



**Daily Drilling and Scientific Report for
IODP3-NSF Expedition 501
New England Shelf Hydrogeology, 2025**



9th June 00:00 – 9th June 24:00 East Daylight Time (UTC -4)

1. Location

Position 40.8746°N, 70.2697°W @12:00 EDT 8th of June
IODP-MSP borehole M0111C
Prospectus borehole MV-03C
Water Depth: 44m

2. Operations Report

Nine ESO staff and Science Team members transferred off, and seven joined the L/B Robert by OSV supply vessel, with appalling visibility preventing helicopter transfers.

Casing was run in to 33.3mbsf and a bentonite plug pumped to seal the hole to provide a route for mud circulation. After waiting to allow the plug to set, CHD drill pipe was run with a non-coring assembly in the BHA. Drilling to the first sampling interval was achieved and 4 HPC samples collected before continuing to open hole to the next sampling target at 110mbsf.

3. Science Report

26 samples were taken and analysed on the 9th of June for interstitial water geochemistry, micropaleontology physical properties, noble gas measurements and microbiology. Four cores from Hole M0111C were run on the MSCL.

4. Core Recovery

Hole	M0111C
Cores recovered	4
Drilled length (Coring, m)	5.54 m
Drilled length (Open hole, m)	36.16 m
Recovered length (m)	5.54 m
Recovery (%)	100 %
Depth at midnight (mbsf)	75 m

5. Time Breakdown

00:00 - 01:00 Running 6 5/8" casing to 33.3mbsf.
01:00 - 03:30 Pumping bentonite plug & wait for it to swell & set.
03:30 - 10:00 Running CHD with non-coring assembly in BHA; drilling to 45.5mbsf.
10:00 - 14:50 4 HPC cores collected between 45.56 and 51.1mbsf.
14:50 - 24:00 Open hole drilling, achieving 75mbsf at midnight.

6. Hours (inc. cumulative total) – no contractual implications can be made from these figures

In port	n/a
Transiting	n/a
Operating	24
Technical downtime	0
Weather downtime	0
Other downtime (specify)	0

7. Weather

The weather started relatively clear in the early morning, but turned utterly miserable for the rest of the day with east south-easterly winds of around 13 kt and 1 to 2 m swell from the south south-east. Visibility was zero with continuous drizzle and fog.

8. Planned Activity for the next 24 hours

Alternate between open hole drilling with non-coring assembly with spot samples at defined depths and pump testing if target zone achieved.

9. Health and Safety and Environmental
No health and safety issues were reported.

10. Photo of the day



Figure 1: Preparing equipment for sampling of sediments for noble gas analysis (photo LEBER@ECORD_IODP3_NSF_NG_sampling2).