

# ATTACHMENT M2A

---

2018 FIELD REPORT FOR STATE PIER SEDIMENT  
PROGRAM - THAMES RIVER, NEW LONDON, CT

# Field Report for State Pier Sediment Program - Thames River New London Connecticut

Connecticut Port Authority

Project Number: 60579714

December 14, 2018

Prepared for:

Connecticut Port Authority

Prepared by:

Marc Ian Herwig

Geologist

T: 860-263-5337

E: [ian.herwig@aecom.com](mailto:ian.herwig@aecom.com)

AECOM

500 Enterprise Drive, Suite 1A

Rocky Hill

CT, 06067

USA

[aecom.com](http://aecom.com)

Copyright © 2018 by AECOM

All rights reserved. No part of this copyrighted work may be reproduced, distributed, or transmitted in any form or by any means without the prior written permission of AECOM.

## Table of Contents

1.	State Pier New London 2018 Field Summary .....	1
2.	Health and Safety .....	1
3.	Sediment Sample Collection.....	1
3.1	Vessel Positioning .....	1
3.2	Core Sample Handling.....	1
4.	Field QA/QC Procedures .....	2
5.	SAP Deviations .....	2
6.	References .....	3
	ATTACHMENT 1 State Pier New London SH&E Documentation	
	ATTACHMENT 2 State Pier New London Core Logs	
	ATTACHMENT 3 State Pier New London Photograph Log	
	ATTACHMENT 4 State Pier New London Chain of Custody Forms	
	ATTACHMENT 5 State Pier New London Field Notes	

## Figure

Figure 1 Target/Actual Coring Locations - Connecticut Port Authority State Pier New London

## Tables

Table 1	State Pier New London - Target/Actual Sample Coordinates
Table 2	State Pier New London - Grain Size Data Less than 3 Feet
Table 3	State Pier New London - Grain Size Data 3 to 7 Feet
Table 4	State Pier New London - Grain Size Data Greater than 7 Feet
Table 5	State Pier New London - Final Composting Plan
Table 6	State Pier New London - Sampling and Analytical Program



## Acronyms

CPA	Connecticut Port Authority
COC	Chain of Custody
MS/MSD	Matrix Spike/Matrix Spike Duplicate
HASP	Health and Safety Plan
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PID	Photoionization Detector
SAP	Sampling and Analysis Plan
TOC	Total Organic Carbon
VOC	Volatile Organic Compound

## 1. State Pier New London 2018 Field Summary

The project field effort for the State Pier New London sediment sampling field program commenced October 9<sup>th</sup> 2018 and was completed on October 12<sup>th</sup> 2018. The field effort was led by AECOM. This program involved collecting sediment from 25 locations across the Harbor and from six (6) locations adjacent to the State Pier (**Figure 1**). Based on dredge depths, four (4) sediment samples were obtained as grab samples while all remaining sediment samples were obtained using a vibracore. All samples taken at each grab or core location were sent to Katahdin Analytical Services for immediate grain size analysis to determine a composting plan for chemical analyses. In addition to the grain size analysis, the six (6) cores located adjacent to the State Pier were sent to GEL Laboratories and analyzed for gamma radiation (RAD) to assess the presence of potential radioactive sediments identified in the 2009 investigation (TRC, July, 2009).

Subcontractor CR Environmental provided field support to AECOM for the collection of the core and grab samples at each of the predetermined locations. All coring activities were conducted aboard the vessel R/V Lophious.

## 2. Health and Safety

State Pier New London sampling activities were completed without incident. Prior to field activities AECOM prepared a site specific Health & Safety Plan “MRN – State Pier New London (SPNL) Extra services” (AECOM, September 2018). CR Environmental provided AECOM with its own Health & Safety Plan, AHA, Float Plan, and equipment operation plans. Each participant took part in daily safety briefings which are documented on the Daily Health & Safety Tailgate Log which can be found in **Attachment 1**. Float Plans covering the days boating activities and safety protocols can also be found in **Attachment 1**.

## 3. Sediment Sample Collection

Sediments were collected using a 2.5-inch diameter vibracore at most locations. The vibracorer was fitted with rigid liners as outlined in the project Sampling and Analysis Plan (SAP) (AECOM, July, 2018) (Ref. 2). Where sample depth was projected to be 1-foot or less, sediment was collected using a Petite Ponar grab sampler to obtain the volume needed for sample analysis.

### 3.1 Vessel Positioning

Vessel positioning and the determination of actual core sample locations were accomplished utilizing a Hemisphere Vector V104 Submeter Differential GPS and Hypack Survey Software provided by CR Environmental. **Table 1** summarizes target sample coordinates vs actual sample coordinates. The difference in location can also be seen on **Figure 1**. Sample locations shown in blue are the actual sampling coordinates while sample locations shown in grey were the target locations; some locations were adjusted to avoid sediment surface obstructions (i.e., riprap). The numerical notation on the actual sampling location denotes the core attempt where the greatest recovery was obtained, i.e. 1 = 1<sup>st</sup> attempt.

### 3.2 Core Sample Handling

All cores targeted/specified in the project SAP were successfully collected during the 4-day field effort. Multiple cores were required at several stations to reach the target depth as specified in the SAP. Given the very soft nature of the State Pier sediment, core penetration often went beyond the project target depth to help achieve full recovery of the targeted sediment. The excess material was not sampled, however, it was logged and descriptions can be found in the core logs in **Attachment 2**. The excess material was returned to the sampling location.

After collection, if necessary (due to overall length of the core), the core was cut into approximate 5.0-foot sections to facilitate handling. Those individual core sections were then split longitudinally using electric shears, photographed, screened for RAD by using a Ludlum model 2221r Portable Scaler Ratemeter and VOCs by using a RAE Systems MiniRAE 3000, described/logged. Each core was screened when conditions allowed (i.e., damp weather precluded use of the MiniRAE); there were no VOC or RAD hits while screening. Recovery in cores was in excess of 84% with the exception of NLSP-RAD-A, which was 76%. Photographs of all cores can be found in **Attachment 3**.

After logging was complete and sample intervals were determined, material was homogenized in one-use aluminum trays and scooped with one-use plastic spoons to avoid cross contamination and reduce decontamination procedures/time. Sample intervals were determined by examining the lithologies of each core. For the 6 cores collected in the vicinity of the piers to delineate potentially radioactive sediments (RAD samples), each core was divided into 3 discrete sections and samples were collected from each. The selection of horizons for sampling was based on whether multiple lithologies were identified within a core. If multiple lithologies were identified within a core, each horizon (up to 3 per location) were homogenized and sampled for analysis. This same procedure was followed for the remaining 25 cores, however, the frequency of subsampling was limited to two horizons. If only a single lithology was identified, the entire core as collected from the entire project target depth was homogenized and sampled for analysis.

All samples retained for analysis, grain size, gamma (if RAD), metals, PCBs, pesticides, PAHs, and TOC throughout the day were stored in the processing area on ice in coolers. At the end of each day samples were shipped for overnight via UPS to the respective laboratories noted above. Upon receipt, Katahdin logged all samples but initially only analyzed samples for rapid grain size analysis so data could be used in developing a compositing plan for the remaining analyses. All RAD samples were overnighted via UPS to GEL Laboratories for gamma analysis.

Grain size results can be found in **Tables 2, 3, and 4**. Based on grain size analysis, a compositing plan (**Table 5**) and analytical program (**Table 6**) was determined. The objective of the compositing scheme was that samples of like grain size and sample area were composited to be analyzed for metals, PCBs, pesticides, PAHs, and TOC.

## 4. Field QA/QC Procedures

An equipment blank sample was collected from the coring and processing equipment on October 9<sup>th</sup> during coring activities. Three duplicate samples were taken, as follows: (NLSP-Y(B)-100918-2, NLSP-A(A)-101018-2, and NLSP-V(A)-101218-2). In addition to the 3 duplicate samples, three MS/MSD samples were taken at NLSP-RAD-C(A)-101018-1, NLSP-U(A)-101118-1, and NLSP-M(B)-101218-1.

All samples were shipped packed in ice. Each cooler was taped shut and included two (2) custody seals signed by an AECOM employee. Each cooler contained a chain of custody (COC), signed by an AECOM employee and placed in a zip lock bag to keep dry during shipment. All COCs can be found in **Attachment 4**.

## 5. SAP Deviations

There were a few deviations to the State Pier New London sediment collection SAP summarized as follows:

1. Due to inclement weather on several days, the Photoionization Detector (PID) was not used to screen samples for VOCs as humidity impacts function and response of the PID.
2. Some cores were unable to be collected the full target project depth:
  - a. NLSP-B hit refusal at 9 feet.
  - b. NLSP-E had poor recovery due to cobbles located in the sediment; the core operations were unable to reach the project target depth of 14.8 feet.
  - c. NLSP-P target location was on a rocky slope. After the first offset refusal was encountered at 2-3 feet, a second attempt was able to achieve a penetration of 8.5 feet. The project target depth was 29.2 feet.
  - d. NLSP-RAD-A hit refusal at approximately 9.5 feet; recovery was low, approximately 7.2 feet.
3. Due to the geology at certain sampling locations, offsetting was required to achieve enough recovery for processing.

All project fieldbook entries are included as **Attachment 5**.

## 6. References

AECOM. HAZWOPER Health and Safety Plan. MRN – State Pier New London (SPNL) Extra Services. September 2018.

AECOM. Sampling & Analysis Plan, State Pier New London, Connecticut. July 2018.

TRC. Task 210 Subsurface Site Investigation Proposed Connecticut State Pier Dredging Areas New London, Connecticut. July 2009.

**TABLE 1 Target/Actual Sample Coordinates**

Sample ID	Target Sample Coordinates		Actual Sample Coordinates	
	Easting (NAD 83)	Northing (NAD 83)	Easting (NAD 83)	Northing (NAD 83)
NLSP-A	1181432.632	692850.296	1181431.48	692850.31
NLSP-B	1181282.563	692822.48	1181283.16	692823.88
NLSP-C	1181400.293	692552.84	1181398.42	692553.34
NLSP-D	1181549.074	692263.083	1181548.29	692263.07
NLSP-E	1181066.911	692624.983	1181085.54	692620.51
NLSP-F	1181293.45	692358.043	1181297.71	692357.35
NLSP-G	1181544.672	691981.049	1181548.03	691980.83
NLSP-H	1181316.894	692065.513	1181315.48	692067.82
NLSP-I	1181749.38	691549.986	1181746.75	691549.19
NLSP-J	1181652.556	691254.413	1181649.26	691255.1
NLSP-K	1181735.747	690888.841	1181731.75	690891.35
NLSP-L	1180733.534	692272.978	1180736.88	692271.97
NLSP-M	1180869.785	692086.683	1180869.15	692086.73
NLSP-N	1181327.104	691511.533	1181328.41	691514.23
NLSP-O	1181448.781	691275.41	1181447.8	691275.68
NLSP-P	1180675.532	692114.827	1180730.94	692042.69
NLSP-Q	1181020.693	691612.081	1181029.78	691621.35
NLSP-R	1181576.721	690812.891	1181578.67	690815.32
NLSP-S	1181879.549	690446.288	1181877.5	690443.09
NLSP-T	1181044.537	691279.447	1181051.75	691273.22
NLSP-U	1181730.064	690531.549	1181731.83	690535.11
NLSP-V	1180402.401	692004.436	1180401.45	692003.49
NLSP-W	1180596.9	691732.346	1180587.44	691708.84
NLSP-X	1180826.271	691400.864	1180813.1	691396.69
NLSP-Y	1180169.333	692136.694	1180172.77	692135.4
NLSP-RAD-A	1180958.975	692495.325	1180963.72	692493.69
NLSP-RAD-B	1180990.352	692472.844	1180992.24	692474.68
NLSP-RAD-C	1181316.323	691977.9	1181317.31	691978.15
NLSP-RAD-D	1181336.884	691992.133	1181336.38	691995.56
NLSP-RAD-E	1181464.358	691762.862	1181467.5	691760.31
NLSP-RAD-F	1181461.265	691804.438	1181461.66	691805.33

Notes: Navigation Used by CR Environmental - Hemisphere Vector V104 Submeter Differential GPS and Hypack Survey Software.

## TABLE 2 Grain Size Data Less Than 3 Feet

Sample ID	Sample Interval (ft)	Gravel (%)	Sand Course (%)	Sand Medium (%)	Sand Fine (%)	Silt (%)	Clay (%)	Total (%)
NLSP-RAD-F(A)-101018-1	0.0-0.5	2.36	1.31	7.35	5.51	78.80	4.67	100.00
NLSP-RAD-E(A)-101018-1	0.0-2.1	4.00	2.60	5.20	6.61	77.88	3.71	100.00
NLSP-I(A)-101118-1	0.0-0.1	0.00	0.00	13.34	3.51	74.66	8.48	99.99
NLSP-J(A)-101118-1	0.0-0.3	0.00	0.00	3.17	5.65	84.17	7.01	100.00
NLSP-N(A)-101118-1	0.0-0.1	0.00	0.00	1.39	5.57	86.41	6.63	100.00
NLSP-K(A)-101218-1	0.0-1.0	0.00	0.00	1.33	2.13	89.31	7.24	100.01
NLSP-D(A)-101218-1	0.0-1.3	0.00	0.00	0.82	1.37	92.12	5.69	100.00
NLSP-G(A)-101218-1	0.0-1.1	0.00	0.00	0.95	1.43	83.18	14.44	100.00
NLSP-O(A)-101218-1	0.0-1.1	0.00	0.00	1.08	2.58	90.58	5.77	100.01

Notes: Grain size analysis completed by Katahdin Analytical Services.

