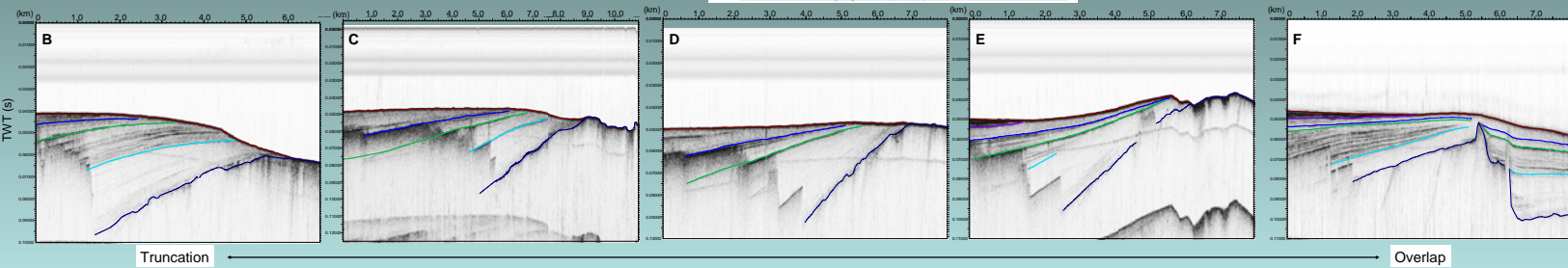
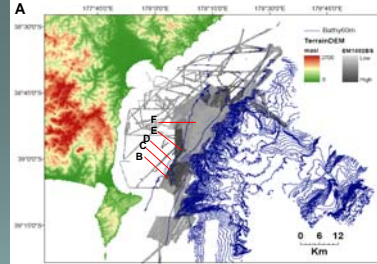


## IV. Reflector Terminations and Relative Uplift

- South-to-north transect of dip lines (Fig.IV.A-F) shows reflector termination patterns of syntectonic strata along the inboard margin of the Lachlan structure.
- Observed variation suggests N-S gradient in accumulation vs. uplift.



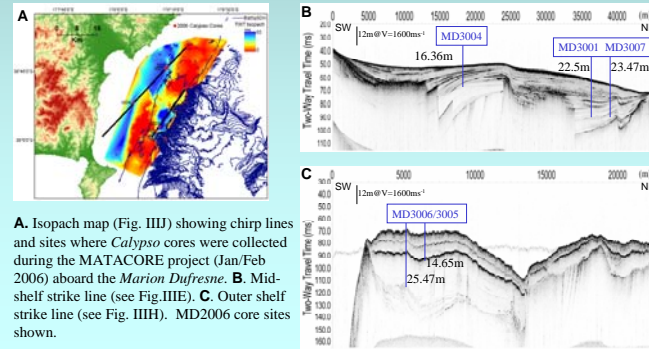
## V. Preliminary core-seismic comparison

### i. Integrating *Calypso* piston cores with Chirp subbottom geophysical data

- 5 cores recovered Jan/Feb 2006 aboard the *Marion Dufresne*
- MST physical properties collected on whole core sections
- Discrete tephra lenses observed and sampled in split core sections

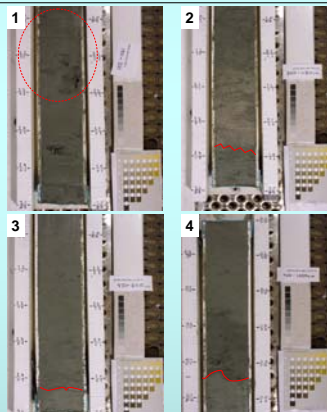
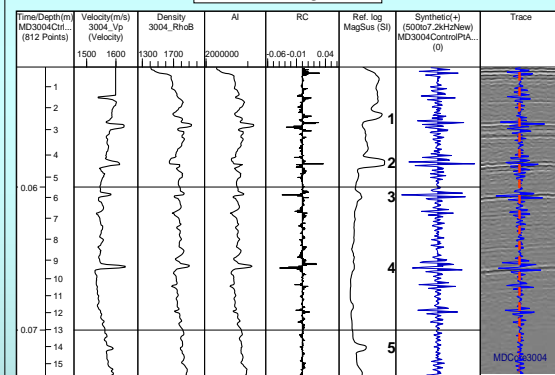
### ii. Ongoing work

