Notes:

U - Not Detected

J - Estimated Value

SOIL-CALC - soil values have been calculated from porewater results

WATER-CALC - porewater values have been calculated from soil results

Peepers results have been adjusted by a 1.1 correction factor per the OLMMP

Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area C			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAC-CAP-0015-H 0-6 in OL-4064-01 R2210304-001 10/25/2022 15:45 SOIL-CALC C3 RA-C-1C 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAC-CAP-0015-H 0-6 in OL-4064-01 R2210304-001 10/25/2022 15:45 WATER C3 RA-C-1C 1 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAC-CAP-0018-H 0-6 in OL-4058-02 R2210132-003 10/20/2022 15:20 SOIL-CALC C3 RA-C-1B 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAC-CAP-0018-H 0-6 in OL-4058-02 R2210132-003 10/20/2022 15:20 WATER C3 RA-C-1B 1 Gravity Core SPWE (Direct Extraction) ug/L
CAS NO.	COMPOUND	FILTERED							
	VOLATILES								
TCB_Summ	Trichlorobenzenes	Y	347	ug/kg		0.44 U	0.34 U	0.44 U	0.34 U
DCB_Summ	Dichlorobenzenes	Y	239	ug/kg		0.1 U	0.2 U	0.1 U	0.2 U
108-90-7	Chlorobenzene	Y	428	ug/kg		0.04 UJ	0.2 UJ	0.04 U	0.2 U
100-41-4	Ethylbenzene	Y	176	ug/kg		0.09 UJ	0.2 UJ	0.09 U	0.2 U
1330-20-7	Xylenes	Y	561	ug/kg		0.09 UJ	0.23 UJ	0.09 U	0.23 U
91-20-3	Naphthalene	Y	917	ug/kg		0.19 UJ	0.55 UJ	0.19 U	0.55 U
71-43-2	Benzene	Y	760	ug/L		0.01 UJ	0.2 UJ	0.01 U	0.2 U
108-88-3	Toluene	Y	480	ug/L		0.04 UJ	0.2 UJ	0.04 U	0.2 U
	SEMIVOLATILES								
108-95-2	Phenol	N	250	ug/L		2.43	8.3		
83-32-9	Acenaphthene	N	861	ug/kg		32	1.3		
208-96-8	Acenaphthylene	N	1301	ug/kg		1.83 U	0.18 U		
120-12-7	Anthracene	N	207	ug/kg		8.22 U	0.25 U		
86-73-7	Fluorene	N	264	ug/kg		15	0.87		
85-01-8	Phenanthrene	N	543	ug/kg		28	0.85		

Notes:

U - Not Detected

J - Estimated Value

SOIL-CALC - soil values have been calculated from porewater results

WATER-CALC - porewater values have been calculated from soil results

Peepers results have been adjusted by a 1.1 correction factor per the OLMMP

Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

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Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area D			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAD-CAP-0005-H 0-6 in OL-4061-01 R2210185-001 10/21/2022 13:40 SOIL-CALC D-Center RA-D-1B 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAD-CAP-0005-H 0-6 in OL-4061-01 R2210185-001 10/21/2022 13:40 WATER D-Center RA-D-1B 1 Gravity Core SPWE (Direct Extraction) ug/L	OL-RAD-CAP-0011-H 0-6 in OL-4064-02 R2210304-003 10/26/2022 14:00 SOIL-CALC D-Center RA-D-1B 1 Gravity Core SPWE (Direct Extraction) ug/kg	OL-RAD-CAP-0011-H 0-6 in OL-4064-02 R2210304-003 10/26/2022 14:00 WATER D-Center RA-D-1B 1 Gravity Core SPWE (Direct Extraction) ug/L
CAS NO.	COMPOUND	FILTERED							
	VOLATILES								
TCB_Summ	Trichlorobenzenes	Y	347	ug/kg		3.52 U	0.34 U	3.52 U	0.34 U
DCB_Summ	Dichlorobenzenes	Y	239	ug/kg		0.81 U	0.2 U	0.81 U	0.2 U
108-90-7	Chlorobenzene	Y	428	ug/kg		0.35 UJ	0.2 UJ	0.35 UJ	0.2 UJ
100-41-4	Ethylbenzene	Y	176	ug/kg		0.72 UJ	0.2 UJ	0.72 UJ	0.2 UJ
1330-20-7	Xylenes	Y	561	ug/kg		0.73 UJ	0.23 UJ	0.73 UJ	0.23 UJ
91-20-3	Naphthalene	Y	917	ug/kg		1.5 UJ	0.55 UJ	1.5 UJ	0.55 UJ
71-43-2	Benzene	Y	760	ug/L		0.09 UJ	0.2 UJ	0.09 UJ	0.2 UJ
108-88-3	Toluene	Y	480	ug/L		0.28 UJ	0.2 UJ	0.28 UJ	0.2 UJ
	SEMIVOLATILES								
108-95-2	Phenol	N	250	ug/L				0.42 U	0.18 U
83-32-9	Acenaphthene	N	861	ug/kg				36 U	0.18 U
208-96-8	Acenaphthylene	N	1301	ug/kg				15 U	0.18 U
120-12-7	Anthracene	N	207	ug/kg				66 U	0.25 U
86-73-7	Fluorene	N	264	ug/kg				27 U	0.19 U
85-01-8	Phenanthrene	N	543	ug/kg				81 U	0.31 U

Notes:

U - Not Detected

J - Estimated Value

SOIL-CALC - soil values have been calculated from porewater results

WATER-CALC - porewater values have been calculated from soil results

Peepers results have been adjusted by a 1.1 correction factor per the OLMMP

Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with "H" suffix)

Honeywell

PARSONS

Onondaga Lake 2022 Cap Monitoring Validated Analytical Data Remediation Area E			Cap Habitat Layer Performance Criteria		Location ID: Depth: Sample ID: Lab Sample Id: Sampled: Matrix: Model Area: Cap Type Zone: Collection Method Sampling Method Units	OL-RAE-CAP-0036-H 0-5 in OL-4070-01 R2210454-001 10/31/2022 14:00 SOIL-CALC MERC E2 MERC E2 1 Vibracore SPWE (Direct Extraction) ug/kg	OL-RAE-CAP-0036-H 0-5 in OL-4070-01 R2210454-001 10/31/2022 14:00 WATER MERC E2 MERC E2 1 Vibracore SPWE (Direct Extraction) ug/L	OL-RAE-CAP-0038-H 0-6 in OL-4068-01 R2210421-001 10/28/2022 13:00 SOIL-CALC MERC E3 MERC E3 1 Vibracore SPWE (Direct Extraction) ug/kg	OL-RAE-CAP-0038-H 0-6 in OL-4068-01 R2210421-001 10/28/2022 13:00 WATER MERC E3 MERC E3 1 Vibracore SPWE (Direct Extraction) ug/L	OL-RAE-CAP-0042-H 0-6 in OL-4067-01 R2210382-001 10/27/2022 12:50 SOIL-CALC MERC E1 MERC E1 1 Vibracore SPWE (Direct Extraction) ug/kg	OL-RAE-CAP-0042-H 0-6 in OL-4067-01 R2210382-001 10/27/2022 12:50 WATER MERC E1 MERC E1 1 Vibracore SPWE (Direct Extraction) ug/L
CAS NO.	COMPOUND	FILTERED									
	VOLATILES										
TCB_Summ	Trichlorobenzenes	Y	347	ug/kg		0.37 U	0.34 U	0.37 U	0.34 U	0.37 U	0.34 U
DCB_Summ	Dichlorobenzenes	Y	239	ug/kg		0.08 U	0.2 U	0.08 J	0.2	0.08 U	0.2 U
108-90-7	Chlorobenzene	Y	428	ug/kg		0.04 UJ	0.2 UJ	0.06 J	0.35 J	0.04 UJ	0.2 UJ
100-41-4	Ethylbenzene	Y	176	ug/kg		0.08 UJ	0.2 UJ	2.01 J-	5.3 J-	0.08 UJ	0.2 UJ
1330-20-7	Xylenes	Y	561	ug/kg		0.08 UJ	0.23 UJ	1.83 J-	5.5 J-	0.08 UJ	0.23 UJ
91-20-3	Naphthalene	Y	917	ug/kg		0.16 UJ	0.55 UJ	48 J-	170 J-	0.16 UJ	0.55 UJ
71-43-2	Benzene	Y	760	ug/L		0.01 UJ	0.2 UJ	0.03 J	0.61 J	0.01 UJ	0.2 UJ
108-88-3	Toluene	Y	480	ug/L		0.03 UJ	0.2 UJ	0.97 J-	6.6 J-	0.03 UJ	0.2 UJ
	SEMIVOLATILES										
108-95-2	Phenol	N	250	ug/L				2.35	9.6		
83-32-9	Acenaphthene	N	861	ug/kg				354	17		
208-96-8	Acenaphthylene	N	1301	ug/kg				3.56 J	0.42 J		
120-12-7	Anthracene	N	207	ug/kg				69	2.5		
86-73-7	Fluorene	N	264	ug/kg				72	4.9		
85-01-8	Phenanthrene	N	543	ug/kg				206	7.5		

Notes:
U - Not Detected
J - Estimated Value
SOIL-CALC - soil values have been calculated from porewater results
WATER-CALC - porewater values have been calculated from soil results
Peepers results have been adjusted by a 1.1 correction factor per the OLMMP
Exceedance of habitat layer performance criteria, applies only to habitat layer (samples with “H” suffix except within CSX uncapped area)

APPENDIX 6I – FILTRATE TESTING ANALYTICAL RESULTS

Honeywell

PARSONS

TABLE 6I-1: FILTER TESTING CASE STUDY RESULTS; 2022 ONONDAGA LAKE MONITORING AND MAINTENACE REPORT
APPENDIX 6I

					Location ID	OL-RAA-CAP-0001		OL-RAA-CAP-0001		OL-RAA-CAP-0001		OL-RAA-CAP-0001		OL-RAA-CAP-0004		OL-RAA-CAP-0004		OL-RAA-CAP-0004		OL-RAA-CAP-0004		OL-RAA-CAP-0004		OL-RAD-CAP-0004	
					Field Sample ID	2022DEFT-01-01		2022DEFT-01-02		2022DEFT-01-03		2022DEFT-01-04		2022DEFT-01-05		2022DEFT-01-06		2022DEFT-01-07		2022DEFT-01-08		2022DEFT-01-09		2022DEFT-01-10	
					Start Depth (in)	12		12		12		12		12		12		12		12		12		12	
					End Depth (in)	15		15		15		15		15		15		15		15		15		15	
					Sampled	06/14/2022 15:35		06/14/2022 15:42		06/14/2022 15:50		06/14/2022 15:55		06/15/2022 10:20		06/15/2022 10:25		06/15/2022 10:27		06/15/2022 10:30		06/15/2022 10:35		06/15/2022 15:10	
					SDG	R2205517		R2205517		R2205517		R2205517		R2205517		R2205517		R2205517		R2205517		R2205517		R2205517	
					Lab Sample ID	R2205517-001		R2205517-002		R2205517-003		R2205517-004		R2205517-005		R2205517-006		R2205517-007		R2205517-008		R2205517-009		R2205517-010	
					Sample Type	N		N		N		N		N		N		N		N		N		N	
					Matrix	WPR		WPR		WPR		WPR		WPR		WPR		WPR		WPR		WPR		WPR	
Method	Parameter Code	Parameter Name	Units	Fraction	Case:	1		Case:	2	Case:	2a	Case:	3	Case:	1	Case:	2	Case:	2a	Case:	3	Case:	3a	Case:	1
SW8260C	87-61-6	1,2,3-Trichlorobenzene	ug/l	T	0.25	U		1.3	U	0.25	U	1.3	U	0.25	U	1.3	U	1.3	U	0.25	U	0.25	U	0.25	U
SW8260C	120-82-1	1,2,4-Trichlorobenzene	ug/l	T	0.34	U		1.7	U	0.34	U	1.7	U	0.34	U	1.7	U	1.7	U	0.34	U	0.34	U	0.34	U
SW8260C	95-50-1	1,2-Dichlorobenzene	ug/l	T	0.2	U		1	U	0.2	U	1	U	0.2	U	1	U	1	U	0.2	U	0.2	U	0.2	U
SW8260C	108-70-3	1,3,5-Trichlorobenzene	ug/l	T	0.27	U		1.4	U	0.27	U	1.4	U	0.27	U	1.4	U	1.4	U	0.27	U	0.27	U	0.27	U
SW8260C	541-73-1	1,3-Dichlorobenzene	ug/l	T	0.2	U		1	U	0.2	U	1	U	0.2	U	1	U	1	U	0.2	U	0.2	U	0.2	U
SW8260C	106-46-7	1,4-Dichlorobenzene	ug/l	T	0.2	U		1	U	0.2	U	1	U	0.2	U	1	U	1	U	0.2	U	0.2	U	0.2	U
SW8260C	71-43-2	Benzene	ug/l	T	0.2	U		1	U	1.3		1	U	0.2	U	1	U	1	U	1.3		1.3		0.2	U
SW8260C	108-90-7	Chlorobenzene	ug/l	T	0.2	U		1	U	0.2	U	1	U	0.2	U	1	U	1	U	0.2	U	0.2	U	0.2	U
SW8260C	100-41-4	Ethylbenzene	ug/l	T	0.2	U		1	U	0.2	U	1	U	0.2	U	1	U	1	U	0.2	U	0.21	J	0.2	U
SW8260C	179601-23-1	m,p-Xylene	ug/l	T	0.2	U		1	U	0.66	J	1	U	0.2	U	1.3	J	1.1	J	0.57	J	0.64	J	0.2	U
SW8260C	91-20-3	Naphthalene	ug/l	T	0.55	U		2.8	U	0.55	U	2.8	U	0.55	U	2.8	U	2.8	U	0.55	U	0.55	U	0.55	U
SW8260C	95-47-6	O-Xylene (1,2-Dimethylbenzene)	ug/l	T	0.2	U		1	U	0.32	J	1	U	0.2	U	1	U	1	U	0.23	J	0.34	J	0.2	U
SW8260C	108-88-3	Toluene	ug/l	T	0.25	J		2.3	J	3.4		1	U	0.41	J	3.2	J	3.4	J	2.4		2.7		0.2	U
SW8260C	1330-20-7	Xylenes	ug/l	T	0.23	U		1.2	U	0.98	J	1.2	U	0.23	U	1.3	J	1.2	U	0.8	J	0.98	J	0.23	U
SW8270D	108-95-2	Phenol	ug/l	T	7.9	U		28				75		87		130				120				6.6	U
	PARTICLE SIZE DISTRIBUTION (PSD)																								
-	-	ALS Sample ID	-	-	22060825-01A			22060825-02A				22060825-03A		22060825-04A		22060825-05A				22060825-06A				22060825-07A	
-	-	Volume	L	-	0.0001			0.0001				0.0001		0.0001		0.0001				0.0001				0.00002	
-	-	AS	Str/mm^2	-	17.84			17.84				17.84		17.84		17.84				17.84				17.84	
-	-	AS	MSL	-	191.75			191.75				191.75		191.75		191.75				191.75				958.75	
	CONCENTRATION (MSL)																								
-	-	>0<1µm:	-	-	259,439			447,929				271,135		271,327		191,367				277,463				1,138,999	
-	-	>1<2µm:	-	-	56,183			69,605				16,682		71,331		11,313				58,676				307,760	
-	-	>2<3µm:	-	-	20,134			15,148				3,260		23,585		959				15,532				75,741	
-	-	>3<4µm:	-	-	11,313			3,260				1,151		9,396		575				3,835				26,845	
-	-	>4<5µm:	-	-	7,478			1,342				192		5,369		767				1,918				18,216	
-	-	>5<6µm:	-	-	5,561			767				192		3,260		192				959				6,711	
-	-	>6<7µm:	-	-	2,301			192				<AS		1,918		<AS				575				959	
-	-	>7<8µm:	-	-	3,260			<AS				<AS		1,918		<AS				<AS				1,918	
-	-	>8<9µm:	-	-	384			<AS				<AS		767		192				192				959	
-	-	>9<10µm:	-	-	959			<AS				192		575		<AS				<AS				959	
-	-	>10µm:	-	-	1,534			384				575		767		<AS				384				959	
	TOTAL:		-	-	**368,545**			**538,627**				**293,378**		**390,213**		**205,365**				**359,532**				**1,580,025**	
	PERCENTAGES (%)																								
-	-	>0<1µm:	-	-	70.40%			83.16%				92.42%		69.53%		93.18%				77.17%				72.09%	
-	-	>1<2µm:	-	-	15.24%			12.92%				5.69%		18.28%		5.51%				16.32%				19.48%	
-	-	>2<3µm:	-	-	5.46%			2.81%				1.11%		6.04%		0.47%				4.32%				4.79%	
-	-	>3<4µm:	-	-	3.07%			0.61%				0.39%		2.41%		0.28%				1.07%				1.70%	
-	-	>4<5µm:	-	-	2.03%			0.25%				0.07%		1.38%		0.37%				0.53%				1.15%	
-	-	>5<6µm:	-	-	1.51%			0.14%				0.07%		0.84%		0.09%				0.27%				0.42%	
-	-	>6<7µm:	-	-	0.62%			0.04%				0.00%		0.49%		0.00%				0.16%				0.06%	
-	-	>7<8µm:	-	-	0.88%			0.00%				0.00%		0.49%		0.00%				0.00%				0.12%	
-	-	>8<9µm:	-	-	0.10%			0.00%				0.00%		0.20%		0.09%				0.05%				0.06%	
-	-	>9<10µm:	-	-	0.26%			0.00%				0.07%		0.15%		0.00%				0.00%				0.06%	
-	-	>10µm:	-	-	0.42%			0.07%				0.20%		0.20%		0.00%				0.11%				0.06%	
	TOTAL:		-	-	100.00%			100.00%				100.00%		100.00%		100.00%				100.00%				100.00%	
	AVERAGE D (µm)		-	-	**1.12**			**0.62**				**0.49**		**1.01**		**0.46**				**0.78**				**0.86**	

Note: Case numbers shown in the header correspond to sample scenarios defined in the report, as summarized below:
- Case 1: unfiltered sample, analyzed for VOCs and phenol
- Case 2: 0.45-micron filtered sample, analyzed for VOCs and phenol
- Case 2a: 0.45-micron filtered sample, filtered twice and analyzed for VOCs only
- Case 3: 0.1-micron filtered sample, analyzed for VOCs and phenol
- Case 3a: 0.1-micron filtered sample, filtered twice and analyzed for VOCs only

TABLE 6I-1: FILTER TESTING CASE STUDY RESULTS; 2022 ONONDAGA LAKE MONITORING AND MAINTENACE REPORT
APPENDIX 6I

					Location ID	OL-RAD-CAP-0004		OL-RAD-CAP-0004		OL-RAD-CAP-0004		OL-RAD-CAP-0004		OL-RAD-CAP-0021		OL-RAD-CAP-0021		OL-RAD-CAP-0021		OL-RAD-CAP-0021		OL-RAD-CAP-0021	
					Field Sample ID	2022DEFT-01-11		2022DEFT-01-12		2022DEFT-01-13		2022DEFT-01-14		2022DEFT-02-01		2022DEFT-02-02		2022DEFT-02-03		2022DEFT-02-04		2022DEFT-02-05	
					Start Depth (in)	12		12		12		12		12		12		12		12		12	
					End Depth (in)	15		15		15		15		15		15		15		15		15	
					Sampled	06/15/2022 15:15		06/15/2022 15:20		06/15/2022 15:25		06/15/2022 15:30		06/16/2022 12:00		06/16/2022 12:05		06/16/2022 12:10		06/16/2022 13:00		06/16/2022 13:05	
					SDG	R2205517		R2205517		R2205517		R2205517		R2205517		R2205517		R2205517		R2205517		R2205517	
					Lab Sample ID	R2205517-011		R2205517-012		R2205517-013		R2205517-014		R2205517-015		R2205517-016		R2205517-017		R2205517-018		R2205517-019	
					Sample Type	N		N		N		N		N		N		N		N		N	
					Matrix	WPR		WPR		WPR		WPR		WPR		WPR		WPR		WPR		WPR	
Method	Parameter Code	Parameter Name	Units	Fraction	Case:	2		Case:	2a	Case:	3	Case:	3a	Case:	1	Case:	2	Case:	2a	Case:	3	Case:	3a
SW8260C	87-61-6	1,2,3-Trichlorobenzene	ug/l	T	0.25	U		0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
SW8260C	120-82-1	1,2,4-Trichlorobenzene	ug/l	T	0.34	U		0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U
SW8260C	95-50-1	1,2-Dichlorobenzene	ug/l	T	0.2	U		0.2	U	0.2	U	0.2	U	0.67	J	0.2	U	0.2	U	0.2	U	0.2	U
SW8260C	108-70-3	1,3,5-Trichlorobenzene	ug/l	T	0.27	U		0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U
SW8260C	541-73-1	1,3-Dichlorobenzene	ug/l	T	0.2	U		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SW8260C	106-46-7	1,4-Dichlorobenzene	ug/l	T	0.23	J		0.28	J	0.2	U	0.2	U	1.3		0.31	J	0.29	J	0.35	J	0.32	J
SW8260C	71-43-2	Benzene	ug/l	T	1.2			1.3		1.7		1.3		18		5.6		5.3		2.1		2	
SW8260C	108-90-7	Chlorobenzene	ug/l	T	0.2	U		0.2	U	0.2	U	0.2	U	16		0.59	J	1.2		0.82	J	1	
SW8260C	100-41-4	Ethylbenzene	ug/l	T	0.32	J		0.23	J	0.28	J	0.28	J	0.2	U	0.22	J	0.2	U	0.27	J	0.24	J
SW8260C	179601-23-1	m,p-Xylene	ug/l	T	0.95	J		0.77	J	0.9	J	0.92	J	1.4	J	0.79	J	0.71	J	0.84	J	0.97	J
SW8260C	91-20-3	Naphthalene	ug/l	T	0.55	U		0.55	U	0.55	U	0.55	U	0.59	J	0.55	U	0.55	U	0.55	U	0.55	U
SW8260C	95-47-6	O-Xylene (1,2-Dimethylbenzene)	ug/l	T	0.46	J		0.4	J	0.45	J	0.39	J	0.53	J	0.38	J	0.44	J	0.42	J	0.36	J
SW8260C	108-88-3	Toluene	ug/l	T	3.8			4.3		3.5		3.1		1.2		3.3		3.3		3.3		3	
SW8260C	1330-20-7	Xylenes	ug/l	T	1.4	J		1.2	J	1.3	J	1.3	J	1.9	J	1.2	J	1.2	J	1.3	J	1.3	J
SW8270D	108-95-2	Phenol	ug/l	T	130					17	J			6.6	U	6.3	UJ			66			
PARTICLE SIZE DISTRIBUTION (PSD)																							
-	-	ALS Sample ID	-	-	22060825-08A					22060825-09A				22060825-10A		22060825-11A				22060825-12A			
-	-	Volume	L	-	0.01					0.01				0.00002		0.001				0.001			
-	-	AS	Str/mm^2	-	17.84					17.84				17.84		17.84				17.84			
-	-	AS	MSL	-	1.92					1.92				958.75		19.18				19.18			
CONCENTRATION (MSL)																							
-	-	>0<1µm:	-	-	5,986					4,186				1,455,387		14,132				31,907			
-	-	>1<2µm:	-	-	1,388					882				343,234		4,180				9,262			
-	-	>2<3µm:	-	-	270					138				79,577		537				3,279			
-	-	>3<4µm:	-	-	79					36				31,639		268				1,208			
-	-	>4<5µm:	-	-	36					13				7,670		38				614			
-	-	>5<6µm:	-	-	21					8				3,835		58				326			
-	-	>6<7µm:	-	-	4					2				1,918		19				268			
-	-	>7<8µm:	-	-	4					<AS				<AS		19				173			
-	-	>8<9µm:	-	-	4					<AS				1,918		19				96			
-	-	>9<10µm:	-	-	<AS					<AS				<AS		<AS				58			
-	-	>10µm:	-	-	10					4				1,918		58				96			
TOTAL:			-	-	**7,802**					**5,269**				**1,927,094**		**19,328**				**47,286**			
PERCENTAGES (%)																							
-	-	>0<1µm:	-	-	76.73%					79.44%				75.52%		73.12%				67.48%			
-	-	>1<2µm:	-	-	17.79%					16.74%				17.81%		21.63%				19.59%			
-	-	>2<3µm:	-	-	3.47%					2.62%				4.13%		2.78%				6.93%			
-	-	>3<4µm:	-	-	1.01%					0.69%				1.64%		1.39%				2.55%			
-	-	>4<5µm:	-	-	0.47%					0.25%				0.40%		0.20%				1.30%			
-	-	>5<6µm:	-	-	0.27%					0.15%				0.20%		0.30%				0.69%			
-	-	>6<7µm:	-	-	0.05%					0.04%				0.10%		0.10%				0.57%			
-	-	>7<8µm:	-	-	0.05%					0.00%				0.00%		0.10%				0.36%			
-	-	>8<9µm:	-	-	0.05%					0.00%				0.10%		0.10%				0.20%			
-	-	>9<10µm:	-	-	0.00%					0.00%				0.00%		0.00%				0.12%			
-	-	>10µm:	-	-	0.12%					0.07%				0.10%		0.30%				0.20%			
TOTAL:			-	-	100.00%					100.00%				100.00%		100.00%				100.00%			
AVERAGE D (µm)			-	-	**0.78**					**0.73**				**0.77**		**0.80**				**1.03**			

Note: Case numbers shown in the header correspond to sample scenarios defined in the report, as summarized below:
- Case 1: unfiltered sample, analyzed for VOCs and phenol
- Case 2: 0.45-micron filtered sample, analyzed for VOCs and phenol
- Case 2a: 0.45-micron filtered sample, filtered twice and analyzed for VOCs only
- Case 3: 0.1-micron filtered sample, analyzed for VOCs and phenol
- Case 3a: 0.1-micron filtered sample, filtered twice and analyzed for VOCs only

TABLE 6I-1: FILTER TESTING CASE STUDY RESULTS; 2022 ONONDAGA LAKE MONITORING AND MAINTENACE REPORT
APPENDIX 6I

					Location ID	OL-RAD-CAP-0031		OL-RAD-CAP-0031		OL-RAD-CAP-0031		OL-RAD-CAP-0031		OL-RAD-CAP-0031		OL-RAD-CAP-0031		OL-RAD-CAP-0031	
					Field Sample ID	2022DEFT-03-01		2022DEFT-03-02		2022DEFT-03-03		2022DEFT-03-04		2022DEFT-03-05		2022DEFT-04-01		2022DEFT-04-02	
					Start Depth (in)	12		12		12		12		12		12		12	
					End Depth (in)	15		15		15		15		15		15		15	
					Sampled	06/17/2022 12:20		06/17/2022 12:25		06/17/2022 12:30		06/17/2022 12:35		06/17/2022 12:40		06/21/2022 10:30		06/21/2022 10:35	
					SDG	R2205609		R2205609		R2205609		R2205609		R2205609		R2205686		R2205686	
					Lab Sample ID	R2205609-001		R2205609-002		R2205609-003		R2205609-004		R2205609-005		R2205686-001		R2205686-002	
					Sample Type	N		N		N		N		N		N		N	
					Matrix	WPR		WPR		WPR		WPR		WPR		WPR		WPR	
Method	Parameter Code	Parameter Name	Units	Fraction	Case:	1		Case:	2	Case:	2a	Case:	3	Case:	3a	Case:	1	Case:	2
SW8260C	87-61-6	1,2,3-Trichlorobenzene	ug/l	T	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U				
SW8260C	120-82-1	1,2,4-Trichlorobenzene	ug/l	T	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U				
SW8260C	95-50-1	1,2-Dichlorobenzene	ug/l	T	0.91	J	0.2	U	0.2	U	0.3	J	0.2	U				
SW8260C	108-70-3	1,3,5-Trichlorobenzene	ug/l	T	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U				
SW8260C	541-73-1	1,3-Dichlorobenzene	ug/l	T	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U				
SW8260C	106-46-7	1,4-Dichlorobenzene	ug/l	T	1.3		0.2	U	0.2	U	0.48	J	0.32	J				
SW8260C	71-43-2	Benzene	ug/l	T	1.3		0.2	U	0.2	U	0.4	J	0.35	J				
SW8260C	108-90-7	Chlorobenzene	ug/l	T	4.6		0.2	U	0.2	U	1		0.37	J				
SW8260C	100-41-4	Ethylbenzene	ug/l	T	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U				
SW8260C	179601-23-1	m,p-Xylene	ug/l	T	0.77	J	0.2	U	0.2	J	0.28	J	0.27	J				
SW8260C	91-20-3	Naphthalene	ug/l	T	1.1		0.55	U	0.55	U	0.55	U	0.55	U				
SW8260C	95-47-6	O-Xylene (1,2-Dimethylbenzene)	ug/l	T	0.35	J	0.2	U	0.2	U	0.23	J	0.2	U				
SW8260C	108-88-3	Toluene	ug/l	T	0.62	J	0.28	J	0.35	J	0.55	J	0.57	J				
SW8260C	1330-20-7	Xylenes	ug/l	T	1.1	J	0.23	U	0.23	U	0.51	J	0.27	J				
SW8270D	108-95-2	Phenol	ug/l	T	6.6	U	69				38				20		130	
PARTICLE SIZE DISTRIBUTION (PSD)																			
-	-	ALS Sample ID	-	-	22060879-01A		22060879-02A				22060879-03A							
-	-	Volume	L	-	0.00002		0.01				0.001							
-	-	AS	Str/mm^2	-	17.84		17.84				17.84							
-	-	AS	MSL	-	958.75		1.92				19.18							
CONCENTRATION (MSL)																			
-	-	>0<1µm:	-	-	1,547,427		3,871				43,604							
-	-	>1<2µm:	-	-	294,337		1,147				8,590							
-	-	>2<3µm:	-	-	73,824		130				2,531							
-	-	>3<4µm:	-	-	20,134		31				959							
-	-	>4<5µm:	-	-	5,753		4				460							
-	-	>5<6µm:	-	-	3,835		<AS				249							
-	-	>6<7µm:	-	-	3,835		<AS				192							
-	-	>7<8µm:	-	-	959		<AS				19							
-	-	>8<9µm:	-	-	959		<AS				<AS							
-	-	>9<10µm:	-	-	959		<AS				<AS							
-	-	>10µm:	-	-	2,876		2				58							
TOTAL:			-	-	**1,954,898**		**5,185**				**56,662**							
PERCENTAGES (%)																			
-	-	>0<1µm:	-	-	79.16%		74.67%				76.95%							
-	-	>1<2µm:	-	-	15.06%		22.12%				15.16%							
-	-	>2<3µm:	-	-	3.78%		2.51%				4.47%							
-	-	>3<4µm:	-	-	1.03%		0.59%				1.69%							
-	-	>4<5µm:	-	-	0.29%		0.07%				0.81%							
-	-	>5<6µm:	-	-	0.20%		0.00%				0.44%							
-	-	>6<7µm:	-	-	0.20%		0.00%				0.34%							
-	-	>7<8µm:	-	-	0.05%		0.00%				0.03%							
-	-	>8<9µm:	-	-	0.05%		0.00%				0.00%							
-	-	>9<10µm:	-	-	0.05%		0.00%				0.00%							
-	-	>10µm:	-	-	0.15%		0.04%				0.10%							
TOTAL:			-	-	100.00%		100.00%				100.00%							
AVERAGE D (µm)			-	-	**0.70**		**0.79**				**0.79**							

