

HB2023009005

Mooring recovery on Hans Brattstrøm  
24-25/1 2023

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### 1. Mooring recovery

Moorings deployed during student and project cruises in February and May 2022 were recovered, see details in Table 1. MF\_inner was released several times, but did not surface. The upper buoys of the mooring were seen on the echosound.

MF\_inner was recovered (through dragging) during a cruise (with Lars Asplin on Hans Brattstrøm) one week later.

Table 1: Mooring recovery

Lurefjorden					Mooring release	
CTD	Lon	Lat	Mooring	Water samples	Date	Time (local)
#1	4°58.383' E	60°43.835' N	LF Sill	Bottom	25.jan	09:40
Masfjorden						
#3	5° 17.875' E	60° 48.231' N	MF Sill	Bottom	24.jan	15:40
#4	5° 20.633' E	60°49.512' N	MF Outer	Bottom + 100 mab	24.jan	14:40
#5	5° 22.098' E	60° 52.204' N	MF Inner	Bottom + 100 mab		

### 2. CTD and water sampling

CTD-profiles were obtained using a RBR-instrument and water samples for conductivity sensor calibration were collected. A total of six stations were occupied, see Table 2.

There is no “bottle-file” produced by the RBR-system used on Hans brattstrøm, and the bottle depth and salinity /temperature have to be inferred from the CTD-profiles by identifying time periods where the instrument was kept at a constant depth.

Station 6 was repeated twice, first without the water sampler and then with the water sampler attached. (All data in one file)

Table 2: CTD-log

Date	Time (local)	station #	Depth [m]	Bottle #	Latitude		Longitude	
14.jan	13:02	6	482	1	60	52.364	5	24.881
	13:04		381	2				
14.jan	13:33	5	459	3	60	52.155	5	22.129
	13:38		359	4				
14.jan	14:44	4	298	5	60	49.466	5	20.381
	14:48		198	6				
14.jan	15:32	3	86	7	60	48.242	5	17.701
15.jan	10:37	1	28	8	60	43.914	4	58.601
15.jan	11:30	2	405	9	60	41.122	5	10.372
	11:33		305	10				

### 3. Calibration of the conductivity sensor

The water samples were analyzed after the cruise and compared to the values observed by the instrument, see Figure 1. Values larger than the mean value  $\pm$  one standard deviation were removed. This procedure was repeated twice, and the final offset applied (to the practical salinity) was  $7 \times 10^{-4}$ . Note that the maximum error was as large as 0.05 PSU.

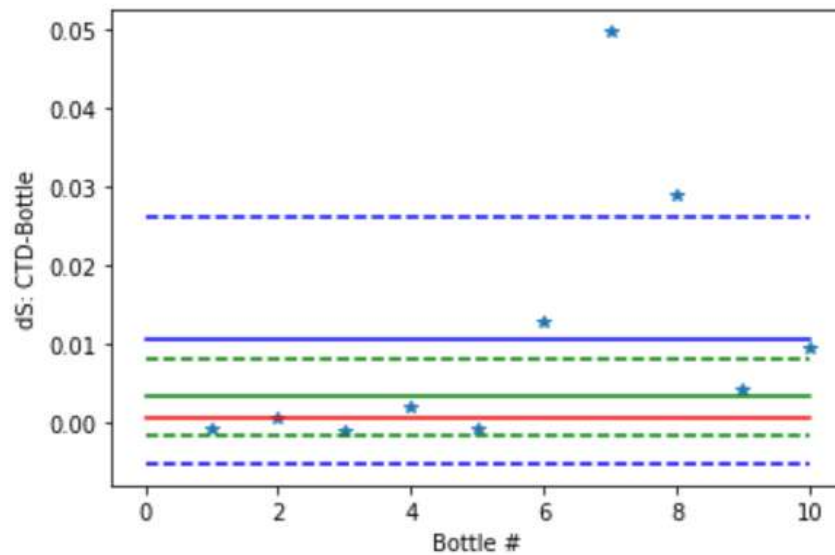


Figure 1: Comparison between bottle salinity and salinity from the CTD. The blue (green) lines show the mean and mean  $\pm$  one std (dashed line) values initially (after first removal of outliers), and the red line show the applied correction.