## TABLE 3 Grain Size Data 3 to 7 Feet

Sample ID	Sample Interval	Gravel (%)	Sand Course	Sand Medium	Sand Fine (%)	Silt (%)	Clay (%)	Total (%)
NLSP-RAD-B(A)-101018-1	0.0-2.4	0.00	0.00	0.88	2.06	92.54	4.52	100.00
NLSP-RAD-B(B)-101018-1	2.4-5.6	0.00	0.00	2.16	11.97	82.07	3.80	100.00
NLSP-RAD-B(C)-101018-1	4.6-5.75	0.00	0.00	1.86	65.05	32.00	1.09	100.00
NLSP-RAD-C(A)-101018-1*	0.0-3.8	0.00	0.00	3.01	6.56	84.91	5.52	100.00
NLSP-RAD-C(B)-101018-1	3.8-5.5	21.11	11.90	39.06	25.25	1.61	1.06	99.99
NLSP-RAD-D(A)-101018-1	0.0-2.1	0.00	0.00	0.72	8.64	85.90	4.74	100.00
NLSP-RAD-D(B)-101018-1	2.1-3.3	0.71	1.16	8.83	71.87	12.34	5.10	100.01
NLSP-T(A)-100918-1	0.0-2.0	2.53	2.76	13.10	27.12	46.87	7.63	100.01
NLSP-T(B)-100918-1	2.0-4.75	1.12	1.34	8.49	16.09	59.09	13.87	100.00
NLSP-Y(A)-100918-1	0.0-0.67	0.00	0.00	3.61	9.02	78.61	8.75	99.99
NLSP-Y(B)-100918-1	0.67-6.8	0.00	0.00	2.89	2.89	81.49	12.72	99.99
NLSP-Y(B)-100918-2	0.67-6.8	0.00	0.00	2.67	3.47	79.46	14.41	100.01
NLSP-W(A)-101018-1	0.0-6.3	1.63	4.35	2.72	2.99	82.65	5.92	100.26
NLSP-H(A)-101018-1	0.0-2.0	0.00	0.00	0.53	3.18	88.16	8.13	100.00
NLSP-H(B)-101018-1	2.0-6.8	0.00	0.00	3.93	20.53	57.69	17.85	100.00
NLSP-L(A)-101118-1	0.0-5.6	0.00	0.00	0.99	13.11	83.24	2.65	99.99
NLSP-F(A)-101118-1	0.0-4.5	0.00	0.00	0.26	1.31	94.82	3.61	100.00
NLSP-F(B)-101118-1	4.5-5.1	0.00	0.00	3.18	3.18	74.85	18.80	100.01
NLSP-C(A)-101118-1	0.0-3.2	0.00	0.00	0.69	1.15	95.01	3.15	100.00
NLSP-C(B)-101118-1	3.2-5.0	0.00	0.00	0.19	2.28	78.32	18.48	99.27
NLSP-S(A)-101218-1	0.0-3.6	0.00	0.00	0.62	2.26	84.22	12.91	100.01
NLSP-M(A)-101218-1	0.0-1.5	0.00	0.00	0.81	3.53	91.96	3.70	100.00
NLSP-M(B)-101218-1	1.5-3.9	0.00	0.00	5.39	26.43	64.14	4.04	100.00
NLSP-V(A)-101218-1	0.0-2.3	0.00	0.00	3.57	6.60	85.26	4.57	100.00
NLSP-V(A)-101218-2	0.0-2.3	0.00	0.00	4.70	6.92	84.18	4.20	100.00
NLSP-V(B)-101218-1	2.3-3.1	0.00	0.00	3.67	5.76	86.55	4.02	100.00

**Notes:** Grain size analysis completed by Katahdin Analytical Services. 2 Indicates sample was a duplicate. \* Indicates sample was a MS/MSD.

## TABLE 4 Grain Size Data Greater Than 7 Feet

Sample ID	Sample Interval	Gravel (%)	Sand Course	Sand Medium	Sand Fine (%)	Silt (%)	Clay (%)	Total (%)
NLSP-RAD-A(A)-101018-1	0.0-2.5	1.01	1.01	1.26	7.79	84.71	4.23	100.01
NLSP-RAD-A(B)-101018-1	2.5-5.5	0.00	0.00	4.03	20.16	70.88	4.93	100.00
NLSP-RAD-A(C)-101018-1	5.5-7.2	0.00	0.00	1.05	43.57	53.71	1.67	100.00
NLSP-X(A)-100918-1	0.0-7.0	19.52	5.09	19.73	14.43	36.39	4.84	100.00
NLSP-X(B)-100918-1	7.0-8.0	26.53	10.84	32.09	17.26	9.96	3.31	99.99
NLSP-Q(A)-101018-1	0.0-0.9	9.41	6.96	25.60	14.87	38.94	4.23	100.01
NLSP-Q(B)-101018-1	0.9-1.9	7.40	9.84	56.69	19.37	4.52	2.18	100.00
NLSP-A(A)-101018-1	0.0-8.9	0.00	0.00	1.56	3.33	80.10	15.01	100.00
NLSP-A(A)-101018-2	0.0-8.9	0.00	0.00	0.62	3.08	81.45	14.85	100.00
NLSP-P(A)-101118-1	0.0-2.0	0.00	0.00	5.35	21.81	68.00	4.83	99.99
NLSP-P(B)-101118-1	2.0-7.9	0.00	0.00	1.89	28.89	66.06	3.15	99.99
NLSP-R(A)-101118-1	0.0-0.5	0.00	0.00	0.50	2.97	84.56	11.97	100.00
NLSP-R(B)-101118-1	0.5-7.1	0.00	0.00	0.22	0.45	82.95	16.38	100.00
NLSP-U(A)-101118-1	0.0-7.4	0.00	0.00	0.67	0.90	83.17	15.25	99.99
NLSP-B(A)-101118-1	0.0-7.0	0.00	0.00	5.83	22.04	63.18	8.95	100.00
NLSP-B(B)-101118-1	7.0-7.9	0.00	0.00	2.02	5.14	77.35	15.49	100.00
NLSP-E(A)-101118-1	0.0-3.5	0.00	0.00	10.94	38.20	44.41	6.45	100.00
NLSP-E(B)-101118-1	3.5-4.8	0.00	0.00	4.69	64.00	29.78	1.54	100.01

Notes: Grain size analysis completed by Katahdin Analytical Services. 2 Indicates sample was a duplicate.



## TABLE 5 Final Compositing Plan

Samples Composted	Composting Sample ID	Samples Composted	Composting Sample ID
NLSP-A(A)-101018-1	NLSP-Comp-ABC	NLSP-RAD-C(B)-101018-1	NLSP-Comp-RAD-CD-2
NLSP-B(A)-101118-1		NLSP-RAD-D(B)-101018-1	
NLSP-B(B)-101118-1		NLSP-RAD-E(A)-101018-1	NLSP-Comp-RAD-EF
NLSP-C(A)-101118-1		NLSP-RAD-F(A)-101018-1	
NLSP-C(B)-101118-1		NLSP-L(A)-101118-1	NLSP-Comp-LMP
NLSP-A(A)-101018-1	NLSP-M(A)-101218-1		
NLSP-B(A)-101118-1	NLSP-M(B)-101218-1		
NLSP-B(B)-101118-1	NLSP-P(A)-101118-1		
NLSP-C(A)-101118-1	NLSP-P(B)-101118-1		
NLSP-C(B)-101118-1	NLSP-Comp-FH	NLSP-Q(A)-101018-1	NLSP-Comp-QX-1
NLSP-F(A)-101118-1		NLSP-X(A)-100918-1	NLSP-Comp-QX-2
NLAP-F(B)-101118-1		NLSP-Q(B)-101018-1	
NLSP-H(A)-101018-1		NLSP-X(B)-100918-1	
NLSP-H(B)101018-1		NLSP-V(A)-101218-1	NLSP-Comp-VWY
NLSP-D(A)-101218-1	NLSP-V(B)-101218-1		
NLSP-G(A)-101218-1	NLSP-W(A)-101018-1		
NLSP-I(A)-101118-1	NLSP-Comp-IJNOK	NLSP-Y(A)-100918-1	NLSP-Comp-T
NLSP-J(A)-101118-1		NLSP-Y(B)-100918-1	
NLSP-N(A)-101118-1		NLSP-T(A)-100918-1	NLSP-Comp-RUS
NLSP-O(A)-101218-1		NLSP-T(B)-100918-1	
NLSP-K(A)-101218-1		NLSP-R(A)-101118-1	
NLSP-RAD-A(C)-101018-1	NLSP-Comp-RAD-AB-2	NLSP-R(B)-101118-1	NLSP-Comp-RUS
NLSP-RAD-B(C)-101018-1		NLSP-U(A)-101118-1	
NLSP-RAD-C(A)-101018-1	NLSP-Comp-RAD-CD-1	NLSP-S(A)-101218-1	No Composit
NLSP-RAD-D(A)-101018-1		NLSP-E(A)-101118-1	
NLSP-RAD-A(A)-101018-1	NLSP-Comp-RAD-AB-1	NLSP-E(B)-101118-1	No Composit
NLSP-RAD-A(B)-101018-1			
NLSP-RAD-B(A)-101018-1			
NLSP-RAD-B(B)-101018-1			

**Notes:** NLSP-Comp-RAD-CD-1 is MS/MSD. NLSP-Comp-VWY is a Duplicate.

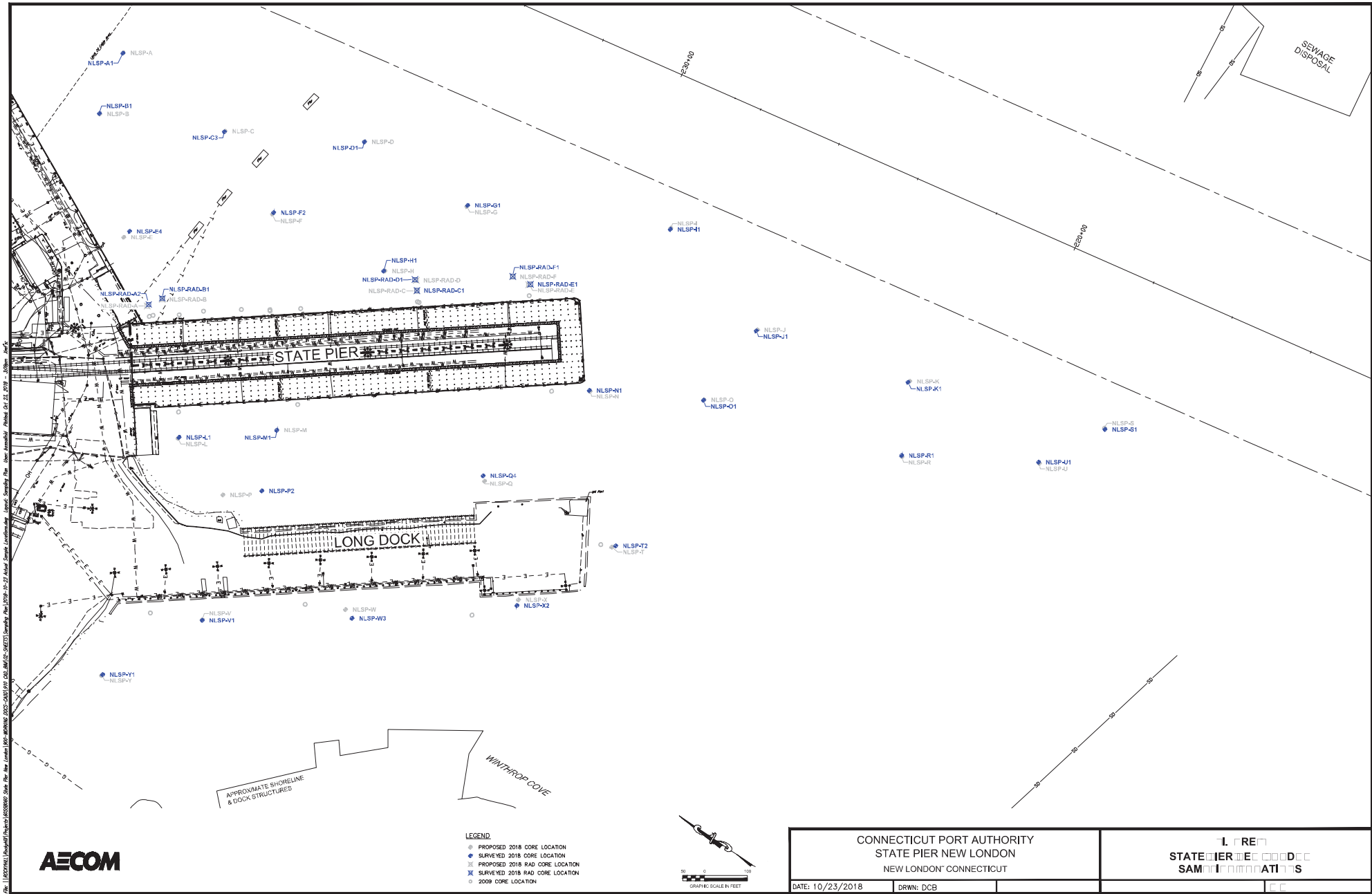
## TABLE 6 Sampling and Analytical Program

Composting Sample ID	Metals	PCBs	Pesticides	PAHs	TOC	Notes
NLSP-Comp-RAD-AB-1	X	X	X	X	X	
NLSP-Comp-RAD-AB-2	X	X	X	X	X	
NLSP-Comp-RAD-CD-1	X	X	X	X	X	MS/MSD
NLSP-Comp-RAD-CD-2	X	X	X	X	X	
NLSP-Comp-RAD-EF	X	X	X	X	X	
NLSP-Comp-ABC	X	X	X	X	X	Duplicate
NLSP-Comp-FH	X	X	X	X	X	
NLSP-Comp-DG	X	X	X	X	X	
NLSP-Comp-IJNOK	X	X	X	X	X	
NLSP-E(A)-101118-1	X	X	X	X	X	
NLSP-E(B)-101118-1	X	X	X	X	X	
NLSP-Comp-LMP	X	X	X	X	X	
NLSP-Comp-QX-1	X	X	X	X	X	
NLSP-Comp-QX-2	X	X	X	X	X	
NLSP-Comp-VWY	X	X	X	X	X	Duplicate
NLSP-Comp-T	X	X	X	X	X	
NLSP-Comp-RUS	X	X	X	X	X	

**Notes:** All RAD samples are analyzed by GEL Laboratories. All non-rad sampled are analyzed by Katahdin Analytical Services. See Table # (Composting Plan) for compost sample details.

## FIGURE 1 Target/Actual Coring Locations

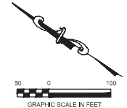
---



File: I:\PROJECTS\180718\180718.ctb Date: 10/23/2018 10:27:00 AM User: dcb\jdc\jdc Date: 10/23/2018 10:27:00 AM



- LEGEND**
- PROPOSED 2018 CORE LOCATION
  - SURVEYED 2018 CORE LOCATION
  - ⊠ PROPOSED 2018 RAD CORE LOCATION
  - ⊠ SURVEYED 2018 RAD CORE LOCATION
  - 2009 CORE LOCATION



CONNECTICUT PORT AUTHORITY STATE PIER NEW LONDON NEW LONDON CONNECTICUT		<b>1</b> OF <b>1</b> <b>STATE PIER</b> <b>SAMPLING LOCATIONS</b>
DATE: 10/23/2018	DRWN: DCB	TC

# **ATTACHMENT 1 State Pier New London SH&E Documentation**

---



## Boat Safety Checklist

Keep this page with your boat, ready for inspection. By using this checklist, or one fine-tuned by yourself, you'll be sure that everything is on board and in good working order. Your passengers will appreciate knowing you're concerned about boating safety.

Float plan--let a friend or relative know when you're leaving, where you're going, when you expect to return, what to do if you don't, and a description of your boat

Registration certificate or documentation

Personal Flotation Devices (wearable and throw able)--USCG approved, good condition, readily accessible, assigned and fitted

Fire Extinguishers--right number, size, and class for boat; charged, not corroded, nozzle clear, bracketed, readily accessible

Visual Distress Signals--current dates on flares, proper number, batteries good if lights or EPIRB

Anchors and Line--adequate anchor for bottom, adequate line for water depth

Bilge device --bilge pump operable, alternative bailing device available

Watch or clock--operable

Bright flashlight or searchlight

Navigation lights --tested and operable, spare bulbs

Batteries--fully charged, encased in plastic boxes or terminals covered, securely fastened down

Sound-producing device--horn, whistle appropriate for boat

Alternate propulsion--paddle or oar

First Aid Kit

Tools, spare outboard prop and lock nut

Compass

Sunscreen

Weather Radio

Boat: Lophius Captain's Signature: Benjamin M. M.