Note: Case numbers shown in the header correspond to sample scenarios defined in the report, as summarized below:
- Case 1: unfiltered sample, analyzed for VOCs and phenol
- Case 2: 0.45-micron filtered sample, analyzed for VOCs and phenol
- Case 2a: 0.45-micron filtered sample, filtered twice and analyzed for VOCs only
- Case 3: 0.1-micron filtered sample, analyzed for VOCs and phenol
- Case 3a: 0.1-micron filtered sample, filtered twice and analyzed for VOCs only

TABLE 6I-2: FILTER BLANK TESTING RESULTS; 2022 ONONDAGA LAKE MONITORING AND MAINTENACE REPORT
APPENDIX 6I

					Location ID		2022DEFT-06-06		2022DEFT-07-05		TB-08262022		AB1XR1 2022DEFT-05-07		AB1XR2 2022DEFT-05-08		AB5XR1 2022DEFT-05-09		AB5XR2 2022DEFT-05-10		CA1XR1 2022DEFT-07-01		CA1XR2 2022DEFT-07-02	
					Field Sample ID																			
					Start Depth (in)																			
					End Depth (in)																			
					Sampled		8/26/2022		9/1/2022		8/26/2022		8/26/2022		8/26/2022		8/26/2022		8/26/2022		9/1/2022		9/1/2022	
					SDG		R2208040		R2208251		R2208036		R2208036		R2208036		R2208036		R2208036		R2208251		R2208251	
					Lab Sample ID		R2208040-006		R2208251-005		R2208036-015		R2208036-007		R2208036-008		R2208036-009		R2208036-010		R2208251-001		R2208251-002	
					Sample Type		TB		TB		TB		EB		EB		EB		EB		EB		EB	
					Matrix		WQ		WQ		WQ		WQ		WQ		WQ		WQ		WQ		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction																				
SW8260C	87-61-6	1,2,3-Trichlorobenzene	ug/l	T	0.25	U	0.25	UJ	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	UJ	0.25	UJ
SW8260C	120-82-1	1,2,4-Trichlorobenzene	ug/l	T	0.34	U	0.34	UJ	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	UJ	0.34	UJ
SW8260C	95-50-1	1,2-Dichlorobenzene	ug/l	T	0.2	U	0.2	UJ	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	UJ	0.2	UJ
SW8260C	108-70-3	1,3,5-Trichlorobenzene	ug/l	T	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ
SW8260C	541-73-1	1,3-Dichlorobenzene	ug/l	T	0.2	U	0.2	UJ	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	UJ	0.2	UJ
SW8260C	106-46-7	1,4-Dichlorobenzene	ug/l	T	0.2	U	0.2	UJ	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	UJ	0.2	UJ
SW8260C	71-43-2	Benzene	ug/l	T	0.2	U	0.2	UJ	0.2	U	0.55	J	0.61	J	0.2	U	0.2	U	0.2	U	0.2	UJ	0.2	UJ
SW8260C	108-90-7	Chlorobenzene	ug/l	T	0.2	U	0.2	UJ	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	UJ	0.2	UJ
SW8260C	100-41-4	Ethylbenzene	ug/l	T	0.2	U	0.2	UJ	0.2	U	0.21	J	0.2	U	0.22	J	0.2	U	0.2	UJ	0.2	UJ	0.2	UJ
SW8260C	179601-23-1	m,p-Xylene	ug/l	T	0.2	U	0.2	UJ	0.2	U	0.8	J	0.71	J	0.57	J	0.49	J	0.2	UJ	0.2	UJ	0.2	UJ
SW8260C	91-20-3	Naphthalene	ug/l	T	0.55	U	0.55	UJ	0.55	U	0.55	U	0.55	U	0.55	U	0.55	U	0.55	U	0.55	UJ	0.55	UJ
SW8260C	95-47-6	O-Xylene (1,2-Dimethylbenzene)	ug/l	T	0.2	U	0.2	UJ	0.2	U	0.38	J	0.33	J	0.25	J	0.23	J	0.2	UJ	0.2	UJ	0.2	UJ
SW8260C	108-88-3	Toluene	ug/l	T	0.2	U	0.2	UJ	0.2	U	3.3		3.9		2.3		2.7		0.2	UJ	0.2	UJ	0.2	UJ
SW8260C	1330-20-7	Xylenes	ug/l	T	0.23	U	0.23	UJ	0.23	U	1.2	J	1	J	0.82	J	0.72	J	0.23	UJ	0.23	UJ	0.23	UJ
SW8270D	108-95-2	Phenol	ug/l	T							0.2	U	0.2	U	0.2	U	0.2	U	0.21	J	0.18	U		

TABLE 6I-2: FILTER BLANK TESTING RESULTS; 2022 ONONDAGA LAKE MONITORING AND MAINTENACE REPORT
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					Location ID		CA5XR1		CA5XR2		GLASS1XR1		GLASS1XR2		GLASS5XR1		GLASS5XR2		NYLON1XR1		PA1XR1		PA1XR2		PA5XR1	
					Field Sample ID		2022DEFT-07-03		2022DEFT-07-04		2022DEFT-06-01		2022DEFT-06-02		2022DEFT-06-03		2022DEFT-06-04		2022DEFT-06-05		2022DEFT-05-11		2022DEFT-05-12		2022DEFT-05-13	
					Start Depth (in)																					
					End Depth (in)																					
					Sampled		9/1/2022		9/1/2022		8/26/2022		8/26/2022		8/26/2022		8/26/2022		8/26/2022		8/26/2022		8/26/2022		8/26/2022	
					SDG		R2208251		R2208251		R2208040		R2208040		R2208040		R2208040		R2208040		R2208036		R2208036		R2208036	
					Lab Sample ID		R2208251-003		R2208251-004		R2208040-001		R2208040-002		R2208040-003		R2208040-004		R2208040-005		R2208036-011		R2208036-012		R2208036-013	
					Sample Type		EB		EB		EB		EB		EB		EB		EB		EB		EB		EB	
					Matrix		WQ		WQ		WQ		WQ		WQ		WQ		WQ		WQ		WQ		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction																						
SW8260C	87-61-6	1,2,3-Trichlorobenzene	ug/l	T	0.25	UJ	0.25	UJ	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
SW8260C	120-82-1	1,2,4-Trichlorobenzene	ug/l	T	0.34	UJ	0.34	UJ	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U
SW8260C	95-50-1	1,2-Dichlorobenzene	ug/l	T	0.2	UJ	0.2	UJ	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SW8260C	108-70-3	1,3,5-Trichlorobenzene	ug/l	T	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ
SW8260C	541-73-1	1,3-Dichlorobenzene	ug/l	T	0.2	UJ	0.2	UJ	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SW8260C	106-46-7	1,4-Dichlorobenzene	ug/l	T	0.2	UJ	0.2	UJ	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SW8260C	71-43-2	Benzene	ug/l	T	0.2	UJ	0.2	UJ	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.45	J	0.51	J	0.26	J
SW8260C	108-90-7	Chlorobenzene	ug/l	T	0.2	UJ	0.2	UJ	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SW8260C	100-41-4	Ethylbenzene	ug/l	T	0.2	UJ	0.2	UJ	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SW8260C	179601-23-1	m,p-Xylene	ug/l	T	0.2	UJ	0.2	UJ	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.31	J	0.2	U	0.23	J
SW8260C	91-20-3	Naphthalene	ug/l	T	0.55	UJ	0.55	UJ	0.55	U	0.55	U	0.55	U	0.55	U	0.55	U	0.55	U	0.55	U	0.55	U	0.55	U
SW8260C	95-47-6	O-Xylene (1,2-Dimethylbenzene)	ug/l	T	0.2	UJ	0.2	UJ	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SW8260C	108-88-3	Toluene	ug/l	T	0.2	UJ	0.2	UJ	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.9		1.1		1.4	
SW8260C	1330-20-7	Xylenes	ug/l	T	0.23	UJ	0.23	UJ	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.31	J	0.23	U	0.23	U
SW8270D	108-95-2	Phenol	ug/l	T	0.18	U	0.28	J	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

TABLE 6I-2: FILTER BLANK TESTING RESULTS; 2022 ONONDAGA LAKE MONITORING AND MAINTENACE REPORT
APPENDIX 6I

					Location ID	PA5XR2		UNFILTERED 1		UNFILTERED 2		VOSS1XR1		VOSS1XR2		VOSS5XR1		VOSS5XR2	
					Field Sample ID	2022DEFT-05-14		2022DEFT-05-01		2022DEFT-05-02		2022DEFT-05-03		2022DEFT-05-04		2022DEFT-05-05		2022DEFT-05-06	
					Start Depth (in)														
					End Depth (in)														
					Sampled	8/26/2022		8/26/2022		8/26/2022		8/26/2022		8/26/2022		8/26/2022		8/26/2022	
					SDG	R2208036		R2208036		R2208036		R2208036		R2208036		R2208036		R2208036	
					Lab Sample ID	R2208036-014		R2208036-001		R2208036-002		R2208036-003		R2208036-004		R2208036-005		R2208036-006	
					Sample Type	EB		EB		EB		EB		EB		EB		EB	
					Matrix	WQ		WQ		WQ		WQ		WQ		WQ		WQ	
Method	Parameter Code	Parameter Name	Units	Fraction															
SW8260C	87-61-6	1,2,3-Trichlorobenzene	ug/l	T	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
SW8260C	120-82-1	1,2,4-Trichlorobenzene	ug/l	T	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U
SW8260C	95-50-1	1,2-Dichlorobenzene	ug/l	T	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SW8260C	108-70-3	1,3,5-Trichlorobenzene	ug/l	T	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ
SW8260C	541-73-1	1,3-Dichlorobenzene	ug/l	T	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SW8260C	106-46-7	1,4-Dichlorobenzene	ug/l	T	0.2	U	0.27	J	0.2	U	0.2	U	0.43	J	0.37	J	0.2	U
SW8260C	71-43-2	Benzene	ug/l	T	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SW8260C	108-90-7	Chlorobenzene	ug/l	T	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SW8260C	100-41-4	Ethylbenzene	ug/l	T	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SW8260C	179601-23-1	m,p-Xylene	ug/l	T	0.2	U	0.2	U	0.2	U	0.47	J	0.63	J	0.33	J	0.47	J
SW8260C	91-20-3	Naphthalene	ug/l	T	0.55	U	0.55	U	0.55	U	0.55	U	0.55	U	0.55	U	0.55	U
SW8260C	95-47-6	O-Xylene (1,2-Dimethylbenzene)	ug/l	T	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SW8260C	108-88-3	Toluene	ug/l	T	0.66	J	0.2	U	0.2	U	1		0.74	J	0.41	J	1.5	
SW8260C	1330-20-7	Xylenes	ug/l	T	0.23	U	0.23	U	0.23	U	0.47	J	0.63	J	0.33	J	0.47	J
SW8270D	108-95-2	Phenol	ug/l	T	0.2	U	0.2	U	0.2	U	0.2	U	0.24	J	0.32	J	0.2	U

APPENDIX 7A - SURFACE WATER MONITORING DATA USABILITY SUMMARY REPORT

APPENDIX 7A:

DATA USABILITY SUMMARY REPORT

ONONDAGA LAKE SURFACE WATER MONITORING
ONONDAGA COUNTY, NEW YORK

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Honeywell

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Prepared By:

PARSONS

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APRIL 2023

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LIST OF ATTACHMENTS

ATTACHMENT A – VALIDATED LABORATORY DATA

SECTION 7A1 DATA USABILITY SUMMARY

Surface water samples were collected as part of the Onondaga Lake Surface Water Compliance sampling on August 2, 2022 and October 20, 2022. Analytical results from these samples were validated and reviewed by Parsons for usability with respect to the following requirements:

- Work Plan;
- Onondaga Lake QAPP; and
- USEPA Region II Standard Operating Procedures (SOPs) for organic and inorganic data review.

The analytical laboratory for this project was Eurofins – Frontier (Eurofins). This laboratory is certified to conduct project analyses through the New York State Department of Health (NYSDOH) and the National Environmental Laboratory Accreditation Program (NELAP).

7A1.1 Laboratory Data Packages

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 11-16 days for the samples.

The laboratory data packages received from Eurofins were paginated, complete, and overall were of good quality. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation reports which are summarized in Section 2.

7A1.2 Sampling and Chain-of-Custody

The samples were collected, properly preserved, shipped under a chain-of-custody (COC) record, and received at Eurofins within one day of sampling. All samples were received intact and in good condition at Eurofins.

7A1.3 Laboratory Analytical Methods

The surface water samples were collected and analyzed for total and dissolved mercury and methyl mercury. Summaries of issues concerning these laboratory analyses are presented in Subsection 1.3.1. The data qualifications resulting from the data validation review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) are discussed for each analytical method in Section 2 of this Data Usability Summary Report (DUSR). A USEPA Stage 4 data validation (i.e., full data validation) was conducted by Parsons on 10% of the project samples with the remaining 90% of the project samples undergoing a USEPA Stage 2B data validation which provides data defensibility. The laboratory data were reviewed and may be qualified with the following validation flags:

"U" - not detected at the value given,
"UJ" - estimated and not detected at the value given,
"J" - estimated at the value given,
"J+" - estimated biased high at the value given,
"J-" - estimated biased low at the value given,
"N" - presumptive evidence at the value given, and
"R" - unusable value.

The validated laboratory data were tabulated and are presented in Attachment A.

7A1.3.1 Mercury and Methyl Mercury Analysis

Surface water samples collected from the site were analyzed for total and dissolved mercury using the USEPA 1631E analytical method; and methyl mercury using the USEPA 1630 analytical method. Certain reported results for these samples were qualified as estimated based upon field duplicate precision; and qualified as not detected based upon blank contamination. The mercury and methyl mercury results were considered 100% complete (i.e., usable) for the data presented by Eurofins. PARCCS requirements were met.

SECTION 7A2 DATA VALIDATION REPORT

7A2.1 Surface Water Samples

Data review has been completed for data packages generated by Eurofins containing surface water samples collected from the site. These samples were contained within sample delivery groups (SDGs) 580-116550-1 and 580-119061-1. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory. The validated laboratory data were tabulated and are presented in Attachment A.

Data validation was performed for all samples in accordance with the project work plan, QAPP, and the USEPA Region II SOPs for organic and inorganic data review. This data validation and usability report is presented by analysis type.

7A2.1.1 Total and Dissolved Mercury and Methyl Mercury

The following items were reviewed for compliancy in the mercury and methyl mercury analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration blank, laboratory preparation blank, and field blank contamination
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of blank contamination and field duplicate precision as discussed below.

Blank Contamination

The initial calibration blank associated with samples in SDG 580-116550-1 contained methyl mercury below the reporting limit at a concentration of 0.0409 ng/L; the laboratory preparation blank associated with samples OL-3732-01, -02, -03, -04, -05, and -12 contained methyl mercury below the reporting limit at a concentration of 0.0436 ng/L; the QC field blank associated with samples in SDG 580-116550-1 contained total and dissolved mercury below the reporting limit at concentrations of 0.24 and 0.19 ng/L, respectively; the laboratory filter blank associated with samples in SDG 580-116550-1 contained dissolved mercury at a concentration of 3.59 ng/L; the laboratory filter blank associated with samples in SDG 580-119061-1 contained dissolved mercury below the reporting limit at a concentration of 0.0930 ng/L; and the continuing calibration blanks associated with samples OL-3732-04, -06 through -11, -13, and -14 contained total and dissolved mercury below the reporting limit at concentrations ranging 0.0850-0.104 ng/L. Therefore, results for these analytes less than validation action concentrations were considered not detected and qualified “U” for the affected samples.

Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the results for methyl mercury (0.053 ng/L and nondetect) associated with sample OL-3732-12 and its field duplicate OL-3732-13.

Therefore, results for this analyte were considered estimated with the positive result qualified "J" and the nondetected result qualified "UJ" for the affected parent sample and field duplicate.

Usability

All mercury and methyl mercury results for the surface water samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The mercury and methyl mercury data for the surface water samples presented by Eurofins were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

ATTACHMENT A – VALIDATED LABORATORY DATA

Onondaga Lake
2022 Surface Water Compliance (Near Shore - pre-Turnover)

							Parameter	Mercury		Mercury		Methyl Mercury	
							Method	E1631		E1631		E1630	
							Filtered	N		Y		N	
							Units	ng/l		ng/l		ng/l	
Location ID	**Field Sample ID**	**Depth (ft)**	**Sampled**	**SDG**	**Matrix**	**Purpose**	**Sample Type**						
DEEP_N	OL-3732-01	6.6 - 6.6	08/02/2022	580-116550-1	Water	REG	SW	0.52		0.50	U	0.026	U
OL-RAA-SW-01	OL-3732-02	1.65 - 1.65	08/02/2022	580-116550-1	Water	REG	SW	3.3		0.50	U	0.11	
OL-RAB-SW-02	OL-3732-03	2.48 - 2.48	08/02/2022	580-116550-1	Water	REG	SW	0.77		0.59	U	0.10	
OL-RAB-SW-01	OL-3732-04	1.65 - 1.65	08/02/2022	580-116550-1	Water	REG	SW	0.61		0.50	U	0.026	U
OL-RAC-SW-01	OL-3732-05	9.9 - 9.9	08/02/2022	580-116550-1	Water	REG	SW	1.0		0.50	U	0.026	U
OL-RAC-SW-02	OL-3732-06	1.65 - 1.65	08/02/2022	580-116550-1	Water	REG	SW	0.72		0.50	U	0.026	U
OL-RAD-SW-01	OL-3732-07	4.95 - 4.95	08/02/2022	580-116550-1	Water	REG	SW	0.81		0.50	U	0.026	U
OL-RAD-SW-02	OL-3732-08	2.48 - 2.48	08/02/2022	580-116550-1	Water	REG	SW	0.75		0.50	U	0.059	
OL-RAE-SW-01	OL-3732-09	0.825 - 0.825	08/02/2022	580-116550-1	Water	REG	SW	0.78		0.52	U	0.064	
OL-RAE-SW-02	OL-3732-10	6.6 - 6.6	08/02/2022	580-116550-1	Water	REG	SW	0.82		0.50	U	0.026	U
OL-RAE-SW-03	OL-3732-11	1.65 - 1.65	08/02/2022	580-116550-1	Water	REG	SW	0.57		0.50	U	0.068	
DEEP_S	OL-3732-12	6.6 - 6.6	08/02/2022	580-116550-1	Water	REG	SW	0.44	J	0.50	U	0.053	J
DEEP_S	OL-3732-13	6.6 - 6.6	08/02/2022	580-116550-1	Water	FD	SW	0.53		0.50	U	0.026	U
QC	OL-3732-14	-	08/02/2022	580-116550-1	Water	FB	WQ	0.24	J	0.50	U	0.026	U
DEEP_N	OL-3733-01	6.6 - 6.6	10/20/2022	580-119061-1	Water	REG	SW	0.62		0.16	J	0.048	J
OL-RAA-SW-01	OL-3733-02	0.825 - 0.825	10/20/2022	580-119061-1	Water	REG	SW	0.54		0.15	J	0.071	
OL-RAB-SW-02	OL-3733-03	1.65 - 1.65	10/20/2022	580-119061-1	Water	REG	SW	0.61		0.16	J	0.040	J
OL-RAB-SW-01	OL-3733-04	1.65 - 1.65	10/20/2022	580-119061-1	Water	REG	SW	0.66		0.22	J	0.037	J
OL-RAC-SW-01	OL-3733-05	9.9 - 9.9	10/20/2022	580-119061-1	Water	REG	SW	3.4		0.22	J	0.070	
OL-RAC-SW-02	OL-3733-06	2.48 - 2.48	10/20/2022	580-119061-1	Water	REG	SW	0.65		0.22	J	0.042	J
OL-RAD-SW-01	OL-3733-07	4.95 - 4.95	10/20/2022	580-119061-1	Water	REG	SW	0.73		0.53		0.031	J
OL-RAD-SW-02	OL-3733-08	3.3 - 3.3	10/20/2022	580-119061-1	Water	REG	SW	0.71		0.20	J	0.026	U
OL-RAE-SW-01	OL-3733-09	0.825 - 0.825	10/20/2022	580-119061-1	Water	REG	SW	1.2		0.53		0.039	J
OL-RAE-SW-02	OL-3733-10	7.43 - 7.43	10/20/2022	580-119061-1	Water	REG	SW	0.75		0.27	J	0.057	
OL-RAE-SW-03	OL-3733-11	0.825 - 0.825	10/20/2022	580-119061-1	Water	REG	SW	0.83		0.31	J	0.074	
DEEP_S	OL-3733-12	6.6 - 6.6	10/20/2022	580-119061-1	Water	REG	SW	0.70		0.24	J	0.038	J
DEEP_S	OL-3733-13	6.6 - 6.6	10/20/2022	580-119061-1	Water	FD	SW	0.70		0.17	J	0.035	J
QC	OL-3733-14	-	10/20/2022	580-119061-1	Water	FB	WQ	0.079	U	0.079	U	0.026	U

ATTACHMENT 1 – 2022 ANNUAL POST CLOSURE CARE SUMMARY REPORT FOR THE ONONDAGA LAKE SEDIMENT CONSOLIDATION AREA (SCA)

2022 ANNUAL POST CLOSURE CARE SUMMARY REPORT FOR THE ONONDAGA LAKE SEDIMENT CONSOLIDATION AREA (SCA) TOWN OF CAMILLUS ONONDAGA COUNTY, NEW YORK

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MAY 2023

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LIST OF ACRONYMS

GAC	granular activated carbon
IPC	inclined plate clarifiers
LMS	liquid management system
LTS	liquid transmission system
Metro	Onondaga County Metropolitan Syracuse Wastewater Treatment Plant
NRD	Natural Resources Damages
NYSDEC	New York State Department of Environmental Conservation
PCCP	Post-Closure Care Plan
Q1, Q2, Q3, Q4	First, second, third and fourth quarters, respectively
ROD	Record of Decision
SCA	Sediment Consolidation Area
SOW	Scope of work
SVOC	Semivolatile Organic Compound
USDC	United States District Court
USFWS	United States Fish and Wildlife Service
VOC	volatile organic compound
WTP	Wastewater Treatment Plant

EXECUTIVE SUMMARY

The Sediment Consolidation Area (SCA) final cover system was completed in October 2017. The 2022 monitoring and maintenance activities were completed consistent with the SCA *Post-Closure Care Plan* (PCCP; Parsons and Beech and Bonaparte 2017), with the objective of maintaining and verifying the integrity and effectiveness of the cover system, surface water management system, liquid management system (LMS), and the SCA perimeter berm.

The monitoring activities in 2022 included:

- Quarterly visual inspections of the SCA final cover system and of the surface water management system
- Monthly inspections of the LMS and Stormwater Management systems
- Quarterly odor monitoring
- Additional inspections after major storm events and prior to mowing events

Maintenance activities included mowing, woody vegetation removal, and invasive species control, which were conducted as needed based on inspection findings.

Throughout the 2022 monitoring period, the systems were observed to be in good condition and were performing as intended. As recommended in the *2021 Annual Post-Closure Care Summary Report for the Onondaga Lake Sediment Consolidation Area* (Parsons 2022a), the site was monitored during inspections for any needs of supplementary seeding; areas with sparse vegetation were very minor and field observations determined enhancement seeding was not warranted in 2022.

During this monitoring period, the PCCP implemented at the SCA has been effective, and the program will continue as planned in 2023. Additional recommendations for 2023 include:

- Monitor the area of soil disturbance at the northern edge of the site repaired in 2022 and evaluate the need for additional seeding.
- Evaluate the need for erosion repair on liner daylighting noted on the northwest swale during 2022 quarterly inspections.
- Evaluate the need for additional invasive species maintenance.
- Evaluate the need for supplementary seed dispersal in small areas with sparse cover identified during the 2022 quarterly inspections.
- Continue LMS inspections at the reduced frequency (quarterly) as approved by the New York State Department of Environmental Conservation (NYSDEC). Discontinue odor monitoring pending NYSDEC approval.

1.0 INTRODUCTION

The Onondaga Lake Bottom Site, located near Syracuse in Central New York, is on the New York State Registry of Inactive Hazardous Waste Sites and is part of the Onondaga Lake National Priorities List. Honeywell entered into Consent Decree 89-CV-815 (United States District Court [USDC] 2007) with the New York State Department of Environmental Conservation (NYSDEC) to implement the selected remedy for the Onondaga Lake Bottom Subsite as outlined in the Record of Decision (ROD) issued on July 1, 2005 (NYSDEC 2005).

As specified in the ROD, a component of the selected lake remedy included dredging and on-site consolidation of sediments removed from the lake. Based on an evaluation of potential locations, the SCA was constructed on Wastebed 13 to contain sediment dredged from Onondaga Lake (**Figure 1**) in 2010, 2011, and 2012.

The approximately 55-acre SCA site was constructed in two phases. Two adjacent stormwater basins, the East Basin and the West Basin, occupy approximately 4 acres and 2.4 acres, respectively (Parsons and Anchor QEA 2017). The *Onondaga Lake SCA Civil and Geotechnical Final Design* (Parsons and Geosyntec 2011) describes the SCA liner system and perimeter berm design.

Dredging operations in Onondaga Lake and sediment transport to the SCA began in 2012 and were completed in November 2014. The *Onondaga Lake SCA Final Cover Design Report* (Parsons and Beech and Bonaparte 2016) describes the SCA final cover system design. Construction of the cover system began in 2015 and was completed in 2017. The final cover consisted of a leveling layer, a protective cover layer, and a vegetative layer for restoration of native grassland species. The existing leachate collection system was incorporated into the cover system construction by way of two vertical risers. The site layout is shown in **Figure 2**.

In addition to the above activities, the habitat quality of the vegetative cover of the SCA site was enhanced to meet the requirements set forth in paragraph 27 of the Natural Resource Damages (NRD) Consent Decree (USDC 2018). The scope of work (SOW) for this project (NRD SOW Project #6, “Native Grasslands Project”) is defined in the NRD Consent Decree. The SOW is overseen by the Onondaga Lake NRD Trustees Council, which is comprised of the New York State Commissioner of Environmental Conservation and United States Department of the Interior, represented by the NYSDEC and the United States Fish and Wildlife Service (USFWS), respectively. As discussed in the *Onondaga Lake Natural Resource Restoration Projects 2022 Annual Report* (Parsons 2022b), activities performed at the site as part of the NRD Native Grasslands Project in 2022 included mowing of one-third of the site, as well as invasive species spot treatment (see Section 3).

