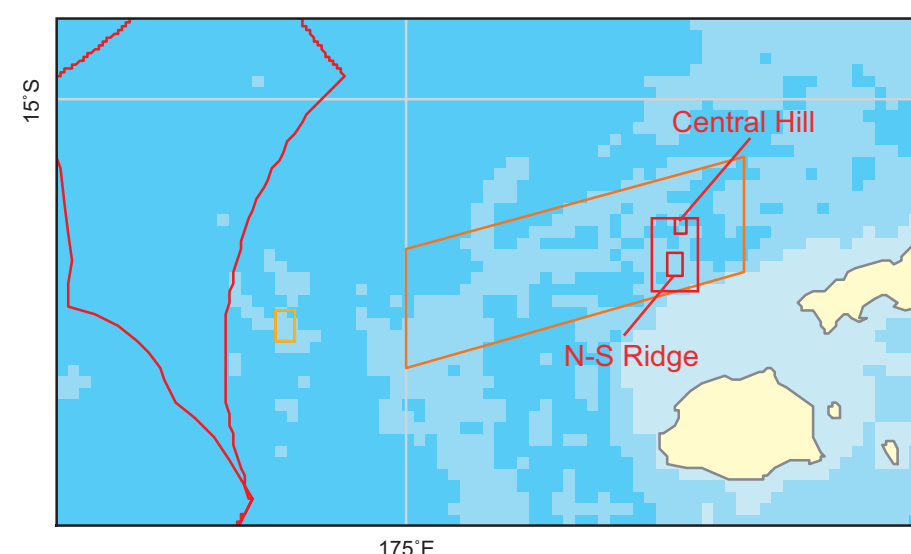




Republic of the Fiji Islands

Hydrothermal Deposits (1999,2001,2004)

