APPENDIX E

Bioaccumulation Study Lab Report

ECOANALYSTS, INC.

BIOACCUMULATION TEST RESULTS

ENHANCED NATURAL RECOVERY/ACTIVATED CARBON PILOT STUDY
LOWER DUWAMISH WATERWAY, SEATTLE WA

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All testing reported herein was performed consistent with our laboratory's quality assurance program. All results are intended to be considered in their entirety, and EcoAnalysts is not responsible for use of less than the complete report. The test results summarized in this report apply only to the sample(s) evaluated. This document is uncontrolled when printed or accessed from electronic distribution.

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ACRONYMS AND ABBREVIATIONS

AC:	Activated Carbon
cm:	Centimeter
°C:	Degrees Celsius
ENR:	Enhanced Natural Recovery
g:	Grams
L:	Liter
LDW:	Lower Duwamish Waterway
ME:	Maine
mg/L:	Milligrams per Liter
PCBs:	Polychlorinated biphenyls
ppt:	Parts Per Thousand
QAPP:	Quality Assurance Project Plan
QAP:	Quality Assurance Plan
SOP:	Standard Operating Procedure
SPME:	Solid-phase Microextraction fiber
USEPA/EPA:	United States Environmental Protection Agency
WA:	Washington

1. INTRODUCTION

EcoAnalysts conducted bioaccumulation testing with sediment samples collected by Wood Group PLC (Wood) on behalf of the Lower Duwamish Waterway Group[1] (LDWG) as part of a Enhance Natural Recovery/Activated Carbon (ENR/AC) Pilot Study in the Lower Duwamish Waterway (LDW) in Seattle, WA. The pilot study is investigating the effectiveness of ENR amended with AC in decreasing the bioavailability of polychlorinated biphenyls (PCBs) as compared to ENR alone. The primary method of assessing PCB bioavailability in the pilot study test plot sediments is to measure freely available (C_{free}) dissolved PCB concentrations using solid-phase microextraction (SPME) fibers. In Year 3 of the pilot study, a controlled laboratory bioaccumulation test employing the side-by-side use of SPME and organism tissue measurements was conducted. The goal of the laboratory study was to determine whether there is a difference in PCB bioavailability due to the addition of AC, as measured by concentrations of PCBs in organisms (i.e., a difference between the ENR and ENR+AC treatments). The Quality Assurance Project Plan (QAPP) Addendum 2 describes the laboratory bioaccumulation study design, the data quality objectives (DQOs), and the methods for the measurement tools used in the study (AMEC et al. 2017). The purpose of this report is to document laboratory procedures for the biological tests. The bioaccumulation study results will be presented with the other pilot study results in the Year 3 monitoring report.

2. METHODS

The sediments were tested using criteria outlined in EPA/600/R-93/183 (USEPA 1993), ASTM Method E 1022-94 (ASTM International 2013), and the project-specific QAPP (AMEC et al 2017). Bioassay testing for this project consisted of one whole-sediment bioaccumulation exposure test with two species plus a SPME fiber in the same chambers (Table 2-1 and Figure 2-1). The following laboratory control samples were tested alongside: a sediment control (with a blend of both worm and clam native control sediments, used for organism but not SPME exposure) and a seawater blank (with flowing seawater only, used for SPME but not organism exposure).

Table 2-1. Biological Testing Performed for the Laboratory Bioaccumulation Study

Test Type	Type of Organism	Taxon	Project Sediments	Control Sediment
Bioaccumulation	Polychaete	*Nephtys caecoides*	●	●
	Bivalve	*Mya arenaria*	●	●

[1] The Lower Duwamish Waterway Group is composed of the City of Seattle, King County, Port of Seattle and the Boeing Company.

Figure 2-1. Test Species *Nephtys caecoides* and *Mya arenaria*

2.1 Sample Collection

A total of 36 sediment cores were collected via divers from the LDW subtidal pilot study plot on August 10-12, 2020 and received at EcoAnalysts' laboratory in Port Gamble, WA on the same day of collection. All cores arrived sealed and upright in coolers with ice present. Samples were stored in a walk-in cold room at 4 ± 2 °C in the dark until utilized for testing. All tests were conducted within the eight-week (56 days) sediment holding time limit. Sediments were tested as intact, upright cores measuring 24" long and 6" diameter. Control sediments were sieved through a 2 mm stainless steel screen prior to testing; all other test sediments were tested unsieved and as received.

2.2 Bioaccumulation Testing

Assessment of bioaccumulation potential was carried out using the polychaete worm *Nephtys caecoides* and the bivalve clam *Mya arenaria* over a 28-day test period.

The polychaetes *N. caecoides* were obtained from Brezina and Associates in Dillon Beach, California. Organisms were acclimated to and held at 15 ± 1°C prior to testing. The bivalves *M. arenaria* were supplied by Aquatic Research Organisms Inc. in Hampton, New Hampshire and held at 15 ± 1°C prior to testing. Clams were fed a microalgal suspension (Reed Mariculture Inc.; Shellfish Diet 1800®) during the acclimation period. Feeding was ceased the day prior to test initiation.

The bioaccumulation assessment was performed using intact sediment core tubes; each core represented an individual replicate collected at one of the two subtidal subplots (ENR or ENR+AC), within one of three different subplot locations (A, B, or C). Total sediment volume varied per 24" core but averaged approximately 18" in total sediment depth. Each core was outfitted with a screened water overflow exit port 4" above the sediment surface and supplied with a continuous flow of seawater supplied through an adjustable drip valve. Chambers were filled with approximately 1.9 L of overlying water to the overflow exit port and the flow was targeted at 12 – 15 water exchanges per day (23 – 29 L/day) using drip flow regulators (see section 2.3 for details). Aeration was supplied to each chamber. The sealed cap at the base of all core tubes remained intact throughout the test.

The sediment control treatment for the bioaccumulation test was created from a 50/50 blend of native *N. caecoides* and *M. arenaria* sediments collected alongside the organisms and provided from the organism suppliers (*N. caecoides* sediment was from Dillon Beach in Tomales Bay, CA and *M. arenaria*

sediment was from southern Maine). Both control sediments have been tested routinely in conjunction with their respective organisms. Results of historical testing have demonstrated acceptable organism health and sediment quality. A total of six sediment control replicates were implemented for the test using the same 6" diameter core tubes as the sediment treatments.

The day prior to test initiation, the cores were arranged in random order within modified temperature control water baths and allowed to equilibrate overnight to test conditions. Cores were arranged so that the water bath level was approximately 10" below the top of the core tube to maintain test temperatures. On Day 0, ammonia was measured in the overlying water in each chamber and water quality parameters (pH, salinity, temperature, dissolved oxygen, and water flow) were measured. SPME fibers were inserted into the top 10 cm of the sediment within each core with the exception of the sediment control chambers (in which no SPMEs were deployed). A seawater-only control blank was also created to measure freely dissolved PCBs within the test flow-through seawater (Figure 2-2). This control contained no sediment and was created with the same 6" diameter core tubes as the sediment treatments. A total of six SPME fibers were placed within the seawater blank but no animals were exposed.

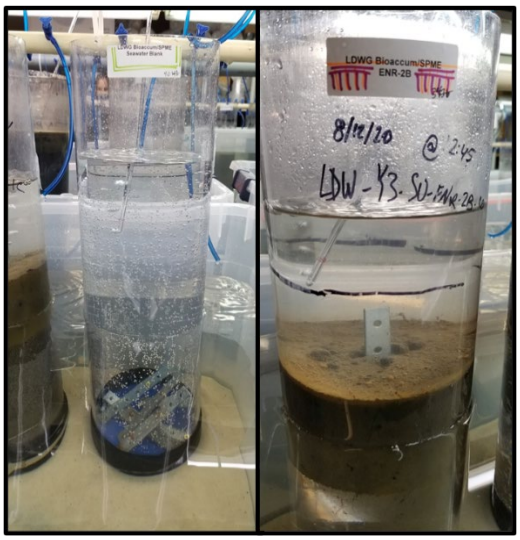

Figure 2-2. SPME Deployment in the Seawater Blank and Sediment Cores

Once SPMEs were deployed, organisms were added to each test chamber with the exception of the seawater blank. A total of 20 *N. caecoides* and 5 *M. arenaria* were exposed within the same chambers (Figure 2-3). Due to the relatively large clam sizes and concern over maintaining healthy water quality for the duration of the test, one clam was removed from each chamber on Day 1, leaving a total of 4 *M. arenaria* initiated (see section 2.3 for details). Three replicates of baseline tissue samples were collected from each test species batch prior to test initiation (i.e., prior to exposure to sediments). All test chambers were maintained under flow-through conditions and water quality measurements were collected from all chambers daily. All water quality instruments were calibrated daily or on their manufacture-recommended schedule. Records of instrument calibration were retained in the laboratory logs. Flow to each tank was measured daily and recorded. In addition, biological observations were recorded daily for each chamber. Notations were made throughout the duration of the test if any obvious movement of organisms below the top 10 cm of sediment occurred.

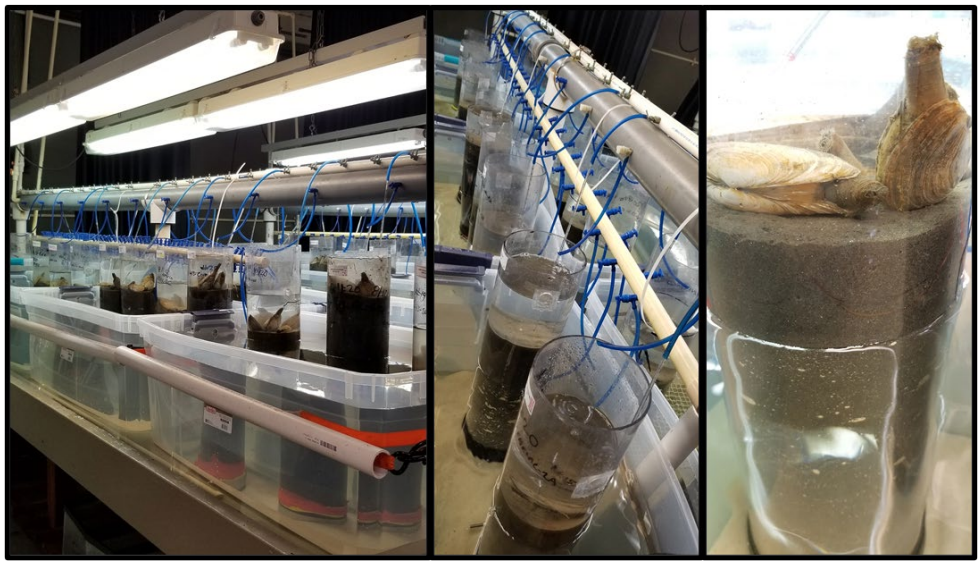

Figure 2-3. Test Initiation (Day 0)

On Day 28, final ammonia levels were measured in the overlying water from each core. The SPME fibers were removed, packaged for processing, and held at 4°C. Further SPME processing and analysis was conducted by Geosyntec and is not discussed in this report.

During termination, each sediment test treatment core was evaluated for organism penetration depth. This was achieved by dewatering the chamber (drilling a hole above the sediment/water interface), cutting away the top core tube material above the sediment surface, capping, placing the core horizontally, and removing a "window" from the top 10 cm of the core tube with electric snippers (Figure 2-4). A spatula was then used to remove all of the top 10 cm of sediment from the tube into a sieve to recover the clams and worms. If survival numbers were different from those initiated, the remainder of the core sediment was similarly removed and sieved until all animals were found or assumed to have perished.

Surviving *M. arenaria* that were found to be completely exposed on the sediment surface (more than 50% of the body above the sediment-water interface) were included in survival counts but excluded from tissue analysis due to concern that they were not exposed similarly as those buried.

Figure 2-4. Test Termination (Day 28)

During termination and prior to sieving, a sediment subsample was collected from the top 10 cm of sediment from each test treatment sediment core as well as the lower portion of the core (if organisms were found below 10 cm) for chemistry archives. These samples were placed in pre-cleaned jars and are to be held at 4°C at EcoAnalysts unless further analysis is warranted.

All surviving *N. caecoides* were placed in clean flow-through aquaria with 500 mL of sieved control sediment to purge their gut contents over 24 hours. Surviving *M. arenaria* were placed in clean flow-through jars without the addition of control sediment and allowed to purge their gut contents over 24 hours. On Day 29, final water quality measurements were taken in each chamber. *M. arenaria* were then shucked for tissue collection, placed in certified pre-cleaned glass jars, weighed, and frozen. All *N. caecoides* were sieved from the control sediment, placed in certified pre-cleaned glass containers, weighed, and frozen. Clam and worm tissues from each chamber were preserved in separate jars for a total of 42 jars of tissue per species (which includes the laboratory control). Tissues from all pre-test and sediment exposures (with the exception of the laboratory control) were shipped on dry ice via overnight courier to Frontier Analytical (El Dorado Hills, CA) where they were homogenized and composited. All test control tissues were archived at the EcoAnalysts laboratory should additional analytical chemistry be warranted in the future.

2.3 QAPP Deviations and Approved Updates

It was noted upon animal receipt that the size of the *M. arenaria* received from Aquatic Research Organisms was larger than 2” in length as specified in the project QAPP. However, a maximum clam size is not specified in the ASTM or EPA guidance for the bioaccumulation test. Both guidance documents stress the importance of uniformity in size between test organisms by stating that the largest clam is “not more than 1.5 times” the smallest clam. When the LDW bioaccumulation test was initiated, clams were randomly assigned to test chambers with the smallest and largest specimens excluded (as per standard procedures). Those that were placed in test chambers measured between ~4 – 5.5 cm in width and met the size uniformity requirement. All documents state the importance of meeting tissue mass requirements for analysis. The average wet weight per clam upon initiation was found to be 9.5 g; well above the minimum needed for chemical analysis (10 g per sample). To prevent overcrowding in the core tubes, the number of clams in test chambers was dropped from 5 to 4 by removing 1 clam from

each chamber on Day 1 (with the exception of 2 of the sediment control chambers where all 5 clams had completely buried by Day 1).

At test initiation, observations were made that the overlying water flows to each chamber could not be maintained low enough to meet the recommended flow rate of 6 – 10 volume exchanges/day, as written in the QAPP, for the small volume of overlying water in the core tubes (5 – 8 L/day water exchange). The low volume of water being exchanged daily also made it difficult to maintain the prescribed overlying water temperature. According to the ASTM and EPA guidance, while a minimum flow rate is defined to be "at least 5" or "at least 10" volume exchanges per day, no maximum flow rate is defined that should not be exceeded (ASTM International 2013, USEPA 1993). Instead the emphasis is placed on maintaining water quality for healthy test organisms. Therefore, increasing the flow rate in the LDW bioaccumulation chambers from 6-10 volume exchanges per day to 12-15 volume exchanges per day in an effort to maintain stable flow and lower temperatures was deemed to be within guidance recommendations.

Both of these changes were discussed with Wood prior to implementation. The bioaccumulation test received approval to move forward with these amendments on Day 1.

2.4 Seawater for Bioassay Testing

Seawater used in this study, including the flow-through studies, came from the northern Hood Canal at Port Gamble, Washington. This seawater source has been used successfully on similar bioassay testing programs and extensive testing on a variety of test species has shown that there is no significant potential for toxicity or bioaccumulation from this water supply. Annual chemical analyses of this water source continually result in no significant contaminants of concern or bioaccumulation potential. To control for any potential analogous results from the seawater used in testing, a seawater only blank was set up with SPMEs for PCB chemical analysis.

2.5 Quality Assurance/Quality Control (QC)

The quality assurance objectives for toxicity testing conducted by the testing laboratory are detailed in the method guidance documents, the QAPP, and the laboratory's own quality assurance plans (QAPs). These objectives for accuracy and precision involve all aspects of the testing process, including the following:

- Water and Sediment Sampling and Handling
- Source and Condition of Test Organisms
- Condition of Equipment
- Test Conditions
- Instrument Calibration
- Record Keeping
- Data Evaluation

The methods employed in every phase of the toxicity testing program are detailed in the EcoAnalysts Standard Operating Procedures (SOP). All EcoAnalysts staff members receive regular, documented training in all SOPs and test methods. Finally, all data collected and produced as a result of these analyses were recorded on approved data sheets. If an aspect of a test deviated from protocol, the test was evaluated to determine validity according to the guidance of the regulatory agencies responsible for approval of the proposed permitting action. Any changes made to the test design proposed in the original project QAPP were communicated directly with the project QA/QC and management team at Wood, Geosyntec, and Floyd|Snider.

3. RESULTS

The results of the bioaccumulation test, including summaries of test results and water quality observations, are presented in this section. Supporting laboratory documents are provided in Appendix A and chain of custody and sample receipt logs are provided in Appendix B. All PCB chemistry results are presented in Year 3 Monitoring Report (of which this laboratory report is an appendix).

3.1 Bioaccumulation Tests Results

The 28-day bioaccumulation test with *M. arenaria* and *N. caecoides* was initiated on August 26, 2020. Mean survival in the control sample was 92.5% for *N. caecoides* and 95.8% for *M. arenaria*, meeting the survival control acceptability criterion of ≥75%. Mean percent survival in the test samples ranged from 86.7% to 97.5% for *N. caecoides* and 91.7% to 100% for *M. arenaria*. Test endpoint summaries for both species are summarized in Table 3-1, Table 3-2, and Table 3-3.

All *M. arenaria* remained in the top 10 cm of sediment of the test samples for the duration of the test. Of the 36 project cores, 12 cores contained *N. caecoides* below 10 cm upon termination. However, those recovered lower than 10 cm were still within the top 12 cm, and no more than two organisms were found between 10 and 12 cm in any single core.

Total tissue wet weight for each subplot sample composite ranged from 146.1 g to 182.1 g for *M. arenaria* and 31.6 g to 38.6 g for *N. caecoides*, exceeding the minimum required for performing analytical chemistry (10 g per species). Tissues from all pre-test and sediment exposures (with the exception of the laboratory control) were shipped on dry ice via FedEx overnight courier to Frontier Analytical.

Water quality parameters were within the recommended limits throughout the test with the exception of pH and salinity (Table 3-4). On Day 12 it was observed that pH had fallen to 7.2 in ENR-B Rep 2 while on Day 24 the pH in ENR-B Rep 5 was recorded at 7.0. In both instances, pH had returned to acceptable levels the following day and is not expected to have affected test results. Salinity was noted to be 29 ppt in ENR-C Rep 5 on Day 2 (below the recommended range of 32 ± 2), likely due to a meter misreading. The same chamber was 30 ppt the following day and remained in range throughout the remainder of the test.

Overlying water flows ranged from 6.1 to 15.2 volume exchanges per day to each chamber and were within the recommended flow range on the lowest end (6 to 10 exchanges/day) and within the targeted range on the highest end (12 to 15 exchanges/day). Overall, they averaged from 12.1 to 13.6 volume exchanges per day (Table 3-5).

Initial overlying water ammonia levels were low and ranged from 0.000 to 0.420 mg/L total ammonia (Table 3-6 and Table 3-7). On Day 28, many chambers were terminated for the survival endpoint prior to conducting ammonia analysis. However, overlying water from at least one chamber from every subplot sample except ENR+AC-B was measured, and results show low levels of 0.000 to 0.133 mg/L total ammonia.

Table 3-1. Control Survival Summary for the Bioaccumulation Test

Species	Sample ID	Replicate	Initial Number	Final Number	Survival (%)	Mean Survival (%)	Standard Deviation	Wet Tissue Mass (g)
Nephtys caecoides	Control	1	20	19	95	92.5	6.9	5.1
		2	20	16	80			3.7
		3	20	19	95			8.0
		4	20	20	100			3.8
		5	20	18	90			6.5
		6	20	19	95			7.3
Mya arenaria	Control	1	4	4	100	95.8	10.2	28.1
		2	4	4	100			35.9
		3	5[1]	5	100			38.0
		4	5[1]	5	100			52.2
		5	4	3	75			27.3
		6	4	4	100			27.2

[1] Clams had all buried prior to decision to remove 1 from each replicate. To avoid disturbing the sediment, the extra clam was not dug up.

Table 3-2. *Nephtys caecoides* Survival Summary for the Bioaccumulation Test

Subplot	Sample ID	Replicate	Initial Number	Final Number	Survival (%)	Mean Survival (%)	Standard Deviation	Wet Tissue Mass (g)	Total Composite Wet Tissue Mass (g)
ENR	ENR-A	1	20	19	95	96.7	2.6	5.5	38.6
		2	20	19	95			7.7	
		3	20	20	100			5.2	
		4	20	19	95			6.9	
		5	20	20	100			8.9	
		6	20	19	95			4.4	
	ENR-B	1	20	18	90	87.5	18.6	5.9	35.1
		2	20	19	95			4.2	
		3	20	10	50			4.6	
		4	20	19	95			3.6	
		5	20	19	95			4.6	
		6	20	20	100			12.2	
	ENR-C	1	20	20	100	97.5	2.7	6.7	35.9
		2	20	19	95			5.9	
		3	20	19	95			7.1	
		4	20	20	100			7.7	
		5	20	20	100			2.9	
		6	20	19	95			5.6	
ENR+AC	ENR+AC-A	1	20	20	100	96.7	4.1	4.8	35.4
		2	20	20	100			6.3	
		3	20	18	90			8.4	
		4	20	20	100			6.1	
		5	20	19	95			5.5	
		6	20	19	95			4.3	
	ENR+AC-B	1	20	20	100	91.7	9.3	5.6	35.8
		2	20	19	95			6.8	
		3	20	20	100			4.7	
		4	20	16	80			5.4	
		5	20	19	95			9.3	
		6	20	16	80			4.0	
	ENR+AC-C	1	20	18	90	86.7	11.3	3.9	31.6
		2	20	13	65			3.9	
		3	20	17	85			6.3	
		4	20	19	95			7.7	
		5	20	18	90			5.7	
		6	20	19	95			4.1	

Table 3-3. *Mya arenaria* Survival Summary for the Bioaccumulation Test

Subplot	Sample ID	Replicate	Initial Number	Final Number	Survival (%)	Mean Survival (%)	Standard Deviation	Wet Tissue Mass (g)	Total Composite Wet Tissue Mass (g)
ENR	ENR-A	1	4	4	100	95.8	10.2	37.8	173.4
		2	4	4	100			41.8	
		3	4	3	75			13.7	
		4	4	4	100			24.8	
		5	4	4	100			26.5	
		6	4	4	100			28.8	
	ENR-B	1	4	4	100	100.0	0.0	20.4	179.0
		2	4	4	100			43.9	
		3	4	4	100			19.6	
		4	4	4	100			31.6	
		5	4	4	100			41.9	
		6	4	4	100			21.6	
	ENR-C	1	4	4	100	100.0	0.0	28.1	146.1
		2	4	4	100			18.9	
		3	4	4	100			33.5	
		4	4	4	100			24.6	
		5	4	4	100			19.5	
		6	4	4	100			21.5	
ENR+AC	ENR+AC-A	1	4	4	100	91.7	12.9	37.0	153.1
		2	4	4	100			27.3	
		3	4	3	75			12.7	
		4	4	4	100			35.1	
		5	4	3	75			22.1	
		6	4	4	100			18.9	
	ENR+AC-B	1	4	4	100	95.8	10.2	28.4	182.1
		2	4	4	100			29.6	
		3	4	4	100			23.5	
		4	4	3	75			20.1	
		5	4	4	100			34.7	
		6	4	4	100			45.8	
	ENR+AC-C	1	4	4	100	91.7	12.9	32.3	155.2
		2	4	3	75			17.6	
		3	4	4	100			30.8	
		4	4	4	100			38.0	
		5	4	4	100			11.5	
		6	4	3	75			25.0	

Table 3-4. Water Quality Summary for the Bioaccumulation Test

Subplot	Sample ID	Dissolved Oxygen (mg/L)			Temperature (°C)			Salinity (ppt)			pH (pH units)		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
	Seawater Blank	7.7	7.0	8.1	15.2	14.2	16.1	31	30	31	7.9	7.7	8.0
	Control	7.5	5.6	8.5	16.2	14.2	17.4	31	30	31	7.9	7.6	8.2
ENR	ENR-A	7.0	5.8	8.2	16.1	14.3	17.4	31	30	31	7.8	7.3	8.0
	ENR-B	7.1	5.5	8.2	16.0	14.3	17.4	31	30	31	7.8	**7.0**	8.1
	ENR-C	7.2	6.2	8.3	15.7	14.1	16.8	31	**29**	31	7.8	7.4	8.0
ENR+AC	ENR+AC-A	7.1	5.4	8.2	16.3	14.3	17.2	31	30	31	7.8	7.3	8.0
	ENR+AC-B	7.1	5.7	8.2	16.3	14.4	17.4	31	30	31	7.8	7.4	8.0
	ENR+AC-C	7.2	4.6	8.0	16.1	14.5	17.4	31	30	31	7.8	7.3	8.0

Bold = parameter outside of recommended range

Table 3-5. Flow Summary for the Bioaccumulation Test

Subplot	Sample ID	As-Found Flow (mL/30 Sec)			Calculated Flow (L/Day)			Volume Exchanges per Day		
		Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
	Seawater Blank	8	5	10	23.04	14.40	28.8	12.1	7.6	15.2
	Control	8	4	10	23.04	11.52	28.8	12.1	6.1	15.2
ENR	ENR-A	9	4	10	25.92	11.52	28.8	13.6	6.1	15.2
	ENR-B	8	4	10	23.04	11.52	28.8	12.1	6.1	15.2
	ENR-C	8	4	10	23.04	11.52	28.8	12.1	6.1	15.2
ENR+AC	ENR+AC-A	8	4	10	23.04	11.52	28.8	12.1	6.1	15.2
	ENR+AC-B	8	4	10	23.04	11.52	28.8	12.1	6.1	15.2
	ENR+AC-C	9	4	10	25.92	11.52	28.8	13.6	6.1	15.2

Table 3-6. Overlying Water Ammonia Results

Subplot	Sample ID	Replicate	Total Ammonia (mg/L)		Unionized Ammonia (mg/L)	
			Day 0	Day 28	Day 0	Day 28
ENR	ENR-A	1	0.000	0.040	0.000	0.001
		2	0.000	NM	0.000	--
		3	0.000	NM	0.000	--
		4	0.000	NM	0.000	--
		5	0.000	NM	0.000	--
		6	0.000	NM	0.000	--
	ENR-B	1	0.000	0.000	0.000	0.000
		2	0.022	0.000	0.001	0.000
		3	0.000	0.000	0.000	0.000
		4	0.420	NM	0.012	--
		5	0.000	NM	0.000	--
		6	0.000	0.041	0.000	0.001
	ENR-C	1	0.000	NM	0.000	--
		2	0.000	NM	0.000	--
		3	0.000	NM	0.000	--
		4	0.000	NM	0.000	--
		5	0.000	0.000	0.000	0.000
		6	0.000	NM	0.000	--
ENR+AC	ENR+AC-A	1	0.000	NM	0.000	--
		2	0.000	0.000	0.000	0.000
		3	0.000	NM	0.000	--
		4	0.000	NM	0.000	--
		5	0.000	NM	0.000	--
		6	0.000	0.000	0.000	0.000
	ENR+AC-B	1	0.021	NM	0.001	--
		2	0.000	NM	0.000	--
		3	0.000	NM	0.000	--
		4	0.000	NM	0.000	--
		5	0.000	NM	0.000	--
		6	0.000	NM	0.000	--
	ENR+AC-C	1	0.047	0.000	0.001	0.000
		2	0.124	NM	0.003	--
		3	0.134	NM	0.003	--
		4	0.000	NM	0.000	--
		5	0.000	NM	0.000	--
		6	0.000	NM	0.000	--

NM = not measured (chamber terminated for survival prior to ammonia analysis)

Table 3-7. Overlying Water Ammonia Results: Controls

Sample ID	Replicate	Total Ammonia (mg/L)		Unionized Ammonia (mg/L)	
		Day 0	Day 28	Day 0	Day 28
Sediment Control	1	0.000	0.000	0.000	0.000
	2	0.000	NM	0.000	--
	3	0.000	0.133	0.000	0.003
	4	0.000	0.029	0.000	0.001
	5	0.000	NM	0.000	--
	6	0.000	NM	0.000	--
Seawater Blank	1	0.000	0.000	0.000	0.000

NM = not measured (chamber terminated for survival prior to ammonia analysis)

3.2 Bioaccumulation Test QC Summary

All water quality measurements were within the recommended limits, with slight deviations in pH and salinity in several random chambers on sporadic days. However, these deviations were still within the tolerance range of the organisms and thus is unlikely to have affected the results. Survival and tissue mass met the requirements put forth in the QAPP. The test followed all proper QA/QC procedures including maintenance of records, calibration of all instruments, sample handling and storage, and daily data review.

All test conditions are summarized in Table 3-8.

Table 3-8. Bioaccumulation Test Condition Summary

Test Conditions: *Nephtys caecoides* and *Mya arenaria*		
Date Sampled	August 10 – 12, 2020	
Date Received	August 10 – 12, 2020	
Test Dates	August 26 – September 23, 2020	
Days of Holding	Recommended: ≤8 weeks (56 days)	16 Days
Source of Control Sediment	Dillon Beach in Tomales Bay, CA (*Nepthys* source) Southern ME (*Mya* source)	
Test Species and Age Class	*Nephtys caecoides* (adult)	
Supplier	Brezina and Associates	
Date Acquired	August 21, 2020	
Acclimation/Holding Time	5 Days	
Age Class	Adult	
Test Species and Age Class	*Mya arenaria* (adult)	
Supplier	Aquatic Research Organisms	
Date Acquired	August 20, 2020	
Acclimation/Holding Time	6 Days	
Test Procedures	EPA/600/R-93/183, ASTM Method E 1022-94, and the project QAPP	
Test Location	EcoAnalysts, Port Gamble, WA	
Test Type/Duration	28-Day/ Flow-through	
Control Water	Sand-filtered, North Hood Canal seawater	
Test Lighting	16 hours light / 8 hours dark	
Test Chamber	24” Tall x 6” Diameter Core	
Exposure Volume	Approx. 8.3 L sediment (18” depth) / 1.9 L of overlying seawater (4” height)	
Feeding	None	
Test Dissolved Oxygen	Recommended: > 4.5 mg/L	Actual: 4.6 – 8.5 mg/L
Test Temperature	Recommended: 15 ± 2°C	Actual: 14.1 – 17.4 °C
Test Salinity	Recommended: 32 ± 2 ppt	Actual: 29 – 31 ppt
Test pH	Recommended: 7.8 ± 0.5	Actual: 7.0 – 8.2
Water Renewal/Flow:	Recommended: 6 – 10 volume exchanges/day (5 – 8 L/day) Targeted: 12 – 15 volume exchanges/day (23 – 29 L/day)	Actual: 6 – 15 volume exchanges/day (12 – 29 L/day)
Control Performance Standard	Recommended: ≥75% survival	Actual: 92.5% and 95.8%; Pass
Deviations from Test Protocol	pH (ENR-B Rep 2 and 5, Day 12 and Day 24) Salinity (ENR-C Rep 5 Day 2)	

4. SUMMARY

Overall, the bioaccumulation test for the Lower Duwamish Waterway ENR/AC Pilot Study successfully met all goals outlined in the QAPP:

- Organism survival in the control exceeded the recommended criterion, indicating that test organisms were healthy throughout the testing program.
- Organism mortality was low or not present in the test sample chambers, suggesting that sediments did not adversely affect survival.
- Generally, test organisms remained within the top 10 cm of the sediment within each core. Any worms that were discovered lower than 10 cm were still within the top 12 cm (in which case, a lower sediment archive sample was collected should additional chemistry analysis be required).
- Clam tissues were depurated for 24 hours in clean running seawater. Worm tissues were depurated for 24 hours in clean running seawater with the addition of 500 mL of control sediment to aid in purging. After depuration and collection, the minimum tissue mass required for analytical chemistry was exceeded for both species for each subplot sample composite.
- No significant water quality deviations that would have affected results occurred during testing.
- SPME deployments and recoveries from each chamber were successful.

5. REFERENCES

USEPA. 1993. Guidance Manual – Bedded Sediment Bioaccumulation Tests. EPA/600/R-93/183. September 1993.

