



Daily Drilling and Scientific Report for IODP Expedition 313 New Jersey Shallow Shelf

27th June 2009 (0000-2400, local time)

1. Location

Hole MAT-3A (Hole M0029A).

Time zone: US Eastern Time, UTC -4

Position at midnight:

Latitude: 39° 31.1717' N

Longitude: 73° 24.7957' W

2. Activity summary

Coring operations at Hole M0029A (MAT-3A). We have passed 260 mbsf and are continuously coring through the clinoform bodies below m4.

3. Science report

The drilling operations continued throughout the day at a very good pace although recovery was poor. We drilled c. 52 m of sediment with two aims. The first one was to core through the prominent m4 seismic unconformity at the Langhian-Serravalian boundary. The second one was to start continuous coring by 260 mbsf, a few tens of meters above the large progradational stack of the Miocene NJ platform. The first set of cores (36-41R) came back with alternations of interlaminated silt/fine sands and clays with well-sorted fine-grained, silty quartz sands. At 221mbsf (core36R), a layer of poorly-sorted, coarse-grained quartz sands with granules and pebbles is a candidate for the location of the m4 unconformity. The second set of cores (42-46R) shows a nice coarsening up sequence from well-sorted, silty, fine-grained quartz sands to medium-grained and then coarse-grained, pebbly quartz sands overlying a coarse-grained layer which probably marks the top of a similar sequence. We hope improved recovery tomorrow will help us to learn more about this sequence.

4. Core recovery details

Hole	M0029A
Cores recovered	36R-46R (11 runs)
Drilled length	33.55 m
Recovered length	6.97 m
Recovery	20.77 %
Depth at midnight	273.06 mbsf

5. Weather

Sea swell 2-3 ft; NW winds 5 kt; dry and sunny; 25°C. Next 24 hrs: sea swell 2-3 ft; NW winds 5-10 kt (becoming SW); early patchy fog, slight chance of showers with isolated thunderstorms; 26°C.