

0403

SAMPLE NUMBER: 431482

SUMMARY:

This is a rhyolitic lava breccia that has suffered quite strong sericite-silica alteration, with the introduction of minor disseminated pyrite.

HAND SPECIMEN:

This is a pale grey sericite-altered monomict felsic lava breccia with darker chloritic matrix between fragments and disseminated pyrite.

THIN SECTION:

This sample is actually quite well-preserved texturally, despite rather pervasive very fine-grained sericite alteration. It was clearly a glassy, sparsely plagioclase + quartz-phyric rhyolitic lava breccia. Former plagioclase phenocrysts are small (<1mm long) and make up only a few modal% of the sample, and are totally replaced by sericite. Quartz phenocrysts are much less common still than plagioclase phenocrysts and are mainly less than 0.5mm long and quite strongly resorbed and rounded. FeTi oxide microphenocrysts are replaced by dirty brown leucoxenitic material.

The groundmass of this sample was undoubtedly glassy and devitrified before it recrystallized to a uniform-textured fine-grained quartz-sericite intergrowth in which the sericite mainly forms a fine oriented mesh through the rock. Disseminated clusters of small (<0.5mm across) pyrite euhedra make up about 1-2 modal% of the sample and often have quartz-coarse-grained sericite pressure fringes. A few narrow quartz-sericite-calcite veinlets subparallel to the weak foliation defined by the sericite mesh contain relatively abundant small pyrite euhedra.