

**SAMPLE NUMBER: 431566**

**SUMMARY:**

This is a polymict felsic lava breccia or coarse-grained lithic tuff that has suffered weak silica-sericite-pyrite alteration, more strongly in the formerly ashy matrix than the lava fragments.

**HAND SPECIMEN:**

This is a pale grey strongly altered and recrystallized felsic polymict lava breccia with fragments to at least 1cm long; it contains a very small amount of disseminated pyrite.

**THIN SECTION:**

This sample retains clearly in thin section the fragmental nature of the rock. Various fragments are all formerly glassy felsic lava, some aphyric, and some sparsely feldspar+quartz-phyric. The groundmass of all samples has recrystallized to varying degrees with variable textures from devitrified glass. Some fragments have quite clear mosaic-textured intergrowths of quartz and minor albite, overprinted by abundant sericite alteration, whereas others are exceptionally fine-grained quartz-sericite intergrowths hosting abundant small ragged patches of recrystallized secondary quartz. Former plagioclase phenocrysts are small and totally sericitized, and quartz phenocrysts are rather well-formed (not rounded and reacted as in many of the felsic rocks described herein), but also less than 0.8mm long.

The matrix between the lava fragments is a devitrified and probably silicified formerly highly glassy ash that contains occasional quartz and feldspar (sericitized) crystal fragments. It is less sericitized than the lava fragments and contains quite common well-formed small pyrite euhedra that are absent in the lava fragments. In a few places, this matrix is strongly sheared and fibre quartz with well-crystallized sericite and abundant tiny pyrite cubes have crystallized from the matrix.

This was clearly a felsic polymict lava breccia or coarse-grained lithic tuff. It has suffered weak silica-sericite-pyrite alteration that most strongly affected the ashy matrix.