AMEC et al (Amec Foster Wheeler; Dalton, Olmstead & Fuglevand, Inc; Ramboll Environ; Floyd Snider; and Geosyntec Consultants). 2017. Quality Assurance Project Plan Addendum 2: Enhanced Natural Recovery/Activated Carbon Pilot Study, Lower Duwamish Waterway, Laboratory Bioaccumulation Study. Lower Duwamish Waterway Group, Seattle WA. May 19.

ASTM International. 2013. Standard Guide for Conducting Bioconcentration Test with Fishes and Saltwater Bivalve Mollusks. E1022-94 (Reapproved 2013).

APPENDIX A. TEST DATA AND BENCH SHEETS

1. *NEPHTYS CAECOIDES* AND *MYA ARENARIA* BIOACCUMULATION TEST

1.1 BIOLOGICAL DATA

1.2 SPME DEPLOYMENT/RECOVERY DATA AND TERMINATION SEDIMENT SUBSAMPLE DATA

APPENDIX B. CHAIN-OF-CUSTODY FORMS, LOGS, AND PRE-TEST DOCUMENTS

APPENDIX A. TEST DATA AND BENCH SHEETS

1. *Nephtys caecoides* and *Mya arenaria* Bioaccumulation Test

1.1 Biological Data

ECOANALYSTS, INC.

28 Day Bioaccumulation Test Pretest Info

CLIENT	PROJECT	PROJECT NUMBER	PROJECT MANAGER
Wood	LDWG	PG1017	Michelle Knowlen

SPECIES 1 *Nephtys caecoides*

PRETEST TISSUE SUMMARY

Treatment	Rep	Depuration Begin		Remove Mucus/Fecal Matter [Init.]		Depuration End		Number Preserved	Tare Weight (g) [Jar + Lid]	Total Wet Weight (g) [Jar, Lid, Tissue]	Tisue Wet Weight (g) [Total - Tare]	Init.
		Date	Time	Event 1	Event 2	Date	Time					
Pretest	1					8/26/2020	1656	20	126.7	140.7	14.0	SH
Pretest	2					8/26/2020	1656	20	126.4	137.4	11.0	SH
Pretest	3					8/26/2020	1656	20	126.6	135.9	9.3	SH

SPECIES 2 *Mya arenaria*

PRETEST TISSUE SUMMARY

Treatment	Rep	Depuration Begin			Depuration End		Number Preserved	Tare Weight (g) [Jar + Lid]	Total Wet Weight (g) [Jar, Lid, Tissue]	Tisue Wet Weight (g) [Total - Tare]	Init.
		Date	Time		Date	Time					
Pretest	1	8/26/2020	1600		8/27/2020	1500	4	302.0	345.3	43.3	NH
Pretest	2	8/26/2020	1600		8/27/2020	1504	4	301.9	337.8	35.9	NH
Pretest	3	8/26/2020	1600		8/27/2020	1513	4	301.8	336.4	34.6	NH

