

Structure of the Dunamagon Granite, Baie Verte Peninsula, Newfoundland

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The Dunamagon Granite is a Silurian pluton situated 15 km east of the Baie Verte Line, northwest Newfoundland. The Baie Verte Line is a narrow structural zone that separates continental margin rocks of the Humber Zone and the accreted volcanic arc rocks of the Dunnage Zone. The Dunamagon Granite also separates rocks of the Humber and Dunnage zones (Ming's Bight Group and Pacquet Harbour Group, respectively). The juxtaposition of these groups raises some questions: What is the relationship of the Dunamagon Granite to the surrounding rocks? Is the Dunamagon Granite a stitching pluton or is it a thrust sheet?

Field work in the summer of 1992 involved mapping structures within the Dunamagon Granite and its contacts. Its

southern contact, with the Pacquet Harbour Group, is intrusive but the northern contact, with the Ming's Bight Group, is structurally more complex. The granite is sheared near the contact, and is cut by the Big Brook Shear Zone. Evidence suggests that the contact of the Dunamagon Granite with the Ming's Bight Group is tectonic. Structures within the pluton include a shallowly dipping early foliation, a steeply dipping later foliation, and lineations that plunge obliquely down-dip. Cross-cutting features include deformed aplite dykes, mafic dykes with internal fabrics, several generations of quartz veins, and shear zones. The data indicate that the Dunamagon Granite has been thrust over the Ming's Bight Group.