

# Halifax Harbour Water Quality Monitoring Project

## Weekly Summary #27

**Survey Date:** 21 Dec 2004  
**Nature of Survey:** Complete Survey  
**Report File (this document):** HHWQMP\_report027\_041221.doc  
**Data File:** HHWQMP\_data027\_041221.xls

**Data Return:**  
 Profile: 100%  
 Bacteria: 100%  
 Chemical: 100%  
**Overall: 100%**

**Sample Notes:**

**QA/QC samples:**

Chemical Analysis		G2 -1 m		EE2- 10m	
Detectable Parameter	units	reference sample	QA/QC	reference sample	Dup
Total Suspended Solids	mg/L	3.6	4	3.8	n/a
Boron	ug/L	3900	3900	4100	4200
Copper	ug/L	<20	25	<20	<20
Lithium	ug/L	180	170	180	200
Strontium	ug/L	6000	6200	6500	6400
Titanium	ug/L	50	57	67	70
Uranium	ug/L	3.3	3	4.5	3.6
Vanadium	ug/L			26	24

### Fecal Coliform (CFU/100ml)

Site	D2-1m	D2-10m	DYC-10m	D1-1m	D1-10m	G2-1
Reference	840	560	120	2400	1400	120
QA/QC	790	490	93	2200	820	140

### Regulated parameters with all samples below detection (<EQL)

Parameter	EQL(µg/L)	Parameter	EQL(µg/L)	Parameter	EQL(mg/L)
Cadmium	3	Manganese	20	CBOD <sub>5</sub>	5
Chromium	20	Nickel	20		
Lead	5	Zinc	50		

### Detectable non regulated metals

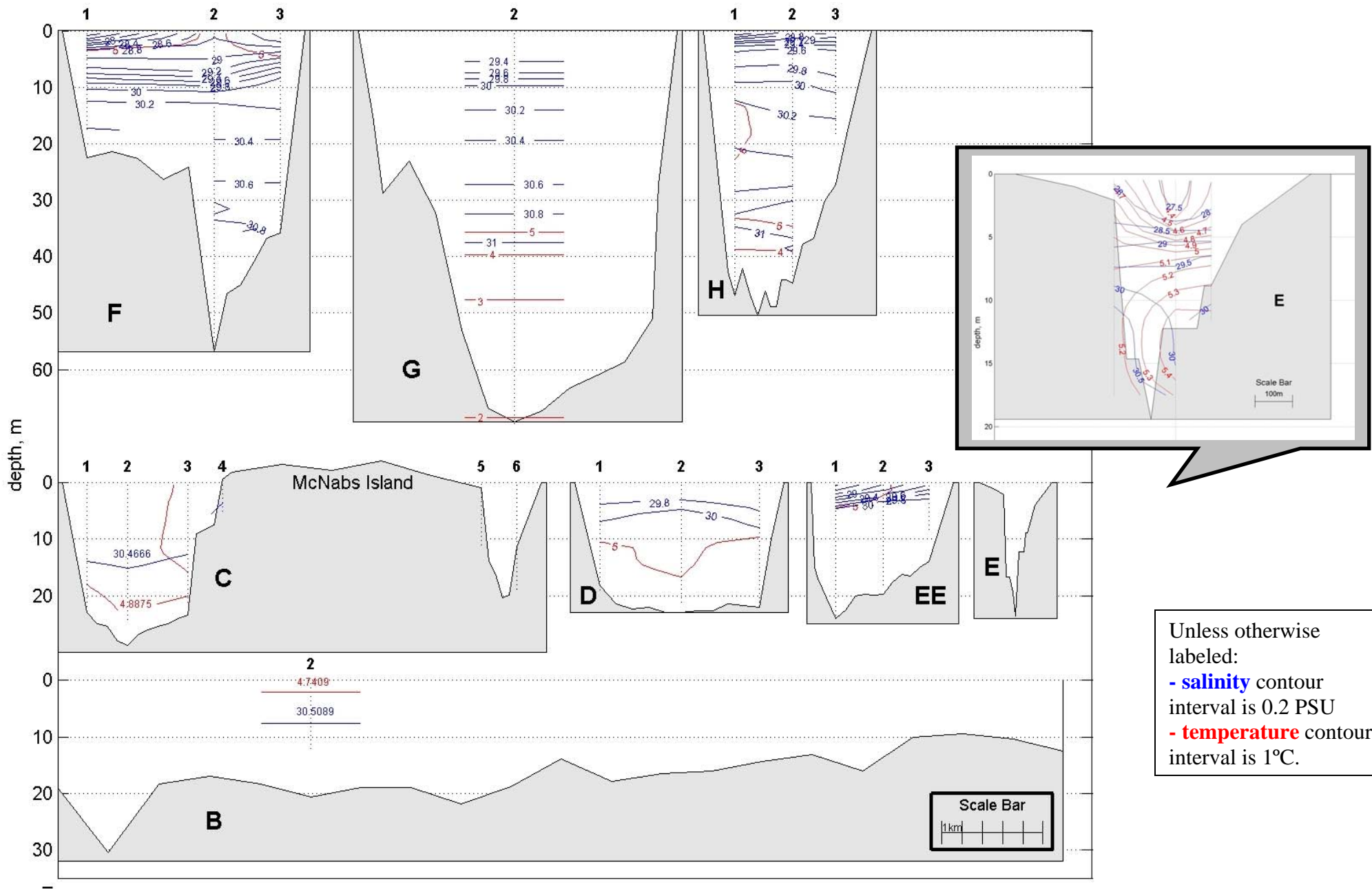
Metal	EQL (µg/L)	Number >EQL	Mean (µg/L)	Range (µg/L)
Boron	500	16	3960	3600-4300
Lithium	20	16	180	160-200
Strontium	50	16	6150	5700-6600
Titanium	20	16	60	50-70
Uranium	1	16	3.3	2.9-4.5
Vanadium	20	1	26	26