This report consists of five sections. Following this introduction:

Section 2 describes the findings of the various inspections and monitoring events completed at the site during the 2022 monitoring period.

Section 3 summarizes maintenance and enhancement activities conducted at the site during the monitoring period.

Section 4 provides recommendations for continued post-closure care in 2023 and outstanding maintenance items noted during the 2022 quarterly inspections.

Section 5 lists references cited in the report.

2.0 SITE INSPECTIONS AND MONITORING

The following describes inspections and monitoring events conducted at the site during 2022 as required by and outlined in the PCCP. These include:

- Visual inspections of the SCA final cover system
- Visual inspections of the surface water management, soil erosion, sediment control structures
- Inspection of the LMS
- Environmental monitoring

Site features are depicted on **Figure 2**.

2.1 SCA Final Cover System

Quarterly visual inspections of the SCA final cover system were completed in March, May, August, and December 2022 (see **Appendix A**). The objective of the final cover system inspections was to verify that the final cover system was continuing to prevent direct contact with the underlying materials and off-site transport of contaminated media. The final cover system was visually examined for the following:

- Evidence of subsidence or settling that results in low points or depressions
- Evidence of burrowing animals
- Evidence of trespassing or unauthorized use of the final cover area
- Presence of erosion rills
- Condition of vegetation (e.g., grass)
- Observable irregularities such as bulges, bumps, slumps, or cracks
- Evidence of ponded water
- Condition of gas vents
- Condition of drainage pipe outlets
- Condition of access roads (i.e., erosion, aggregate washout, exposed geotextile, and debris on the road)
- Condition of SCA perimeter berm
- Condition of areas near anchor trenches
- Other irregularities

During quarterly inspections, vegetation throughout the cover area was observed with a good density and diversity of native grassland species, which have established a solid root structure that prevents erosion. Both cool weather and warm weather species were identified during the inspections. Common species included switchgrass (*Panicum virgatum*), Virginia wildrye (*Elymus virginicus*), and big bluestem (*Andropogon gerardi*). Signs of minor erosion rills and small areas of sparse vegetation were documented during the 2022 quarterly inspections.

No sediment accumulation was observed within swales and downchutes during the 2022 inspections. Woody plants were identified in swales and downchutes and were removed throughout the year. No ponding on top of the site was noted during inspections in 2022.

The access road remained in good condition. Woody plants and small areas of Phragmites (*Phragmites australis*) were noted along the northern access road during the third quarter (Q3) inspection, but were not noted in Q4, likely due to seasonal senescence. The gas vents (and their surroundings) showed no signs of debris or sediment accumulation.

In Q1, Q3, and Q4 of 2022, evidence of minor animal burrowing was noted in the proximity of several gas vents. Additionally, soil settling (possibly caused by burrow collapse) was noted at the base of three gas vents in Q3 and Q4. Monitoring of the locations will continue in 2023 with repairs conducted, as necessary. **Appendix A** includes maps summarizing findings for each quarterly inspection during the monitoring period.

The PCCP requires additional visual inspections be conducted as soon as practical after major storm events, possible flooding events, or other events that may result in damage to the final cover system. No additional inspections were required in 2022 as storm events coincided with scheduled quarterly inspections.

2.2 Surface Water Management, Soil Erosion, and Sediment Control Structures

Visual inspections of the surface water management systems, temporary soil erosion features, and sediment control structures were completed quarterly as specified by the PCCP. Permanent surface water management structures include diversion berms, interception berms, drainage channels, and the East and West basins (including temporary pumps and pipes). The purpose of these inspections was to visually examine and evaluate the integrity and proper function of these structures.

Throughout the 2022 monitoring period, surface water management, sediment control structures, and soil erosion features were found to be in good condition. Stormwater basin levels were maintained to the extent practical to avoid water backing up onto the SCA cover. **Table 1** includes monthly summaries of the West Basin and East Basin elevations and discharge volumes of stormwater pumped directly to Outfall 18 from the East Basin. The west basin was modified in 2022 consistent with the July 2021 Alternate Solar Closure Construction Work Plan (Ramboll 2021). Piping was installed for gravity discharge as part of the alternate solar closure area stormwater conveyance infrastructure for ultimate discharge to Outfall 017 in accordance with SPDES Discharge Permit NY0002275.

Appendix A also contains quarterly inspection report packages specific to the surface water management system.

2.3 Liquid Management System

The LMS includes a liquid transmission system (LTS) and two sumps for collecting and removing leachate through two vertical risers at each sump location. Liquid enters the risers via sumps by gravity flow. The riser pumps were designed to turn on and off either automatically based on the liquid levels within the risers or be operated manually. However, the pumps are operated manually two to three times a week as discussed below.

The LTS transfers liquid to the SCA wastewater treatment plant (WTP) for pretreatment of the SCA effluent prior to discharge to the Onondaga County Metropolitan Syracuse Wastewater Treatment Plant (Metro). Pretreatment of the SCA effluent includes removal of metals, solids, and volatile and semivolatile organic compounds (VOCs and SVOCs, respectively). The pretreated water receives enhanced ammonia removal at Metro.

The SCA WTP includes facilities for pH adjustment, chemical addition of a coagulant, clarification, carbon adsorption, and effluent monitoring. The multi-train system at the SCA WTP has been reduced to a single train after completion of dredging in 2015 with the reduced flow of water from the SCA. The treatment train includes metals precipitation through pH adjustment and addition of alum/polymers, sludge thickening and separation in inclined plate clarifiers (IPC), and removal of organics with liquid-phased granular activated carbon (GAC) units. Thickened sludge from the clarifiers is discharged to a sludge holding tank within the SCA WTP and periodically shipped for off-site disposal. In 2022, influent was treated in batch mode, typically twice per week based on sump levels that are continuously monitored at the Willis Avenue WTP.

Typical maintenance activities for the LMS include:

- Effluent flow meter calibration quarterly
- pH probe calibration twice per month with a third-party calibration completed quarterly
- Air compressor maintenance
- Periodic GAC sampling to monitor for VOC breakthrough
- Clarifier plate cleaning
- Pump maintenance
- Heater maintenance

Continuing from previous years, LMS inspections were conducted monthly throughout 2022, and included the following elements:

- Verification that the automatic controls of the pumps are operational when the water treatment plant is ready to operate[1]
- Examination of the condition of instrumentation and/or valves (e.g., sticking or jammed devices, corrosion, leaks, and misalignments) and that the liquid removal process is functioning properly
- Verification that the operating conditions of the LMS are specified so that the liquid depth in the sump does not exceed 6 feet
- Verification that liquid is flowing from the sumps during pumping
- Recording of the flow rate and volume of liquids flowing from the sumps
- Confirmation that the pumps are operating and that high-level alarm conditions have not been reached
- Examination of the condition of the aboveground piping (including pipes at the top of the riser as well as the LTS piping) and the insulation around the pipes while pumping activities are occurring
- Verification that appropriate warning signage is clearly visible on-site (e.g., buried live electric line, liquid transmission pipe)
- Examination of the condition of mechanical and electrical instrumentation devices in winter prior to system startup in automatic mode (including verification that device heaters are in working order and the drains of the sump pump discharge piping are closed)
- Examination of the condition of the sump riser covers

The PCCP requires that additional inspections be conducted should a remote monitoring system become inoperable. No additional inspections were required in 2022.

All LMS inspections conducted during 2022 found the equipment to be in working order. The automated system is operational but was not used in 2022 due to low levels and systems run in batch mode. An alarm system was active throughout the year to alert for high levels. **Appendix A** includes the inspection forms for each LMS inspection conducted by Jacobs during 2022. **Table 2** includes monthly summaries of sump elevation and leachate volume pumped associated with each LMS inspection during the monitoring period.

The LMS system continues to function without issue, therefore the LMS monitoring will be reduced from monthly to quarterly for future monitoring periods, as approved by the NYSDEC on December 13, 2021.

[1] With the reduced leachate flow, pumping and treatment operations are done in batch mode. Operations are short in duration and are conducted manually.

2.4 Environmental Monitoring

Vent odor monitoring was conducted once per quarter in 2022, as approved by the NYSDEC on December 13, 2021. Monitoring consisted of odor observations at eight air monitoring stations located along the SCA work zone perimeter road (**Figure 1**). Monitoring was completed by a qualified individual who has experience with site-related odors. As summarized on **Table 3**, no site-related odors were detected during the 2022 monitoring period inspections.

3.0 MAINTENANCE AND ENHANCEMENTS

The following summarizes maintenance and enhancement efforts conducted at the site during 2022, as required in the PCCP and the NRD SOW.

Enhancement Seeding

In 2022, only small pockets of sparse vegetation were observed during the quarterly inspections of the final cover area; no additional seeding is required at this time. Site condition observations and field notes were recorded in the quarterly inspections (see **Appendix A**) and will be used as a reference for future enhancement seeding or repair recommendations.

Gas Vent Animal Burrow Repair

While small animal burrows were noted at the base of several gas vents throughout 2022, burrows were not persistent across inspections. Soil settling and vegetation growth around the gas vents likely resulted in the filling in of small animal burrows, making burrow repairs unnecessary at this time. The locations will be monitored in future inspections.

Invasive Species Management

The entire site was monitored for invasive species presence throughout 2022. On July 6 and September 14, 2022, the site was swept for invasive species and herbicide was applied, as necessary. Sparse patches of Phragmites were noted scattered on-site but densities were notable lower than in previous years.

Mowing

Mowing activities were completed in one-third of the vegetative cover area — including diversion/interception berms — from October 3 to October 6, 2022, following PCCP requirements, with the mower blade height set to 10 inches. Following the PCCP requirements, areas within a 10-foot radius around each gas vent were not mowed. Mowed areas surrounding vents were inspected following the completion of mowing and no impacts to the gas vents were noted.

Woody plants were identified adjacent to a gas vent during the Q3 inspection. Hand trimming around the vent as well as along access paths and on side slopes of the site was conducted concurrently with mowing. Woody plants identified in the downchutes during quarterly inspections were hand pulled.

The mowing area and schedule for future mowing are shown in **Figure 3**.

Area of Soil Disturbance Repair

The entire site was monitored for areas of erosion or wash-out throughout 2022. One area of sediment/stone wash-out was noted near the western downchute during Q4 of 2021. Repairs were conducted during Q2 of 2022 to avoid further erosion. An area of soil stockpiling and rutting following the Honeywell Renewable Energy Solar Farm Pilot Project was noted at the base of the northwest corner of the site in April 2022. Regrading of the location, including repairs to ruts and removal of the stockpile, were conducted within the same month. Seeding of the regraded area was conducted on May 18, 2022, to reduce the potential for erosion.

4.0 SUMMARY AND RECOMMENDATIONS

Conditions and operation of the SCA site during the 2022 monitoring period were satisfactory. Results from PCCP monitoring implemented at the SCA site verify the remedy remains effective.

The following monitoring activities are recommended for 2023:

- Continue SCA site monitoring and maintenance activities as described in the PCCP.
- Evaluate the need for additional invasive species maintenance (Appendix A).
- Evaluate the need for supplementary seed dispersal in small areas with sparse cover identified during the 2022 quarterly inspections (**Appendix A**).
- Evaluate the need for additional seeding or repairs in the areas of disturbance repaired in 2022 (**Appendix A**).
- Evaluate the need for erosion repair on daylighting noted on the northwest swale during 2022 quarterly inspections.
- Continue LMS inspections at the reduced frequency (quarterly) as approved by the NYSDEC. Discontinue odor monitoring pending NYSDEC approval.

5.0 REFERENCES

NYSDEC, 2005. *Record of Decision Onondaga Lake Bottom Subsite of the Onondaga Lake Superfund Site.* Prepared by the New York State Department of Environmental Conservation and the United States Environmental Protection Agency. July 2005.

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TABLES

Honeywell

PARSONS

TABLE 1 STORMWATER MANAGEMENT SUMMARY

Month	West Basin Elevation (inches) [1] Max. Elev. 72in.	East Basin Elevation (inches) [1] Max. Elev. 85.2in.	Average Stormwater Discharge to Outfall 18 (average gal/day)	Total Stormwater Discharge to Outfall 18 (gal/month) [2]
2022				
January	54.1	77.1	15,848	491,291
February	93.3	87.5	163,667	4,582,673
March	40.3	66.8	101,211	3,137,555
April	41.0	54.2	49,916	1,497,466
May	31.6	64.3	5,594	173,413
June	46.8	62.3	13,743	412,284
July	35.2	46.1	0[3]	0[3]
August	77.9	70.6	26,539	822,723
September	67.0	74.3	87,301	2,619,031
October	78.6	75.8	0[3]	0[3]
November	93.9	85.6	0[3]	0[3]
December	94.9	84.5	74,627	2,313,450

[1] Values are reported as monthly average. Maximum elevation limit is set to reduce risk of stormwater backing onto cover.

[2] Stormwater discharge to Outfall 18 results from pumping directly from the East Basin.

[3] During these months, no stormwater discharge to Outfall 18 occurred.

[4] Values calculated by summing volume pumped and dividing by number of days in the given month

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TABLE 2 LEACHATE MANAGEMENT SUMMARY

Month	West Sump			East Sump		
	Sump Elevation (inches)[1] Max. Elev. 72in.	Average Discharge pumped to WTP (average gal/day)	Total Discharge pumped to WTP (gal/month)	Sump Elevation (inches)[1] Max. Elev. 72in.	Average Discharge pumped to WTP (average gal/day)	Total Discharge pumped to WTP (gal/month)
2022						
January	46.3	3,469	34,687	39.1	2,081	20,809
February	43.5	2,024	34,414	38.3	1,234	20,983
March	42.7	1,888	37,764	38.3	1,149	22,977
April	42.9	2,113	33,811	38.9	1,349	21,583
May	43.9	3,622	28,978	39.6	2,406	19,246
June	46.0	4,461	31,230	40.9	2,993	20,949
July	43.7	3,308	29,775	39.3	2,241	20,173
August	43.5	2,862	31,485	39.0	1,896	20,857
September	42.1	1,958	33,293	39.0	1,274	21,655
October	43.5	3,537	24,761	39.8	2,481	17,368
November	53.5	7,714	38,568	45.6	5,093	25,467
December	43.5	3,413	30,720	42.2	2,475	22,278

[1] Values are reported as monthly average. Maximum elevation limit is set for the liquid depth in the sump to not exceed 6 feet (as stated in the PCCP).

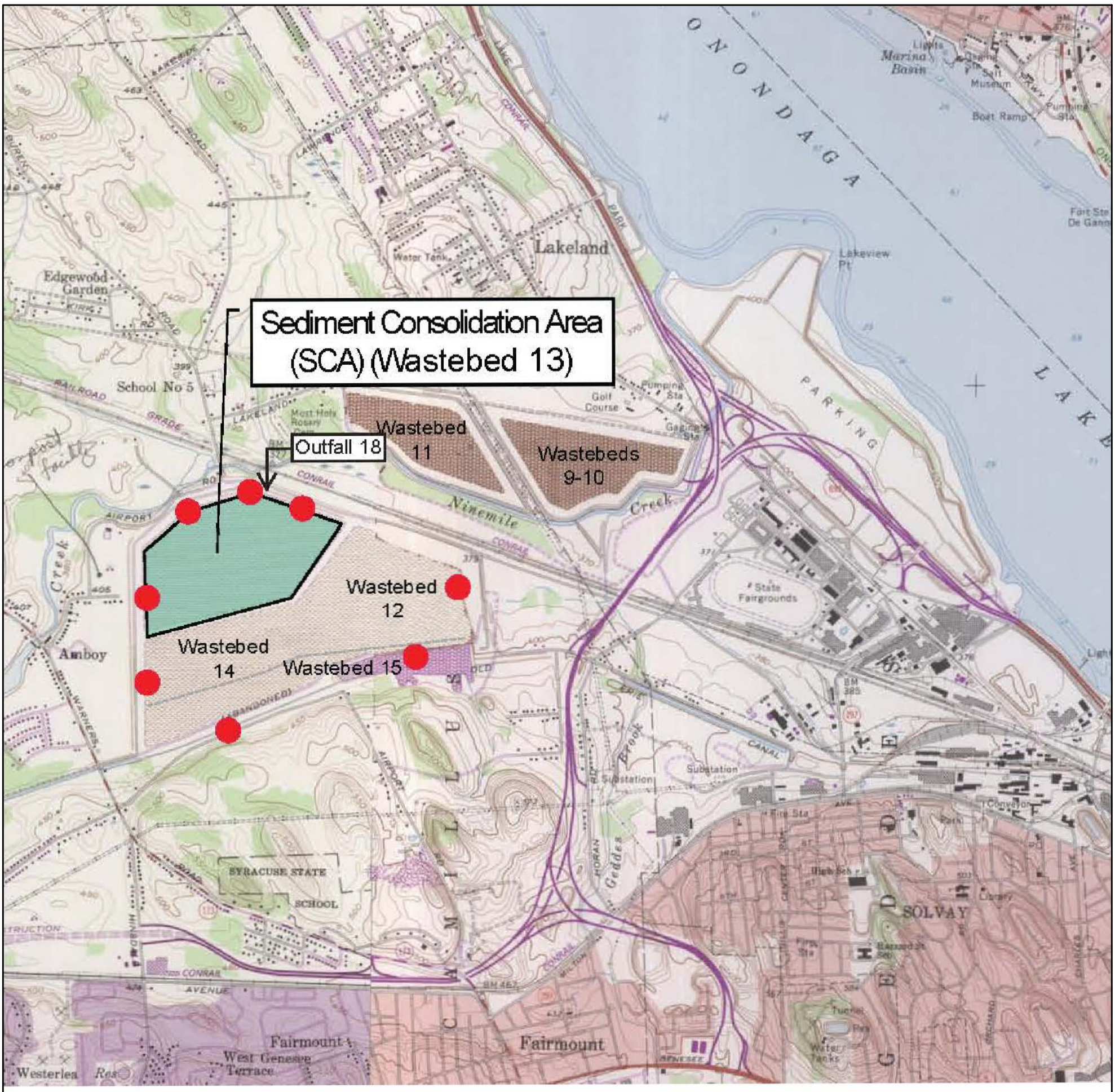
Honeywell

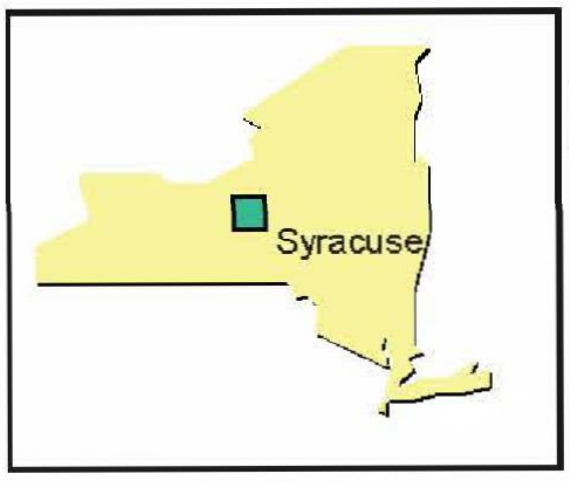
PARSONS

TABLE 3 ENVIRONMENTAL MONITORING SUMMARY - ODOR OBSERVATIONS

2022		
Quarter	Date	Odors Y/N
Q1	1/21/2022	N
Q2	4/12/2022	N
Q3	7/22/2022	N
Q4	10/4/2022	N

FIGURES





New York
Quadrangle

LATITUDE: N 43° 5' 57"
LONGITUDE: W 76° 10' 41"

SOURCE: U.S.G.S.
SYRACUSE WEST
QUADRANGLE

● Odor Monitoring Locations

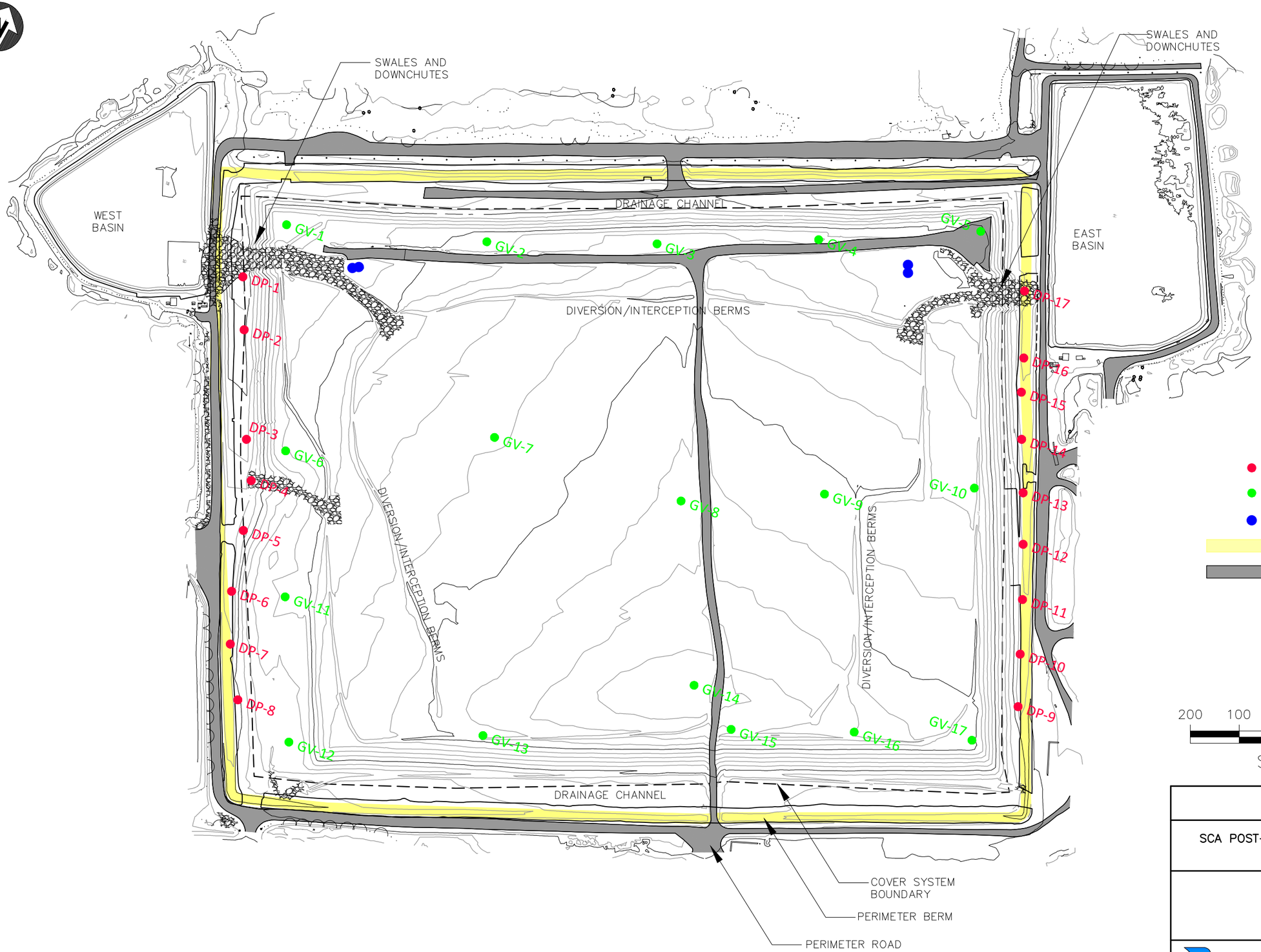
FIGURE 1

SCA POST–CLOSURE CARE SUMMARY REPORT
CAMILLUS, NEW YORK

SITE LOCATION

PARSONS
301 Plainfield Rd, Ste 350, Syracuse, NY, Ph: 315-451-9560

FILE NAME: P:\HONEYWELL –SYR\453069 2022 ONONDAGA LAKE PVM\10.0 TECHNICAL CATEGORIES\10.2 CAD\SCA QUARTERLY INSPECTIONS\ANNUAL REPORT\2022\453069–SITELAYOUTMAP.DWG
PLOT DATE: 3/31/2023 9:32 AM PLOTTED BY: MORANZ, KAITLYN [US–US]



LEGEND:

- DRAINAGE PIPE OUTLET
- GAS VENT
- SUMP/RISER
- PERIMETER BERM
- ROAD

NOTES:

1. ANCHOR TRENCH LOCATION APPROXIMATELY FOLLOWS PERIMETER ROAD.

200 100 0 200 400

SCALE: 1"=200'

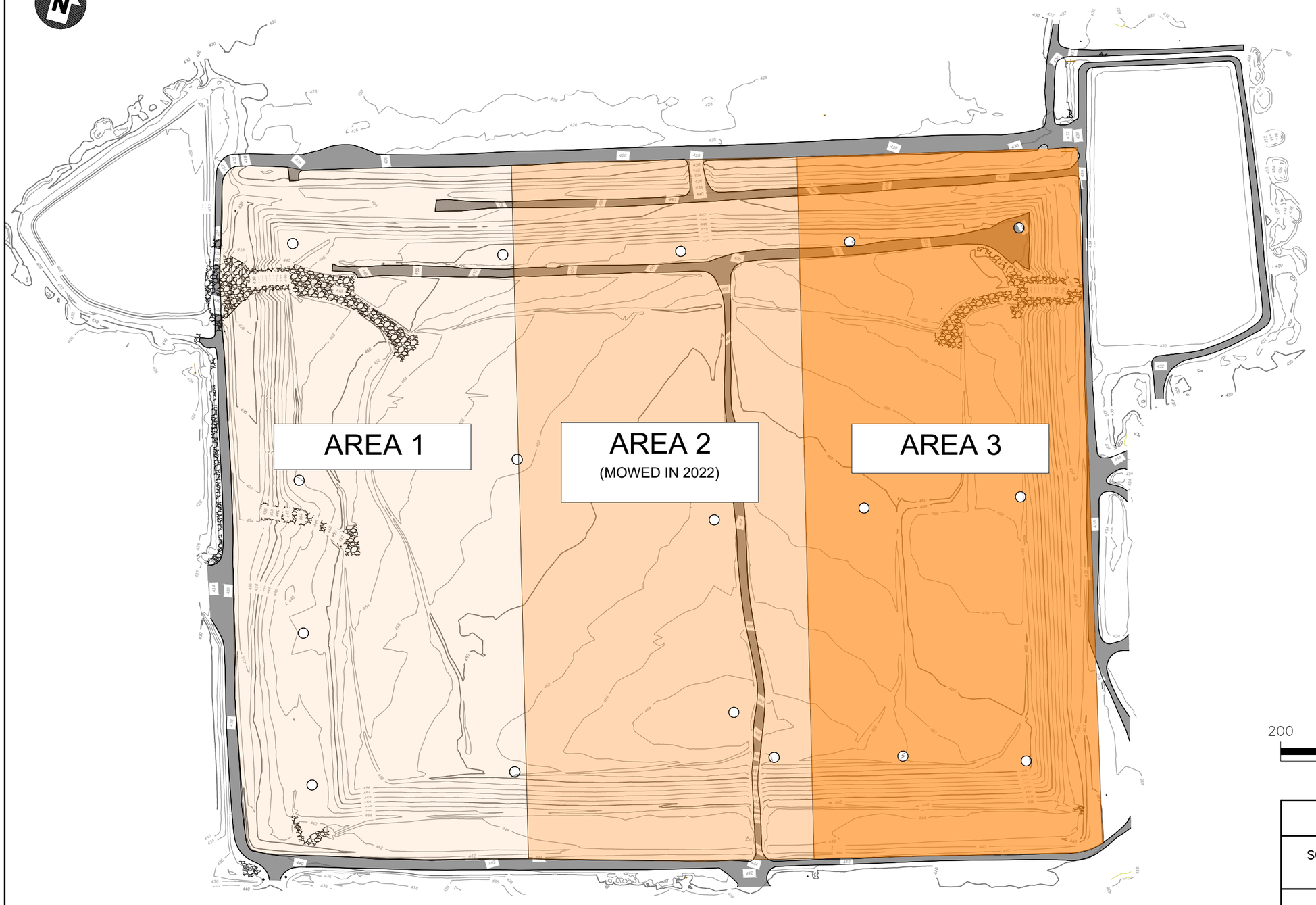
FIGURE 2

SCA POST-CLOSURE CARE SUMMARY REPORT
CAMILLUS, NEW YORK

SITE LAYOUT

PARSONS
301 Plainfield Rd, Ste 350, Syracuse, NY, Ph: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\453069 2022 ONONDAGA LAKE PVM\10.0 TECHNICAL CATEGORIES\10.2 CAD\SCA QUARTERLY INSPECTIONS\ANNUAL REPORT\2022\453069-SITELAYOUTMAP.DWG
PLOT DATE: 3/31/2023 9:10 AM PLOTTED BY: MORANZ, KAITLYN [US-US]



LEGEND

- AREA 1 TO BE MOWED ACCORDING TO SCA MOWING YEARS TABLE (SEE NOTE 1)
- AREA 2 TO BE MOWED ACCORDING TO SCA MOWING YEARS TABLE (SEE NOTE 1)
- AREA 3 TO BE MOWED ACCORDING TO SCA MOWING YEARS TABLE (SEE NOTE 1)
- 10 FT RADIUS NOT TO BE MOWED (SEE NOTE 2)

NOTES

1. MOWING WILL OCCUR ON A THREE-YEAR ROTATING CYCLE WITH ONE-THIRD OF THE VEGETATIVE COVER AREA MOWED ONCE EACH YEAR AFTER OCTOBER 1ST TO A HEIGHT OF 10 TO 15 INCHES.
2. THE HERBACEOUS VEGETATIVE COVER WILL BE MAINTAINED BY MOWING EXCEPT FOR THE AREA WITHIN A 10-FT RADIUS OF THE GAS VENTS THAT WILL NOT BE MOWED.

