Daily Drilling and Scientific Report for IODP Expedition 347, Baltic Sea Paleoenvironment

18th Oct 00:00 – 18th Oct 24:00 GMT

1. Location
18° 15.240' E   58° 37.330' N

BSB-9 Landsort Deep, Hole M0063E

2. Activity Summary
Continue coring operations at Hole M0063E (Microbiology) when not waiting on weather.

3. Science Report
The intense microbiology sampling of Hole M0063E continued from 37 mbsf with core lengths of 2 m. Core recovery was good despite the fact that the methane gas charged sediment expanded in the core liner. The expansion was still within the length of the core liner and, thus, no sediment was lost. The sediment cored consisted of a greyish to brownish-grey, partly varved glacial clay which in the sequences where the varves were visible in the core liner displayed a thickness that varied between 10 to 100 mm.

After the break whilst "waiting on weather" the coring continued and the recovery was still good. However, the clay was still expanding even below 60 mbsf. This is an unexpected and strange feature in that despite the lack of organic contents in this type of sediments, and by that also a lack of methane gas, the clay still expanded when collected from these depths. This behaviour has not been previously documented from varved glacial clay, especially not from this part of the Baltic Sea.

4. Core Recovery Details

Hole	M0063E
Cores recovered	17
Drilled length (Coring)	33.3m
Drilled length (Open hole)	1.3m
Recovered length	52.28m
Recovery	163.38%
Depth at Midnight	75.3m

5. Weather
Isolated showers becoming fair in the afternoon, wave heights of 1.25 – 1.5 m; winds SW to W, 15 - 30 kts, gusting to 51 kts; Max 8°C.
Next 24 hrs: Fair, wave heights of 0.2– 1.1 m, winds W – WNW swinging to N, 7 –20 kts, gusting to 26 kts. 10°C.
High pressure building from the west will maintain fresh westerly winds and moderate seas. Conditions will improve as the high builds over the area.

6. Planned Activity for the next 24 hours
Complete coring operations at Hole M0063E (microbiology) and prepare for transit to BSB-5.

7. Photo of the day

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The calm after the storm