

notes as the White-fish Bay dyke, was analyzed with the following results :

White-fish Bay dyke.

	I	II	III	IV
SiO ₂	47.50		48.08	52.47
Fe ₂ O ₃ +FeO	7.40		9.07	6.31
Al ₂ O ₃	22.44		23.67	25.54
CaO	10.21		10.99	6.62
Mg O	3.71		3.92	2.31
K ₂ O	1.29		.49	.54
Na ₂ O	1.62		1.92	3.23
P ₂ O ₅	.34		1.11	1.16
Loss on lg	2.85		.83	1.28
	97.36		100.08	99.46
Sp. g.	2.927	3.081	3.030	2.870

I near contact with dyke wall.

II six feet from contact.

III thirty feet from contact.

IV sixty feet from contact (middle of dyke).

In this dyke the gradation in texture is as pronounced as in the Stop Island dyke but the differentiation of structure is not so marked. In I the ground mass has the character of a fine-grained ophitic diabase and the porphyritic constituents present no great contrast in size to those of later generation which have crystallized around them; and in IV the ophitic structure is not entirely replaced by the granular. This dyke is noteworthy for the abundance of hypersthene which is present near the dyke walls. This hypersthene is a porphyritic constituent, and has well defined crystallographic form. It has not been observed in specimens from other portions of the dyke and its occurrence recalls the similar occurrence of enstatite in the Jack-fish Lake dyke and in the Rat-root Bay dyke which has been noted in a former paper. There is as in the Stop Island dyke a regular increase in the proportion of quartz in passing from the dyke walls to the middle and in the latter part of the dyke the augite is entirely replaced by hornblende. The analyses of this dyke rock and of the Stop Island dyke rock show throughout an unusually high percentage of alumina.

A dyke sixty-five feet wide cutting biotite gneiss with a northwest strike on the north shore of Shoe Bay, Rainy Lake,