Geological Map of the Mangatolu Triple Junction 2019



Scale 1:200 000

LABEL

UNIT NAME AND DESCRIPTION

BACKARC VOLCANOES

A cone-shaped, mound-shaped, steep-sided, or elongate volcanic edifice composed mostly of lava flows extruded onto backarc crust or onto an axial volcanic ridge

Volcanic field

A broad area of lava flows and volcaniclastic material surrounding a number of closely-spaced volcanoes

BACKARC RIFTS AND SPREADING CENTERS

Axial backarc volcanic ridge (uBar)

Volcanic ridge marking the active spreading center, commonly with discrete volcanic edifices (cones and domes), dike complexes, or calderas

Axial volcanic ridge

Elongate volcanic edifice along the spreading axis

Inner rift rise

Region of magmatic inflation along a spreading center or single arm of a triple junction

Central volcanic rise

Region of magmatic inflation at the center of a triple junction

Axial backarc crust (uBac)

Undivided backarc crust in the axial or inner rift valley of an active spreading center

Axial rift valley Backarc crust along the spreading axis

Inner rift valley

Backarc crust in the inner rift valley bounded by active, inwarddipping faults

Middle

Proximal volcanic or tectonic ridge

Elongate volcanic edifice or coalesced ridges in the outer rift valley or on the flank, adjacent to an active spreading center or axial volcanic ridge

Proximal backarc crust

Undivided backarc crust in the outer rift valley, adjacent to an active spreading center or axial volcanic ridge (may include products of off-axis volcanism)

Backarc rift flank

Undivided backarc crust on the flank of the outer rift valley, including volcanic ridges, volcaniclastic material, and flows (may include products of off-axis volcanism)

Lower

Distal volcanic ridge

Elongate volcanic edifice or coalesced ridges on distal backarc crust (may include products of off-axis volcanism or earlier seafloor spreading from a distant ridge; commonly obscured by volcaniclastic cover)

Distal backarc crust

Undivided backarc crust beyond the outer rift valley and flank of an active spreading center (may include products of off-axis volcanism)

RELICT BACKARC

Upper

Upper relict backarc crust

Undivided backarc crust outside an identifiable area of active spreading (may be a product of intraplate volcanism, rifting of earlier backarc crust, or an unknown spreading center). Unit shown in 1:1 million map of the Lau Basin but not in Mangatolu Triple Junction map sheet



Tectonized relict backarc crust

Intensely deformed backarc crust outside an identifiable area of active spreading

Lower

Lower relict backarc crust

Earliest exposed extrusive and intrusive rocks in the backarc and outside an identifiable area of active spreading

SYMBOLS

Spreading center