### Comments:

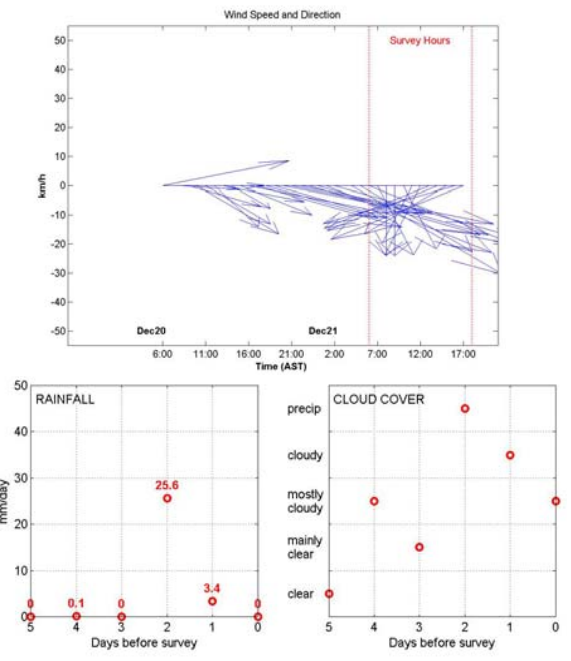
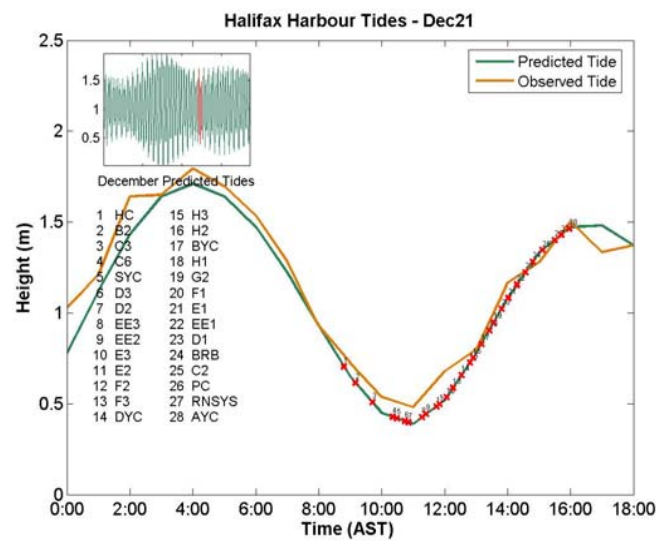
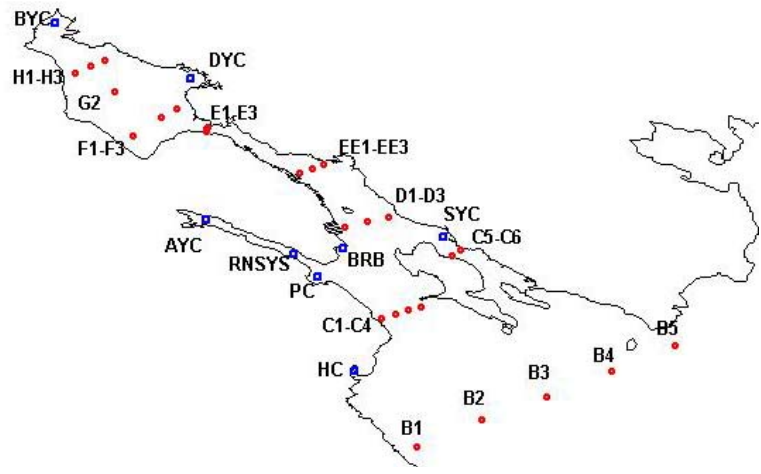
Dissolved Oxygen: The dissolved oxygen continues to drop in the deepest water of Bedford Basin (1.45 mg/l). The Basin bottom water (>35 m) represents the only DO criteria violation in the harbour.

Copper: A single value >EQL (25 ug/L) showed up in the QA/QC sample at site G2 1m. This exceeds the criteria of 2.9 ug/L.

