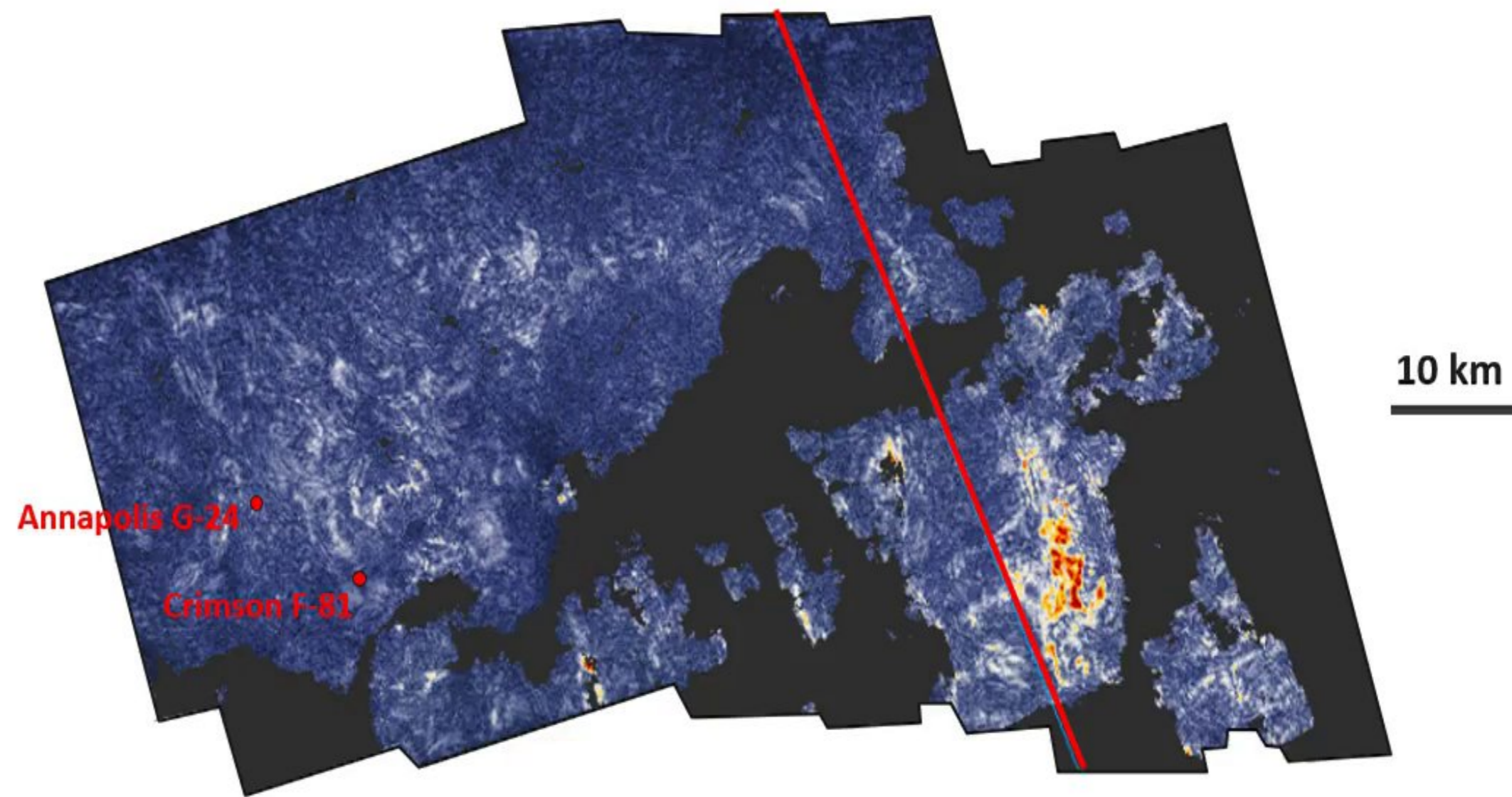
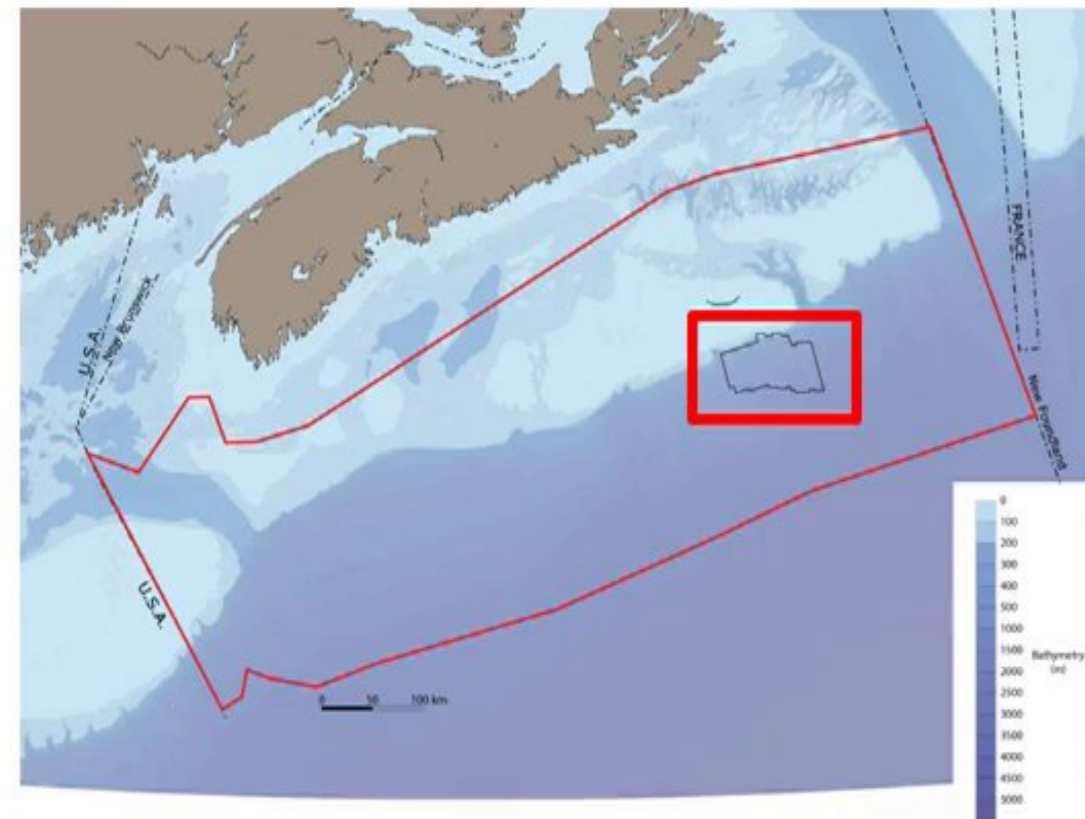