SCA MOWING YEARS		
AREA 1	AREA 2	AREA 3
2018	2018	2018
2019	2019	2019
2020	2020	2020
2021	2022	2023
2024	2025	2026
2027	2028	2029
2030	2031	2032
2033	2034	2035
2036	2037	2038
2039	2040	2041
2042	2043	2044
2045	2046	2047

200 100 0 200 400

SCALE: 1"=200'

FIGURE 3

SCA PPOST-CLOSURE CARE SUMMARY REPORT
CAMILLUS, NEW YORK

SCA NATIVE GRASSLANDS MAINTENANCE

PARSONS
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FILE NAME: P:\HONEYWELL -SYR\453069 2022 ONONDAGA LAKE PVM\10.0 TECHNICAL CATEGORIES\10.2 CAD\SCA QUARTERLY INSPECTIONS\ANNUAL REPORT\2022\453069-SCAMOWING.DWG
PLOT DATE: 3/31/2023 9:05 AM PLOTTED BY: MORANZ, KAITLYN [US-US]

APPENDIX A INSPECTION, OPERATION, AND MAINTENANCE FORMS – QUARTERLY INSPECTION PACKAGES

2022 Quarter 1 Sediment Consolidation Area (SCA) Quarterly Inspection Package
Inspection, Operation, and Maintenance Forms

The 2022 Quarter 1 (Q1) SCA inspection was completed on March 9, 2022. During the inspection the following items were evaluated:

- evidence of trespassing or unauthorized use of the final cover area
- evidence of subsidence or settling that results in low spots, or presence of erosion rills
- evidence of burrowing animals
- condition of vegetation
- observable irregularities such as bulges, bumps, slumps, or cracks
- evidence of ponded water
- condition of gas vents and drainage pipe outlets
- condition of access roads (i.e., erosion, aggregate washout, exposed geotextile, and debris on the road)
- condition of SCA perimeter berm
- condition of areas near anchor trenches, storm water control berms, and drainage channels

Overall, the site was found in good condition and there were no major irregularities to note. Tall grasses were present and ground cover was good, with only small areas of sparse vegetation cover. Small erosion rills previously noted at the northern end of the site remain present, however vegetation growth has continued on and around the rills. The area of erosion previously noted on the western edge of the site will be repaired within the next quarter. The area will be monitored in future inspections. Only a few small, isolated locations along berms and on the top of the site remain with sparse vegetation. Sparse small woody plants were noted along the northern access road on top of the site. The locations will be monitored in future inspections.

The gas vents and drainage pipes were in good condition, as were the berms and drainage channels around the perimeter of the landfill. Some minor settling was noted near GV-3 and GV-14, potentially due to previous small animal borrowing. Small animal burrows were noted near GV-12 and GV-13. If the burrows persist, wildlife management will be performed prior to the repair of current small burrows as necessary. No cap irregularities were observed.

Attachments to this package include completed field forms associated with this quarterly inspection, a photo log documenting the general condition of the gas vents cover, and monthly Liquid Management System (LMS) inspection forms completed by Jacobs during this quarter. A figure with site condition observations and field notes has been included and will be used as reference for potential future enhancement seeding and Rolled Erosion Control Product (RECP) recommendations.

QUARTERLY FORMS & SITE RECON FIGURE

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3-9-2022 Drain Pipe Daylight Locations				
#	COORDINATES[1]		ELEVATIONS[1]	COMMENTS
DP-1	1120202.677	905912.700	428.997	Under chute riprap, inaccessible
DP-2	1120100.239	905948.459	458.736	Unable to find
DP-3	1119888.374	906021.590	460.627	Unable to find
DP-4	1119811.170	906056.949	433.557	Under drainage downchute riprap, inaccessible
DP-5	1119709.306	906072.849	433.557	GPS coordinates ~10 ft. upslope of toe, unable to find
DP-6	1119583.469	906088.100	433.557	Good condition, slightly visible, water on top of drainage pipe, vegetation on sides of drainage pipe
DP-7	1119479.886	906118.916	433.557	Good condition, visible, vegetation in front of drainage pipe
DP-8	1119376.185	906168.548	433.557	GPS coordinates ~10 ft. upslope of toe, unable to find
DP-9	1119852.555	907690.460	0	3 ft. off from GPS coordinates; Good condition, visible, vegetation in front of drainage pipe
DP-10	1119956.045	907661.695	435.366	Good condition, visible, moss on top of drainage pipe, vegetation in front of drainage pipe
DP-11	1120063.765	907631.793	435.366	Good condition, visible, moss on top of drainage pipe, vegetation in front of drainage pipe
DP-12	1120171.762	907598.511	435.366	Good condition, visible, moss on top of drainage pipe, vegetation in front of drainage pipe, water draining from drainage pipe
DP-13	1120271.798	907566.212	433.557	Good condition, visible, moss on top of drainage pipe
DP-14	1120374.991	907529.601	460.627	Good condition, visible, vegetation on sides of drainage pipe, water draining from drainage pipe
DP-15	1120466.426	907499.452	431.982	Good condition, slightly visible, water on top of drainage pipe
DP-16	1120534.579	907482.788	458.736	Good condition, visible, vegetation in front of drainage pipe
DP-17	1120665.489	907442.420	428.997	Under drainage downchute riprap, inaccessible

[1]Coordinates and elevations provided from 2016 As-Built drawings.

P:\Honeywell -SYR\453069 2022 Onondaga Lake PVM\11.0 Field and Laboratory Data\11.10 SCA\Quarterly Inspections & Site Visits\2022 Q1 Inspection\Field Forms\03-09-2022 Drain Pipe Daylight Locations.xlsx

03-09-2022 GAS VENT LOCATIONS	
#	CONDITION (Gas vent structural integrity, plantings, vegetative cover irregularities)
GV-1	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-2	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-3	Vent straight and in good condition with vent cap intact. Tall grasses present. Minor settling around pipe.
GV-4	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-5	Vent straight and in good condition with vent cap intact. Tall grasses present but matted down. No vegetative cover irregularities.
GV-6	Vent straight and in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-7	Vent straight and in good condition with vent cap intact. Cap intact. Tall grasses present. No vegetative cover irregularities.
GV-8	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-9	Vent in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-10	Vent straight and in good condition. Vent cap loose but repaired during inspection. Tall grasses present. No vegetative cover irregularities.
GV-11	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-12	Vent straight and in good condition with vent cap intact. Tall grasses present. Small animal burrow present.
GV-13	Vent in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Tall grasses present. Small animal burrow present.
GV-14	Vent straight and in good condition with vent cap intact. Tall grasses present. Minor settling around pipe.
GV-15	Vent in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-16	Vent in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-17	Vent in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Tall grasses present. No vegetative cover irregularities.

[(1)]Vents noted with a tilt/lean are consistent with previous monitoring observations and do not require any improvements or changes. All vents are functioning as intended.

03-09-2022 GENERAL RECON		
ITEM	Y/N	COMMENT
Evidence of Tresspassing/ Unauthorized use of final cover area	N	N/A
Evidence of subsidence or settling/ low points/ depressions	Y	Minor soil settling was noted around GV-3 and GV-14. No action recommended at this time.
Evidence of Burrowing animals	Y	Small animal burrows were noted near GV-12 and GV-13. No action recommended at this time.
Presence of Erosion Rills	Y	Vegetation growth was seen in small rills previously noted on northern edge of the site.
Vegetation performing as intended	Y	Grasses provide good vegetative cover. Small areas of sparse vegetation were noted.
Irregularities such as bulges, bumps, slumps or cracks observed	N	N/A
Evidence of ponded water on top of site	N	Good condition. Site is draining well, no pools at the top of the site. Small area of frozen ponded water noted at northern side of the site, not an issue for site integrity.
Condition of access roads good (no aggregate washout, exposed geotextile, etc)	Y	Good condition
Perimeter berm in good condition	Y	Good condition
Proper function and integrity of diversion berms	Y	
Proper function and integrity of interception berms	Y	
Proper function and integrity of drainage channels	Y	N/A
Proper function and integrity of East & West Basin	Y	N/A



LEGEND:

- DRAINAGE PIPE
- GAS VENT
- MINOR EROSION/SOIL SETTLING
- SMALL ANIMAL BURROW
- SPARSE VEGETATION
- WOODY VEGETATION
- LINER DAYLIGHTING

200 100 0 200 400

SCALE: 1"=200'

FIGURE 1

SEDIMENT CONSOLIDATION AREA
CAMILLUS, NEW YORK

SCA QUARTERLY REPORT
1ST QUARTER – 2022

PARSONS
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FILE NAME: P:\HONEYWELL -SYR\453069 2022 ONONDAGA LAKE PVM\10.0 TECHNICAL CATEGORIES\10.2 CAD\SCA QUARTERLY INSPECTIONS\2022\SCA-Q1-2022.DWG
PLOT DATE: 3/16/2023 2:50 PM PLOTTED BY: MORANZ, KAITLYN [US-US]

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PARSONS

LIQUID AND STORMWATER MANAGEMENT SYSTEMS INSPECTION FORMS

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
LIQUID MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

DATE/TIME: January 2022	WEATHER: 20.78˚ F avg. .06" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS:
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed monthly the first year. Form to be completed as appropriate for inspections done during active pumping (first item is mandatory) and if repairs or maintenance are conducted.
2. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Sump high level alarms and flow gauges are operational (and flow data is being recorded)	
		X	System automatic controls are operational.	Automated system is operational, but not used due to low volumes and systems run in batch mode. The system is run manually, and the operator remains on site while pumping to monitor the system.
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	Sumps are ran together to prevent backflow.
		X	Sump operational controls are set to prevent sump liquid depth from exceeding 6 feet. Confirm pumps and flow gauges are operational.	Sump levels are checked daily and are pumped to bottom when WTP discharge is permitted. Automated system is operational, but not used due to low levels and systems run in batch mode. Alarm system is active to alert for high levels.
X			Aboveground piping and insulation are in good condition. Inspect during active pumping.	
X			Underground utility markings/signs are in good condition.	
X			Riser covers are intact and secured.	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Repair of signage or markers	
Cleaning of/maintenance on system piping	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
LIQUID MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

DATE/TIME: February 2022	WEATHER: 28.61˚ F avg. .08" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS:
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed monthly the first year. Form to be completed as appropriate for inspections done during active pumping (first item is mandatory) and if repairs or maintenance are conducted.
2. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Sump high level alarms and flow gauges are operational (and flow data is being recorded)	
		X	System automatic controls are operational.	Automated system is operational, but not used due to low volumes and systems run in batch mode. The system is run manually, and the operator remains on site while pumping to monitor the system.
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	Sumps are ran together to prevent backflow.
		X	Sump operational controls are set to prevent sump liquid depth from exceeding 6 feet. Confirm pumps and flow gauges are operational.	Sump levels are checked daily and are pumped to bottom when WTP discharge is permitted. Automated system is operational, but not used due to low levels and systems run in batch mode. Alarm system is active to alert for high levels.
X			Aboveground piping and insulation are in good condition. Inspect during active pumping.	
X			Underground utility markings/signs are in good condition.	
X			Riser covers are intact and secured.	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Repair of signage or markers	
Cleaning of/maintenance on system piping	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
LIQUID MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

DATE/TIME: March 2022	WEATHER: 36.4˚ F avg. .08" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS:
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed monthly the first year. Form to be completed as appropriate for inspections done during active pumping (first item is mandatory) and if repairs or maintenance are conducted.
2. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Sump high level alarms and flow gauges are operational (and flow data is being recorded)	
		X	System automatic controls are operational.	Automated system is operational, but not used due to low volumes and systems run in batch mode. The system is run manually, and the operator remains on site while pumping to monitor the system.
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	Sumps are ran together to prevent backflow.
		X	Sump operational controls are set to prevent sump liquid depth from exceeding 6 feet. Confirm pumps and flow gauges are operational.	Sump levels are checked daily and are pumped to bottom when WTP discharge is permitted. Automated system is operational, but not used due to low levels and systems run in batch mode. Alarm system is active to alert for high levels.
X			Aboveground piping and insulation are in good condition. Inspect during active pumping.	
X			Underground utility markings/signs are in good condition.	
X			Riser covers are intact and secured.	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Repair of signage or markers	
Cleaning of/maintenance on system piping	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
STORM WATER MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

January 2022	WEATHER: 20.78° F avg. .06" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: East basin to outfall 18: 1/10-1/11. West basin transfer to East basin: 1/13.
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed quarterly. Form to be completed as appropriate for inspections done during active pumping and if repairs or maintenance are conducted.
2. Pumping from east basin to outfall 18 only occurs when TSS < 50 mg/l and with notification/approval from OBG (now Ramboll)
3. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Are the East and West basin pumps operating properly	East basin pumped to outfall using 3" godwin diesel pump.
X			Aboveground piping is in good condition. Inspect during active pumping	
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	
X			Are the level indicators in the East and West basin operational	
X			Diversion berms, interception berms and drainage channels functioning properly	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Cleaning of/maintenance on system piping	
Removal of debris or any other objects obstructing flow in drainage channels	No issues with drainage channels observed.
Cleaning of clogged riprap and East and West basins	
Repair of damaged storm water, erosion, and sediment control structures	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
STORM WATER MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

February 2022	WEATHER: 28.61° F avg. .08" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: East basin to outfall 18: 2/17-2/28. West basin transfer to East basin: 2/22, 2/24 and 2/28.
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed quarterly. Form to be completed as appropriate for inspections done during active pumping and if repairs or maintenance are conducted.
2. Pumping from east basin to outfall 18 only occurs when TSS < 50 mg/l and with notification/approval from OBG (now Ramboll)
3. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Are the East and West basin pumps operating properly	East basin pumped to outfall using 3" godwin diesel pump.
X			Aboveground piping is in good condition. Inspect during active pumping	
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	
X			Are the level indicators in the East and West basin operational	
X			Diversion berms, interception berms and drainage channels functioning properly	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Cleaning of/maintenance on system piping	
Removal of debris or any other objects obstructing flow in drainage channels	No issues with drainage channels observed.
Cleaning of clogged riprap and East and West basins	
Repair of damaged storm water, erosion, and sediment control structures	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
STORM WATER MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

March 2022	WEATHER: 36.4° F avg. .08" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: East basin to outfall 18: 3/1-3/11, 3/18-3/21, and 3/25-3/27. West basin transfer to East basin: 3/1, 3/4, 3/7, 3/9, 3/11, 3/18 and 3/25.
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed quarterly. Form to be completed as appropriate for inspections done during active pumping and if repairs or maintenance are conducted.
2. Pumping from east basin to outfall 18 only occurs when TSS < 50 mg/l and with notification/approval from OBG (now Ramboll)
3. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Are the East and West basin pumps operating properly	East basin pumped to outfall using 3" godwin diesel pump.
X			Aboveground piping is in good condition. Inspect during active pumping	
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	
X			Are the level indicators in the East and West basin operational	
X			Diversion berms, interception berms and drainage channels functioning properly	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Cleaning of/maintenance on system piping	
Removal of debris or any other objects obstructing flow in drainage channels	No issues with drainage channels observed.
Cleaning of clogged riprap and East and West basins	
Repair of damaged storm water, erosion, and sediment control structures	
Other repairs	

PHOTO LOG

2022 Q1 INSPECTION PHOTOGRAPH LOG

Observations:
Photos below include gas vents 1 to 6 monitored on 03/09/22. All vents were in good condition with tall grasses surrounding them. Additional details found on quarterly forms.



GV-1



GV-2



GV-3



GV-4



GV-5



GV-6

2022 Q1 INSPECTION PHOTOGRAPH LOG

Observations:
Photos below include gas vents 7 to 12 monitored on 03/09/22. All vents were in good condition with tall grasses surrounding them. Additional details found on quarterly forms.



GV-7



GV-8



GV-9



GV-10



GV-11



GV-12

2022 Q1 INSPECTION PHOTOGRAPH LOG

Observations:
Photos below include gas vents 13 to 17 monitored on 03/09/22. All vents were in good condition with tall grasses surrounding them. GV-13 continues to demonstrate a slight lean, and GV-16 has a very slight lean. Additional details found on quarterly forms.



GV-13



GV-14



GV-15



GV-16



GV-17

2022 Q1 INSPECTION PHOTOGRAPH LOG

Observations:
Small animal burrows were noted near GV-12 and GV-13. Minor soil settling was noted near GV-3 and GV-14. Ground cover was good site-wide, with very few areas of patchy vegetation on berms. Additional details found on quarterly forms.



General vegetation condition in un-mowed areas.



Small animal burrow near GV-12.



Minor soil settling near GV-14.



GV-10 cap not intact. Repair conducted immediately.

2022 Q1 INSPECTION PHOTOGRAPH LOG

Observations:
Drainage pipes and swales functioning properly. Vegetation buffer area around gas vents in mowed areas intact. Minor soil disturbance noted at base of site. Additional details found on quarterly forms.



Drainage swale in good condition.



Water properly draining from DP-12.



10-foot un-mowed gas vent buffer area.



Minor soil disturbance in northeast corner to be repaired.

2022 Quarter 2 Sediment Consolidation Area (SCA) Quarterly Inspection Package
Inspection, Operation, and Maintenance Forms

The 2022 Quarter 2 (Q2) SCA inspection was completed on May 18, 2022. During the inspection the following items were evaluated:

- evidence of trespassing or unauthorized use of the final cover area
- evidence of subsidence or settling that results in low spots, or presence of erosion rills
- evidence of burrowing animals
- condition of vegetation
- observable irregularities such as bulges, bumps, slumps, or cracks
- evidence of ponded water
- condition of gas vents and drainage pipe outlets
- condition of access roads (i.e., erosion, aggregate washout, exposed geotextile, and debris on the road)
- condition of SCA perimeter berm
- condition of areas near anchor trenches, storm water control berms, and drainage channels

Overall, the site was found in good condition and there were no major irregularities to note. Tall grasses were present and ground cover was good, with only small areas of sparse vegetation cover. Small erosion rills previously noted at the northern end of the site remain present, however vegetation growth has continued on and around the rills. The area of erosion on the western edge of the site was repaired prior to the inspection and remains stable. The area will be monitored in future inspections. Only a few small, isolated locations along berms and on the top of the site remain with sparse vegetation and are not areas of concern. The locations will be monitored in future inspections. Sparse small woody plants were noted along the northern access road on top of the site, in drainage swales, and sporadically throughout the site. Removal is planned for Q3. A small area of liner daylighting was noted in the northwest downchute. No repairs are necessary at this time and the location will be monitored during future inspections.

The gas vents and drainage pipes were in good condition, as were the berms and drainage channels around the perimeter of the site. No small animal burrows were noted during the inspection. No cap irregularities were observed.

An area of soil disturbance was noted in April 2022, prior to the Q2 inspection, at the base of the site in the northwest corner. During the Q2 inspection native seed was applied to the location to reduce potential erosion. The area will be monitored during future inspections.

Attachments to this package include completed field forms associated with this quarterly inspection, a photo log documenting the general condition of the gas vents cover, and monthly LMS inspection forms completed by Jacobs during this quarter. A figure with site condition observations and field notes has been included and will be used as reference for potential future enhancement seeding and RECP recommendations.

QUARTERLY FORMS & SITE RECON FIGURE

5-18-2022 Drain Pipe Daylight Locations				
#	COORDINATES[1]		ELEVATIONS[1]	COMMENTS
DP-1	1120202.677	905912.700	428.997	Under chute riprap, inaccessible
DP-2	1120100.239	905948.459	458.736	Unable to find
DP-3	1119888.374	906021.590	460.627	Good condition, slightly visible, soil in front of drainage pipe cleared
DP-4	1119811.170	906056.949	433.557	Under drainage downchute riprap, inaccessible
DP-5	1119709.306	906072.849	433.557	GPS coordinates ~10 ft. upslope of toe, unable to find
DP-6	1119583.469	906088.100	433.557	Good condition, visible, vegetation on top and sides of drainage pipe
DP-7	1119479.886	906118.916	433.557	Good condition, visible, vegetation on top and in front of drainage pipe
DP-8	1119376.185	906168.548	433.557	GPS coordinates ~10 ft. upslope of toe, unable to find
DP-9	1119852.555	907690.460	0	3 ft. off from GPS coordinates; Good condition, visible, vegetation on sides of drainage pipe
DP-10	1119956.045	907661.695	435.366	Good condition, visible, moss on top of drainage pipe, vegetation in front of drainage pipe
DP-11	1120063.765	907631.793	435.366	Good condition, visible, moss on top of drainage pipe, vegetation in front of drainage pipe
DP-12	1120171.762	907598.511	435.366	Good condition, visible, moss on top of drainage pipe, vegetation in front of drainage pipe
DP-13	1120271.798	907566.212	433.557	Good condition, visible, vegetation on sides and in front of drainage pipe
DP-14	1120374.991	907529.601	460.627	Good condition, visible, vegetation on sides of drainage pipe
DP-15	1120466.426	907499.452	431.982	Good condition, visible, vegetation on sides of drainage pipe
DP-16	1120534.579	907482.788	458.736	Good condition, visible, vegetation on top and in front of drainage pipe
DP-17	1120665.489	907442.420	428.997	Under drainage downchute riprap, inaccessible

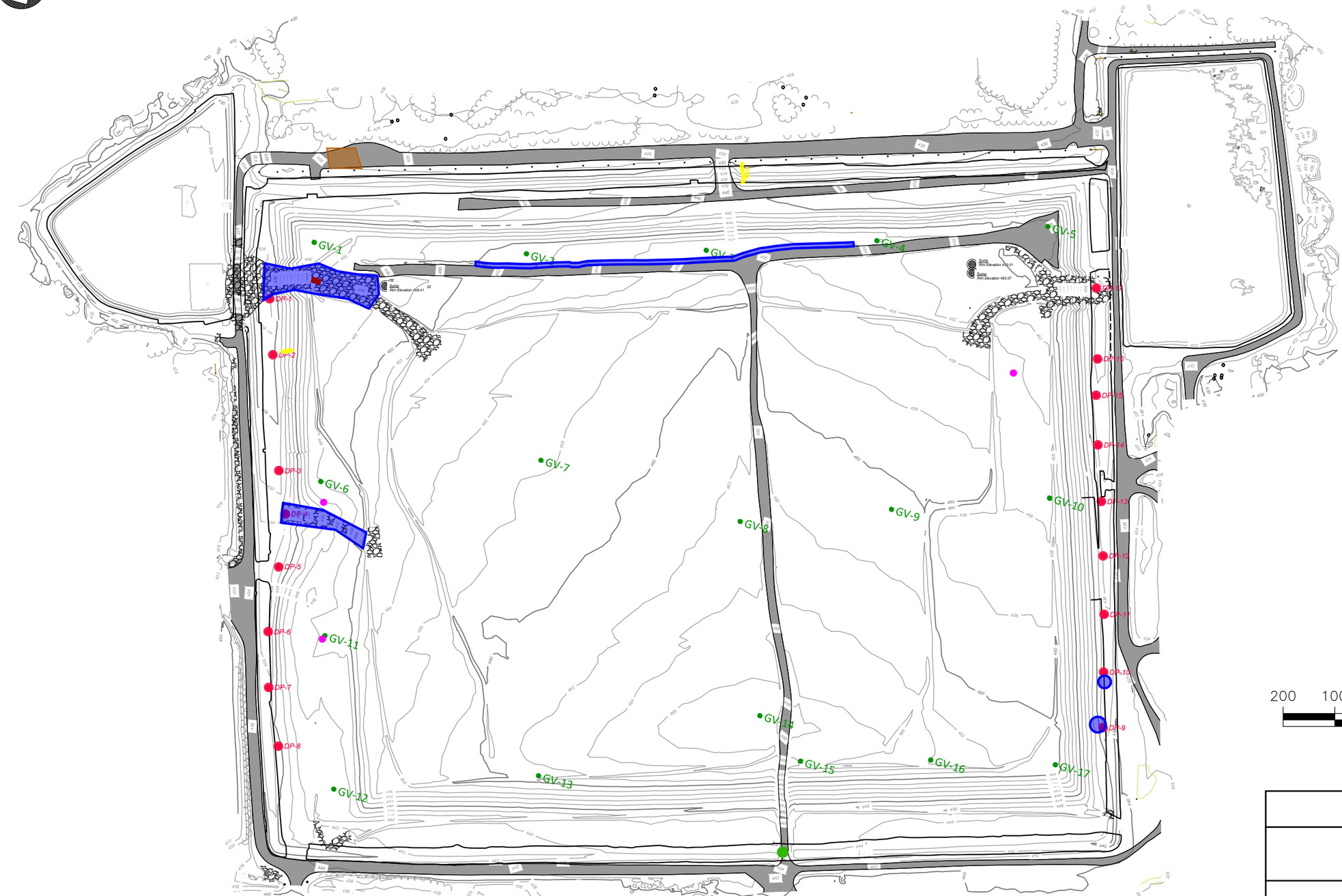
[1]Coordinates and elevations provided from 2016 As-Built drawings.

P:\Honeywell -SYR\453069 2022 Onondaga Lake PVM\11.0 Field and Laboratory Data\11.10 SCA\Quarterly Inspections & Site Visits\2022 Q2 Inspection\Field Forms\05-18-2022 Drain Pipe Daylight Locations.xlsx

05-18-2022 GAS VENT LOCATIONS	
#	CONDITION (Gas vent structural integrity, plantings, vegetative cover irregularities)
GV-1	Vent straight and in good condition. Vent cap loose but repaired during inspection. Tall grasses present. No vegetative cover irregularities.
GV-2	Vent straight and in good condition with vent cap intact. Medium-height grasses present. No vegetative cover irregularities.
GV-3	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-4	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-5	Vent straight and in good condition with vent cap intact. Medium-height grasses present. No vegetative cover irregularities.
GV-6	Vent straight and in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Medium-height grasses present. No vegetative cover irregularities.
GV-7	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-8	Vent straight and in good condition with vent cap intact. Medium-height grasses present. No vegetative cover irregularities.
GV-9	Vent in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-10	Vent straight and in good condition with vent cap intact. Medium-height grasses present. No vegetative cover irregularities.
GV-11	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-12	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-13	Vent in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Medium-height grasses present. No vegetative cover irregularities.
GV-14	Vent straight and in good condition with vent cap intact. Medium-height grasses present. No vegetative cover irregularities.
GV-15	Vent in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-16	Vent in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-17	Vent in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Medium-height grasses present. No vegetative cover irregularities.

[(1)]Vents noted with a tilt/lean are consistent with previous monitoring observations and do not require any improvements or changes. All vents are functioning as intended.