10/10/18

## Boat Safety Checklist

Keep this page with your boat, ready for inspection. By using this checklist, or one fine-tuned by yourself, you'll be sure that everything is on board and in good working order. Your passengers will appreciate knowing you're concerned about boating safety.

- Float plan--let a friend or relative know when you're leaving, where you're going, when you expect to return, what to do if you don't, and a description of your boat
- Registration certificate or documentation
- Personal Flotation Devices (wearable and throw able)--USCG approved, good condition, readily accessible, assigned and fitted
- Fire Extinguishers--right number, size, and class for boat; charged, not corroded, nozzle clear, bracketed, readily accessible
- Visual Distress Signals--current dates on flares, proper number, batteries good if lights or EPIRB
- Anchors and Line--adequate anchor for bottom, adequate line for water depth
- Bilge device --bilge pump operable, alternative bailing device available
- Watch or clock--operable
- Bright flashlight or searchlight
- Navigation lights --tested and operable, spare bulbs
- Batteries--fully charged, encased in plastic boxes or terminals covered, securely fastened down
- Sound-producing device--horn, whistle appropriate for boat
- Alternate propulsion--paddle or oar
- First Aid Kit
- Tools, spare outboard prop and lock nut
- Compass
- Sunscreen
- Weather Radio

10/11/18

Boat: Lophius

Captain's Signature: Bernie M. M.



## Boat Safety Checklist

Keep this page with your boat, ready for inspection. By using this checklist, or one fine-tuned by yourself, you'll be sure that everything is on board and in good working order. Your passengers will appreciate knowing you're concerned about boating safety.

- Float plan--let a friend or relative know when you're leaving, where you're going, when you expect to return, what to do if you don't, and a description of your boat
- Registration certificate or documentation
- Personal Flotation Devices (wearable and throw able)--USCG approved, good condition, readily accessible, assigned and fitted
- Fire Extinguishers--right number, size, and class for boat; charged, not corroded, nozzle clear, bracketed, readily accessible
- Visual Distress Signals--current dates on flares, proper number, batteries good if lights or EPIRB
- Anchors and Line--adequate anchor for bottom, adequate line for water depth
- Bilge device --bilge pump operable, alternative bailing device available
- Watch or clock--operable
- Bright flashlight or searchlight
- Navigation lights --tested and operable, spare bulbs
- Batteries--fully charged, encased in plastic boxes or terminals covered, securely fastened down
- Sound-producing device--horn, whistle appropriate for boat
- Alternate propulsion--paddle or oar
- First Aid Kit
- Tools, spare outboard prop and lock nut
- Compass
- Sunscreen
- Weather Radio

10/12/18

Boat: Lophius Captain's Signature: Benjamin Alder



Americas

**Daily Tailgate Meeting**

S3NA-209-FM5

Job Location:	NEW LONDON CT	Date:	10/9/18
AECOM Site Supervisor:	STEVE HOWE	Person Conducting Tailgate Meeting:	STEVE HOWE
AECOM Site Supervisor Phone:	603-520-0169	AECOM Safety Officer Name & Phone:	IAN HERWIG 203 470 0631

List activities to be performed today:	SEDIMENT CORING
--	-----------------

Muster Point:	FERRY ST GATE	Spill Kit Location:	BOAT
First Aid Kit Location:	PROCESSING AREA	Fire Extinguisher Location:	BOAT

Have all personnel reviewed and understand the site-specific safety plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Are current Pre-Job Hazard Assessments in place for each of the tasks to be performed today and understood by all?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Does each subcontractor have hazard assessments (e.g., THA, JSA, JHA) for their activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Are any required permits in place for the applicable tasks to be performed today and understood by all? Identify required permits and permit #s:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have all members of the work team confirmed understanding of the work, hazards, and controls/mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Have work areas been properly cordoned-off to protect workers, site staff, and the public?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have equipment checks been completed, documented, and reviewed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Do all site workers understand injury/ intervention reporting requirements including immediately notifying the AECOM Site Supervisor of any injury near miss, unsafe condition or hazard observation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*

\* if No, then work cannot be performed until corrective action is completed and documented.

Topics covered in today's tailgate meeting:	<ul style="list-style-type: none"> <li>• SITE SAFETY</li> <li>• MARINE SAFETY</li> <li>• WEATHER (HEAT STRESS)</li> <li>• HOUSE KEEPING</li> </ul>
---	--

Other Items Discussed Today:	Stop Work Authority & Obligation
MOBILIZATION DECON	<ul style="list-style-type: none"> <li>* All employees will stop the job any time anyone is concerned or uncertain about safety.</li> <li>* All employees will stop the job if anyone identifies a hazard or additional mitigation not recorded on the THA.</li> <li>* All employees will be alerted to any changes in personnel or conditions at the worksite.</li> <li>* All employees will stop the job and reassess a task, hazards, and mitigations, and then amend the THA as needed.</li> </ul>



Americas

**Daily Tailgate Meeting**

S3NA-209-FM5

Job Location:	New London CT	Date:	10/16/18
AECOM Site Supervisor:	Steve Howe	Person Conducting Tailgate Meeting:	Steve Howe
AECOM Site Supervisor Phone:	603-520-0169	AECOM Safety Officer Name & Phone:	Ian Henry 203-470-0631

List activities to be performed today:	sediment coring
--	-----------------

Muster Point:	Ferry St Gate	Spill Kit Location:	Boat
First Aid Kit Location:	Processing Area	Fire Extinguisher Location:	Boat

Have all personnel reviewed and understand the site-specific safety plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Are current Pre-Job Hazard Assessments in place for each of the tasks to be performed today and understood by all?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Does each subcontractor have hazard assessments (e.g., THA, JSA, JHA) for their activities?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Are any required permits in place for the applicable tasks to be performed today and understood by all? Identify required permits and permit #s:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have all members of the work team confirmed understanding of the work, hazards, and controls/mitigation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*
Have work areas been properly cordoned-off to protect workers, site staff, and the public?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Have equipment checks been completed, documented, and reviewed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No* <input type="checkbox"/> N/A
Do all site workers understand injury/ intervention reporting requirements including immediately notifying the AECOM Site Supervisor of any injury near miss, unsafe condition or hazard observation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No*

\* if No, then work cannot be performed until corrective action is completed and documented.

Topics covered in today's tailgate meeting:	Heat stress Slips Trips Falls
---	----------------------------------

Other Items Discussed Today:	Stop Work Authority & Obligation
	<ul style="list-style-type: none"> <li>* All employees will stop the job any time anyone is concerned or uncertain about safety.</li> <li>* All employees will stop the job if anyone identifies a hazard or additional mitigation not recorded on the THA.</li> <li>* All employees will be alerted to any changes in personnel or conditions at the worksite.</li> <li>* All employees will stop the job and reassess a task, hazards, and mitigations, and then amend the THA as needed.</li> </ul>





**Daily Float Plan**

Name of vessel's operator:		BEN MAHER	
Telephone Number:		774 454 0323	
Name of Vessel:		LOPHIUS	
Registration No.:		MS 2005 MD	
Description of Vessel: Type: Make: Color of Hull/Trim:		welded aluminum 25' Research Vehicle	
Most distinguishing identifiable feature:			
Rafts/Dinghies: Number:	Size:	Color:	NA
Radio: Type:	Frequencies Monitored:	13/16	
Number of persons onboard:		4	
Name:	Age:	Address & Telephone:	
BEN MAHER			
MIKE THELER			
TIM MUSCARIELLA			
STEVE HOWE		603 520 0169	
Engine Type: <u>gas</u> H.P.: <u>250</u> Normal Fuel Supply (days): <u>2x</u>			
Survival equipment on board: (check as appropriate)			
<input checked="" type="checkbox"/> Life Jackets	<input checked="" type="checkbox"/> Flares	<input checked="" type="checkbox"/> Smoke Signals	
<input checked="" type="checkbox"/> Medical Kit	<input type="checkbox"/> EPIRB	<input checked="" type="checkbox"/> Paddles	
<input checked="" type="checkbox"/> Anchor	<input checked="" type="checkbox"/> Loran/GPS	<input checked="" type="checkbox"/> Life Ring	
Trip: <u>COLING AROUND STATE PIER</u>			
Date & Time of Departure:		<u>10/9/18 1330</u>	
Departure From: <u>MIKE T. DOCK</u>		Departure To: <u>STATE PIER</u>	
Expected to arrive by: <u>1800</u> In no case later than: <u>2000</u>			
Date & Time of Arrival:		Boat Lead Signature at Arrival:	



**Daily Float Plan**

Name of vessel's operator:		Ben Maher	
Telephone Number:		774-454 0323	
Name of Vessel:		Lophius	
Registration No.:		MS 2005 MD	
Description of Vessel: Type: Make: Color of Hull/Trim:		Welded Aluminum 25' Research Vessel	
Most distinguishing identifiable feature:			
Rafts/Dinghies: Number:	Size:	Color: NA	
Radio: Type:	Frequencies Monitored: 13/16		
Number of persons onboard: 4			
Name:	Age:	Address & Telephone:	
Ben Maher			
Mike Theiler			
Matt Fitzpatrick			
Steve Howe			
Engine Type: <u>OB</u> H.P.: <u>250</u> Normal Fuel Supply (days): _____			
Survival equipment on board: (check as appropriate)			
<input checked="" type="checkbox"/> Life Jackets	<input checked="" type="checkbox"/> Flares	<input checked="" type="checkbox"/> Smoke Signals	
<input checked="" type="checkbox"/> Medical Kit	<input type="checkbox"/> EPIRB	<input checked="" type="checkbox"/> Paddles	
<input checked="" type="checkbox"/> Anchor	<input checked="" type="checkbox"/> Loran/GPS	<input type="checkbox"/> Life Ring	
Trip: <u>Coring around NL State Pier</u>			
Date & Time of Departure: <u>10/10/18</u>		<u>0750</u>	
Departure From: <u>Mike T Dock</u>		Departure To: <u>State Pier</u>	
Expected to arrive by: <u>1500</u> In no case later than: <u>2000</u>			
Date & Time of Arrival:		Boat Lead Signature at Arrival:	

**Daily Float Plan**

Name of vessel's operator:		Ben Maher	
Telephone Number:		774-454-0323	
Name of Vessel:		Lophius	
Registration No.:		MS-2005-MD	
Description of Vessel: Type: Make: Color of Hull/Trim		Welded Aluminum 25' Research Vessel	
Most distinguishing identifiable feature:			
Rafts/Dinghies: Number:	Size:	Color: NA	
Radio: Type:	Frequencies Monitored: 131G		
Number of persons onboard:		4	
Name:	Age:	Address & Telephone:	
Ben Maher			
Mike Theiler			
Matt Fitzpatrick			
Steve Howe			
Engine Type: <u>OB</u> H.P.: <u>250</u> Normal Fuel Supply (days): _____			
Survival equipment on board: (check as appropriate)			
<input checked="" type="checkbox"/> Life Jackets	<input checked="" type="checkbox"/> Flares	<input checked="" type="checkbox"/> Smoke Signals	
<input checked="" type="checkbox"/> Medical Kit	<input type="checkbox"/> EPIRB	<input checked="" type="checkbox"/> Paddles	
<input checked="" type="checkbox"/> Anchor	<input checked="" type="checkbox"/> Loran/GPS	<input checked="" type="checkbox"/> Life Ring	
Trip: <u>Coring around State Pier</u>			
Date & Time of Departure: <u>10/11/18</u>		<u>0750</u>	
Departure From: <u>Mike T Dock</u>		Departure To: <u>State Pier</u>	
Expected to arrive by: <u>1800</u> In no case later than: <u>2000</u>			
Date & Time of Arrival:		Boat Lead Signature at Arrival:	

**Daily Float Plan**

Name of vessel's operator:		Ben Maher	
Telephone Number:		774-454-0323	
Name of Vessel:		MS 2005 MD	
Registration No.:		Lopharus	
Description of Vessel: Type: Make: Color of Hull/Trim		25' welded Aluminum research vessel	
Most distinguishing identifiable feature:			
Rafts/Dinghies: Number:	Size:	Color:	N/A
Radio: Type:	Frequencies Monitored: 1316		
Number of persons onboard: 4			
Name:	Age:	Address & Telephone:	
Ben Maher			
Mike Thaler			
Matt Fitzpatrick			
C. Steve Howe			
Engine Type: <u>OH</u> H.P.: <u>250</u> Normal Fuel Supply (days): _____			
Survival equipment on board: (check as appropriate)			
<input type="checkbox"/> Life Jackets	<input checked="" type="checkbox"/> Flares	<input checked="" type="checkbox"/> Smoke Signals	
<input checked="" type="checkbox"/> Medical Kit	<input type="checkbox"/> EPIRB	<input checked="" type="checkbox"/> Paddles	
<input checked="" type="checkbox"/> Anchor	<input checked="" type="checkbox"/> Loran/GPS	<input checked="" type="checkbox"/> Life Ring	
Trip: <u>Coasting around State Pier</u>			
Date & Time of Departure: <u>10/12/18</u>			
Departure From: <u>Mike T Dock</u>		Departure To: <u>State Pier</u>	
Expected to arrive by: <u>1900</u> In no case later than: <u>2000</u>			
Date & Time of Arrival:		Boat Lead Signature at Arrival:	

## ATTACHMENT 2 State Pier New London Core Logs

---



Client: <b>CAP</b>	Contractor: <b>CR Environmental</b>	Water Depth: <b>37.8</b>
Project Number: <b>NLSP-RAD-B</b>	Sampling Equipment: <b>Vibra Core</b>	MLW:
Station Location: <b>6057914</b>	Survey Vessel: <b>R/V Cophidors</b>	Core Diameter (in): <b>2.5</b>
GPS Coordinates: <b>1180992.24</b>	Weather: <b>Sunny, 75°</b>	No. Attempts: <b>1</b>
Date: <b>10/10/18</b> <b>692474.68</b>	Seas: <b>Calm</b>	Logged by: <b>C. Hayden</b>
Time: <b>1005</b>	Survey Personnel: <b>Mike, Ben, Matt</b>	

(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method:
0 to 2.4	\	2.4'	0	See below	ML	<del>ML</del> Bk SILT, trace F sd & root fibers & shell wash, v soft, saturated, slight H <sub>2</sub> S-like odor
2.4 to 4.6	\	2.2'	0	See below	ML	Bk/V. DK. Bn SILT, little F sd, trace root fibers and shell wash, v soft, saturated, light spotty petroleum-like odor & sheen on sediments → visibly contaminated - → plastic trash @ 4.1 ft
4.6 to 7.2	\	2.6'	0	See below	SP	4.6 to 5.75: Tan/Grey F/V.R. SAND <sup>SAND</sup> trace silt, wet, medium dense, no odor → F/M sd lens @ 5.25 ft
					SM	5.75 to 6.3: Tan/Lt Bn V.F. SAND & SILT, wet, med. dense, no odor → clayey varve @ 5.9 ft → Iron-stained @ 6.25 ft
					SP	6.3 to 7.2: Tan/Lt Bn F/V.R. SAND, trace silt, wet, medium dense, no odor
						<u>Note</u> : Radiation meter did not detect any counts above background levels

