

merging irregularly into micropegmatite, forms a zone in the uppermost part of the sill, while a fourth zone of rock intermediate in composition between the granite and gabbro and, on the respective sides, transitional into those rocks, occurs between the thick basic zone and the much thinner granite zone."

(2) "The sedimentary formation cut by the sill comprises a very thick series of ancient sandstones highly quartzose but generally containing alkaline and soda-lime feldspars and always carrying mica."

(3) "At the time of intrusion the quartzitic strata lay flat."

(4) "At both contacts of the sill, the igneous rock contains foreign blocks shattered off from the quartzites. These blocks often show evidence of magmatic corrosion."

(5) "The field-relations and the chemical and optical study of sill-rocks and quartzites suggest that the material of the granite-micropegmatite zone is of derived origin. Most of that material resulted from the solvent action of the gabbro magma on the quartzite blocks and on the main sill-contacts. Some of the constituent elements of the granite may have been taken from the gabbro, which, on account of its superior and great volume, shows no appreciable modification by such loss."

(6) "The asymmetry of the intrusive body is believed to be owing to the stratification of the sill by the action of gravitative adjustment. The product of assimilation whether at the lower main contact or about quartzite blocks immersed in the gabbro, possessed less density than the gabbro magma, rose through that magma and collected at the top of the sill. The intermediate rock represents a zone of incomplete differentiation."

(7) "The assimilation and concomitant differentiation are exhibited in other sills of the region, but, on account of the relatively small thickness and consequently smaller share of heat energy possessed by those sills, the action did not develop true granite."

(8) "Following the solidification of these sills, they were faulted and tilted to their present position in the fault-blocks of the Purcell Mountain range."

(9) "More or less perfect parallels to the Moyie sill have been described by various workers in Minnesota and Ontario. In all