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
Sed Control	0	1	35	MS	8/26/2020	8	7.8	17.4	30	7.9	5.0	
Sed Control	0	2	6	MS	8/26/2020	8	8.0	17.3	30	8.0	4.0	
Sed Control	0	3	31	MS	8/26/2020	8	7.9	17.0	30	7.9	4.0	
Sed Control	0	4	41	MS	8/26/2020	8	7.9	16.6	30	7.9	5.0	
Sed Control	0	5	5	MS	8/26/2020	8	8.0	17.0	30	7.9	6.0	
Sed Control	0	6	18	MS	8/26/2020	8	8.1	16.6	30	7.9	5.0	
Sed Control	1	1	35	NH	8/27/2020	8	6.1	16.5	30	7.7	8.0	Increased flow rate range for test after approval from Wood. 8/27 MK
Sed Control	1	2	6	NH	8/27/2020	8	6.4	16.0	30	7.6	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
Sed Control	1	3	31	NH	8/27/2020	8	7.1	16.5	30	7.7	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
Sed Control	1	4	41	NH	8/27/2020	8	5.6	15.7	30	7.6	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
Sed Control	1	5	5	NH	8/27/2020	8	6.5	16.1	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
Sed Control	1	6	18	NH	8/27/2020	8	7.1	16.1	30	7.7	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
Sed Control	2	1	35	NH	8/28/2020	8	6.8	16.5	30	7.7	8.0	
Sed Control	2	2	6	NH	8/28/2020	8	7.5	16.3	30	7.8	8.0	
Sed Control	2	3	31	NH	8/28/2020	8	7.2	16.4	30	7.8	10.0	
Sed Control	2	4	41	NH	8/28/2020	8	6.0	15.7	30	7.7	8.0	
Sed Control	2	5	5	NH	8/28/2020	8	7.0	16.2	30	7.7	8.0	
Sed Control	2	6	18	NH	8/28/2020	8	7.2	16.2	30	7.8	8.0	
Sed Control	3	1	35	NH	8/29/2020	9	7.3	16.7	30	7.7	8.0	
Sed Control	3	2	6	NH	8/29/2020	9	7.6	16.3	30	7.8	8.0	
Sed Control	3	3	31	NH	8/29/2020	9	7.2	16.6	30	7.7	9.0	
Sed Control	3	4	41	NH	8/29/2020	9	6.2	15.4	30	7.7	8.0	
Sed Control	3	5	5	NH	8/29/2020	9	7.3	16.2	30	7.7	8.0	
Sed Control	3	6	18	NH	8/29/2020	9	7.2	16.2	30	7.7	9.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
Sed Control	4	1	35	NH	8/30/2020	9	7.4	16.9	30	7.8	8.0	
Sed Control	4	2	6	NH	8/30/2020	9	7.2	16.2	30	7.7	8.0	
Sed Control	4	3	31	NH	8/30/2020	9	7.6	16.8	30	7.8	8.0	
Sed Control	4	4	41	NH	8/30/2020	9	7.5	15.8	30	7.8	8.0	
Sed Control	4	5	5	NH	8/30/2020	9	7.7	16.3	30	7.8	8.0	
Sed Control	4	6	18	NH	8/30/2020	9	7.5	16.4	30	7.8	8.0	
Sed Control	5	1	35	RE	8/31/2020	9	6.6	16.5	31	7.7	10.0	
Sed Control	5	2	6	RE	8/31/2020	9	7.6	16.4	31	7.9	9.0	
Sed Control	5	3	31	RE	8/31/2020	9	7.5	16.7	31	7.8	9.0	
Sed Control	5	4	41	RE	8/31/2020	9	5.9	15.5	31	7.7	9.0	
Sed Control	5	5	5	RE	8/31/2020	9	6.9	16.3	31	7.7	8.0	
Sed Control	5	6	18	RE	8/31/2020	9	7.6	16.4	31	7.8	9.0	
Sed Control	6	1	35	DM	9/1/2020	9	6.6	16.7	31	7.7	10.0	
Sed Control	6	2	6	DM	9/1/2020	9	7.1	16.7	31	7.8	9.0	
Sed Control	6	3	31	DM	9/1/2020	9	7.5	17.0	31	7.9	9.0	
Sed Control	6	4	41	DM	9/1/2020	9	6.0	15.9	31	7.7	8.0	
Sed Control	6	5	5	DM	9/1/2020	9	7.6	17.4	31	7.8	8.0	
Sed Control	6	6	18	DM	9/1/2020	9	7.5	16.6	31	7.9	9.0	
Sed Control	7	1	35	MS	9/2/2020	9	6.9	16.2	31	7.8	9.0	
Sed Control	7	2	6	MS	9/2/2020	9	7.5	15.8	31	7.9	9.0	
Sed Control	7	3	31	MS	9/2/2020	9	7.3	16.2	31	7.8	9.0	
Sed Control	7	4	41	MS	9/2/2020	9	7.4	15.0	31	7.9	10.0	
Sed Control	7	5	5	MS	9/2/2020	9	7.6	16.3	31	7.8	8.0	
Sed Control	7	6	18	MS	9/2/2020	9	7.1	15.8	31	7.8	10.0	
Sed Control	8	1	35	SH	9/3/2020	8	7.1	16.5	31	7.8	7.0	
Sed Control	8	2	6	SH	9/3/2020	8	7.4	16.2	31	7.8	7.0	
Sed Control	8	3	31	SH	9/3/2020	8	7.6	16.5	31	7.9	8.0	
Sed Control	8	4	41	SH	9/3/2020	8	7.4	15.4	31	7.9	7.0	
Sed Control	8	5	5	SH	9/3/2020	8	7.2	16.7	31	7.8	6.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
Sed Control	8	6	18	SH	9/3/2020	8	7.6	15.9	31	7.9	10.0	
Sed Control	9	1	35	MK	9/4/2020	8	7.3	16.7	31	7.8	9.0	
Sed Control	9	2	6	mk	9/4/2020	8	7.6	16.3	31	7.8	8.0	
Sed Control	9	3	31	MK	9/4/2020	8	7.8	16.7	31	7.9	8.0	
Sed Control	9	4	41	MK	9/4/2020	8	7.9	15.6	31	7.9	8.0	
Sed Control	9	5	5	mk	9/4/2020	8	7.6	16.6	31	7.8	10.0	
Sed Control	9	6	18	MK	9/4/2020	8	7.9	16.3	31	7.9	10.0	
Sed Control	10	1	35	NH	9/5/2020	9	7.2	16.6	31	7.8	8.0	
Sed Control	10	2	6	NH	9/5/2020	9	7.0	16.1	31	7.8	8.0	
Sed Control	10	3	31	NH	9/5/2020	9	7.7	16.8	31	8.0	8.0	
Sed Control	10	4	41	NH	9/5/2020	9	7.8	15.6	31	7.9	10.0	
Sed Control	10	5	5	NH	9/5/2020	9	7.0	16.1	31	7.7	9.0	
Sed Control	10	6	18	NH	9/5/2020	9	7.7	16.1	31	7.9	9.0	
Sed Control	11	1	35	NH	9/6/2020	8	7.5	16.8	31	7.9	8.0	
Sed Control	11	2	6	NH	9/6/2020	8	7.8	16.4	30	7.9	8.0	
Sed Control	11	3	31	NH	9/6/2020	8	7.9	16.7	31	8.0	8.0	
Sed Control	11	4	41	NH	9/6/2020	8	8.1	15.8	31	7.9	8.0	
Sed Control	11	5	5	NH	9/6/2020	8	7.5	16.4	31	7.8	9.0	
Sed Control	11	6	18	NH	9/6/2020	8	8.0	16.4	31	7.9	10.0	
Sed Control	12	1	35	SH	9/7/2020	9	7.6	17.1	31	7.9	7.0	Increased flow to water tub - SH 9/7/2020
Sed Control	12	2	6	SH	9/7/2020	9	7.9	16.7	31	7.9	7.0	
Sed Control	12	3	31	SH	9/7/2020	9	7.8	16.9	31	8.0	7.0	
Sed Control	12	4	41	SH	9/7/2020	9	8.1	16.3	31	8.0	10.0	
Sed Control	12	5	5	SH	9/7/2020	9	7.3	16.7	31	7.9	8.0	
Sed Control	12	6	18	SH	9/7/2020	9	7.9	16.6	31	8.0	8.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
Sed Control	13	1	35	DM	9/8/2020	9	7.4	16.7	31	7.9	9.0	
Sed Control	13	2	6	DM	9/8/2020	9	7.6	16.5	31	8.0	8.0	
Sed Control	13	3	31	DM	9/8/2020	9	7.6	16.8	31	8.0	7.0	
Sed Control	13	4	41	DM	9/8/2020	9	8.0	15.6	31	8.0	9.0	
Sed Control	13	5	5	DM	9/8/2020	9	7.6	17.2	31	8.0	7.0	
Sed Control	13	6	18	DM	9/8/2020	9	7.5	16.5	31	7.9	10.0	
Sed Control	14	1	35	NH	9/9/2020	8	7.8	16.9	31	7.9	6.0	
Sed Control	14	2	6	NH	9/9/2020	8	7.8	16.3	31	7.9	6.0	
Sed Control	14	3	31	NH	9/9/2020	8	8.1	16.8	31	8.0	6.0	
Sed Control	14	4	41	NH	9/9/2020	8	8.2	15.5	31	8.0	7.0	
Sed Control	14	5	5	NH	9/9/2020	8	7.9	16.4	31	7.8	7.0	
Sed Control	14	6	18	NH	9/9/2020	8	8.0	16.0	31	7.9	7.0	
Sed Control	15	1	35	MS	9/10/2020	8	7.8	16.9	31	7.9	8.0	
Sed Control	15	2	6	MS	9/10/2020	8	7.4	16.3	31	7.8	8.0	
Sed Control	15	3	31	MS	9/10/2020	8	8.1	17.0	31	8.0	8.0	
Sed Control	15	4	41	MS	9/10/2020	8	7.6	15.6	31	7.8	8.0	
Sed Control	15	5	5	MS	9/10/2020	8	7.4	16.3	31	7.8	8.0	
Sed Control	15	6	18	MS	9/10/2020	8	8.1	16.3	31	8.0	9.0	
Sed Control	16	1	35	SH	9/11/2020	8	6.6	16.6	31	7.7	9.0	
Sed Control	16	2	6	SH	9/11/2020	9	7.8	16.3	31	8.0	8.0	
Sed Control	16	3	31	SH	9/11/2020	8	8.3	16.8	31	8.0	9.0	
Sed Control	16	4	41	SH	9/11/2020	8	8.5	15.7	31	8.0	8.0	
Sed Control	16	5	5	SH	9/11/2020	9	7.0	16.2	31	7.8	8.0	
Sed Control	16	6	18	SH	9/11/2020	8	8.1	16.2	31	7.9	9.0	
Sed Control	17	1	35	JB	9/12/2020	9	7.7	17.1	30	8.0	8.0	
Sed Control	17	2	6	JB	9/12/2020	9	7.6	16.7	30	8.0	8.0	
Sed Control	17	3	31	JB	9/12/2020	9	7.9	17.1	30	8.1	8.0	
Sed Control	17	4	41	JB	9/12/2020	9	8.3	16.0	30	8.1	8.0	
Sed Control	17	5	5	JB	9/12/2020	9	7.2	16.5	30	7.9	9.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
Sed Control	17	6	18	JB	9/12/2020	9	7.7	16.6	30	8.0	9.0	
Sed Control	18	1	35	DM	9/13/2020	9	7.1	17.1	30	7.8	9.0	
Sed Control	18	2	6	DM	9/13/2020	9	7.7	16.8	30	8.0	8.0	
Sed Control	18	3	31	DM	9/13/2020	9	7.4	17.1	30	7.9	10.0	
Sed Control	18	4	41	DM	9/13/2020	9	8.4	16.2	30	8.2	8.0	
Sed Control	18	5	5	DM	9/13/2020	9	7.5	16.7	30	7.9	9.0	
Sed Control	18	6	18	DM	9/13/2020	9	7.7	16.8	30	8.0	10.0	
Sed Control	19	1	35	DM	9/14/2020	9	7.5	17.0	30	7.8	8.0	
Sed Control	19	2	6	DM	9/14/2020	9	7.8	16.8	30	8.0	10.0	
Sed Control	19	3	31	DM	9/14/2020	9	7.4	17.0	30	7.9	10.0	
Sed Control	19	4	41	DM	9/14/2020	9	7.1	16.2	30	7.8	8.0	
Sed Control	19	5	5	DM	9/14/2020	9	7.5	16.8	30	7.9	10.0	
Sed Control	19	6	18	DM	9/14/2020	9	7.8	16.6	30	8.1	10.0	
Sed Control	20	1	35	MS	9/15/2020	9	6.8	16.7	30	7.8	8.0	
Sed Control	20	2	6	MS	9/15/2020	9	7.3	16.3	30	7.9	9.0	
Sed Control	20	3	31	MS	9/15/2020	9	7.8	17.0	30	8.0	10.0	
Sed Control	20	4	41	MS	9/15/2020	9	8.1	15.6	30	8.0	8.0	
Sed Control	20	5	5	MS	9/15/2020	9	7.0	16.3	30	7.8	9.0	
Sed Control	20	6	18	MS	9/15/2020	9	7.9	16.1	30	7.9	10.0	
Sed Control	21	1	35	SH	9/16/2020	9	7.5	16.5	30	7.9	9.0	
Sed Control	21	2	6	SH	9/16/2020	9	8.1	16.6	30	7.9	9.0	
Sed Control	21	3	31	SH	9/16/2020	9	7.8	17.1	30	8.0	10.0	Increased fow to tub 9/16/2020 SH
Sed Control	21	4	41	SH	9/16/2020	9	8.3	15.3	30	8.0	10.0	
Sed Control	21	5	5	SH	9/16/2020	9	7.9	16.8	30	8.0	8.0	
Sed Control	21	6	18	SH	9/16/2020	9	7.8	15.7	30	7.9	8.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
Sed Control	22	1	35	NH	9/17/2020	9	7.3	16.3	30	7.8	10.0	
Sed Control	22	2	6	NH	9/17/2020	9	7.7	16.0	30	7.9	10.0	
Sed Control	22	3	31	NH	9/17/2020	9	7.9	16.4	30	7.9	10.0	
Sed Control	22	4	41	NH	9/17/2020	9	8.0	15.2	30	8.0	10.0	
Sed Control	22	5	5	NH	9/17/2020	9	7.9	16.8	30	8.0	9.0	
Sed Control	22	6	18	NH	9/17/2020	9	8.1	15.9	30	8.0	8.0	
Sed Control	23	1	35	MS	9/18/2020	8	7.3	16.4	31	7.8	8.0	
Sed Control	23	2	6	MS	9/18/2020	8	7.8	15.9	31	7.9	8.0	
Sed Control	23	3	31	MS	9/18/2020	8	7.8	16.3	31	7.9	8.0	
Sed Control	23	4	41	MS	9/18/2020	8	8.1	15.1	31	7.9	10.0	
Sed Control	23	5	5	MS	9/18/2020	8	8.0	16.3	31	7.9	8.0	
Sed Control	23	6	18	MS	9/18/2020	8	7.9	15.9	31	7.9	9.0	
Sed Control	24	1	35	SH	9/19/2020	9	7.0	16.1	31	7.6	9.0	
Sed Control	24	2	6	SH	9/19/2020	9	7.6	15.8	31	7.8	9.0	
Sed Control	24	3	31	SH	9/19/2020	9	7.7	16.2	31	7.8	8.0	
Sed Control	24	4	41	SH	9/19/2020	9	8.1	14.2	31	7.9	10.0	
Sed Control	24	5	5	SH	9/19/2020	9	7.9	17.4	31	8.0	10.0	Water line was found outside of tube, replaced - SH 9/19/2020
Sed Control	24	6	18	SH	9/19/2020	9	7.6	15.7	31	7.8	10.0	
Sed Control	25	1	35	NH	9/20/2020	8	6.8	16.0	31	7.7	8.0	
Sed Control	25	2	6	NH	9/20/2020	8	7.8	15.7	31	7.9	9.0	
Sed Control	25	3	31	NH	9/20/2020	8	7.7	16.2	31	7.9	10.0	
Sed Control	25	4	41	NH	9/20/2020	8	8.1	14.9	31	7.9	8.0	
Sed Control	25	5	5	NH	9/20/2020	8	8.0	16.1	31	7.9	10.0	
Sed Control	25	6	18	NH	9/20/2020	8	7.6	15.7	31	7.9	8.0	
Sed Control	26	1	35	DM	9/21/2020	9	7.9	16.5	31	7.9	8.0	
Sed Control	26	2	6	DM	9/21/2020	9	7.7	15.9	31	7.9	9.0	
Sed Control	26	3	31	DM	9/21/2020	9	7.9	16.5	31	7.9	8.0	
Sed Control	26	4	41	DM	9/21/2020	9	8.4	15.1	31	8.0	10.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
Sed Control	26	5	5	DM	9/21/2020	9	7.9	16.1	31	8.0	10.0	
Sed Control	26	6	18	DM	9/21/2020	9	7.8	15.8	31	7.9	8.0	
Sed Control	27	1	35	SH	9/22/2020	9	7.5	15.9	31	7.8	8.0	
Sed Control	27	2	6	SH	9/22/2020	9	7.8	15.5	31	7.9	8.0	
Sed Control	27	3	31	SH	9/22/2020	9	7.9	16.2	31	7.9	9.0	
Sed Control	27	4	41	SH	9/22/2020	9	7.6	14.5	31	7.8	10.0	
Sed Control	27	5	5	SH	9/22/2020	9	7.9	15.7	31	7.8	10.0	
Sed Control	27	6	18	SH	9/22/2020	9	7.7	15.5	31	7.9	10.0	
Sed Control	28	1	35	SH	9/23/2020	8	6.2	16.8	31	7.7	10.0	
Sed Control	28	2	6	SH	9/23/2020	8	7.9	16.1	31	7.9	8.0	
Sed Control	28	3	31	SH	9/23/2020	8	7.9	16.6	31	7.9	8.0	
Sed Control	28	4	41	SH	9/23/2020	8	7.6	15.1	31	7.9	8.0	
Sed Control	28	5	5	SH	9/23/2020	8	7.9	16.0	31	8.0	8.0	
Sed Control	28	6	18	SH	9/23/2020	8	7.7	15.8	31	7.9	10.0	
Sed Control	29	1	35	MS	9/24/2020	9	7.4	14.4	30	7.8	>10	
Sed Control	29	2	6	MS	9/24/2020	9	7.3	14.5	30	7.8	>10	
Sed Control	29	3	31	MS	9/24/2020	9	7.5	14.4	30	7.8	>10	
Sed Control	29	4	41	MS	9/24/2020	9	7.5	14.8	30	7.8	>10	
Sed Control	29	5	5	MS	9/24/2020	9	7.5	14.7	30	7.8	>10	
Sed Control	29	6	18	MS	9/24/2020	9	6.9	14.4	30	7.8	>10	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-1-A	0	1	37	MS	8/26/2020	8	7.8	16.7	30	7.9	5.0	
ENR-2-A	0	2	3	MS	8/26/2020	8	8.1	16.0	30	7.9	4.0	
ENR-3-A	0	3	27	MS	8/26/2020	8	7.9	16.8	30	7.9	5.0	
ENR-4-A	0	4	9	MS	8/26/2020	8	7.9	17.4	30	7.9	5.0	
ENR-5-A	0	5	33	MS	8/26/2020	8	7.9	17.0	30	7.9	6.0	
ENR-6-A	0	6	28	MS	8/26/2020	8	7.7	17.4	30	7.9	6.0	
ENR-1-A	1	1	37	NH	8/27/2020	8	6.9	16.0	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-2-A	1	2	3	NH	8/27/2020	8	6.9	15.6	30	7.7	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-3-A	1	3	27	NH	8/27/2020	8	6.7	16.2	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-4-A	1	4	9	NH	8/27/2020	8	7.0	16.2	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-5-A	1	5	33	NH	8/27/2020	8	6.6	16.7	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-6-A	1	6	28	NH	8/27/2020	8	6.8	16.4	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-1-A	2	1	37	NH	8/28/2020	8	7.2	16.5	30	7.8	9.0	
ENR-2-A	2	2	3	NH	8/28/2020	8	7.0	15.6	30	7.7	8.0	
ENR-3-A	2	3	27	NH	8/28/2020	8	6.7	16.1	30	7.8	10.0	
ENR-4-A	2	4	9	NH	8/28/2020	8	6.9	16.2	30	7.7	9.0	
ENR-5-A	2	5	33	NH	8/28/2020	8	6.8	16.6	30	7.7	10.0	
ENR-6-A	2	6	28	NH	8/28/2020	8	6.8	16.4	30	7.7	10.0	
ENR-1-A	3	1	37	NH	8/29/2020	9	6.5	16.0	30	7.7	9.0	
ENR-2-A	3	2	3	NH	8/29/2020	9	7.1	15.5	30	7.7	8.0	
ENR-3-A	3	3	27	NH	8/29/2020	9	6.8	16.2	30	7.7	10.0	
ENR-4-A	3	4	9	NH	8/29/2020	9	7.2	16.2	30	7.7	10.0	
ENR-5-A	3	5	33	NH	8/29/2020	9	6.8	16.8	30	7.7	9.0	
ENR-6-A	3	6	28	NH	8/29/2020	9	6.5	16.4	30	7.7	10.0	
ENR-1-A	4	1	37	NH	8/30/2020	9	7.0	16.2	30	7.7	8.0	
ENR-2-A	4	2	3	NH	8/30/2020	9	7.5	15.5	30	7.7	8.0	
ENR-3-A	4	3	27	NH	8/30/2020	9	6.8	16.3	30	7.7	9.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-4-A	4	4	9	NH	8/30/2020	9	7.1	16.2	30	7.7	9.0	
ENR-5-A	4	5	33	NH	8/30/2020	9	7.3	16.8	30	7.7	9.0	
ENR-6-A	4	6	28	NH	8/30/2020	9	6.8	16.6	30	7.7	9.0	
ENR-1-A	5	1	37	RE	8/31/2020	9	6.7	15.9	31	7.8	10.0	
ENR-2-A	5	2	3	RE	8/31/2020	9	6.6	15.5	31	7.7	9.0	
ENR-3-A	5	3	27	RE	8/31/2020	9	6.8	16.4	31	7.7	10.0	
ENR-4-A	5	4	9	RE	8/31/2020	9	7.4	16.3	31	7.8	10.0	
ENR-5-A	5	5	33	RE	8/31/2020	9	7.1	16.7	31	7.8	10.0	
ENR-6-A	5	6	28	RE	8/31/2020	9	6.1	16.6	31	7.7	10.0	
ENR-1-A	6	1	37	DM	9/1/2020	9	6.9	16.4	30	7.7	9.0	
ENR-2-A	6	2	3	DM	9/1/2020	9	6.8	15.9	31	7.7	8.0	
ENR-3-A	6	3	27	DM	9/1/2020	9	6.4	16.2	31	7.7	10.0	
ENR-4-A	6	4	9	DM	9/1/2020	9	6.4	16.6	31	7.8	10.0	
ENR-5-A	6	5	33	DM	9/1/2020	9	6.6	17.0	31	7.7	9.0	
ENR-6-A	6	6	28	DM	9/1/2020	9	6.6	16.8	31	7.8	10.0	
ENR-1-A	7	1	37	MS	9/2/2020	9	7.1	15.6	31	7.8	8.0	
ENR-2-A	7	2	3	MS	9/2/2020	9	7.2	15.6	31	7.7	8.0	
ENR-3-A	7	3	27	MS	9/2/2020	9	6.3	15.5	31	7.7	10.0	
ENR-4-A	7	4	9	MS	9/2/2020	9	6.9	15.8	31	7.8	10.0	
ENR-5-A	7	5	33	MS	9/2/2020	9	6.5	16.2	31	7.7	9.0	
ENR-6-A	7	6	28	MS	9/2/2020	9	6.4	16.1	31	7.7	10.0	
ENR-1-A	8	1	37	SH	9/3/2020	8	6.1	15.7	31	7.7	7.0	
ENR-2-A	8	2	3	SH	9/3/2020	8	7.2	15.5	31	7.7	7.0	
ENR-3-A	8	3	27	SH	9/3/2020	8	6.5	15.8	31	7.7	9.0	
ENR-4-A	8	4	9	SH	9/3/2020	8	7.1	16.2	31	7.8	9.0	
ENR-5-A	8	5	33	SH	9/3/2020	8	7.0	16.3	31	7.8	9.0	
ENR-6-A	8	6	28	SH	9/3/2020	8	6.3	16.3	31	7.7	9.0	
ENR-1-A	9	1	37	MK	9/4/2020	8	6.7	15.7	31	7.7	8.0	
ENR-2-A	9	2	3	mk	9/4/2020	8	6.9	15.7	31	7.7	8.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-3-A	9	3	27	MK	9/4/2020	8	6.5	16.0	31	7.7	9.0	
ENR-4-A	9	4	9	MK	9/4/2020	8	6.8	16.1	30	7.7	8.0	
ENR-5-A	9	5	33	MK	9/4/2020	8	7.5	16.6	31	7.7	10.0	
ENR-6-A	9	6	28	MK	9/4/2020	8	6.7	16.4	31	7.7	10.0	
ENR-1-A	10	1	37	NH	9/5/2020	9	7.0	16.2	30	7.8	7.0	
ENR-2-A	10	2	3	NH	9/5/2020	9	6.9	15.5	31	7.7	9.0	
ENR-3-A	10	3	27	NH	9/5/2020	9	7.0	16.0	31	7.8	10.0	
ENR-4-A	10	4	9	NH	9/5/2020	9	6.5	15.9	31	7.7	10.0	
ENR-5-A	10	5	33	NH	9/5/2020	9	6.7	16.5	31	7.8	8.0	
ENR-6-A	10	6	28	NH	9/5/2020	9	6.9	16.5	31	7.7	9.0	
ENR-1-A	11	1	37	NH	9/6/2020	8	6.4	15.7	30	7.7	7.0	
ENR-2-A	11	2	3	NH	9/6/2020	8	7.0	15.7	30	7.7	9.0	
ENR-3-A	11	3	27	NH	9/6/2020	8	7.8	16.2	30	7.8	9.0	
ENR-4-A	11	4	9	NH	9/6/2020	8	7.4	16.3	30	7.8	9.0	
ENR-5-A	11	5	33	NH	9/6/2020	8	7.0	16.7	30	7.8	8.0	
ENR-6-A	11	6	28	NH	9/6/2020	8	7.1	16.5	30	7.7	9.0	
ENR-1-A	12	1	37	SH	9/7/2020	9	6.3	16.0	30	7.7	7.0	
ENR-2-A	12	2	3	SH	9/7/2020	9	6.7	16.1	30	7.7	9.0	
ENR-3-A	12	3	27	SH	9/7/2020	9	6.9	16.4	31	7.8	8.0	
ENR-4-A	12	4	9	SH	9/7/2020	9	6.7	16.4	31	7.8	8.0	
ENR-5-A	12	5	33	SH	9/7/2020	9	5.8	16.8	31	7.8	8.0	
ENR-6-A	12	6	28	SH	9/7/2020	9	7.0	16.8	31	7.8	8.0	
ENR-1-A	13	1	37	DM	9/8/2020	9	6.7	15.8	31	7.7	8.0	
ENR-2-A	13	2	3	DM	9/8/2020	9	6.8	15.9	31	7.7	9.0	
ENR-3-A	13	3	27	DM	9/8/2020	9	6.8	16.2	31	7.8	8.0	
ENR-4-A	13	4	9	DM	9/8/2020	9	6.6	16.2	31	7.7	9.0	
ENR-5-A	13	5	33	DM	9/8/2020	9	6.9	16.7	31	7.8	8.0	
ENR-6-A	13	6	28	DM	9/8/2020	9	6.8	16.6	31	7.8	8.0	
ENR-1-A	14	1	37	NH	9/9/2020	8	7.4	16.3	30	7.8	6.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-2-A	14	2	3	NH	9/9/2020	8	7.6	15.6	31	7.8	7.0	
ENR-3-A	14	3	27	NH	9/9/2020	8	6.7	16.3	31	7.7	6.0	
ENR-4-A	14	4	9	NH	9/9/2020	8	7.3	16.3	31	7.8	6.0	
ENR-5-A	14	5	33	NH	9/9/2020	8	7.5	16.8	31	7.8	5.0	
ENR-6-A	14	6	28	NH	9/9/2020	8	7.2	16.6	31	7.8	5.0	
ENR-1-A	15	1	37	MS	9/10/2020	8	6.3	15.8	31	7.8	8.0	
ENR-2-A	15	2	3	MS	9/10/2020	8	7.0	15.8	31	7.7	8.0	
ENR-3-A	15	3	27	MS	9/10/2020	8	5.8	16.1	31	7.6	8.0	
ENR-4-A	15	4	9	MS	9/10/2020	8	6.6	16.3	31	7.7	8.0	
ENR-5-A	15	5	33	MS	9/10/2020	8	7.1	16.8	31	7.7	8.0	
ENR-6-A	15	6	28	MS	9/10/2020	8	7.2	16.8	31	7.8	8.0	
ENR-1-A	16	1	37	SH	9/11/2020	8	7.3	16.0	30	7.8	9.0	
ENR-2-A	16	2	3	SH	9/11/2020	9	7.2	15.8	30	7.9	8.0	
ENR-3-A	16	3	27	SH	9/11/2020	8	6.3	16.2	31	7.7	10.0	
ENR-4-A	16	4	9	SH	9/11/2020	8	7.2	16.2	31	7.8	8.0	
ENR-5-A	16	5	33	SH	9/11/2020	8	6.7	16.7	31	7.7	9.0	
ENR-6-A	16	6	28	SH	9/11/2020	8	7.2	16.7	31	7.8	8.0	
ENR-1-A	17	1	37	JB	9/12/2020	9	7.6	16.2	30	7.9	8.0	
ENR-2-A	17	2	3	JB	9/12/2020	9	7.5	16.2	30	8.0	8.0	
ENR-3-A	17	3	27	JB	9/12/2020	9	7.2	16.5	30	7.9	10.0	
ENR-4-A	17	4	9	JB	9/12/2020	9	7.1	16.6	30	7.8	8.0	
ENR-5-A	17	5	33	JB	9/12/2020	9	7.6	17.2	30	7.9	8.0	
ENR-6-A	17	6	28	JB	9/12/2020	9	7.4	16.8	30	7.9	8.0	
ENR-1-A	18	1	37	DM	9/13/2020	9	7.2	16.5	30	7.8	8.0	
ENR-2-A	18	2	3	DM	9/13/2020	9	7.1	16.4	30	7.8	8.0	
ENR-3-A	18	3	27	DM	9/13/2020	9	6.5	16.5	30	7.7	10.0	
ENR-4-A	18	4	9	DM	9/13/2020	9	7.3	16.8	30	7.8	8.0	
ENR-5-A	18	5	33	DM	9/13/2020	9	6.6	17.2	30	7.7	9.0	
ENR-6-A	18	6	28	DM	9/13/2020	9	7.2	17.3	30	7.8	8.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-1-A	19	1	37	DM	9/14/2020	9	7.4	16.3	30	7.8	8.0	
ENR-2-A	19	2	3	DM	9/14/2020	9	6.8	16.0	30	7.8	9.0	
ENR-3-A	19	3	27	DM	9/14/2020	9	6.2	16.5	30	7.7	10.0	
ENR-4-A	19	4	9	DM	9/14/2020	9	7.3	16.7	30	7.8	9.0	
ENR-5-A	19	5	33	DM	9/14/2020	9	7.3	17.4	30	7.9	8.0	
ENR-6-A	19	6	28	DM	9/14/2020	9	6.8	17.2	30	7.8	9.0	
ENR-1-A	20	1	37	MS	9/15/2020	9	7.7	15.9	30	8.0	10.0	
ENR-2-A	20	2	3	MS	9/15/2020	9	6.6	15.6	30	7.7	8.0	
ENR-3-A	20	3	27	MS	9/15/2020	9	7.2	16.0	30	7.9	10.0	
ENR-4-A	20	4	9	MS	9/15/2020	9	6.6	16.3	30	7.7	8.0	
ENR-5-A	20	5	33	MS	9/15/2020	9	7.1	17.1	30	7.8	9.0	
ENR-6-A	20	6	28	MS	9/15/2020	9	7.3	16.7	30	7.8	8.0	
ENR-1-A	21	1	37	SH	9/16/2020	9	7.3	15.4	30	7.8	9.0	
ENR-2-A	21	2	3	SH	9/16/2020	9	7.2	15.6	30	7.8	10.0	
ENR-3-A	21	3	27	SH	9/16/2020	9	7.0	15.4	30	7.9	8.0	
ENR-4-A	21	4	9	SH	9/16/2020	9	7.2	16.3	30	7.8	9.0	
ENR-5-A	21	5	33	SH	9/16/2020	9	6.9	16.4	30	7.7	9.0	
ENR-6-A	21	6	28	SH	9/16/2020	9	6.9	16.4	30	7.7	8.0	
ENR-1-A	22	1	37	NH	9/17/2020	9	6.5	15.7	30	7.7	8.0	
ENR-2-A	22	2	3	NH	9/17/2020	9	7.2	15.5	30	7.8	8.0	
ENR-3-A	22	3	27	NH	9/17/2020	9	7.4	15.6	30	7.8	8.0	
ENR-4-A	22	4	9	NH	9/17/2020	9	6.4	15.8	31	7.7	8.0	
ENR-5-A	22	5	33	NH	9/17/2020	9	7.0	16.3	30	7.7	9.0	
ENR-6-A	22	6	28	NH	9/17/2020	9	7.4	16.5	31	7.7	10.0	
ENR-1-A	23	1	37	MS	9/18/2020	8	7.1	15.1	31	7.7	10.0	
ENR-2-A	23	2	3	MS	9/18/2020	8	6.6	15.1	31	7.6	8.0	
ENR-3-A	23	3	27	MS	9/18/2020	8	7.4	15.6	31	7.8	9.0	
ENR-4-A	23	4	9	MS	9/18/2020	8	7.0	15.8	31	7.7	8.0	
ENR-5-A	23	5	33	MS	9/18/2020	8	7.1	16.5	31	7.7	8.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-6-A	23	6	28	MS	9/18/2020	8	7.3	16.2	31	7.7	10.0	
ENR-1-A	24	1	37	SH	9/19/2020	9	7.4	15.2	30	7.7	10.0	
ENR-2-A	24	2	3	SH	9/19/2020	9	7.4	15.2	30	7.9	9.0	
ENR-3-A	24	3	27	SH	9/19/2020	9	7.6	15.5	31	7.3	10.0	
ENR-4-A	24	4	9	SH	9/19/2020	9	7.3	16.0	31	7.5	10.0	
ENR-5-A	24	5	33	SH	9/19/2020	9	7.0	16.1	31	7.7	8.0	
ENR-6-A	24	6	28	SH	9/19/2020	9	7.5	16.0	31	7.6	8.0	
ENR-1-A	25	1	37	NH	9/20/2020	8	7.8	15.5	31	7.9	8.0	
ENR-2-A	25	2	3	NH	9/20/2020	8	7.2	15.2	31	7.8	9.0	
ENR-3-A	25	3	27	NH	9/20/2020	8	7.4	15.3	31	7.8	9.0	
ENR-4-A	25	4	9	NH	9/20/2020	8	6.9	15.8	31	7.7	8.0	
ENR-5-A	25	5	33	NH	9/20/2020	8	7.2	16.5	31	7.8	9.0	
ENR-6-A	25	6	28	NH	9/20/2020	8	6.8	16.3	31	7.7	10.0	
ENR-1-A	26	1	37	DM	9/21/2020	9	8.2	15.3	31	7.9	10.0	
ENR-2-A	26	2	3	DM	9/21/2020	9	7.4	15.2	31	7.8	10.0	
ENR-3-A	26	3	27	DM	9/21/2020	9	7.6	15.6	31	7.9	10.0	
ENR-4-A	26	4	9	DM	9/21/2020	9	7.2	15.9	31	7.8	10.0	
ENR-5-A	26	5	33	DM	9/21/2020	9	6.4	16.3	31	7.7	10.0	
ENR-6-A	26	6	28	DM	9/21/2020	9	7.4	16.5	31	7.8	9.0	
ENR-1-A	27	1	37	SH	9/22/2020	9	7.8	14.8	31	7.8	8.0	
ENR-2-A	27	2	3	SH	9/22/2020	9	7.3	15.1	31	7.8	9.0	
ENR-3-A	27	3	27	SH	9/22/2020	9	7.2	15.0	31	7.8	10.0	
ENR-4-A	27	4	9	SH	9/22/2020	9	7.4	15.8	31	7.8	10.0	
ENR-5-A	27	5	33	SH	9/22/2020	9	7.4	16.5	31	7.4	8.0	
ENR-6-A	27	6	28	SH	9/22/2020	9	7.3	15.8	31	7.8	10.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-1-A	28	1	37	SH	9/23/2020	8	7.3	15.3	31	7.8	9.0	
ENR-2-A	28	2	3	SH	9/23/2020	8	7.5	15.5	31	7.8	9.0	
ENR-3-A	28	3	27	SH	9/23/2020	8	7.5	15.7	31	7.8	10.0	
ENR-4-A	28	4	9	SH	9/23/2020	8	7.5	16.1	31	7.9	10.0	
ENR-5-A	28	5	33	SH	9/23/2020	8	7.4	16.9	31	7.9	10.0	
ENR-6-A	28	6	28	SH	9/23/2020	8	7.5	16.4	31	7.8	10.0	
ENR-1-A	29	1	37	MS	9/24/2020	9	7.4	14.4	30	7.8	>10	
ENR-2-A	29	2	3	MS	9/24/2020	9	7.5	14.7	30	7.8	>10	
ENR-3-A	29	3	27	MS	9/24/2020	9	7.5	14.5	30	7.8	>10	
ENR-4-A	29	4	9	MS	9/24/2020	9	7.5	15.0	30	7.8	>10	
ENR-5-A	29	5	33	MS	9/24/2020	9	7.0	14.3	30	7.8	>10	
ENR-6-A	29	6	28	MS	9/24/2020	9	7.3	14.4	30	7.8	>10	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-1-B	0	1	30	MS	8/26/2020	8	8.0	16.1	30	7.9	4.0	
ENR-2-B	0	2	34	MS	8/26/2020	8	7.9	17.4	30	7.9	5.0	
ENR-3-B	0	3	38	MS	8/26/2020	8	7.8	16.9	30	7.8	4.0	
ENR-4-B	0	4	13	MS	8/26/2020	8	8.2	16.0	30	8.0	4.0	
ENR-5-B	0	5	26	MS	8/26/2020	8	7.5	17.4	30	8.1	5.0	
ENR-6-B	0	6	43	MS	8/26/2020	8	8.0	16.5	30	7.9	6.0	
ENR-1-B	1	1	30	NH	8/27/2020	8	6.9	16.2	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-2-B	1	2	34	NH	8/27/2020	8	6.8	16.6	30	7.7	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-3-B	1	3	38	NH	8/27/2020	8	6.0	16.1	30	7.7	8.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-4-B	1	4	13	NH	8/27/2020	8	7.2	16.6	30	7.7	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-5-B	1	5	26	NH	8/27/2020	8	6.9	16.5	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-6-B	1	6	43	NH	8/27/2020	8	7.2	15.9	30	7.7	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-1-B	2	1	30	NH	8/28/2020	8	7.1	16.0	30	7.8	9.0	
ENR-2-B	2	2	34	NH	8/28/2020	8	6.6	16.7	30	7.7	8.0	
ENR-3-B	2	3	38	NH	8/28/2020	8	6.2	16.0	30	7.7	8.0	
ENR-4-B	2	4	13	NH	8/28/2020	8	7.2	16.5	30	7.7	9.0	
ENR-5-B	2	5	26	NH	8/28/2020	8	6.4	16.4	30	7.7	9.0	
ENR-6-B	2	6	43	NH	8/28/2020	8	7.2	15.5	30	7.7	9.0	
ENR-1-B	3	1	30	NH	8/29/2020	9	7.2	16.3	30	7.7	10.0	
ENR-2-B	3	2	34	NH	8/29/2020	9	6.6	16.7	30	7.5	9.0	
ENR-3-B	3	3	38	NH	8/29/2020	9	6.7	16.2	30	7.7	8.0	
ENR-4-B	3	4	13	NH	8/29/2020	9	7.2	16.3	30	7.7	10.0	
ENR-5-B	3	5	26	NH	8/29/2020	9	6.3	16.5	30	7.7	10.0	
ENR-6-B	3	6	43	NH	8/29/2020	9	7.3	15.8	30	7.8	7.0	
ENR-1-B	4	1	30	NH	8/30/2020	9	7.4	16.1	30	7.8	9.0	
ENR-2-B	4	2	34	NH	8/30/2020	9	7.3	16.8	30	7.7	8.0	
ENR-3-B	4	3	38	NH	8/30/2020	9	5.9	16.2	30	7.6	8.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-4-B	4	4	13	NH	8/30/2020	9	7.6	16.3	30	7.8	8.0	
ENR-5-B	4	5	26	NH	8/30/2020	9	6.1	16.6	30	7.7	8.0	
ENR-6-B	4	6	43	NH	8/30/2020	9	7.1	15.4	30	7.8	9.0	
ENR-1-B	5	1	30	RE	8/31/2020	9	7.0	16.4	31	7.7	10.0	
ENR-2-B	5	2	34	RE	8/31/2020	9	7.4	16.8	31	7.8	9.0	
ENR-3-B	5	3	38	RE	8/31/2020	9	6.5	16.1	31	7.7	9.0	
ENR-4-B	5	4	13	RE	8/31/2020	9	7.0	16.3	31	7.8	10.0	
ENR-5-B	5	5	26	RE	8/31/2020	9	6.8	16.6	31	7.7	10.0	
ENR-6-B	5	6	43	RE	8/31/2020	9	7.2	15.5	31	7.8	10.0	
ENR-1-B	6	1	30	DM	9/1/2020	9	6.9	16.1	31	7.8	10.0	
ENR-2-B	6	2	34	DM	9/1/2020	9	6.4	17.0	31	7.7	9.0	
ENR-3-B	6	3	38	DM	9/1/2020	9	6.5	16.4	31	7.7	8.0	
ENR-4-B	6	4	13	DM	9/1/2020	9	7.0	16.3	31	7.8	10.0	
ENR-5-B	6	5	26	DM	9/1/2020	9	6.9	16.6	31	7.7	10.0	
ENR-6-B	6	6	43	DM	9/1/2020	9	6.8	15.9	31	7.8	9.0	
ENR-1-B	7	1	30	MS	9/2/2020	9	7.3	15.5	31	7.8	9.0	
ENR-2-B	7	2	34	MS	9/2/2020	9	7.3	16.4	31	7.7	9.0	
ENR-3-B	7	3	38	MS	9/2/2020	9	6.6	15.8	31	7.7	8.0	
ENR-4-B	7	4	13	MS	9/2/2020	9	7.5	16.2	31	7.8	9.0	
ENR-5-B	7	5	26	MS	9/2/2020	9	6.2	16.1	31	7.7	9.0	
ENR-6-B	7	6	43	MS	9/2/2020	9	7.0	14.8	31	7.8	8.0	
ENR-1-B	8	1	30	SH	9/3/2020	8	6.9	15.6	31	7.8	8.0	
ENR-2-B	8	2	34	SH	9/3/2020	8	7.4	16.5	31	7.8	9.0	
ENR-3-B	8	3	38	SH	9/3/2020	8	5.9	15.9	31	7.6	7.0	
ENR-4-B	8	4	13	SH	9/3/2020	8	7.2	16.4	31	7.8	8.0	
ENR-5-B	8	5	26	SH	9/3/2020	8	5.9	16.2	31	7.7	8.0	
ENR-6-B	8	6	43	SH	9/3/2020	8	7.0	15.1	31	7.8	9.0	
ENR-1-B	9	1	30	MK	9/4/2020	8	7.1	15.9	31	7.7	10.0	
ENR-2-B	9	2	34	MK	9/4/2020	8	6.5	16.6	31	7.6	9.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-3-B	9	3	38	MK	9/4/2020	8	6.4	16.1	31	7.6	8.0	
ENR-4-B	9	4	13	MK	9/4/2020	8	7.3	16.3	31	7.8	10.0	
ENR-5-B	9	5	26	MK	9/4/2020	8	6.3	16.5	31	7.6	8.0	
ENR-6-B	9	6	43	MK	9/4/2020	8	7.2	15.2	31	7.7	10.0	
ENR-1-B	10	1	30	NH	9/5/2020	9	6.9	15.7	31	7.7	9.0	
ENR-2-B	10	2	34	NH	9/5/2020	9	6.6	16.4	31	7.7	8.0	
ENR-3-B	10	3	38	NH	9/5/2020	9	6.5	16.0	31	7.7	8.0	
ENR-4-B	10	4	13	NH	9/5/2020	9	7.5	16.0	31	7.8	8.0	
ENR-5-B	10	5	26	NH	9/5/2020	9	6.6	16.4	31	7.7	7.0	
ENR-6-B	10	6	43	NH	9/5/2020	9	7.3	15.3	31	7.8	7.0	
ENR-1-B	11	1	30	NH	9/6/2020	8	7.7	16.1	30	7.8	8.0	
ENR-2-B	11	2	34	NH	9/6/2020	8	6.6	16.6	31	7.7	7.0	
ENR-3-B	11	3	38	NH	9/6/2020	8	6.0	16.1	30	7.6	8.0	
ENR-4-B	11	4	13	NH	9/6/2020	8	7.4	16.3	30	7.8	7.0	
ENR-5-B	11	5	26	NH	9/6/2020	8	7.1	16.6	30	7.8	8.0	
ENR-6-B	11	6	43	NH	9/6/2020	8	7.1	15.3	30	7.7	8.0	
ENR-1-B	12	1	30	SH	9/7/2020	9	7.3	16.3	30	7.8	7.0	
ENR-2-B	12	2	34	SH	9/7/2020	9	7.2	17.2	31	7.2	7.0	Increased flow to water tub - SH 9/7/2020
ENR-3-B	12	3	38	SH	9/7/2020	9	7.0	16.4	31	7.8	7.0	
ENR-4-B	12	4	13	SH	9/7/2020	9	6.9	16.7	30	7.8	7.0	
ENR-5-B	12	5	26	SH	9/7/2020	9	6.7	16.9	31	7.8	7.0	
ENR-6-B	12	6	43	SH	9/7/2020	9	7.4	15.7	31	7.9	8.0	
ENR-1-B	13	1	30	DM	9/8/2020	9	7.1	15.8	31	7.8	8.0	
ENR-2-B	13	2	34	DM	9/8/2020	9	6.2	16.6	31	7.6	8.0	
ENR-3-B	13	3	38	DM	9/8/2020	9	6.8	16.3	31	7.8	8.0	
ENR-4-B	13	4	13	DM	9/8/2020	9	7.1	16.4	31	7.8	8.0	
ENR-5-B	13	5	26	DM	9/8/2020	9	5.5	16.6	31	7.6	9.0	
ENR-6-B	13	6	43	DM	9/8/2020	9	7.2	15.4	31	7.8	8.0	
ENR-1-B	14	1	30	NH	9/9/2020	8	7.4	15.8	31	7.8	5.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-2-B	14	2	34	NH	9/9/2020	8	7.6	17.0	31	7.8	4.0	
ENR-3-B	14	3	38	NH	9/9/2020	8	7.4	16.3	31	7.8	6.0	
ENR-4-B	14	4	13	NH	9/9/2020	8	7.3	16.1	31	7.8	6.0	
ENR-5-B	14	5	26	NH	9/9/2020	8	6.1	16.5	31	7.6	6.0	
ENR-6-B	14	6	43	NH	9/9/2020	8	7.3	15.3	31	7.8	6.0	
ENR-1-B	15	1	30	MS	9/10/2020	8	7.7	15.8	31	7.9	8.0	
ENR-2-B	15	2	34	MS	9/10/2020	8	7.2	16.7	31	7.7	8.0	
ENR-3-B	15	3	38	MS	9/10/2020	8	6.6	16.1	31	7.7	8.0	
ENR-4-B	15	4	13	MS	9/10/2020	8	7.1	16.2	31	7.8	8.0	
ENR-5-B	15	5	26	MS	9/10/2020	8	5.8	16.6	31	7.7	8.0	
ENR-6-B	15	6	43	MS	9/10/2020	8	7.4	15.5	31	7.8	8.0	
ENR-1-B	16	1	30	SH	9/11/2020	8	7.6	15.9	31	7.9	9.0	
ENR-2-B	16	2	34	SH	9/11/2020	8	6.7	16.6	31	7.7	10.0	
ENR-3-B	16	3	38	SH	9/11/2020	8	7.2	15.9	31	7.8	9.0	
ENR-4-B	16	4	13	SH	9/11/2020	8	7.3	16.2	31	7.8	8.0	
ENR-5-B	16	5	26	SH	9/11/2020	8	6.5	16.4	31	7.7	9.0	
ENR-6-B	16	6	43	SH	9/11/2020	8	7.2	15.5	31	7.8	8.0	
ENR-1-B	17	1	30	JB	9/12/2020	9	7.4	16.2	30	7.9	8.0	
ENR-2-B	17	2	34	JB	9/12/2020	9	7.6	17.2	30	7.9	8.0	
ENR-3-B	17	3	38	JB	9/12/2020	9	7.5	16.5	30	7.9	8.0	
ENR-4-B	17	4	13	JB	9/12/2020	9	7.1	16.4	30	7.8	8.0	
ENR-5-B	17	5	26	JB	9/12/2020	9	6.9	16.8	30	7.8	8.0	
ENR-6-B	17	6	43	JB	9/12/2020	9	7.1	15.9	30	7.8	8.0	
ENR-1-B	18	1	30	DM	9/13/2020	9	7.5	16.5	30	8.0	10.0	
ENR-2-B	18	2	34	DM	9/13/2020	9	6.9	17.2	30	7.8	8.0	
ENR-3-B	18	3	38	DM	9/13/2020	9	7.1	16.7	30	7.8	9.0	
ENR-4-B	18	4	13	DM	9/13/2020	9	7.3	16.6	30	7.8	9.0	
ENR-5-B	18	5	26	DM	9/13/2020	9	6.8	17.2	30	7.5	9.0	
ENR-6-B	18	6	43	DM	9/13/2020	9	6.5	15.9	30	7.8	8.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-1-B	19	1	30	DM	9/14/2020	9	7.7	16.3	30	8.0	8.0	
ENR-2-B	19	2	34	DM	9/14/2020	9	7.5	17.2	30	7.9	8.0	
ENR-3-B	19	3	38	DM	9/14/2020	9	7.3	16.6	30	7.8	8.0	
ENR-4-B	19	4	13	DM	9/14/2020	9	7.3	16.6	30	7.8	9.0	
ENR-5-B	19	5	26	DM	9/14/2020	9	7.0	17.0	30	7.8	8.0	
ENR-6-B	19	6	43	DM	9/14/2020	9	7.0	16.0	30	7.8	9.0	
ENR-1-B	20	1	30	MS	9/15/2020	9	7.7	15.7	30	7.9	10.0	
ENR-2-B	20	2	34	MS	9/15/2020	9	7.3	17.1	30	7.8	10.0	
ENR-3-B	20	3	38	MS	9/15/2020	9	6.9	16.2	30	7.8	10.0	
ENR-4-B	20	4	13	MS	9/15/2020	9	7.4	16.0	30	7.8	8.0	
ENR-5-B	20	5	26	MS	9/15/2020	9	7.3	16.7	30	7.8	10.0	
ENR-6-B	20	6	43	MS	9/15/2020	9	7.2	15.2	30	7.8	8.0	
ENR-1-B	21	1	30	SH	9/16/2020	9	7.3	15.4	30	7.8	9.0	
ENR-2-B	21	2	34	SH	9/16/2020	9	6.5	16.4	30	7.6	9.0	
ENR-3-B	21	3	38	SH	9/16/2020	9	6.6	15.6	30	7.7	10.0	
ENR-4-B	21	4	13	SH	9/16/2020	9	7.1	15.6	30	7.7	8.0	
ENR-5-B	21	5	26	SH	9/16/2020	9	7.4	16.2	30	7.8	8.0	
ENR-6-B	21	6	43	SH	9/16/2020	9	7.1	14.8	30	7.6	9.0	
ENR-1-B	22	1	30	NH	9/17/2020	9	7.9	15.4	30	7.9	9.0	
ENR-2-B	22	2	34	NH	9/17/2020	9	7.5	16.7	30	7.8	9.0	
ENR-3-B	22	3	38	NH	9/17/2020	9	6.6	15.7	30	7.7	8.0	
ENR-4-B	22	4	13	NH	9/17/2020	9	7.6	15.9	30	7.9	9.0	
ENR-5-B	22	5	26	NH	9/17/2020	9	7.4	16.5	30	7.8	10.0	
ENR-6-B	22	6	43	NH	9/17/2020	9	7.0	14.9	30	7.7	8.0	
ENR-1-B	23	1	30	MS	9/18/2020	8	7.8	15.3	31	7.9	8.0	
ENR-2-B	23	2	34	MS	9/18/2020	8	7.0	16.4	31	7.7	9.0	
ENR-3-B	23	3	38	MS	9/18/2020	8	6.5	15.5	31	7.7	10.0	
ENR-4-B	23	4	13	MS	9/18/2020	8	7.7	15.7	31	7.8	8.0	
ENR-5-B	23	5	26	MS	9/18/2020	8	7.0	16.2	31	7.8	8.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-6-B	23	6	43	MS	9/18/2020	8	7.3	14.5	31	7.7	8.0	
ENR-1-B	24	1	30	SH	9/19/2020	9	7.1	15.1	31	7.5	8.0	
ENR-2-B	24	2	34	SH	9/19/2020	9	7.5	16.5	31	7.6	8.0	
ENR-3-B	24	3	38	SH	9/19/2020	9	7.8	15.1	31	7.8	9.0	
ENR-4-B	24	4	13	SH	9/19/2020	9	7.7	15.6	30	7.7	9.0	
ENR-5-B	24	5	26	SH	9/19/2020	9	6.8	16.1	31	7.0	8.0	
ENR-6-B	24	6	43	SH	9/19/2020	9	6.8	14.5	30	7.7	9.0	
ENR-1-B	25	1	30	NH	9/20/2020	8	7.4	15.0	31	7.8	8.0	
ENR-2-B	25	2	34	NH	9/20/2020	8	7.3	16.6	31	7.7	8.0	
ENR-3-B	25	3	38	NH	9/20/2020	8	8.0	15.5	31	7.9	8.0	
ENR-4-B	25	4	13	NH	9/20/2020	8	7.8	15.8	31	7.9	10.0	
ENR-5-B	25	5	26	NH	9/20/2020	8	6.1	16.2	31	7.7	9.0	Airline was found out of the sample. Airline was promptly put back in the sample. NH 9/20/2020
ENR-6-B	25	6	43	NH	9/20/2020	8	7.6	14.8	31	7.8	10.0	
ENR-1-B	26	1	30	DM	9/21/2020	9	7.0	15.0	31	7.8	10.0	
ENR-2-B	26	2	34	DM	9/21/2020	9	7.6	16.7	31	7.8	8.0	
ENR-3-B	26	3	38	DM	9/21/2020	9	8.0	15.9	31	7.9	9.0	
ENR-4-B	26	4	13	DM	9/21/2020	9	7.5	15.6	31	7.8	10.0	
ENR-5-B	26	5	26	DM	9/21/2020	9	7.5	16.4	31	7.8	10.0	
ENR-6-B	26	6	43	DM	9/21/2020	9	6.7	14.4	31	7.6	10.0	
ENR-1-B	27	1	30	SH	9/22/2020	9	8.0	15.0	31	7.9	10.0	
ENR-2-B	27	2	34	SH	9/22/2020	9	7.2	16.2	31	7.7	8.0	
ENR-3-B	27	3	38	SH	9/22/2020	9	8.0	15.4	31	7.9	10.0	
ENR-4-B	27	4	13	SH	9/22/2020	9	7.6	15.4	31	7.9	9.0	
ENR-5-B	27	5	26	SH	9/22/2020	9	7.4	15.6	31	7.8	9.0	
ENR-6-B	27	6	43	SH	9/22/2020	9	7.3	14.3	31	7.6	10.0	
ENR-1-B	28	1	30	SH	9/23/2020	8	8.0	15.3	31	7.9	9.0	
ENR-2-B	28	2	34	SH	9/23/2020	8	7.5	16.7	31	7.8	8.0	
ENR-3-B	28	3	38	SH	9/23/2020	8	8.0	15.6	31	8.0	10.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-4-B	28	4	13	SH	9/23/2020	8	7.1	15.7	31	7.8	8.0	
ENR-5-B	28	5	26	SH	9/23/2020	8	7.9	16.6	31	7.9	10.0	
ENR-6-B	28	6	43	SH	9/23/2020	8	6.9	15.0	31	7.8	9.0	
ENR-1-B	29	1	30	MS	9/24/2020	9	7.6	14.4	30	7.8	>10	
ENR-2-B	29	2	34	MS	9/24/2020	9	7.5	14.6	30	7.8	>10	
ENR-3-B	29	3	38	MS	9/24/2020	9	6.9	14.6	30	7.8	>10	
ENR-4-B	29	4	13	MS	9/24/2020	9	7.3	14.6	30	7.8	>10	
ENR-5-B	29	5	26	MS	9/24/2020	9	7.6	14.5	30	7.8	>10	
ENR-6-B	29	6	43	MS	9/24/2020	9	7.1	14.5	30	7.8	>10	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-1-C	0	1	1	MS	8/26/2020	8	7.9	16.6	30	7.8	4.0	
ENR-2-C	0	2	7	MS	8/26/2020	8	8.0	16.6	30	7.9	5.0	
ENR-3-C	0	3	2	MS	8/26/2020	8	8.0	16.3	30	7.9	4.0	
ENR-4-C	0	4	23	MS	8/26/2020	8	8.1	16.0	30	8.0	5.0	
ENR-5-C	0	5	42	MS	8/26/2020	8	8.0	16.5	30	7.9	5.0	
ENR-6-C	0	6	29	MS	8/26/2020	8	8.0	16.6	30	8.0	5.0	
ENR-1-C	1	1	1	NH	8/27/2020	8	6.7	15.5	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-2-C	1	2	7	NH	8/27/2020	8	7.0	15.9	30	7.7	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-3-C	1	3	2	NH	8/27/2020	8	7.5	15.8	30	7.8	8.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-4-C	1	4	23	NH	8/27/2020	8	7.2	16.1	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-5-C	1	5	42	NH	8/27/2020	8	7.3	15.5	30	7.8	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-6-C	1	6	29	NH	8/27/2020	8	6.8	16.4	30	7.7	7.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR-1-C	2	1	1	NH	8/28/2020	8	6.5	15.6	30	7.5	9.0	
ENR-2-C	2	2	7	NH	8/28/2020	8	7.0	16.0	30	7.7	9.0	
ENR-3-C	2	3	2	NH	8/28/2020	8	7.6	15.8	30	7.8	7.0	
ENR-4-C	2	4	23	NH	8/28/2020	8	7.7	15.8	30	7.9	10.0	
ENR-5-C	2	5	42	NH	8/28/2020	8	7.0	16.0	29	7.8	10.0	
ENR-6-C	2	6	29	NH	8/28/2020	8	6.6	16.3	30	7.7	8.0	
ENR-1-C	3	1	1	NH	8/29/2020	9	6.6	16.0	30	7.4	10.0	
ENR-2-C	3	2	7	NH	8/29/2020	9	7.2	16.0	30	7.8	9.0	
ENR-3-C	3	3	2	NH	8/29/2020	9	7.4	15.7	30	7.7	7.0	
ENR-4-C	3	4	23	NH	8/29/2020	9	7.6	16.5	30	7.8	10.0	
ENR-5-C	3	5	42	NH	8/29/2020	9	7.2	15.4	30	7.8	10.0	
ENR-6-C	3	6	29	NH	8/29/2020	9	6.9	16.6	30	7.7	8.0	
ENR-1-C	4	1	1	NH	8/30/2020	9	6.7	15.6	30	7.5	9.0	
ENR-2-C	4	2	7	NH	8/30/2020	9	7.0	16.0	30	7.7	8.0	
ENR-3-C	4	3	2	NH	8/30/2020	9	6.9	15.6	30	7.7	8.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-4-C	4	4	23	NH	8/30/2020	9	6.8	15.9	30	7.7	9.0	
ENR-5-C	4	5	42	NH	8/30/2020	9	7.3	15.5	30	7.8	9.0	
ENR-6-C	4	6	29	NH	8/30/2020	9	6.9	16.4	30	7.7	8.0	
ENR-1-C	5	1	1	RE	8/31/2020	9	7.0	15.7	31	7.6	10.0	
ENR-2-C	5	2	7	RE	8/31/2020	9	7.6	16.2	31	7.8	10.0	
ENR-3-C	5	3	2	RE	8/31/2020	9	7.4	15.8	31	7.7	8.0	
ENR-4-C	5	4	23	RE	8/31/2020	9	6.6	16.2	31	7.7	10.0	
ENR-5-C	5	5	42	RE	8/31/2020	9	7.7	15.4	31	7.7	10.0	
ENR-6-C	5	6	29	RE	8/31/2020	9	6.6	16.5	31	7.7	9.0	
ENR-1-C	6	1	1	DM	9/1/2020	9	6.7	16.2	31	7.5	10.0	
ENR-2-C	6	2	7	DM	9/1/2020	9	7.2	16.6	31	7.8	10.0	
ENR-3-C	6	3	2	DM	9/1/2020	9	7.6	16.2	31	7.8	9.0	
ENR-4-C	6	4	23	DM	9/1/2020	9	6.9	15.7	31	7.8	9.0	
ENR-5-C	6	5	42	DM	9/1/2020	9	6.6	15.7	31	7.7	9.0	
ENR-6-C	6	6	29	DM	9/1/2020	9	6.9	16.3	31	7.8	9.0	
ENR-1-C	7	1	1	MS	9/2/2020	9	6.3	15.5	31	7.4	10.0	
ENR-2-C	7	2	7	MS	9/2/2020	9	7.1	15.6	31	7.8	10.0	
ENR-3-C	7	3	2	MS	9/2/2020	9	7.0	15.5	31	7.6	8.0	
ENR-4-C	7	4	23	MS	9/2/2020	9	7.5	15.2	31	7.8	9.0	
ENR-5-C	7	5	42	MS	9/2/2020	9	6.6	14.7	31	7.8	9.0	
ENR-6-C	7	6	29	MS	9/2/2020	9	6.9	15.7	31	7.7	9.0	
ENR-1-C	8	1	1	SH	9/3/2020	8	6.6	15.7	31	7.6	10.0	
ENR-2-C	8	2	7	SH	9/3/2020	8	6.9	15.9	31	7.8	8.0	
ENR-3-C	8	3	2	SH	9/3/2020	8	6.6	15.7	30	7.6	8.0	
ENR-4-C	8	4	23	SH	9/3/2020	8	7.3	15.3	31	7.8	9.0	
ENR-5-C	8	5	42	SH	9/3/2020	8	7.1	14.9	31	7.8	9.0	
ENR-6-C	8	6	29	SH	9/3/2020	8	7.1	15.9	31	7.8	7.0	
ENR-1-C	9	1	1	MK	9/4/2020	8	6.9	16.0	31	7.7	8.0	
ENR-2-C	9	2	7	MK	9/4/2020	8	7.2	16.0	31	7.8	9.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-3-C	9	3	2	MK	9/4/2020	8	6.9	15.7	31	7.7	8.0	
ENR-4-C	9	4	23	MK	9/4/2020	8	7.2	15.6	31	7.7	10.0	
ENR-5-C	9	5	42	MK	9/4/2020	8	6.8	15.2	31	7.8	9.0	
ENR-6-C	9	6	29	MK	9/4/2020	8	6.7	16.1	31	7.7	8.0	
ENR-1-C	10	1	1	NH	9/5/2020	9	6.5	16.0	31	7.7	8.0	
ENR-2-C	10	2	7	NH	9/5/2020	9	7.2	16.0	31	7.8	8.0	
ENR-3-C	10	3	2	NH	9/5/2020	9	6.9	15.7	31	7.7	8.0	
ENR-4-C	10	4	23	NH	9/5/2020	9	7.1	15.6	30	7.8	8.0	
ENR-5-C	10	5	42	NH	9/5/2020	9	7.1	15.2	31	7.8	8.0	
ENR-6-C	10	6	29	NH	9/5/2020	9	6.8	16.0	31	7.7	7.0	
ENR-1-C	11	1	1	NH	9/6/2020	8	6.5	16.2	30	7.6	9.0	
ENR-2-C	11	2	7	NH	9/6/2020	8	7.4	16.2	30	7.8	8.0	
ENR-3-C	11	3	2	NH	9/6/2020	8	7.0	15.9	30	7.7	8.0	
ENR-4-C	11	4	23	NH	9/6/2020	8	7.0	15.6	30	7.7	7.0	
ENR-5-C	11	5	42	NH	9/6/2020	8	7.6	15.3	30	7.8	8.0	
ENR-6-C	11	6	29	NH	9/6/2020	8	7.3	16.3	30	7.8	8.0	
ENR-1-C	12	1	1	SH	9/7/2020	9	6.2	16.8	30	7.6	8.0	
ENR-2-C	12	2	7	SH	9/7/2020	9	7.1	16.5	31	7.8	7.0	
ENR-3-C	12	3	2	SH	9/7/2020	9	6.5	16.4	30	7.6	6.0	
ENR-4-C	12	4	23	SH	9/7/2020	9	7.1	16.6	30	7.7	6.0	
ENR-5-C	12	5	42	SH	9/7/2020	9	7.1	15.6	31	7.8	6.0	
ENR-6-C	12	6	29	SH	9/7/2020	9	7.2	16.6	30	7.8	7.0	
ENR-1-C	13	1	1	DM	9/8/2020	9	6.3	16.2	31	7.5	8.0	
ENR-2-C	13	2	7	DM	9/8/2020	9	7.0	16.2	31	7.7	8.0	
ENR-3-C	13	3	2	DM	9/8/2020	9	6.6	16.1	31	7.7	7.0	
ENR-4-C	13	4	23	DM	9/8/2020	9	6.9	15.3	31	7.7	8.0	
ENR-5-C	13	5	42	DM	9/8/2020	9	6.7	15.3	31	7.7	9.0	
ENR-6-C	13	6	29	DM	9/8/2020	9	6.7	16.1	31	7.7	8.0	
ENR-1-C	14	1	1	NH	9/9/2020	8	6.5	15.8	31	7.6	7.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-2-C	14	2	7	NH	9/9/2020	8	7.6	16.0	31	7.8	7.0	
ENR-3-C	14	3	2	NH	9/9/2020	8	7.0	15.6	31	7.7	7.0	
ENR-4-C	14	4	23	NH	9/9/2020	8	7.3	15.3	31	7.8	5.0	
ENR-5-C	14	5	42	NH	9/9/2020	8	6.9	15.2	31	7.7	6.0	
ENR-6-C	14	6	29	NH	9/9/2020	8	7.0	16.0	31	7.7	5.0	
ENR-1-C	15	1	1	MS	9/10/2020	8	6.9	16.0	31	7.6	8.0	
ENR-2-C	15	2	7	MS	9/10/2020	8	7.6	16.1	31	7.9	8.0	
ENR-3-C	15	3	2	MS	9/10/2020	8	7.1	15.8	31	7.7	8.0	
ENR-4-C	15	4	23	MS	9/10/2020	8	7.4	15.4	31	7.8	8.0	
ENR-5-C	15	5	42	MS	9/10/2020	8	7.1	15.4	31	7.8	8.0	
ENR-6-C	15	6	29	MS	9/10/2020	8	6.8	16.1	31	7.7	8.0	
