

that already described. The main feature of the magnetite is its generally extremely fine grain size and pervasive distribution through the other constituents. Traces of bismuthinite ($< 20\mu$) and molybdenite ($20 \times 40\mu - 5 \times 100\mu$ flakes) were seen, in non-opaque phases. A possible wolframite-scheelite intergrowth was also noted.

To summarise, these rocks are generally fine-grained and finely-banded, with coarser veins and greisen patches.

M5, M6 These two samples, whilst closely similar to M3 and M4, have a slightly different fabric. They are on the whole coarser-grained (though still rather fine) and less markedly banded. Intricately-folded fine banding is quite subordinate.

Compositionally the rocks are microcrystalline intergrowths of magnetite, fluorite, green biotite (altered to chlorite in places), plagioclase and sporadic garnet, diopside, ferrohastingsite and ?stilpnomelane (with epidote).

There are comparatively coarsely-crystalline veins and patches of muscovite-fluorite-quartz-oligoclase. Some of these contain scheelite, as irregular grains up to 750μ across though generally finer. Bands and lenses of matted pale phlogopite and pale-green biotite occur, studded with abundant brown pleochroic haloes surrounding minute ?brannerite grains.

Cassiterite is very sporadic and scarce, as scattered grains up to 50μ in size in fluorite and green biotite(-chlorite). The greisen phase described in M4 is apparently absent though possibly represented by the muscovite-bearing veins.

In polished section it was seen that the distribution and form of the magnetite is more uniform and granular. Individual crystals range from 2μ to 200μ , often forming aggregates and semi-continuous masses. Chalcopyrite was detected, as irregular patches up to 100μ across. Pyrite is conspicuous in places and up to 1mm across (poikiloblastic crystals). Marcasite forms fine dendritic growths, and bismuthinite occurs as small, rounded grains seldom exceeding 50μ in size. Sphalerite is abundant in places, intergrown with magnetite and forming grains $< 50\mu$, to semi-continuous patches. Simple intergrowths of cassiterite/magnetite were also observed, in which the cassiterite is up to 50μ in size.

Summary of Economic Minerals

1. Fluorite

The bulk of the fluorite is very fine, individual grains seldom