



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



7th July 00:00 – 7th July 24:00 East Daylight Time (UTC -4)

1. Location

Position 40.99783°N, 70.33337°W @12:00 EDT 7th July
IODP-MSP borehole M0112B
Prospectus borehole MV-08AB
Water Depth: 41m

2. Operations Report

A full day of water extraction passed successfully although with interesting developments. The flow has been managed well, with a near constant flow rate and head level being maintained; the extracted water started near opaque (sea water diluted from the aquifer) which then changed to light brown and then to black to reflect the lithological layers we had drilled through. As the flow remained steady we continued to pump hoping for clarity, but as of midnight the water was still black.

3. Science Report

No new samples were taken from the pumped aquifer water. Planning and revision of protocols for the sampling regime was ongoing. Data was collected from the pump testing sensors throughout pumping.

4. Core Recovery

Hole	M0112B
Cores recovered	n/a
Drilled length (Coring, m)	n/a
Drilled length (Open hole, m)	n/a
Recovered length (m)	n/a
Recovery (%)	n/a
Depth at midnight (mbsf)	171.7

5. Time Breakdown

00:00 – 24:00 Water extraction, monitoring flowrate, head depth, temperature, conductivity etc.

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

Winds around 13 kts from the SSW at 11:00. Wave height 1 to 1.5 m. Visibility mixed with some haze and fog. Improving towards the evening.

8. Planned Activity for the next 24 hours

Continue with the pump test and possibly drill/core on to the next interval of interest.

9. Health and Safety and Environmental

The vessel was searched for stranded seabirds at sunrise. None were found.

10. Photo of the day



Figure 1 Hydrogeologist Rachel Bell gives a thumbs up while some of the day shift keep an eye on the discharge buckets and wait for water quality to improve. Bender@ECORD_IODP3_NSF_waiting.