



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

**1st July 2009 (0000-2400, local time)**

### **1. Location**

Hole MAT-3A (Hole M0029A).

Time zone: US Eastern Time, UTC -4

Position at midnight:

Latitude: 39° 31.1705' N

Longitude: 73° 24.7925' W

### **2. Activity summary**

Coring operations at Hole M0029A (MAT-3A).

### **3. Science report**

The first day of July was a day of excellent drilling and exceptional recovery rates approaching 100%, even though severe thunderstorms, lightning and heavy rain interrupted drilling activities. We drilled ~40m of sediment from core 89R to core 100R (c.395-431 mbsf). The sediment package is quite homogeneous, consisting of dark brownish-grey, bioturbated, micaceous, lignitic and bioclastic clayey silt with some glauconite and opaque heavy minerals. We recognized three particularly diatom-rich horizons, containing pyritized diatoms, in cores 90R (c.398m), 93R (c.407m) and 100R (c.428R). The latter two horizons (93R and 100R) bound a clayey silt package, the base of which has a low bioclastic content and low faunal diversity, passing upward to a high bioclastic content and higher faunal diversity at the top. The upper and lower horizons bounding this package seem to correspond to high amplitude reflections on our reference seismic line Oc270 529.

### **4. Core recovery details**

<b>Hole</b>	M0029A
<b>Cores recovered</b>	89R-100R (12 runs)
<b>Drilled length</b>	36.6 m
<b>Recovered length</b>	34.9 m
<b>Recovery</b>	95.36 %
<b>Depth at midnight</b>	434.71 mbsf

### **5. Weather**

Sea swell 1-3 ft increasing to 5 by mid afternoon; SW winds 5-10 kt (increasing to 25 kt with squalls); fog in the morning with severe thunderstorms and rain by midday; some periods of sun late afternoon; 26°C.

Next 24 hours: sea swell 2-3 ft; E winds 5-10 kt becoming SE in the afternoon; showers and thunderstorms. 26°C.