Daily Drilling and Scientific Report for IODP Expedition 357 Atlantis Massif Serpentinization and Life, 2015



23rd Nov 00:00 - 24:00 Local Time (-2 GMT)

1. Location

30^o 7.51' N 42^o 5.747' W IODP-MSP: M0068B

Prospectus borehole: AM-02A

Water Depth: 1110m

2. Science Report

MeBo operations at Hole M0070C ended after penetrating 5.21 m due to technical issues. Neither logging nor borehole packer operations were conducted. Three cores totalling 2.21 m were recovered (42.4% recovery), consisting of basaltic breccia in semi-lithified pelagic carbonate sand. Two whole round core samples were taken from cores 1R and 3R for ephemeral microbiology, geochemistry and contamination testing, with the rest of the material archived for OSP sampling. Initial fast track MSCL core logging indicated low magnetic susceptibility in the core. Niskin water bottles on the rock drill failed to collect samples. A sensor package on the rock drill collected logs of methane, pH, dissolved oxygen, and redox while drilling.

RD2 was deployed at Hole M0068B (proposal site AM-02) and had begun cutting the second core by the end of the day.

3. Core Recovery Details

Hole	M0070
Cores recovered	3
Drilled length (Coring, m)	5.31
Drilled length (Open hole, m)	0
Recovered length (m)	2.21
Recovery (%)	42

4. Weather

Wind variable becoming SE, 6 increasing to 14 knots steady with stronger gusts. Rain showers, sometimes heavy, and overcast. Low seas and low swell increasing by late evening to ~2m. Maximum temperature 22°C. Next 24 hours: Winds due to freshen overnight from the S-SE with the chance of squalls.

5. Planned Activity for the next 24 hours

Continue coring operations at AM-02A (M0068B)

6. Health and Safety and Environmental

N/A

7. Photo of the day



Matt preparing samples. YukiMorono@ECORD_IODP