Estimated Penetration Range:	<b>6.8</b>	<b>Comments: SAMPLES:</b> → 0 to 2.4: NLSP-RAD-B(A)-101018-1 → 2.4 to 4.6: NLSP-RAD-B(B)-101018-1 → 4.6 to 5.75: NLSP-RAD-B(C)-101018-1
Project Depth:	<b>6.8</b>	
Actual Penetration:	<b>8.3</b>	
Recovery:	<b>7.2</b>	
% Recovery:		



**AECOM**

**Core ID:** NLSP-RAD-C

250 Apollo Drive, Chelmsford, MA 01824  
(978) 905-2100 - office, (978) 905-2101 - fax

Page 1 of 1

Client: <u>CT Port Authority</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>38.9</u>
Project Number: <u>60579714</u>	Sampling Equipment: <u>Ultracore</u>	MLW:
Station Location:	Survey Vessel: <u>R/V Caphsaw</u>	Core Diameter (in): <u>2.5</u>
GPS Coordinates: <u>1181317.31</u>	Weather: <u>Sunny, breezy 75°</u>	No. Attempts: <u>1</u>
Date: <u>10/10/18</u> <u>691978.15</u>	Seas: <u>Calm</u>	Logged by: <u>C Hayden</u>
Time: <u>1225</u>	Survey Personnel: <u>Mike, Ben (cpt), Matt</u>	

(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method: _____
<u>0 to 3.8</u>	<u>\</u>	<u>3.8</u>	<u>0</u>	<u>see below</u>	<u>MU</u>	<u>Blk/lt dk bn SILT, trace R sd, root fibers, no soft, saturated, moderate H<sub>2</sub>S-like odor</u>
<u>3.8 to 5.5</u>	<u>\</u>	<u>1.7</u>	<u>0</u>	<u>see below</u>	<u>SP</u>	<u>Tan/lt Grey FLE SAND, little R/M gravel, saturated, medium dense, no odor</u>
						<u>- end of Exploration -</u>
						<u>Note: sample B contains 0.9 ft past the 4.1 ft threshold due to insufficient sediments to fill jars from 3.8 to 4.1 ft</u>
						<u>Note: Radiation meter did not detect any counts above background levels</u>

Estimated Penetration Range:	<b>Comments:</b> <u>SAMPLES:</u> → 0 to 3.8: <u>NLSP-RAD-C(A)</u> - 10/10/18-1 (MS/MSD) → 3.8 to 5.5: <u>NLSP-RAD-C(B)</u> - 10/10/18-1
Project Depth: <u>4.1</u>	
Actual Penetration: <u>6.5</u>	
Recovery: <u>5.5</u>	
% Recovery:	

Client: <u>CT Port Authority</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>40.1</u>
Project Number: <u>60579114</u>	Sampling Equipment: <u>VibraCore</u>	MLW:
Station Location:	Survey Vessel: <u>R/V Lophos</u>	Core Diameter (in): <u>2.5</u>
GPS Coordinates: <u>1181336.38</u>	Weather: <u>Sunny, breezy 75°</u>	No. Attempts: <u>1</u>
Date: <u>10/10/18</u> <u>691995.56</u>	Seas: <u>Calm</u>	Logged by: <u>C. Hayden</u>
Time: <u>1240</u>	Survey Personnel: <u>Ben (Capt), Mike, Matt</u>	

(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method:
0 to 2.1		2.1	0	see below	ML	Blk/Wdk Gn SILT, trace R sd & shell fragments, root fibers, saturated, soft, slight H <sub>2</sub> O-like odor
2.1 to 3.3		1.2	0	see below	SM	Grey/Gn SILTY F SAND, some shell hash, <sup>trace</sup> gravel, saturated, soft/medium dense, slight H <sub>2</sub> O-like odor
3.3 to 4.4		1.1	0	see below	SP	Brown/Grey Fm SAND, trace silt, some shell hash, wet, medium dense, no odor
- End of Exploration -						
<p><u>Note:</u> Roddation meter did not detect any counts above background levels</p>						

Estimated Penetration Range:	<b>Comments:</b> <u>SAMPLES:</u> - 0 to 2.1: NLSP-RAD-D(A)-101018-1 - 2.1 to 3.3: NLSP-RAD-D(B)-101018-1 - <del>3.3 to 4.4: NLSP-RAD-D(C)-101018-1</del> (CMA)
Project Depth: <u>3.0</u>	
Actual Penetration: <u>5.0</u>	
Recovery: <u>(CMA) 1.3 4.4</u>	
% Recovery:	<p>not retained</p>











Client: <u>CT Port Authority</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>32.1</u>
Project Number: <u>60579714</u>	Sampling Equipment: <u>Vibra Core</u>	MLW:
Station Location:	Survey Vessel: <u>R/V Cophylus</u>	Core Diameter (in): <u>2.5"</u>
GPS Coordinates: <u>1181398.42</u>	Weather: <u>Rain, breezy, 75°</u>	No. Attempts: <u>3</u>
Date: <u>10/11/18</u> <u>692553.34</u>	Seas: <u>Calm</u>	Logged by: <u>CHayden</u>
Time: <u>0905</u>	Survey Personnel: <u>Ben (Cpt), Mike, Matt (CR) Steve (AECOM)</u>	

(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method: _____
0 to 3.2	✓	✓	0	See below	ML	Blk/V. dk. bn silt, trace root fibers, v. soft, saturated, slight petroleum-like odor, slight petroleum-like shimmers on sediments
3.2 to 8.8	✓	✓	0	↓	ML	Olive/Grey silt, trace shell hash, v. soft, wet, trace root fibers, slight brackish/owamy odor → 4.8 to 6.2: moderate small-bivalve-shell concentration
						- End of Exploration
						Note: Radiation meter did not detect any counts above background levels

Estimated Penetration Range:

Project Depth: 4.7

Actual Penetration: 9.5

Recovery: 8.8

% Recovery:

Comments:

SAMPLES:

0 to 3.2: NLSP-CA - 10/11/18 - 1

3.2 to 8.8: NLSP-CCB - 10/11/18 - 1



AECOM

Core ID: NLSP-E

250 Apollo Drive, Chelmsford, MA 01824  
(978) 905-2100 - office, (978) 905-2101 - fax

Page 1 of 1

Client: <u>CT Port Authority</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>35.9</u>
Project Number: <u>60579714</u>	Sampling Equipment: <u>Vibra Core</u>	MLW:
Station Location:	Survey Vessel: <u>R/V Capherus</u>	Core Diameter (in): <u>2.5"</u>
GPS Coordinates: <u>1181085.54</u>	Weather: <u>Partly Windy 75°</u>	No. Attempts: <u>4</u>
Date: <u>10/15/18</u> <u>692620.51</u>	Seas: <u>Calm/Lt chop</u>	Logged by: <u>C. Hayden</u>
Time: <u>1108</u>	Survey Personnel: <u>Ben (Cpt), Matt, Mike (CR), Steve (AECOM)</u>	(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method: _____
0 to 35	\	/	○	See below	ML	Blk/V. Dk. Bn SILT, trace P-sd & root fibers & small bivalve shells, saturated, soft, slight swampy odor → 1.1 to 2.1: same RM sand → 2.1 to 2.5: Bn RM sand lens
35 to 4.8	\	/	○	See below	SM	Intermittent banding of silty layers from 0 to 35' above into the VP/P sand unit below (4.8' to 6.5'), SO: → 3.5 to 3.9: Dk Bn/V. Dk Bn RM SAND & SILT, trace roots, saturated, medium dense, slight swampy odor → 3.9 to 4.1: N. Dk. Bn SANDY SILT, wet, med dense • FC sand & trace gravel (fine) lens @ 4' → 4.1 to 4.8: Dk Grey / Grey VP/P SAND, some silt, wet, med. dense
4.8 to 6.5	\	/	○	n/a		Brown/Tan VP/P SAND, trace medium sand, saturated, medium dense, no odor  - End of Exploration -
						<u>Notes:</u> Rod meter did not detect any units above background levels  <u>Samples:</u> 0 to 35: NLSP-E(A)-10118-1 35 to 4.8: NLSP-E(A)-10118-1

Estimated Penetration Range:	<u>Comments:</u> Very poor penetration and recovery at target location - cobbly. Moved off shelf for better coring on 4th try, ~19' from target away from shore/pier. "Refusal" at 6.5, pounded in, native on bottom.
Project Depth: <u>14.8</u>	
Actual Penetration: <u>7.5</u>	
Recovery: <u>6.5</u>	
% Recovery:	

A-COM

250 Apollo Drive, Chelmsford, MA 01824  
(978) 905-2100 - office, (978) 905-2101 - fax

Core ID: NLSP-F

Page 1 of 1

Client: <u>CT Port Authority</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>37.3</u>
Project Number: <u>06579714</u>	Sampling Equipment: <u>Wor-Lore</u>	MLW:
Station Location:	Survey Vessel: <u>R/V Cephlaup</u>	Core Diameter (in): <u>2.5"</u>
GPS Coordinates: <u>1181297.71</u>	Weather: <u>Cloudy, breezy 75°</u>	No. Attempts: <u>2</u>
Date: <u>10/11/18</u> <u>692357.35</u>	Seas: <u>Calm</u>	Logged by: <u>C. Hayden</u>
Time: <u>0959</u>	Survey Personnel: <u>Ben (CPT), Mike, Matt (CR), Steve (A-COM)</u>	

(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method: _____
<u>0' to 4.5'</u>	<u>\</u>	<u>/</u>	<u>0</u>	<u>see below</u>	<u>ML</u>	<u>Blk/v. dk. bn silt, trace shell hash &amp; root fibers, v. soft, saturated, slight swampy/mud-like odor, nearly indistinguishable spots of silt on sediment (very few)</u>
<u>4.5' to 8.7'</u>	<u>\</u>	<u>/</u>	<u>0</u>	<u>see below</u>	<u>ML</u>	<u>lt olive/grey silt, trace shell hash, trace clay &amp; root fibers, v. soft, wet, slight swampy/mud-like odor</u>
						<u>-End of Exploration -</u>
						<u>Note: Radiation Meter did not detect any counts above background levels</u>

Estimated Penetration Range:	Comments: <u>SAMPLES:</u> <u>0 to 4.5': NLSP-F(A)-10118-1</u> <u>4.5 to 5.1: NLSP-F(B)-10118-1</u>
Project Depth: <u>4.9</u>	
Actual Penetration: <u>9.5</u>	
Recovery: <u>8.7</u>	
% Recovery:	







**AECOM**

.50 Apollo Drive, Chelmsford, MA 01824  
 (978) 905-2100 - office, (978) 905-2101 - fax

**Core ID:** NLSP-I

Page 2 of 1

Client: <u>CT Port Authority</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>42.9</u>
Project Number: <u>60579714</u>	Sampling Equipment: <u>ponar-grab</u>	MLW:
Station Location:	Survey Vessel: <u>R/V Lighthouse</u>	Core Diameter (in): <u>2.5"</u>
GPS Coordinates: <u>1181746.75</u>	Weather: <u>rain, breezy, 70°</u>	No. Attempts: <u>1</u>
Date: <u>10/11/18</u> <u>691549.19</u>	Seas: <u>Calm</u>	Logged by: <u>E. Hayden</u>
Time: <u>1331</u>	Survey Personnel: <u>Ben (CA), Mike, Matt (CR), Steve (TCM)</u>	(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method: _____
<u>0 to 0.3</u>	<u>✓</u>	<u>✓</u>	<u>0</u>	<u>see below ↓</u>	<u>ML</u>	<u>Blk/v. dk. bn silt, little shell hash, trace Rsd, v. soft/supy, saturated, swampy like other</u>
						<u>-End of Exploration-</u>
						<u>Note: Rap meter did not detect counts above background levels</u>

Estimated Penetration Range:	<b>Comments:</b> <u>Gras sample</u> <u>Sample's NLSP-PCA 10/11/18</u>
Project Depth: <u>0.11</u>	
Actual Penetration: <u>0.3</u>	
Recovery: <u>0.3</u>	
% Recovery:	

DM

Core ID: NLSP-J

100 Drive, Chelmsford, MA 01824  
905-2100 - office, (978) 905-2101 - fax

Page 1 of 1

Client: <u>CT Port Authority</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>37.5</u>
Project Number: <u>60579714</u>	Sampling Equipment: <u>ponar / grab</u>	MLW:
Station Location:	Survey Vessel: <u>R/V Cephalopod</u>	Core Diameter (in): <u>2.5"</u>
GPS Coordinates: <u>1181649.26</u>	Weather: <u>Rain, breeze 70°</u>	No. Attempts: <u>3</u>
Date: <u>10/11/19</u> <u>691255.10</u>	Seas: <u>Calm</u>	Logged by: <u>C. Hayes</u>
Time: <u>1320</u>	Survey Personnel: <u>Ben (Capt), Mike, Matt (CI), Steve (AECOM)</u>	(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method:
<u>0 to 0.3</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>See below</u>	<u>ml</u>	<u>Blk/whk bn silt little shell hash, soft and soupy, saturated, swampy-like odor</u>
						<u>- End of Exploration -</u>
						<u>Note: Rod meter did not detect counts above background levels</u>

Estimated Penetration Range:	Comments: <u>grab sample</u> <u>sample = NLSP-J(A) - 10111-1</u>
Project Depth: <u>0.3</u>	
Actual Penetration: <u>0.3</u>	
Recovery: <u>0.3</u>	
% Recovery:	

Client: <u>CT Port Authority</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>31.5</u>
Project Number: <u>60579714</u>	Sampling Equipment: <u>Vibra Core</u>	MLW:
Station Location:	Survey Vessel: <u>R/V Lophios</u>	Core Diameter (in): <u>2.5"</u>
GPS Coordinates: <u>1181731.75</u>	Weather: <u>Rain, Wind, 50s</u>	No. Attempts: <u>1</u>
Date: <u>10/2/18</u> <u>690891.35</u>	Seas: <u>Mild-Med chop</u>	Logged by: <u>M. Seremet</u>
Time: <u>759</u>	Survey Personnel:	

(Note: bgs = below ground surface)

NLSP  
S

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method: _____
0 to 4.6					ML	Black to v drk gray SILT (ML) saturated top 2'. <del>Small bivalve shell fragments last 3.2' (1" thick layer)</del> Slight H <sub>2</sub> S odor, trace larger bivalves at 0.2'
						End of Exploration
0 to 4.2					ML	Black grading to drk gray SILT (ML), trace fine sand between 1-2' (2 1/2'), trace little bivalve shells throughout core,  - 0-1 - very soft - 0.5" - Root tunnels - 1' - trace root fibers
						End of Exploration
						Sample: <del>NLSP-S(A)101218-1 (0-3.6') @ 0829</del> Sample: NLSP-K(A)101218-1 (0-1') @ 0910

Estimated Penetration Range:	Comments:
Project Depth: <u>110</u>	
Actual Penetration: <u>45</u>	
Recovery: <u>4.2</u>	
% Recovery:	