ENR-1-C	16	1	1	SH	9/11/2020	9	7.0	15.8	30	7.8	9.0	
ENR-2-C	16	2	7	SH	9/11/2020	8	7.8	16.2	31	7.8	8.0	
ENR-3-C	16	3	2	SH	9/11/2020	9	6.9	15.8	30	7.7	8.0	
ENR-4-C	16	4	23	SH	9/11/2020	8	7.5	15.5	31	7.8	8.0	
ENR-5-C	16	5	42	SH	9/11/2020	8	6.8	15.5	31	7.8	8.0	
ENR-6-C	16	6	29	SH	9/11/2020	8	6.8	16.0	31	7.7	9.0	
ENR-1-C	17	1	1	JB	9/12/2020	9	6.8	16.2	30	7.8	9.0	
ENR-2-C	17	2	7	JB	9/12/2020	9	7.7	16.4	30	8.0	8.0	
ENR-3-C	17	3	2	JB	9/12/2020	9	7.4	16.3	30	7.9	8.0	
ENR-4-C	17	4	23	JB	9/12/2020	9	7.6	15.9	30	7.9	8.0	
ENR-5-C	17	5	42	JB	9/12/2020	9	7.1	15.8	30	7.8	8.0	
ENR-6-C	17	6	29	JB	9/12/2020	9	7.4	16.4	30	7.9	10.0	
ENR-1-C	18	1	1	DM	9/13/2020	9	6.8	16.3	30	7.8	8.0	
ENR-2-C	18	2	7	DM	9/13/2020	9	7.3	16.5	30	7.8	9.0	
ENR-3-C	18	3	2	DM	9/13/2020	9	6.7	16.4	30	7.7	8.0	
ENR-4-C	18	4	23	DM	9/13/2020	9	7.7	16.0	30	7.9	8.0	
ENR-5-C	18	5	42	DM	9/13/2020	9	7.2	15.7	30	7.8	8.0	
ENR-6-C	18	6	29	DM	9/13/2020	9	7.3	16.8	30	7.9	8.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-1-C	19	1	1	DM	9/14/2020	9	6.3	16.1	30	7.7	10.0	
ENR-2-C	19	2	7	DM	9/14/2020	9	7.6	16.6	30	7.9	9.0	
ENR-3-C	19	3	2	DM	9/14/2020	9	6.9	15.9	30	7.8	8.0	
ENR-4-C	19	4	23	DM	9/14/2020	9	7.6	16.2	30	7.9	10.0	
ENR-5-C	19	5	42	DM	9/14/2020	9	7.0	15.7	30	7.8	10.0	
ENR-6-C	19	6	29	DM	9/14/2020	9	7.6	16.8	30	7.9	9.0	
ENR-1-C	20	1	1	MS	9/15/2020	9	7.5	15.9	30	7.8	8.0	
ENR-2-C	20	2	7	MS	9/15/2020	9	7.5	16.3	30	7.9	8.0	
ENR-3-C	20	3	2	MS	9/15/2020	9	7.3	15.7	30	7.8	8.0	
ENR-4-C	20	4	23	MS	9/15/2020	9	7.5	15.4	30	7.9	10.0	
ENR-5-C	20	5	42	MS	9/15/2020	9	7.0	15.3	30	7.8	8.0	
ENR-6-C	20	6	29	MS	9/15/2020	9	7.3	16.2	30	7.8	10.0	
ENR-1-C	21	1	1	SH	9/16/2020	9	7.3	15.6	30	7.8	10.0	
ENR-2-C	21	2	7	SH	9/16/2020	9	7.4	15.7	30	7.8	10.0	
ENR-3-C	21	3	2	SH	9/16/2020	9	7.0	15.5	30	7.7	9.0	
ENR-4-C	21	4	23	SH	9/16/2020	9	7.8	15.0	30	8.0	8.0	
ENR-5-C	21	5	42	SH	9/16/2020	9	6.9	14.7	30	7.7	10.0	
ENR-6-C	21	6	29	SH	9/16/2020	9	7.4	16.0	30	7.9	9.0	
ENR-1-C	22	1	1	NH	9/17/2020	9	7.4	15.6	30	7.8	9.0	
ENR-2-C	22	2	7	NH	9/17/2020	9	7.1	15.7	30	7.8	8.0	
ENR-3-C	22	3	2	NH	9/17/2020	9	7.0	15.1	30	7.7	8.0	
ENR-4-C	22	4	23	NH	9/17/2020	9	7.7	15.4	30	7.9	10.0	
ENR-5-C	22	5	42	NH	9/17/2020	9	6.5	14.8	30	7.7	10.0	
ENR-6-C	22	6	29	NH	9/17/2020	9	7.1	15.7	30	7.8	10.0	
ENR-1-C	23	1	1	MS	9/18/2020	8	7.7	15.3	31	7.8	10.0	
ENR-2-C	23	2	7	MS	9/18/2020	8	7.4	15.6	31	7.8	9.0	
ENR-3-C	23	3	2	MS	9/18/2020	8	6.4	15.0	31	7.6	10.0	
ENR-4-C	23	4	23	MS	9/18/2020	8	7.6	14.9	31	7.8	10.0	
ENR-5-C	23	5	42	MS	9/18/2020	8	7.0	14.4	31	7.7	8.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-6-C	23	6	29	MS	9/18/2020	8	7.2	15.9	31	7.8	10.0	
ENR-1-C	24	1	1	SH	19-Sep	9	7.7	15.5	30	7.8	8.0	
ENR-2-C	24	2	7	SH	9/19/2020	9	7.0	15.5	31	7.7	8.0	
ENR-3-C	24	3	2	SH	9/19/2020	9	7.3	15.4	30	7.8	10.0	
ENR-4-C	24	4	23	SH	9/19/2020	9	7.2	14.8	30	7.6	8.0	
ENR-5-C	24	5	42	SH	9/19/2020	9	7.4	14.5	31	7.8	9.0	
ENR-6-C	24	6	29	SH	9/19/2020	9	7.0	15.2	31	7.7	10.0	
ENR-1-C	25	1	1	NH	9/20/2020	8	7.6	15.7	31	7.8	8.0	
ENR-2-C	25	2	7	NH	9/20/2020	8	7.8	15.4	31	7.8	8.0	
ENR-3-C	25	3	2	NH	9/20/2020	8	7.1	15.3	31	7.7	9.0	
ENR-4-C	25	4	23	NH	9/20/2020	8	7.4	15.1	31	7.8	9.0	
ENR-5-C	25	5	42	NH	9/20/2020	8	7.2	14.1	31	7.8	8.0	
ENR-6-C	25	6	29	NH	9/20/2020	8	7.1	15.4	31	7.7	10.0	
ENR-1-C	26	1	1	DM	9/21/2020	9	7.9	16.3	31	7.9	10.0	
ENR-2-C	26	2	7	DM	9/21/2020	9	7.5	15.7	31	7.8	9.0	
ENR-3-C	26	3	2	DM	9/21/2020	9	7.3	15.0	31	7.8	10.0	
ENR-4-C	26	4	23	DM	9/21/2020	9	7.1	14.7	31	7.7	10.0	
ENR-5-C	26	5	42	DM	9/21/2020	9	6.3	14.7	31	7.6	10.0	
ENR-6-C	26	6	29	DM	9/21/2020	9	7.4	15.3	31	7.8	10.0	
ENR-1-C	27	1	1	SH	9/22/2020	9	7.8	15.1	31	7.9	10.0	
ENR-2-C	27	2	7	SH	9/22/2020	9	7.4	15.1	31	7.5	8.0	
ENR-3-C	27	3	2	SH	9/22/2020	9	7.0	15.1	31	7.7	8.0	
ENR-4-C	27	4	23	SH	9/22/2020	9	7.6	14.3	31	7.8	9.0	
ENR-5-C	27	5	42	SH	9/22/2020	9	6.5	14.4	31	7.6	9.0	
ENR-6-C	27	6	29	SH	9/22/2020	9	8.3	14.8	31	7.8	10.0	
ENR-1-C	28	1	1	SH	9/23/2020	8	7.9	15.5	31	7.9	9.0	
ENR-2-C	28	2	7	SH	9/23/2020	8	7.6	15.5	31	7.9	10.0	
ENR-3-C	28	3	2	SH	9/23/2020	8	7.7	15.6	31	7.9	10.0	
ENR-4-C	28	4	23	SH	9/23/2020	8	7.5	15.0	31	7.8	8.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR-5-C	28	5	42	SH	9/23/2020	8	7.2	15.2	31	7.9	9.0	
ENR-6-C	28	6	29	SH	9/23/2020	8	7.4	15.5	31	7.8	10.0	
ENR-1-C	29	1	1	MS	9/24/2020	9	7.3	15.1	31	7.8	>10	
ENR-2-C	29	2	7	MS	9/24/2020	9	7.3	14.4	30	7.8	>10	
ENR-3-C	29	3	2	MS	9/24/2020	9	7.5	14.5	30	7.8	>10	
ENR-4-C	29	4	23	MS	9/24/2020	9	7.5	14.4	30	7.8	>10	
ENR-5-C	29	5	42	MS	9/24/2020	9	7.5	14.7	30	7.8	>10	
ENR-6-C	29	6	29	MS	9/24/2020	9	7.2	14.3	30	7.8	>10	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-1-A	0	1	11	MS	8/26/2020	8	7.9	16.9	30	7.9	4.0	
ENR+AC-2-A	0	2	32	MS	8/26/2020	8	7.9	17.0	30	7.9	4.0	
ENR+AC-3-A	0	3	17	MS	8/26/2020	8	7.9	17.2	30	7.9	4.0	
ENR+AC-4-A	0	4	24	MS	8/26/2020	8	7.9	17.0	30	7.9	4.0	
ENR+AC-5-A	0	5	14	MS	8/26/2020	8	7.9	16.9	30	7.8	6.0	
ENR+AC-6-A	0	6	36	MS	8/26/2020	8	8.0	16.9	30	7.9	4.0	
ENR+AC-1-A	1	1	11	NH	8/27/2020	8	7.3	16.4	30	7.8	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-2-A	1	2	32	NH	8/27/2020	8	7.1	16.5	30	7.7	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-3-A	1	3	17	NH	8/27/2020	8	7.0	16.4	30	7.7	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-4-A	1	4	24	NH	8/27/2020	8	6.8	16.5	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-5-A	1	5	14	NH	8/27/2020	8	6.5	16.6	30	7.6	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-6-A	1	6	36	NH	8/27/2020	8	6.6	16.7	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-1-A	2	1	11	NH	8/28/2020	8	7.5	16.3	30	7.8	9.0	
ENR+AC-2-A	2	2	32	NH	8/28/2020	8	6.9	16.4	30	7.7	8.0	
ENR+AC-3-A	2	3	17	NH	8/28/2020	8	6.9	16.5	30	7.7	8.0	
ENR+AC-4-A	2	4	24	NH	8/28/2020	8	6.4	16.4	30	7.7	10.0	
ENR+AC-5-A	2	5	14	NH	8/28/2020	8	6.1	16.6	30	7.7	10.0	
ENR+AC-6-A	2	6	36	NH	8/28/2020	8	7.0	16.3	30	7.7	10.0	
ENR+AC-1-A	3	1	11	NH	8/29/2020	9	7.1	16.3	30	7.7	10.0	
ENR+AC-2-A	3	2	32	NH	8/29/2020	9	7.2	16.6	30	7.8	7.0	
ENR+AC-3-A	3	3	17	NH	8/29/2020	9	6.8	16.5	30	7.7	8.0	
ENR+AC-4-A	3	4	24	NH	8/29/2020	9	6.9	16.5	30	7.8	10.0	
ENR+AC-5-A	3	5	14	NH	8/29/2020	9	5.9	16.6	30	7.6	10.0	
ENR+AC-6-A	3	6	36	NH	8/29/2020	9	7.0	16.0	30	7.7	9.0	
ENR+AC-1-A	4	1	11	NH	8/30/2020	9	7.2	16.4	30	7.7	10.0	
ENR+AC-2-A	4	2	32	NH	8/30/2020	9	7.1	16.6	30	7.8	8.0	
ENR+AC-3-A	4	3	17	NH	8/30/2020	9	7.3	16.6	30	7.8	8.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-4-A	4	4	24	NH	8/30/2020	9	6.0	16.6	30	7.6	9.0	
ENR+AC-5-A	4	5	14	NH	8/30/2020	9	6.7	16.7	30	7.7	10.0	
ENR+AC-6-A	4	6	36	NH	8/30/2020	9	7.1	16.0	30	7.8	10.0	
ENR+AC-1-A	5	1	11	RE	8/31/2020	9	7.3	16.3	31	7.8	10.0	
ENR+AC-2-A	5	2	32	RE	8/31/2020	9	7.2	16.6	31	7.8	10.0	
ENR+AC-3-A	5	3	17	RE	8/31/2020	9	7.0	16.4	31	7.7	9.0	
ENR+AC-4-A	5	4	24	RE	8/31/2020	9	6.7	16.4	31	7.7	10.0	
ENR+AC-5-A	5	5	14	RE	8/31/2020	9	5.6	16.6	31	7.7	8.0	
ENR+AC-6-A	5	6	36	RE	8/31/2020	9	7.0	15.9	31	7.8	10.0	
ENR+AC-1-A	6	1	11	DM	9/1/2020	9	7.3	16.7	31	7.8	10.0	
ENR+AC-2-A	6	2	32	DM	9/1/2020	9	7.1	16.8	31	7.8	9.0	
ENR+AC-3-A	6	3	17	DM	9/1/2020	9	7.2	16.8	31	7.8	9.0	
ENR+AC-4-A	6	4	24	DM	9/1/2020	9	6.4	16.6	31	7.8	9.0	
ENR+AC-5-A	6	5	14	DM	9/1/2020	9	5.4	17.0	31	7.6	9.0	
ENR+AC-6-A	6	6	36	DM	9/1/2020	9	6.9	16.1	31	7.7	9.0	
ENR+AC-1-A	7	1	11	MS	9/2/2020	9	7.3	16.0	31	7.8	10.0	
ENR+AC-2-A	7	2	32	MS	9/2/2020	9	7.1	16.2	31	7.8	8.0	
ENR+AC-3-A	7	3	17	MS	9/2/2020	9	6.9	16.0	31	7.7	8.0	
ENR+AC-4-A	7	4	24	MS	9/2/2020	9	6.3	15.8	31	7.7	10.0	
ENR+AC-5-A	7	5	14	MS	9/2/2020	9	6.3	16.4	31	7.7	8.0	
ENR+AC-6-A	7	6	36	MS	9/2/2020	9	7.0	15.4	31	7.8	10.0	
ENR+AC-1-A	8	1	11	SH	9/3/2020	8	7.3	16.2	31	7.8	9.0	
ENR+AC-2-A	8	2	32	SH	9/3/2020	8	7.2	16.3	31	7.8	8.0	
ENR+AC-3-A	8	3	17	SH	9/3/2020	8	7.2	16.3	31	7.8	8.0	
ENR+AC-4-A	8	4	24	SH	9/3/2020	8	6.2	15.9	31	7.7	8.0	
ENR+AC-5-A	8	5	14	SH	9/3/2020	8	6.4	16.7	31	7.7	7.0	
ENR+AC-6-A	8	6	36	SH	9/3/2020	8	7.2	16.5	30	7.8	10.0	
ENR+AC-1-A	9	1	11	MK	9/4/2020	8	7.5	16.3	31	7.8	10.0	
ENR+AC-2-A	9	2	32	MK	9/4/2020	8	7.8	16.6	31	7.8	8.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-3-A	9	3	17	MK	9/4/2020	8	7.0	16.5	31	7.7	9.0	
ENR+AC-4-A	9	4	24	MK	9/4/2020	8	7.1	16.3	31	7.7	9.0	
ENR+AC-5-A	9	5	14	MK	9/4/2020	8	6.3	16.7	31	7.6	8.0	
ENR+AC-6-A	9	6	36	MK	9/4/2020	8	7.0	15.9	31	7.7	9.0	
ENR+AC-1-A	10	1	11	NH	9/5/2020	9	7.5	16.2	31	7.8	10.0	
ENR+AC-2-A	10	2	32	NH	9/5/2020	9	7.4	16.5	31	8.0	8.0	
ENR+AC-3-A	10	3	17	NH	9/5/2020	9	6.9	16.4	31	7.8	8.0	
ENR+AC-4-A	10	4	24	NH	9/5/2020	9	7.1	16.1	31	7.7	8.0	
ENR+AC-5-A	10	5	14	NH	9/5/2020	9	6.7	16.7	31	7.7	7.0	
ENR+AC-6-A	10	6	36	NH	9/5/2020	9	6.8	15.8	31	7.8	8.0	
ENR+AC-1-A	11	1	11	NH	9/6/2020	8	7.6	16.4	30	7.8	9.0	
ENR+AC-2-A	11	2	32	NH	9/6/2020	8	7.6	16.7	30	7.9	7.0	
ENR+AC-3-A	11	3	17	NH	9/6/2020	8	7.0	16.6	30	7.7	7.0	
ENR+AC-4-A	11	4	24	NH	9/6/2020	8	7.4	16.4	30	7.8	8.0	
ENR+AC-5-A	11	5	14	NH	9/6/2020	8	6.7	17.0	31	7.7	9.0	
ENR+AC-6-A	11	6	36	NH	9/6/2020	8	6.9	16.0	30	7.7	8.0	
ENR+AC-1-A	12	1	11	SH	9/7/2020	9	7.3	16.7	30	7.9	9.0	
ENR+AC-2-A	12	2	32	SH	9/7/2020	9	7.4	16.8	31	7.9	6.0	
ENR+AC-3-A	12	3	17	SH	9/7/2020	9	7.1	16.8	30	7.8	7.0	
ENR+AC-4-A	12	4	24	SH	9/7/2020	9	5.9	16.6	31	7.7	7.0	
ENR+AC-5-A	12	5	14	SH	9/7/2020	9	6.8	16.9	30	7.7	9.0	
ENR+AC-6-A	12	6	36	SH	9/7/2020	9	6.1	16.4	30	7.8	7.0	
ENR+AC-1-A	13	1	11	DM	9/8/2020	9	7.3	16.4	31	7.9	10.0	
ENR+AC-2-A	13	2	32	DM	9/8/2020	9	7.5	16.8	31	7.9	8.0	
ENR+AC-3-A	13	3	17	DM	9/8/2020	9	6.9	16.7	31	7.8	8.0	
ENR+AC-4-A	13	4	24	DM	9/8/2020	9	6.6	16.2	31	7.7	7.0	
ENR+AC-5-A	13	5	14	DM	9/8/2020	9	7.1	16.7	31	7.8	7.0	
ENR+AC-6-A	13	6	36	DM	9/8/2020	9	6.8	15.7	31	7.7	8.0	
ENR+AC-1-A	14	1	11	NH	9/9/2020	8	7.5	16.6	31	7.8	7.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-2-A	14	2	32	NH	9/9/2020	8	7.7	16.7	31	7.9	6.0	
ENR+AC-3-A	14	3	17	NH	9/9/2020	8	7.4	16.4	31	7.8	5.0	
ENR+AC-4-A	14	4	24	NH	9/9/2020	8	7.3	16.2	31	7.7	6.0	
ENR+AC-5-A	14	5	14	NH	9/9/2020	8	7.1	16.6	31	7.7	7.0	
ENR+AC-6-A	14	6	36	NH	9/9/2020	8	7.5	15.9	31	7.8	6.0	
ENR+AC-1-A	15	1	11	MS	9/10/2020	8	6.3	16.4	31	7.7	8.0	
ENR+AC-2-A	15	2	32	MS	9/10/2020	8	7.3	16.6	31	7.8	8.0	
ENR+AC-3-A	15	3	17	MS	9/10/2020	8	7.5	16.6	31	7.9	8.0	
ENR+AC-4-A	15	4	24	MS	9/10/2020	8	6.3	16.4	31	7.7	8.0	
ENR+AC-5-A	15	5	14	MS	9/10/2020	8	7.0	16.8	31	7.8	8.0	
ENR+AC-6-A	15	6	36	MS	9/10/2020	8	7.0	15.8	31	7.8	8.0	
ENR+AC-1-A	16	1	11	SH	9/11/2020	8	7.0	16.3	31	7.7	8.0	
ENR+AC-2-A	16	2	32	SH	9/11/2020	8	7.7	16.7	31	7.9	9.0	
ENR+AC-3-A	16	3	17	SH	9/11/2020	8	7.9	16.6	31	7.9	8.0	
ENR+AC-4-A	16	4	24	SH	9/11/2020	8	7.4	16.1	31	7.8	8.0	
ENR+AC-5-A	16	5	14	SH	9/11/2020	8	7.1	16.6	31	7.8	9.0	
ENR+AC-6-A	16	6	36	SH	9/11/2020	8	7.8	16.8	31	7.9	9.0	
ENR+AC-1-A	17	1	11	JB	9/12/2020	9	6.8	16.8	30	7.7	8.0	
ENR+AC-2-A	17	2	32	JB	9/12/2020	9	7.7	17.0	30	7.9	8.0	
ENR+AC-3-A	17	3	17	JB	9/12/2020	9	7.8	16.9	30	8.0	8.0	
ENR+AC-4-A	17	4	24	JB	9/12/2020	9	6.9	16.5	30	7.8	8.0	
ENR+AC-5-A	17	5	14	JB	9/12/2020	9	6.4	16.9	30	7.7	9.0	
ENR+AC-6-A	17	6	36	JB	9/12/2020	9	7.2	16.3	30	7.8	8.0	
ENR+AC-1-A	18	1	11	DM	9/13/2020	9	7.3	17.0	30	7.8	8.0	
ENR+AC-2-A	18	2	32	DM	9/13/2020	9	6.8	16.9	30	7.8	8.0	
ENR+AC-3-A	18	3	17	DM	9/13/2020	9	7.2	16.8	30	7.9	8.0	
ENR+AC-4-A	18	4	24	DM	9/13/2020	9	6.9	16.9	30	7.8	8.0	
ENR+AC-5-A	18	5	14	DM	9/13/2020	9	6.7	17.2	30	7.8	9.0	
ENR+AC-6-A	18	6	36	DM	9/13/2020	9	7.1	16.6	30	7.8	8.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-1-A	19	1	11	DM	9/14/2020	9	7.1	16.7	30	7.8	8.0	
ENR+AC-2-A	19	2	32	DM	9/14/2020	9	7.5	16.8	30	7.9	10.0	
ENR+AC-3-A	19	3	17	DM	9/14/2020	9	7.6	16.8	30	8.0	8.0	
ENR+AC-4-A	19	4	24	DM	9/14/2020	9	7.5	16.9	30	7.8	10.0	
ENR+AC-5-A	19	5	14	DM	9/14/2020	9	6.6	17.0	30	7.7	9.0	
ENR+AC-6-A	19	6	36	DM	9/14/2020	9	7.6	16.6	30	7.9	8.0	
ENR+AC-1-A	20	1	11	MS	9/15/2020	9	6.5	16.4	30	7.7	8.0	
ENR+AC-2-A	20	2	32	MS	9/15/2020	9	7.7	16.8	30	8.0	9.0	
ENR+AC-3-A	20	3	17	MS	9/15/2020	9	7.6	16.5	30	7.9	10.0	
ENR+AC-4-A	20	4	24	MS	9/15/2020	9	7.2	16.3	30	7.8	8.0	
ENR+AC-5-A	20	5	14	MS	9/15/2020	9	7.3	16.9	30	7.8	10.0	
ENR+AC-6-A	20	6	36	MS	9/15/2020	9	7.4	15.8	30	7.9	8.0	
ENR+AC-1-A	21	1	11	SH	9/16/2020	9	6.5	16.1	30	7.6	10.0	
ENR+AC-2-A	21	2	32	SH	9/16/2020	9	7.8	16.4	30	8.0	8.0	
ENR+AC-3-A	21	3	17	SH	9/16/2020	9	7.1	15.9	30	7.8	9.0	
ENR+AC-4-A	21	4	24	SH	9/16/2020	9	7.1	15.5	30	8.0	9.0	
ENR+AC-5-A	21	5	14	SH	9/16/2020	9	6.9	16.5	30	7.7	9.0	
ENR+AC-6-A	21	6	36	SH	9/16/2020	9	7.6	15.4	30	7.9	9.0	
ENR+AC-1-A	22	1	11	NH	9/17/2020	9	7.4	16.3	30	7.8	10.0	
ENR+AC-2-A	22	2	32	NH	9/17/2020	9	7.8	16.1	30	7.9	8.0	
ENR+AC-3-A	22	3	17	NH	9/17/2020	9	7.4	16.0	30	7.8	10.0	
ENR+AC-4-A	22	4	24	NH	9/17/2020	9	7.7	16.1	30	7.8	8.0	
ENR+AC-5-A	22	5	14	NH	9/17/2020	9	7.1	16.7	30	7.7	8.0	
ENR+AC-6-A	22	6	36	NH	9/17/2020	9	7.1	15.7	30	7.8	10.0	
ENR+AC-1-A	23	1	11	MS	9/18/2020	8	7.2	16.2	31	7.7	10.0	
ENR+AC-2-A	23	2	32	MS	9/18/2020	8	7.8	16.1	31	7.9	9.0	
ENR+AC-3-A	23	3	17	MS	9/18/2020	8	7.5	15.8	31	7.8	8.0	
ENR+AC-4-A	23	4	24	MS	9/18/2020	8	7.6	16.0	31	7.8	9.0	
ENR+AC-5-A	23	5	14	MS	9/18/2020	8	7.1	16.5	31	7.7	8.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-6-A	23	6	36	MS	9/18/2020	8	7.1	15.4	31	7.8	10.0	
ENR+AC-1-A	24	1	11	SH	9/19/2020	9	6.9	15.7	31	7.3	9.0	
ENR+AC-2-A	24	2	32	SH	9/19/2020	9	7.8	15.8	31	7.8	8.0	
ENR+AC-3-A	24	3	17	SH	9/19/2020	9	7.0	15.8	31	7.6	10.0	
ENR+AC-4-A	24	4	24	SH	9/19/2020	9	7.1	15.7	31	7.3	10.0	
ENR+AC-5-A	24	5	14	SH	9/19/2020	9	7.1	16.2	31	7.6	10.0	
ENR+AC-6-A	24	6	36	SH	9/19/2020	9	7.3	15.3	30	7.7	10.0	
ENR+AC-1-A	25	1	11	NH	9/20/2020	8	7.2	16.1	31	7.7	9.0	
ENR+AC-2-A	25	2	32	NH	9/20/2020	8	7.9	15.9	31	7.9	8.0	
ENR+AC-3-A	25	3	17	NH	9/20/2020	8	7.3	15.8	31	7.8	8.0	
ENR+AC-4-A	25	4	24	NH	9/20/2020	8	7.2	15.8	31	7.8	9.0	
ENR+AC-5-A	25	5	14	NH	9/20/2020	8	7.2	16.2	31	7.8	9.0	
ENR+AC-6-A	25	6	36	NH	9/20/2020	8	8.2	16.1	31	7.8	10.0	
ENR+AC-1-A	26	1	11	DM	9/21/2020	9	7.2	16.0	31	7.7	10.0	
ENR+AC-2-A	26	2	32	DM	9/21/2020	9	7.7	15.7	31	7.9	9.0	
ENR+AC-3-A	26	3	17	DM	9/21/2020	9	7.3	15.9	31	7.8	9.0	
ENR+AC-4-A	26	4	24	DM	9/21/2020	9	6.9	15.9	31	7.7	10.0	
ENR+AC-5-A	26	5	14	DM	9/21/2020	9	7.0	16.3	31	7.8	8.0	
ENR+AC-6-A	26	6	36	DM	9/21/2020	9	7.8	15.2	31	7.8	10.0	
ENR+AC-1-A	27	1	11	SH	9/22/2020	9	7.2	15.9	31	7.8	8.0	
ENR+AC-2-A	27	2	32	SH	9/22/2020	9	7.7	15.7	31	7.7	8.0	
ENR+AC-3-A	27	3	17	SH	9/22/2020	9	7.3	15.7	31	7.8	10.0	
ENR+AC-4-A	27	4	24	SH	9/22/2020	9	7.0	15.0	31	7.7	10.0	
ENR+AC-5-A	27	5	14	SH	9/22/2020	9	7.0	16.0	31	7.7	10.0	
ENR+AC-6-A	27	6	36	SH	9/22/2020	9	7.5	14.9	31	7.8	10.0	
ENR+AC-1-A	28	1	11	SH	9/23/2020	8	7.1	16.3	31	7.8	8.0	
ENR+AC-2-A	28	2	32	SH	9/23/2020	8	7.8	16.5	31	8.0	10.0	
ENR+AC-3-A	28	3	17	SH	9/23/2020	8	7.0	15.8	31	7.8	9.0	
ENR+AC-4-A	28	4	24	SH	9/23/2020	8	6.9	15.7	31	7.8	9.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-5-A	28	5	14	SH	9/23/2020	8	7.2	16.4	31	7.8	8.0	
ENR+AC-6-A	28	6	36	SH	9/23/2020	8	7.7	15.6	31	7.9	8.0	
ENR+AC-1-A	29	1	11	MS	9/24/2020	9	7.7	14.7	30	7.8	>10	
ENR+AC-2-A	29	2	32	MS	9/24/2020	9	7.5	14.6	30	7.8	>10	
ENR+AC-3-A	29	3	17	MS	9/24/2020	79	7.0	14.4	30	7.8	>10	
ENR+AC-4-A	29	4	24	MS	9/24/2020	9	7.8	14.4	30	7.8	>10	
ENR+AC-5-A	29	5	14	MS	9/24/2020	9	7.4	14.8	30	7.8	>10	
ENR+AC-6-A	29	6	36	MS	9/24/2020	9	7.2	14.3	30	7.8	>10	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-1-B	0	1	12	MS	8/26/2020	8	8.1	16.0	30	8.0	5.0	
ENR+AC-2-B	0	2	21	MS	8/26/2020	8	7.9	16.2	30	7.8	5.0	
ENR+AC-3-B	0	3	25	MS	8/26/2020	8	7.9	16.4	30	7.9	4.0	
ENR+AC-4-B	0	4	8	MS	8/26/2020	8	7.9	17.4	30	7.9	5.0	
ENR+AC-5- B	0	5	16	MS	8/26/2020	8	7.9	17.0	30	7.9	5.0	
ENR+AC-6-B	0	6	15	MS	8/26/2020	8	7.8	17.2	30	7.8	5.0	
ENR+AC-1-B	1	1	12	NH	8/27/2020	8	7.1	16.5	30	7.8	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-2-B	1	2	21	NH	8/27/2020	8	6.6	16.0	30	7.6	8.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-3-B	1	3	25	NH	8/27/2020	8	6.8	16.5	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-4-B	1	4	8	NH	8/27/2020	8	6.7	16.3	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-5- B	1	5	16	NH	8/27/2020	8	6.7	16.6	30	7.7	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-6-B	1	6	15	NH	8/27/2020	8	5.8	16.6	30	7.6	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-1-B	2	1	12	NH	8/28/2020	8	7.0	16.6	30	7.7	9.0	
ENR+AC-2-B	2	2	21	NH	8/28/2020	8	6.8	16.1	30	7.7	8.0	
ENR+AC-3-B	2	3	25	NH	8/28/2020	8	7.0	16.3	30	7.7	9.0	
ENR+AC-4-B	2	4	8	NH	8/28/2020	8	7.3	16.4	30	7.8	9.0	
ENR+AC-5- B	2	5	16	NH	8/28/2020	8	7.1	16.6	30	7.7	8.0	
ENR+AC-6-B	2	6	15	NH	8/28/2020	8	6.5	16.8	30	7.6	9.0	
ENR+AC-1-B	3	1	12	NH	8/29/2020	9	7.3	16.6	30	7.7	10.0	
ENR+AC-2-B	3	2	21	NH	8/29/2020	9	6.9	16.7	30	7.7	8.0	
ENR+AC-3-B	3	3	25	NH	8/29/2020	9	7.0	16.6	30	7.7	9.0	
ENR+AC-4-B	3	4	8	NH	8/29/2020	9	7.3	16.4	30	7.8	9.0	
ENR+AC-5- B	3	5	16	NH	8/29/2020	9	7.0	16.6	30	7.6	8.0	
ENR+AC-6-B	3	6	15	NH	8/29/2020	9	6.0	16.7	30	7.6	9.0	
ENR+AC-1-B	4	1	12	NH	8/30/2020	9	7.0	16.6	30	7.8	8.0	
ENR+AC-2-B	4	2	21	NH	8/30/2020	9	6.8	16.0	30	7.7	9.0	
ENR+AC-3-B	4	3	25	NH	8/30/2020	9	7.4	16.5	30	7.8	9.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-4-B	4	4	8	NH	8/30/2020	9	7.0	16.4	30	7.7	9.0	
ENR+AC-5- B	4	5	16	NH	8/30/2020	9	7.3	16.8	30	7.8	8.0	
ENR+AC-6-B	4	6	15	NH	8/30/2020	9	7.4	16.8	30	7.8	9.0	
ENR+AC-1-B	5	1	12	RE	8/31/2020	9	7.4	16.3	31	7.8	9.0	
ENR+AC-2-B	5	2	21	RE	8/31/2020	9	7.3	16.2	31	7.8	9.0	
ENR+AC-3-B	5	3	25	RE	8/31/2020	9	6.6	16.4	31	7.7	10.0	
ENR+AC-4-B	5	4	8	RE	8/31/2020	9	6.9	16.5	31	7.8	10.0	
ENR+AC-5- B	5	5	16	RE	8/31/2020	9	6.6	16.7	31	7.6	9.0	
ENR+AC-6-B	5	6	15	RE	8/31/2020	9	6.2	16.7	31	7.7	10.0	
ENR+AC-1-B	6	1	12	DM	9/1/2020	9	7.1	16.3	31	7.8	10.0	
ENR+AC-2-B	6	2	21	DM	9/1/2020	9	7.3	16.5	31	7.9	8.0	
ENR+AC-3-B	6	3	25	DM	9/1/2020	9	6.9	16.5	31	7.7	8.0	
ENR+AC-4-B	6	4	8	DM	9/1/2020	9	7.2	16.8	31	7.8	10.0	
ENR+AC-5- B	6	5	16	DM	9/1/2020	9	6.6	16.9	31	7.7	9.0	
ENR+AC-6-B	6	6	15	DM	9/1/2020	9	6.1	17.0	30	7.7	10.0	
ENR+AC-1-B	7	1	12	MS	9/2/2020	9	7.5	16.1	31	7.8	10.0	
ENR+AC-2-B	7	2	21	MS	9/2/2020	9	6.8	16.1	31	7.7	8.0	
ENR+AC-3-B	7	3	25	MS	9/2/2020	9	7.2	16.0	31	7.8	8.0	
ENR+AC-4-B	7	4	8	MS	9/2/2020	9	7.0	16.0	31	7.8	9.0	
ENR+AC-5- B	7	5	16	MS	9/2/2020	9	7.1	16.3	31	7.7	9.0	
ENR+AC-6-B	7	6	15	MS	9/2/2020	9	5.7	16.3	31	7.6	10.0	Airline up against the flow-through screen. Adjusted chamber to reposition airline placement. MS 9/2
ENR+AC-1-B	8	1	12	SH	9/3/2020	8	7.0	16.2	31	7.8	9.0	
ENR+AC-2-B	8	2	21	SH	9/3/2020	8	6.5	16.3	31	7.7	8.0	
ENR+AC-3-B	8	3	25	SH	9/3/2020	8	6.8	16.0	31	7.8	7.0	
ENR+AC-4-B	8	4	8	SH	9/3/2020	8	6.9	16.3	31	7.8	8.0	
ENR+AC-5- B	8	5	16	SH	9/3/2020	8	7.2	16.5	31	7.8	8.0	
ENR+AC-6-B	8	6	15	SH	9/3/2020	8	6.8	16.5	31	7.7	9.0	
ENR+AC-1-B	9	1	12	MK	9/4/2020	8	7.3	16.3	31	7.8	10.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-2-B	9	2	21	MK	9/4/2020	8	7.2	16.5	31	7.7	8.0	
ENR+AC-3-B	9	3	25	MK	9/4/2020	8	7.1	16.4	31	7.7	9.0	
ENR+AC-4-B	9	4	8	MK	9/4/2020	8	7.2	16.3	31	7.7	10.0	
ENR+AC-5- B	9	5	16	MK	9/4/2020	8	6.8	16.6	31	7.7	9.0	
ENR+AC-6-B	9	6	15	MK	9/4/2020	8	6.5	16.7	31	7.6	9.0	
ENR+AC-1-B	10	1	12	NH	9/5/2020	9	7.6	16.0	31	7.9	8.0	
ENR+AC-2-B	10	2	21	NH	9/5/2020	9	7.3	16.3	31	7.8	7.0	
ENR+AC-3-B	10	3	25	NH	9/5/2020	9	7.0	16.0	31	7.8	7.0	
ENR+AC-4-B	10	4	8	NH	9/5/2020	9	7.4	16.2	31	7.8	9.0	
ENR+AC-5- B	10	5	16	NH	9/5/2020	9	6.5	16.6	31	7.7	7.0	
ENR+AC-6-B	10	6	15	NH	9/5/2020	9	6.8	16.6	31	7.7	9.0	
ENR+AC-1-B	11	1	12	NH	9/6/2020	8	7.7	16.3	30	7.8	8.0	
ENR+AC-2-B	11	2	21	NH	9/6/2020	8	7.0	16.6	31	7.8	7.0	
ENR+AC-3-B	11	3	25	NH	9/6/2020	8	7.5	16.4	30	7.9	7.0	
ENR+AC-4-B	11	4	8	NH	9/6/2020	8	7.6	16.4	30	7.8	9.0	
ENR+AC-5- B	11	5	16	NH	9/6/2020	8	6.8	16.8	30	7.7	7.0	
ENR+AC-6-B	11	6	15	NH	9/6/2020	8	6.7	16.8	30	7.6	9.0	
ENR+AC-1-B	12	1	12	SH	9/7/2020	9	7.4	16.7	30	7.9	9.0	
ENR+AC-2-B	12	2	21	SH	9/7/2020	9	6.7	16.9	31	7.7	6.0	Increased flow to water tub - SH 9/7/2020
ENR+AC-3-B	12	3	25	SH	9/7/2020	9	7.1	16.5	31	7.8	7.0	
ENR+AC-4-B	12	4	8	SH	9/7/2020	9	7.0	16.7	31	7.9	8.0	
ENR+AC-5- B	12	5	16	SH	9/7/2020	9	6.7	17.0	30	7.7	7.0	
ENR+AC-6-B	12	6	15	SH	9/7/2020	9	6.2	17.0	31	7.6	9.0	
ENR+AC-1-B	13	1	12	DM	9/8/2020	9	7.4	16.5	31	7.8	8.0	
ENR+AC-2-B	13	2	21	DM	9/8/2020	9	6.6	16.4	31	7.7	8.0	
ENR+AC-3-B	13	3	25	DM	9/8/2020	9	6.9	16.1	31	7.8	8.0	
ENR+AC-4-B	13	4	8	DM	9/8/2020	9	7.5	16.4	31	7.9	8.0	
ENR+AC-5- B	13	5	16	DM	9/8/2020	9	7.0	16.9	31	7.8	8.0	
ENR+AC-6-B	13	6	15	DM	9/8/2020	9	6.3	16.8	31	7.7	10.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-1-B	14	1	12	NH	9/9/2020	8	7.7	16.2	31	7.9	6.0	
ENR+AC-2-B	14	2	21	NH	9/9/2020	8	7.4	15.5	31	7.8	5.0	
ENR+AC-3-B	14	3	25	NH	9/9/2020	8	7.1	16.1	31	7.7	5.0	
ENR+AC-4-B	14	4	8	NH	9/9/2020	8	7.6	16.5	31	7.9	6.0	
ENR+AC-5- B	14	5	16	NH	9/9/2020	8	6.6	16.7	31	7.7	6.0	
ENR+AC-6-B	14	6	15	NH	9/9/2020	8	6.0	16.6	31	7.6	7.0	
ENR+AC-1-B	15	1	12	MS	9/10/2020	8	7.6	16.3	31	7.8	8.0	
ENR+AC-2-B	15	2	21	MS	9/10/2020	8	7.6	15.9	31	7.9	8.0	
ENR+AC-3-B	15	3	25	MS	9/10/2020	8	7.6	16.3	31	7.9	8.0	
ENR+AC-4-B	15	4	8	MS	9/10/2020	8	7.0	16.5	31	7.8	8.0	
ENR+AC-5- B	15	5	16	MS	9/10/2020	8	7.0	16.9	31	7.7	8.0	
ENR+AC-6-B	15	6	15	MS	9/10/2020	8	6.2	16.9	31	7.6	8.0	
ENR+AC-1-B	16	1	12	SH	9/11/2020	8	7.8	16.3	31	7.9	8.0	
ENR+AC-2-B	16	2	21	SH	9/11/2020	8	7.3	15.8	31	7.8	8.0	
ENR+AC-3-B	16	3	25	SH	9/11/2020	8	7.6	16.0	31	7.8	8.0	
ENR+AC-4-B	16	4	8	SH	9/11/2020	8	7.7	16.4	31	7.9	8.0	
ENR+AC-5- B	16	5	16	SH	9/11/2020	8	6.9	16.7	31	7.7	8.0	
ENR+AC-6-B	16	6	15	SH	9/11/2020	8	6.4	16.7	31	7.7	8.0	
ENR+AC-1-B	17	1	12	JB	9/12/2020	9	7.4	16.4	30	7.9	8.0	
ENR+AC-2-B	17	2	21	JB	9/12/2020	9	6.8	16.1	30	7.8	8.0	
ENR+AC-3-B	17	3	25	JB	9/12/2020	9	7.3	16.4	30	7.9	8.0	
ENR+AC-4-B	17	4	8	JB	9/12/2020	9	7.5	16.8	30	7.9	8.0	
ENR+AC-5- B	17	5	16	JB	9/12/2020	9	6.5	16.9	30	7.8	8.0	
ENR+AC-6-B	17	6	15	JB	9/12/2020	9	6.1	17.0	30	7.7	8.0	
ENR+AC-1-B	18	1	12	DM	9/13/2020	9	7.5	16.7	30	7.9	8.0	
ENR+AC-2-B	18	2	21	DM	9/13/2020	9	7.6	16.0	30	7.9	10.0	
ENR+AC-3-B	18	3	25	DM	9/13/2020	9	7.7	16.9	30	8.0	8.0	
ENR+AC-4-B	18	4	8	DM	9/13/2020	9	7.3	16.9	30	7.9	8.0	
ENR+AC-5- B	18	5	16	DM	9/13/2020	9	7.0	17.2	30	7.8	8.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-6-B	18	6	15	DM	9/13/2020	9	6.6	17.3	30	7.6	8.0	
ENR+AC-1-B	19	1	12	DM	9/14/2020	9	7.5	16.6	30	7.9	8.0	
ENR+AC-2-B	19	2	21	DM	9/14/2020	9	7.7	15.8	30	8.0	10.0	
ENR+AC-3-B	19	3	25	DM	9/14/2020	9	7.8	16.7	30	8.0	9.0	
ENR+AC-4-B	19	4	8	DM	9/14/2020	9	7.3	16.9	30	7.9	9.0	
ENR+AC-5- B	19	5	16	DM	9/14/2020	9	6.8	17.0	30	7.8	9.0	
ENR+AC-6-B	19	6	15	DM	9/14/2020	9	6.5	17.2	30	7.7	9.0	
ENR+AC-1-B	20	1	12	MS	9/15/2020	9	7.2	16.0	30	7.8	8.0	
ENR+AC-2-B	20	2	21	MS	9/15/2020	9	7.1	15.3	30	7.7	10.0	
ENR+AC-3-B	20	3	25	MS	9/15/2020	9	7.3	16.1	30	7.9	10.0	
ENR+AC-4-B	20	4	8	MS	9/15/2020	9	7.1	16.6	30	7.8	9.0	
ENR+AC-5- B	20	5	16	MS	9/15/2020	9	7.0	16.8	30	7.8	9.0	
ENR+AC-6-B	20	6	15	MS	9/15/2020	9	6.7	16.9	30	7.7	10.0	
ENR+AC-1-B	21	1	12	SH	9/16/2020	9	7.4	15.8	30	7.8	10.0	
ENR+AC-2-B	21	2	21	SH	9/16/2020	9	7.9	15.1	30	7.9	8.0	
ENR+AC-3-B	21	3	25	SH	9/16/2020	9	7.7	15.6	30	7.9	10.0	
ENR+AC-4-B	21	4	8	SH	9/16/2020	9	7.2	16.5	30	7.8	9.0	
ENR+AC-5- B	21	5	16	SH	9/16/2020	9	7.7	16.7	30	7.9	10.0	
ENR+AC-6-B	21	6	15	SH	9/16/2020	9	7.0	16.4	30	7.7	10.0	
ENR+AC-1-B	22	1	12	30	9/17/2020	9	7.4	15.7	30	7.8	10.0	
ENR+AC-2-B	22	2	21	NH	9/17/2020	9	7.6	14.8	30	7.8	8.0	
ENR+AC-3-B	22	3	25	NH	9/17/2020	9	7.6	15.6	30	7.9	8.0	
ENR+AC-4-B	22	4	8	NH	9/17/2020	9	6.8	16.2	30	7.7	10.0	
ENR+AC-5- B	22	5	16	NH	9/17/2020	9	7.1	16.3	30	7.7	8.0	
ENR+AC-6-B	22	6	15	NH	9/17/2020	9	6.4	16.4	30	7.7	8.0	
ENR+AC-1-B	23	1	12	MS	9/18/2020	8	7.5	15.5	31	7.8	9.0	
ENR+AC-2-B	23	2	21	MS	9/18/2020	8	7.0	15.8	31	7.7	8.0	
ENR+AC-3-B	23	3	25	MS	9/18/2020	8	8.2	16.0	31	8.0	8.0	
ENR+AC-4-B	23	4	8	MS	9/18/2020	8	7.4	16.2	31	7.8	10.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-5- B	23	5	16	MS	9/18/2020	8	7.0	16.4	31	7.7	8.0	
ENR+AC-6-B	23	6	15	MS	9/18/2020	8	7.1	16.5	31	7.7	9.0	
ENR+AC-1-B	24	1	12	SH	9/19/2020	9	7.6	15.4	30	7.6	8.0	
ENR+AC-2-B	24	2	21	SH	9/19/2020	9	7.7	15.6	31	7.8	10.0	
ENR+AC-3-B	24	3	25	SH	9/19/2020	9	7.4	15.5	31	7.4	10.0	
ENR+AC-4-B	24	4	8	SH	9/19/2020	9	7.0	16.1	31	7.7	8.0	
ENR+AC-5- B	24	5	16	SH	9/19/2020	9	6.8	16.1	31	7.5	8.0	
ENR+AC-6-B	24	6	15	SH	9/19/2020	9	7.1	16.4	31	7.6	10.0	
ENR+AC-1-B	25	1	12	NH	9/20/2020	8	7.7	15.6	31	7.8	8.0	
ENR+AC-2-B	25	2	21	NH	9/20/2020	8	7.5	15.6	31	7.8	9.0	
ENR+AC-3-B	25	3	25	NH	9/20/2020	8	7.6	15.6	31	7.8	10.0	
ENR+AC-4-B	25	4	8	NH	9/20/2020	8	6.5	16.2	31	7.6	9.0	
ENR+AC-5- B	25	5	16	NH	9/20/2020	8	7.2	16.3	31	7.8	9.0	
ENR+AC-6-B	25	6	15	NH	9/20/2020	8	6.6	16.3	31	7.7	9.0	
ENR+AC-1-B	26	1	12	DM	9/21/2020	9	7.6	15.5	31	7.8	8.0	
ENR+AC-2-B	26	2	21	DM	9/21/2020	9	7.9	15.2	31	7.9	9.0	
ENR+AC-3-B	26	3	25	DM	9/21/2020	9	7.2	15.6	31	7.8	10.0	
ENR+AC-4-B	26	4	8	DM	9/21/2020	9	7.5	16.2	31	7.8	10.0	
ENR+AC-5- B	26	5	16	DM	9/21/2020	9	6.7	16.0	31	7.7	10.0	
ENR+AC-6-B	26	6	15	DM	9/21/2020	9	6.1	16.4	31	7.6	8.0	
ENR+AC-1-B	27	1	12	SH	9/22/2020	9	7.4	15.2	31	7.8	8.0	
ENR+AC-2-B	27	2	21	SH	9/22/2020	9	7.5	14.6	31	7.8	10.0	
ENR+AC-3-B	27	3	25	SH	9/22/2020	9	7.1	15.2	31	7.8	10.0	
ENR+AC-4-B	27	4	8	SH	9/22/2020	9	7.5	15.7	31	7.8	8.0	
ENR+AC-5- B	27	5	16	SH	9/22/2020	9	7.2	15.7	31	7.7	10.0	
ENR+AC-6-B	27	6	15	SH	9/22/2020	9	6.6	16.0	31	7.6	9.0	
ENR+AC-1-B	28	1	12	SH	9/23/2020	8	7.3	15.8	31	7.8	8.0	
ENR+AC-2-B	28	2	21	SH	9/23/2020	8	7.7	15.3	31	7.9	9.0	
ENR+AC-3-B	28	3	25	SH	9/23/2020	8	7.5	16.0	31	7.9	8.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-4-B	28	4	8	SH	9/23/2020	8	7.3	16.2	31	7.8	8.0	
ENR+AC-5- B	28	5	16	SH	9/23/2020	8	6.9	16.1	31	7.7	10.0	
ENR+AC-6-B	28	6	15	SH	9/23/2020	8	6.7	16.4	31	7.7	9.0	
ENR+AC-1-B	29	1	12	MS	9/24/2020	9	7.5	15.4	31	7.8	>10	
ENR+AC-2-B	29	2	21	MS	9/24/2020	9	7.4	14.8	30	7.8	>10	
ENR+AC-3-B	29	3	25	MS	9/24/2020	9	7.6	14.4	30	7.8	>10	
ENR+AC-4-B	29	4	8	MS	9/24/2020	9	7.6	15.4	31	7.9	>10	
ENR+AC-5- B	29	5	16	MS	9/24/2020	9	7.1	14.4	30	7.8	>10	
ENR+AC-6-B	29	6	15	MS	9/24/2020	9	7.3	14.8	30	7.8	>10	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-1-C	0	1	39	MS	8/26/2020	8	7.9	16.7	30	7.8	6.0	
ENR+AC-2-C	0	2	19	MS	8/26/2020	8	8.0	16.4	30	7.9	5.0	
ENR+AC-3-C	0	3	22	MS	8/26/2020	8	8.0	17.2	30	7.9	5.0	
ENR+AC-4-C	0	4	20	MS	8/26/2020	8	7.9	17.2	30	7.9	5.0	
ENR+AC-5-C	0	5	4	MS	8/26/2020	8	8.0	16.4	30	7.9	4.0	
ENR+AC-6-C	0	6	10	MS	8/26/2020	8	7.9	17.4	30	7.9	4.0	
ENR+AC-1-C	1	1	39	NH	8/27/2020	8	6.6	15.9	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-2-C	1	2	19	NH	8/27/2020	8	7.2	16.1	30	7.7	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-3-C	1	3	22	NH	8/27/2020	8	7.7	16.1	30	7.8	9.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-4-C	1	4	20	NH	8/27/2020	8	6.8	16.4	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-5-C	1	5	4	NH	8/27/2020	8	6.8	15.8	30	7.7	8.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-6-C	1	6	10	NH	8/27/2020	8	7.2	16.5	30	7.7	10.0	Increased flow rate range for test after approval from Wood. 8/27 MK
ENR+AC-1-C	2	1	39	NH	8/28/2020	8	7.1	15.9	30	7.8	10.0	
ENR+AC-2-C	2	2	19	NH	8/28/2020	8	7.4	16.1	30	7.8	8.0	
ENR+AC-3-C	2	3	22	NH	8/28/2020	8	7.4	16.1	30	7.8	9.0	
ENR+AC-4-C	2	4	20	NH	8/28/2020	8	6.9	16.4	30	7.7	9.0	
ENR+AC-5-C	2	5	4	NH	8/28/2020	8	6.9	16.0	30	7.7	7.0	
ENR+AC-6-C	2	6	10	NH	8/28/2020	8	6.8	16.5	30	7.7	10.0	
ENR+AC-1-C	3	1	39	NH	8/29/2020	9	7.0	15.9	30	7.7	10.0	
ENR+AC-2-C	3	2	19	NH	8/29/2020	9	7.2	15.7	30	7.7	7.0	
ENR+AC-3-C	3	3	22	NH	8/29/2020	9	7.2	16.3	30	7.7	9.0	
ENR+AC-4-C	3	4	20	NH	8/29/2020	9	6.7	16.2	30	7.7	9.0	
ENR+AC-5-C	3	5	4	NH	8/29/2020	9	7.4	15.9	30	7.7	7.0	
ENR+AC-6-C	3	6	10	NH	8/29/2020	9	7.2	16.5	30	7.7	10.0	
ENR+AC-1-C	4	1	39	NH	8/30/2020	9	6.9	16.0	30	7.7	10.0	
ENR+AC-2-C	4	2	19	NH	8/30/2020	9	7.0	15.8	30	7.7	8.0	
ENR+AC-3-C	4	3	22	NH	8/30/2020	9	7.5	16.3	30	7.8	9.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-4-C	4	4	20	NH	8/30/2020	9	6.8	16.4	30	7.7	9.0	
ENR+AC-5-C	4	5	4	NH	8/30/2020	9	7.0	15.7	30	7.7	8.0	
ENR+AC-6-C	4	6	10	NH	8/30/2020	9	6.6	16.6	30	7.7	10.0	
ENR+AC-1-C	5	1	39	RE	8/31/2020	9	6.4	15.9	31	7.7	10.0	
ENR+AC-2-C	5	2	19	RE	8/31/2020	9	5.9	15.7	31	7.7	10.0	
ENR+AC-3-C	5	3	22	RE	8/31/2020	9	7.3	16.4	31	7.8	10.0	
ENR+AC-4-C	5	4	20	RE	8/31/2020	9	7.0	16.4	31	7.8	10.0	
ENR+AC-5-C	5	5	4	RE	8/31/2020	9	6.6	15.7	31	7.7	10.0	
ENR+AC-6-C	5	6	10	RE	8/31/2020	9	6.9	16.6	31	7.8	10.0	
ENR+AC-1-C	6	1	39	DM	9/1/2020	9	6.4	16.2	31	7.7	10.0	
ENR+AC-2-C	6	2	19	DM	9/1/2020	9	6.8	16.2	31	7.8	9.0	
ENR+AC-3-C	6	3	22	DM	9/1/2020	9	7.3	16.7	31	7.8	9.0	
ENR+AC-4-C	6	4	20	DM	9/1/2020	9	6.8	16.7	31	7.8	9.0	
ENR+AC-5-C	6	5	4	DM	9/1/2020	9	5.8	16.5	31	7.5	9.0	
ENR+AC-6-C	6	6	10	DM	9/1/2020	9	6.9	16.9	31	7.8	9.0	
ENR+AC-1-C	7	1	39	MS	9/2/2020	9	7.0	15.6	31	7.8	10.0	
ENR+AC-2-C	7	2	19	MS	9/2/2020	9	6.8	15.5	31	7.7	8.0	
ENR+AC-3-C	7	3	22	MS	9/2/2020	9	7.4	16.1	31	7.8	10.0	
ENR+AC-4-C	7	4	20	MS	9/2/2020	9	6.8	16.0	31	7.7	9.0	
ENR+AC-5-C	7	5	4	MS	9/2/2020	9	7.2	15.9	31	7.7	8.0	
ENR+AC-6-C	7	6	10	MS	9/2/2020	9	6.8	16.3	31	7.7	10.0	
ENR+AC-1-C	8	1	39	SH	9/3/2020	8	7.2	15.8	31	7.8	10.0	
ENR+AC-2-C	8	2	19	SH	9/3/2020	8	6.8	15.7	31	7.8	7.0	
ENR+AC-3-C	8	3	22	SH	9/3/2020	8	7.6	16.3	31	7.8	9.0	
ENR+AC-4-C	8	4	20	SH	9/3/2020	8	7.0	16.2	31	7.8	9.0	
ENR+AC-5-C	8	5	4	SH	9/3/2020	8	6.8	16.1	31	7.7	6.0	
ENR+AC-6-C	8	6	10	SH	9/3/2020	8	6.7	16.4	31	7.7	9.0	
ENR+AC-1-C	9	1	39	MK	9/4/2020	8	7.2	16.0	31	7.7	10.0	
ENR+AC-2-C	9	2	19	MK	9/4/2020	8	6.8	15.8	31	7.7	8.0	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-3-C	9	3	22	MK	9/4/2020	8	7.3	16.5	31	7.8	9.0	
ENR+AC-4-C	9	4	20	MK	9/4/2020	8	6.4	16.3	31	7.7	10.0	
ENR+AC-5-C	9	5	4	mk	9/4/2020	8	7.5	16.1	31	7.8	8.0	
ENR+AC-6-C	9	6	10	MK	9/4/2020	8	7.5	16.3	31	7.8	9.0	
ENR+AC-1-C	10	1	39	NH	9/5/2020	9	6.8	15.6	31	7.7	9.0	
ENR+AC-2-C	10	2	19	NH	9/5/2020	9	7.0	15.7	31	7.8	8.0	
ENR+AC-3-C	10	3	22	NH	9/5/2020	9	7.6	16.4	31	7.9	8.0	
ENR+AC-4-C	10	4	20	NH	9/5/2020	9	7.0	16.3	31	7.7	8.0	
ENR+AC-5-C	10	5	4	NH	9/5/2020	9	7.0	15.6	31	7.8	9.0	
ENR+AC-6-C	10	6	10	NH	9/5/2020	9	7.0	16.4	31	7.8	10.0	
ENR+AC-1-C	11	1	39	NH	9/6/2020	8	6.5	15.8	30	7.7	8.0	
ENR+AC-2-C	11	2	19	NH	9/6/2020	8	7.3	15.9	31	7.8	7.0	
ENR+AC-3-C	11	3	22	NH	9/6/2020	8	7.5	16.6	31	7.9	8.0	
ENR+AC-4-C	11	4	20	NH	9/6/2020	8	6.7	16.4	30	7.7	9.0	
ENR+AC-5-C	11	5	4	NH	9/6/2020	8	7.0	15.9	30	7.7	9.0	
ENR+AC-6-C	11	6	10	NH	9/6/2020	8	7.4	16.6	30	7.8	9.0	
ENR+AC-1-C	12	1	39	SH	9/7/2020	9	6.7	16.2	31	7.8	7.0	
ENR+AC-2-C	12	2	19	SH	9/7/2020	9	7.3	16.3	31	7.8	10.0	
ENR+AC-3-C	12	3	22	SH	9/7/2020	9	7.3	16.9	31	7.9	7.0	Increased flow to water tub - SH 9/7/2020
ENR+AC-4-C	12	4	20	SH	9/7/2020	9	6.7	16.6	31	7.7	7.0	
ENR+AC-5-C	12	5	4	SH	9/7/2020	9	6.9	16.2	31	7.8	8.0	
ENR+AC-6-C	12	6	10	SH	9/7/2020	9	7.1	16.8	31	7.8	10.0	
ENR+AC-1-C	13	1	39	DM	9/8/2020	9	6.8	16.0	31	7.7	8.0	
ENR+AC-2-C	13	2	19	DM	9/8/2020	9	6.5	16.0	31	7.8	9.0	
ENR+AC-3-C	13	3	22	DM	9/8/2020	9	7.5	16.6	31	7.9	8.0	
ENR+AC-4-C	13	4	20	DM	9/8/2020	9	6.5	16.6	31	7.7	8.0	
ENR+AC-5-C	13	5	4	DM	9/8/2020	9	6.8	16.0	31	7.8	9.0	
ENR+AC-6-C	13	6	10	DM	9/8/2020	9	6.9	16.5	31	7.8	9.0	
ENR+AC-1-C	14	1	39	NH	9/9/2020	8	7.6	16.1	31	7.8	5.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-2-C	14	2	19	NH	9/9/2020	8	7.2	15.8	31	7.8	7.0	
ENR+AC-3-C	14	3	22	NH	9/9/2020	8	7.7	16.2	31	7.9	6.0	
ENR+AC-4-C	14	4	20	NH	9/9/2020	8	7.3	16.5	31	7.8	6.0	
ENR+AC-5-C	14	5	4	NH	9/9/2020	8	7.3	15.8	31	7.8	7.0	
ENR+AC-6-C	14	6	10	NH	9/9/2020	8	7.3	16.7	31	7.8	7.0	
ENR+AC-1-C	15	1	39	MS	9/10/2020	8	6.8	16.0	31	7.7	8.0	
ENR+AC-2-C	15	2	19	MS	9/10/2020	8	7.7	15.8	31	7.9	9.0	
ENR+AC-3-C	15	3	22	MS	9/10/2020	8	7.3	16.4	31	7.8	8.0	
ENR+AC-4-C	15	4	20	MS	9/10/2020	8	6.4	16.5	31	7.7	8.0	
ENR+AC-5-C	15	5	4	MS	9/10/2020	8	7.5	16.0	31	7.8	8.0	
ENR+AC-6-C	15	6	10	MS	9/10/2020	8	6.9	16.9	31	7.8	8.0	
ENR+AC-1-C	16	1	39	SH	9/11/2020	8	7.5	16.2	31	7.8	9.0	
ENR+AC-2-C	16	2	19	SH	9/11/2020	8	7.9	15.8	31	7.9	9.0	
ENR+AC-3-C	16	3	22	SH	9/11/2020	8	7.8	16.2	31	7.9	8.0	
ENR+AC-4-C	16	4	20	SH	9/11/2020	8	7.1	16.4	31	7.8	8.0	
ENR+AC-5-C	16	5	4	SH	9/11/2020	9	7.5	15.9	31	7.8	8.0	
ENR+AC-6-C	16	6	10	SH	9/11/2020	8	7.3	16.6	31	7.8	8.0	
ENR+AC-1-C	17	1	39	JB	9/12/2020	9	7.8	16.4	30	8.0	8.0	
ENR+AC-2-C	17	2	19	JB	9/12/2020	9	7.3	16.2	30	7.9	8.0	
ENR+AC-3-C	17	3	22	JB	9/12/2020	9	7.5	16.5	30	7.9	10.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-4-C	17	4	20	JB	9/12/2020	9	6.8	16.7	30	7.8	8.0	
ENR+AC-5-C	17	5	4	JB	9/12/2020	9	7.2	16.3	30	7.9	8.0	
ENR+AC-6-C	17	6	10	JB	9/12/2020	9	7.3	17.0	30	7.9	8.0	
ENR+AC-1-C	18	1	39	DM	9/13/2020	9	6.9	16.6	30	7.8	9.0	
ENR+AC-2-C	18	2	19	DM	9/13/2020	9	7.7	16.2	30	7.9	8.0	
ENR+AC-3-C	18	3	22	DM	9/13/2020	9	7.6	16.7	30	7.9	8.0	
ENR+AC-4-C	18	4	20	DM	9/13/2020	9	7.6	16.9	30	7.9	9.0	
ENR+AC-5-C	18	5	4	DM	9/13/2020	9	7.3	16.6	30	7.9	9.0	
ENR+AC-6-C	18	6	10	DM	9/13/2020	9	7.3	17.2	30	7.9	8.0	
ENR+AC-1-C	19	1	39	DM	9/14/2020	9	6.9	16.3	30	7.7	8.0	
ENR+AC-2-C	19	2	19	DM	9/14/2020	9	7.5	16.2	30	7.9	8.0	
ENR+AC-3-C	19	3	22	DM	9/14/2020	9	7.6	16.5	30	7.9	9.0	
ENR+AC-4-C	19	4	20	DM	9/14/2020	9	7.4	16.8	30	7.9	9.0	
ENR+AC-5-C	19	5	4	DM	9/14/2020	9	7.5	16.3	30	7.9	9.0	
ENR+AC-6-C	19	6	10	DM	9/14/2020	9	7.3	17.1	30	7.9	9.0	
ENR+AC-1-C	20	1	39	MS	9/15/2020	9	7.7	16.2	30	8.0	10.0	
ENR+AC-2-C	20	2	19	MS	9/15/2020	9	7.4	15.6	30	7.9	10.0	
ENR+AC-3-C	20	3	22	MS	9/15/2020	9	7.6	16.5	30	7.9	10.0	
ENR+AC-4-C	20	4	20	MS	9/15/2020	9	7.3	16.4	30	7.8	10.0	
ENR+AC-5-C	20	5	4	MS	9/15/2020	9	7.2	15.9	30	7.8	10.0	
ENR+AC-6-C	20	6	10	MS	9/15/2020	9	7.1	17.0	30	7.8	10.0	
ENR+AC-1-C	21	1	39	SH	9/16/2020	9	7.6	15.7	30	7.9	8.0	
ENR+AC-2-C	21	2	19	SH	9/16/2020	9	7.3	15.2	30	7.8	9.0	
ENR+AC-3-C	21	3	22	SH	9/16/2020	9	7.7	16.7	30	7.9	9.0	
ENR+AC-4-C	21	4	20	SH	9/16/2020	9	7.4	16.5	30	7.8	10.0	
ENR+AC-5-C	21	5	4	SH	9/16/2020	9	7.4	15.9	30	7.8	8.0	
ENR+AC-6-C	21	6	10	SH	9/16/2020	9	7.2	16.6	30	7.8	8.0	
ENR+AC-1-C	22	1	39	NH	9/17/2020	9	6.9	15.4	30	7.7	10.0	
ENR+AC-2-C	22	2	19	NH	9/17/2020	9	7.9	15.2	30	7.9	9.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-3-C	22	3	22	NH	9/17/2020	9	7.8	16.7	31	7.9	8.0	
ENR+AC-4-C	22	4	20	NH	9/17/2020	9	7.8	16.4	31	7.9	10.0	
ENR+AC-5-C	22	5	4	NH	9/17/2020	9	7.4	15.5	30	7.8	8.0	
ENR+AC-6-C	22	6	10	NH	9/17/2020	9	6.7	16.6	30	7.6	8.0	
ENR+AC-1-C	23	1	39	MS	9/18/2020	8	7.1	15.3	31	7.7	9.0	
ENR+AC-2-C	23	2	19	MS	9/18/2020	8	7.8	15.5	31	7.9	9.0	
ENR+AC-3-C	23	3	22	MS	9/18/2020	8	7.6	16.3	31	7.8	10.0	
ENR+AC-4-C	23	4	20	MS	9/18/2020	8	7.6	16.2	31	7.8	8.0	
ENR+AC-5-C	23	5	4	MS	9/18/2020	8	7.4	15.4	31	7.8	9.0	
ENR+AC-6-C	23	6	10	MS	9/18/2020	8	7.1	16.6	31	7.7	9.0	
ENR+AC-1-C	24	1	39	SH	9/19/2020	9	8.0	15.6	31	7.8	9.0	
ENR+AC-2-C	24	2	19	SH	9/19/2020	9	7.8	15.0	31	7.3	8.0	
ENR+AC-3-C	24	3	22	SH	9/19/2020	9	7.7	16.1	31	7.4	10.0	
ENR+AC-4-C	24	4	20	SH	9/19/2020	9	6.9	16.2	31	7.4	9.0	
ENR+AC-5-C	24	5	4	SH	9/19/2020	9	7.1	15.4	30	7.8	8.0	
ENR+AC-6-C	24	6	10	SH	9/19/2020	9	6.8	16.4	31	7.3	8.0	
ENR+AC-1-C	25	1	39	NH	9/20/2020	8	7.1	15.3	31	7.8	8.0	
ENR+AC-2-C	25	2	19	NH	9/20/2020	8	7.6	15.0	31	7.9	9.0	
ENR+AC-3-C	25	3	22	NH	9/20/2020	8	7.6	16.2	31	7.9	8.0	
ENR+AC-4-C	25	4	20	NH	9/20/2020	8	7.5	16.2	31	7.8	9.0	
ENR+AC-5-C	25	5	4	NH	9/20/2020	8	7.7	15.4	31	7.8	9.0	
ENR+AC-6-C	25	6	10	NH	9/20/2020	8	6.6	16.6	31	7.7	8.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
ENR+AC-1-C	26	1	39	DM	9/21/2020	9	6.9	15.6	31	7.7	8.0	
ENR+AC-2-C	26	2	19	DM	9/21/2020	9	7.8	15.1	31	7.9	10.0	
ENR+AC-3-C	26	3	22	DM	9/21/2020	9	7.8	16.1	31	7.9	10.0	
ENR+AC-4-C	26	4	20	DM	9/21/2020	9	7.8	16.2	31	7.9	9.0	
ENR+AC-5-C	26	5	4	DM	9/21/2020	9	7.7	15.3	31	7.9	9.0	
ENR+AC-6-C	26	6	10	DM	9/21/2020	9	6.6	16.5	31	7.7	10.0	
ENR+AC-1-C	27	1	39	SH	9/22/2020	9	7.7	15.4	31	7.8	8.0	
ENR+AC-2-C	27	2	19	SH	9/22/2020	9	7.7	14.8	31	7.9	9.0	
ENR+AC-3-C	27	3	22	SH	9/22/2020	9	7.8	15.6	31	7.9	9.0	
ENR+AC-4-C	27	4	20	SH	9/22/2020	9	7.6	15.6	31	7.8	9.0	
ENR+AC-5-C	27	5	4	SH	9/22/2020	9	7.6	15.3	31	7.8	8.0	
ENR+AC-6-C	27	6	10	SH	9/22/2020	9	5.7	15.9	31	7.7	9.0	
ENR+AC-1-C	28	1	39	SH	9/23/2020	8	7.9	15.8	31	7.9	8.0	
ENR+AC-2-C	28	2	19	SH	9/23/2020	8	7.7	15.2	31	7.9	10.0	
ENR+AC-3-C	28	3	22	SH	9/23/2020	8	7.6	15.8	31	7.8	8.0	
ENR+AC-4-C	28	4	20	SH	9/23/2020	8	7.5	15.9	31	7.9	9.0	
ENR+AC-5-C	28	5	4	SH	9/23/2020	8	7.3	15.6	31	7.8	8.0	
ENR+AC-6-C	28	6	10	SH	9/23/2020	8	4.6	16.5	31	7.6	8.0	
ENR+AC-1-C	29	1	39	MS	9/24/2020	9	7.3	14.5	30	7.8	>10	
ENR+AC-2-C	29	2	19	MS	9/24/2020	9	7.1	14.7	30	7.8	>10	
ENR+AC-3-C	29	3	22	MS	9/24/2020	9	7.5	14.6	30	7.8	>10	
ENR+AC-4-C	29	4	20	MS	9/24/2020	9	7.4	14.5	30	7.8	>10	
ENR+AC-5-C	29	5	4	MS	9/24/2020	9	7.3	14.5	30	7.8	>10	
ENR+AC-6-C	29	6	10	MS	9/24/2020	9	7.1	14.8	30	7.8	>10	