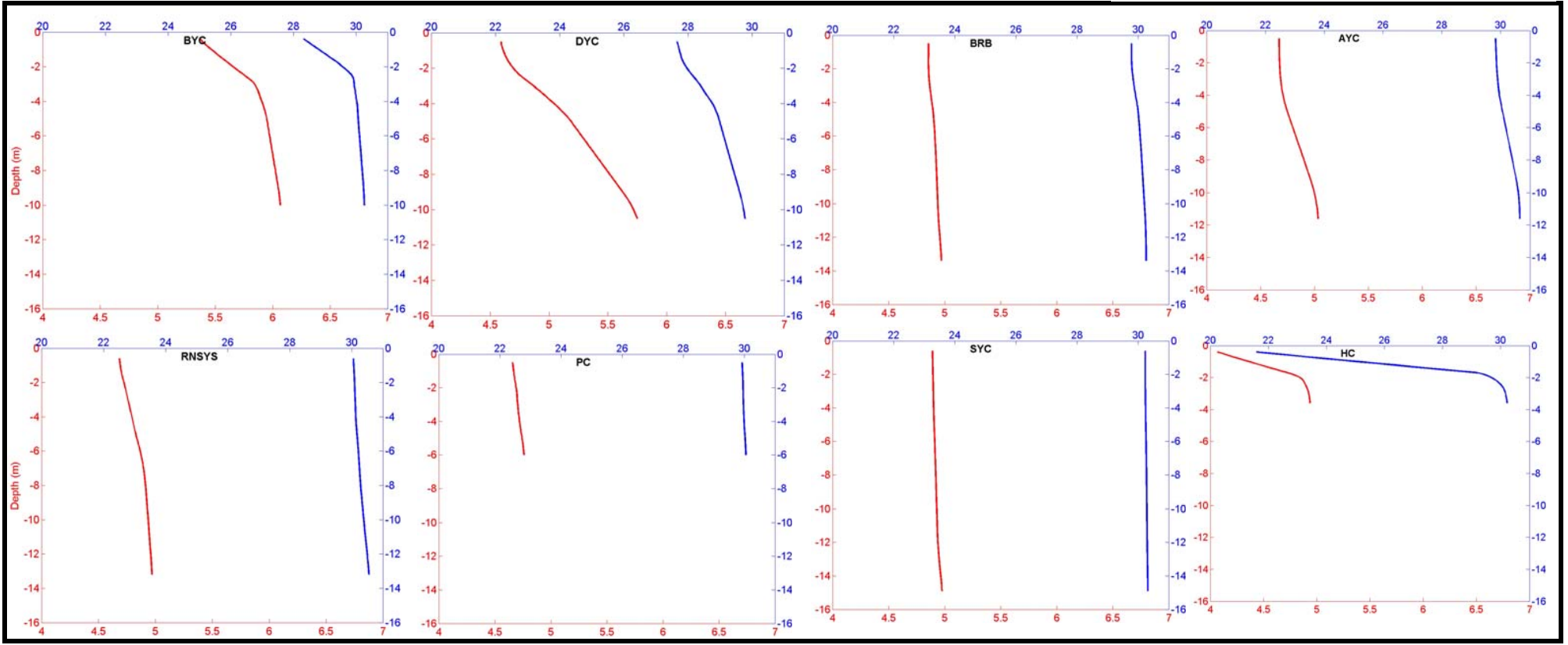
Total Oil and Grease: A single value >EQL (5 mg/L) was measured, This was in the H2 – 1m sample.



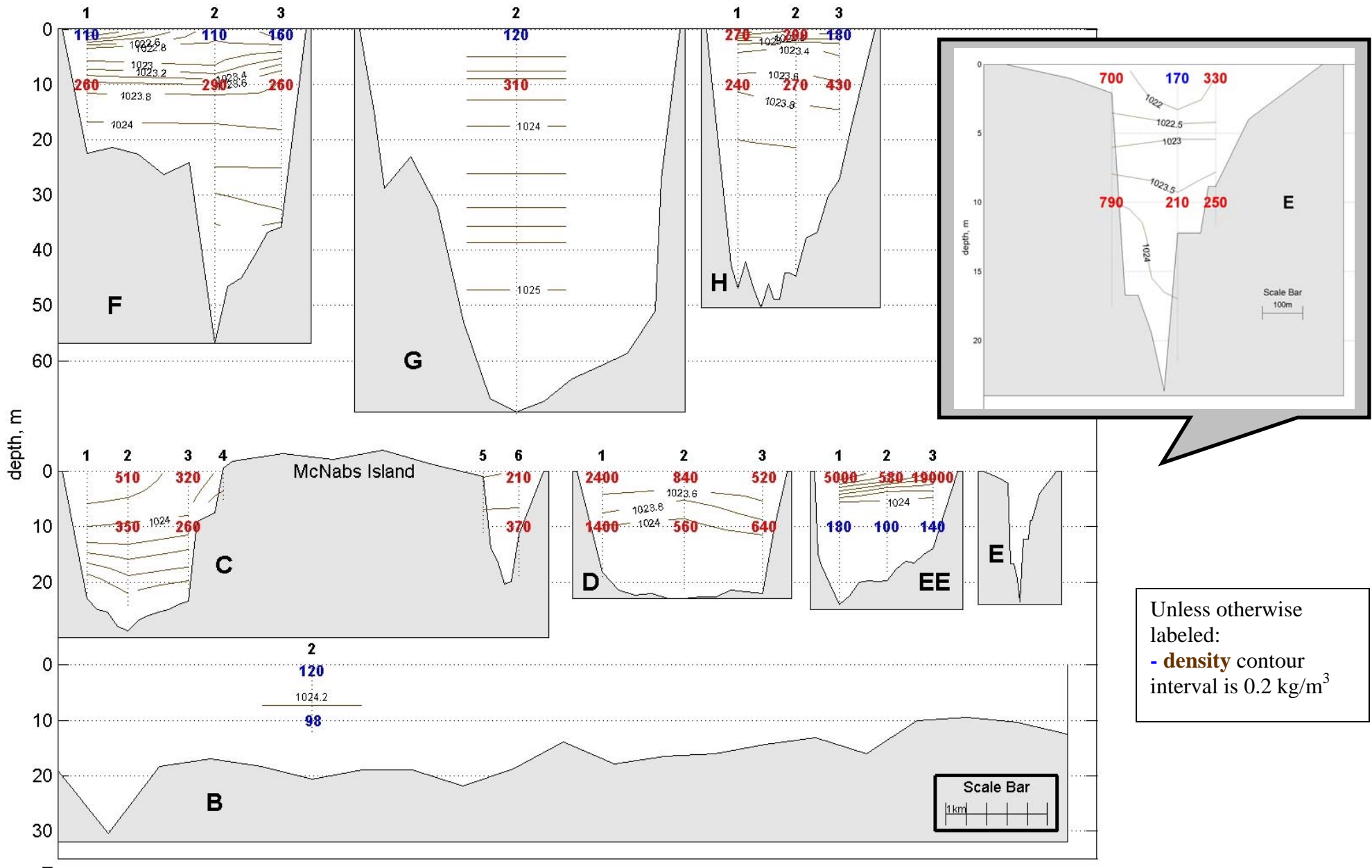
Unless otherwise labeled:  
- salinity contour interval is 0.2 PSU  
- temperature contour interval is 1°C.