05-18-2022 GENERAL RECON		
ITEM	Y/N	COMMENT
Evidence of Tresspassing/ Unauthorized use of final cover area	N	N/A
Evidence of subsidence or settling/ low points/ depressions	N	N/A
Evidence of Burrowing animals	N	N/A
Presence of Erosion Rills	Y	Vegetation growth was seen in previously noted/repaired rills on northern edge of the site.
Vegetation performing as intended	Y	Grasses provide good vegetative cover. Small areas of sparse vegetation were noted.
Irregularities such as bulges, bumps, slumps or cracks observed	N	N/A
Evidence of ponded water on top of site	N	Good condition. Site is draining well, no pools at the top of the site.
Condition of access roads good (no aggregate washout, exposed geotextile, etc)	Y	Good condition
Perimeter berm in good condition	Y	Good condition
Proper function and integrity of diversion berms	Y	
Proper function and integrity of interception berms	Y	
Proper function and integrity of drainage channels	Y	Minor area of liner daylighting noted in northwest drainage channel.
Proper function and integrity of East & West Basin	Y	N/A



LEGEND:

- DRAINAGE PIPE
- GAS VENT
- MINOR EROSION
- SPARSE VEGETATION
- MINOR SOIL DISTURBANCE (SEE NOTE 1)
- WOODY VEGETATION
- LINER DAYLIGHTING

NOTES:

1. MINOR AREA OF SOIL DISTURBANCE WAS REPAIRED PRIOR TO THE Q2 INSPECTION.

200 100 0 200 400

SCALE: 1"=200'

FIGURE 1

SEDIMENT CONSOLIDATION AREA
CAMILLUS, NEW YORK

SCA QUARTERLY REPORT
2ND QUARTER – 2022

PARSONS
301 Plainfield Rd, Ste 350, Syracuse, NY, Ph: 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\453069 2022 ONONDAGA LAKE PVM\10.0 TECHNICAL CATEGORIES\10.2 CAD\SCA QUARTERLY INSPECTIONS\2022\SCA-Q2-2022.DWG
PLOT DATE: 3/16/2023 2:33 PM PLOTTED BY: MORANZ, KAITLYN [US-US]

Honeywell

PARSONS

LIQUID AND STORMWATER MANAGEMENT SYSTEMS INSPECTION FORMS

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
LIQUID MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

DATE/TIME: April 2022	WEATHER: 45.3˚ F avg. .12" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: Installed emergency lighting
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed monthly the first year. Form to be completed as appropriate for inspections done during active pumping (first item is mandatory) and if repairs or maintenance are conducted.
2. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Sump high level alarms and flow gauges are operational (and flow data is being recorded)	
		X	System automatic controls are operational.	Automated system is operational, but not used due to low volumes and systems run in batch mode. The system is run manually, and the operator remains on site while pumping to monitor the system.
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	Sumps are ran together to prevent backflow.
		X	Sump operational controls are set to prevent sump liquid depth from exceeding 6 feet. Confirm pumps and flow gauges are operational.	Sump levels are checked daily and are pumped to bottom when WTP discharge is permitted. Automated system is operational, but not used due to low levels and systems run in batch mode. Alarm system is active to alert for high levels.
X			Aboveground piping and insulation are in good condition. Inspect during active pumping.	
X			Underground utility markings/signs are in good condition.	
X			Riser covers are intact and secured.	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Repair of signage or markers	
Cleaning of/maintenance on system piping	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
LIQUID MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

DATE/TIME: May 2022	WEATHER: 62.01˚ F avg. .04" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: Installed emergency lighting
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed monthly the first year. Form to be completed as appropriate for inspections done during active pumping (first item is mandatory) and if repairs or maintenance are conducted.
2. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Sump high level alarms and flow gauges are operational (and flow data is being recorded)	
		X	System automatic controls are operational.	Automated system is operational, but not used due to low volumes and systems run in batch mode. The system is run manually, and the operator remains on site while pumping to monitor the system.
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	Sumps are ran together to prevent backflow.
		X	Sump operational controls are set to prevent sump liquid depth from exceeding 6 feet. Confirm pumps and flow gauges are operational.	Sump levels are checked daily and are pumped to bottom when WTP discharge is permitted. Automated system is operational, but not used due to low levels and systems run in batch mode. Alarm system is active to alert for high levels.
X			Aboveground piping and insulation are in good condition. Inspect during active pumping.	
X			Underground utility markings/signs are in good condition.	
X			Riser covers are intact and secured.	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Repair of signage or markers	
Cleaning of/maintenance on system piping	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
LIQUID MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

DATE/TIME: June 2022	WEATHER: 66.2˚ F avg. .14" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: Decommission and removal of outside chemical storage tanks on 6/28.
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed monthly the first year. Form to be completed as appropriate for inspections done during active pumping (first item is mandatory) and if repairs or maintenance are conducted.
2. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Sump high level alarms and flow gauges are operational (and flow data is being recorded)	
		X	System automatic controls are operational.	Automated system is operational, but not used due to low volumes and systems run in batch mode. The system is run manually, and the operator remains on site while pumping to monitor the system.
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	Sumps are ran together to prevent backflow.
		X	Sump operational controls are set to prevent sump liquid depth from exceeding 6 feet. Confirm pumps and flow gauges are operational.	Sump levels are checked daily and are pumped to bottom when WTP discharge is permitted. Automated system is operational, but not used due to low levels and systems run in batch mode. Alarm system is active to alert for high levels.
X			Aboveground piping and insulation are in good condition. Inspect during active pumping.	
X			Underground utility markings/signs are in good condition.	
X			Riser covers are intact and secured.	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Repair of signage or markers	
Cleaning of/maintenance on system piping	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
STORM WATER MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

April 2022	WEATHER: 45.3° F avg. .12" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: East basin to outfall 18: 4/1, 4/4-4/5, 4/8-4/10, and 4/22-4/25. West basin transfer to East basin: 3/1, 4/8, 4/29.
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed quarterly. Form to be completed as appropriate for inspections done during active pumping and if repairs or maintenance are conducted.
2. Pumping from east basin to outfall 18 only occurs when TSS < 50 mg/l and with notification/approval from OBG (now Ramboll)
3. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Are the East and West basin pumps operating properly	East basin pumped to outfall using 3" godwin diesel pump.
X			Aboveground piping is in good condition. Inspect during active pumping	
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	
X			Are the level indicators in the East and West basin operational	
X			Diversion berms, interception berms and drainage channels functioning properly	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Cleaning of/maintenance on system piping	
Removal of debris or any other objects obstructing flow in drainage channels	No issues with drainage channels observed.
Cleaning of clogged riprap and East and West basins	
Repair of damaged storm water, erosion, and sediment control structures	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
STORM WATER MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

May 2022	WEATHER: 62.01° F avg. .04" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: East basin to outfall 18: 5/20. West basin transfer to East basin: 5/17.
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed quarterly. Form to be completed as appropriate for inspections done during active pumping and if repairs or maintenance are conducted.
2. Pumping from east basin to outfall 18 only occurs when TSS < 50 mg/l and with notification/approval from OBG (now Ramboll)
3. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Are the East and West basin pumps operating properly	East basin pumped to outfall using 3" godwin diesel pump.
X			Aboveground piping is in good condition. Inspect during active pumping	
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	
X			Are the level indicators in the East and West basin operational	
X			Diversion berms, interception berms and drainage channels functioning properly	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Cleaning of/maintenance on system piping	
Removal of debris or any other objects obstructing flow in drainage channels	No issues with drainage channels observed.
Cleaning of clogged riprap and East and West basins	
Repair of damaged storm water, erosion, and sediment control structures	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
STORM WATER MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

June 2022	WEATHER: 66.2° F avg. .14" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: East basin to outfall 18: 6/10 and 6/24. West basin transfer to East basin: 6/22.
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed quarterly. Form to be completed as appropriate for inspections done during active pumping and if repairs or maintenance are conducted.
2. Pumping from east basin to outfall 18 only occurs when TSS < 50 mg/l and with notification/approval from OBG (now Ramboll)
3. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Are the East and West basin pumps operating properly	East basin pumped to outfall using 3" godwin diesel pump.
X			Aboveground piping is in good condition. Inspect during active pumping	
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	
X			Are the level indicators in the East and West basin operational	
X			Diversion berms, interception berms and drainage channels functioning properly	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Cleaning of/maintenance on system piping	
Removal of debris or any other objects obstructing flow in drainage channels	No issues with drainage channels observed.
Cleaning of clogged riprap and East and West basins	
Repair of damaged storm water, erosion, and sediment control structures	
Other repairs	

PHOTO LOG

2022 Q2 INSPECTION PHOTOGRAPH LOG

Observations:
Photos below include gas vents 1 to 6 monitored on 5/18/22. All vents were in good condition with tall grasses surrounding them. Additional details found on quarterly forms.



GV-1



GV-2



GV-3



GV-4



GV-5



GV-6

2022 Q2 INSPECTION PHOTOGRAPH LOG

Observations:
Photos below include gas vents 7 to 12 monitored on 5/18/22. All vents were in good condition with tall grasses surrounding them. Additional details found on quarterly forms.



GV-7



GV-8



GV-9



GV-10



GV-11



GV-12

2022 Q2 INSPECTION PHOTOGRAPH LOG

Observations:
Photos below include gas vents 13 to 17 monitored on 5/18/22. All vents were in good condition with tall grasses surrounding them. GV-13 continues to demonstrate a slight lean, and GV-16 has a very slight lean. Additional details found on quarterly forms.



GV-13



GV-14



GV-15



GV-16



GV-17

2022 Q2 INSPECTION PHOTOGRAPH LOG

Observations:
No small animal burrows were noted. One minor area of liner daylighting was noted on a downchute. Woody vegetation was noted in downchutes and on side slopes. Additional details found on quarterly forms.



General vegetation condition.



Minor liner daylighting noted in northwest downchute.



Woody vegetation on northern side to be removed.



Woody vegetation noted in northwest downchute.

2022 Q2 INSPECTION PHOTOGRAPH LOG

Observations:
Ground cover was good site-wide, with very few areas of sparse vegetation. Drainage pipes were functioning properly. Vegetation buffer area around gas vents in mowed areas intact. Repairs conducted at minor soil disturbance noted at base of site. Additional details found on quarterly forms.



Example of small area of sparse vegetation.



DP-12 after vegetation removal.



Repaired area of erosion on western edge of site.



Seed application to repaired area of soil disturbance.

2022 Quarter 3 Sediment Consolidation Area (SCA) Quarterly Inspection Package
Inspection, Operation, and Maintenance Forms

The 2022 Quarter 3 (Q3) SCA inspection was completed on August 11, 2022. During the inspection the following items were evaluated:

- evidence of trespassing or unauthorized use of the final cover area
- evidence of subsidence or settling that results in low spots, or presence of erosion rills
- evidence of burrowing animals
- condition of vegetation
- observable irregularities such as bulges, bumps, slumps, or cracks
- evidence of ponded water
- condition of gas vents and drainage pipe outlets
- condition of access roads (i.e., erosion, aggregate washout, exposed geotextile, and debris on the road)
- condition of SCA perimeter berm
- condition of areas near anchor trenches, storm water control berms, and drainage channels

Overall, the site was found in good condition and there were no major irregularities to note. Tall grasses were present and ground cover was good, with only small areas of sparse vegetation cover which do not require repairs. Small erosion rills previously noted at the northern end of the site remain present, however vegetation growth has continued on and around the rills. The area of erosion on the western edge of the site was repaired during Q2 and remains stable with vegetation growth. The area will be monitored in future inspections. Only a few small, isolated locations along berms and on the top of the site remain with sparse vegetation. These locations are monitored during each inspection and are not areas of concern. Sparse small woody plants were noted along the northern access road on top of the site, in drainage swales, and sporadically throughout the site. Removal will be conducted at the same time site mowing occurs. Sparse patches of Phragmites (*Phragmites* australis) were noted along the northern access road and will be removed during site during maintenance treatments. The small area of liner daylighting previously noted in the northwest downchute remains, however it is stable and will continue to be monitored.

The gas vents and drainage pipes were in good condition, as were the berms and drainage channels around the perimeter of the landfill. One small animal burrow was noted at GV-14 during the inspection. No cap irregularities were observed.

An area of soil disturbance was previously noted in April 2022 at the base of the site in the northwest corner. Ramboll Group completed repairs and regrading of the impacted location in April. During the Q2 inspection native seed was applied by Parsons to the location to reduce potential erosion. Vegetation growth has started in the area of soil disturbance, however the area is still sparse. The area will be monitored during future inspections.

Attachments to this package include completed field forms associated with this quarterly inspection, a photo log documenting the general condition of the gas vents cover, and monthly Liquid Management System (LMS) inspection forms completed by Jacobs during this quarter. A figure with site condition observations and field notes has been included and will be used as reference for potential future enhancement seeding and Rolled Erosion Control Product (RECP) recommendations.

QUARTERLY FORMS & SITE RECON FIGURE

8-11-2022 Drain Pipe Daylight Locations				
#	COORDINATES[1]		ELEVATIONS[1]	COMMENTS
DP-1	1120202.677	905912.700	428.997	Under chute riprap, inaccessible
DP-2	1120100.239	905948.459	458.736	Unable to find
DP-3	1119888.374	906021.590	460.627	Good condition, visible, vegetation on sides of drainage pipe
DP-4	1119811.170	906056.949	433.557	Under drainage downchute riprap, inaccessible
DP-5	1119709.306	906072.849	433.557	GPS coordinates ~10 ft. upslope of toe, unable to find
DP-6	1119583.469	906088.100	433.557	Good condition, slightly visible, vegetation on top of drainage pipe
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DP-8	1119376.185	906168.548	433.557	GPS coordinates ~10 ft. upslope of toe, unable to find
DP-9	1119852.555	907690.460	0	3 ft. off from GPS coordinates; Good condition, slightly visible, vegetation on sides of drainage pipe
DP-10	1119956.045	907661.695	435.366	Good condition, slightly visible, vegetation in front of drainage pipe cleared
DP-11	1120063.765	907631.793	435.366	Good condition, visible, moss on top of drainage pipe, vegetation front of drainage pipe cleared
DP-12	1120171.762	907598.511	435.366	Good condition, visible, vegetation in front of drainage pipe
DP-13	1120271.798	907566.212	433.557	Good condition, visible, vegetation on sides of drainage pipe
DP-14	1120374.991	907529.601	460.627	Good condition, visible, vegetation on sides of drainage pipe
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DP-16	1120534.579	907482.788	458.736	Good condition, slightly visible, vegetation on sides and in front of drainage pipe
DP-17	1120665.489	907442.420	428.997	Under drainage downchute riprap, inaccessible

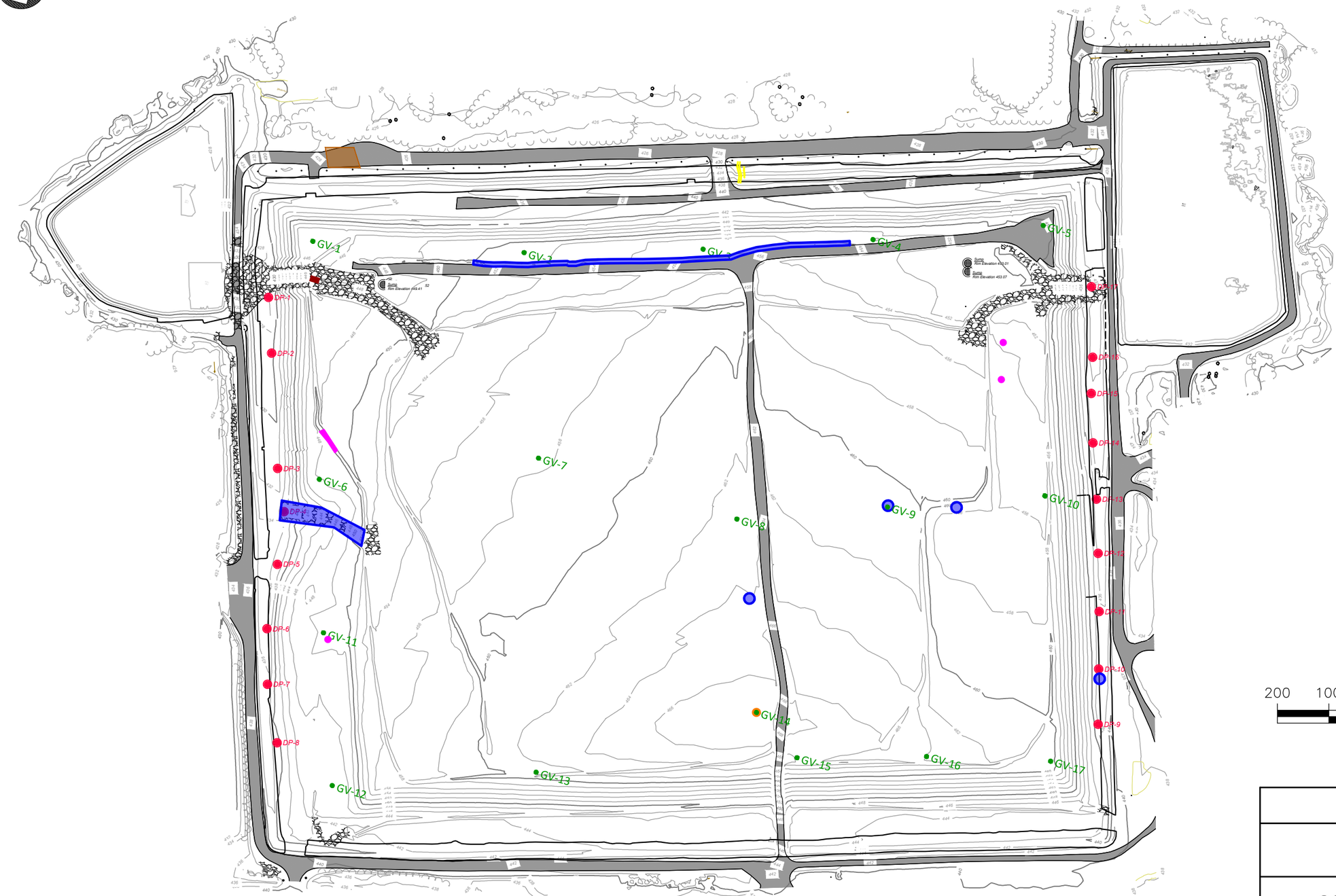
[1]Coordinates and elevations provided from 2016 As-Built drawings.

\\NYSYR04FS01\Projects\Honeywell -SYR\453069 2022 Onondaga Lake PVM\11.0 Field and Laboratory Data\11.10 SCA\Quarterly Inspections & Site Visits\2022 Q3 Inspection\Field Forms\08-11-2022 Drain Pipe Daylight Locations.xlsx

08-11-2022 GAS VENT LOCATIONS	
#	CONDITION (Gas vent structural integrity, plantings, vegetative cover irregularities)
GV-1	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-2	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-3	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-4	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-5	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-6	Vent straight and in good condition with a slight lean (consistent with previous recon)[1] and vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-7	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-8	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-9	Vent in good condition with a slight lean (consistent with previous recon)[1] and vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-10	Vent straight and in good condition with vent cap intact. Tall grasses present but matted down. No vegetative cover irregularities.
GV-11	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-12	Vent straight and in good condition with vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-13	Vent in good condition with a slight lean (consistent with previous recon)[1] and vent cap intact. Medium-height grasses present. No vegetative cover irregularities.
GV-14	Vent straight and in good condition with vent cap intact. Tall grasses present. Small animal burrow present.
GV-15	Vent in good condition with a slight lean (consistent with previous recon)[1] and vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-16	Vent in good condition with a slight lean (consistent with previous recon)[1] and vent cap intact. Tall grasses present. No vegetative cover irregularities.
GV-17	Vent in good condition with a slight lean (consistent with previous recon)[1] and vent cap intact. Tall grasses present. No vegetative cover irregularities.

[1]Vents noted with a tilt/lean are consistent with previous monitoring observations and do not require any improvements or changes. All vents are functioning as intended.

08-11-2022 GENERAL RECON		
ITEM	Y/N	COMMENT
Evidence of Tresspassing/ Unauthorized use of final cover area	N	N/A
Evidence of subsidence or settling/ low points/ depressions	N	N/A
Evidence of Burrowing animals	Y	Small animal burrow was noted near GV-14.
Presence of Erosion Rills	Y	Vegetation growth was seen in previously noted/repaired rills on northern edge of the site.
Vegetation performing as intended	Y	Grasses provide good vegetative cover. Small areas of sparse vegetation were noted.
Irregularities such as bulges, bumps, slumps or cracks observed	N	N/A
Evidence of ponded water on top of site	N	Good condition. Site is draining well, no pools at the top of the site.
Condition of access roads good (no aggregate washout, exposed geotextile, etc)	Y	Good condition
Perimeter berm in good condition	Y	Good condition
Proper function and integrity of diversion berms	Y	
Proper function and integrity of interception berms	Y	
Proper function and integrity of drainage channels	Y	N/A
Proper function and integrity of East & West Basin	Y	N/A



LEGEND:

- DRAINAGE PIPE
- GAS VENT
- MINOR EROSION/SOIL SETTLING
- SMALL ANIMAL BURROW
- SPARSE VEGETATION
- MINOR SOIL DISTURBANCE (SEE NOTE 1)
- WOODY VEGETATION
- LINER DAYLIGHTING

NOTES:

1. MINOR AREA OF SOIL DISTURBANCE WAS REPAIRED PRIOR TO THE Q2 INSPECTION.

200 100 0 200 400

SCALE: 1"=200'

FIGURE 1

SEDIMENT CONSOLIDATION AREA
CAMILLUS, NEW YORK

SCA QUARTERLY REPORT
3RD QUARTER – 2022

PARSONS
301 Plainfield Rd, Ste 350, Syracuse, NY, Ph: 315-451-9560

FILE NAME: P:\HONEYWELL –SYR\453069 2022 ONONDAGA LAKE PVM\10.0 TECHNICAL CATEGORIES\10.2 CAD\SCA QUARTERLY INSPECTIONS\2022\SCA-Q3-2022.DWG
PLOT DATE: 3/16/2023 2:45 PM PLOTTED BY: MORANZ, KAITLYN [US-US]

Honeywell

PARSONS

LIQUID AND STORMWATER MANAGEMENT SYSTEMS INSPECTION FORMS

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
LIQUID MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

DATE/TIME: July 2022	WEATHER: 74.15° F avg. .09" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS:
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed monthly the first year. Form to be completed as appropriate for inspections done during active pumping (first item is mandatory) and if repairs or maintenance are conducted.
2. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Sump high level alarms and flow gauges are operational (and flow data is being recorded)	
		X	System automatic controls are operational.	Automated system is operational, but not used due to low volumes and systems run in batch mode. The system is run manually, and the operator remains on site while pumping to monitor the system.
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	Sumps are ran together to prevent backflow.
		X	Sump operational controls are set to prevent sump liquid depth from exceeding 6 feet. Confirm pumps and flow gauges are operational.	Sump levels are checked daily and are pumped to bottom when WTP discharge is permitted. Automated system is operational, but not used due to low levels and systems run in batch mode. Alarm system is active to alert for high levels.
X			Aboveground piping and insulation are in good condition. Inspect during active pumping.	
X			Underground utility markings/signs are in good condition.	
X			Riser covers are intact and secured.	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Repair of signage or markers	
Cleaning of/maintenance on system piping	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
LIQUID MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

DATE/TIME: August 2022	WEATHER: 73.64˚ F avg. .14" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS:
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed monthly the first year. Form to be completed as appropriate for inspections done during active pumping (first item is mandatory) and if repairs or maintenance are conducted.
2. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Sump high level alarms and flow gauges are operational (and flow data is being recorded)	
		X	System automatic controls are operational.	Automated system is operational, but not used due to low volumes and systems run in batch mode. The system is run manually, and the operator remains on site while pumping to monitor the system.
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	Sumps are ran together to prevent backflow.
		X	Sump operational controls are set to prevent sump liquid depth from exceeding 6 feet. Confirm pumps and flow gauges are operational.	Sump levels are checked daily and are pumped to bottom when WTP discharge is permitted. Automated system is operational, but not used due to low levels and systems run in batch mode. Alarm system is active to alert for high levels.
X			Aboveground piping and insulation are in good condition. Inspect during active pumping.	
X			Underground utility markings/signs are in good condition.	
X			Riser covers are intact and secured.	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Repair of signage or markers	
Cleaning of/maintenance on system piping	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
LIQUID MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

DATE/TIME: September 2022	WEATHER: 63.19° F avg. .14" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS:
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed monthly the first year. Form to be completed as appropriate for inspections done during active pumping (first item is mandatory) and if repairs or maintenance are conducted.
2. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Sump high level alarms and flow gauges are operational (and flow data is being recorded)	
		X	System automatic controls are operational.	Automated system is operational, but not used due to low volumes and systems run in batch mode. The system is run manually, and the operator remains on site while pumping to monitor the system.
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	Sumps are ran together to prevent backflow.
		X	Sump operational controls are set to prevent sump liquid depth from exceeding 6 feet. Confirm pumps and flow gauges are operational.	Sump levels are checked daily and are pumped to bottom when WTP discharge is permitted. Automated system is operational, but not used due to low levels and systems run in batch mode. Alarm system is active to alert for high levels.
X			Aboveground piping and insulation are in good condition. Inspect during active pumping.	
X			Underground utility markings/signs are in good condition.	
X			Riser covers are intact and secured.	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Repair of signage or markers	
Cleaning of/maintenance on system piping	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
STORM WATER MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

July 2022	WEATHER: 74.15° F avg. .09" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: No transfers or discharges.
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed quarterly. Form to be completed as appropriate for inspections done during active pumping and if repairs or maintenance are conducted.
2. Pumping from east basin to outfall 18 only occurs when TSS < 50 mg/l and with notification/approval from OBG (now Ramboll)
3. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Are the East and West basin pumps operating properly	East basin pumped to outfall using 3" godwin diesel pump.
X			Aboveground piping is in good condition. Inspect during active pumping	
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	
X			Are the level indicators in the East and West basin operational	
X			Diversion berms, interception berms and drainage channels functioning properly	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Cleaning of/maintenance on system piping	
Removal of debris or any other objects obstructing flow in drainage channels	No issues with drainage channels observed.
Cleaning of clogged riprap and East and West basins	
Repair of damaged storm water, erosion, and sediment control structures	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
STORM WATER MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

August 2022	WEATHER: 73.64° F avg. .14" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: East basin transfer to outfall 18: 8/29-8/31.
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed quarterly. Form to be completed as appropriate for inspections done during active pumping and if repairs or maintenance are conducted.
2. Pumping from east basin to outfall 18 only occurs when TSS < 50 mg/l and with notification/approval from OBG (now Ramboll)
3. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Are the East and West basin pumps operating properly	East basin pumped to outfall using 3" godwin diesel pump.
X			Aboveground piping is in good condition. Inspect during active pumping	
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	
X			Are the level indicators in the East and West basin operational	
X			Diversion berms, interception berms and drainage channels functioning properly	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Cleaning of/maintenance on system piping	
Removal of debris or any other objects obstructing flow in drainage channels	No issues with drainage channels observed.
Cleaning of clogged riprap and East and West basins	
Repair of damaged storm water, erosion, and sediment control structures	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
STORM WATER MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

September 2022	WEATHER: 73.64° F avg. .14" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: East basin transfer to outfall 18: 9/1, 9/6-9/8, 9/12-9/13, 9/20-9/25. West transfer to East: 9/2, 9/14, 9/23.
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed quarterly. Form to be completed as appropriate for inspections done during active pumping and if repairs or maintenance are conducted.
2. Pumping from east basin to outfall 18 only occurs when TSS < 50 mg/l and with notification/approval from OBG (now Ramboll)
3. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Are the East and West basin pumps operating properly	East basin pumped to outfall using 3" godwin diesel pump.
X			Aboveground piping is in good condition. Inspect during active pumping	
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	
X			Are the level indicators in the East and West basin operational	
X			Diversion berms, interception berms and drainage channels functioning properly	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Cleaning of/maintenance on system piping	
Removal of debris or any other objects obstructing flow in drainage channels	No issues with drainage channels observed.
Cleaning of clogged riprap and East and West basins	
Repair of damaged storm water, erosion, and sediment control structures	
Other repairs	

PHOTO LOG

2022 Q3 INSPECTION PHOTOGRAPH LOG

Observations:
Photos below include gas vents 1 to 6 monitored on 8/11/22. All vents were in good condition with tall grasses surrounding them. Additional details found on quarterly forms.



GV-1



GV-2



GV-3



GV-4



GV-5



GV-6

2022 Q3 INSPECTION PHOTOGRAPH LOG

Observations:
Photos below include gas vents 7 to 12 monitored on 8/11/22. All vents were in good condition with tall grasses surrounding them. Additional details found on quarterly forms.



GV-7



GV-8



GV-9



GV-10



GV-11



GV-12

2022 Q3 INSPECTION PHOTOGRAPH LOG

Observations:
Photos below include gas vents 13 to 17 monitored on 8/11/22. All vents were in good condition with tall grasses surrounding them. GV-13 continues to demonstrate a slight lean, and GV-16 has a very slight lean. Additional details found on quarterly forms.



GV-13



GV-14



GV-15



GV-16



GV-17

2022 Q3 INSPECTION PHOTOGRAPH LOG

Observations:
Ground cover was good site-wide, with very few areas of sparse vegetation. One minor area of liner daylighting was noted on a downchute. Phragmites was noted along the northern path of the site. Additional details found on quarterly forms.



General vegetation condition.



Minor daylighting noted in northwest downchute.



Small patch of sparse Phragmites along northern path.



Sparse vegetation on top of berm.

2022 Q3 INSPECTION PHOTOGRAPH LOG

Observations:
A small animal burrow was noted at GV-14. Drainage pipes were functioning properly. Repairs were conducted at two areas of minor soil disturbance at the site base. Additional details found on quarterly forms.



Small animal burrow near GV-14.



Vegetation on sides of DP-7.



Repaired area of erosion along western side of site.



Vegetation growth in repaired area of soil disturbance.