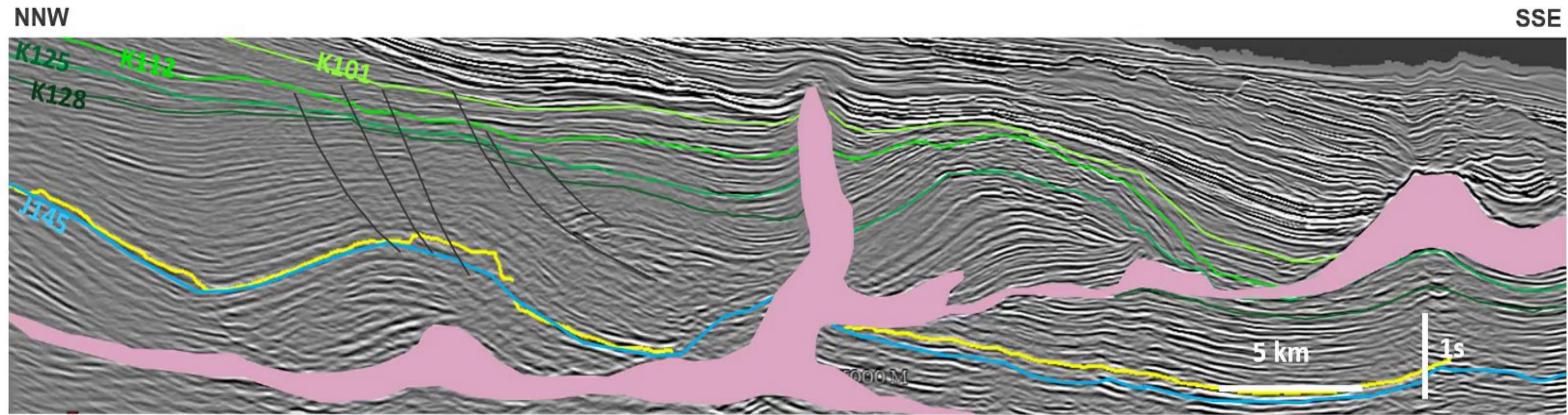


