SAMPLE: 562804.

SUMMARY: This rock was probably a polymict fine-grained lava breccia derived from evolved plagioclase-phyric andesitic glassy lavas,

HAND SPECIMEN:

This rock is a dark green andesitic lapilli volcaniclastic composed of feldspar-phyric and chloritic lithic clasts, mainly less than a few mm long.

THIN SECTION DESCRIPTION:

It is obvious in thin section that this rock is either a lapilli volcaniclastic or fine-grained polymict lava breccia. Dominant clasts or fragments are highly vesicular to non-vesicular quite strongly plagioclase-phyric andesites that had glassy to vitrophyric groundmasses. Many fragments are highly angular. One such fragment is almost 1cm long. Although a variety of clast types are evident, most notably varying in the extent of vesiculation, it is not so evident that these fragments need be from separate lava flows. All have partially sericitized elongate tabular plagioclase phenocrysts to 2mm long maximum, that commonly occur in glomeroclots, and very fine-grained formerly glass-dominated groundmasses. Chloritized mafic phenocrysts are not common, but present in many fragments. In some fragments, groundmass has been replaced by chlorite, and shows a weak foliation.

Between fragments, the matrix is a relatively coarse-grained polycrystalline quartz plus minor albite intergrowth. It is most unlike similar intergrowths replacing glass, and seems to be more a replacement, or void filling. Vesicles are filled by coarse-grained polycrystalline clear quartz sometimes intergrown with minor chlorite.

This rock was probably a polymict fine-grained lava breccia derived almost entirely from evolved andesitic glassy lava flows. If it suffered any reworking, it had the effect of eliminating any matrix, so that matrix voids between packed angular lava fragments (and vesicles) were subsequently filled by silica.