Abstracts of Additional SOPAC Cruise Session Papers

Tectonic Framework of Melanesian Borderland

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R. Holmes CCOP/SOPAC Technical Secretariat Mineral Resources Department Suva, Fiji We report on the initial results of a cruise to determine the tectonic framework, origin, and hence, resource potential, of the northern margin of the North Fiji basin. The cruise, coordinated by CCOP/SOPAC and manned by scientist from Australia, New Zealand, and the United States (ANZUS), was completed by the end of April 1982. The central issue is whether the Melanesian borderland is simply a remnant island arc or whether Samoan or Tuvalu Island chain volcanism was responsible, in part, for the formation of this region. During the 20-day cruise, stretching from Pago Pago, Samoa, to the western end of the Vitiaz trench, dredge stations, piston and free-fall cores, and underway geophysical data were collected. In addition, we performed a reconnaissance of proposed spreading centers in North Fiji basin.