

Day in the Life of the Hudson River 10/22/19
PIER 1 LIGHTHOUSE MUSEUM, STATEN ISLAND

RIVER MILE: -4.5

Salt Front: ~ RM 53

Curtis High School- Edita O'Brien

30 students 11th-12th grade, 2 adults

Latitude 40.640951 N & Longitude - 74.07346 W



Location: Pier 1 Lighthouse Museum, Staten Island, NY

Area: Pier with parking lot

Surrounding Land Use: 50% Industrial/Commercial, 50% Industrial/Commercial

Sampling Site: Wood bulkhead, concrete bulkhead, banks altered, riprap

Shoreline: 20% sandy, 30% muddy, 50% rocky

Water: 250 cm, choppy, green and murky

River Bottom: Rocky

Plants in water: no plants in water area



<i>ITEM</i>	<i>Time</i>	<i>Reading</i>		<i>Comments</i>
<i>Physical</i>				
<i>Air Temperature</i>	10:29 AM	59 ° F	15 ° C	
	11:11 AM	58 ° F	14 ° C	
	12:14 PM	58 ° F	14 ° C	
<i>Wind Speed:</i>	12:15 PM	Beaufort 3	8.4 mph	Northeast
<i>Weather today</i>	Overcast (100%), Low temperatures, strong winds			
<i>Weather the past 3 days:</i>	Rained on Sunday			
<i>Tides-</i>	<i>Time</i>	<i>Rising, Falling, Unchanged</i>	<i>Height (cm)</i>	<i>Rate of Tidal Change (cm/min)</i>
LT ~9:28 AM HT ~3:03 PM	10:23 AM	NA	355 cm	
	11:05 AM	Unchanged	355 cm	
	12:09 PM	Rising	370 cm	
<i>Current-</i>	<i>Time</i>	<i>cm/second</i>	<i>North/South</i>	<i>Ebb/Flood/Still</i>
	10:23 AM	2.6	North	Still
	12:12 PM	5.6	North	Flood
<i>Water Temperature</i>	10:32 AM	18 ° C		
	10:33 AM	17 ° C, 18 ° C, 18 ° C		
	10:58 AM	17 ° C, 16.5 ° C		
	11:05 AM	16 ° C		
	12:07 PM	19 ° C		
<i>Turbidity- Secchi Disk</i>	10:35 AM	166cm, 152 cm, 162 cm		Greenish water
	12:21 PM	162 cm		
	NR	66 cm, 52 cm		
<i>Chemical</i>				
<i>Salinity- Hydrometer</i>	10:27 AM	17,000 ppm, 18,000 ppm, 17,000 ppm		Averages: 17,333 ppm 19,000 ppm 17,333 ppm
	10:33 AM	20,000ppm, 19,000ppm, 18,000 ppm		
	11:01 AM	18,000 ppm, 17,000 ppm, 17,000 ppm		

	11:02 AM 11:04 AM	18,000 ppm, 15,000 ppm, 16,000 ppm 20,000ppm, 18,000 ppm, 18,000 ppm	16,333 ppm 18,666 ppm	
DO – drop count kit	<i>Time</i>	<i>Temp</i>	<i>ppm DO</i>	
	11:02 AM 11:21 AM NR	18 ° C 18 ° C 16 ° C	10.6 12.5 10	
pH – pH pen	10:37 AM 11:07 AM 11:10 AM 11:11 AM	7.8, 8.9, 9.0, 8.6 8.8, 8.8, 8.8 8.9, 8.8, 8.8 8.8, 8.8, 8.8		
Nitrates- test strips	10:40 AM 11:14 AM	0 ppm 0 ppm		
Biological				
Fish- Fish Traps	Number	Name	Length of longest	
11:13 AM	1 1 8 5	Lined Seahorse Mummichog Skillet fish Young of year fish*	10 cm 4 cm 5 cm 3 cm	*Identified 5 as tadpoles and *8 as suckers. Used image to ID skilletfish
Fish Totals	TOTAL: 10	Diversity: 3		
Macroinvertebrates	Number	Name	Length of longest	
	1 1 1	Asian shore Crab Mud snail Ribbed Mussels	4 cm	
Macroinvertebrate Totals	TOTAL: 3	Diversity: 3		
Sediment Core	Time	Oxid Top	Grain Size	Other Features
	NR	NR	Abundant: pebbles, gravel Rare: sand	Abundant: macroinvertebrates Common: freshwater mussels Rare: oyster shells, brick
Boats	Time	Name/Color	North/South	Loaded/Light
Commercial Recreational Commercial Commercial	10:18 AM 11:05 AM 11:06 AM 11:07 AM	SI Ferry, Orange SI Ferry, Orange Cargo boat, black Cargo boat	- North South South	- Light Loaded Loaded
Observations	Some bricks in the area, scattered trees, trash and litter in the water, birds and seagulls “I can hear the wind and boat engines. I smell the seawater. The weather is windy, humid and chilly. The weather (wind) could affect our first measurements.”			