

Deepwater Experimental Stratigraphy and Sedimentary Processes: from Bedforms to Fans

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ABSTRACT

This work summarizes experimental results on gravity-flow related bedforms and larger-scale depositional features (fans) that elucidate some fundamental processes and dynamics of deepwater turbidity systems and flows. A new deepwater bedform regime diagram has been developed and used to aid sedimentary structure interpretation, and seismic and core analysis.

Morphodynamic behavior driven by the hydraulics of these flows (fan deposition and architecture, avulsion cycles, channel evolution and extension) observed and measured in the laboratory has been linked to outcrop observations, and used to aid EODs interpretations.