EcoAnalysts, Inc.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L) > 4.5	TEMP (°C) 13 - 17	SALINITY (ppt) 30 - 34	pH 7.3 - 8.3	FLOW (mL/30 sec) 8 - 10	Select Notes
Water Control	0	1	40	MS	8/26/2020	8	8.0	16.1	30	7.9	5.0	
Water Control	1	1	40	NH	8/27/2020	8	7.6	15.6	30	7.9	8.0	Increased flow rate range for test after approval from Wood. 8/27 MK
Water Control	2	1	40	NH	8/28/2020	8	7.7	15.4	30	8.0	8.0	
Water Control	3	1	40	NH	8/29/2020	9	7.6	15.4	30	7.9	7.0	
Water Control	4	1	40	NH	8/30/2020	9	7.6	15.4	30	7.8	8.0	
Water Control	5	1	40	RE	8/31/2020	9	7.5	15.3	31	7.9	9.0	
Water Control	6	1	40	DM	9/1/2020	9	7.5	15.8	31	7.9	9.0	
Water Control	7	1	40	MS	9/2/2020	9	7.2	15.2	31	7.8	8.0	
Water Control	8	1	40	SH	9/3/2020	8	7.4	15.2	31	7.8	7.0	
Water Control	9	1	40	MK	9/4/2020	8	7.5	15.4	31	7.8	8.0	
Water Control	10	1	40	NH	9/5/2020	9	7.5	15.0	31	7.9	9.0	
Water Control	11	1	40	NH	9/6/2020	8	7.9	15.3	31	7.7	7.0	
Water Control	12	1	40	SH	9/7/2020	9	7.4	15.6	31	7.9	6.0	
Water Control	13	1	40	DM	9/8/2020	9	7.0	15.5	31	7.9	8.0	
Water Control	14	1	40	NH	9/9/2020	8	7.7	15.1	31	7.9	6.0	
Water Control	15	1	40	MS	9/10/2020	8	7.5	15.3	31	7.9	8.0	
Water Control	16	1	40	SH	9/11/2020	8	7.7	15.5	31	7.9	10.0	
Water Control	17	1	40	JB	9/12/2020	9	7.8	15.8	30	8.0	8.0	
Water Control	18	1	40	DM	9/13/2020	9	7.6	15.6	30	7.9	9.0	
Water Control	19	1	40	DM	9/14/2020	9	7.1	15.6	30	7.9	8.0	
Water Control	20	1	40	MS	9/15/2020	9	7.8	15.2	30	8.0	10.0	
Water Control	21	1	40	SH	9/16/2020	9	7.7	14.7	30	7.9	9.0	
Water Control	22	1	40	NH	9/17/2020	9	7.8	14.6	30	7.9	10.0	
Water Control	23	1	40	MS	9/18/2020	8	8.0	14.3	31	7.9	8.0	
Water Control	24	1	40	SH	9/19/2020	9	7.8	15.6	31	7.8	9.0	
Water Control	25	1	40	NH	9/20/2020	8	8.1	14.3	31	7.9	9.0	
Water Control	26	1	40	DM	9/21/2020	9	8.0	14.3	31	7.9	10.0	
Water Control	27	1	40	SH	9/22/2020	9	8.0	14.2	31	7.9	10.0	
Water Control	28	1	40	SH	9/23/2020	8	8.1	14.6	31	8.0	8.0	

