

Daily Coring and Scientific Report for IODP Expedition 389 Hawaiian Drowned Reefs

23rd October 00:00 - 24:00 HST Hawaii Standard Time (UTC -10)



1. Location at 24:00

Position: 19°56.410'N, 156°03.5035'W

Water Depth: ~ 404 m

2. Operations Report

Five core runs were completed before borehole M99G was terminated as the time required to clean the hole for the last barrel to have a possibility of recovering core would be disproportionate to the number of barrels remaining. The seafloor corer was recovered to deck and core curation commenced. The seafloor corer underwent general maintenance required of a machine that was on the sea bed for 1 hour short of 4 days and was then deployed within 3.5 hours on site KAW-04C (M107). Locating a site where the corer could be positioned took longer than usual due to the sea bed conditions. Borehole M107A was eventually located on KAW-04Cd and Hole M107A cored to 1.1 mbsf by midnight. Curation for M99G was ongoing.



3. Science Report

On-deck core curation was completed for M99G, full curation was ongoing at midnight.

4. Core Recovery Details

Hole	M99G	M107A
Cores recovered	N/A	N/A
Drilled length (Coring, m)	8.94	1.1
Drilled length (Open hole, m)	8.94	1.1
Recovered length (m)	N/A	N/A
Recovery (%)	N/A	N/A
Depth at midnight (mbsf)	N/A	1.1

5. Time Breakdown

00:00 – 17:26 Advance borehole M99G to 67.69 mbsf. Terminated the borehole as multiple runs have suggested basalt.

17:26 – 21:38 Recover seafloor corer to deck; extract core barrels and replace with fresh. Commence deck core extraction and curation of core. Transit to KAW-04Ca

21:38 – 23:39 Deploy seafloor corer and attempt 3 landings before settling on a location that is both promising geologically and suitable and safe for the corer to land.

23:39 – 24:00 Advance borehole M107A to 1.10 mbsf.

6. Hours – no contractual implications can be made from these figures

In port	0.0
Transiting	0.0
Operating	24.0
Downtime	0.0
Weather downtime	0.0
Mobilisation	0.0

7. Weather

Partially sunny, calm and good visibility. Wave heights of 0.1 – 0.8 m and swell 0.1 – 0.5 m; wind direction NW to NE at 2 – 13 kts, gusting 5 - 18 kts; Temperature 25 - 27°C.

8. Planned Activity for the next 24 hours

- Continue coring operations at Site M107.

9. Health and Safety and Environmental

- Toolbox talks at 11:30 and 23:30 for all on shift. EPM and Ops Manager attended Contractor Toolbox talk at 11.45 and EPM at 23:50. Information disseminated to remainder of Science Party.

10. Photo(s) of the day



Geochemist Nancy Prouty looking at cores from Hole M99G prior to core extrusion and curation.
Photo by MarisaRydzzy@ECORD_IODP.