**APPENDIX 3  
GEOLOGY AND GEOPHYSICAL ANALYSIS**

Kilometers

0 100 200



NS24-M005-001E

Figure 1: 3D semi-automated extraction of seismic horizon within the Marathon 3D survey. The investigated region is located beneath the present day slope ahead of the Sable island shelf. This animated view allows to navigate stratigraphically within the lower Cretaceous depositional profile. It highlights (1) some upper slope turbiditic channel systems connected to the shelf edge, (2) depositional turbiditic channels and lobes associated with minibasins that were formed by the salt movements (some of those basins are inverted by subsequent salt turtle-back processes), and (3) some unconfined channel systems and basinal sedimentary objects located below the salt canopies and deposited prior to the main phase of halokinesis.

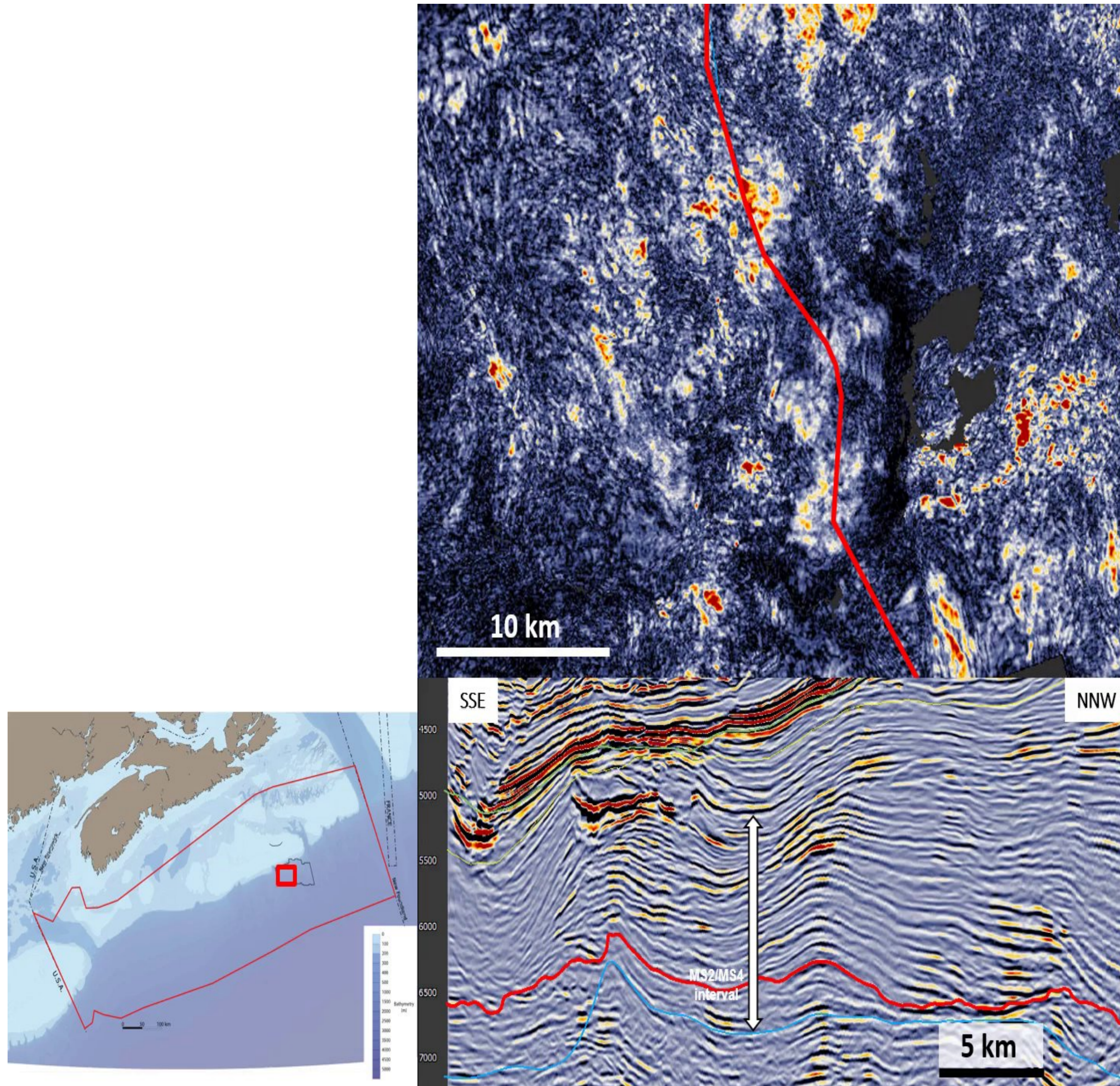


Figure 2: This animated view is a closeup within the Marathon 3D seismic survey. It reveals the stacked depositional turbiditic channels and lobes deposited during lower Cretaceous within minibasins that were formed during the successive phases of salt halokinesis. Those minibasins were inverted afterwards by salt turtleback movement.