Client: <u>CT Port Authority</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>32.8</u>
Project Number: <u>60579714</u>	Sampling Equipment: <u>Vibra Core</u>	MLW:
Station Location:	Survey Vessel: <u>R/V Lophious</u>	Core Diameter (in): <u>2.5"</u>
GPS Coordinates: <u>1180864.15</u>	Weather: <u>Rain, Wind, 60s</u>	No. Attempts: <u>1</u>
Date: <u>10/12/18</u> <u>692086.73</u>	Seas: <u>MILD/MED chop</u>	Logged by: <u>M. Seremet</u>
Time: <u>0902</u>	Survey Personnel:	

(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	SSS	Geologic Description Method: _____
0 to 1.5					ML	Black, SILT (ML), very soft, H <sub>2</sub> S odor, saturated. - Dk gray fine SAND layer (1/8" thick) at 1.5'
1.5 to 4.5					ML	Blk, SILT (ML), trace fine Sand (5%), Abundant wood fragments and root fibers. Wood fragments up to 1" long 1/4" wide. wet. H <sub>2</sub> S odor. Saturated to 2' <sup>↑</sup> mulch like red + white wood. - Sheen at 2' - Gray fine Sand layer at 3.9' (1/8" thick) - 2" rounded rx at bottom of core. - trace gravel ~3.5-4.4' (2") - 1/2" to 1" diameter pieces.
						End of Exploration
						Samples: NLSP-M(A)101218-1 (0-1.5') at 1110 NLSP-M(B)101218-1 (1.5-3.9') at 1115 MS/MSD collected at NLSP-M(B)101218-1

Estimated Penetration Range:	
Project Depth:	<u>3.9</u>
Actual Penetration:	<u>5.0</u>
Recovery:	<u>4.5</u>
% Recovery:	

**Comments:**

AECOM

250 Apollo Drive, Chelmsford, MA 01824  
(978) 905-2100 - office, (978) 905-2101 - fax

Core ID: NLSP-N

Page 1 of 1

Client: <u>CT Port Authority</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>30.1</u>
Project Number: <u>06579714</u>	Sampling Equipment: <u>Ponar/grab</u>	MLW:
Station Location:	Survey Vessel: <u>R/V Caphears</u>	Core Diameter (in): <u>2.5"</u>
GPS Coordinates: <u>1181328.41</u>	Weather: <u>Rain, 70F</u>	No. Attempts: <u>2</u>
Date: <u>10/11/18</u>	Seas: <u>Calm</u>	Logged by: <u>C Hayden</u>
Time: <u>1305</u>	Survey Personnel: <u>Ben (CPT), Mike, Matt (CR)</u>	<u>Heve (AECOM)</u>

(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method: _____
<u>0 to 0.3</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>see below</u>	<u>ML</u>	<u>Blk/white br silt, little shell hash, returned, u soft/supy, swampy-like odor</u> <u>-end of Exploration</u>

Notes: Rad meter did not detect counts above background levels

Estimated Penetration Range:
Project Depth: <u>0.1</u>
Actual Penetration: <u>0.3</u>
Recovery: <u>0.3</u>
% Recovery:

Comments:  
collected grab sample  
Samples NLSP-N(A)-10118-1



Client: <u>CT Port Authority</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>354</u>
Project Number: <u>60579714</u>	Sampling Equipment: <u>Vibra Core</u>	MLW:
Station Location:	Survey Vessel: <u>R/V Lophious</u>	Core Diameter (in): <u>2.5"</u>
GPS Coordinates: <u>1181447.80</u>	Weather: <u>Rain, Wind, 60s</u>	No. Attempts: <u>1</u>
Date: <u>10/12/18</u> <u>691275.68</u>	Seas: <u>Mild-Med Chop</u>	Logged by: <u>M. Seremet</u>
Time: <u>851</u>	Survey Personnel:	

(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method: _____
0 to 1.5'					ML	Very drk gray to blk SILT, trace fine Sand (5%), trace root fibers, H <sub>2</sub> S odor, saturated. worm found in top 1' ↑ very fine small, thin.
1.5' to 2.5'					ML	Black SILT (ML), saturated, H <sub>2</sub> S odor, root tunnels - trace trace bivalves at 2.4-2.5'
2.5 to 4.4					ML	Layers of drk gray to olive gray SILT, trace fine Sand more often in olive gray layers. Drk gray tends to be softer w/ less sand, wet, trace bivalve shells in olive gray layer.
						End of Exploration
						Sample: NLSP-0(A) 101218-1 (0-1.1') @ 1040

Estimated Penetration Range:	<b>Comments:</b>
Project Depth: <u>1.4</u>	
Actual Penetration: <u>5.0</u>	
Recovery: <u>4.4</u>	
% Recovery:	





AECOM

250 Apollo Drive, Chelmsford, MA 01824  
(978) 905-2100 - office, (978) 905-2101 - fax

Core ID: NLSP-R

Page 1 of 1

Client: <u>CT Port Authority</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>29.8</u>
Project Number: <u>60579714</u>	Sampling Equipment: <u>VibraCone</u>	MLW:
Station Location:	Survey Vessel: <u>R/V Lophos</u>	Core Diameter (in): <u>2.5"</u>
GPS Coordinates: <u>1181578.67</u>	Weather: <u>Cloudy, 4 rain 75°</u>	No. Attempts: <u>1</u>
Date: <u>10/11/18</u> <u>690815.32</u>	Seas: <u>Calm</u>	Logged by: <u>C Hayden</u>
Time: <u>0828</u>	Survey Personnel: <u>Ben (Cpt), Mike, Matt (CR) Steve (TCRM)</u>	

(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method: _____
0 to 6"	\	/	0	See below	ML	V. Dk. Bn/Dk. Grey silt trace R sd & shell hash, trace root fibers, v. soft, saturated, slight swampy/mud-like odor
6" to 90"	\	/	0	See below	ML	V. Dk Bn/Dk. Olive silt, little shell hash, soft, wet, slight swampy/mud-like odor, trace clay
						- End of Exploration -
						↳ 5 to 5.1 & 5.2 to 5.35 = Bn silt & root fibers
						Note: Radiation meter

Estimated Penetration Range:	Comments: <u>SAMPLES:</u> 0 to 6" = NLSP-R(A)-10118-1 6" to 7.1 = NLSP-R(B)-10118-1
Project Depth: <u>7.1</u>	
Actual Penetration: <u>9.5</u>	
Recovery: <u>9.0</u>	
% Recovery:	



Client: <u>CPA</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>11.7</u>
Project Number: <u>60579714</u>	Sampling Equipment: <u>VibraCore</u>	MLW: <u>H(MLW)</u>
Station Location: <u>NLSP-T</u>	Survey Vessel: <u>R/V Lophovus</u>	Core Diameter (in): <u>2.5</u>
GPS Coordinates: <u>42°10'51.75" N, 71°12'23.22" W</u>	Weather: <u>Sunny, breezy, 75°</u>	No. Attempts: <u>2 (used first)</u>
Date: <u>10/9/18</u>	Seas: <u>Calm</u>	Logged by: <u>C. Hayden</u>
Time: <u>1549</u>	Survey Personnel: <u>Ben, Mike, Tim</u>	

(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method: _____
0 to 2'	\	2'	0	see below	ML	N. Dk bn / Blk SILT, little F sd, Tr md sd & broken shell fragments, saturated, soft, slight petroleum-like odor on sediments, nearly indiscernible sheen on sediments
2 to 4.75'	\	2.75'	0	see blow	ML	V. Dk. Bn / Dk. Olive SILT, trace R sd & shell hash/root fibers, saturated, soft, slight petroleum-like odor → Blk-stained piece of rope
4.75 to 6.5'	\	0.75'	0	N/A	SG	Dk bn / Dk Grey silty F/C SAND & F/M GRAVEL, Tr lg gravel, saturated, medium dense, slight H <sub>2</sub> S-like odor
6.5 to 7.0'	\	1.5'	0	n/a	SP	Dk Tan md SAND, little C sd & F gravel, wet, medium dense, no odor
						- End of Exploration -

Estimated Penetration Range:
Project Depth:
Actual Penetration: <u>8.2</u>
Recovery: <u>EMR 7.5 7.0</u>
% Recovery:

**Comments:**  
SAMPLES:  
 0 to 2': NLSP-T(A)-100918-1  
 2 to 4.75': NLSP-T(B)-100918-1



Client: <u>CT Port Authority</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>18.8</u>
Project Number: <u>60579714</u>	Sampling Equipment: <u>Vibra Core</u>	MLW:
Station Location:	Survey Vessel: <u>R/V Lophious</u>	Core Diameter (in): <u>2.5"</u>
GPS Coordinates: <u>1180401.45</u>	Weather: <u>Rain, Wind, 60s</u>	No. Attempts: <u>1</u>
Date: <u>10/12/18</u> <u>692003.49</u>	Seas: <u>mild-med chop</u>	Logged by: <u>M. Seremet</u>
Time: <u>914</u>	Survey Personnel:	

(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	SS	Geologic Description Method: _____
0 to 2.3'					ML	Blk SILT (ML), trace fine Sand, trace root fibers, trace bivalves. Screen throughout. petroleum odor
2.3 to 3.1'					ML	Blk SILT (ML) with heavy sheen - silvery black color. <del>some</del> little root fibers, very soft, saturated. petroleum odor - sheen saturated in this interval.
3.1 to 3.2					ML	Blk SILT (ML) very soft, saturated
3.2 to 4.5					ML	Blk SILT (ML), trace fine Sand (2%), saturated. bivalve shell, trace root fibers.
						End of Exploration
						Samples NLSP-V(A)101218-1 (0-2.3') @ 1200 NLSP-V(B)101218-1 (2.3-3.1) @ 1205 Duplicate - NLSP-V(A)101218-2 @ 1201

Estimated Penetration Range:	<b>Comments:</b> Sheen & petro odor throughout core.
Project Depth: <u>4.0</u>	
Actual Penetration: <u>5.0</u>	
Recovery: <u>4.5</u>	
% Recovery:	





**AECOM**

250 Apollo Drive, Chelmsford, MA 01824  
 (978) 905-2100 - office, (978) 905-2101 - fax

**Core ID:** NLSP-X

Page 1 of 1

Client: <u>CT Port Authority</u>	Contractor: <u>CA Environmental</u>	Water Depth: <u>15.0</u>
Project Number: <u>6057719</u>	Sampling Equipment: <u>Vibracore</u>	MLW: <u>15'</u>
Station Location: <u>NLSP-X</u>	Survey Vessel: <u>R/V Lophows</u>	Core Diameter (in): <u>2 1/2</u>
GPS Coordinates: <u>41° 8' 13.10" N, 71° 13' 46.69" W</u>	Weather: <u>cloudy, sl. breeze, 75°</u>	No. Attempts: <u>2</u>
Date: <u>10/9/18</u>	Seas: <u>Calm</u>	Logged by: <u>C. Hayden</u>
Time: <u>1456</u>	Survey Personnel: <u>Ben, Mike, Tim</u>	

(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method: _____
0' to 7'	\	7'	0.2	See below	SM	<p>Blk/V. dk bn silt, multiple intrusions of F/C SAND lenses, little concentration of root fibers; shell fragments, w/silt/soft, saturated, slight petroleum-like odor &amp; sheen on sediments</p> <p>→ med lg bivalve shells @ 1', 2', 2.5'</p> <p>→ chunk of slag @ 1.75 ft</p> <p>→ 6.75 to 7 ft: chunk of Rd/bn PORT, trace R Sand</p>
7' to 8'	\	1'	0.2	See below	SD	<p>Bn/Dk Tan F/C SAND, trace silt; F/C gravel, saturated, medium dense, slight H<sub>2</sub>S-like odor</p> <p>-End of Exploration-</p> <p><u>Note</u>: 5' to 6.75': obvious sheen on sediments          0 to 5', less obvious sheen</p>

<b>Estimated Penetration Range:</b>	<b>Comments:</b>
Project Depth: <u>8.5'</u>	0 to 7: NLSP-X (A) - 100918-1
Actual Penetration: <u>8.5'</u>	7 to 8: NLSP-X (B) - 100918-1
Recovery: <u>8.0</u>	
% Recovery:	

Client: <u>CT Port Authority</u>	Contractor: <u>CR Environmental</u>	Water Depth: <u>10.5</u>
Project Number: <u>60579714</u>	Sampling Equipment: <u>Vibra Core</u>	MLW: <u>      </u>
Station Location: <u>NLSP-<del>Y</del> Y</u>	Survey Vessel: <u>R/V Aphelios</u>	Core Diameter (in): <u>2.5</u>
GPS Coordinates: <u>118° 01' 72.77" E</u> <u>69° 21' 35.40" N</u>	Weather: <u>Cloudy, slight breeze</u>	No. Attempts: <u>1</u>
Date: <u>10-9-18</u>	Seas: <u>Calm</u>	Logged by: <u>C Hayden</u>
Time: <u>14:11</u>	Survey Personnel: <u>Ben, Mike, Tim</u>	

(Note: bgs = below ground surface)

Depth Range	Blow per 6 Inch	Recovery ft/ft	PID	Lab Sample ID	USCS	Geologic Description Method: _____
0 to 8"	\	$\frac{100\%}{0.75}$	0.0	See below	ML	Blk/v. dk bn SILT, 2-5% F sand, trace shell hash & root fibers/leaf stems, v. soft, saturated, slight H <sub>2</sub> S-like odor
8" to 7ft	\	$\frac{100\%}{6.25}$	0.0	See below		DK bn/DK olive SILT, 0-2% F sand, trace root fibers & leaf fragments, v. soft, saturated, slight H <sub>2</sub> S-like odor → 2' 4" to 2' 10": elongate voids from decayed grasses
						-End of Exploration-
						<u>Note:</u> Core was collected down to 9.8 ft; 6.8 to 9.8 = SAA 8" to 7ft

Estimated Penetration Range:
Project Depth: <u>6.8</u>
Actual Penetration: <u>9.8'</u>
Recovery: <u>9.4</u>
% Recovery: <u>100</u>

**Comments:**  
SAMPLES:  
0 to 8": NLSP-Y(A)-100918-1  
8" to 6.8": NLSP-Y(B)-100918-1,  
NLSP-Y(B)-100918-2 (duplicate)

