Fundamentals of Core Description

Audience

Any geologist, geophysicist or engineer seeking increased ability to recognize surfaces, trace fossils and facies in core.

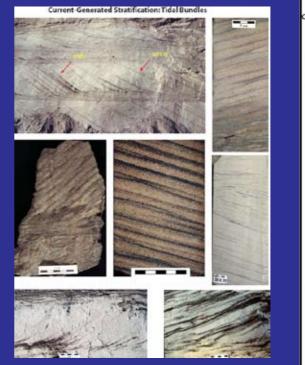
This course is fundamental to all aspects of exploration and production.

Content

Assembled largely by George Pemberton, the 100+ page manual covers the basics of:

Value of Core
Core capture and preparation
Core logging tools
Core descriptioin tools, forms, symbols
Grain size, sorting and lithology
Sedimentary structures, origin and photos
Surfaces: Glossifungites, sequence boundaries,
flooding surfaces
Ichnology atlas and utility in high resolution
sequence stratigraphy









Tempestites contain a characteristic trace fossil suite that consists of a stable fair-weather assemblage and an unstable storm assemblage. The fair-weather (or resident) assemblage is dominated by traces of equilibrium (or K-selected) species while the storm (or pioneer) assemblage is dominated by traces of opportunistic (or reselected) species. Tempestites show the following physical and ichnological characteristics(a) a sharp base, with or without a basal lag; (b) parallel to subparallel laminations

; (c) common escape structures; (d) dwelling burrows of opportunistic organisms; and (e) gradational burrowed tops. Proximal / distal trends are generally discerned by changes in the character of the fair-weather suite. The integration of ichnological characteristics with the physical sedimentary features is particularly important in

Hummocky Cross Stratification (HCS)



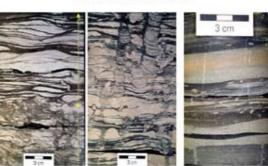


HCS consists of low angle, undulatory parallel lamination with both concave and convex orientations.



In the shallow marine realm, HCS commonly passes into: waning energy oscillation ripples and/or combined flow ripples.

Lithological Composition



Bioturbated interval that has mixed sand/shale composition Wavy - lenticular interval that is approx 40-60% sandstone

Lower shoreface interval with alternating thin HCS and siltstone/mu