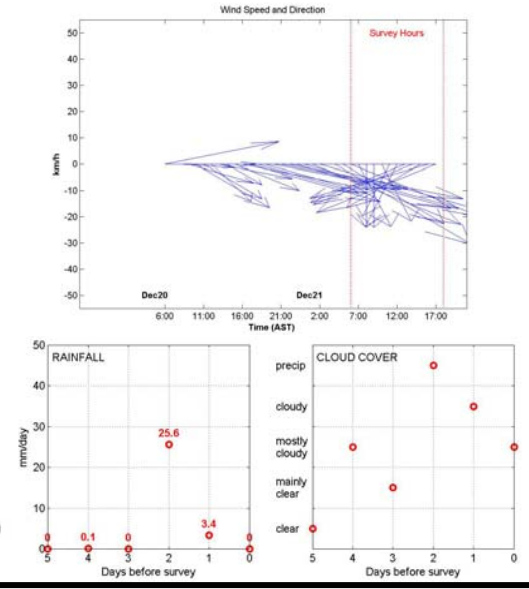
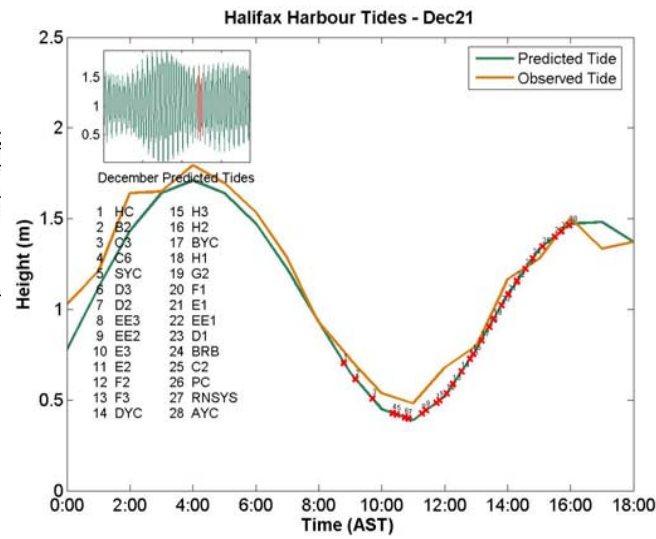
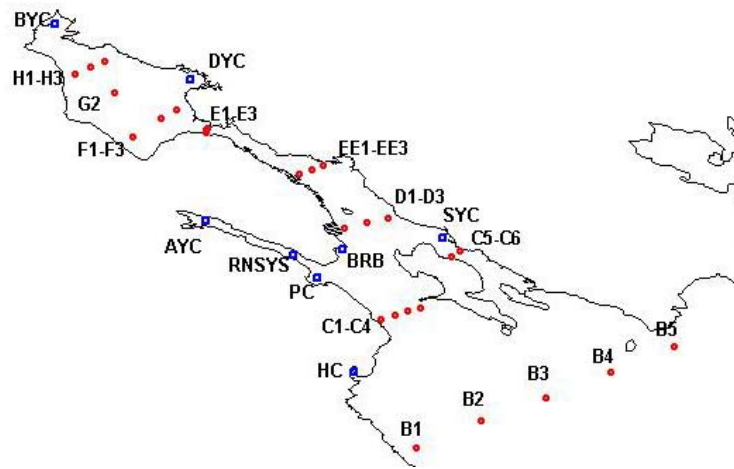
## Yacht Clubs