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test WQ Data Sheet

CLIENT	PROJECT	SPECIES	LABORATORY	PROTOCOL
Wood	LDWG	*Nephtys caecoides , Mya arenaria*	Port Gamble	USEPA 1993; ASTM E1022-94 ,
PROJECT NUMBER	**PROJECT MANAGER**	**WATER DESCRIPTION**	**TEST START DATE**	**TEST END DATE**
PG1017	Michelle Knowlen	10 um filtered Hood Canal Seawater	26-Aug-2020	23-Sep-2020

WATER QUALITY DATA

SAMPLE ID	DAY	REP	JAR #	TECHNICIAN	Date	Meter	DO (mg/L)	TEMP (°C)	SALINITY (ppt)	pH	FLOW (mL/30 sec)	Select Notes
							> 4.5	13 - 17	30 - 34	7.3 - 8.3	8 - 10	
Water Control	29	1	40									Water control terminated Day 28; No WQ needed

EcoAnalysts, Inc.

28 Day Bioaccumulation Observation Data Sheet

CLIENT	PROJECT	PROJECT NO.	PROJECT MANAGER	LABORATORY	PROTOCOL	SPECIES
Wood	LDWG	PG1017	Michelle Knowlen	Port Gamble	USEPA 1993; ASTM E1022-94	*Nephtys caecoides , Mya arenaria*

Observation Key
#C/W BBC= Number of clam/worm burrows below cap
#S= Number on the Surface
#M= Number of Mortalities
L=Anoxic Surface
F=Fungal Patches
D=No Air Flow (DO?)
N=Normal
TC= Too Cloudy to Observe

ENDPOINT DATA & OBSERVATIONS

CLIENT ID	REP	Jar #	Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Comments
Tech				NH	NH	NH	NH	RE	DM	MS	SH	MK	NH	NH	SH	DM	NH	MS	SH	JB	DM	DM	MS	SH	NH	MS	SH	NH	DM	SH	SH	
Date				08/27/20	08/28/20	08/29/20	08/30/20	08/31/20	09/01/20	09/02/20	09/03/20	09/04/20	09/05/20	09/06/20	09/07/20	09/08/20	09/09/20	09/10/20	09/11/20	09/12/20	09/13/20	09/14/20	09/15/20	09/01/20	09/17/20	09/18/20	09/19/20	09/20/20	09/21/20	09/22/20	09/23/20	
Sed Control	1	35		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Sed Control	2	6		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Sed Control	3	31		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Sed Control	4	41		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Sed Control	5	5		N	N	N	N	N	N	N	N	N	1M	N	N	N	N	N	N	F	F	F	F	F	F	F	F	F	F	F	F	1 Mortality, could not reach the full shell because it was buried deep in the sediment. NH 9/5
Sed Control	6	18		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
ENR-1-A	1	37		4CS	4CS	2CS	2CS	2CS	3CS	3CS	2CS	2CS	1CS	1CS	1CS	1CS	N	2CS	1CS	N	N	N	N	N	F	N	N	N	N	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR-2-A	2	3		4CS	4CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	3CS	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR-3-A	3	27		3CS	3CS	2CS	2CS	2CS	2CS	2CS	2CS	1CS	1CS	1CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	1CS, 1M	1CS	N	N	N	N	N	N	N	N	
ENR-4-A	4	9		3CS	3CS	1CS	2CS	1CS	1CS	2CS	1CS	1CS	1CS	1CS	N	N	N	1CS	N	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR-5-A	5	33		3CS	3CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR-6-A	6	28		1CS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	

EcoAnalysts, Inc.

28 Day Bioaccumulation Observation Data Sheet

CLIENT	PROJECT	PROJECT NO.	PROJECT MANAGER	LABORATORY	PROTOCOL	SPECIES
Wood	LDWG	PG1017	Michelle Knowlen	Port Gamble	USEPA 1993; ASTM E1022-94	*Nephtys caecoides , Mya arenaria*

Observation Key
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#S= Number on the Surface
#M= Number of Mortalities
L=Anoxic Surface
F=Fungal Patches
D=No Air Flow (DO?)
N=Normal
TC= Too Cloudy to Observe

ENDPOINT DATA & OBSERVATIONS

			Tech	NH	NH	NH	NH	RE	DM	MS	SH	MK	NH	NH	SH	DM	NH	MS	SH	JB	DM	DM	MS	SH	NH	MS	SH	NH	DM	SH	SH	
			Date	08/27/20	08/28/20	08/29/20	08/30/20	08/31/20	09/01/20	09/02/20	09/03/20	09/04/20	09/05/20	09/06/20	09/07/20	09/08/20	09/09/20	09/10/20	09/11/20	09/12/20	09/13/20	09/14/20	09/15/20	09/01/20	09/17/20	09/18/20	09/19/20	09/20/20	09/21/20	09/22/20	09/23/20	
CLIENT ID	REP	Jar #	Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Comments
ENR-1-B	1	30		2CS	2CS	2CS	2CS	1CS	2CS	2CS	1CS	1CS	1CS	1CS	2CS	2CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	N	N	1CS	1CS	1CS	1CS	
ENR-2-B	2	34		TC	2CS	2CS	2CS	1CS	1CS	1CS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR-3-B	3	38		2CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	2CS	1CS	1CS	1CS	1CS	2CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR-4-B	4	13		3CS	3CS	2CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	N	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR-5-B	5	26		2CS	1CS	1CS	1CS	2CS	2CS	2CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	N	N	N	N	N	N	N	N	
ENR-6-B	6	43		2CS	2CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	N	N	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR-1-C	1	1		N	1CS	1CS	N	N	1CS	1CS	N	N	N	N	1CS	1CS	N	1CS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR-2-C	2	7		2CS	2CS	2CS	2CS	1CS	2CS	2CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR-3-C	3	2		2CS	2CS	2CS	2CS	2CS	2CS	2CS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR-4-C	4	23		3CS	2CS	2CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR-5-C	5	42		2CS	2CS	1CS	1CS	1CS	N	1CS	1CS	1CS	1CS	1CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	
ENR-6-C	6	29		3CS	3CS	3CS	3CS	3CS	3CS	3CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	

EcoANALYSTS, INC.

28 Day Bioaccumulation Observation Data Sheet

CLIENT	PROJECT	PROJECT NO.	PROJECT MANAGER	LABORATORY	PROTOCOL	SPECIES
Wood	LDWG	PG1017	Michelle Knowlen	Port Gamble	USEPA 1993; ASTM E1022-94	*Nephtys caecoides , Mya arenaria*

Observation Key
#C/W BBC= Number of clam/worm burrows below cap
#S= Number on the Surface
#M= Number of Mortalities
L=Anoxic Surface
F=Fungal Patches
D=No Air Flow (DO?)
N=Normal
TC= Too Cloudy to Observe

ENDPOINT DATA & OBSERVATIONS

CLIENT ID	REP	Jar #	Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Comments
			Tech	NH	NH	NH	NH	RE	DM	MS	SH	MK	NH	NH	SH	DM	NH	MS	SH	JB	DM	DM	MS	SH	NH	MS	SH	NH	DM	SH	SH	
			Date	08/27/20	08/28/20	08/29/20	08/30/20	08/31/20	09/01/20	09/02/20	09/03/20	09/04/20	09/05/20	09/06/20	09/07/20	09/08/20	09/09/20	09/10/20	09/11/20	09/12/20	09/13/20	09/14/20	09/15/20	09/01/20	09/17/20	09/18/20	09/19/20	09/20/20	09/21/20	09/22/20	09/23/20	
ENR+AC-1-A	1	11		3CS	1CS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR+AC-2-A	2	32		1CS	1CS	1CS	1CS	N	N	1CS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
ENR+AC-3-A	3	17		2CS	2CS	2CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR+AC-4-A	4	24		1CS	1CS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
ENR+AC-5-A	5	14		4CS	4CS,2 WS	N	N	N	N	N	N	N	N	N	N	N	N	N	1M	N	N	N	F	F	F	F	F	F	F	F	F	
ENR+AC-6-A	6	36		2CS	1CS	1CS	1CS	1CS	N	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	N	1CS	N	N	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR+AC-1-B	1	12		TC	1CS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR+AC-2-B	2	21		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR+AC-3-B	3	25		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR+AC-4-B	4	8		1CS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR+AC-5-B	5	16		1CS	1CS	1CS	1CS,1 WS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	N	N	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	N	1CS	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR+AC-6-B	6	15		1CS	1CS	1CS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR+AC-1-C	1	39		TC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	F	F	F	F	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR+AC-2-C	2	19		1CS	3CS	N	1CS	N	2CS	1CS	1CS,1 CM	N	N	N	N	N	N	N	1CS	N	N	N	1CS	1CS	N	1CS	1CS	1CS	1CS	1CS	1CS	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR+AC-3-C	3	22		2CS	2CS	N	1CS	N	N	N	N	N	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR+AC-4-C	4	20		1CS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	F	F	N	N	Anoxic spots appearing below the surface of the sediment. 8/30/2020 NH
ENR+AC-5-C	5	4		3CS	3CS	3CS	3CS	2CS	3CS	3CS	3CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	2CS	
ENR+AC-6-C	6	10		3CS	2CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	1CS	F,1CS	F,1CS	F	F,1CS	F,1CS	F, 1CS	F,1CS	F,1CS	

EcoAnalysts, Inc.

28 Day Bioaccumulation Survival Summary

CLIENT			SPECIES 1						SPECIES 2				
Wood			*Nephtys caecoides*						*Mya arenaria*				
PROJECT			Date Recovered [Initials]:		Date Preserved [Initials]:		Remove Mucus/Fecal Matter [Initials]:		Date Recovered [Initials]:		Date Preserved [Initials]:		
LDWG			9/23/2020 MK/RE		9/24/2020 NH/MS				9/23/2020 MK/RE		9/24/2020 NH/MS		
Sample ID	Rep	Jar #	# Alive	# Dead	Recovery Time	Preservation Time	Event 1 (date/time)	Event 2 (date/time)	# Alive	# Dead	Recovery Time	Preservation Time	Comments
Sed Control	1	35	19	0	1540	1440			4	0	1540	1440	
Sed Control	2	6	16	0	1020	953			4	0	1020	953	
Sed Control	3	31	19	0	1502	1405			5	0	1502	1405	
Sed Control	4	41	20	0	1630	1530			5	0	1630	1530	
Sed Control	5	5	18	0	1010	947			3	1	1010	947	
Sed Control	6	18	19	0	1257	1159			4	0	1257	1159	
ENR-1-A	1	37	19	0	1555	1455			4	0	1555	1455	
ENR-2-A	2	3	19	0	934	9:32			4	0	934	932	1 C on S excluded from tissues
ENR-3-A	3	27	20	0	1425	1345			3	0	1425	1345	1 C on S excluded from tissues
ENR-4-A	4	9	19	1	1047	1014			4	0	1047	1014	1 C on S excluded from tissues
ENR-5-A	5	33	20	0	1529	1431			4	0	1529	1431	1 C on S excluded from tissues
ENR-6-A	6	28	19	0	1425	1349			4	0	1425	1349	
ENR-1-B	1	30	18	0	1456	1400			4	0	1456	1400	1 C on S excluded from tissues
ENR-2-B	2	34	19	0	1525	1425			4	0	1525	1425	
ENR-3-B	3	38	10	0	1607	1508			4	0	1607	1508	1 C on S excluded from tissues
ENR-4-B	4	13	19	0	1210	1110			4	0	1210	1110	1 C on S excluded from tissues
ENR-5-B	5	26	19	1	1410	1339			4	0	1410	1339	
ENR-6-B	6	43	20	0	1626	1526			4	0	1626	1526	1 C on S excluded from tissues
ENR-1-C	1	1	20	0	9:05	9:12			4	0	905	912	
ENR-2-C	2	7	19	0	1023	958			4	0	1023	958	1 C on S excluded from tissues
ENR-3-C	3	2	19	0	917	9:24			4	0	917	924	
ENR-4-C	4	23	20	0	1348	1321			4	0	1348	1321	1 C on S excluded from tissues
ENR-5-C	5	42	20	0	1615	1519			4	0	1615	1519	2 C on S excluded from tissues
ENR-6-C	6	29	19	0	1444	1354			4	0	1444	1354	2 C on S excluded from tissues

ECO ANALYSTS, INC.

28 Day Bioaccumulation Survival Summary

CLIENT			SPECIES 1						SPECIES 2				
Wood			*Nephtys caecoides*						*Mya arenaria*				
PROJECT			Date Recovered [Initials]:		Date Preserved [Initials]:		Remove Mucus/Fecal Matter [Initials]:		Date Recovered [Initials]:		Date Preserved [Initials]:		
LDWG			9/23/2020 MK/RE		9/24/2020 NH/MS				9/23/2020 MK/RE		9/24/2020 NH/MS		
Sample ID	Rep	Jar #	# Alive	# Dead	Recovery Time	Preservation Time	Event 1 (date/time)	Event 2 (date/time)	# Alive	# Dead	Recovery Time	Preservation Time	Comments
ENR+AC-1-A	1	11	20	0	1113	1027			4	0	1113	1027	
ENR+AC-2-A	2	32	20	0	1510	1412			4	0	1510	1412	
ENR+AC-3-A	3	17	18	0	1255	1155			3	1	1255	1155	1 C on S excluded from tissues
ENR+AC-4-A	4	24	20	0	1355	1327			4	0	1355	1327	
ENR+AC-5-A	5	14	19	0	1216	1116			3	0	1216	1116	
ENR+AC-6-A	6	36	19	0	1545	1445			4	0	1545	1445	1 C on S excluded from tissues
ENR+AC-1-B	1	12	20	0	1205	9:02			4	0	1205	1105	
ENR+AC-2-B	2	21	19	0	1331	1232			4	0	1331	1232	
ENR+AC-3-B	3	25	20	0	1405	1334			4	0	1405	1334	
ENR+AC-4-B	4	8	16	0	1035	1004			3	1	1035	1004	
ENR+AC-5-B	5	16	19	0	1239	1140			4	0	1239	1140	
ENR+AC-6-B	6	15	16	0	1235	1135			4	0	1235	1135	
ENR+AC-1-C	1	39	18	0	1608	1513			4	0	1608	1513	
ENR+AC-2-C	2	19	13	0	1308	1208			3	0	1308	1208	1 C on S excluded from tissues
ENR+AC-3-C	3	22	17	0	1335	1313			4	0	1335	1313	1 C on S excluded from tissues
ENR+AC-4-C	4	20	19	0	1312	1212			4	0	1312	1212	
ENR+AC-5-C	5	4	18	0	954	936			4	0	954	936	3 C on S excluded from tissues
ENR+AC-6-C	6	10	19	0	1100	1019			3	1	1100	1019	

ECOANALYSTS, INC.

