



## Daily Drilling and Scientific Report for IODP Expedition 325, Great Barrier Reef Environmental Change

4<sup>th</sup> March 2010 (0000 - 2400 local time)

### 1. Location

HYD\_01C Site 9 (M0037A) and HYD\_01C Site 8 (M0038A and M0039A)

Time zone: Brisbane Australia Time, UTC +10

Position at midnight (drill string):

Latitude: 19° 40.29 S

Longitude: 150° 14.69326 E

### 2. Activity summary

The vessel completed coring operations at M0037A and transited to M0038A, where coring operations commenced. Due to drilling issues, this hole was abandoned at 1.5m and the vessel moved 2m before recommencing drilling at M0039A.

### 3. Science report

Core 1R of M0038A was on deck at 15:50 and contained massive *Porites* like *Acropora* sp. (*cuniata/palifera*). Core bit was broken during the drilling so the hole was abandoned.

Approximately 50 cm of massive coral (*Acropora* sp.) was captured in Core 1R of M0039A. Lime pebbles were dominant in section 1 of Core 2R, yet massive coral was collected again in the core catcher. Framestone was seen in Core 3R and massive *Porites/Acropora* corals were recovered. Framestone continued in Core 4R and a thick crust of microbialite was found in the core catcher. Core 5R again saw framestone and coral fragments. A massive Faviid coated by sediments was found in core catcher. Core 6R contained framestone and a massive coral in the core catcher. Core 7R advanced to 10.0 mbsf, and recovered (ca. 50%) reef framework consisting of framestone with thick microbialite and massive coral. Core 8R recovered 93 cm of framework (62%) in which massive corals (mainly Faviid) were recognized.

### 4. Core recovery details

Hole	M0037A	M0038A	M0039A
LAT water depth	122.29m	107.04m	107.04m
Cores recovered	1	1	9
Drilled length	1.5m	1.5m	13m

<b>Recovered length</b>	0.13m	0.18m	5.24m
<b>Recovery</b>	8.67%	12%	40.31%
<b>Depth at midnight</b>	21mbsf (final depth)	1.5mbsf (final depth, hole abandoned)	13mbsf

### 5. Weather

Sea state: slight (3) with swell of <1 m; wind direction predominantly SE force 3 decreasing to 1/2 (<6 knots) by mid afternoon; partly cloudy; 30°C.

Next 24 hrs: Sea state slight with swell of 1.2m; wind direction S/SE 10/15 knots; showers and possible thunderstorms.