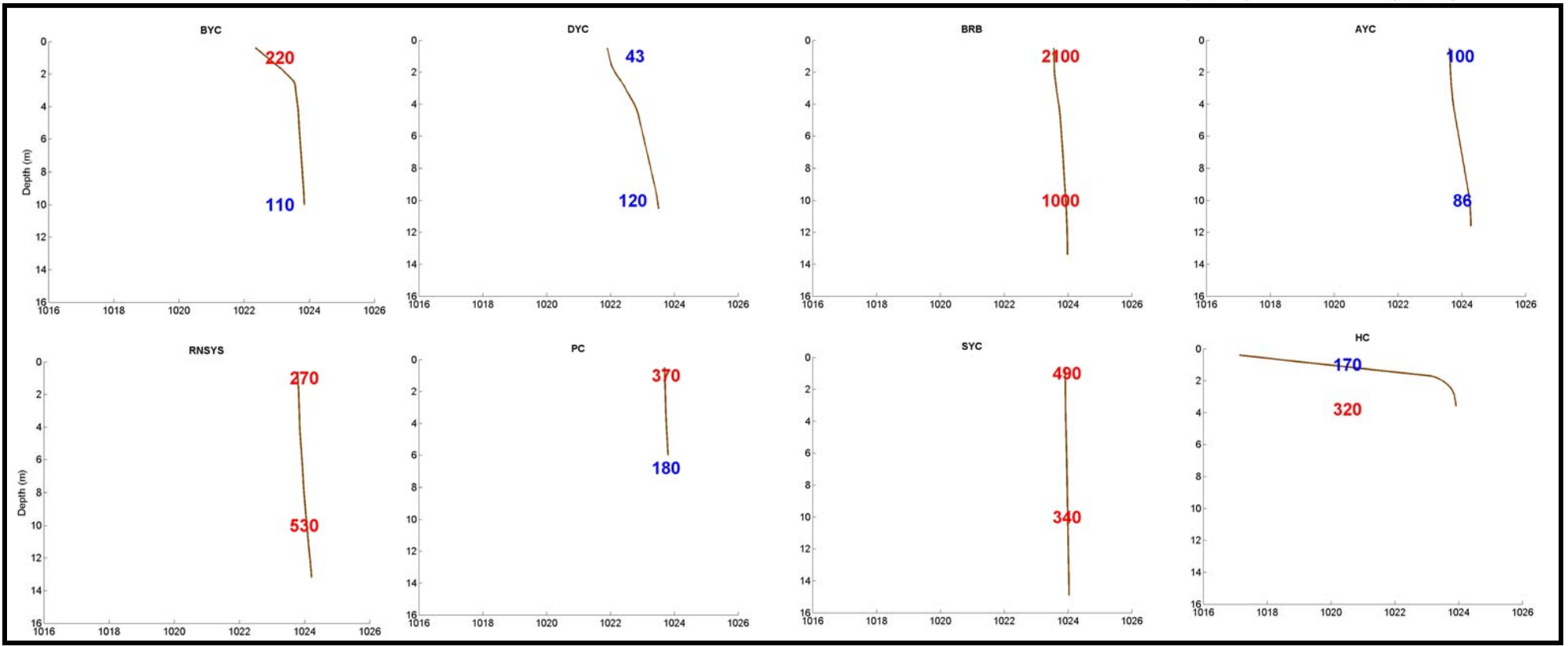
Salinity in PSU      Temperature in °C



Fecal coliform: **below limits** • **above shellfish limit (14 cfu/100mL)** • **above swimming limit (200 cfu/100mL)**