28 Day Bioaccumulation Test Weights

CLIENT			SPECIES 1		SPECIES 2	
Wood			*Nephtys caecoides*		*Mya arenaria*	
PROJECT LDWG			Preservation Jar Tare Weight (g) [Initials]: MK	Total Wet Weight (g) [Initials]: NH/MS	Preservation Jar Tare Weight (g) [Initials]: MK	Total Wet Weight (g) [Initials]: NH/MS
Sample ID	**Rep**	**Jar #**	[Jar + Lid]	[Jar, Lid, Tissue]	[Jar + Lid]	[Jar, Lid, Tissue]
Sed Control	1	35	120.6	125.7	166.9	195
Sed Control	2	6	120.7	124.4	167.2	203.1
Sed Control	3	31	120.8	128.8	167.0	205
Sed Control	4	41	121.1	124.9	166.3	218.5
Sed Control	5	5	120.9	127.4	166.5	193.8
Sed Control	6	18	120.4	127.7	166.7	193.9
ENR-1-A	1	37	120.1	125.6	167.1	204.9
ENR-2-A	2	3	121.0	128.7	167.8	209.6
ENR-3-A	3	27	120.2	125.4	167.8	181.5
ENR-4-A	4	9	121.2	128.1	167.1	191.9
ENR-5-A	5	33	120.5	129.4	167.2	193.7
ENR-6-A	6	28	120.3	124.7	167.5	196.3
ENR-1-B	1	30	121.0	126.9	167.1	187.5
ENR-2-B	2	34	120.2	124.4	167.3	211.2
ENR-3-B	3	38	120.4	125	167.4	187
ENR-4-B	4	13	120.6	124.2	167.0	198.6
ENR-5-B	5	26	120.6	125.2	167.3	209.2
ENR-6-B	6	43	120.6	132.8	167.1	188.7
ENR-1-C	1	1	121.0	127.7	165.4	193.5
ENR-2-C	2	7	120.9	126.8	165.5	184.4
ENR-3-C	3	2	120.7	127.8	168.3	201.8
ENR-4-C	4	23	120.4	128.1	165.4	190
ENR-5-C	5	42	120.6	123.5	168.2	187.7
ENR-6-C	6	29	120.0	125.6	165.7	187.2

ECO ANALYSTS, INC.

28 Day Bioaccumulation Test Weights

CLIENT			SPECIES 1		SPECIES 2	
Wood			*Nephtys caecoides*		*Mya arenaria*	
PROJECT LDWG			Preservation Jar Tare Weight (g) [Initials]: MK	Total Wet Weight (g) [Initials]: NH/MS	Preservation Jar Tare Weight (g) [Initials]: MK	Total Wet Weight (g) [Initials]: NH/MS
Sample ID	**Rep**	**Jar #**	[Jar + Lid]	[Jar, Lid, Tissue]	[Jar + Lid]	[Jar, Lid, Tissue]
ENR+AC-1-A	1	11	121.1	125.9	166.9	203.9
ENR+AC-2-A	2	32	120.4	126.7	167.4	194.7
ENR+AC-3-A	3	17	121.1	129.5	167.6	180.3
ENR+AC-4-A	4	24	120.6	126.7	167.0	202.1
ENR+AC-5-A	5	14	121.1	126.6	167.4	189.5
ENR+AC-6-A	6	36	120.5	124.8	167.6	186.5
ENR+AC-1-B	1	12	120.4	126	166.6	195
ENR+AC-2-B	2	21	120.9	127.7	167.8	197.4
ENR+AC-3-B	3	25	120.9	125.6	166.9	190.4
ENR+AC-4-B	4	8	120.9	126.3	167.6	187.7
ENR+AC-5-B	5	16	120.4	129.7	166.8	201.5
ENR+AC-6-B	6	15	120.6	124.6	166.5	212.3
ENR+AC-1-C	1	39	120.7	124.6	167.6	199.9
ENR+AC-2-C	2	19	120.6	124.5	166.9	184.5
ENR+AC-3-C	3	22	120.3	126.6	167.4	198.2
ENR+AC-4-C	4	20	121.2	128.9	166.6	204.6
ENR+AC-5-C	5	4	121.0	126.7	167.0	178.5
ENR+AC-6-C	6	10	120.8	124.9	167.1	192.1

ECO ANALYSTS, INC.

28 Day Bioaccumulation Survival Summary

CLIENT			SPECIES 1							SPECIES 2				
Wood			*Nephtys caecoides*							*Mya arenaria*				
PROJECT			Survival Summary					Tissue Wet Weight (g)	Average Tissue Weight (g)	Survival Summary				
LDWG														
Sample ID	Rep	Jar #	# Initiated	# Alive	% Survival	Mean Survival (%)	SD	[Total - Tare]		# Initiated	# Alive	% Survival	Mean Survival (%)	SD
Sed Control	1	35	20	19	95			5.1		4	4	100		
Sed Control	2	6	20	16	80			3.7		4	4	100		
Sed Control	3	31	20	19	95			8		5	5	100		
Sed Control	4	41	20	20	100			3.8		5	5	100		
Sed Control	5	5	20	18	90			6.5		4	3	75		
Sed Control	6	18	20	19	95	92.5	6.9	7.3	5.733333333	4	4	100	95.8	10.2
ENR-1-A	1	37	20	19	95			5.5		4	4	100		
ENR-2-A	2	3	20	19	95			7.7		4	4	100		
ENR-3-A	3	27	20	20	100			5.2		4	3	75		
ENR-4-A	4	9	20	19	95			6.9		4	4	100		
ENR-5-A	5	33	20	20	100			8.9		4	4	100		
ENR-6-A	6	28	20	19	95	96.7	2.6	4.4	6.433333333	4	4	100	95.8	10.2
ENR-1-B	1	30	20	18	90			5.9		4	4	100		
ENR-2-B	2	34	20	19	95			4.2		4	4	100		
ENR-3-B	3	38	20	10	50			4.6		4	4	100		
ENR-4-B	4	13	20	19	95			3.6		4	4	100		
ENR-5-B	5	26	20	19	95			4.6		4	4	100		
ENR-6-B	6	43	20	20	100	87.5	18.6	12.2	5.85	4	4	100	100.0	0.0
ENR-1-C	1	1	20	20	100			6.7		4	4	100		
ENR-2-C	2	7	20	19	95			5.9		4	4	100		
ENR-3-C	3	2	20	19	95			7.1		4	4	100		
ENR-4-C	4	23	20	20	100			7.7		4	4	100		
ENR-5-C	5	42	20	20	100			2.9		4	4	100		
ENR-6-C	6	29	20	19	95	97.5	2.7	5.6	5.983333333	4	4	100	100.0	0.0
ENR+AC-1-A	1	11	20	20	100			4.8		4	4	100		
ENR+AC-2-A	2	32	20	20	100			6.3		4	4	100		
ENR+AC-3-A	3	17	20	18	90			8.4		4	3	75		
ENR+AC-4-A	4	24	20	20	100			6.1		4	4	100		
ENR+AC-5-A	5	14	20	19	95			5.5		4	3	75		

EcoAnalysts, Inc.

28 Day Bioaccumulation Survival Summary

CLIENT			SPECIES 1							SPECIES 2				
Wood			*Nephtys caecoides*							*Mya arenaria*				
PROJECT			Survival Summary					Tissue Wet Weight (g)	Average Tissue Weight (g)	Survival Summary				
LDWG														
Sample ID	**Rep**	**Jar #**	**# Initiated**	**# Alive**	**% Survival**	**Mean Survival (%)**	**SD**	**[Total - Tare]**		**# Initiated**	**# Alive**	**% Survival**	**Mean Survival (%)**	**SD**
ENR+AC-6-A	6	36	20	19	95	96.7	4.1	4.3	5.9	4	4	100	91.7	12.9
ENR+AC-1-B	1	12	20	20	100			5.6		4	4	100		
ENR+AC-2-B	2	21	20	19	95			6.8		4	4	100		
ENR+AC-3-B	3	25	20	20	100			4.7		4	4	100		
ENR+AC-4-B	4	8	20	16	80			5.4		4	3	75		
ENR+AC-5-B	5	16	20	19	95			9.3		4	4	100		
ENR+AC-6-B	6	15	20	16	80	91.7	9.3	4	5.966666667	4	4	100	95.8	10.2
ENR+AC-1-C	1	39	20	18	90			3.9		4	4	100		
ENR+AC-2-C	2	19	20	13	65			3.9		4	3	75		
ENR+AC-3-C	3	22	20	17	85			6.3		4	4	100		
ENR+AC-4-C	4	20	20	19	95			7.7		4	4	100		
ENR+AC-5-C	5	4	20	18	90			5.7		4	4	100		
ENR+AC-6-C	6	10	20	19	95	86.7	11.3	4.1	5.266666667	4	3	75	91.7	12.9

Overlying Water Ammonia Analysis

CLIENT		PROJECT		SPECIES
Wood		LDWG		*Nephtys caecoides , Mya arenaria*
Calibration Standards Temperature:	21.4	**Date:** 8/26/2020	**Tech:** SH	

NH_3 sample temperature should be within +/- 1°C of standard temp at time and date of analysis

Sample	Rep	Day	Overlying/ Porewater	*Total NH_3 (mg/L)*	*NH_3 Sample Temp*	*Temp Meter*	*Test salinity (ppt)*	*Test pH*	*Test temp (C)*	*Temp (K)*	*pKa^5*	*Unionized NH_3 (mg/L)*	Notes
Sourced	Sourced	Sourced		Record	Record	Record	Sourced	Sourced	Sourced	Calculated	Calculated	Calculated	
Sed Control	1	0	Overlying	0.000	20.900	T17	30	7.9	17.4	290.55	9.2559		
Sed Control	2	0	Overlying	0.000	20.600	T17	30	8.0	17.3	290.45	9.2559		
Sed Control	3	0	Overlying	0.000	20.500	T17	30	7.9	17.0	290.15	9.2559		
Sed Control	4	0	Overlying	0.000	20.600	T17	30	7.9	16.6	289.75	9.2559		
Sed Control	5	0	Overlying	0.000	20.600	T17	30	7.9	17.0	290.15	9.2559		
Sed Control	6	0	Overlying	0.000	20.500	T17	30	7.9	16.6	289.75	9.2559		
ENR-1-A	1	0	Overlying	0.000	20.800	T17	30	7.9	16.7	289.85	9.2559		
ENR-2-A	2	0	Overlying	0.000	20.800	T17	30	7.9	16.0	289.15	9.2559		
ENR-3-A	3	0	Overlying	0.000	21.300	T17	30	7.9	16.8	289.95	9.2559		
ENR-4-A	4	0	Overlying	0.000	21.300	T17	30	7.9	17.4	290.55	9.2559		
ENR-5-A	5	0	Overlying	0.000	20.900	T17	30	7.9	17.0	290.15	9.2559		
ENR-6-A	6	0	Overlying	0.000	21.000	T17	30	7.9	17.4	290.55	9.2559		
ENR-1-B	1	0	Overlying	0.000	20.500	T17	30	7.9	16.1	289.25	9.2559		
ENR-2-B	2	0	Overlying	0.022	20.700	T17	30	7.9	17.4	290.55	9.2559	0.001	
ENR-3-B	3	0	Overlying	0.000	21.100	T17	30	7.8	16.9	290.05	9.2559		
ENR-4-B	4	0	Overlying	0.420	20.800	T17	30	8.0	16.0	289.15	9.2559	0.012	
ENR-5-B	5	0	Overlying	0.000	20.800	T17	30	8.1	17.4	290.55	9.2559		
ENR-6-B	6	0	Overlying	0.000	21.100	T17	30	7.9	16.5	289.65	9.2559		
ENR-1-C	1	0	Overlying	0.000	21.000	T17	30	7.8	16.6	289.75	9.2559		
ENR-2-C	2	0	Overlying	0.000	21.100	T17	30	7.9	16.6	289.75	9.2559		
ENR-3-C	3	0	Overlying	0.000	21.200	T17	30	7.9	16.3	289.45	9.2559		
ENR-4-C	4	0	Overlying	0.000	21.100	T17	30	8.0	16.0	289.15	9.2559		
ENR-5-C	5	0	Overlying	0.000	21.000	T17	30	7.9	16.5	289.65	9.2559		
ENR-6-C	6	0	Overlying	0.000	21.100	T17	30	8.0	16.6	289.75	9.2559		
ENR+AC-1-A	1	0	Overlying	0.000	20.800	T17	30	7.9	16.9	290.05	9.2559		
ENR+AC-2-A	2	0	Overlying	0.000	20.500	T17	30	7.9	17.0	290.15	9.2559		
ENR+AC-3-A	3	0	Overlying	0.000	20.500	T17	30	7.9	17.2	290.35	9.2559		
ENR+AC-4-A	4	0	Overlying	0.000	20.800	T17	30	7.9	17.0	290.15	9.2559		
ENR+AC-5-A	5	0	Overlying	0.000	20.600	T17	30	7.8	16.9	290.05	9.2559		
ENR+AC-6-A	6	0	Overlying	0.000	20.900	T17	30	7.9	16.9	290.05	9.2559		
ENR+AC-1-B	1	0	Overlying	0.021	20.500	T17	30	8.0	16.0	289.15	9.2559	0.001	
ENR+AC-2-B	2	0	Overlying	0.000	20.500	T17	30	7.8	16.2	289.35	9.2559		
ENR+AC-3-B	3	0	Overlying	0.000	20.600	T17	30	7.9	16.4	289.55	9.2559		
ENR+AC-4-B	4	0	Overlying	0.000	20.600	T17	30	7.9	17.4	290.55	9.2559		
ENR+AC-5- B	5	0	Overlying	0.000	20.400	T17	30	7.9	17.0	290.15	9.2559		
ENR+AC-6-B	6	0	Overlying	0.000	20.800	T17	30	7.8	17.2	290.35	9.2559		
ENR+AC-1-C	1	0	Overlying	0.047	20.700	T17	30	7.8	16.7	289.85	9.2559	0.001	
ENR+AC-2-C	2	0	Overlying	0.124	20.600	T17	30	7.9	16.4	289.55	9.2559	0.003	
ENR+AC-3-C	3	0	Overlying	0.134	20.900	T17	30	7.9	17.2	290.35	9.2559	0.003	
ENR+AC-4-C	4	0	Overlying	0.000	20.700	T17	30	7.9	17.2	290.35	9.2559		
ENR+AC-5-C	5	0	Overlying	0.000	20.800	T17	30	7.9	16.4	289.55	9.2559		
ENR+AC-6-C	6	0	Overlying	0.000	20.900	T17	30	7.9	17.4	290.55	9.2559		
Water Control	1	0	Overlying	0.000	21.100	T17	30	7.9	16.1	289.25	9.2559		

Overlying Water Ammonia Analysis

CLIENT				PROJECT				SPECIES					
Wood				LDWG				*Nephtys caecoides , Mya arenaria*					
Calibration Standards Temperature:		22.4		**Date:**	9/23/2020	**Tech:**	SH						
NH_3 sample temperature should be within +/- 1°C of standard temp at time and date of analysis													
Sample	**Rep**	**Day**	**Overlying/ Porewater**	***Total NH_3 (mg/L)***	***NH_3 Sample Temp***	***Temp Meter***	***Test salinity (ppt)***	***Test pH***	***Test temp (C)***	***Temp (K)***	***pKa^1***	***Unionized NH_3 (mg/L)***	
Sourced	Sourced	Sourced		Record	Record	Record	Sourced	Sourced	Sourced	Calculated	Calculated	Calculated	Notes
Sed Control	1	28	Overlying	0.000	21.500	T17	31	7.7	16.8	289.95	9.2561		
Sed Control	2	28	Overlying	NM			31	7.9	16.1	289.25	9.2561	NM	Core was broken down - SH/MK 9/23/2020
Sed Control	3	28	Overlying	0.133	21.400	T17	31	7.9	16.6	289.75	9.2561	0.003	
Sed Control	4	28	Overlying	0.029	21.400	T17	31	7.9	15.1	288.25	9.2561	0.001	
Sed Control	5	28	Overlying	NM			31	8.0	16.0	289.15	9.2561	NM	Core was broken down - SH/MK 9/23/2020
Sed Control	6	28	Overlying	NM			31	7.9	15.8	288.95	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR-1-A	1	28	Overlying	0.040	21.500	T17	31	7.8	15.3	288.45	9.2561	0.001	
ENR-2-A	2	28	Overlying	NM			31	7.8	15.5	288.65	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR-3-A	3	28	Overlying	NM			31	7.8	15.7	288.85	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR-4-A	4	28	Overlying	NM			31	7.9	16.1	289.25	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR-5-A	5	28	Overlying	NM			31	7.9	16.9	290.05	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR-6-A	6	28	Overlying	NM			31	7.8	16.4	289.55	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR-1-B	1	28	Overlying	0.000	21.500	T17	31	7.9	15.3	288.45	9.2561		
ENR-2-B	2	28	Overlying	0.000	21.500	T17	31	7.8	16.7	289.85	9.2561		
ENR-3-B	3	28	Overlying	0.000	21.400	T17	31	8.0	15.6	288.75	9.2561		
ENR-4-B	4	28	Overlying	NM			31	7.8	15.7	288.85	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR-5-B	5	28	Overlying	NM			31	7.9	16.6	289.75	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR-6-B	6	28	Overlying	0.041	21.500	T17	31	7.8	15.0	288.15	9.2561	0.001	
ENR-1-C	1	28	Overlying	NM			31	7.9	15.5	288.65	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR-2-C	2	28	Overlying	NM			31	7.9	15.5	288.65	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR-3-C	3	28	Overlying	NM			31	7.9	15.6	288.75	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR-4-C	4	28	Overlying	NM			31	7.8	15.0	288.15	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR-5-C	5	28	Overlying	0.000	21.500	T17	31	7.9	15.2	288.35	9.2561		
ENR-6-C	6	28	Overlying	NM			31	7.8	15.5	288.65	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-1-A	1	28	Overlying	NM		T17	31	7.8	16.3	289.45	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-2-A	2	28	Overlying	0.000	21.400	T17	31	8.0	16.5	289.65	9.2561		
ENR+AC-3-A	3	28	Overlying	NM			31	7.8	15.8	288.95	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-4-A	4	28	Overlying	NM			31	7.8	15.7	288.85	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-5-A	5	28	Overlying	NM			31	7.8	16.4	289.55	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-6-A	6	28	Overlying	0.000	21.700	T17	31	7.9	15.6	288.75	9.2561		
ENR+AC-1-B	1	28	Overlying	NM			31	7.8	15.8	288.95	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-2-B	2	28	Overlying	NM			31	7.9	15.3	288.45	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-3-B	3	28	Overlying	NM			31	7.9	16.0	289.15	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-4-B	4	28	Overlying	NM			31	7.8	16.2	289.35	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-5- B	5	28	Overlying	NM			31	7.7	16.1	289.25	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-6-B	6	28	Overlying	NM			31	7.7	16.4	289.55	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-1-C	1	28	Overlying	0.000	21.700	T17	31	7.9	15.8	288.95	9.2561		
ENR+AC-2-C	2	28	Overlying	NM			31	7.9	15.2	288.35	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-3-C	3	28	Overlying	NM			31	7.8	15.8	288.95	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-4-C	4	28	Overlying	NM			31	7.9	15.9	289.05	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-5-C	5	28	Overlying	NM			31	7.8	15.6	288.75	9.2561	NM	Core was broken down - SH/MK 9/23/2020
ENR+AC-6-C	6	28	Overlying	NM			31	7.6	16.5	289.65	9.2561	NM	Core was broken down - SH/MK 9/23/2020
Seawater Blank	1	28	Overlying	0.000	22.600	T17	31	8.0	14.6	287.75	9.2561		

1.2 SPME Deployment/Recovery Data and Termination Sediment Subsample Data

LDWG: Bioaccumulation SPMEs

RE/MK

RE/MK/NH/MS

Plot	Subplot	Grid Cell	Location Cell	Composite	Position (cm)	SPME Sample ID	Diver Station ID	Sediment Sample Used for SPME Deployment	SPME Batch ID	SPME Exposure Start Date	SPME Exposure Start Time	SPME Exposure End Date	SPME Exposure End Time
Subtidal	ENR	1	22	A	0-10	LDW-Y3-LBS-SU-ENR-1-A-S010-SPME	1	LDW-Y3-SU-ENR-1-A	007	8/26/20	1426	9/23/20	1352
Subtidal	ENR	1	2	B	0-10	LDW-Y3-LBS-SU-ENR-1-B-S010-SPME	2	LDW-Y3-SU-ENR-1-B	007		1422		1343
Subtidal	ENR	1	21	C	0-10	LDW-Y3-LBS-SU-ENR-1-C-S010-SPME	3	LDW-Y3-SU-ENR-1-C	006 (1)		1348		0827
Subtidal	ENR	2	2	A	0-10	LDW-Y3-LBS-SU-ENR-2-A-S010-SPME	6	LDW-Y3-SU-ENR-2-A	006 (2)		1352		0832
Subtidal	ENR	2	3	B	0-10	LDW-Y3-LBS-SU-ENR-2-B-S010-SPME	7	LDW-Y3-SU-ENR-2-B	007		1425		1350
Subtidal	ENR	2	9	C	0-10	LDW-Y3-LBS-SU-ENR-2-C-S010-SPME	8	LDW-Y3-SU-ENR-2-C	007		1358		0835
Subtidal	ENR	3	2	A	0-10	LDW-Y3-LBS-SU-ENR-3-A-S010-SPME	11	LDW-Y3-SU-ENR-3-A	007		1420		1338
Subtidal	ENR	3	10	B	0-10	LDW-Y3-LBS-SU-ENR-3-B-S010-SPME	12	LDW-Y3-SU-ENR-3-B	007		1427		1353
Subtidal	ENR	3	8	C	0-10	LDW-Y3-LBS-SU-ENR-3-C-S010-SPME	13	LDW-Y3-SU-ENR-3-C	007		1355		0830
Subtidal	ENR	4	14	A	0-10	LDW-Y3-LBS-SU-ENR-4-A-S010-SPME	16	LDW-Y3-SU-ENR-4-A	007		1400		0840
Subtidal	ENR	4	19	B	0-10	LDW-Y3-LBS-SU-ENR-4-B-S010-SPME	17	LDW-Y3-SU-ENR-4-B	007		1411		0847
Subtidal	ENR	4	3	C	0-10	LDW-Y3-LBS-SU-ENR-4-C-S010-SPME	18	LDW-Y3-SU-ENR-4-C	007		1417		1330
Subtidal	ENR	5	2	A	0-10	LDW-Y3-LBS-SU-ENR-5-A-S010-SPME	21	LDW-Y3-SU-ENR-5-A	007		1424		1347
Subtidal	ENR	5	14	B	0-10	LDW-Y3-LBS-SU-ENR-5-B-S010-SPME	22	LDW-Y3-SU-ENR-5-B	007		1420		1337
Subtidal	ENR	5	8	C	0-10	LDW-Y3-LBS-SU-ENR-5-C-S010-SPME	23	LDW-Y3-SU-ENR-5-C	007		1428		1405
Subtidal	ENR	6	7	A	0-10	LDW-Y3-LBS-SU-ENR-6-A-S010-SPME	26	LDW-Y3-SU-ENR-6-A	007		1421		1340
Subtidal	ENR	6	3	B	0-10	LDW-Y3-LBS-SU-ENR-6-B-S010-SPME	27	LDW-Y3-SU-ENR-6-B	007		1429		1406
Subtidal	ENR	6	24	C	0-10	LDW-Y3-LBS-SU-ENR-6-C-S010-SPME	28	LDW-Y3-SU-ENR-6-C	007		1421		1342
Subtidal	ENR+AC	1	16	A	0-10	LDW-Y3-LBS-SU-ENR+AC-1-A-S010-SPME	31	LDW-Y3-SU-ENR+AC-1-A	007		1401		0842
Subtidal	ENR+AC	1	8	B	0-10	LDW-Y3-LBS-SU-ENR+AC-1-B-S010-SPME	32	LDW-Y3-SU-ENR+AC-1-B	007		1410		0845
Subtidal	ENR+AC	1	18	C	0-10	LDW-Y3-LBS-SU-ENR+AC-1-C-S010-SPME	33	LDW-Y3-SU-ENR+AC-1-C	007		1428		1355
Subtidal	ENR+AC	2	4	A	0-10	LDW-Y3-LBS-SU-ENR+AC-2-A-S010-SPME	36	LDW-Y3-SU-ENR+AC-2-A	007		1423		1346
Subtidal	ENR+AC	2	2	B	0-10	LDW-Y3-LBS-SU-ENR+AC-2-B-S010-SPME	37	LDW-Y3-SU-ENR+AC-2-B	007		1416		0855
Subtidal	ENR+AC	2	3	C	0-10	LDW-Y3-LBS-SU-ENR+AC-2-C-S010-SPME	38	LDW-Y3-SU-ENR+AC-2-C	007		1415		0853
Subtidal	ENR+AC	3	23	A	0-10	LDW-Y3-LBS-SU-ENR+AC-3-A-S010-SPME	41	LDW-Y3-SU-ENR+AC-3-A	007		1414		0853
Subtidal	ENR+AC	3	7	B	0-10	LDW-Y3-LBS-SU-ENR+AC-3-B-S010-SPME	42	LDW-Y3-SU-ENR+AC-3-B	007		1419		1334
Subtidal	ENR+AC	3	10	C	0-10	LDW-Y3-LBS-SU-ENR+AC-3-C-S010-SPME	43	LDW-Y3-SU-ENR+AC-3-C	007		1417		0856
Subtidal	ENR+AC	4	17	A	0-10	LDW-Y3-LBS-SU-ENR+AC-4-A-S010-SPME	46	LDW-Y3-SU-ENR+AC-4-A	007		1418		~~1532~~ 1332 (3)
Subtidal	ENR+AC	4	9	B	0-10	LDW-Y3-LBS-SU-ENR+AC-4-B-S010-SPME	47	LDW-Y3-SU-ENR+AC-4-B	007		1359		0837
Subtidal	ENR+AC	4	4	C	0-10	LDW-Y3-LBS-SU-ENR+AC-4-C-S010-SPME	48	LDW-Y3-SU-ENR+AC-4-C	007		1415		0854
Subtidal	ENR+AC	5	16	A	0-10	LDW-Y3-LBS-SU-ENR+AC-5-A-S010-SPME	51	LDW-Y3-SU-ENR+AC-5-A	007		1412		0849
Subtidal	ENR+AC	5	12	B	0-10	LDW-Y3-LBS-SU-ENR+AC-5-B-S010-SPME	52	LDW-Y3-SU-ENR+AC-5-B	007		1413		0851
Subtidal	ENR+AC	5	11	C	0-10	LDW-Y3-LBS-SU-ENR+AC-5-C-S010-SPME	53	LDW-Y3-SU-ENR+AC-5-C	007		1357		0835
Subtidal	ENR+AC	6	7	A	0-10	LDW-Y3-LBS-SU-ENR+AC-6-A-S010-SPME	56	LDW-Y3-SU-ENR+AC-6-A	007		1426		1350
Subtidal	ENR+AC	6	3	B	0-10	LDW-Y3-LBS-SU-ENR+AC-6-B-S010-SPME	57	LDW-Y3-SU-ENR+AC-6-B	007		1412		0850
Subtidal	ENR+AC	6	17	C	0-10	LDW-Y3-LBS-SU-ENR+AC-6-C-S010-SPME	58	LDW-Y3-SU-ENR+AC-6-C	007	↓	1410	↓	0840

(1) liquid in foil-wrapped SPME, oxidation? (picture taken).

(2) No foil wrapped around SPME.

(3) ~~Wrong~~ IE-MS 9/23

RE/MK

Pg 2 of 2

Plot	Subplot	Grid Cell	Location Cell	Composite	Position (cm)	SPME Sample ID	Diver Station ID	Sediment Sample Used for SPME Deployment	SPME Batch ID	SPME Exposure Start Date	SPME Exposure Start Time	SPME Exposure End Date	SPME Exposure End Time
Subtidal	NA		NA	NA	0-10	LDW-Y3-LBS-WAT-S010-SPME	NA	Seawater Blank	0006	8/26/20	1350	9/23/20	1357
Subtidal	NA		NA	NA	0-10	LDW-Y3-LBS-WAT-S010-SPME	NA	Seawater Blank	0006	↓	↓	↓	1359
Subtidal	NA		NA	NA	0-10	LDW-Y3-LBS-WAT-S010-SPME	NA	Seawater Blank	0006	↓	↓	↓	1402
Subtidal	NA		NA	NA	0-10	LDW-Y3-LBS-WAT-S010-SPME	NA	Seawater Blank	0006	↓	↓	↓	1403
Subtidal	NA		NA	NA	0-10	LDW-Y3-LBS-WAT-S010-SPME	NA	Seawater Blank	0006	↓	↓	↓	1403
Subtidal	NA		NA	NA	0-10	LDW-Y3-LBS-WAT-S010-SPME	NA	Seawater Blank	0006	↓	↓	↓	1404

Bioaccumulation Termination Sediment Subsamples for Chem: Surface Sediment

Plot	Subplot	Grid Cell	Location Cell	Position (cm)	Sample ID	Collection Date	Collection Time
BIO	Subtidal	ENR	1	A	LDW-Y3-LBS-SU-ENR-1-A-SS	9/23/2020	1555
BIO	Subtidal	ENR	1	B	LDW-Y3-LBS-SU-ENR-1-B-SS	9/23/2020	1456
BIO	Subtidal	ENR	1	C	LDW-Y3-LBS-SU-ENR-1-C-SS	9/23/2020	0905
BIO	Subtidal	ENR	2	A	LDW-Y3-LBS-SU-ENR-2-A-SS	9/23/2020	0934
BIO	Subtidal	ENR	2	B	LDW-Y3-LBS-SU-ENR-2-B-SS	9/23/2020	1525
BIO	Subtidal	ENR	2	C	LDW-Y3-LBS-SU-ENR-2-C-SS	9/23/2020	1023
BIO	Subtidal	ENR	3	A	LDW-Y3-LBS-SU-ENR-3-A-SS	9/23/2020	1425
BIO	Subtidal	ENR	3	B	LDW-Y3-LBS-SU-ENR-3-B-SS	9/23/2020	1525
BIO	Subtidal	ENR	3	C	LDW-Y3-LBS-SU-ENR-3-C-SS	9/23/2020	0917
BIO	Subtidal	ENR	4	A	LDW-Y3-LBS-SU-ENR-4-A-SS	9/23/2020	1047
BIO	Subtidal	ENR	4	B	LDW-Y3-LBS-SU-ENR-4-B-SS	9/23/2020	1210
BIO	Subtidal	ENR	4	C	LDW-Y3-LBS-SU-ENR-4-C-SS	9/23/2020	1348
BIO	Subtidal	ENR	5	A	LDW-Y3-LBS-SU-ENR-5-A-SS	9/23/2020	1529
BIO	Subtidal	ENR	5	B	LDW-Y3-LBS-SU-ENR-5-B-SS	9/23/2020	1410
BIO	Subtidal	ENR	5	C	LDW-Y3-LBS-SU-ENR-5-C-SS	9/23/2020	1615
BIO	Subtidal	ENR	6	A	LDW-Y3-LBS-SU-ENR-6-A-SS	9/23/2020	1425
BIO	Subtidal	ENR	6	B	LDW-Y3-LBS-SU-ENR-6-B-SS	9/23/2020	1626
BIO	Subtidal	ENR	6	C	LDW-Y3-LBS-SU-ENR-6-C-SS	9/23/2020	1444
BIO	Subtidal	ENR+AC	1	A	LDW-Y3-LBS-SU-ENR+AC-1-A-SS	9/23/2020	1113
BIO	Subtidal	ENR+AC	1	B	LDW-Y3-LBS-SU-ENR+AC-1-B-SS	9/23/2020	1205
BIO	Subtidal	ENR+AC	1	C	LDW-Y3-LBS-SU-ENR+AC-1-C-SS	9/23/2020	1608
BIO	Subtidal	ENR+AC	2	A	LDW-Y3-LBS-SU-ENR+AC-2-A-SS	9/23/2020	1510
BIO	Subtidal	ENR+AC	2	B	LDW-Y3-LBS-SU-ENR+AC-2-B-SS	9/23/2020	1331
BIO	Subtidal	ENR+AC	2	C	LDW-Y3-LBS-SU-ENR+AC-2-C-SS	9/23/2020	1308
BIO	Subtidal	ENR+AC	3	A	LDW-Y3-LBS-SU-ENR+AC-3-A-SS	9/23/2020	1255
BIO	Subtidal	ENR+AC	3	B	LDW-Y3-LBS-SU-ENR+AC-3-B-SS	9/23/2020	1405
BIO	Subtidal	ENR+AC	3	C	LDW-Y3-LBS-SU-ENR+AC-3-C-SS	9/23/2020	1335
BIO	Subtidal	ENR+AC	4	A	LDW-Y3-LBS-SU-ENR+AC-4-A-SS	9/23/2020	1355
BIO	Subtidal	ENR+AC	4	B	LDW-Y3-LBS-SU-ENR+AC-4-B-SS	9/23/2020	1035
BIO	Subtidal	ENR+AC	4	C	LDW-Y3-LBS-SU-ENR+AC-4-C-SS	9/23/2020	1312
BIO	Subtidal	ENR+AC	5	A	LDW-Y3-LBS-SU-ENR+AC-5-A-SS	9/23/2020	1216
BIO	Subtidal	ENR+AC	5	B	LDW-Y3-LBS-SU-ENR+AC-5-B-SS	9/23/2020	1239
BIO	Subtidal	ENR+AC	5	C	LDW-Y3-LBS-SU-ENR+AC-5-C-SS	9/23/2020	0954
BIO	Subtidal	ENR+AC	6	A	LDW-Y3-LBS-SU-ENR+AC-6-A-SS	9/23/2020	1545
BIO	Subtidal	ENR+AC	6	B	LDW-Y3-LBS-SU-ENR+AC-6-B-SS	9/23/2020	1235
BIO	Subtidal	ENR+AC	6	C	LDW-Y3-LBS-SU-ENR+AC-6-C-SS	9/23/2020	1100

