



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



29th May 00:00 – 29th May 24:00 East Daylight Time (UTC -4)

1. Location

Position 40.8746°N, 70.2697°W @12:00 EDT 29th of May
IODP-MSP borehole M0111B
Prospectus borehole MV-03C
Water Depth: 42m

2. Operations Report

Coring continued using the HQ BHA from 00:00 to 04:00 with 6 cores retrieved and 7.86m of core recovered. From 04:30 to 08:25 issues with low recovery were encountered indicative of a change in lithology. From 08:25 to 15:00 preparations were made to attempt a pump test around this interval, with two more cores recovered at 15:00 to 16:25 to a depth of 230.68 mbsf. From 15:00 to 21:30 preparations continued for pump testing, and the first pump test was run at 21:15 until 22:00. Issues with flow rates meant that pumping was stopped and attempts made to improve hole conditions were ongoing at 24:00.

3. Science Report

24 samples were taken on the 29th of May for interstitial water geochemistry, micropaleontology, noble gas analyses and microbiology. 42.52 m of core was run through the MSCL.

4. Core Recovery

Hole	M0111B
Cores recovered	8
Drilled length (Coring, m)	27.68
Drilled length (Open hole, m)	n/a
Recovered length (m)	11.79
Recovery (%)	43%
Depth at midnight (mbsf)	230.68

5. Time Breakdown

00:00 – 08:25 Coring using HQ BHA
08:25 – 15:00 Preparations for pump testing
15:00 – 16:25 Coring using HQ BHA
15:00 - 21:15 Preparations for pump testing
21:15 – 22:00 Pump testing
22:00 – 24:00 Analysis of pumping results and borehole

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

In port	n/a
Transiting	n/a
Operating	10h50m
Technical downtime	n/a
Weather downtime	n/a
Other downtime (specify)	13h10m (preparations for pump testing and assessing borehole conditions)

7. Weather

Wind 20 mph from E at 12:00. Wave height 0.77 to 1.08 m. Low cloud with visibility around 800m.

8. Planned Activity for the next 24 hours

Continue assessment of pump test strategy.

Run further pump test.

Continued sampling and MSCL protocol for recovered cores.

9. Health and Safety and Environmental

Wet weather and poor visibility – take care on the vessel.

Pump testing at pressure – wear safety glasses on working deck.

10. Photo of the day



Figure 1 Beth Novak and Tayyaba Khurram discuss results from the MSCL.
LEBER@ECORD_IODP3_NSF_msc11