## Yacht Clubs



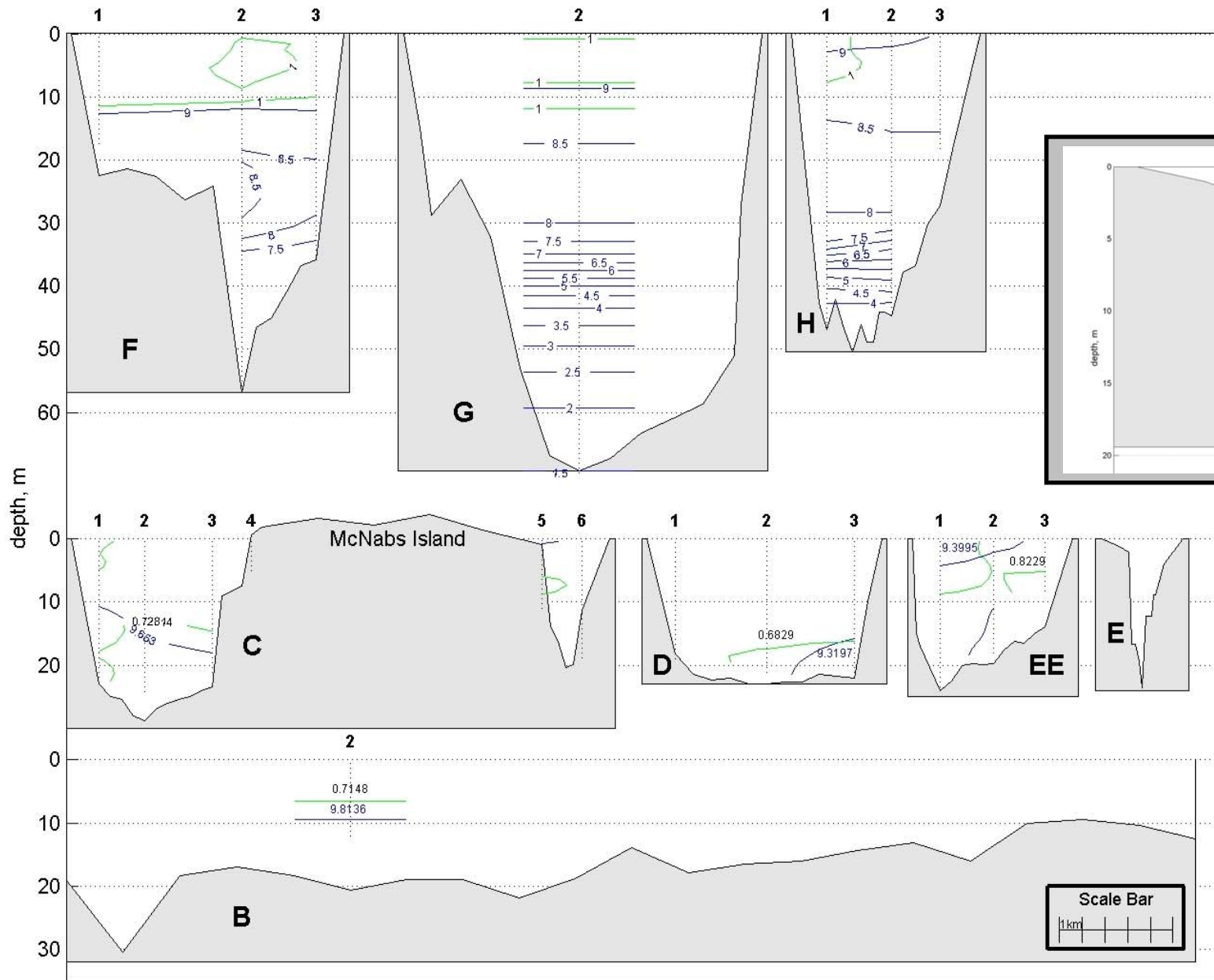
Density in kg/m<sup>3</sup>

Fecal coliform: **below limits**

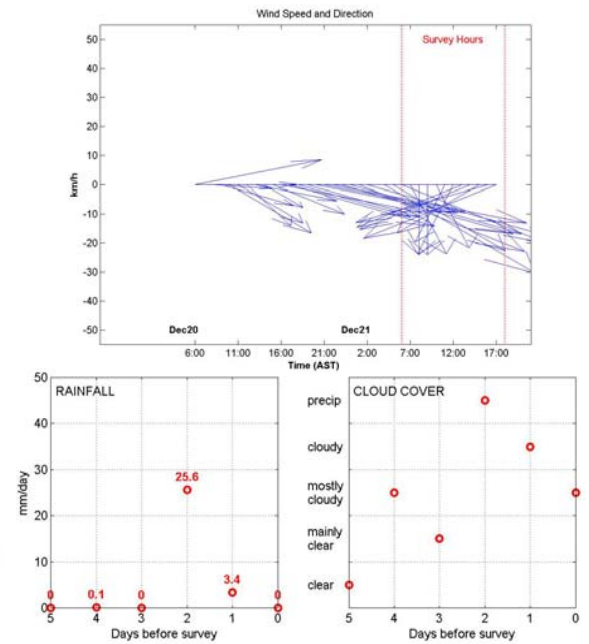
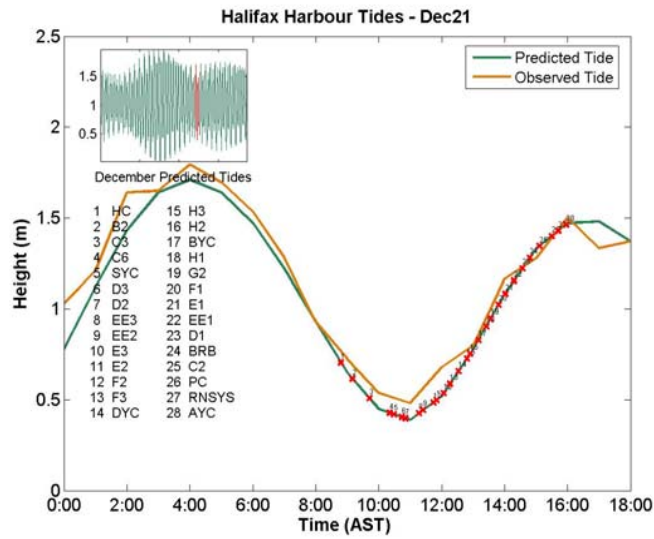
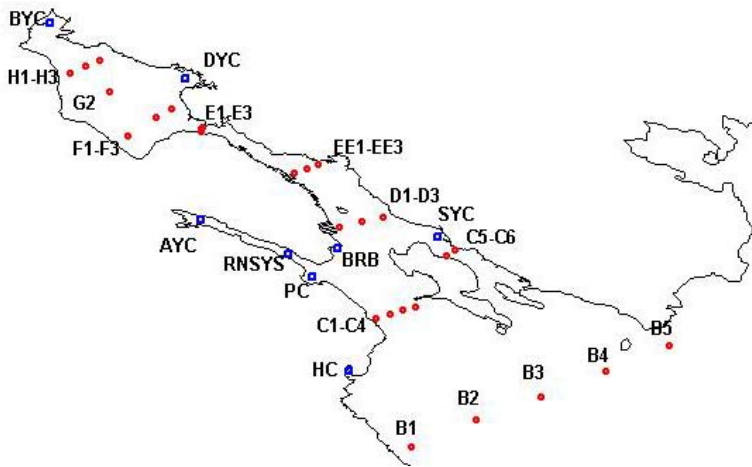
above shellfish limit (14 cfu/100mL)

above swimming limit (200 cfu/100mL)

