

Day in the Life of the Hudson River 10/20/16 Data

(Salt Front Estimated ~ RM 83)

RIVER MILE 38

Haverstraw Bay County Park, Haverstraw Waterfront

Beth Michaluk –21 students, 11th & 12th graders in RCC course on Environmental Pollution, 3 adults

Location: North beach, dock and walking pier, Haverstraw Bay Park, Haverstraw waterfront, Rockland County NY

Area: Parking lot, recreation, fishing

Surrounding Land Use: 20% parkland, 40% Industrial/commercial, 30% urban/residential

Sampling Site: small beach, bank altered, large rip rap, bulkhead, concrete bulkhead, covered in vegetation

Water depth: 5 to 18 inches

River Bottom – muddy and rocky

<i>ITEM</i>	<i>Time</i>	<i>Reading 1</i>	<i>Reading 2</i>	<i>Comments</i>
<i>Physical</i>				
Air Temperature	9:58 AM 11:17 AM 12:39 PM	21°C 20 21	66°F 63 70	
Wind Speed	10:10 AM 11:20 AM 12:30 AM	2 kts 1.8 kts 6.4 kts	Anemometer Avg 3.4 kts N then S	Beaufort 1-3
Cloud Cover	Partly Cloudy early	Mostly cloudy later		
Weather today	Overcast	No rain		
Weather last 3 days	Very warm, no rain			
<i>Water</i>	Calm & choppy during the day			
<i>Water Temp. avg. depth 2.5 ft</i>	9:58 AM 11:15 AM 12:40 PM	18.9°C 19.2 21	66°F 66.6 69	
<i>Turbidity – Long site tube</i>	9:30 AM 10:30 AM 11:30 AM	27cm 35 cm 43 cm		
<i>Chemical</i>				
DO <i>Drop count</i>	10:20 AM 11:30 AM 12:45 PM	19°C 18.9 20.5	11 ppm 14 ppm 13 ppm	115 % sat. 150 % 145% sat.
pH	Time	Test Strips*	Color Match Test Kit	Note*
	9:50 AM 11:00 AM	5.5 5	7.2 7.5	Test strips reading too

	12:30 PM	5	7.5	low
Salinity: <i>Quantabs HR</i> (read 8)	9:40 AM 11:00 AM 12:45 PM	0.744 %NaCl	4511 ppm Cl- 4511 ppm Cl- 4511 ppm Cl-	8149 ppm TS 8149 ppm Cl- 8149 ppm Cl-
<i>Hydrometer</i>	9:40 AM 11:00 AM 12:45 PM	9.5 ppt 8.5 ppt 10.0 ppt		<i>Average 9.4 ppt</i>
<i>Turbidity - secchi</i>	9:50 AM 11:00 AM 12:36 PM	80,70,60 cm 80, 100, 80 110,120,160	Avg. 70 cm Avg. 87 cm Avg. 130cm	Water very turbid, wavy, moving rapidly at times
<i>Turbidity – long sight tube</i>	9:50 AM 11:00 AM 12:36 PM	95,77,87 cm 73, 73, 69 48,50,	Avg. 86 cm Avg. 72 cm Avg. 49 cm	
<i>Tides</i>	9:46 AM 10:04 AM 11:20 AM 12:27 AM	10 cm 12cm 20cm 40cm		Rising – flood tide
<i>Currents</i>	<i>CM/30 secs</i>	<i>Cm/Sec</i>	<i>North/South Ebb/Flood/</i>	<i>Knots</i>
9:56 AM 11:11 AM 12:36 PM	106 cm/30s 792.5 cm/30s 548.6 cm/30s	3.5 cm/sec 26.4 cm/sec 18.3 cm/sec	Flood Flood Flood	.06 kts .51 kts .35 kts
<i>Core – 10 cm long</i>	<i>Properties</i>	<i>Rare</i>	<i>Common</i>	<i>Abundant</i>
	No smell, oil or oxidation	brick	pebbles	Clay Mud Sand Gravel
<i>Shipping – Commercial</i>				
<i>12:52PM</i>	Barge	Grey/Blue	Northbound	Loaded
<i>Shipping Recreational</i>				
<i>9:10PAM</i>	Cruiser	Blue	Northbound	Light
<i>11:40AM</i>	Speedboat	White	Northbound	Light
<i>12:48 PM</i>	Small Boat	White	Southbound	Light
<i>Observations</i>	Many bricks, coal, crab shells, rock and sand in the area. Old industry of brickyards, coal transport and use, industry pollution. Also saw birds, chipmunks, bees, butterflies and flies			