2022 Quarter 4 Sediment Consolidation Area (SCA) Quarterly Inspection Package
Inspection, Operation, and Maintenance Forms

The 2022 Quarter 4 (Q4) SCA inspection was completed on December 5, 2022. During the inspection the following items were evaluated:

- evidence of trespassing or unauthorized use of the final cover area
- evidence of subsidence or settling that results in low spots, or presence of erosion rills
- evidence of burrowing animals
- condition of vegetation
- observable irregularities such as bulges, bumps, slumps, or cracks
- evidence of ponded water
- condition of gas vents and drainage pipe outlets
- condition of access roads (i.e., erosion, aggregate washout, exposed geotextile, and debris on the road)
- condition of SCA perimeter berm
- condition of areas near anchor trenches, storm water control berms, and drainage channels

Overall, the site was found in good condition and there were no major irregularities to note. Tall grasses were exhibiting seasonal senescence but were still present and ground cover was good. Small erosion rills previously noted at the northern end of the site remain present, however vegetation growth has continued on and around the rills. The area of erosion on the western edge of the site was repaired during Q2 and remains stable with vegetation growth, however a minor erosion rill was noted adjacent to the previously repaired rill. The area will be monitored in future inspections. Only a few small, isolated locations along berms remain with sparse vegetation. These locations are monitored during each inspection and are not areas of concern. Sparse small woody plants were noted on side slopes of the site. Removal will be conducted at the same time site mowing occurs. Locations of small woody vegetation noted in Q3 may still be present, however seasonal senescence may have led to vegetation not being visible in Q4. The small area of liner daylighting previously noted in the northwest downchute remains, however it is stable and will continue to be monitored.

The gas vents and drainage pipes were in good condition, as were the berms and drainage channels around the perimeter of the site. Small animal burrows were noted at GV-8, GV-14, and GV-16 and minor settling was noted at the base of GV-3 and GV-4 during the inspection. The settling locations will be monitored in future inspections to assess any need for repairs, which are not currently necessary. No cap irregularities were observed.

An area of soil disturbance was previously noted in April 2022 at the base of the site in the northwest corner. Ramboll Group completed repairs and regrading of the impacted location in April. During the Q2 inspection native seed was applied by Parsons to the location to reduce potential erosion. Vegetation growth has started in the area of soil disturbance, however the area is still sparse and ponding water was noted. The area will be monitored during future inspections to assess the need for additional seeding.

Attachments to this package include completed field forms associated with this quarterly inspection, a photo log documenting the general condition of the gas vents cover, and monthly Liquid Management System (LMS) inspection forms completed by Jacobs during this quarter. A figure with site condition observations and field notes has been included and will be used as reference for potential future enhancement seeding and Rolled Erosion Control Product (RECP) recommendations.

QUARTERLY FORMS & SITE RECON FIGURE

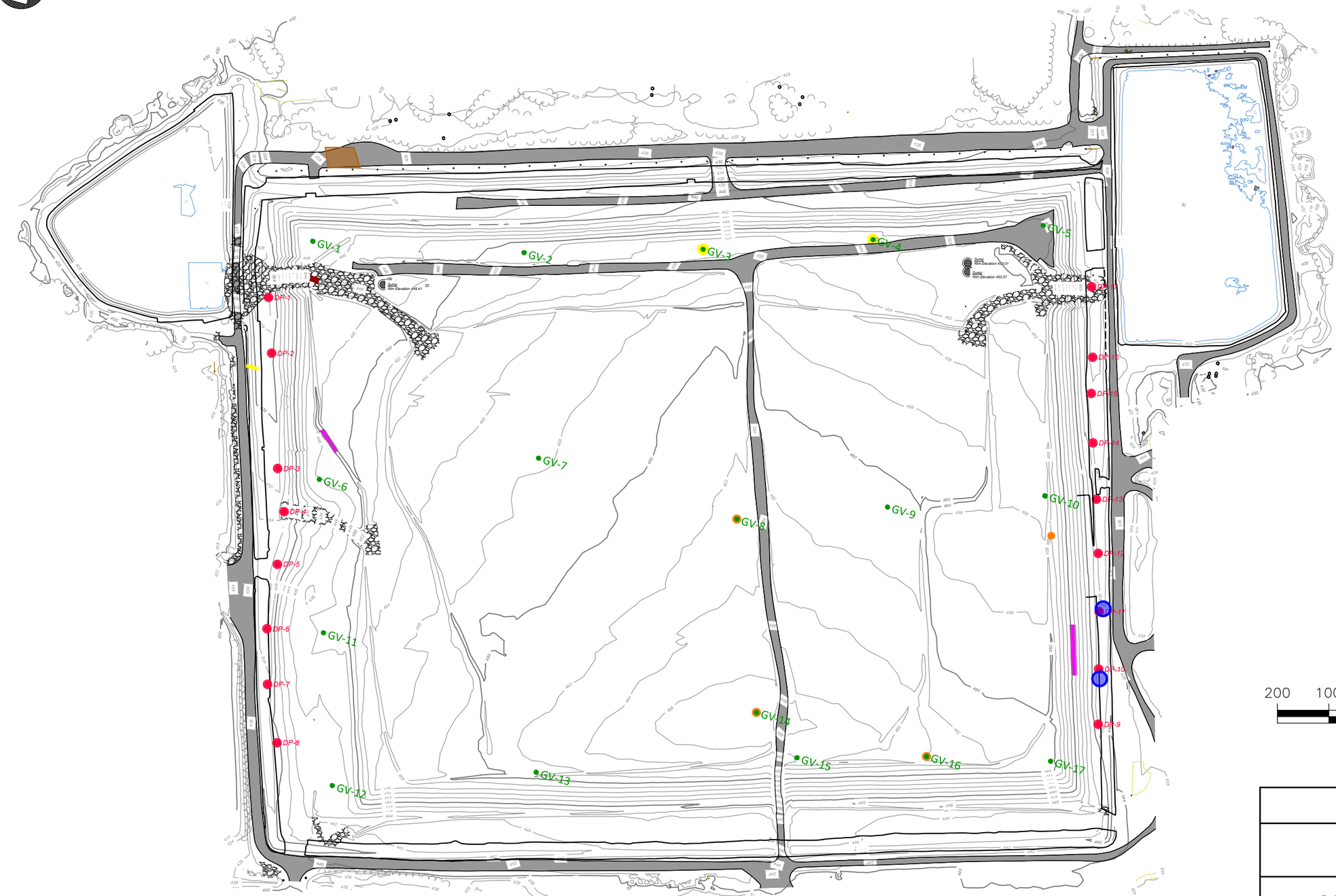
12-05-2022 Drain Pipe Daylight Locations				
#	COORDINATES[1]		ELEVATIONS[1]	COMMENTS
DP-1	1120202.677	905912.700	428.997	Under chute riprap, inaccessible
DP-2	1120100.239	905948.459	458.736	Unable to find
DP-3	1119888.374	906021.590	460.627	Good condition, visible, vegetation on sides of drainage pipe, water covering drainage pipe
DP-4	1119811.170	906056.949	433.557	Under drainage downchute riprap, inaccessible
DP-5	1119709.306	906072.849	433.557	GPS coordinates ~10 ft. upslope of toe, unable to find
DP-6	1119583.469	906088.100	433.557	Good condition, visible, vegetation on sides of drainage pipe, water flowing from drainage pipe
DP-7	1119479.886	906118.916	433.557	Good condition, slightly visible, vegetation on sides of drainage pipe
DP-8	1119376.185	906168.548	433.557	GPS coordinates ~10 ft. upslope of toe, unable to find
DP-9	1119852.555	907690.460	0	3 ft. off from GPS coordinates; Good condition, visible, vegetation on sides of drainage pipe
DP-10	1119956.045	907661.695	435.366	Good condition, slightly visible, vegetation on top of drainage pipe, dirt inside drainage pipe cleared
DP-11	1120063.765	907631.793	435.366	Good condition, slightly visible, vegetation on sides of drainage pipe, dirt in front of drainage pipe cleared
DP-12	1120171.762	907598.511	435.366	Good condition, visible, vegetation on sides of drainage pipe, water flowing from drainage pipe
DP-13	1120271.798	907566.212	433.557	Good condition, slightly visible, vegetation on sides of drainage pipe, water flowing from drainage pipe
DP-14	1120374.991	907529.601	460.627	Good condition, visible, vegetation on sides of drainage pipe, water flowing from drainage pipe
DP-15	1120466.426	907499.452	431.982	Good condition, slightly visible, water covering drainage pipe
DP-16	1120534.579	907482.788	458.736	Good condition, found but not visible, water covering drainage pipe
DP-17	1120665.489	907442.420	428.997	Under drainage downchute riprap, inaccessible

[1]Coordinates and elevations provided from 2016 As-Built drawings.

12-05-2022 GAS VENT LOCATIONS	
#	CONDITION (Gas vent structural integrity, plantings, vegetative cover irregularities)
GV-1	Vent straight and in good condition with vent cap intact. Tall dormant grasses present. No vegetative cover irregularities.
GV-2	Vent straight and in good condition with vent cap intact. Tall dormant grasses present. No vegetative cover irregularities.
GV-3	Vent straight and in good condition with vent cap intact. Tall dormant grasses present. Minor soil settling.
GV-4	Vent straight and in good condition with vent cap intact. Tall dormant grasses present. Minor soil settling.
GV-5	Vent straight and in good condition with vent cap intact. Medium-height dormant grasses present. No vegetative cover irregularities.
GV-6	Vent straight and in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Tall dormant grasses present. No vegetative cover irregularities.
GV-7	Vent straight and in good condition with vent cap intact. Tall dormant grasses present. No vegetative cover irregularities.
GV-8	Vent straight and in good condition with vent cap intact. Medium-height dormant grasses present. Small animal burrow present.
GV-9	Vent straight and in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Tall dormant grasses present. No vegetative cover irregularities.
GV-10	Vent straight and in good condition. Cap loose but repaired during inspection. Medium-height dormant grasses present. No vegetative cover irregularities.
GV-11	Vent straight and in good condition with vent cap intact. Tall dormant grasses present. No vegetative cover irregularities.
GV-12	Vent straight and in good condition with vent cap intact. Tall dormant grasses present. No vegetative cover irregularities.
GV-13	Vent straight and in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Tall dormant grasses present. No vegetative cover irregularities.
GV-14	Vent straight and in good condition with vent cap intact. Tall dormant grasses present. Small animal burrow present.
GV-15	Vent straight and in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Tall dormant grasses present. No vegetative cover irregularities.
GV-16	Vent in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Tall dormant grasses present. Small animal burrow present.
GV-17	Vent in good condition with a slight lean (consistent with previous recon)[(1)] and vent cap intact. Medium-height dormant grasses present. No vegetative cover irregularities.

[(1)]Vents noted with a tilt/lean are consistent with previous monitoring observations and do not require any improvements or changes. All vents are functioning as intended.

12-05-2022 GENERAL RECON		
ITEM	Y/N	COMMENT
Evidence of Tresspassing/ Unauthorized use of final cover area	N	N/A
Evidence of subsidence or settling/ low points/ depressions	Y	Minor soil settling was noted near GV-3 and GV-4. No action recommended at this time.
Evidence of Burrowing animals	Y	Small animal burrows were noted near GV-8, GV-14, and GV-16.
Presence of Erosion Rills	Y	Vegetation growth was seen in previously noted/repaired rills. A small rill was noted near previously repaired erosion area on the western edge of the site.
Vegetation performing as intended	Y	Grasses are seasonally dormant but provide very good vegetative cover. Small areas of sparse vegetation were noted on berms.
Irregularities such as bulges, bumps, slumps or cracks observed	N	N/A
Evidence of ponded water on top of site	N	Good condition. Site is draining well, no pools at the top of the site. Pooling noted at base the of the site, not an issue for site integrity.
Condition of access roads good (no aggregate washout, exposed geotextile, etc)	Y	Good condition
Perimeter berm in good condition	Y	Good condition
Proper function and integrity of diversion berms	Y	
Proper function and integrity of interception berms	Y	
Proper function and integrity of drainage channels	Y	N/A
Proper function and integrity of East & West Basin	Y	N/A



LEGEND:

- DRAINAGE PIPE
- GAS VENT
- MINOR EROSION/SOIL SETTLING
- SMALL ANIMAL BURROW
- SPARSE VEGETATION
- MINOR SOIL DISTURBANCE (SEE NOTE 1)
- WOODY VEGETATION
- LINER DAYLIGHTING

NOTES:

1. MINOR AREA OF SOIL DISTURBANCE WAS REPAIRED PRIOR TO THE Q2 INSPECTION.

200 100 0 200 400

SCALE: 1"=200'

FIGURE 1

SEDIMENT CONSOLIDATION AREA
CAMILLUS, NEW YORK

SCA QUARTERLY REPORT
4TH QUARTER – 2022

PARSONS
301 Plainfield Rd, Ste 350, Syracuse, NY, Ph: 315-451-9560

FILE NAME: \\NYSYR04FS01\PROJECTS\HONEYWELL -SYR\453069 2022 ONONDAGA LAKE PVM\10.0 TECHNICAL CATEGORIES\10.2 CAD\SCA QUARTERLY INSPECTIONS\2022\SCA-Q4-2022.DWG
PLOT DATE: 3/23/2023 9:27 AM PLOTTED BY: MORANZ, KAITLYN [US-US]

Honeywell

PARSONS

LIQUID AND STORMWATER MANAGEMENT SYSTEMS INSPECTION FORMS

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
LIQUID MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

DATE/TIME: October 2022	WEATHER: 52.63˚ F avg. .04" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: 10/26 Ridley performed Power shutdown for solar panel tie-in.
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed monthly the first year. Form to be completed as appropriate for inspections done during active pumping (first item is mandatory) and if repairs or maintenance are conducted.
2. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Sump high level alarms and flow gauges are operational (and flow data is being recorded)	
		X	System automatic controls are operational.	Automated system is operational, but not used due to low volumes and systems run in batch mode. The system is run manually, and the operator remains on site while pumping to monitor the system.
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	Sumps are ran together to prevent backflow.
		X	Sump operational controls are set to prevent sump liquid depth from exceeding 6 feet. Confirm pumps and flow gauges are operational.	Sump levels are checked daily and are pumped to bottom when WTP discharge is permitted. Automated system is operational, but not used due to low levels and systems run in batch mode. Alarm system is active to alert for high levels.
X			Aboveground piping and insulation are in good condition. Inspect during active pumping.	
X			Underground utility markings/signs are in good condition.	
X			Riser covers are intact and secured.	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Repair of signage or markers	
Cleaning of/maintenance on system piping	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
LIQUID MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

DATE/TIME: November 2022	WEATHER: 45.28˚ F avg. .14" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS:
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed monthly the first year. Form to be completed as appropriate for inspections done during active pumping (first item is mandatory) and if repairs or maintenance are conducted.
2. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Sump high level alarms and flow gauges are operational (and flow data is being recorded)	
		X	System automatic controls are operational.	Automated system is operational, but not used due to low volumes and systems run in batch mode. The system is run manually, and the operator remains on site while pumping to monitor the system.
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	Sumps are ran together to prevent backflow.
		X	Sump operational controls are set to prevent sump liquid depth from exceeding 6 feet. Confirm pumps and flow gauges are operational.	Sump levels are checked daily and are pumped to bottom when WTP discharge is permitted. Automated system is operational, but not used due to low levels and systems run in batch mode. Alarm system is active to alert for high levels.
X			Aboveground piping and insulation are in good condition. Inspect during active pumping.	
X			Underground utility markings/signs are in good condition.	
X			Riser covers are intact and secured.	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Repair of signage or markers	
Cleaning of/maintenance on system piping	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
LIQUID MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

DATE/TIME: December 2022	WEATHER: 32.78˚ F avg. .11" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS:
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed monthly the first year. Form to be completed as appropriate for inspections done during active pumping (first item is mandatory) and if repairs or maintenance are conducted.
2. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Sump high level alarms and flow gauges are operational (and flow data is being recorded)	
		X	System automatic controls are operational.	Automated system is operational, but not used due to low volumes and systems run in batch mode. The system is run manually, and the operator remains on site while pumping to monitor the system.
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	Sumps are ran together to prevent backflow.
		X	Sump operational controls are set to prevent sump liquid depth from exceeding 6 feet. Confirm pumps and flow gauges are operational.	Sump levels are checked daily and are pumped to bottom when WTP discharge is permitted. Automated system is operational, but not used due to low levels and systems run in batch mode. Alarm system is active to alert for high levels.
X			Aboveground piping and insulation are in good condition. Inspect during active pumping.	
X			Underground utility markings/signs are in good condition.	
X			Riser covers are intact and secured.	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Repair of signage or markers	
Cleaning of/maintenance on system piping	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
STORM WATER MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

October 2022	WEATHER: 52.63° F avg. .04" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: No discharge for the month of October.
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed quarterly. Form to be completed as appropriate for inspections done during active pumping and if repairs or maintenance are conducted.
2. Pumping from east basin to outfall 18 only occurs when TSS < 50 mg/l and with notification/approval from OBG (now Ramboll)
3. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Are the East and West basin pumps operating properly	East basin pumped to outfall using 3" godwin diesel pump.
X			Aboveground piping is in good condition. Inspect during active pumping	
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	
X			Are the level indicators in the East and West basin operational	
X			Diversion berms, interception berms and drainage channels functioning properly	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Cleaning of/maintenance on system piping	
Removal of debris or any other objects obstructing flow in drainage channels	No issues with drainage channels observed.
Cleaning of clogged riprap and East and West basins	
Repair of damaged storm water, erosion, and sediment control structures	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
STORM WATER MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

November 2022	WEATHER: 45.28° F avg. .14" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: No discharge for the month of November.
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed quarterly. Form to be completed as appropriate for inspections done during active pumping and if repairs or maintenance are conducted.
2. Pumping from east basin to outfall 18 only occurs when TSS < 50 mg/l and with notification/approval from OBG (now Ramboll)
3. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Are the East and West basin pumps operating properly	East basin pumped to outfall using 3" godwin diesel pump.
X			Aboveground piping is in good condition. Inspect during active pumping	
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	
X			Are the level indicators in the East and West basin operational	
X			Diversion berms, interception berms and drainage channels functioning properly	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Cleaning of/maintenance on system piping	
Removal of debris or any other objects obstructing flow in drainage channels	No issues with drainage channels observed.
Cleaning of clogged riprap and East and West basins	
Repair of damaged storm water, erosion, and sediment control structures	
Other repairs	

INSPECTION FORM
HONEYWELL – SCA POST CLOSURE CARE PLAN
STORM WATER MANAGEMENT SYSTEM
SYRACUSE, NEW YORK

GENERAL SITE INFORMATION

December 2022	WEATHER: 32.78° F avg. .11" precipitation
INSPECTOR/OPERATOR NAME: Robert Davies	COMMENTS: East basin to outfall 018. 12/12-12/20.
OM&M CONTRACTOR: Jacobs	

Notes:

1. Inspection form to be fully completed quarterly. Form to be completed as appropriate for inspections done during active pumping and if repairs or maintenance are conducted.
2. Pumping from east basin to outfall 18 only occurs when TSS < 50 mg/l and with notification/approval from OBG (now Ramboll)
3. Attach additional documentation and photographs as appropriate. Note locations for issues identified below.

Inspection

Yes	No	N/A	Item	Notes
X			Are the East and West basin pumps operating properly	East basin pumped to outfall using 3" godwin diesel pump.
X			Aboveground piping is in good condition. Inspect during active pumping	
X			Instrumentation and valves are in good condition. Note sticking or jammed devices, corrosion, leaks, and misalignments.	
X			Are the level indicators in the East and West basin operational	
X			Diversion berms, interception berms and drainage channels functioning properly	

Repair/Maintenance Activities

Item	Notes
Calibration, operations, maintenance of mechanical and electrical equipment including pumps and flow meters	
Cleaning of/maintenance on system piping	
Removal of debris or any other objects obstructing flow in drainage channels	No issues with drainage channels observed.
Cleaning of clogged riprap and East and West basins	
Repair of damaged storm water, erosion, and sediment control structures	
Other repairs	

PHOTO LOG

2022 Q4 INSPECTION PHOTOGRAPH LOG

Observations:
Photos below include gas vents 1 to 6 monitored on 12/5/22. All vents were in good condition with tall grasses surrounding them. Additional details found on quarterly forms.



GV-1



GV-2



GV-3



GV-4



GV-5



GV-6

2022 Q4 INSPECTION PHOTOGRAPH LOG

Observations:
Photos below include gas vents 7 to 12 monitored on 12/5/22. All vents were in good condition with tall grasses surrounding them. Additional details found on quarterly forms.



GV-7



GV-8



GV-9



GV-10



GV-11



GV-12

2022 Q4 INSPECTION PHOTOGRAPH LOG

Observations:
Photos below include gas vents 13 to 17 monitored on 12/5/22. All vents were in good condition with tall grasses surrounding them. GV-13 continues to demonstrate a slight lean, and GV-16 has a very slight lean. Additional details found on quarterly forms.



GV-13



GV-14



GV-15



GV-16



GV-17

2022 Q4 INSPECTION PHOTOGRAPH LOG

Observations:
Small animal burrows were noted at GV-8, GV-14, and GV-16. Ground cover was good site-wide, with very few areas of patchy vegetation on berms. Vegetation buffer area around gas vents in mowed areas intact. Additional details found on quarterly forms.



General vegetation condition in mowed and unmowed areas.



10 ft mowing buffer around GV-14.



Water draining from DP-13.



Small animal burrow next to GV-14.

2022 Q4 INSPECTION PHOTOGRAPH LOG

Observations:
Small woody vegetation was noted on side slopes of the site. Ponding was noted exclusively at the base of the site. Additional details found on quarterly forms.



Woody vegetation located on side slopes of site.



Minor erosion rill forming adjacent to previously repaired erosion area.



DP-15 slightly visible with water covering drainage pipe.



Sparse vegetation and minor ponding in repaired soil disturbance area.

ATTACHMENT 2 – DREDGE AND DEWATERING SYSTEM DECOMISSIONING PLAN - UPDATE

DREDGE AND DEWATERING SYSTEM DECOMMISSIONING – UPDATE ONONDAGA LAKE BOTTOM SUB-SITE

ONONDAGA COUNTY, NEW YORK

Prepared For:

Honeywell

301 Plainfield Road
Suite 330
Syracuse, New York 13212

Prepared By:

PARSONS

301 Plainfield Road
Suite 350
Syracuse, New York 13212

SEPTEMBER 2023

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ATTACHMENT B REMAINING UNDERGROUND PIPE AND CROSSING LOCATIONS
ATTACHMENT C SMAA AND SW STORAGE AREA SOIL SAMPLE SUMMARY

LIST OF ACRONYMS

DMM	Division of Materials Management
NYSDEC	New York State Department of Environmental Conservation
SCA	Sediment Consolidation Area
SCO	Soil Cleanup Objective
SMMA	Sediment Material Management Area
SPA	Sediment Processing Area
TSS	total suspended solids
WTP	Water Treatment Plant

SECTION 1 STATUS UPDATE

This document presents a status update of the dredge and dewatering system decommissioning activities completed since the July 2018 status update (Parsons 2018). These activities are being completed consistent with the Dredge and Dewatering System Decommissioning Plan submitted by Parsons on October 31, 2014, and approved by the New York State Department of Environmental Conservation (NYSDEC) on October 31, 2014 (Parsons 2014).

A summary list of equipment and materials decommissioned (e.g., sold, transferred, donated, returned to vendor, or scrapped/disposed) since the 2018 update is presented below. Where applicable, decontamination procedures were consistent with procedures outlined in the 2014 plan. An update to this document will be submitted to NYSDEC after materials are addressed or as requested by NYSDEC.

- **Polymer System**. The polymer system was sold to Sevenson Environmental Services in 2021. The five fiberglass mixing tanks remain.
- **Windscreen Poles.** The windscreen poles were removed in October 2018.
- **Floating Covers**. East and west basin floating covers were transported for off-site disposal in October 2018.
- **Geotechnical Monitoring System.** The Sediment Consolidation Area (SCA) geotechnical monitoring system was decommissioned between September and November 2018.
- **Waste Disposal.** Excess chemicals and residual solids at the SCA (except for the Sediment Material Management Area [SMMA] and SCA southwest storage area soil piles) were disposed of between June 2019 and January 2020. Documentation of disposition is included in **Attachment A**.
- **Water Treatment Plant (WTP).** Excess WTP equipment, consisting of three clarifiers and two multimedia filters, were sold in March 2019.

Operational adjustments since the 2018 update included:

- **Alternate Solar Closure Area Stormwater Conveyance**. The west basin was modified in 2022 consistent with the July 2021 Alternate Solar Closure Construction Work Plan submitted by Ramboll and approved by the NYSDEC Division of Materials Management (DMM) (Ramboll 2021). Piping was installed for gravity discharge as part of the alternate solar closure area stormwater conveyance infrastructure for ultimate discharge to Outfall 017 in accordance with SPDES Discharge Permit NY0002275.

SECTION 2 ADDITIONAL DECOMMISSIONING ACTIVITIES TO BE COMPLETED

2.1 Leak Detection Manholes, Slurry Pipe Crossings, and Buried Pipe

Attachment B presents a summary table and figure with remaining slurry pipeline system features. The remaining leak detection manholes and subgrade slurry pipeline and/or casing crossings are currently being maintained in the event that they are needed in the future. A plan to address these, including possible closure, will be discussed with NYSDOT, CSX, and NYSDEC as appropriate. The activities anticipated to be completed include:

- Closure of leak detection manholes consistent with permit requirements.
- Closure of subgrade slurry pipeline crossings consistent with permit requirements.

2.2 SCA

- **Paved Sediment Processing Area (SPA).** Final disposition of the paved SPA and storm drains are pending Wastebed 13 design.
- **SMMA Pile**. Initial testing of the stone and soil pile from this area in August 2017 showed exceedances of the Part 375 Unrestricted Use Soil Cleanup Objectives (SCOs) for the following compounds:
  - mercury (0.78, 0.86, and 1.9 mg/kg vs. 0.18 mg/kg SCO)
  - benzo(a)pyrene (2.2 mg/kg vs. 1.0 mg/kg SCO)
  - naphthalene (31 mg/kg vs. 12 mg/kg SCO)

  Three additional samples collected in April 2019 were analyzed for mercury and were reported with concentrations of 0.41 mg/kg, 1.4 mg/kg, and 3.5 mg/kg. **Attachment C** presents correspondence concerning the SMMA sampling plan, an analytical results summary table, and a figure showing the sample locations with mercury concentrations. A plan to address the SMMA materials will be reviewed with NYSDEC as part of the closure design for the eastern portion of Wastebed 13.



SMMA Pile, Polymer System and Paved SPA

- **SCA Southwest Storage Area**. Testing in October 2017 showed an exceedance of the Part 375 Unrestricted Use SCO for mercury in one of the two samples collected (0.67 mg/kg vs. 0.18 mg/kg SCO). As discussed in the 2018 Update (Parsons 2018), the liner will be removed and disposed of off-site, and the soils will be placed on Wastebed 13 and covered with a foot of soil. The location and plan to cover the soil will be reviewed with NYSDEC prior to performing the work. **Attachment C** presents correspondence concerning the southwest storage area sampling plan, an analytical results summary table, and a map of the sample locations.



Southwest Storage Area

- **SCA Stormwater Basins**. The east basin stormwater level is monitored and manually pumped on an as-needed basis. Prior to pumping to Outfall 018, the basin water is monitored for total suspended solids (TSS). If TSS is too high to discharge to Outfall 018 (greater than 50 mg/L), pumping is deferred until TSS levels drop or the stormwater is treated at the SCA WTP. This mode of operation will be integrated into the Wastebeds 9-15 closure design for approval by NYSDEC DMM.
- **SCA WTP.** With reduced flows, the WTP is currently operating with one train. Pumping rates continue to trend downward (averaging 1,760 gallons per day for February 2023). The SCA sumps are typically operated once to twice per week for treatment at the WTP.
- **Remaining SCA Equipment.** Evaluations are ongoing for the potential sale of remaining equipment, including the polymer system tanks, pumps, electric motors, and a horizontal conveyor.

SECTION 3 REFERENCES

Parsons. 2014. D*redge and Dewatering System Decommissioning Plan, Onondaga Lake Bottom Sub-site*. Prepared for Honeywell International Inc. October 2014.

Parsons. 2018. *Dredge and Dewatering System Decommissioning Plan - Update*. Prepared for Honeywell International Inc. July 2018.

Ramboll. 2021. *Wastebeds 9-15 Alternate Solar Closure Construction Work Plan*. Prepared for Honeywell International Inc. July 2021.