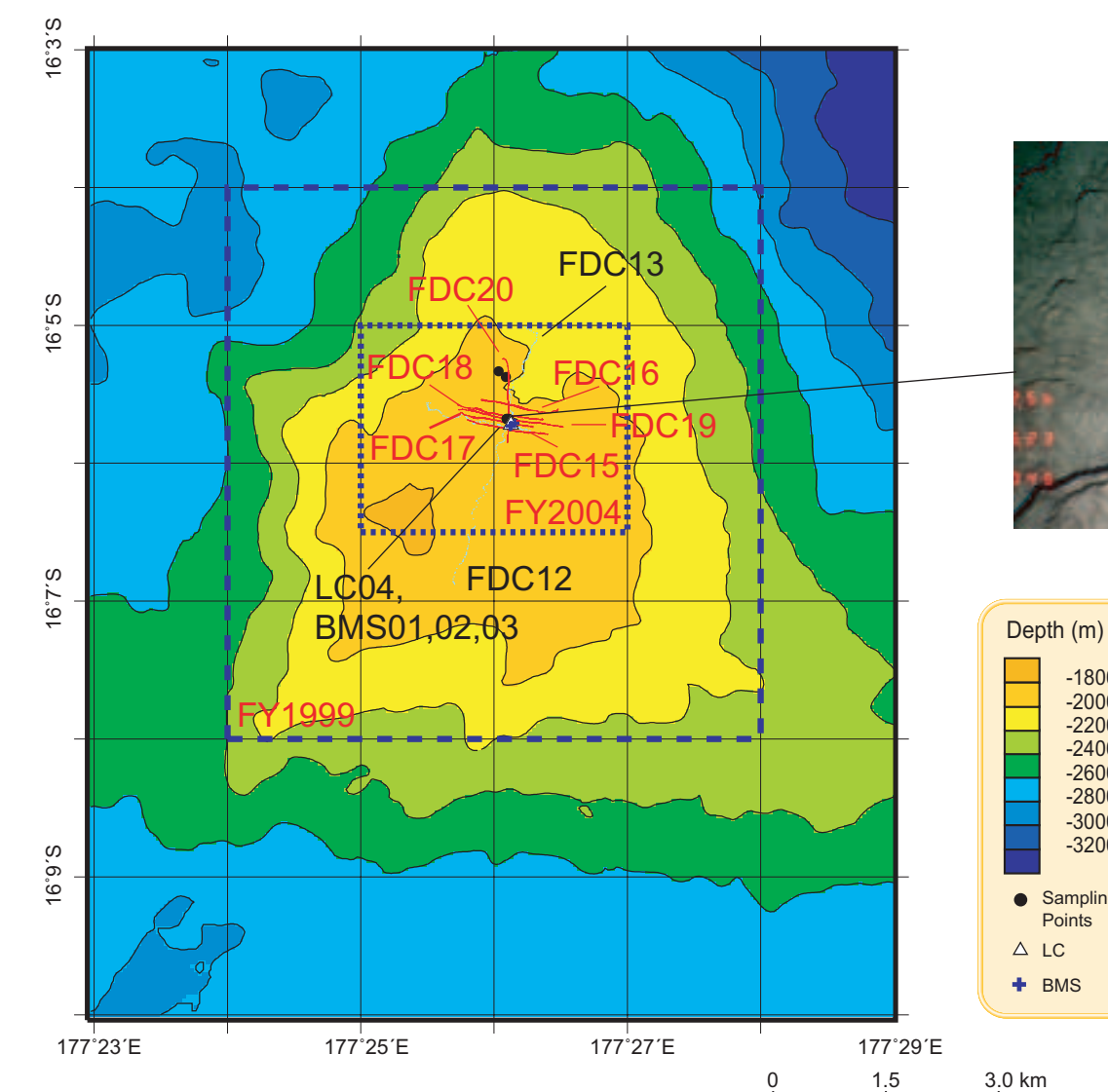
Central Hill, N-S Ridge



Survey Area (Area 2)

The survey of the Central Hill resulted in finding the still active hydrothermal zone, consisting of bluish green and yellow discolored zone accompanied by organisms characterizing hydrothermal activity, distributed over the top of solid intrusive complex of ultramafic and mafic rocks. The active hydrothermal zone, north-south extension of 180m and 30m wide, occurs on west facing slope of north declining ridge. The thin coatings of ferro-oxides, possibly characterizing hydrothermal activity, were observed on the surface of rock samples, however, mounds and chimneys formed by sulfide mineralization were not found. Since temperature anomaly of seawater and distribution of hydrothermal activity related shell fragments were observed in the area surrounding the active hydrothermal zone, the zone of hydrothermal activity, in the past, might have been distributed in much wider area centering the ridge.

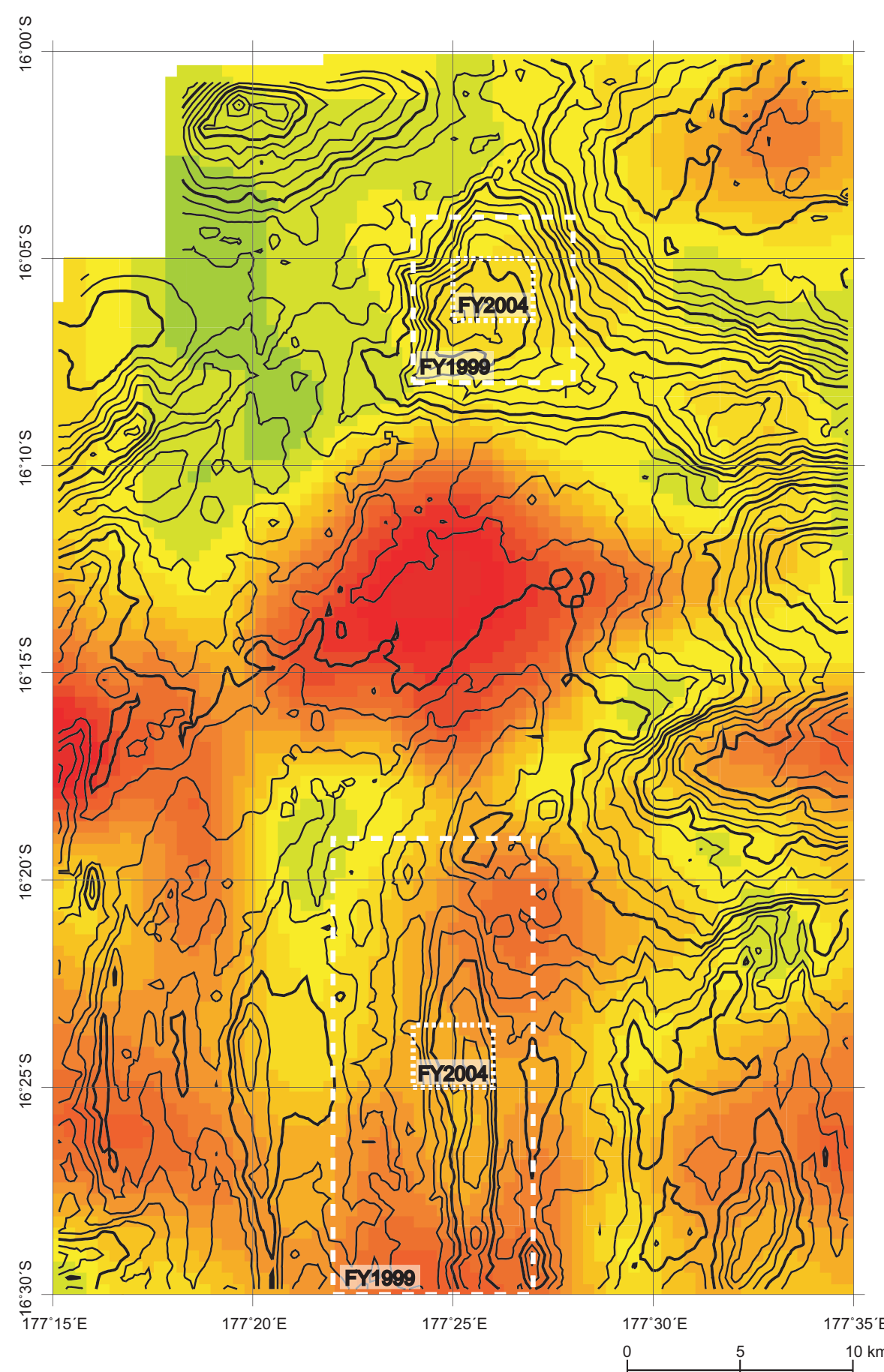
The ERZ A, characterized by ridges and graben topography, is overlain by basaltic lavas erupted along the north-south trending extensional relay zone of the North Fiji Fracture Zone. Although yellow and light brown discolored zone with north-south extension of approximately 250m was identified overlapped by temperature anomaly of seawater along the boundary of steep slope and flat terrace.