# 3D seismic geomorphology

Scotian Basin Integration Atlas 2023 - CANADA - June 2023

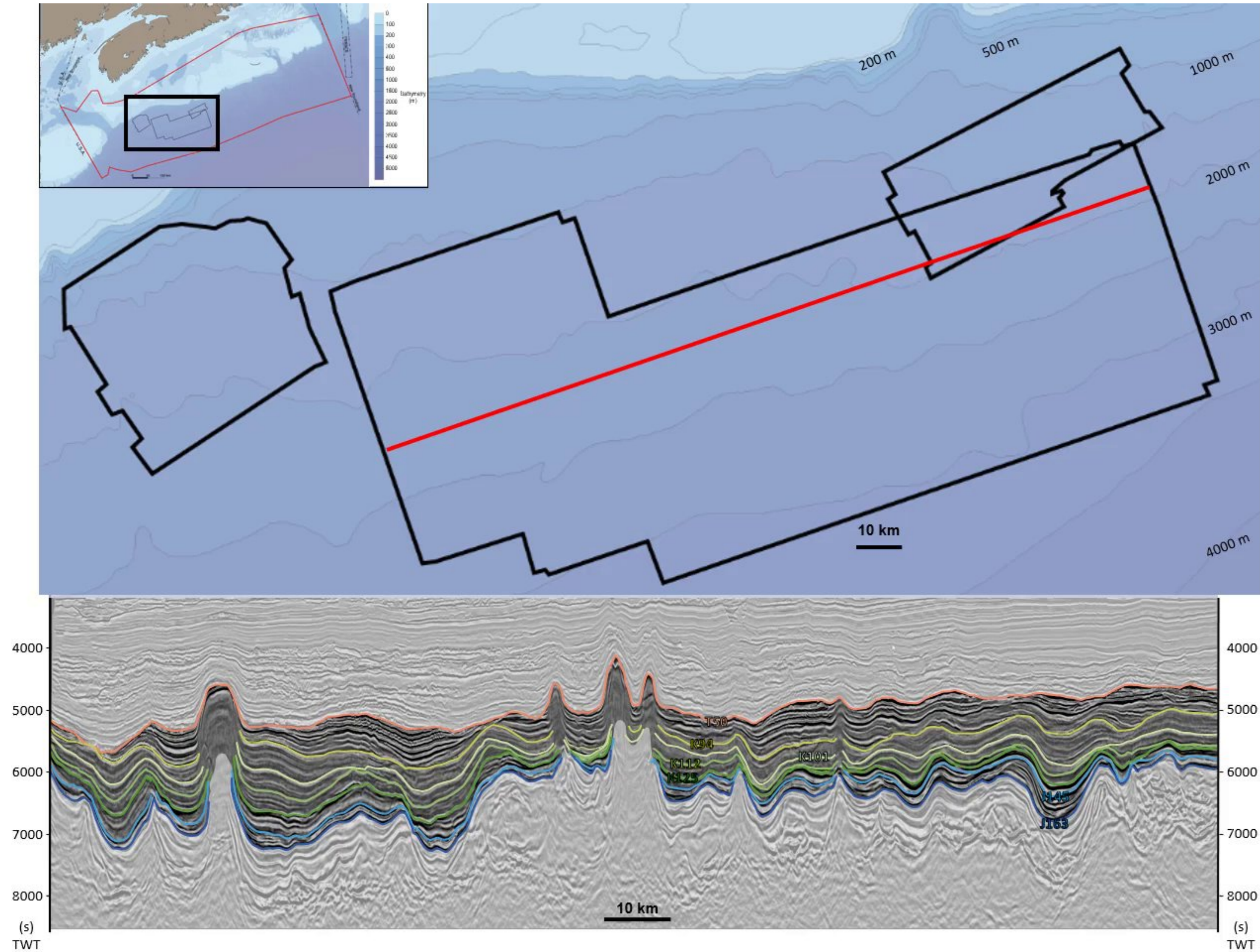


Figure 3: Animated view displaying a regional vision and stratigraphic evolution of the Western central slope of the Scotian margin, from the upper Jurassic to the lower Cenozoic, and including the Shelburne, Torbrook and Barrington 3D seismic surveys. It reveals the successive depositional systems and associated geobodies, including turbiditic channel systems deviated by salt diapirs, and prominent drift structures capped by sediments waves. Such animation reveals the strong interplay between downslope oriented turbiditic currents and alongslope contour currents during the whole Cretaceous and the lower Cenozoic.