



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



27th June 00:00 – 27th June 24:00 East Daylight Time (UTC -4)

1. Location

Position 40.9976°N, 70.3334°W @12:00 EDT 27th of June
IODP-MSP borehole M0112A
Prospectus borehole MV-08A
Water Depth: 41m

2. Operations Report

The borehole was advanced using a mix of hydraulic piston corer and alien corer. Excellent recovery in sands was achieved in the earlier part of the day but the recovery decreased in the early evening. Two short sections using the non-coring assembly tool (totalling 1.6m) were carried out to progress through difficult zones. A depth of almost 294 mbsf was reached by 24:00 on the 27th of June.

3. Science Report

41 samples were taken on the 27th of June for interstitial water, geochemistry, noble gas, microbiology, and paleontology. 39.96m of core were run through the MSCL.

4. Core Recovery

Hole	M0112A
Cores recovered	25
Drilled length (Coring, m)	42.32
Drilled length (Open hole, m)	2.75
Recovered length (m)	30.47
Recovery (%)	72
Depth at midnight (mbsf)	293.96

5. Time Breakdown

00:00 – 00:50 Repair to the “Belly Box” remote control unit to the Freedom Loader pipe handler.
00:50 – 24:00 Advancing borehole by combination of Alien and Hydraulic Piston corers.

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

In port	n/a
Transiting	n/a
Operating	23.17
Technical downtime	0.83
Weather downtime	0
Other downtime (specify)	0

7. Weather

Winds from the E, 15 kts at 12:00. Very good visibility to horizon at 13 nm, some cloud. Winds increasing through the afternoon with gusts of 25 kts+.

8. Planned Activity for the next 24 hours

Continue coring to TD for Hole M0112A and prepare to deploy the downhole logging suite.

9. Health and Safety and Environmental

Reminder to wear gloves when handling core and equipment. Reminder to take care in windy conditions.

The decks were searched for stranded seabirds at sunrise. None were found.

10. Photo of the day



Figure 1 Lining up to put core in the refrigerated reefer. This is the last stage of the workflow after the core has been run through the MSCL. LEBER@ECORD_IODP3_NSF_reefer