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Petrographic description of a specimen from Cambridge

by G. B. Everard

The following description is of a specimen collected by geologist D. Leaman on the road from Cambridge to Richmond, about two miles north of Cambridge.

From the mineralogy and the place where the specimen was taken near the contact with the Triassic System it is possible that this rock was formed by the hybridization of dolerite magma with siliceous sediments.

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The hand specimen is a greyish, mesocratic, medium-grained rock, consisting of feldspar laths up to 3 mm long, irregular yellowish weathered prisms of ferromagnesium mineral, black micaceous haematite and feldspathic matrix.

In thin section the texture is granophyric with about half the specimen consisting of granophyric intergrowth, mainly of anorthoclase and quartz while the larger crystals consist of labradorite. Quartz occurs as acicular growths in radiating masses, and interstitial material.

Pyroxene in long prismatic crystals has been altered to a yellowish-brown biotite, associated with skeletal masses of iron ore mineral. There are also a few irregular masses of yellowish-brown serpentinous material with cores of dark brown iddingsite, possibly derived from olivine.

Sphene occurs very sparsely.

The rock is a granophyre.

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