

1000 magnetic intensity

Samples 5201 - 5206, Tasmania.

The report was prepared from observations on the thin and polished sections of rocks which were submitted by Mr R.G. Wright.

The breccias were possibly formed by flow drag along the chilled contact zones of shallow intrusive porphyritic olivine basalts, with country rock. This postulation is based upon the abundance of devitrified vitric basalt (or tachylite) within the breccias.

The magnetic susceptibilities in the three porphyritic basalt samples is due to the presence of slightly martitised titanomagnetite amongst the principal accessory ilmenite.

The basalts are highly unsaturated; but of low potash content since they contain no mica. There is therefore, no affinity with kimberlite.

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5201 Flow-structured olivine basalt.

The basalt has a simple composition; and it is a very undersaturated species. The principal components are roughly parallel-oriented labradorite; and olivine, which exists as small phenocrysts, and as finer interstitial material amongst the plagioclase.

Pyroxenes are not present. About 7% evenly dispersed ilmenite, several % titano-magnetite, and traces of fine pyrite are complexed with the fine grained interstitial olivine. The titanomagnetite induces the magnetic susceptibility.