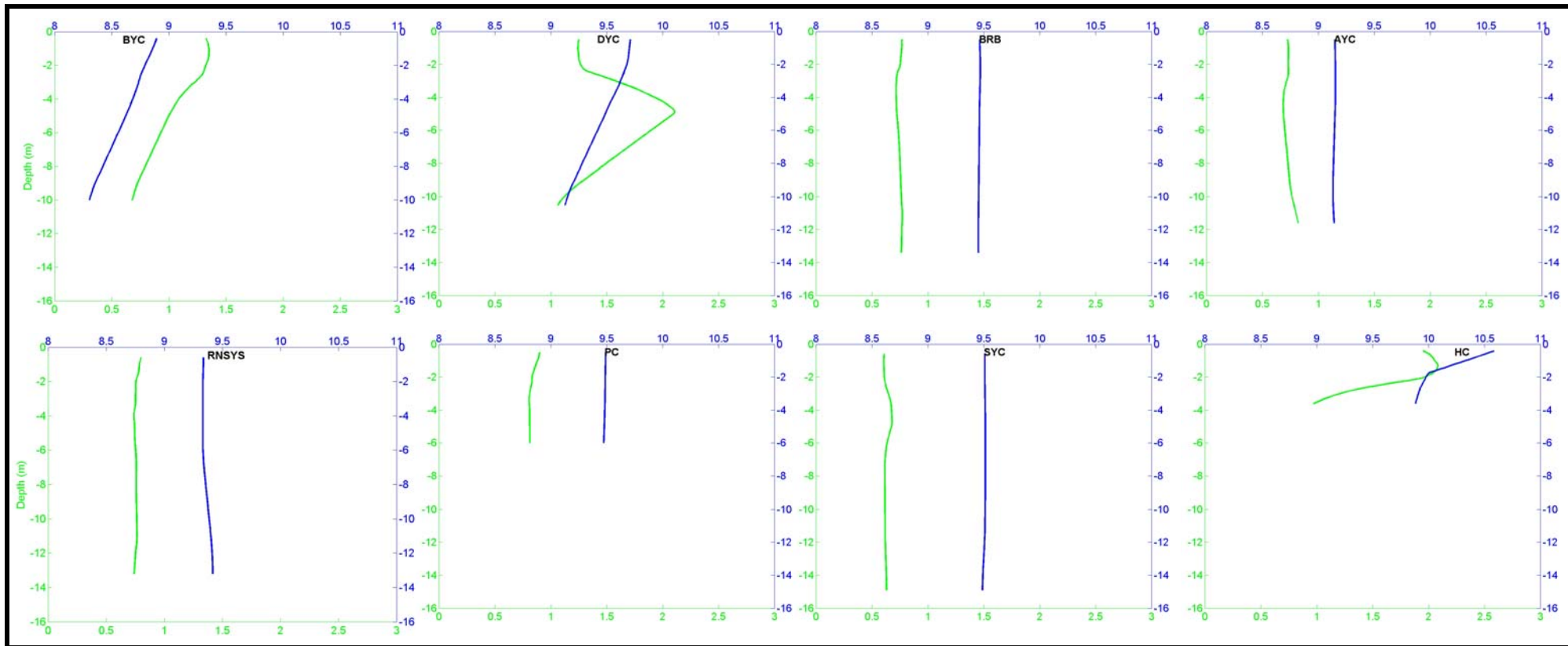




Unless otherwise labeled:  
 - **dissolved oxygen** contour interval is 0.5 mg/L  
 - **chlorophyll** contour interval is 1mg/m<sup>3</sup>.