- Tie identified tephras with established ages to seismic reflectors
- Examine evolution of Holocene shelf-basin fill using chronostratigraphic surfaces



A. Isopach map (Fig. III) showing chirp lines and sites where *Calypso* cores were collected during the MATACORE project (Jan/Feb 2006) aboard the *Marion Dufresne*. B. Mid-shelf strike line (see Fig.III.E). C. Outer shelf strike line (see Fig. III.H). MD2006 core sites shown.

### MD 3004 Log Panel



- (1) Possibly a reworked, microscopic tephra (unsampled)
- (2) Macroscopic airfall tephra bed (sampled)
- (3) 'Event bed' (unsampled)
- (4) Possible microscopic tephra (unsampled)
- (5) Dispersed tephra lense (unsampled)

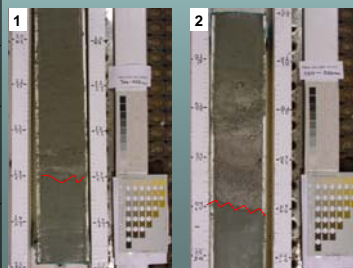
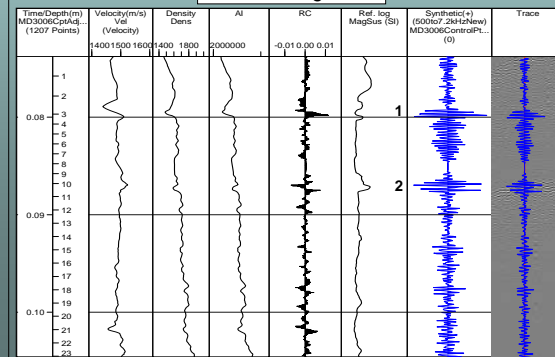
### Procedure

-RC series computed from cleaned MST logs convolved with autocorrelation of *EdgeTech* digital pilot signal (.5-7.2kHz, 30ms sweep)

-Control points from matched events used to rescale time-depth chart

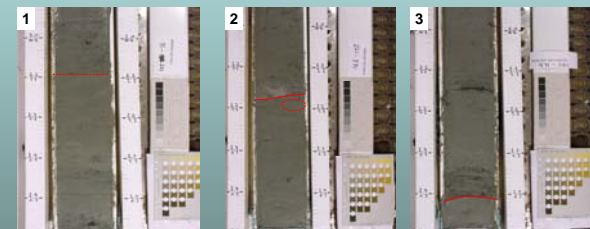
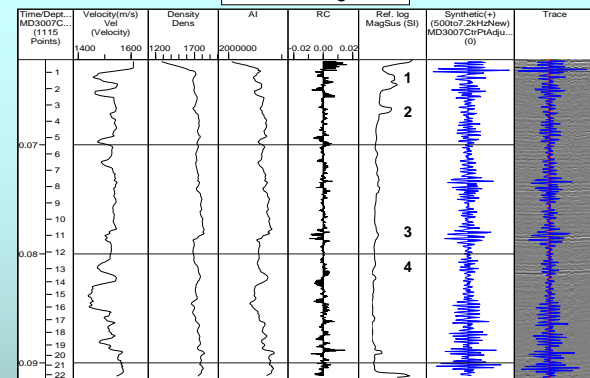
-All cores require 'stretch', suggesting core compression and/or elevated  $V_p$  measurements from MST.

### MD 3006 Log Panel



- (1) Partially reworked macroscopic tephra bed in MD3005 (sampled in MD3005)
- (2) Normally graded airfall macroscopic tephra bed in MD3005 (sampled in MD3005)

### MD 3007 Log Panel



- (1) Possibly a reworked, microscopic tephra bed (unsampled)
- (2) Reworked, macroscopic tephra bed (sampled)
- (3) 'Event' bed or reworked microscopic tephra? (unsampled)
- (4) 'Event' bed or reworked microscopic tephra? (unsampled)

Pull Apart