## **ATTACHMENT 3 State Pier New London Photograph Log**

---

NLSP-A  
0-9.5 ft  
Full Core





NLSP-B  
0-7.9 ft  
Full Core



NLSP-C  
0-8.8 ft  
Full Core





NLSP-D  
0-1.95ft  
Top of Core





NLSP-E  
0-6.5ft  
Full Core



NLSP-F  
0-8.7ft  
Full Core



NLSP-G  
0-3.3ft  
Top of Core





NLSP-K  
0-4.2ft  
Full Core



NLSP-L  
0-5.7ft  
Full Core



NLSP-M  
0-2.3ft  
Top of Core

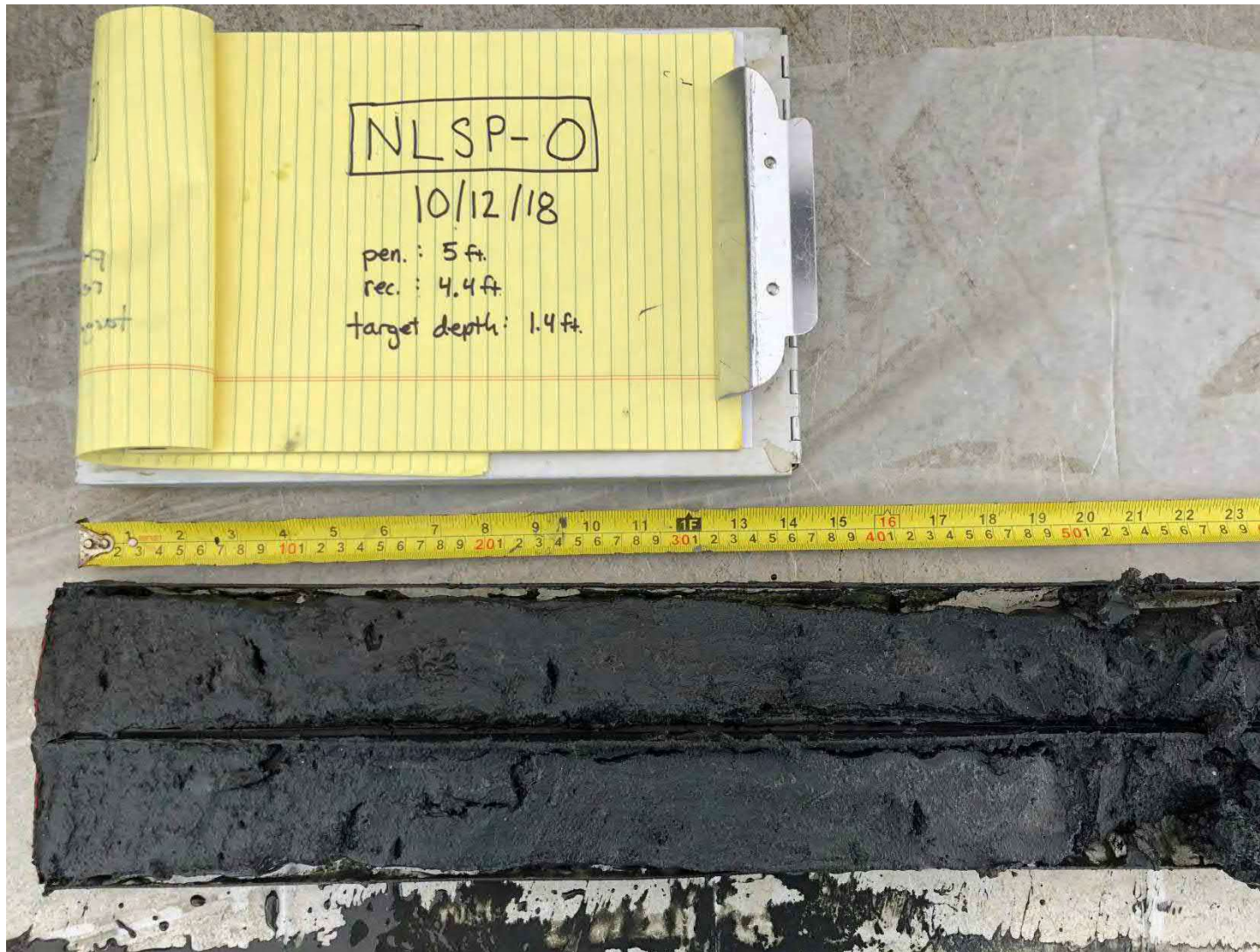


NLSP-M  
3.94-4.5  
Bottom of Core





NLSP-O  
0-2ft  
Top of Core



NLSP-P  
0-7.9ft  
Full Core





NLSP-Q  
0-7.2ft  
Full Core



NLSP-R  
0-9.0ft  
Full Core



NLSP-S  
0-4.5ft  
Full Core

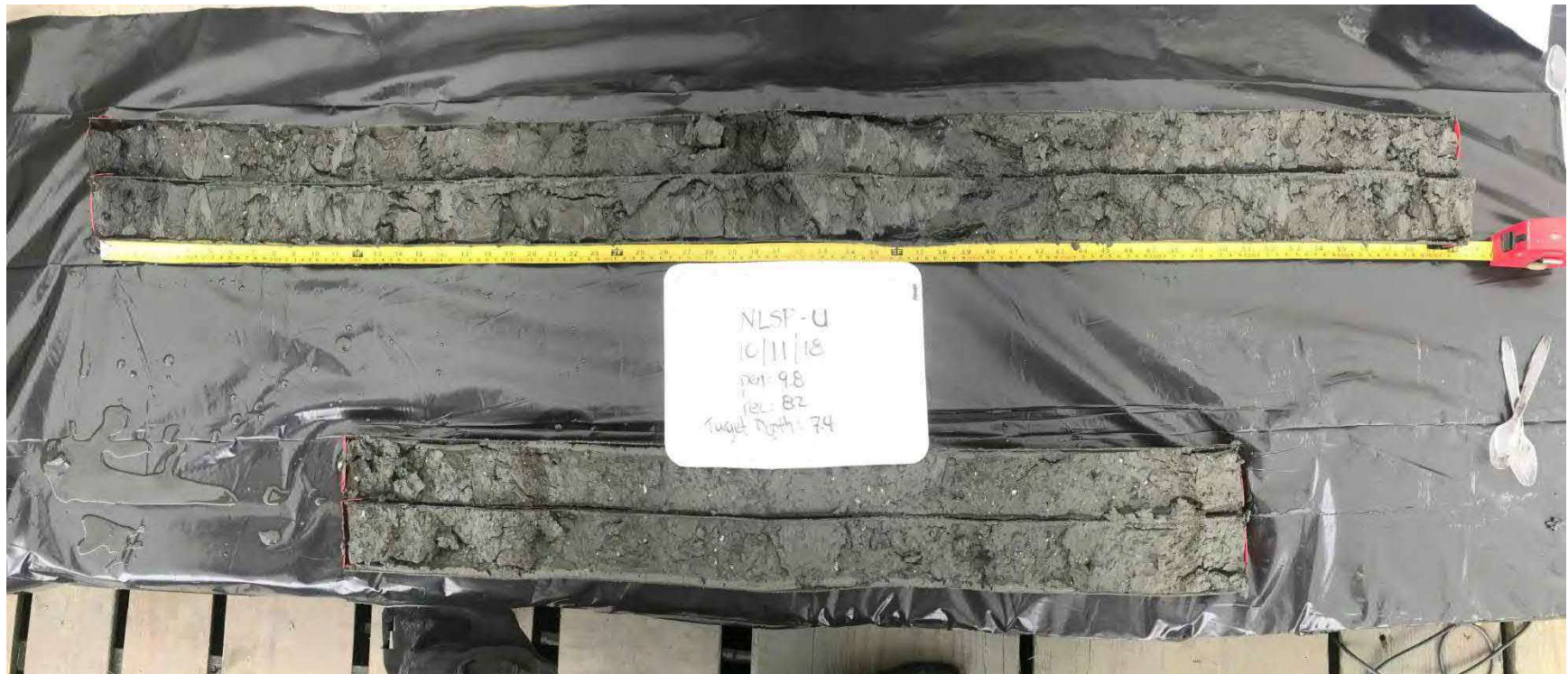




NLSP-T  
0-7.5  
Full Core



NLSP-U  
0-8.2ft  
Full Core



NLSP-V  
0-4.5ft  
Full Core





NLSP-W  
0-5.2ft  
Full Core



NLSP-X  
0-8.0ft  
Full Core





NLSP-Y  
0-9.4ft  
Full Core



NLSP-RAD-A  
0-7.6ft  
Full Core



NLSP-RAD-B  
0-7.2ft  
Full Core





NLSP-RAD-C  
0-5.5ft  
Full Core



NLSP-RAD-D  
0-4.3ft  
Full Core



NLSP-RAD-E  
0-5.7ft  
Full Core



---

## **ATTACHMENT 4 State Pier New London Chain of Custody Forms**

---





CHAIN OF CUSTODY RECORD

Client/Project Name: <i>CPA / State Pier New London</i>			Project Location: <i>New London, CT</i>					Analysis Requested										Container Type P - Plastic A - Amber Glass G - Clear Glass V - VOA Vial O - Other E - Encore		Preservation 1 - HCl, 4° 2 - H2SO4, 4° 3 - HNO3, 4° 4 - NaOH, 4° 5 - NaOH/ZnAc, 4° 6 - Na2S2O3, 4° 7 - 4°	
Project Number: <i>60579714</i>			Field Logbook No.:															Matrix Codes:			
Sampler (Print Name)/(Affiliation): <i>Ian Herwig / AECOM</i>			Chain of Custody Tape Nos.:															DW - Drinking Water WW - Wastewater GW - Groundwater SW - Surface Water ST - Storm Water W - Water		S - Soil SL - Sludge SD - Sediment SO - Solid A - Air L - Liquid P - Product	
Signature: <i>Ian Herwig</i>			Send Results/Report to: <i>Edith Hutchinson Kristine Carbonneau</i>			TAT: <i>Grain Size: 24 hrs All Else: Standard</i>															
Field Sample No./Identification	Date	Time	C O M P	G R A B	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Grain Size	Metals	PCBs	Pesticides	PAH	TCC	Lab I.D.	Remarks					
NLSP-S(A)-101218-1	10/12/18	0829			X 8oz Jars	SD	7	N/A	X	*	*	*	*	*		* = Hold					
NLSP-K(A)-10218-1		0910							X	*	*	*	*	*		* = Hold					
NLSP-N(A)-101218-1		0945							X	*	*	*	*	*		* = Hold					
NLSP-G(A)-101218-1		1010							X	*	*	*	*	*		* = Hold					
NLSP-C(A)-101218-1		1040							X	*	*	*	*	*		* = Hold					
NLSP-M(A)-101218-1		1110							X	*	*	*	*	*		* = Hold					
NLSP-M(B)-101218-1		1115							X	*	*	*	*	*		* = Hold MS/MSD					
NLSP-V(A)-101218-1		1200							X	*	*	*	*	*		* = Hold					
NLSP-V(A)-101218-2		1201							X	*	*	*	*	*		* = Hold					
NLSP-V(B)-101218-1		1205							X	*	*	*	*	*		* = Hold					

Relinquished by: (Print Name)/(Affiliation) <i>Ian Herwig / AECOM</i>		Date:		Received by: (Print Name)/(Affiliation)		Date:		Analytical Laboratory (Destination): <i>Grain Size: 24hr TAT</i> <i>* = Hold</i>			
Signature: <i>Ian Herwig</i>		Time:		Signature:		Time:					
Relinquished by: (Print Name)/(Affiliation)		Date:		Received by: (Print Name)/(Affiliation)		Date:		Sample Shipped Via: <input checked="" type="radio"/> UPS <input type="radio"/> FedEx <input type="radio"/> Courier <input type="radio"/> Other			
Signature:		Time:		Signature:		Time:					
Relinquished by: (Print Name)/(Affiliation)		Date:		Received by: (Print Name)/(Affiliation)		Date:					
Signature:		Time:		Signature:		Time:					









CHAIN OF CUSTODY RECORD

Client/Project Name: CPA - State Pier New London		Project Location: New London, CT		Analysis Requested				Container Type P - Plastic A - Amber Glass G - Clear Glass V - VOA Vial O - Other E - Encore		Preservation 1 - HCl, 4" 2 - H2SO4, 4" 3 - HNO3, 4" 4 - NaOH, 4" 5 - NaOH/ZnAc, 4" 6 - Na2S2O3, 4" 7 - 4"	
Project Number: 60579714		Field Logbook No.:						Matrix Codes: DW - Drinking Water WW - Wastewater GW - Groundwater SW - Surface Water ST - Storm Water W - Water		S - Soil SL - Sludge SD - Sediment SO - Solid A - Air L - Liquid P - Product	
Sampler (Print Name)/(Affiliation): Jan Herwig/AECOM		Chain of Custody Tape Nos.:									
Signature: <i>Jan Herwig</i>		Send Results/Report to: Edith Hutchinson Kristine Carbonneau		TAT: Grain Size - 24hrs Standard - All else							

Field Sample No./Identification	Date	Time	C O M P	G R A B	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Grain Size	Metals	PCBs	Pesticides	PAH	TCC	Lab I.D.	Remarks
NLSP-Y(A)-100918-1	10/9/18	1520		X	EcJar	SD	7	N/A	X	*	*	*	*	*		* = Hold
NLSP-Y(B)-100918-1	10/9/18	1525		X	↓	↓	↓	↓	X	*	*	*	*	*		* = Hold
NLSP-X(A)-100918-1	10/9/18	1615		X	↓	↓	↓	↓	X	*	*	*	*	*		* = Hold
NLSP-Y(B)-100918-2	10/9/18	1526		X	↓	↓	↓	↓	X	*	*	*	*	*		* = Hold
NLSP-X(B)-100918-1	10/9/18	1620		X	↓	↓	↓	↓	X	*	*	*	*	*		* = Hold
NLSP-T(A)-100918-1	10/9/18	1650		X	↓	↓	↓	↓	X	*	*	*	*	*		* = Hold
NLSP-T(B)-100918-1	10/9/18	1655		X	↓	↓	↓	↓	X	*	*	*	*	*		* = Hold
[Large X across table]																

Relinquished by: (Print Name)/(Affiliation) <i>Jan Herwig/AECOM</i>		Date: <i>10/9/18</i>		Received by: (Print Name)/(Affiliation)		Date:		Analytical Laboratory (Destination): <i>24 hr TAT for Grain Size</i> <i>* = Hold</i>			
Signature: <i>Jan Herwig</i>		Time: <i>1708</i>		Signature:		Time:					
Relinquished by: (Print Name)/(Affiliation)		Date:		Received by: (Print Name)/(Affiliation)		Date:					
Signature:		Time:		Signature:		Time:		Sample Shipped Via: <input checked="" type="radio"/> UPS <input type="radio"/> FedEx <input type="radio"/> Courier <input type="radio"/> Other			
Relinquished by: (Print Name)/(Affiliation)		Date:		Received by: (Print Name)/(Affiliation)		Date:					
Signature:		Time:		Signature:		Time:					





CHAIN OF CUSTODY RECORD

Client/Project Name: <i>CFA/State Pier New London</i>		Project Location: <i>New London, CT</i>		Analysis Requested				Container Type P - Plastic A - Amber Glass G - Clear Glass V - VOA Vial O - Other E - Encore		Preservation 1 - HCl, 4° 2 - H2SO4, 4° 3 - HNO3, 4° 4 - NaOH, 4° 5 - NaOH/ZnAc, 4° 6 - Na2S2O3, 4° 7 - 4°	
Project Number: <i>60579714</i>		Field Logbook No.:						Matrix Codes: DW - Drinking Water WW - Wastewater GW - Groundwater SW - Surface Water ST - Storm Water W - Water		S - Soil SL - Sludge SD - Sediment SO - Solid A - Air L - Liquid P - Product	
Sampler (Print Name)/(Affiliation): <i>Jan Herwig</i>		Chain of Custody Tape Nos.:		Send Results/Report to: <i>Edith Hutchinson Kristine Carbonneau</i>		TAT: <i>Standard</i>					
Signature: <i>Jan Herwig</i>											