ATTACHMENT A CONTAINER INVENTORY AND CERTIFICATES OF DISPOSITION

Table 1
Honeywell
SCA Decommissioning Container Inventory

Contents[1]	Drum Type	Color	Count[1]	Comments	Unit	Status [2,3]
Soil Pile				1200 cubic yards of soil in SMMA	Cubic Yards	Present
Soil Pile				Approximately 50 yards in South east Staging Area soil through 4in stone, poly, geotextile	Cubic Yards	Present
Green Stuff ™ (absorbent)	Poly	Yellow	28		SMMA Tons	Partially disposed
Spent Carbon	Steel	White	6	1 Drum in main laydown area, five near SCA tanks. Drums are Vacuum drums	Drum	Present
Ecosorb	Poly	Blue	5	2 partially full, 3 empty	Drum	Disposed
Soil/Unknown	Steel	Black/Green	7	6 are full, one is empty	SMMA Tons	Present
Oil	Steel	Blue	6	Empty to mostly empty	Drum	Disposed
Hychem Defoamer 439	Poly	White	4		Drum	Disposed
Unknown	Poly	Blue	5	No legible Label	Drum	Present
Unknown/Empty	85-Gal Poly	Yellow	1			Present
HCL	Poly	Blue	1	Empty		Present
Hyper Floc CP7578	Poly	Blue	8		Drum	Disposed
Hyper Floc CP7578 or Amarex Foam	Poly Tote	White	25	Count appears to be some combination of these two contents, not all totes	Tote	Disposed
"Gasoline from DEC Boat"	Poly	Blue	1	Hand written on drum	Drum	Disposed
Hychem Defoamer 439	Poly	White	3	In trees/vegetation near main laydown area	Drum	Disposed
Unknown	Poly Tote	White	1	No legible Label - In trees/vegetation near main laydown area	Tote	Present
Unknown	Poly	Black	2	No legible Label - In trees/vegetation near main laydown area	Drum	Present
Unknown	Poly	White	1	In trees/vegetation north of main laydown area	Drum	Present
Unknown	Poly	Black	10	In trees/vegetation north of main laydown area	Drum	Present
Ecosorb	Poly	Blue	12	Not all drums have legible label, but all appear to be Ecosorb	Drum	Present
Flopam 1540	5-Gal Poly	Black/Orange	7		5-Gallon Bucket	Disposed
Unknown	5-Gal Poly	White	1	No legible Label	5-Gallon Bucket	Present
Unknown	5-Gal Poly	White	1	No legible Label	5-Gallon Bucket	Present
Pion Odor Neutralizer	5-Gal Poly	White	3	Consolidated with containers in SCA Water Treatment Plant	Consolidate to Totes	Present
RCRA Empty Totes	Poly Tote	White	19	Located in SCA Parking Lot	NA	Present
Debris	Poly Tote	White	5	Top cut off of tote, metal or poly debris placed in open tote	NA	Present
Soil/Solvay Waste	Poly Tote	White	7	Top cut off of tote, soil/Solvay waste placed in open tote, staged adjacent to SMMA	NA partially filled	Present
Pian Odor Neutralizer	5-Gal Poly	White	~162	Located in SCA Water Treatment Plant	Consolidate to Totes	Present

Notes:
1. All container counts and contents approximate based on 5/22/2018 Site visit by OBG, and are subject to change based on further cataloging.
2. Bill of lading and associated certificate of analysis presented in following pages for items that have been disposed since 2018 update.
3. Disposal status confirmed during July 2023 site visit. Container counts and contents approximate and subject to change based on further cataloging.

VEOLIA
ENVIRONMENTAL SERVICES

SHIPPING DOCUMENT	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Shipping Document Tracking Number
	NYD002244945	2	(877) 818-0087	ZZ 00450711

GENERATOR

5. Generator's Name and Mailing Address
STEVE MILLER
HONEYWELL
301 PLAINFIELD ROAD SUITE #330
SYRACUSE, NY 13212
Generator's Phone: 315 552-9700

Generator's Site Address (if different than mailing address)
1700 MILTON AVENUE
SOLVAY, NY 13209

6. Transporter 1 Company Name
VEOLIA ES TECHNICAL SOLUTIONS
U.S. EPA ID Number: NJD080631369

7. Transporter 2 Company Name
FREEHOLD CARTAGE INC
U.S. EPA ID Number: NJD054126164

8. Designated Facility Name and Site Address
VEOLIA ES TECHNICAL SOLUTIONS, L.L.C.
4301 INFIRMARY ROAD
WEST CARROLLTON, OH 45449
Facility's Phone: 937 859-6101
U.S. EPA ID Number: OHD093945293

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
	1. NON-REGULATED MATERIAL PER 40 & 49 CFR, (ANTIFREEZ)	2	DF	800	P	NONE / B
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
ER Service Contracted by VESTS -|- NEED C.O.D. -|- Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf. -|- 1) W:501030 A:SRRWTELIQ-NH

15. **GENERATOR S/OFFEROR S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: x Agent for Honeywell Michael Miller x
Signature:
Month: 08 Day: 01 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Shipment

Transporter 1 Printed/Typed Name: SEAN GALLIVAN
Signature:
Month: 08 Day: 01 Year: 19

Transporter 2 Printed/Typed Name: Brian Kohr
Signature:
Month: 08 Day: 08 Year: 19

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Shipping Document Tracking Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a

Printed/Typed Name: Brian Harry Blankenship
Signature:
Month: 08 Day: 15 Year: 19

DESIGNATED FACILITY TO GENERATOR

ENTAL SERVICES

SHIPPING DOCUMENT (Continuation Sheet)	21. Generator ID Number	22. Page	23. Shipping Document Tracking Number
	NJD082244910	2 of 2	2000930711

24. Generator's Name

Honeywell

25. Transporter 3 Company Name — U.S. EPA ID Number

VEOLIA ES TECHNICAL SOLUTIONS — NJD080631360

26. Transporter 4 Company Name — U.S. EPA ID Number

Freehold Cadge Inc — NJD057126167

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Codes

For Transportation Only

32. Special Handling Instructions and Additional Information

GENERATOR

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Shipment

Printed/Typed Name: Charles VanDeMark — Signature — Month: 08 Day: 09 Year: 19

34. Transporter 4 Acknowledgment of Receipt of Shipment

Printed/Typed Name: Dave Brown — Signature — Month: 8 Day: 13 Year: 19

DESIGNATED FACILITY

35. Discrepancy

36. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

DESIGNATED FACILITY TO GENERATOR

Certificate of Disposition

Veolia ES Technical Solutions, L.L.C., West Carrollton Facility has a RCRA Part B Permit that allows the facility to commingle wastes, recycle, store and transfer waste for distillation, supplemental fuels for energy recovery, thermal treatment, and stabilization

Veolia ES Technical Solutions, L.L.C. certifies the waste which was received on Manifest Number: ZZ00450711 Date: 08/15/19 will be/was managed in accordance with all applicable federal state and local laws and regulations.

Generator Name:Honeywell
Generator EPA ID: NYD002244945

DATE CERTIFICATE ISSUED: 09/18/2019

SIGNATURE: Brittany Blankenship

TITLE: WASTE TRACKING COORDINATOR

VEOLIA
ENVIRONMENTAL SERVICES

SHIPPING DOCUMENT

1. Generator ID Number: NYD007449443

2. Page 1 of: X3

3. Emergency Response Phone: (877) 818-0087

4. Shipping Document Tracking Number: ZZ 00451640

5. Generator's Name and Mailing Address
STEVE MILLER
HONEYWELL
301 PLAINFIELD ROAD SUITE #330
SYRACUSE, NY 13212
Generator's Phone: 315 552 9700

Generator's Site Address (if different than mailing address)
1700 MILTON AVENUE
SOLVAY, NY 13209

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS
U.S. EPA ID Number: NJD080631369

7. Transporter 2 Company Name: FREEHOLD CARTAGE INC
U.S. EPA ID Number: NJD054126164

8. Designated Facility Name and Site Address
VEOLIA ES TECHNICAL SOLUTIONS, L.L.C.
4301 INFIRMARY ROAD
WEST CARROLLTON, OH 45449
Facility's Phone: 937 859.6101
U.S. EPA ID Number: OHD093945293

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
	1. ~~NON REGULATED MATERIAL PER 49 C.F.R. (THAN OTHER NEUTRALIZING AGENT)~~ * DID NOT SHIP @ 11/4/19	~~0~~	~~P~~	~~0~~	~~P~~	~~NONE~~ ~~B~~
	2. NON RCRA AND DOT NON REGULATED LIQUID, (FLOPAM EM 1540)	1	D M	400	P	NONE B
	3. NON RCRA AND DOT NON REGULATED LIQUID, (AMREX FOAM)	1	T P	2,200	P	NONE B
	4. NON RCRA AND DOT NON REGULATED LIQUID, (HYCHEM DEFOAMTER 484)	1	T P	2,200	P	NONE B

14. Special Handling Instructions and Additional Information
ER Service Contacted by VESTS -|- NERD C.O.D. -|- Contract returned by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf -|- 1) W.468518.A.SERWTELIQ-NH 2) W.610951.A.SERWTELIQ-NH 3) W.467147.A.SERWTELIQ-NH 4) W.472121.A.SERWTELIQ-NH

15. **GENERATOR S/OFFEROR S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: * Agent for Honeywell Michael Miller
Signature: *
Month Day Year: 11 04 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Shipment

Transporter 1 Printed/Typed Name: SEAN GALLIVAN
Signature:
Month Day Year: 11 04 19

Transporter 2 Printed/Typed Name: Michael Guerra
Signature:
Month Day Year: 11 7 19

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Shipping Document Tracking Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

1.	2.	3.	4.
	H141	H141	H141

20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a

Printed/Typed Name: Bethany Blankenship
Signature:
Month Day Year: 11 7 19

DESIGNATED FACILITY TO GENERATOR

MRM

RVICES

UMENT on Sheet)	21. Generator ID Number	22. Page	23. Shipping Document Tracking Number
	NYD002244943	2 of 3X	ZZ00451640

HONEYWELL

ansporter 3 Company Name Freehold Cartage Inc Via ES Transportation U.S. EPA ID Number NJD054112415

26. Transporter 4 Company Name US Environmental Inc U.S. EPA ID Number PAR000524041

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Codes
	5. NON RCRA AND DOT NON REGULATED SOLID, (NON HAZ CLEAN UP DEBRIS)	1	DF	250	P	NONE / B

GENERATOR

32. Special Handling Instructions and Additional Information - NEED C.O.D. + 5) W:610982 A:SRRWTESOLID-MH

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Shipment
Printed/Typed Name Charles VanDeMark Signature Month 11 Day 08 Year 19

34. Transporter 4 Acknowledgment of Receipt of Shipment
Printed/Typed Name John Larocque Signature Month 11 Day 8 Year 19

DESIGNATED FACILITY

35. Discrepancy

36. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)
5. H141

DESIGNATED FACILITY TO GENERATOR

ERVICES

CUMENT on Sheet)	21. Generator ID Number	22. Page	23. Shipping Document Tracking Number
	NYD002244945	of 3	220045164O

Honeywell

Transporter 5 Company Name: Veolia ES Tech Solutions — U.S. EPA ID Number: NJD080631369

26. Transporter 6 Company Name — U.S. EPA ID Number:

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Codes

For Transportation Only

32. Special Handling Instructions and Additional Information

GENERATOR

TRANSPORTER

33. Transporter 5 Acknowledgment of Receipt of Shipment
Printed/Typed Name: Amos Wiercke — Signature: [signature] — Month: 11 — Day: 11 — Year: 19

34. Transporter 6 Acknowledgment of Receipt of Shipment
Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

35. Discrepancy

36. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

DESIGNATED FACILITY TO GENERATOR

Certificate of Disposition

Veolia ES Technical Solutions, L.L.C., West Carrollton Facility has a RCRA Part B Permit that allows the facility to commingle wastes, recycle, store and transfer waste for distillation, supplemental fuels for energy recovery, thermal treatment, and stabilization

Veolia ES Technical Solutions, L.L.C. certifies the waste which was received on Manifest Number: ZZ00451640 Date: 11/21/19 will be/was managed in accordance with all applicable federal state and local laws and regulations.

Generator: Honeywell
Generator EPA ID: NYD002244945

DATE CERTIFICATE ISSUED: 11/23/2019

SIGNATURE: Brittany Blankenship

TITLE: OPERATIONS COORDINATOR

VEOLIA
ENVIRONMENTAL SERVICES

SHIPPING DOCUMENT	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Shipping Document Tracking Number
	NYD 0 0 2 2 4 4 0 4 5	2	(877) 815-0067	ZZ 00451625

GENERATOR

5. Generator's Name and Mailing Address
STEVE MILLER
HONEYWELL
301 PLAINFIELD ROAD SUITE #330
SYRACUSE, NY 13212
Generator's Phone: 315 552-0700

Generator's Site Address (if different than mailing address)
1700 MILTON AVENUE
SOLVAY, NY 13209

6. Transporter 1 Company Name
VEOLIA ES TECHNICAL SOLUTIONS
U.S. EPA ID Number: NJD 0 8 0 6 3 1 3 6 9

7. Transporter 2 Company Name
FREEHOLD CARTAGE INC
U.S. EPA ID Number: NJD 0 5 4 1 2 6 1 6 4

8. Designated Facility Name and Site Address
VEOLIA ES TECHNICAL SOLUTIONS, L.L.C.
4301 INFIRMARY ROAD
WEST CARROLLTON, OH 45449
Facility's Phone: 937 859-6101
U.S. EPA ID Number: OHD 0 9 3 9 4 5 2 9 3

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
	1. NON-REGULATED MATERIAL PER 40 & 49 CFR, (NON HAZ WATER W/DECOMPOSING PRODUCT MIX)	005	T P	9000	P	NONE B
	2. NON-REGULATED MATERIAL PER 40 & 49 CFR, (OILY WHITE DEFOAMER)	001	T P	0800	P	NONE B
	3. NON RCRA AND DOT NON REGULATED LIQUID, (HYCHEM DEFOAMER)	001	D F	0200	P	NONE B
	4. NON RCRA AND DOT NON REGULATED LIQUID, (HYCHEM DEFOAMER)	001	T P	2500	P	NONE B

14. Special Handling Instructions and Additional Information
ER Service Contracted by VESTS -|- **Veolia trans. permit# NJ-410** NEED CERTIFICATION OF DISPOSAL -|- Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf -|- 1) W:627708 A:SRRWTELIQ-NH 2) W:627706 A:SRRWTELIQ-NH 3) W:467149 A:SRRWTELIQ-NH 4) W:467149 A:SRRWTELIQ-NH

15. **GENERATOR S/OFFEROR S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: X Agent for Honeywell Michael Miller
Signature: X
Month 10 Day 10 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Shipment

Transporter 1 Printed/Typed Name: OWEN MOSS
Signature:
Month 10 Day 10 Year 19

Transporter 2 Printed/Typed Name: MATT JOHNSON
Signature: MATT JOHNSON
Month 10 Day 17 Year 19

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Shipping Document Tracking Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141	H141	H141

20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a

Printed/Typed Name: Ron Harry Blankenship
Signature:
Month 10 Day 29 Year 19

DESIGNATED FACILITY TO GENERATOR

MRM

SERVICES

CUMENT on Sheet)	21. Generator ID Number	22. Page	23. Shipping Document Tracking Number
	NYD002244945	2 of 2	ZZ00451625

HONEYWELL

GENERATOR

ter 3 Company Name Veolia ES Technical Solutions — U.S. EPA ID Number NJD085631369

ansporter 4 Company Name Freehold Cartage Inc — U.S. EPA ID Number NJD054126164

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Codes
	5. NON RCRA AND DOT NON REGULATED SOLID, (GREEN STUFF/SPILL CLEANUP)	005	DM	1900	P	NONE R

32. Special Handling Instructions and Additional Information
610983 A:SRRWTESOLID-NH

Veolia trans. permit# NJ-410 NEED CERTIFICATION OF DISPOSAL + 5) W:

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Shipment
Printed/Typed Name Charles VanDeMark — Signature — Month 10 Day 18 Year 19

34. Transporter 4 Acknowledgment of Receipt of Shipment
Printed/Typed Name Michael Guerra — Signature — Month 10 Day 23 Year 19

DESIGNATED FACILITY

35. Discrepancy

36. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)
5. H141

DESIGNATED FACILITY TO GENERATOR

Certificate of Disposition

Veolia ES Technical Solutions, L.L.C., West Carrollton Facility has a RCRA Part B Permit that allows the facility to commingle wastes, recycle, store and transfer waste for distillation, supplemental fuels for energy recovery, thermal treatment, and stabilization

Veolia ES Technical Solutions, L.L.C. certifies the waste which was received on Manifest Number : ZZ00451625 10/25/19 will be/was managed in accordance with all applicable federal state and local laws and regulations.

Generator: HONEYWELL
Generator EPA ID: NYD002244945

DATE CERTIFICATE ISSUED: 11/05/2019

SIGNATURE: Brittany Blankenship

TITLE: OPERATIONS COORDINATOR

VEOLIA
ENVIRONMENTAL
SERVICES

VEOLIA
ENVIRONMENTAL SERVICES

SHIPPING DOCUMENT	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Shipping Document Tracking Number
	NYD002244945	2	(877) 818-0087	ZZ 00450755

GENERATOR

5. Generator's Name and Mailing Address: STEVE MILLER
HONEYWELL
301 PLAINFIELD ROAD SUITE #330
SYRACUSE, NY 13212
Generator's Phone: 315 552-9700

Generator's Site Address (if different than mailing address)
1700 MILTON AVENUE
SOLVAY, NY 13209

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: NJD063136 9

7. Transporter 2 Company Name: FREEHOLD CARTAGE INC — U.S. EPA ID Number: NJD054126164

8. Designated Facility Name and Site Address: VEOLIA ES TECHNICAL SOLUTIONS
4301 INFIRMARY ROAD
WEST CARROLLTON, OH 45449
Facility's Phone: 937 859-6101
U.S. EPA ID Number: OHD093945293

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
	1. ~~NON-REGULATED MATERIAL PER 40 & 49 CFR, (PHAN~~ ODOR NEUTRALIZING AGENT) —Did Not Ship— on 7/2/19	Ø	CW	Ø	P	NONE B
	2. ~~NON-REGULATED MATERIAL PER 40 & 49 CFR, (NALCO~~ 7465 ANTIFOAM)	8	DF	4,000	P	NONE B
	3. ~~NON-REGULATED MATERIAL PER 40 & 49 CFR,~~ (PETROLEUM DISTILLATES)	8	DF	4,000	P	NONE B
	4. ~~NON-REGULATED MATERIAL PER 40 & 49 CFR,~~ (HYPERFLOCK CP747)	1	TP	2,500	P	NONE B

14. Special Handling Instructions and Additional Information: ER Service Contracted by VESTS -|- Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf -|- 1) W:468518 A:SRRWTELIQ-NH 2) W:467905 A:SRRWTELIQ-NH 3) W:468079 A:SRRWTELIQ-NH 4) W:468431 A:SRRWTELIQ-NH

15. **GENERATOR S/OFFEROR S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: x Agent for Honeywell Michael Miller — Signature: x [signature] — Month 07 Day 03 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Shipment

Transporter 1 Printed/Typed Name: OWEN MOSS — Signature: [signature] — Month 07 Day 02 Year 19

Transporter 2 Printed/Typed Name: George Dudley — Signature: [signature] — Month 07 Day 10 Year 19

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Shipping Document Tracking Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

1.	2.	3.	4.
—	H141	H141	H141

20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a

Printed/Typed Name: Jon Harry Blankenship — Signature: [signature] — Month 7 Day 12 Year 19

DESIGNATED FACILITY TO GENERATOR

.IA
MENTAL SERVICES

PPING DOCUMENT (Continuation Sheet)	21. Generator ID Number	22. Page	23. Shipping Document Tracking Number
r's Name HONEYWELL	NYD002244945 MRM	2 of 2	ZZ00450755

ansporter _____ Company Name | U.S. EPA ID Number

Transporter _____ Company Name | U.S. EPA ID Number

GENERATOR

27a. HM	27b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Codes
	5. NON RCRA AND DOT NON REGULATED LIQUID, (AMREX FOAM ZERO)	3	TP	1,500	P	NONE
	6. NON RCRA AND DOT NON REGULATED LIQUID, (HYCHEM DEFOAMER 494)	1	TP	2,500	P	NONE

32. Special Handling Instructions and Additional Information 5) W.467147 A.SRRWTELIQ-NH 6) W.472121 A.SRRWTELIQ-NH

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Shipment
Printed/Typed Name | Signature | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Shipment
Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

35. Discrepancy

36. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)
5. H141 6. H141

DESIGNATED FACILITY TO GENERATOR

VEOLIA
ENVIRONMENTAL SERVICES

SHIPPING DOCUMENT	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Shipping Document Tracking Number
	NYD002244945	2	(877) 818-0087	ZZ 00450948

GENERATOR

5. Generator's Name and Mailing Address
STEVE MILLER
HONEYWELL
301 PLAINFIELD ROAD SUITE #330
SYRACUSE, NY 13212
Generator's Phone: 315 552-9700

Generator's Site Address (if different than mailing address)
1700 MILTON AVENUE
SOLVAY, NY 13209

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: NJD080631369

7. Transporter 2 Company Name: FREEHOLD CARTAGE INC — U.S. EPA ID Number: NJD054126164

8. Designated Facility Name and Site Address
VEOLIA ES TECHNICAL SOLUTIONS, L.L.C.
4301 INFIRMARY ROAD
WEST CARROLLTON, OH 45449
Facility's Phone: 937 859-6101
U.S. EPA ID Number: OHD093945293

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
	1. NON-REGULATED MATERIAL PER 40 & 49 CFR, (MILPRO 850CF)	4	DF	520	P	NONE B
	2. NON-REGULATED MATERIAL PER 40 & 49 CFR, (NALCO 7465 ANTIFOAM)	2	DM	300	P	NONE B
	3. NON-REGULATED MATERIAL PER 40 & 49 CFR, (ANTIFREEZE)	1	TP	2,200	P	NONE B
	4. NON RCRA AND DOT NON REGULATED LIQUID, (ECOSORB 606)	1	DF	200	P	NONE B

14. Special Handling Instructions and Additional Information
ER Service Contracted by VESTS -|- Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf. -|- 1) W:468079 A:SRRWTELIQ-NH 2) W:467905 A:SRRWTELIQ-NH 3) W:501030 A:SRRWTELIQ-NH 4) W:467635 A:SRRWTELIQ-NH

15. **GENERATOR S/OFFEROR S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: X Agent for Honeywell Michael Miller — Signature: X — Month: 08 Day: 01 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Shipment

Transporter 1 Printed/Typed Name: SEAN GALLIVAN — Signature — Month: 08 Day: 01 Year: 19

Transporter 2 Printed/Typed Name: Brian Kohr — Signature — Month: 08 Day: 08 Year: 19

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Shipping Document Tracking Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141	H141	H141

20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a

Printed/Typed Name: Tom Harry Blankenship — Signature — Month: 08 Day: 15 Year: 19

DESIGNATED FACILITY TO GENERATOR

ENTAL SERVICES

MRM

PPING DOCUMENT (Continuation Sheet)	21. Generator ID Number NYD002244945	22. Page 2 of 2	23. Shipping Document Tracking Number ZZ00450948

erator's Name HONEYWELL

25. Transporter 3 Company Name Veolia ES Technical Solutions U.S. EPA ID Number NJD060631267

26. Transporter 4 Company Name Freehold Cartage Inc U.S. EPA ID Number NJD054126167

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Codes		
	5. NON RCRA AND DOT NON REGULATED LIQUID, (HYCHEM DEFOAMER 439)	1	DF	400	P	NONE B		
	~~6. NON RCRA AND DOT NON REGULATED LIQUID, (AMREX FOAM ZERO)~~ * DID NOT SHIP ED 8/1/19	~~0~~	~~TP~~	~~0~~	~~P~~	~~NONE~~ ~~B~~		
	~~7. NON RCRA AND DOT NON REGULATED LIQUID, (HYCHEM DEFOAMER 484)~~ * DID NOT SHIP ED 8/1/19	~~0~~	~~TP~~	~~0~~	~~P~~	~~NONE~~ ~~B~~		

32. Special Handling Instructions and Additional Information 5) W:467149 A:SRRWTELIQ-NH 6) W:467147 A:SRRWTELIQ-NH 7) W:472121 A:SRRWTELIQ-NH

GENERATOR

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Shipment
Printed/Typed Name Charles VanDeMark Signature Month 08 Day 12 Year 19

34. Transporter 4 Acknowledgment of Receipt of Shipment
Printed/Typed Name Dave Brown Signature Month 8 Day 13 Year 19

DESIGNATED FACILITY

35. Discrepancy

36. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)
5. H141 6. 7.

DESIGNATED FACILITY TO GENERATOR

VEOLIA
ENVIRONMENTAL SERVICES

SHIPPING DOCUMENT	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Shipping Document Tracking Number
	NYD002244945	1	(877) 818-0087	ZZ 00450733

GENERATOR

5. Generator's Name and Mailing Address: STEVE MILLER
HONEYWELL
301 PLAINFIELD ROAD SUITE #330
SYRACUSE, NY 13212
Generator's Phone: 315 552-9700

Generator's Site Address (if different than mailing address)
1700 MILTON AVENUE
SOLVAY, NY 13209

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: NJD080631369

7. Transporter 2 Company Name: ~~WASTE MANAGEMENT~~ US Environmental Inc — U.S. EPA ID Number: ~~NJD054120164~~ PAR000524041

8. Designated Facility Name and Site Address: VEOLIA ES TECHNICAL SOLUTIONS
4301 INFIRMARY ROAD
WEST CARROLLTON, OH 45449
Facility's Phone: 937 859-6101 — U.S. EPA ID Number: OHD093945203

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
	1. NON RCRA AND DOT NON REGULATED LIQUID, (HYCHEM DEFOAMER)	10	TP	25,000	P	NONE B
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information: ER Service Contracted by VESTS -|- **Veolia trans. permit# NJ-410** NEED CERTIFICATION OF DISPOSAL -|- Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf -|- T) W.472121 A.SRRWTELIQ-NH

15. **GENERATOR S/OFFEROR S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Agent for Honeywell Michael Miller — Signature: X — Month: 06 Day: 11 Year: 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Shipment

Transporter 1 Printed/Typed Name: OWEN MOSS — Signature: — Month: 06 Day: 11 Year: 19

Transporter 2 Printed/Typed Name: Chris Rhine — Signature: — Month: 6 Day: 22 Year: 6

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Shipping Document Tracking Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month: Day: Year:

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a

Printed/Typed Name: Ron Hanny Blankenship — Signature: — Month: 6 Day: 24 Year: 19

DESIGNATED FACILITY TO GENERATOR

Certificate of Disposition

Veolia ES Technical Solutions, L.L.C., West Carrollton Facility has a RCRA Part B Permit that allows the facility to commingle wastes, recycle, store and transfer waste for distillation, supplemental fuels for energy recovery, thermal treatment, and stabilization

Veolia ES Technical Solutions, L.L.C. certifies the waste which was received on Manifest Number: ZZ00450733 date: 06/24/19 will be/was managed in accordance with all applicable federal state and local laws and regulations

GENERATOR NAME: Honeywell
GENERATOR EPA ID: NYD002244945

DATE CERTIFICATE ISSUED: 06/26/19

SIGNATURE: Brittany Blankenship

TITLE: **WASTE TRACKING COORDINATOR**

Veolia ES Technical Solutions, L.L.C., 4301 INFIRMARY ROAD, WEST CARROLLTON, OH 45449, EPA ID# OHD093945293