SS= Surface Sediment (collected within top 0-10cm of bioaccumulation core sample upon test termination)

LS= Lower Sediment (collected from sediment below the top 10cm of bioaccumulation core sample upon test termination **if animals found below top 10cm**)

Bioaccumulation Termination Sediment Subsamples for Chem (archive): Lower Sediment

Plot	Subplot	Grid Cell	Location Cell	Position (cm)	Sample ID	Collection Date	Collection Time
BIO	Subtidal	ENR	1	A	LDW-Y3-LBS-SU-ENR-1-A-LS	9/23/2020	—
BIO	Subtidal	ENR	1	B	LDW-Y3-LBS-SU-ENR-1-B-LS	9/23/2020	—
BIO	Subtidal	ENR	1	C	LDW-Y3-LBS-SU-ENR-1-C-LS	9/23/2020	—
BIO	Subtidal	ENR	2	A	LDW-Y3-LBS-SU-ENR-2-A-LS	9/23/2020	—
BIO	Subtidal	ENR	2	B	LDW-Y3-LBS-SU-ENR-2-B-LS	9/23/2020	1346
BIO	Subtidal	ENR	2	C	LDW-Y3-LBS-SU-ENR-2-C-LS	9/23/2020	—
BIO	Subtidal	ENR	3	A	LDW-Y3-LBS-SU-ENR-3-A-LS	9/23/2020	1437
BIO	Subtidal	ENR	3	B	LDW-Y3-LBS-SU-ENR-3-B-LS	9/23/2020	—
BIO	Subtidal	ENR	3	C	LDW-Y3-LBS-SU-ENR-3-C-LS	9/23/2020	0940
BIO	Subtidal	ENR	4	A	LDW-Y3-LBS-SU-ENR-4-A-LS	9/23/2020	1103
BIO	Subtidal	ENR	4	B	LDW-Y3-LBS-SU-ENR-4-B-LS	9/23/2020	1234
BIO	Subtidal	ENR	4	C	LDW-Y3-LBS-SU-ENR-4-C-LS	9/23/2020	—
BIO	Subtidal	ENR	5	A	LDW-Y3-LBS-SU-ENR-5-A-LS	9/23/2020	—
BIO	Subtidal	ENR	5	B	LDW-Y3-LBS-SU-ENR-5-B-LS	9/23/2020	—
BIO	Subtidal	ENR	5	C	LDW-Y3-LBS-SU-ENR-5-C-LS	9/23/2020	—
BIO	Subtidal	ENR	6	A	LDW-Y3-LBS-SU-ENR-6-A-LS	9/23/2020	1440
BIO	Subtidal	ENR	6	B	LDW-Y3-LBS-SU-ENR-6-B-LS	9/23/2020	1643
BIO	Subtidal	ENR	6	C	LDW-Y3-LBS-SU-ENR-6-C-LS	9/23/2020	—
BIO	Subtidal	ENR+AC	1	A	LDW-Y3-LBS-SU-ENR+AC-1-A-LS	9/23/2020	1133
BIO	Subtidal	ENR+AC	1	B	LDW-Y3-LBS-SU-ENR+AC-1-B-LS	9/23/2020	—
BIO	Subtidal	ENR+AC	1	C	LDW-Y3-LBS-SU-ENR+AC-1-C-LS	9/23/2020	—
BIO	Subtidal	ENR+AC	2	A	LDW-Y3-LBS-SU-ENR+AC-2-A-LS	9/23/2020	1522
BIO	Subtidal	ENR+AC	2	B	LDW-Y3-LBS-SU-ENR+AC-2-B-LS	9/23/2020	—
BIO	Subtidal	ENR+AC	2	C	LDW-Y3-LBS-SU-ENR+AC-2-C-LS	9/23/2020	—
BIO	Subtidal	ENR+AC	3	A	LDW-Y3-LBS-SU-ENR+AC-3-A-LS	9/23/2020	—
BIO	Subtidal	ENR+AC	3	B	LDW-Y3-LBS-SU-ENR+AC-3-B-LS	9/23/2020	1421
BIO	Subtidal	ENR+AC	3	C	LDW-Y3-LBS-SU-ENR+AC-3-C-LS	9/23/2020	—
BIO	Subtidal	ENR+AC	4	A	LDW-Y3-LBS-SU-ENR+AC-4-A-LS	9/23/2020	—
BIO	Subtidal	ENR+AC	4	B	LDW-Y3-LBS-SU-ENR+AC-4-B-LS	9/23/2020	—
BIO	Subtidal	ENR+AC	4	C	LDW-Y3-LBS-SU-ENR+AC-4-C-LS	9/23/2020	1325
BIO	Subtidal	ENR+AC	5	A	LDW-Y3-LBS-SU-ENR+AC-5-A-LS	9/23/2020	—
BIO	Subtidal	ENR+AC	5	B	LDW-Y3-LBS-SU-ENR+AC-5-B-LS	9/23/2020	—
BIO	Subtidal	ENR+AC	5	C	LDW-Y3-LBS-SU-ENR+AC-5-C-LS	9/23/2020	1010
BIO	Subtidal	ENR+AC	6	A	LDW-Y3-LBS-SU-ENR+AC-6-A-LS	9/23/2020	—
BIO	Subtidal	ENR+AC	6	B	LDW-Y3-LBS-SU-ENR+AC-6-B-LS	9/23/2020	~~1645~~
BIO	Subtidal	ENR+AC	6	C	LDW-Y3-LBS-SU-ENR+AC-6-C-LS	9/23/2020	—

SS= Surface Sediment (collected within top 0-10cm of bioaccumulation core sample upon test termination)

LS= Lower Sediment (collected from sediment below the top 10cm of bioaccumulation core sample upon test termination **if animals found below top 10cm**)

APPENDIX B. CHAIN-OF-CUSTODY FORMS, LOGS, AND PRE-TEST DOCUMENTS

Chain of Custody Form — LDW Bioaccumulation Cores 8/10/2020

Sample ID	Date	Time
LDW-Y3-SU-ENR+AC-5B	8/10/2020	15:20
LDW-Y3-SU-ENR-5B	8/10/2020	15:05
LDW-Y3-SU-ENR+AC-5A	8/10/2020	14:50
LDW-Y3-SU-ENR+AC-6A	8/10/2020	13:55
LDW-Y3-SU-ENR-6C	8/10/2020	13:30
LDW-Y3-SU-ENR-6A	8/10/2020	12:35
LDW-Y3-SU-ENR+AC-6B	8/10/2020	12:10
LDW-Y3-SU-ENR+AC-6C	8/10/2020	11:20

Signature	Name	Date	Time
Erin Madsen	ERIC PARKER	8/10/20	17:50
Received			
	Brian Hester	8/10/20	17:50

Chain of Custody Form – LDW

Bioaccumulation Cores 8/11/2020

Sample ID	~~Date~~		DATE	Time
1. LDW-Y3-SU-ENR-6B	#12	✓	8/11/20	9:05
2. LDW-Y3-SU-ENR-5C	#17	✓		9:30
3. LDW-Y3-SU-ENR-5A	~~#5~~ #5	✓		9:57
4. LDW-Y3-SU-ENR-4A	#4	✓		10:15
5. LDW-Y3-SU-ENR-4C	#16	✓		10:36
6. LDW-Y3-SU-ENR+AC-5C	#35	✓		11:20
7. LDW-Y3-SU-ENR+AC-5B	#29	✓	①	12:20
8. LDW-Y3-SU-ENR+AC-4A	#22	✓		13:05
9. LDW-Y3-SU-ENR+AC-4B	#28	✓		13:25
10. LDW-Y3-SU-ENR+AC-4C	#34	✓		13:46
11. LDW-Y3-SU-ENR+AC-3A	#21	✓		14:10
12. LDW-Y3-SU-ENR+AC-3C	#33	✓		14:30

Relinquished By:

Sig	DATE/TIME
Kyle Grosbein RSS	8/11/20 1750

Received By

Signature	DATE/TIME
Michelle Knowlen EcoAnalysts	8/11/20 1750

① Duplicate sample. Also collected same sample on 8/10. Flagged 8/11 sample as duplicate

8/12/20

Chain of Custody Form - LDW Bioaccumulation Cores

	Sample ID	Station #	Date	Time
1.	LDW-Y3-SV-ENR-4B	#10	8/12/20	08:20
2.	LDW-Y3-SV-ENR-3B	#01		0845
3.	LDW-Y3-SV-ENR-3A	#3		9:15
4.	LDW-Y3-SV-ENR-3C	#15		9:35
5.	LDW-Y3-SV-ENR+AC-3B	#27		9:50
6.	LDW-Y3-SV-ENR+AC-2A	#20		10:25
7.	LDW-Y3-SV-ENR+AC-2B	#26		10:45
8.	LDW-Y3-SV-ENR+AC-2C	#32		11:00
9.	LDW-Y3-SV-ENR-2C	#14		11:12
10.	LDW-Y3-SV-ENR-2A	#2		11:25
11.	LDW-Y3-SV-ENR-2B	#8		12:45
12.	LDW-Y3-SV-ENR-1C	#13		1305
13.	LDW-Y3-SV-ENR-1B	#07		1325
14.	LDW-Y3-SV-ENR-1A	#01		13:45
15.	LDW-Y3-SV-ENR+AC-1B	#25		14:25
16.	LDW-Y3-SV-ENR+AC-1C	#31		14:40
17.	LDW-Y3-SV-ENR+AC-1A	#19		15:00

rcvd:

Signature	Date	Signature	Date
	8/12/20 1730		8/12/20 1730

ORGANISM RECEIPT LOG

Date:	Time:	Batch No.
8/20/2020	1237	ARO 082020

Organism: Mya arenaria

Source / Supplier: Aquatic Research Organisms

No. Ordered:	No. Received:	Source Batch: Collection date, hatch date, etc.):
———	400	8/17/20

Condition of Organisms:	Approximate Size or Age: (Days from hatch, life stage, size class, etc.):
Good	Adults
Shipper: FedEx	**B of L (Tracking No.)** 9006 0022 5842
Condition of Container: Good	**Received By:** SH

Container	D.O. (mg/L)	Temp. (°C)	Cond. or Sal. (Include Units)	pH (Units)	# Dead	% Dead*	Tech. (Initials)
1	(1)	8.5	(1)	(1)	58	6.9%	DM/SH

*if >10% contact lab manager

Notes: (1) recieved moist

Aquatic Research Organisms

DATA SHEET

I. Organism History

Species Mya arenaria

Source: Lab reared _____ Hatchery reared _____ Field collected _____

Hatch date Mixed ages Receipt date 08/19/20

Lot number 081920MA Strain WILD

Brood origination BRUNSWICK ME

II. Water Quality

Temperature 20 °C Salinity 32 ppt D.O. SAT ppm

pH 8.4 su Hardness — ppm Alkalinity — ppm

III. Culture Conditions

Freshwater _____ Saltwater ✓ Other _____

Recirculating ✓ Flow through _____ Static renewal _____

DIET: Flake food _____ Phytoplankton ✓ Trout chow _____

Artemia _____ Rotifers _____ YCT _____ Other _____

Prophylactic treatments: _____

Comments: Depurated 48 hr. prior to shipping

IV. Shipping Information

Client: ECO ANALYSTS # of Organisms 400

Carrier: FED EX Date shipped 08/19/20

Biologist: Stan Smolski

PO BOX 1271 HAMPTON NH 03843-1271 (603) 926-1650 AROFISH@AOL.COM

ORGANISM RECEIPT LOG

Date:	Time:	Batch No.
8/21/2020	1306	JB082120

Organism: Nephtys Caecoides

Source / Supplier: John Brezena

No. Ordered:	No. Received:	Source Batch: Collection date, hatch date, etc.):
1050		8/16, 8/17, 8/19, + 8/20 field collected - North Tamales Bay

Condition of Organisms:	Approximate Size or Age: (Days from hatch, life stage, size class, etc.):
Good	adult
Shipper: FedEx	**B of L (Tracking No.)** 3960 2787 0992
Condition of Container: Good	**Received By:** SH

Container	D.O. (mg/L)	Temp. (°C)	Cond. or Sal. (Include Units)	pH (Units)	# Dead	% Dead*	Tech. (Initials)
1	22	17.5	34	7.1	—	—	SH
2	26	18.1	34	7.4	—	—	↓
3	27	17.2	34	7.3	—	—	↓
4	25	18.2	34	7.3	—	—	↓

*if >10% contact lab manager

Notes: Control Sediment collected 8/19/2020

Aquatic Research Organisms

DATA SHEET

I. Organism History

Species NATIVE SEDIMENT MYA

Source: Lab reared _____ Hatchery reared _____ Field collected ✓

Hatch date _____ Receipt date 08/17/20

Lot number 081720 Strain WILD

Brood origination SOUTH ME

II. Water Quality

Temperature 22 °C Salinity 30 ppt D.O. _____ ppm

pH _____ su Hardness _____ ppm Alkalinity _____ ppm

III. Culture Conditions

Freshwater _____ Saltwater _____ Other _____

Recirculating _____ Flow through _____ Static renewal _____

DIET: Flake food _____ Phytoplankton _____ Trout chow _____

Artemia _____ Rotifers _____ YCT _____ Other _____

Prophylactic treatments: _____

Comments: _____

_____

IV. Shipping Information

Client: ECO ANALYSTS AG # of Organisms 5 ea/

Carrier: FED EX Date shipped 08/17/20

Biologist: _____

PO BOX 1271 HAMPTON NH 03843-1271 (603) 926-1650 AROFISH@AOL.COM

MAINTENANCE LOG FOR CULTURES

ORGANISM: Nephtys C.
LOCATION: Bath 8

Batch Number: JBOB2120 | Date Received: 8/21/2020 | Initial # of Organisms:

Date	Feed AM/PM	Tub No.	D.O.	Temp (°C)	Cond/ Sal	pH	H_2O Change	Organisms appear healthy (Y/N)	# Mort	% Mort*	Init.	Comments
8/22/2020	—	1	7.2	15.0	30	7.8	FT	Y	0	—	SH	
	—	2	7.6	15.1	30	7.9			1	—		
	—	3	7.3	15.1	30	7.9			0	—		cluster of worms on surface ↓
	—	4	7.5	15.2	30	7.9	↓	↓	0	—	↓	
8/23/20	—	1	7.3	15.9	30	7.7	FT	Y	0	—	DM	
	—	2	7.6	15.7	30	7.8			0	—		
	—	3	7.5	15.8	30	7.7			0	—		
	—	4	7.6	15.5	30	7.9			0	—		
8/24/20	—	1	7.6	15.0	30	7.9	FT	Y	8	—	DM	
	—	2	7.4	14.9	30	7.8			0	—		
	—	3	7.7	14.9	30	7.9			3	—		
	—	4	7.8	15.0	30	7.8			10	—		
8/25	—	1	7.8	14.8	30	7.9	FT	Y	0	—	SH	
	—	2	7.6	14.6	30	7.9			1	—		
	—	3	7.8	14.7	30	7.9			0	—		
	—	4	8.0	14.7	30	7.9	↓	↓	0	—	↓	

FT = Flow-through
if >10% notify lab manager

MAINTENANCE LOG FOR CULTURES

ORGANISM: Neph YS
LOCATION: Bath 8

Batch Number: JB082120	Date Received: 08/21/20	Initial # of Organisms:

Date	Feed AM/PM	Tub No.	D.O.	Temp (°C)	Cond/ (Sal) ppt	pH	H_2O Change	Organisms appear healthy (Y/N)	# Mort	% Mort*	Init.	Comments
8/26	—	1	8.0	15.1	30	7.9	FT	Y	1	—	MS	
	—	2	7.6	14.8	30	7.9	↓	↓	0	—	↓	
	—	3	8.1	15.3	30	7.9	↓	↓	0	—	↓	
↓	—	4	8.0	14.9	30	7.9	↓	↓	0	—	↓	
8/27	—	1	7.2	15.0	30	8.3	FT	Y	1	—	SH	
8/28	—	1	7.0	14.7	30	7.7	FT	Y	5	—	SH	

FT = Flow-through
if >10% notify lab manager

MAINTENANCE LOG FOR CULTURES

ORGANISM: Mya a.
LOCATION: Bath 2 => Bath 7

Batch Number: AR00B2020 | Date Received: 8/20/2020 | Initial # of Organisms: 400

Date	Feed AM/PM	Tub No.	D.O.	Temp (°C)	Cond/ Sal	pH	H_2O Change	Organisms appear healthy (Y/N)	# Mort	% Mort*	Init.	Comments
8/21	✓	1	6.2	14.9	30	7.7	FT	Y			SH	*Cracked removed for pre-test
↓	✓	2	5.3	14.9	30	7.6	FT	Y			↓	
↓	✓	3	7.4	15.0	30	7.8	FT	Y			↓	
8/22	✓①	1	6.4	15.1	30	7.6	FT	Y	0	—	SH	Cracked clams moved to tub 4
↓	✓	2	6.5	15.0	30	7.7	↓	↓	0	—	↓	
↓	✓	3	6.6	15.1	30	7.6	↓	↓	0	—	↓	
↓	✓	4	7.7	15.4	30	7.9	↓	↓	0	—	↓	
8/23	✓	1	~~5.6~~ ②	15.7	30	7.6	↓	Y	0	—	DM	
↓	✓	2	7.2	15.7	30	7.8	↓	↓	0	—	↓	
↓	✓	3	6.3	15.6	30	7.6	↓	↓	0	—	↓	
↓	✓	4	7.2	15.9	30	7.9	↓	↓	0	—	↓	
8/24	✓	1	6.0②	15.2	30	7.5	FT	Y	2	—	DM	
↓	✓	2	7.0	15.2	30	7.6	↓	↓	1	—	↓	
↓	✓	3	7.1	14.8	30	7.8	↓	↓	1	—	↓	
↓	✓	4	7.7	15.1	30	8.0	↓	↓	0	—	↓	
8/25		1	6.7	14.9	30	7.7	FT	Y	2	—	SH	
↓		2	6.7	14.9	30	7.7	↓	↓	0	—	↓	
↓		3	7.8	14.6	30	7.8	↓	↓	0	—	↓	

*FT = Flow-through
*if >10% notify lab manager

①Clams got fed in pm - 8/22/20 SH
② Increased air & accidentally wrote wn - DM - 8/23/20, DM - 8/24/20

MAINTENANCE LOG FOR CULTURES

ORGANISM: Mya a.
LOCATION: Bath 7

Batch Number: ARO082020	Date Received: 08/20/20	Initial # of Organisms: 400

Date	Feed AM/PM		Tub No.	D.O.	Temp (°C)	Cond/ (Sal)	pH	H_2O Change	Organisms appear healthy (Y/N)	# Mort	% Mort*	Init.	Comments
8/25			4	8.2	14.8	30	8.0	FT	Y	0	—	SH	
8/26			1	7.4	14.9	30	7.7	FT	Y	0	—	MS	
↓			2	7.4	14.9	30	7.7	↓	↓	0	—	↓	
			3	7.8	14.6	30	7.8			0	—		
↓			4	8.2	14.9	30	8.0	↓	↓	0	—	↓	
8/27	—		4	7.6	14.9	30	8.2	FT	Y	0	—	SH	
	①+	—	3	7.9	14.9	30	8.2	↓	↓	2	—	SH	
↓	①	→	3									↓	
	①	→	4										
8/27	①+	—	1	7.3	15.2	30	8.1	↓	↓	0	—	↓	
8/28	—		1	7.4	14.8	30	7.7	FT	Y	1	—	SH	
↓	—		3	7.8	14.6	30	7.9	↓	↓	0	—	↓	
8/30	✓		1	8.0	15.0	30	7.8	FT	Y				
↓	✓		3	7.9	14.9	30	7.9	↓	Y				

*FT = Flow-through
**if >10% notify lab manager*

① I.E. - SH 8/27/2020, tubs 3+1 got fed in AM

BIOACCUMULATION CORE LOGS

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #1 ENR-1A
Date 8/12/20
Time 13:45

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 3
	lite Olive brown Fine silt → Shell Fragments	3 / 3.5
	light olive brown sandy-silt	3.5 / 13
	Medium-olive brown sand w/ some silt lenses	13 / 28
	Dark-olive black silt	28 / 37
	BOTTOM	

Notes:

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: ~~H2~~ ENR-2A
Date 8/12/10
Time 11:25

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear Water	0 / 4.5
	Lite olive brown Silt	4.5 / 6
	Lite olive brown Very Fine sand	6 / 16
	Lite-olive brown medium angular sand.	16 / 30
	Dark olive black Fine silt	30 / 41
	bottom	

Notes: 41

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #3 ENR-3A
Date 8/12/20
Time 9:15

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear WATER	0 / 4
	Lite-olive brown silt w/ trace sand	4 / 8
	Angular Medium olive brown Medium → course fine sand	8 / 31
	29-32cm a Worm is present	
	Dark grey/Black silt	31 / 42
	Bottom	

Notes:

42

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: H4
ENR-4/A
Date 8/11/20
Time 10:15

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 25
	Lite-olive brown silt with multiply sand lenses	2.5 / 24
	Dark-olive black silt	24 / 42
	BOTTOM	

Notes:

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Station: #5 ENR SA
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst
Date 8/
Time 9:57

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0
		4
	Lite-Olive Brown silt with angular medium sand lenses.	4
		17
	Dark olive black silt with interlaminated medium sand.	17
		34
	BOTTOM	
		44

Notes:

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #46 EN Q - 6L
Date 8/10/15
Time 1235

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 1.5
	Surface is oxidized orange. Black silt	1.5 / 2
	Dark olive Black silt	2 / 54

Notes:

54

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #7
ENR - 1B
Date 8/12/20
Time 1325

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 3
	light. Olive brown s: lt	3 / 7
	Medium olive brown	7 / 33
	Corse to medium angular Sand	33 / 39
	Dark Sandy brown s: lt	39 /
	BOTTOM	

Notes:

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: ~~[illegible]~~ ENR-[illegible]28 8
Date
Time 13:05

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 6
	Lite olive Brown silt with trace sand	6 / 28
	Dark olive brown sand with trace Black silt	28 / 37
	Dark olive Black silt with some lenses of as above sand	37 / 47
	bottom	

Notes:

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Station: #9 ENR-3B
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst
Date
Time 8:45

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	D / 3
	Light-Olive brown silt w/ trace sand	3 / 6.5
	Med- olive brown angular sand	6.5 / 27
	Dark-olive black silt	27 / 41
	BOTTOM	

Notes:

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Station: #10 ENR-4B
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst
Date 8/12/20
Time 8/20

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0
		2.5
	Dark olive Brown fine angular sand	2.5
		29
	Like tan silt lens. from 14-21cm	
	Dark olive Black sandy silt	29
		38

Notes:

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: 11
ENR SB
Date 8/10/23
Time 15:05

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 1
	Light Olive Brown Sandy Silt	1 / 2
	Light Olive Black Silt	2 / US

Notes:

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #12 ENR-GB
Date 8/11/20
Time 9:05

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0
	Light Olive brown S: A.	7
	Med/m Olive brown Fine Sand w/ some silt.	9
	Dark olive - Brown medium Sand	11
	25-31cm estimated due to tape BOTTOM	31

Notes: 0-31

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: [redacted] #13
[redacted] ENR-1C
Date 8/12/13
Time 12:46

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0
	medium olive brown silt	15
	Lite olive brown angular sand	12
	Dark olive Black silt	26
	BOTTOM	38

Notes:

38

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: ~~H14~~ ENR-2C
Date 8/12/20
Time 11:12

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 2.5
	lite olive brown silt	2.5 / 4
	Medium olive brown angular sand. Fine to medium to coarse gravel.	4 / 30
	Dark-olive black silt	30 / 42
	BOTTOM	

Notes:

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #15
ENR-3c
Date 8/12/10
Time 9.35

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 25
	lite- olive brown silt with medium sand lenses	2.5 / 12
	Medium olive brown sand grades from fine to medium BOTTOM	12 / 39.5

Notes:

39.5

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores **Station:** #16
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst **Date** 8/11/20
Time 10.36

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 2.5
	Olive brown silt interbedded with sand.	2.5 / 6.5
	Dark olive Black Sand angular	6.5 / 31
	BOTTOM	

Notes:

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #17 ENR-SC
Date 8/11/20
Time 9:30

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Lite Olive brown silt	0 / 2
	Olive brown ~~FS~~ Fine sand	2 / 10
	Olive brown medium sand	10 / 24
	- Could NOT SEE Bottom Core due to tape	

Notes:

* NO WATER ON SURFACE

0-24

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #10 ENR-GC
Date 8/10/15
Time 13:30

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 2
	lite Olive Brown course Sand - Fine Gravel	2 / 6
	Black Sand - Carbon?	6 / 15
	Dark olive Brown Fine Sand	15 / 22
	Dark Olive Black Fine Silt BOTTOM	22 / 44

Notes:

~~42~~ 44

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: ~~#19~~ ENRAC-1A
Date 8/12/10
Time 10:07

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water with 1 small stick	0 / 3
	Light olive brown silt with trace sand.	3 / 13
	Dark olive brown silt	13 / 23
	Dark olive brown fine angular sand.	23 / 31
	Dark olive black silt	31 / 41

Notes:

41

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: ~~#20~~ ENRAC-2A
Date 8/12/20
Time

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water with sticks	0 / 3
	Lite olive brown silt mixed with sand	3 / 12
	light-olive brown angular sand. Grades from fine to medium to fine.	12 / 27
	Dark-olive black silt	27 / 42
	BOTTOM	

Notes:

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Station: #21 ENRAC-3A
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst
Date
Time 14.10

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 3
	Light Olive Brown silt	3 / 3.5
	Olive Brown silt mixed with fine gravel / coarse sand	3.5 / 12
	Medium Olive Brown, clean, angular medium sand.	12 / 25
	Olive Grey silt w/ some brown lenses. 95% silt 5% Fine sand	25 / 36
	Dark olive Black silt	36 / 45
	BOTTOM	

Notes:

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores **Station:** ~~H~~22
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst **Date** 8/11/20
Time

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear Water	0 / 3
	Lite Olive brown sandy - silt	3 / 7
	Medium olive brown angular sand grades from fine to medium sand	7 / 33
	Dark grey/Black silt	33 / 49
	Bottom	

Notes:

49

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #23
ENR+AC-54
Date 8/10/20
Time 14:50

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 2
	Dark olive Brown Silt.	2 / 45
	Top 1/2cm is light olive Brown Some Grey Silt lenses.	

Notes: 115

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #24
ENR/AC - GOA
Date
Time 13:[illegible]

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 3.5
	light - Olive Brown sandy silt	3.5 / 7
	Medium Olive brown angular sand.	7 / R
	Medium - Olive grey silt with lenses of dark olive black silt	R / 35
	Bottom	

0 - 35

Notes:

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #25
ENR-AC-1B
Date 8/12/10
Time 14:25

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 2.5
	lite-olive brown silt mixed with trace sand	2.5 / 12
	lite-olive brown fine-med clean sand.	12 / 24
	Dark olive black silt with trace sand (as above)	24 / 37
	BOTTOM	

Notes:

37

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #240 ENR+AC-2B
Date
Time

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 1
	light-olive brown sandy silt Mostly silt	1 / 12
	light-olive brown fine angular sand	12 / 25
	Dark olive gray/black silt	25 / 42.5

Notes:

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #27 ENR+AC-3B
Date 8/12/20
Time 9:50

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear Water	0 / 2
	Lite-olive-Brown silt	2 / 7
	Lite-olive brown silt with sand	7 / 15
	Dark-olive brown sand.	15 / 30
	Dark olive Black silt.	30 / 45
	BOTTOM	

Notes:

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: L128 ENR+AC 4B
Date 8/11/20
Time

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 3
	Light to medium olive brown silt	3 / 12
	Olive brown sandy silt. Silt interbedded with fine-medium sand	12 / 15
	Olive brown fine to medium angular sand	15 / 31
	Dark brown/black/gray silt. Some sand lenses.	31 / 50
	Bottom	51

Notes:

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #29 DUPL ENR+Ac. SB
Date 8/11/20
Time 12:20

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 4
	light-olive brown silt w/ some olive brown medium sand.	4 / 12
	Dark olive brown silt with a few lenses of dark medium sand	12 / 31
	Dark olive black/gray silt	31 / 50
	BOTTOM	

Notes:

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: ~~#29~~ DUP1 ENR+AC-SB
Date 8/10/10
Time 1520

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 2
	Orange-Oxidized Silt	2 / 2.5
	Dark olive Brown Black Silt	2.5 / 39
	~~Hole~~	

Notes:

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: 30
ENR+AC - GB
Date 8/10/20
Time 12:10

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 2.5
	Lt olive brown silt with some sand.	2.5 / 6.5
	Dark olive black silt.	6.5 / 49.5
	~~BOTTOM~~	

Notes:

49.5

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #31
ENR+AC - 1C
Date 8/12/20
Time 1440

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 4.5
	Light-Olive Brown silt w/ some sand (5%)	4.5 / 15
	Light-olive brown angular medium sand	15 / 39
	Dark grey-black sandy silt	39 / 42
	BOTTOM	

Notes:

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #32
ENR+AC-2C
Date 8/12/20
Time 1100

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water with a stick	0 / 3
	light- olive brown silt mixed with trace sand	3 / 18
	Dark-olive brown argillaceous sand,	18 / 39
	★ 34-39 = estimate due to tape Bottom	

Notes:

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #33 ENR/AC 3C
Date 8/11/20
Time 14:30

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 25
	Very light Olive brown, Algae-like silt	25 / 3
	Olive brown silt, some sand mixed in	3 / 6
	Medium olive brown angular sand. 15cm-23cm some lenses of black carbon.	6 / 32
	Dark Black/Olive black silt with some vertical lenses of sand mixed with grey silt.	32 / 50.5
	Bottom	

Notes:

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Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: 34
ENR+AC-4C
Date 8/11/20
Time 13:45

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 / 2.5
	lite olive brown silt. some sand near bottom.	2.5 / 5.5
	undisturbed olive brown angular ~~sand~~ med. sand	5.5 / 21
	Interm'xed olive brown sand with dark olive black silt	21 / 34
	Dark grey - black silt. Some light grey vertical silt stringers/lenses	34 / 50
	Bottom	

Notes:

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: ENRAC SC
Date 8/11/20
Time 1120

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	NO WATER, Olive brown Silt	0 / .5
	Dark olive brown/Black Medium angular sand.	.5 / 39

Notes:

Core Description Form

Project: LDWG ENR/AC Bioaccumulation Cores
Proj No LY15160310.2B.2500
Laboratory processing by: EcoAnalyst

Station: #36
ENR/AC GC
Date 8/10/12
Time 11:20

All distances are measured from top of core tube.

Distance cm	Visual sample description	Distance top/bottom
	Clear water	0 – 2
	~~Dark Olive~~ Dark Olive Black Silt.	2 – 54
	BOTTOM	

Notes:

46
9