Field Sample No./Identification	Date	Time	C O M P	G R A B	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Gamma	Lab I.D.	Remarks	
NLSP-RAD-A(A)-101018-1	10/10/18	1110		X	500ml/Plastic	SD	None	N/A		X		
NLSP-RAD-A(B)-101018-1		1115		X						X		
NLSP-RAD-A(C)-101018-1		1120		X						X		
NLSP-RAD-B(A)-101018-1		1220		X						X		
NLSP-RAD-B(B)-101018-1		1225		X						X		
NLSP-RAD-B(C)-101018-1		1230		X						X		
NLSP-RAD-D(A)-101018-1		1400		X						X		
NLSP-RAD-D(B)-101018-1		1405		X						X		
NLSP-RAD-D(C)-101018-1		1410		X						X		
NLSP-RAD-E(A)-101018-1		1450		X						X		
NLSP-RAD-E(B)-101018-1		1455		X						X		
NLSP-RAD-F(A)-101018-1		1620		X						X		

Relinquished by: (Print Name)/(Affiliation) <i>Jan Herwig/AECOM</i>		Date: <i>10/10/18</i>	Received by: (Print Name)/(Affiliation)		Date:	Analytical Laboratory (Destination):	
Signature: <i>Jan Herwig</i>		Time: <i>1655</i>	Signature:		Time:		
Relinquished by: (Print Name)/(Affiliation)		Date:	Received by: (Print Name)/(Affiliation)		Date:	Sample Shipped Via: <u>UPS</u> FedEx Courier Other	
Signature:		Time:	Signature:		Time:		
Relinquished by: (Print Name)/(Affiliation)		Date:	Received by: (Print Name)/(Affiliation)		Date:	Temp blank <u>Yes</u> No	
Signature:		Time:	Signature:		Time:		





CHAIN OF CUSTODY RECORD

Client/Project Name: <i>CPA / State Pier New London</i>	Project Location: <i>New London, CT</i>	Analysis Requested	Container Type P - Plastic A - Amber Glass G - Clear Glass V - VOA Vial O - Other E - Encore Preservation 1 - HCl, 4" 2 - H2SO4, 4" 3 - HNO3, 4" 4 - NaOH, 4" 5 - NaOH/ZnAc, 4" 6 - Na2S2O3, 4" 7 - 4"
Project Number: <i>60579714</i>	Field Logbook No.:		
Sampler (Print Name)/(Affiliation): <i>Jon Herwig / AECOM</i>	Chain of Custody Tape Nos.:		
Signature: <i>Jon Herwig</i>	Send Results/Report to: <i>Edith Hutchinson Kristine Carbonneau</i>	TAT: <i>Grain Size: 24hrs Standard: All else</i>	Matrix Codes:  DW - Drinking Water WW - Wastewater GW - Groundwater SW - Surface Water ST - Storm Water W - Water S - Soil SL - Sludge SD - Sediment SO - Solid A - Air L - Liquid P - Product

Field Sample No./Identification	Date	Time	C O M P	G R A B	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Grain Size	Metals	PCBs	Pesticides	PH	TOC	Lab I.D.	Remarks
NLSP-W(A)-101018-1	10/10/18	0855		X	8oz Jars	SD	7	N/A	X	*	*	*	*	*		* = Hold
NLSP-RAD-A(A)-101018-1		1110		X					X	*	*	*	*	*		* = Hold
NLSP-RAD-A(B)-101018-1		1115		X					X	*	*	*	*	*		* = Hold
NLSP-RAD-A(C)-101018-1		1120		X					X	*	*	*	*	*		* = Hold
NLSP-RAD-B(A)-101018-1		1220		X					X	*	*	*	*	*		* = Hold
NLSP-RAD-B(B)-101018-1		1225		X					X	*	*	*	*	*		* = Hold
NLSP-RAD-B(C)-101018-1		1230		X					X	*	*	*	*	*		* = Hold
NLSP-RAD-D(A)-101018-1		1400		X					X	*	*	*	*	*		* = Hold
NLSP-RAD-D(B)-101018-1		1405		X					X	*	*	*	*	*		* = Hold
NLSP-RAD-D(C)-101018-1		1410		X					X	*	*	*	*	*		* = Hold
NLSP-RAD-(1A)-101018-1		1450		X					X	*	*	*	*	*		* = Hold, MS/MSD
NLSP-RAD-(1B)-101018-1		1455		X					X	*	*	*	*	*		* = Hold
NLSP-G(A)-101018-1		1555		X					X	*	*	*	*	*		* = Hold

Relinquished by: (Print Name)/(Affiliation) <i>Jon Herwig / AECOM</i>	Date: <i>10/10/18</i>	Received by: (Print Name)/(Affiliation)	Date:	Analytical Laboratory (Destination): <i>24 hr TAT for Grain Size</i>
Signature: <i>Jon Herwig</i>	Time: <i>1640</i>	Signature:	Time:	* = Hold
Relinquished by: (Print Name)/(Affiliation)	Date:	Received by: (Print Name)/(Affiliation)	Date:	
Signature:	Time:	Signature:	Time:	
Relinquished by: (Print Name)/(Affiliation)	Date:	Received by: (Print Name)/(Affiliation)	Date:	
Signature:	Time:	Signature:	Time:	
			Sample Shipped Via: <u>UPS</u> FedEx Courier Other	
			Temp blank: <u>Yes</u> No	





CHAIN OF CUSTODY RECORD

Client/Project Name: CPA / State Pier New London		Project Location: New London, CT		Analysis Requested											<b>Container Type</b> P - Plastic A - Amber Glass G - Clear Glass V - VOA Vial O - Other E - Encore		<b>Preservation</b> 1 - HCl, 4° 2 - H2SO4, 4° 3 - HNO3, 4° 4 - NaOH, 4° 5 - NaOH/ZnAc, 4° 6 - Na2S2O3, 4° 7 - 4°							
Project Number: 60579714		Field Logbook No.:		<table border="1"> <tr> <td>Grain Size</td> <td>Metals</td> <td>Pesticides</td> <td>PCBS</td> <td>PAH</td> <td>TOC</td> </tr> </table>											Grain Size	Metals	Pesticides	PCBS	PAH	TOC	<b>Matrix Codes:</b> DW - Drinking Water WW - Wastewater GW - Groundwater SW - Surface Water ST - Storm Water W - Water		S - Soil SL - Sludge SD - Sediment SO - Solid A - Air L - Liquid P - Product	
Grain Size	Metals	Pesticides	PCBS												PAH	TOC								
Sampler (Print Name)/(Affiliation): Ian Howig		Chain of Custody Tape Nos.:																						
Signature: Ian Howig		Send Results/Report to: Edith Hutchinson Kirstine Carbonneau		TAT: From Site: 24hrs Standard: Alternate																				
Field Sample No./Identification	Date	Time	C O M P	G R A B	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Grain Size	Metals	Pesticides	PCBS	PAH	TOC	Lab I.D.	Remarks								
NLSP. G(B)-101018-1	10/10/18	1600		X	602 Jars	SD	7	N/A	X	*	*	*	*	*		*= Hold								
NLSP. RAD-FTA-101018	10/10/18	1620		X	807 Jars				X	*	*	*	*	*		*= Hold								

Relinquished by: (Print Name)/(Affiliation) Ian Howig / AECOM		Date: 10/10/18	Received by: (Print Name)/(Affiliation)		Date:	Analytical Laboratory (Destination):		
Signature: Ian Howig		Time: 1645	Signature:		Time:	24 hr TAT for Grain Size		
Relinquished by: (Print Name)/(Affiliation)		Date:	Received by: (Print Name)/(Affiliation)		Date:	* = Hold		
Signature:		Time:	Signature:		Time:			
Relinquished by: (Print Name)/(Affiliation)		Date:	Received by: (Print Name)/(Affiliation)		Date:	Sample Shipped Via:		Temp blank
Signature:		Time:	Signature:		Time:	<input checked="" type="radio"/> UPS <input type="radio"/> FedEx <input type="radio"/> Courier <input type="radio"/> Other		<input checked="" type="radio"/> Yes <input type="radio"/> No





CHAIN OF CUSTODY RECORD

Client/Project Name: CPA/CT State Per			Project Location: New London, CT					Analysis Requested										<b>Container Type</b> P - Plastic A - Amber Glass G - Clear Glass V - VOA Vial O - Other E - Encore		<b>Preservation</b> 1 - HCl, 4" 2 - H2SO4, 4" 3 - HNO3, 4" 4 - NaOH, 4" 5 - NaOH/ZnAc, 4" 6 - Na2S2O3, 4" 7 - 4"	
Project Number: 60579714			Field Logbook No.:					GAMMIG										<b>Matrix Codes:</b> DW - Drinking Water WW - Wastewater GW - Groundwater SW - Surface Water ST - Storm Water W - Water		S - Soil SL - Sludge SD - Sediment SO - Solid A - Air L - Liquid P - Product	
Sampler (Print Name)/(Affiliation): Ian Herwig / AECOM			Chain of Custody Tape Nos.:															<b>Lab I.D.</b>		<b>Remarks</b>	
Signature: Ian Herwig			Send Results/Report to: Edie Hutchinson Kirstine Carboneau		TAT: Standard																
Field Sample No./Identification	Date	Time	C O M P	G R A B	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered											Lab I.D.	Remarks	
NLSP-RAD-EIA-K1018	11/18	1730		X	500 ml plastic	SD	7	N/A	X												

Relinquished by: (Print Name)/(Affiliation) Ian Herwig / AECOM		Date: 11/18		Received by: (Print Name)/(Affiliation)		Date:		Analytical Laboratory (Destination):			
Signature: Ian Herwig		Time: 1645		Signature:		Time:					
Relinquished by: (Print Name)/(Affiliation)		Date:		Received by: (Print Name)/(Affiliation)		Date:					
Signature:		Time:		Signature:		Time:					
Relinquished by: (Print Name)/(Affiliation)		Date:		Received by: (Print Name)/(Affiliation)		Date:		Sample Shipped Via: <input checked="" type="radio"/> UPS <input type="radio"/> FedEx <input type="radio"/> Courier <input type="radio"/> Other			
Signature:		Time:		Signature:		Time:					





CHAIN OF CUSTODY RECORD

Client/Project Name: CPA / State Pipe New London		Project Location: New London, CT		Analysis Requested				Container Type P - Plastic A - Amber Glass G - Clear Glass V - VOA Vial O - Other E - Encore		Preservation 1 - HCl, 4° 2 - H2SO4, 4° 3 - HNO3, 4° 4 - NaOH, 4° 5 - NaOH/ZnAc, 4° 6 - Na2S2O3, 4° 7 - 4°			
Project Number: 60579714		Field Logbook No.:						Matrix Codes: 2 2		DW - Drinking Water WW - Wastewater GW - Groundwater SW - Surface Water ST - Storm Water W - Water		S - Soil SL - Sludge SD - Sediment SO - Solid A - Air L - Liquid P - Product	
Sampler (Print Name)/(Affiliation): Ian Herwig/AECCOM		Chain of Custody Tape Nos.:						Send Results/Report to: Edie Hutchinson Kristine Carbonneau		TAT: 24hr 5:6 grain size Standard: All size			

Field Sample No./Identification	Date	Time	C O M P	G R A B	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Grain Size	Metals	P(B)	Pesticides	PAH	TCC	Lab I.D.	Remarks
NLSP-H(A)-101018-1	10/10/18	1715		X	8oz Jars	SD	7	N/A	X	*	*	*	*	*		* = Hold
NLSP-H(B)-101018-1		1715		X					X	*	*	*	*	*		* = Hold
NLSP-RAD-E(A)-101018-1		1730		X					X	*	*	*	*	*		* = Hold
NLSP-A(A)-101018-1		1800		X					X	*	*	*	*	*		* = Hold
NLSP-A(A)-101018-2		1805		X					X	*	*	*	*	*		* = Hold
NLSP-I(A)-101118-1	10/11/18	1430		X	8oz Jars	SD	7	N/A	X	*	*	*	*	*		* = Hold
NLSP-L(A)-101118-1	10/11/18	1540		X					X	*	*	*	*	*		* = Hold
NLSP-P(A)-101118-1	10/11/18	1615		X					X	*	*	*	*	*		* = Hold
NLSP-P(B)-101118-1	10/11/18	1620		X					X	*	*	*	*	*		* = Hold

Relinquished by: (Print Name)/(Affiliation) Ian Herwig/AECCOM Signature: Ian Herwig	Date: 10/11/18 Time: 1645	Received by: (Print Name)/(Affiliation)	Date:	Analytical Laboratory (Destination): Grain Size = 24hr TAT * = Hold
Relinquished by: (Print Name)/(Affiliation)	Date:	Received by: (Print Name)/(Affiliation)	Date:	Sample Shipped Via: <input checked="" type="radio"/> UPS <input type="radio"/> FedEx <input type="radio"/> Courier <input type="radio"/> Other
Relinquished by: (Print Name)/(Affiliation)	Date:	Received by: (Print Name)/(Affiliation)	Date:	



Client/Project Name: <i>CPA / state Prec New London</i>		Project Location: <i>New London, CT</i>		Analysis Requested				Container Type		Preservation	
Project Number: <i>60579714</i>		Field Logbook No.:						P - Plastic A - Amber Glass G - Clear Glass V - VOA Vial O - Other E - Encore		1 - HCl, 4° 2 - H2SO4, 4° 3 - HNO3, 4° 4 - NaOH, 4° 5 - NaOH/ZnAc, 4° 6 - Na2S2O3, 4° 7 - 4°	
Sampler (Print Name)/(Affiliation): <i>Ian Herwig / AECOM</i>		Chain of Custody Tape Nos.:		Metals PCBs Pesticides PAH <del>TOC</del> Grain Size		Send Results/Report to: <i>Edith Hutchinson</i>		TAT: <i>Grain Size: 24hrs</i>		Matrix Codes:	
Signature: <i>Ian Herwig</i>		<i>Kristine Carboneau</i>				<i>Edith Hutchinson</i>		<i>Kristine Carboneau</i>		DW - Drinking Water WW - Wastewater GW - Groundwater SW - Surface Water ST - Storm Water W - Water	

