

REPORT CMS 80/5/46Notes:

Some discrepancies are evident between the sample numbers listed on the submission sheet and the samples received. This relates particularly to the rock samples (hand specimens). Samples were described in the order shown on the submission sheet.

Three broad groupings are evident:

Group 1 comprises the drill cores and can be categorised as variably veined and mineralised intermediate to acid volcanics with a minor tuffaceous sediment component. There are analogies with the Mount Read Volcanics, but the more significant alteration is of (mesothermal) hydrothermal character, typically as veins.

Relationships are somewhat confused by a late (post-vein) phase of deformation but, generally, veins postdate typical low-grade (greenschist) fabrics. This is consistent with a (?Devonian) "granitic" vein assemblage and this tends to be confirmed by mineralogical similarities with, for example, the Zeehan, Renison and Cleveland situations. Cassiterite is present (similarly stannite), but appears to be of restricted occurrence.

Group 2 comprises the Colebrook Hill specimens (35232, 35238) which are contact-metamorphosed/metasomatised labile, turbiditic sediments. These rocks could be correlated with the tuffaceous greywackes of the Crimson Creek Formation. Alteration can be compared with the pervasive contact-metasomatic (as distinct from vein-) effects at Renison and Cleveland.

Group 3 comprises the hand specimens and, with a few minor exceptions, is representative of a monotonous sequence of porphyritic andesites and trachyandesites. Variations are both minor and rather subtle in this sequence which is of distinctly intermediate character.

These rocks are porphyritic in plagioclase (albitised, with conspicuous epidote, evidently originally quite calcic, probably andesine-labradorite), subordinate ferromagnesian silicates (largely pyroxene, but at least minor amphibole), and may include (trachyandesites) alkali feldspar either as altered phenocrysts or in the microcrystalline groundmass. Primary microtextures are partly obliterated by low-grade regional metamorphic fabrics, but it is clear that many of these rocks had glassy groundmasses. Several show relict perlitic structures and deformational effects may give these a mesoscopic fragmental appearance.