VEOLIA
ENVIRONMENTAL
SERVICES

ATTACHMENT B REMAINING UNDERGROUND PIPE AND CROSSING LOCATIONS

ATTACHMENT B

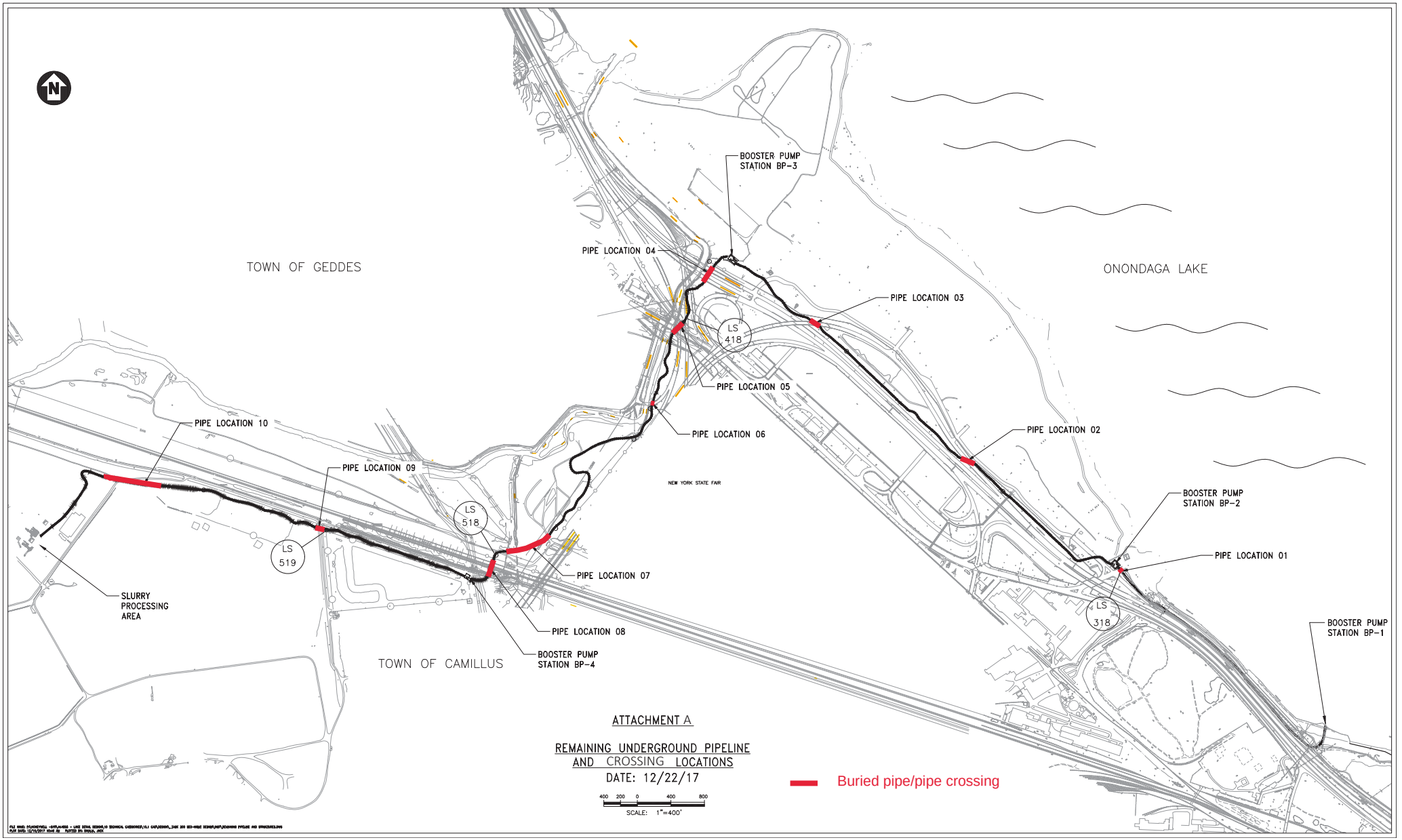
Remaining Underground Pipeline and Crossing Locations

PIPE LOCATION ID	LOCATION	TYPE	CASING DIAMETER	CLOSURE REQUIREMENT	LENGTH	NOTES
1	LOC Entrance	Direct Bury	NA	1	80'	
2	695 Off Ramp Crossing Closest to LOC	Directional Drill	NA	1	240'	
3	Ramp Leading from Orange Lot to BP3	Direct Bury	NA	1	80'	
4	695 Ramp Crossing Directly Past BP3	Jack & Bore	30"	1	350'	Pipe was pulled, casing is being reused for transport pipe between NMC and Ditch A pump stations
5	State Fair Blvd/CSX Crossing	Directional Drill	NA	2, 3	230'	
6	Pump House Road Off Ramp Crossing	Directional Drill	NA	1	100'	
7	Underground Section Through State Fair Property	Direct Bury	NA	4	700'	
8	CSX Crossing	Jack & Bore	36"	3	300'	
9	SCA Perimeter Road Crossing	Direct Bury	NA	NA	80'	
10	Underground Section Along SCA Perimeter Berm	Direct Bury	NA	NA	1200'	

Leak Detection Manhole Locations	
LS Location ID	**LOCATION**
318	BP2 Footprint
418	North of State Fair Blvd, Directly Before CSX Crossing
518	Former Geddes Brook Office Complex Parking Lot
519	SCA directly west of lagoon at road crossing

Closure Requirements

REF #	AGENCY	CLOSURE REQUIREMENTS
1	NYSDOT	· Resident Engineer must be contacted at each stage of work
		· A Shoulder Closure shall be in place any time workers or construction equipment is placed within the ROW immediately outside the shoulder area
		· No specifics on the Directionally Drilled HDPE casing restoration/abandonment
2	OCDOT	· No mention of specific requirements for restoration
3	CSX	· Work requires 30 day prior notice on CSX prescribed form
		· HDPE pipe must be pulled, and 30" steel casing must be grouted in place
		· See page 7 CSX Design & Construction Standard Specifications for details
4	NYS Department of Agriculture and Markets	· No specifics on the Directionally Drilled HDPE casing restoration/abandonment



Notes:
Remaining underground pipeline and crossings are currently being maintained in the event that they are needed in the future.If they are closed, the approrpiate agency or agencies (e.g., NYSDOT, NYSDEC) will be notified.

ATTACHMENT C SMAA AND SW STORAGE AREA SOIL SAMPLE SUMMARY

From:	Larson, Tim (DEC)
To:	Long, William
Cc:	Savage, Michael; Abrams, Tom; Spera, Mike; Marleiah O"Neill - AECOM (Marleiah.Oneill@aecom.com)
Subject:	RE: SCA - Southwest Storage Area - Sampling Plan
Date:	Thursday, October 12, 2017 2:40:19 PM
Attachments:	image001.png

Bill,
Your approach for sampling the SCA Southwest Storage Area is acceptable.
Thank you,
Tim

From: Long, William [mailto:William.Long@parsons.com]
Sent: Thursday, October 12, 2017 2:32 PM
To: Larson, Tim (DEC) <tim.larson@dec.ny.gov>
Cc: Savage, Michael <Michael.Savage@Honeywell.com>; Abrams, Tom <Tom.Abrams@parsons.com>; Spera, Mike <Michael.Spera@aecom.com>; Marleiah O'Neill - AECOM (Marleiah.Oneill@aecom.com) <Marleiah.Oneill@aecom.com>
Subject: SCA - Southwest Storage Area - Sampling Plan

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Tim:

A former debris staging area exists at the southwest corner of the SCA (outside of the perimeter access road). The area is approximately 45' x 85' in size and was constructed with a geomembrane overlaid with a geotextile and 3-4" minus gravel. The area was used to stage roll-offs containing debris removed from Onondaga Lake at the beginning of the dredging project. The gravel layer is intermittent, having generally been moved to the east side of the area. Finer grained soils are mixed with the gravel and a 3-4" deep deposit of predominantly finer-grained soil is located in the central north side of the area.

Parsons proposes to obtain 2 grab samples of the finer grained soils from the locations shown in the attached photo (looking east). Similar to the SMMA, the samples will be analyzed for NYSDEC Subpart 375 Soil Cleanup Objectives (SCOs). The samples will also be analyzed for TCLP and hazardous waste characteristics. The analytical results will be used to develop a plan to close the area.

Please advise if you agree with the proposed plan

Thanks. Bill
William J. Long, CPM*
Syracuse, NY
william.long@parsons.com M: +1 315.546.6239

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From: Larson, Tim (DEC) [mailto:tim.larson@dec.ny.gov]
Sent: Tuesday, August 22, 2017 9:48 AM
To: Long, William <William.Long@parsons.com>
Cc: Savage, Michael <Michael.Savage@Honeywell.com>; Abrams, Tom <Tom.Abrams@parsons.com>; Spera, Mike <Michael.Spera@aecom.com>; Marleiah O'Neill - AECOM (Marleiah.Oneill@aecom.com) <Marleiah.Oneill@aecom.com>
Subject: RE: SCA Separated Material Management Area (SCA SMMA) - Draft Sampling Plan

Bill,
The three composite samples should not be composite samples. I have no other comments on the draft sampling plan.
Thank you,
Tim

From: Long, William [mailto:William.Long@parsons.com]
Sent: Tuesday, July 25, 2017 9:25 AM
To: Larson, Tim (DEC) <tim.larson@dec.ny.gov>
Cc: Savage, Michael <Michael.Savage@Honeywell.com>; Abrams, Tom <Tom.Abrams@parsons.com>
Subject: SCA Separated Material Management Area (SCA SMMA) - Draft Sampling Plan

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Tim:

The SCA Separated Material Management Area (SCA SMMA) was constructed of a 60-mil HDPE geomembrane covered by a non-woven geotextile then a foot of gravel (4" rounded cobble). The area is about ¾ acre in size. About 2/3 of it has been mostly stripped of gravel down to the geotextile. The stripped gravel is stockpiled in the remaining 1/3 (see attached aerial photo). The estimated gravel quantity is 1,200 cy all of which has fines in it. There was a small quantity of water in the northeast corner on 7/20/17, but the water quantity varies with the weather.

Honeywell proposes to obtain the following soil and water samples:

1. Three composite soil samples (1 per 500 cy). One sample will be collected from each leg of the stockpile and one from the stripped area and analyzed for NYSDEC Subpart 375 Soil Cleanup Objectives (SCOs). Honeywell proposes that the results be compared to the commercial SCOs. (No SCOs have been established for Wastebeds 12-15 to date; however, unrestricted residential and commercial standards have both been applied to Wastebeds 1-8 depending on the location and proposed use.)

2. One water sample, if present, and analyze for the same compound list as the soil samples. As an alternative, no water sample would be needed if the water is sent to the

SCA WTP.

The analytical results will be used to develop a plan to close the area.

Please advise if you agree with the proposed plan.

Thanks. Bill

William J. Long, CPM*
Syracuse, NY
william.long@parsons.com M: +1 315.546.6239

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SMMA and SW Storage Area Soil Sample Summary

								Location ID		SCA-SMMA-01		SCA-SMMA-01		SCA-SMMA-02		SCA-SMMA-03		SCA-SW-01		SCA-SW-02		SCA-SMMA-04		SCA-SMMA-05		SCA-SMMA-06	
								Field Sample ID		SCA-0033-01				SCA-0033-02		SCA-0033-03		SCA-0034-01		SCA-0034-02		SCA-0035-01		SCA-0035-02		SCA-0035-03	
								Depth (ft)				DEC Results																	
								Sampled		08/17/2017				08/17/2017		08/17/2017		10/11/2017		10/11/2017		04/17/2019		04/17/2019		04/17/2019	
								SDG		180-69471-1				180-69471-1		180-69471-1		180-71227-1		180-71227-1		JC86585		JC86585		JC86585	
								Matrix		SOIL				SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
								Purpose		REG				REG		REG		REG		REG		REG		REG		REG	
								Type		S-SS				S-SS		S-SS		S-SS		S-SS		S-SS		S-SS		S-SS	
Method	Parameter	Parameter Name	Units	Leached	Part 375 Unrestricted Use SCOs	Part 375 Commercial Use SCOs	Part 375 Industrial Use SCOs					RL																	
SW6010	7440-38-2	ARSENIC	mg/kg	N	13 mg/kg	16 mg/kg	16 mg/kg	7.1						4.5		6.2		5.2		5.9									
SW6010	7440-39-3	BARIUM	mg/kg	N	350 mg/kg	400 mg/kg	10000 mg/kg	250						130		210		190		180									
SW6010	7440-41-7	BERYLLIUM	mg/kg	N	7.2 mg/kg	590 mg/kg	2700 mg/kg	0.39	J					0.37	J	0.35	J	0.22	J	0.28	J								
SW6010	7440-43-9	CADMIUM	mg/kg	N	2.5 mg/kg	9.3 mg/kg	60 mg/kg	0.71						0.25	J	0.39	J	0.52	J	0.66	J								
SW6010	7440-47-3	CHROMIUM	mg/kg	N	30 mg/kg	1500 mg/kg	6800 mg/kg	25						18		19		160		190									
SW6010	7440-50-8	COPPER	mg/kg	N	50 mg/kg	270 mg/kg	10000 mg/kg	49						32		37	J	38		49									
SW6010	7439-92-1	LEAD	mg/kg	N	63 mg/kg	1000 mg/kg	3900 mg/kg	31						13		20		94		120									
SW6010	7439-96-5	MANGANESE	mg/kg	N	1600 mg/kg	10000 mg/kg	10000 mg/kg	620						660		670	J	730		1000									
SW6010	7440-02-0	NICKEL	mg/kg	N	30 mg/kg	310 mg/kg	10000 mg/kg	26						19		18		46		53									
SW6010	7782-49-2	SELENIUM	mg/kg	N	3.9 mg/kg	1500 mg/kg	6800 mg/kg	1.8						0.94	J	1.9		0.78	U	0.73	U								
SW6010	7440-22-4	SILVER	mg/kg	N	2 mg/kg	1500 mg/kg	6800 mg/kg	0.2	U					0.21	U	0.19	U	0.15	U	0.15	U								
SW6010	7440-66-6	ZINC	mg/kg	N	109 mg/kg	10000 mg/kg	10000 mg/kg	57						33		39		45		55									
SW7196	16065-83-1	CHROMIUM III	mg/kg	N	30 mg/kg	1500 mg/kg	6800 mg/kg	25						18		19		160		190									
SW7196	18540-29-9	HEXAVALENT CHROMIUM	mg/kg	N	1 mg/kg	400 mg/kg	800 mg/kg	0.48						0.19	J	0.81		0.25	J	0.31	J								
SW7471	7439-97-6	MERCURY	mg/kg	N	0.18 mg/kg	2.8 mg/kg	5.7 mg/kg	1.9		2.0	mg/kg			0.86		0.78		0.67		0.15		1.4		3.5		0.41			
SW8081	72-54-8	4,4'-DDD	ug/kg	N	3.3 ug/kg	92000 ug/kg	180000 ug/kg	2.0	U					1.4	J	2.0	U	2.5	U	2.4	U								
SW8081	72-55-9	4,4'-DDE	ug/kg	N	3.3 ug/kg	62000 ug/kg	120000 ug/kg	2.0	U					2.1	U	2.0	U	2.5	U	2.4	U								
SW8081	50-29-3	4,4'-DDT	ug/kg	N	3.3 ug/kg	47000 ug/kg	94000 ug/kg	2.0	U					2.1	U	2.0	U	2.5	U	2.4	U								
SW8081	309-00-2	ALDRIN	ug/kg	N	5 ug/kg	680 ug/kg	1400 ug/kg	2.0	U					2.1	U	2.0	U	2.5	U	2.4	U								
SW8081	319-84-6	ALPHA-BHC	ug/kg	N	20 ug/kg	3400 ug/kg	6800 ug/kg	2.0	U					2.1	U	2.0	U	2.5	U	2.4	U								
SW8081	5103-71-9	ALPHA-CHLORDANE	ug/kg	N	94 ug/kg	24000 ug/kg	47000 ug/kg	2.0	U					2.1	U	2.0	U	2.5	U	2.4	U								
SW8081	319-85-7	BETA-BHC	ug/kg	N	36.0 ug/kg	3000 ug/kg	14000 ug/kg	2.0	U					2.1	U	2.0	U	2.5	U	2.4	U								
SW8081	319-86-8	DELTA-BHC	ug/kg	N	40 ug/kg	500000 ug/kg	1000000 ug/kg	2.0	U					2.1	U	2.0	U	2.5	U	2.4	U								
SW8081	60-57-1	DIELDRIN	ug/kg	N	5 ug/kg	1400 ug/kg	2800 ug/kg	2.0	U					2.1	U	2.0	U	2.5	U	2.4	U								
SW8081	959-98-8	ENDOSULFAN I	ug/kg	N	2400 ug/kg	200000 ug/kg	920000 ug/kg	2.0	U					2.1	U	2.0	U	2.5	U	2.4	U								
SW8081	33213-65-9	ENDOSULFAN II	ug/kg	N	2400 ug/kg	200000 ug/kg	920000 ug/kg	2.0	U					2.1	U	2.0	U	2.5	U	2.4	U								
SW8081	1031-07-8	ENDOSULFAN SULFATE	ug/kg	N	2400 ug/kg	200000 ug/kg	920000 ug/kg	2.0	U					2.1	U	2.0	U	2.5	U	2.4	U								
SW8081	72-20-8	ENDRIN	ug/kg	N	14 ug/kg	89000 ug/kg	410000 ug/kg	2.0	U					2.1	U	2.0	U	2.5	U	2.4	U								
SW8081	58-89-9	GAMMA-BHC (LINDANE)	ug/kg	N	100 ug/kg	9200 ug/kg	23000 ug/kg	2.0	U					2.1	U	2.0	U	2.5	U	2.4	U								
SW8081	76-44-8	HEPTACHLOR	ug/kg	N	42 ug/kg	15000 ug/kg	29000 ug/kg	2.0	U					2.1	U	2.0	U	2.5	U	2.4	U								
SW8082	12674-11-2	AROCLOR-1016	ug/kg	N	100 ug/kg	1000 ug/kg	25000 ug/kg	9.6	U	120	ND			10	U	9.8	U	1.2	U	1.2	U								
SW8082	11104-28-2	AROCLOR-1221	ug/kg	N	100 ug/kg	1000 ug/kg	25000 ug/kg	9.6	U	120	ND			10	U	9.8	U	1.2	U	1.2	U								
SW8082	11141-16-5	AROCLOR-1232	ug/kg	N	100 ug/kg	1000 ug/kg	25000 ug/kg	9.6	U	120	ND			10	U	9.8	U	1.2	U	1.2	U								
SW8082	53469-21-9	AROCLOR-1242	ug/kg	N	100 ug/kg	1000 ug/kg	25000 ug/kg	9.6	U	120	ND			10	U	9.8	U	1.2	U	1.2	U								
SW8082	12672-29-6	AROCLOR-1248	ug/kg	N	100 ug/kg	1000 ug/kg	25000 ug/kg	29	J+	120	ND			10	U	7.7	J	8.2		7.8									
SW8082	11097-69-1	AROCLOR-1254	ug/kg	N	100 ug/kg	1000 ug/kg	25000 ug/kg	24	J+	120	ND			4.7	J	13		9.0		8.3									
SW8082	11096-82-5	AROCLOR-1260	ug/kg	N	100 ug/kg	1000 ug/kg	25000 ug/kg	20	J+	120	ND			10	U	19		4.6		7.2									
SW8082	37324-23-5	AROCLOR-1262	ug/kg	N	100 ug/kg	1000 ug/kg	25000 ug/kg	9.6	U	120	ND			10	U	9.8	U	1.2	U	1.2	U								
SW8082	11100-14-4	AROCLOR-1268	ug/kg	N	100 ug/kg	1000 ug/kg	25000 ug/kg	9.6	U	120	ND			10	U	9.8	U	1.3		1.8									
SW8082	1336-36-3	PCBS, N.O.S.	ug/kg	N	100 ug/kg	1000 ug/kg	25000 ug/kg	73	J+					10	U	40		23		25									
SW8151	93-72-1	2,4,5-TP (SILVEX)	ug/kg	N	3800 ug/kg	500000 ug/kg	1000000 ug/kg	23	U					25	U	24	U	29	U	28	U								
SW8260	71-55-6	1,1,1-TRICHLOROETHANE	ug/kg	N	680 ug/kg	500000 ug/kg	1000000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	75-34-3	1,1-DICHLOROETHANE	ug/kg	N	270 ug/kg	240000 ug/kg	480000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	75-35-4	1,1-DICHLOROETHENE	ug/kg	N	330 ug/kg	500000 ug/kg	1000000 ug/kg	5.8	U	3.9	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	87-61-6	1,2,3-TRICHLOROBENZENE	ug/kg	N				5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	95-63-6	1,2,4-TRIMETHYLBENZENE	ug/kg	N	3600 ug/kg	190000 ug/kg	380000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	95-50-1	1,2-DICHLOROBENZENE	ug/kg	N	1100 ug/kg	500000 ug/kg	1000000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	107-06-2	1,2-DICHLOROETHANE	ug/kg	N	20 ug/kg	30000 ug/kg	60000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	108-67-8	1,3,5-TRIMETHYLBENZENE	ug/kg	N	8400 ug/kg	190000 ug/kg	380000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	541-73-1	1,3-DICHLOROBENZENE	ug/kg	N	2400 ug/kg	280000 ug/kg	560000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	106-46-7	1,4-DICHLOROBENZENE	ug/kg	N	1800 ug/kg	130000 ug/kg	250000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	78-93-3	2-BUTANONE	ug/kg	N	120 ug/kg	500000 ug/kg	1000000 ug/kg	5.8	U	39	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	67-64-1	ACETONE	ug/kg	N	50 ug/kg	500000 ug/kg	1000000 ug/kg	4.0	J	98	ND			25	U	24	U	27	U	22	U								
SW8260	71-43-2	BENZENE	ug/kg	N	60 ug/kg	44000 ug/kg	89000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	104-51-8	BUTYLBENZENE	ug/kg	N	12000 ug/kg	500000 ug/kg	1000000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	56-23-5	CARBON TETRACHLORIDE	ug/kg	N	760 ug/kg	22000 ug/kg	44000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	108-90-7	CHLOROBENZENE	ug/kg	N	1100 ug/kg	500000 ug/kg	1000000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	67-66-3	CHLOROFORM	ug/kg	N	370 ug/kg	350000 ug/kg	700000 ug/kg	5.8	U	3.9	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	156-59-2	CIS-1,2-DICHLOROETHENE	ug/kg	N	250 ug/kg	500000 ug/kg	1000000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	100-41-4	ETHYLBENZENE	ug/kg	N	1000 ug/kg	390000 ug/kg	780000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	1634-04-4	METHYL TERT-BUTYL ETHER	ug/kg	N	930 ug/kg	500000 ug/kg	1000000 ug/kg	5.8	U	3.9	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	75-09-2	METHYLENE CHLORIDE	ug/kg	N	50 ug/kg	500000 ug/kg	1000000 ug/kg	5.8	U	20	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	103-65-1	N-PROPYLBENZENE	ug/kg	N	3900 ug/kg	500000 ug/kg	1000000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	135-98-8	SEC-BUTYLBENZENE	ug/kg	N	11000 ug/kg	500000 ug/kg	1000000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	98-06-6	TERT-BUTYLBENZENE	ug/kg	N	5900 ug/kg	500000 ug/kg	1000000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	127-18-4	TETRACHLOROETHENE	ug/kg	N	1300 ug/kg	150000 ug/kg	300000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	108-88-3	TOLUENE	ug/kg	N	700 ug/kg	500000 ug/kg	1000000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	156-60-5	TRANS-1,2-DICHLOROETHENE	ug/kg	N	190 ug/kg	500000 ug/kg	1000000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	79-01-6	TRICHLOROETHENE	ug/kg	N	470 ug/kg	200000 ug/kg	400000 ug/kg	5.8	U	2	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	75-01-4	VINYL CHLORIDE	ug/kg	N	20 ug/kg	13000 ug/kg	27000 ug/kg	5.8	U	9.8	ND			6.1	U	6.0	U	6.8	U	5.5	U								
SW8260	1330-20-7	XYLENES, TOTAL	ug/kg	N	260 ug/kg	500000 ug/kg	1000000 ug/kg	12	U	5.9	ND			12	U	12	U	14	U	11	U								
SW8270	123-91-1	1,4-DIOXANE	ug/kg	N	100 ug/kg	130000 ug/kg	250000 ug/kg	1500	U	98	ND			81	U	78	U	97	U	92	U	45	U	44	U	37	U		
SW8270	95-48-7	2-METHYLPHENOL	ug/kg	N	330 ug/kg	500000 ug/kg	1000000 ug/kg	750	U	400	ND			40	U	38	U	48	U	46	U	91	U	87	U	75	U		
SW8270	34METPH	3&4-METHYLPHENOL	ug/kg	N	330 ug/kg	500000 ug/kg	1000000 ug/kg	750	U	400	ND			40	U	38	U	48	U	46	U	91	U	87	U	75	U		
SW8270	83-32-9	ACENAPHTHENE	ug/kg	N	20000 ug/kg	500000 ug/kg	1000000 ug/kg	430		200	160			18		56		31		16		43.2	J	23.1	J	37	U		
SW8270	208-96-8	ACENAPHTHYLENE	ug/kg	N	100000 ug/kg	500000 ug/kg	1000000 ug/kg	1600		200	490			68		190		110		74		234		100		35.1	J		
SW8270	120-12-7	ANTHRACENE	ug/kg	N	100000 ug/kg	500000 ug/kg	1000000 ug/kg	2600		200	300			70		210		84		54		218		158		23.5	J		
SW8270	56-55-3	BENZO(A)ANTHRACENE	ug/kg	N	1000 ug/kg	5600 ug/kg	11000 ug/kg	3000		200	580			160		510		190		160		593		256		58.4			
SW8270	50-32-8	BENZO(A)PYRENE	ug/kg	N	1000 ug/kg	1000 ug/kg	1100 ug/kg	2200		200	400			170		490		190		170		703		293		79.8			
SW8270	205-99-2	BENZO(B)FLUORANTHENE	ug/kg	N	1000 ug/kg	5600 ug/kg	11000 ug/kg	3200		200	720			220		600		360		260		776		363		101			
SW8270	191-24-2	BENZO(G,H,I)PERYLENE	ug/kg	N	100000 ug/kg	500000 ug/kg	1000000 ug/kg	1800		200	290			170		490		220		170		435		259		66.3			
SW8270	207-08-9	BENZO(K)FLUORANTHENE	ug/kg	N	800 ug/kg	56000 ug/kg	110000 ug/kg	990		200	240			73		220		120		92		296		128		43.0			
SW8270	218-01-9	CHRYSENE	ug/kg	N	1000 ug/kg	56000 ug/kg	110000 ug/kg	3800		200	590			200		550		240		190		694		315		70.0			
SW8270	53-70-3	DIBENZO(A,H)ANTHRACENE	ug/kg	N	330 ug/kg	560 ug/kg	1100 ug/kg	550		200	ND			48		130		78		56		150		74.2		21.0	J		
SW8270	132-64-9	DIBENZOFURAN	ug/kg	N	7000 ug/kg	350000 ug/kg	1000000 ug/kg	830		400	390 J			37	J	130		41	J	20	J	45.0	J	30.0	J	75	U		
SW8270	206-44-0	FLUORANTHENE	ug/kg	N	100000 ug/kg	500000 ug/kg	1000000 ug/kg	8000		200	1400			310		640		320		220		718		465		71.0			
SW8270	86-73-7	FLUORENE	ug/kg	N	30000 ug/kg	500000 ug/kg	1000000 ug/kg	1000		200	170 J			28		80		34		21		48.3		40.1	J	37	U		
SW8270	118-74-1	HEXACHLOROBENZENE	ug/kg	N	330 ug/kg	6000 ug/kg	12000 ug/kg	150	U	400	ND			14		14		9.7	U	9.3	U	91	U	87	U	75	U		
SW8270	193-39-5	INDENO(1,2,3-CD)PYRENE	ug/kg	N	500 ug/kg	5600 ug/kg	11000 ug/kg	1600		200	290			150		460		210		170		389		204		57.0			
SW8270	91-20-3	NAPHTHALENE	ug/kg	N	12000 ug/kg	500000 ug/kg	1000000 ug/kg	31000		200	22000			1200		2700		430		280		494		354		124			
SW8270	87-86-5	PENTACHLOROPHENOL	ug/kg	N	800 ug/kg	6700 ug/kg	55000 ug/kg	3800	U	400	ND			210	U	200	U	250	U	240	U	180	U	170	U	150	U		
SW8270	85-01-8	PHENANTHRENE	ug/kg	N	100000 ug/kg	500000 ug/kg	1000000 ug/kg	6800		200	1100			160		490		200		120		396		390		45.5			
SW8270	108-95-2	PHENOL	ug/kg	N	330 ug/kg	500000 ug/kg	1000000 ug/kg	750	U	400	ND			40	U	13	J	48	U	46	U	91	U	87	U	75	U		
SW8270	129-00-0	PYRENE	ug/kg	N	100000 ug/kg	500000 ug/kg	1000000 ug/kg	4700		200	1100			220		480		210		150		763		426		88.6			
SW9014	57-12-5	CYANIDE	mg/kg	N	27 mg/kg	27 mg/kg	10000 mg/kg	3.5						1.1		1.2		0.19	J	0.66	U								
ASTM D2216	MOISTURE	Moisture - percent at 105 deg. C	%	N				14.3						19.8		16.8		31.1		27.8									
ASTM D2216	SOLID	SOLIDS, PERCENT	%	N				85.7		84.5	%			80.2		83.2		68.9		72.2		72.0		76.1		87.3			
SW9045	PH	pH	S.U.	N				8.4						8.8		8.6		7.6		7.7									

Value exceeds Unrestricted SCO.
Value exceeds Unrestricted and Commercial SCOs.
Value exceeds Unrestricted, Commercial, and Industrial SCOs.



60 30 0 60 120

SCALE: 1"=60'

FIGURE 1

Honeywell SCA OM&M

SMMA SAMPLING LOCATIONS

PARSONS
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560

FILE NAME: P:\HONEYWELL -SYR\451272 BORROW AREA RESTORATION PHASE 1\10.0 TECHNICAL CATEGORIES\10.5 CAD\SMMA SAMPLING LOCATIONS.DWG
PLOT DATE: 4/29/2019 11:54 AM PLOTTED BY: NASSIMOS, JEFFREY


Sample 1 Location
Sample 2 Location