Field Sample No./Identification	Date	Time	C O M P	G R A B	Sample Container (Size/Mat'l)	Matrix	Preserv.	Field Filtered	Metals	PCBs	Pesticides	PAH	TOC	Grain Size	Lab I.D.	Remarks
NLSP-4(A)-101118-1	10/11/18	1005		X	8oz Jars	SD	7	N/A	*	*	*	*	*	X		* = Hold / MS/MSD
NLSP-R(A)-101118-1		1100		X					*	*	*	*	*	X		* = Hold
NLSP-R(B)-101118-1		1105		X					*	*	*	*	*	X		* = Hold
NLSP-F(A)-101118-1		1205		X					*	*	*	*	*	X		* = Hold
NLSP-F(B)-101118-1		1210		X					*	*	*	*	*	X		* = Hold
NLSP-C(A)-101118-1		1300		X					*	*	*	*	*	X		* = Hold
NLSP-C(B)-101118-1		1305		X					*	*	*	*	*	X		* = Hold
NLSP-B(A)-101118-1		1340		X					*	*	*	*	*	X		* = Hold
NLSP-B(B)-101118-1		1345		X					*	*	*	*	*	X		* = Hold
NLSP-E(A)-101118-1		1410		X					*	*	*	*	*	X		* = Hold
NLSP-E(B)-101118-1		1415		X					*	*	*	*	*	X		* = Hold
NLSP-J(A)-101118-1		1420		X					*	*	*	*	*	X		* = Hold
NLSP-N(A)-101118-1		1425		X					*	*	*	*	*	X		* = Hold

Relinquished by: (Print Name)/(Affiliation) <i>Ian Herwig / AECOM</i>		Date: <i>10/11/18</i>		Received by: (Print Name)/(Affiliation)		Date:		Analytical Laboratory (Destination): <i>Grain Size: 24hr TAT</i> <i>* = Hold</i>			
Signature: <i>Ian Herwig</i>		Time: <i>1645</i>		Signature:		Time:					
Relinquished by: (Print Name)/(Affiliation)		Date:		Received by: (Print Name)/(Affiliation)		Date:		Sample Shipped Via: <u>UPS</u> FedEx Courier Other      Temp blank <u>Yes</u> No			
Signature:		Time:		Signature:		Time:					
Relinquished by: (Print Name)/(Affiliation)		Date:		Received by: (Print Name)/(Affiliation)		Date:					
Signature:		Time:		Signature:		Time:					

## **ATTACHMENT 5 State Pier New London Field Notes**

---



CONTENTS

PAGE

REFERENCE

DATE

State Pier  
New London, CT  
Connecticut Port Authority  
October 2018 Sampling

1 FERRY ST NEW LONDON 10/9/18

CT PORT AUTHORITY

1200 STAFF ASSEMBLE AT  
1 FERRY ST TO PREP PROCESSING

ON SITE

AELON

STEVE HOWE

IAN HERWIG

CHRIS HAYDEN

RYAN MCCARTHY

KOLY HENDERSON

CR

BEN MAHER

MIKE THEICER

TIM MUSCARELLA

1300 SET UP PROCESSING AREA

CONDUCT SHIE BRIEFING

1352 on NLSP-Y

spuds  
cleared - metal detector  
10.5 ft

9.8' penetration  
CSH

1408 - 1410

1411 NLSP-Y on board

9.4' recovery

Location New London, CT Date 10/9/18

Project / Client \_\_\_\_\_

CSF

1180172.77 E  
692135.40 N1430 NLSP-Y to dock for  
processing1443 on NLSP-X  
no metal detected  
14.2 tdNLSP-X1  
rock at 1 ft1453 NLSP-X2 start  
15.0 td1456 on deck  
1180613.10  
691396.69

1510 NLSP-X to dock

1523 on NLSP-T1  
clear of metal  
11.6 td

1529 start 1531 end

Location New London, CT Date 10/9/18

Project / Client \_\_\_\_\_

CSF

7 penetrations on NLSP-T1  
9.4 needed

Sand and gravel

1181046.56  
691272.04

6.5 recovery

1544 NLSP-T2 moved 5'

11.7 td

1546 - 1549 9' from target  
ESE

1181051.25

691273.22

8.2 pen

~0.5 lost on bottom

7.5 recovery

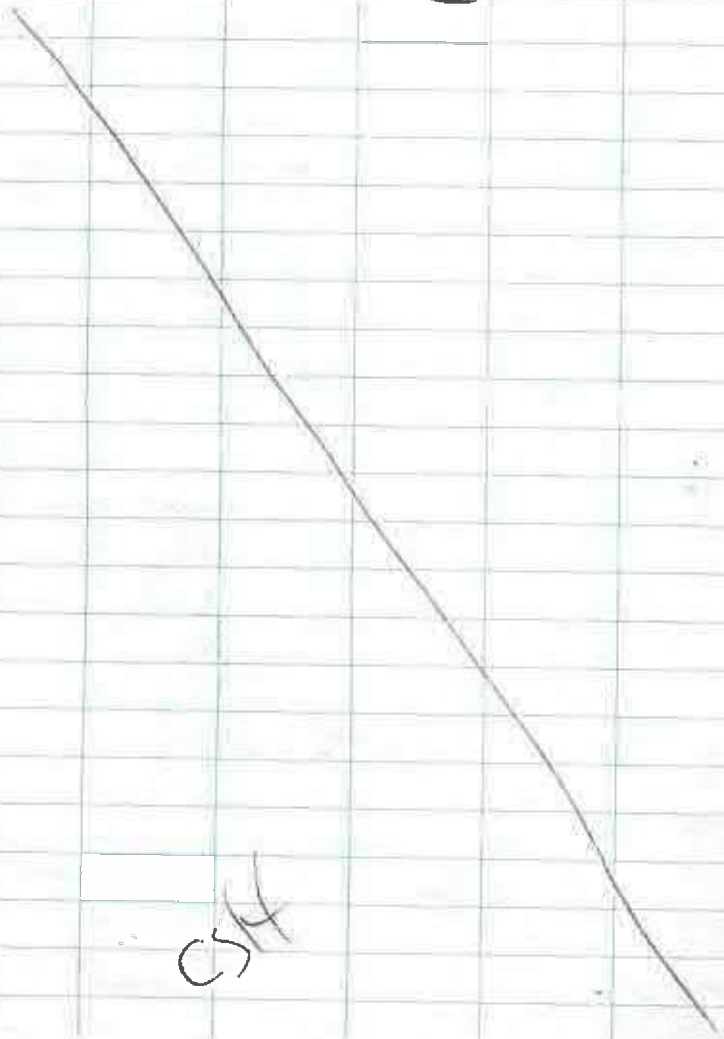
15:49 sand &amp; gravel

delivered to dock  
processing NLSP-T1similar penetration & recovery  
both into same sand & gravel  
at bottom



CSH Location New London, CT Date 10/9/18  
Project / Client \_\_\_\_\_

1725 Chris, Ryan and  
Steve prepping to  
leave site



CSH

CSH Location 1 Ferry St, New London Date 10/10/18  
Project / Client CT Port Authority

0750 Lophus departing dock  
Ben, Mike & Matt of CR  
Steve ACOM  
Ian & Chris (ACOM) at dock

setting up on NLSP-W1  
cleared ~~for~~ ~~medical~~

17.5 TD 0813  
1180599.85 E  
691730.63 N  
1 foot

819 NLSP-W2  
18.7 TD 41 foot pen

824 NLSP-W3  
20.4 TD  
1180587.44 S.8/S.4  
691708.84

830 NLSP-W to dock

0855 On NLSP-RAD-A  
12.0 target  
trying w/ 10' barrel to  
see if pen ok here

CSH 8

Location New London, CT Date 10/10/18

Project / Client \_\_\_\_\_

0908 start NLSP-RAD-A1

0909 5' refusal

td 31.8

1180960.34

692491.28

0910 on deck

4.5 pen, 3.7 rec

0925 on NLSP-RAD-A2

1180963.72

692493.69

9.5 pen, 7.0 rec

32.5 td

0941 start MSLP-RAD-A3

0947 on deck

1180960.98

692491.83

32.5 TD

8 pen 5.9

1001 on NLSP-RAD-B

37.8 td

CSH 8 Location New London, CT Date 10/10/18

Project / Client \_\_\_\_\_

1005 1180992.24

692474.68

pen 8.3 rec 7.2

1020 on NLSP-A2

1181431.48

1026 692850.31

28.5 td

9.5 pen, 9.5 rec

1057 Setting up on NLSP-Q1

after dropping off

cores for processing

(NLSP-RAD A, B, and NLSP-A)

1102 29.2 td

NLSP-Q1

1181019.56

691613.62

9.5/4.7

very sandy

1116 NLSP-Q2

29.2 td

1123 1181019.85

on deck 691613.82



Location New London, CT Date 10/10/18

Project Client

CS#

1139 NLSP-Q3

had been using check valve  
since NLSP-RAD-Q2  
switched back to plunger  
28.9 td

1144

1181019.36

691615.29

7 per 4.3 rec  
course 545

1155

NLSP-Q4

29.7 TD

1181029.78

1200

691621.35

8.5/7.2

8.0/7.2

1219

NLSP-RAD-C

~~29.9~~ 38.9 td

1222

start

1181317.31

691978.15

6.5 per / 5.5

Location New London, CT Date 10/10/18

Project / Client mostly sunny, 80°s  
afternoon breeze ~ 5 mph

CS#

1235 NLSP-RAD-D

40.1 td

1237 start

1240 on deck

1181336.38

691995.56

5 per 4.3 rec

1256 on NLSP-RAD-E

td ~~38~~ 40.3

1181467.50

1306

691760.31

on deck

6.5/5.7

delivered cores to dock

lunch break

1400 Lophius back out

Sus and Navy Escort passed  
under bridge heading East.  
GPS is jumpy - scrambled for  
Sus.

Location New London, CT Date 10/10/18

Project / Client

CSH

1430 on NLSP-RAD F  
-H CSH38.9 td  
1433 start 1435 end  
1181315.48  
692067.82~~8.5 pen~~ CSH  
8.0/6.7Positioning for grab sample  
at NLSP-RAD-F

1440-1508 40.3 td

1181461.66  
~~6.9 to~~  
691805.33took multiple attempts to  
get grab with ponar sampler1521 on NLSP-E1  
29.3 td  
refusal at surface

Location New London, CT Date 10/10/18 13

Project / Client

CSH

15.30 NSLP-E2

1542 on deck  
6.5 pen, 4.5 recCompressor issue  
returning to dock to swap out

Swapped out compressor

Processed cores

Chris, Ian & Steve left  
site at 18:50, loaded  
up gates

CSH

C5H Location New London, CT Date 10/11/18  
Project / Client CT Port Authority  
overcast, 70s, 5-10 mph, rain predicted

0730 on site  
Chris getting supplies for  
AG Com processing  
Ben getting supplies for CR  
Matt & Mike of CR here

0807 Setting up at NLSP-U

0811 start 0813 on deck

1181731.83

690535.11

29.4 td

9.5/8.2

0825 NLSP-R1 start

1181578.67

690815.32

29.8

9.5/9.0

0837 NLSP-C1

1181398.76

692553.45

37.1 td

C5H Location New London, CT Date 10/11/18  
Project / Client

8.0/6.2 ~80%

0848 NLSP-C2

37.1 td

1181398.38

692554.93

9.9/7.3 ~75%

0902 NLSP-C3

37.1 td

1181398.42

692553.34

0905 on deck

9.5/8.8

913 returning to Dock with

NLSP-U

NLSP-R

NLSP-C



Location New London, CT Date 10/11/18

Project / Client

CSH

0935 Lophins heading back out

0943 setting up on NLSP-F

37.3' + d

1181294.92

692357.50

9:47 on deck

9.0 / 7.2 &lt; 80%

0959 NLSP-F2 on deck

1181297.71

692357.35

9.5 / 8.7

1010 Back on NLSP-E2

1181069.67

692625.49

23.7' + d

fell over, no recovery

Location New London, CT Date 10/11/18

Project / Client

CSH

1025 NLSP-E3

1181069.94

692625.43

rocky, not penetrating  
on ledgeArea where Tugs hang out,  
blowing out fines. On rock  
ledge. Moving out, off ledge~~NLSP-E4~~

1040 NLSP-B

1181283.16

692823.88

24.0' + d

9.0 / 7.9 refusal

1055 NLSP-E4

setting up for 4th try

10' B out from target

1102 35.9'

1181085.54

692620.51

CSH Location New London, CT Date 10/11/18

Project Client

1108 NLSP-E4 on deck  
" 7.5/6.5  
" refusal" + 1 foot

1120 heading to dock

Mike Gurbolski, PM, AGOM  
on dock

1208 setting up on NLSP-L  
1212 34.5 td  
1180730.88  
692271.97

1218 NLSP-L on deck  
6.8/5.7  
refusal on wood

1232 NLSP-P is on slope  
enforced with loose rocks  
and concrete blocks,  
cannot core. Moving  
off shore till softer bottom  
encountered

CSH Location New London, CT Date 10/11/18

Project Client

1239 start NLSP-P1  
1180740.57  
692116.45  
27.6 td  
3-4 in, fell over

Moving SE to stay away  
from NLSP-M

1251 start NLSP-P2  
1180730.94  
692042.69

1257 on deck  
8.5/7.9  
refusal  
6 feet of clean sand  
30.1 td

1305 NLSP-N <sup>grass</sup>  
1181328.41  
691514.23  
30.1 td



CSX<sup>20</sup>

Location New London, CT Date 10/11/18

Project / Client

showers (1300) to heavy rain (1320)

1320 NLSP-J  
 1181649.26  
 691255.10  
 37.5 to

1331 NLSP-I  
 1181746.75  
 691549.19  
 42.9 to

Samples to dock  
 CR swapping barrels  
 Heavy rain - no more  
 coring for the day

1730 off site  
 Ion to UPS

CSX

CSX

Location New London Date 10/12/18<sup>21</sup>

Project Client

State Pier

0732 Lophius depart dock  
 Matt, Mike, Ben - CR  
 Steve - AECOM

0804 heading back to  
 dock with -S and  
 -K.

Will transcribe core  
 details from Ben's  
 (captain) log book.  
 Rain and win,  
 cannot write notes  
 while coring

0825 setting on NLSP-G  
 to 39.7  
 target 1.1

828 on deck  
 1181548.03  
 691980.83  
 5.0/4.4

Rite in the Rain

Location New London, CT Date 10/2/18  
 Project / Client CT Port Authority

CSX

839 NLSP-D  
 to 40.2  
 1181548.29  
 642203.07  
 5.0/4.3  
 1.3 project depth

0850 NLSP-D  
 to 35.4  
 11811447.80  
 691275.65  
 5.0/4.4

0901 NLSP-M  
 to 37.8  
 1180869.15  
 692086.72  
 5.0/4.5

Location New London, CT Date 10/2/18  
 Project / Client \_\_\_\_\_

CSX

914 NLSP-V  
 18.8 to  
 1180401.45  
 692003.49  
 5.0/4.5  
 4.0 project  
 back to dock

Core NLSP-V  
 strong petro odor  
 and sheen

from before

NLSP-S at 0754  
 32.1 water  
 1181877.50  
 690443.09  
 5.0/4.5

NLSP-K 0759  
 1181731.75  
 690891.35  
 34.5 water 4.5p/4.2r



New London, CT

10/2/18

CSH

925 Back on dock  
with last cores, CE  
dema-bing, CSH of  
for ice, Jan & Meghan  
processing samples.

1340 leaving site after  
processing samples  
packing supplies and  
cleaning dock/processing  
table.

Jan to UPS  
Meghan back to Rocky Hill  
Steve back to Cheshire  
to drop off equip.

Done

CSH

