

REPORT CMS 80/2/22Notes:

In view of the generally similar nature of many of these rocks, brief descriptions were prepared in tabulated form. These summarise data from stereobinocular and petrological microscopic examination and results of K-staining tests on related outcrops.

As usual, igneous rocks are named on the basis of relict compositional and textural features, with particular emphasis on the phenocrystal phases and the groundmass/matrix. Those rocks with tentative classification are indicated by inverted commas. As is typical of the Mount Read Volcanics, contrasts between the various intermediate (as against rhyolitic) phases are rather subtle and perhaps undue weight is put upon the phenocrystal Na-Ca feldspar and its alteration pattern, which is often the only guide to primary composition.

The bulk of the volcanics can be interpreted as lavas. Several rocks have a pseudo-fragmental appearance in hand specimen, reflecting shearing and/or primary cognate xenolithic features. Trachyandesites are relatively abundant and may represent a local variation on the trachytic-quartz trachytic facies comprising the bulk of recent suites. These trends appear to be subregional within the Mount Read complex. Dacites predominate in some areas, but rhyolites (in the broad sense) appear strictly subordinate.

Specimen 29661 was not examined in polished section as only minor traces of pyrite were detected in the thin-section. Stereobinocular examination of the concordant fluorite veins indicates sparse ultrafine chalcopyrite films on cleavages and microfractures in fluorite.

^{29 660}
In 29960, the sulphide assemblage (in approximate order of abundance) comprises an- to subhedral pyrite (to 75 μ), galena (max. 60 μ , mean 15-20 μ), sphalerite (sim. galena) and chalcopyrite, with very rare associated blöbs (to 25 μ) of tetrahedrite. The bulk occurs as discrete to loosely clustered particles included in marginal zones of the fluorite aggregates. Chalcopyrite and, to a lesser extent, pyrite are partly mobilised into discontinuous films, a few microns in width, penetrating cleavage traces and microfractures in the fluorite. The paragenesis is low-temperature hydrothermal, but pre-tectonic fluorite is accompanied by minor traces of secondary muscovite and phlogopite.

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