

**SAMPLE NUMBER: 431483**

**SUMMARY:**

This is a strongly silica-sericite-altered aphyric felsic lava with disseminated pyrite.

**HAND SPECIMEN:**

This is a dark grey-green weakly foliated felsic(?) lava or lava breccia with disseminated pyrite and streaks of black chlorite.

**THIN SECTION:**

This rock is very strongly sericite-quartz altered, to the extent that the original texture is almost obliterated. It was almost certainly an almost aphyric, slightly vesicular glassy lava. A few sericitized sites with slightly stretched euhedral crystal shapes were probably former sericitized plagioclase phenocrysts. No mafic phenocrysts were present, although small former FeTi oxide now altered to leucoxenitic material and sericite are not uncommon.

The originally glassy slightly vesicular groundmass of this sample has altered to a weakly foliated sericite-quartz matrix in which small rounded to ovoid vesicles are filled by polycrystalline quartz, and abundant small anhedral polycrystalline quartz blebs are distributed in irregular fashion. The matrix material is unusual in that it is intensely riddled with tiny Fe oxide (?) grains related to alteration of the original glass. Patches of former quartz-albite mosaic textured groundmass derived from devitrified glass are still evident, but are intensely pervaded by sericite; the latter forms an orientated mesh throughout the sample. Several angular fractures subparallel to the foliation are filled by pale green chlorite and overprinting calcite, with which occasional euhedral pyrite grains to around 1mm across are associated. Disseminated pyrite grains with quartz-sericite pressure fringes are fairly uncommon throughout the sample.

The question of whether this sample was andesitic or dacitic cannot be answered from thin section alone. It is far too recrystallized and altered. I would have guessed that it was a dacitic lava, but aphyric slightly vesicular, originally glassy andesites are not uncommon beneath the Hellyer basalts in this area (Mines Dept hole and Placer holes). These are far fresher than the MC26 material, thus more easily recognizable as dacites or andesites.