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

4th 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

"Independence Day" was a day of very good recovery and coring rates. We drilled 39 m of sediment and collected 14 cores (129R to 142R, c.510-547 mbsf). Two cores recovered were significantly shorter than the others: core 134R (0.3m at 526 mbsf) and 135R (1.06m at 529 mbsf). The recovered sediments display an overall coarsening upward sequence of deposits. The base of the sequence shows interlaminated dark-grey to blackish silty, sandy clay with sandy silt (535-547 mbsf, cores 138-142R), passing upward to clayey silts (535-520 mbsf, cores 131-137R) overlain by very fine to fine grained silty sand (507-520 mbsf, cores 128-131R). The mineral accessories are represented by traces of glauconite, lignite and micas. The faunal assemblage, although quite diversified, consisting of shell fragments (bivalves, gastropods…) echinoids and forams, is not very abundant. Forams and shell fragments mostly occur in the upper part of the sequence whereas whole bodied bivalve shells are well preserved in the basal clays. This coarsening upward sequence corresponds to a progradational stack of clinoforms. The two shorter cores correspond to a sandier interval which seems to fit with the top of one of those progradational clinoform bodies.

4. Core recovery details

Hole	M0029A
Cores recovered	129R-142R (14 runs)
Drilled length	39.65 m
Recovered length	38.24m
Recovery	96.44 %

Depth at midnight 550.61 mbsf

5. Weather

Sea swell 3-4 ft; W 10-15 kt ; sun with patchy cloud by late afternoon; 23°C.
Next 24 hours: sea swell 2-4 ft; N winds 5-10 kt becoming E in late morning and S 10-15 kt by late afternoon; chance of showers; 22°C.