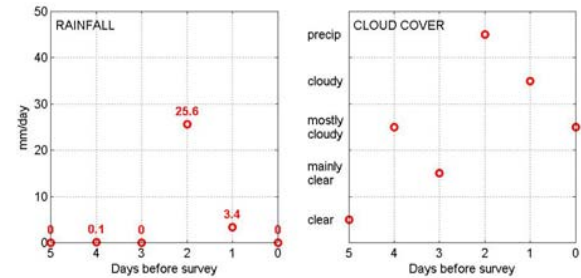
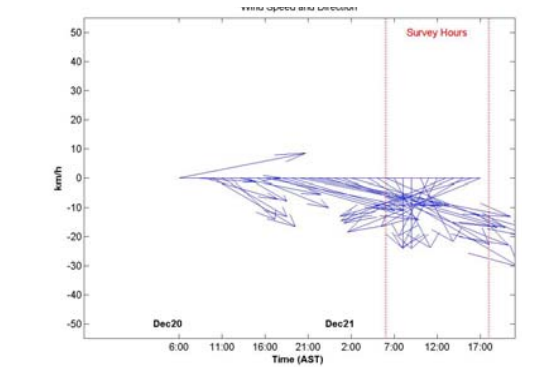
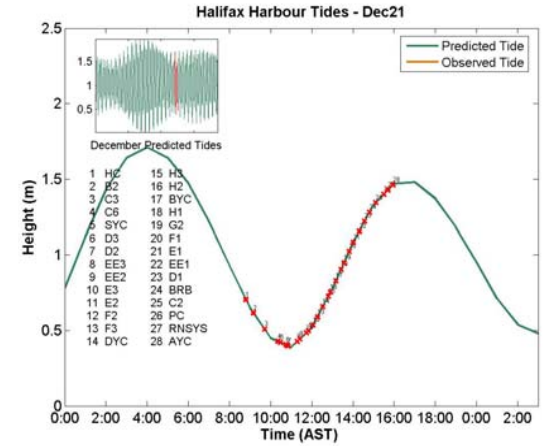
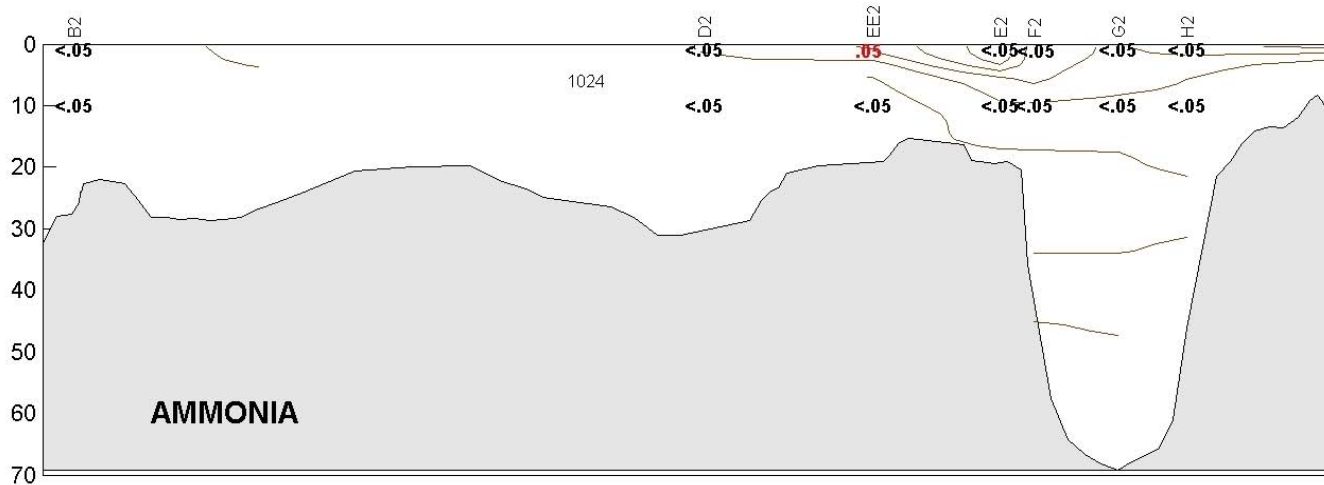
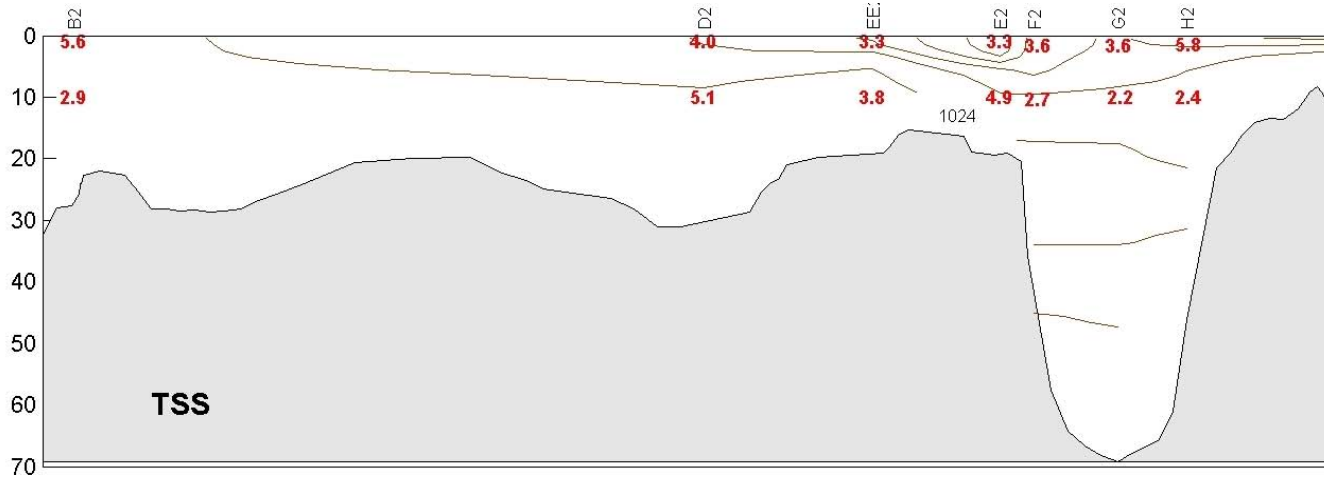
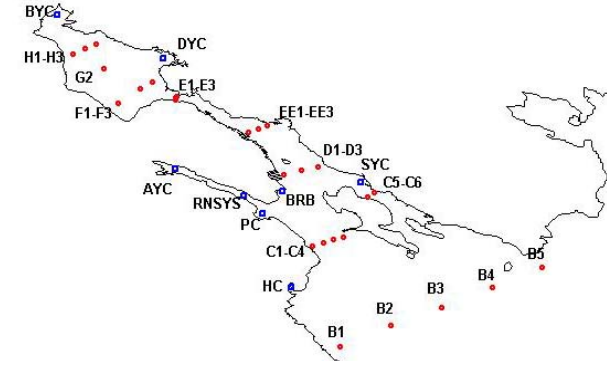
## Yacht Clubs



DO in mg/L

Chlorophyll in  $\text{mg}/\text{m}^3$

CHEMISTRY



Density in kg/m<sup>3</sup>

Ammonia in mg/L

TSS in mg/L