to characterize the geometries and size distribution of the "blobs", and their relationships to each other.

From the major-element composition of the rock types, relevant physical properties of the magmas such as density, viscosity, and liquidus-solidus temperatures were calculated using the software K-Ware Magma. The physical properties were needed to work out the dynamics of magma interaction.

Petrology and geochemistry have classified the host as granite, and the blobs as quartz-rich diorite to tonalite. The contact between the two rock types appears sharp in the outcrop but in thin sections it is more of a gradual boundary, with crystals of both rocks included in one another. Both the host and the blobs have undergone later alteration, shown by the alteration of biotite to chlorite, and the deposition of carbonate in some veinlets.

Magma mingling in the Avalonian Holyrood Granite, Newfoundland

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The purpose of this study is to examine the geometry and possible chemical interaction where intermediate magma intruded into felsic magma in the Holyrood Intrusive suite. The mapped outcrop is located in Holyrood, Newfoundland, at the end of Duff's Road, which is off the Conception Bay Highway (Route 60). The outcrop is approximately 30 m in length and 10 m wide. The host rock contains varying sizes of "blobs" of the intruded rock. Analytical techniques involved small-scale digital mapping of the outcrop, petrological examination and rock descriptions, and geochemical data analysis.

Mapping was performed by taking pictures over a grid laid out on the outcrop and then using a DGPS to assign each picture a coordinate. The coordinates were entered into Arc GIS where the map was assembled. The map is used

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