Bathymetry (Central Hill)



FDC19



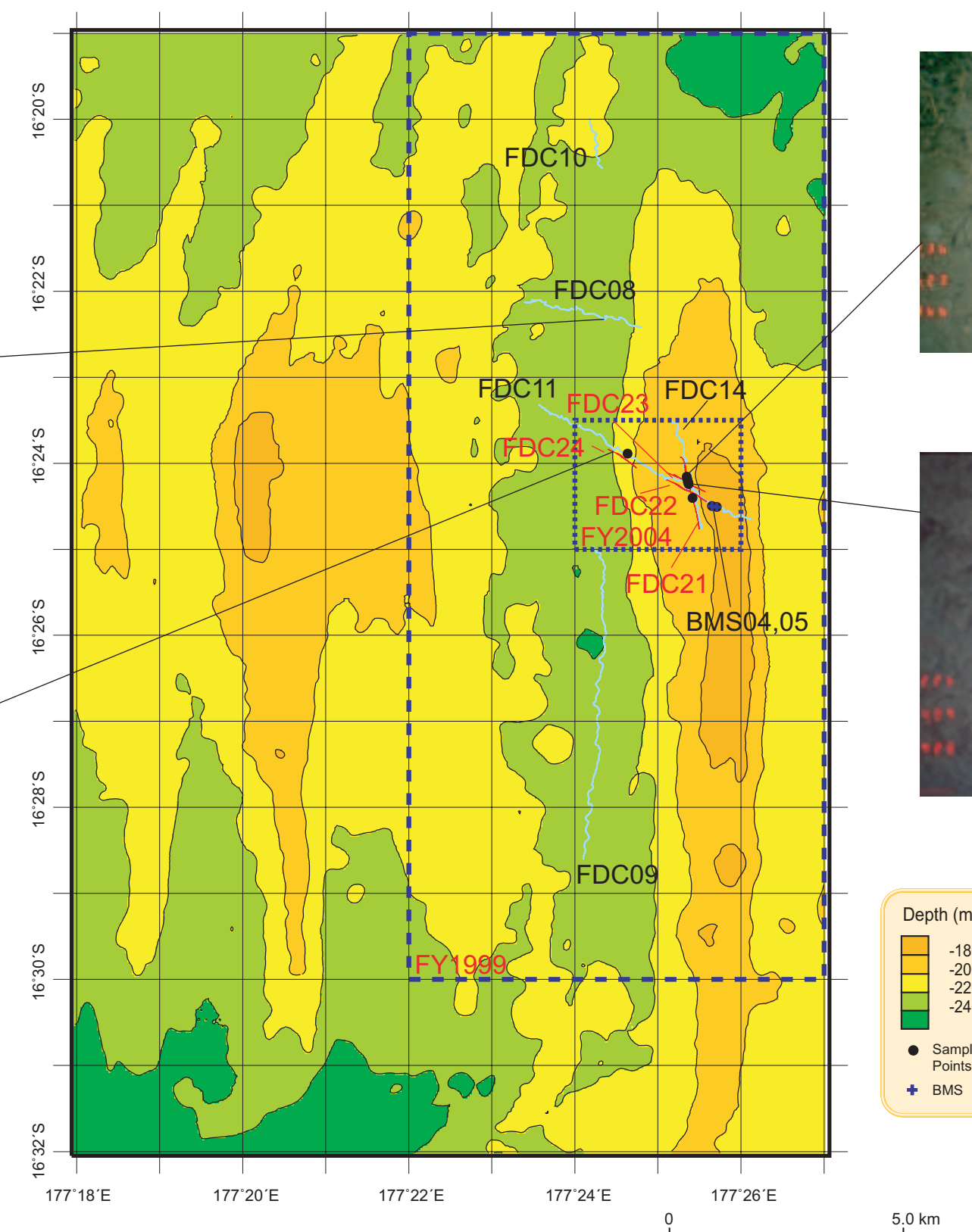
Bathymetry and Magnetic Structure of the Survey Area



FDC08 FP131



FDC11 FP156



Bathymetry (N-S Ridge)



FDC21



FDC11 FP261