

DESCRIPTION OF SAMPLES FROM LS8, SÆLINA AREA, TASMANIA

Sample: S 419; TSC34420

Location:

LS 184N 620 m east

Hand Specimen:

A moderately fine-grained grey and dull pink rock with a brecciated or fragmental structure due mainly to patchy variations in colour. The weathered surface has been bleached almost white.

Staining with cobaltinitrite shows abundant potash feldspar distributed in a rather patchy manner throughout the rock.

Thin Section:

A visual estimate of the minerals is as follows:

	%
Potash feldspar	35-40
Chlorite	25-30
Quartz	20-25
Sericite	10-15
Opaque oxide and leucoxene	trace
Apatite	trace
Zircon	minute trace

This is an acid volcanic rock which has been extensively fractured and there are also a few small planes along which it has probably been sheared and along which there are now concentrations of sericite and possibly some granulated material.

The composition of the rock is similar in most of the zones or clasts and it contains grains and/or small phenocrysts and also angular chips of quartz, most of which are less than 0.5 mm in size but there are a few larger quartz phenocrysts up to 0.7 mm in size. There are also a few grains and/or of phenocrysts of potash feldspar 0.1 mm to about 1 mm in size and most of these show very little evidence of crystal shape. In one area there is some evidence of a larger phenocryst of potash feldspar almost 2 mm long but this is very turbid and partly altered. Practically all of the quartz and feldspar grains and phenocrysts show some evidence of deformation in the form of undulose or strain extinction between crossed nicols, some have been fractured and the fragments displaced and a few of the larger quartz phenocrysts have partly recrystallized. These phenocrysts and fragments are scattered through a turbid, very fine-grained matrix now composed mainly of potash feldspar, lesser quartz and chlorite and it contains scattered, tiny grains of opaque oxide and leucoxene.

As noted in the hand specimen, the rock has a fragmental structure and some of this is probably an indication of a pyroclastic origin as there are places where there is a difference in grain size between two adjacent clasts suggesting that this is in fact a pyroclastic. The fragmental appearance is not all due to brecciation but undoubtedly this has also occurred. Because of the additional brecciation it is difficult to give any reliable estimate of the size of fragments in the original pyroclastic but some of them were possibly a few millimetres in size. Accessory minerals in the volcanic rock include a few grains and aggregates of apatite and one or