

REPORT CMS 80/3/21

Petrological DescriptionsT 29668

(T.S. 31156) K-stain positive.

This is an extensively sericitised and mildly sheared rhyolitic fragmental, considered as a vitric-crystal tuff, although the former presence of shards is more inferred than established over much of the area sectioned.

Crystals, crystal fragments and clusters (fragmented glomerophenocrysts) comprise up to 50 % of the rock, are poorly sorted in the 100 μ - 5 mm range, show a weakly banded distribution and are largely alkali feldspar (inverted exsolved sanidine-anorthoclase, subordinate albite) with subordinate quartz. These features are accompanied by sparse rhyolitic lithic clasts (to 2.5 mm, microporphyrific lava, rare fragmental types) in a pervasively sericite-stained, microcrystalline, quartzofeldspathic matrix with patchy, very vague, relict microshard textures. There is evidence of a contorted and weakly fragmented flow fabric. These features are enhanced by the weak slaty cleavage, but are reminiscent of an autobrecciated, ignimbritic mode of origin.

Chlorite and cloudy carbonate are minor accessory alteration phases. Rare, very fine-grained clots of pre-tectonic pyrite are present. Much of the sericite is a pale green illite-hydromuscovite.

T 29667

(T.S. 31157) K-stain positive.

Despite its fragmental appearance in hand specimen, this rock can only be classified as a porphyritic rhyolite. The fragmental aspect reflects an early phase of veining and is enhanced by shearing.

Relict features comprise frequent coarse, variably resorbed and embayed quartz phenocrysts (to 4 mm) and accessory alkali (K-) feldspar phenocrysts in a devitrified felsic groundmass with minor accessory apatite (typical Mount Read Volcanic-type apatite, clouded with ultrafine inclusions). The groundmass exhibits a sheared perlitic structure and has been silicified. The abundant, relatively coarse and evenly disseminated phenocrysts indicate a probable minor intrusive origin.

Feldspar phenocrysts are extensively sericitised and chloritised. Perlitic cracks are outlined by sheared films of chlorite and sericitic hydromuscovite. Frequent discontinuous sheared veinlets of quartz, Mg-chlorite (or locally pale green phlogopite and sericite) include disseminated epidote and pyrite.

W 28 214
139 m

Sterling Valley
Long John Ck.

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