

0550

**SAMPLE NUMBER: 562453**

**SUMMARY:**

This is a strongly chlorite-altered weakly plagioclase-phyric dacite lava (spot-on, Rod).

**HAND SPECIMEN:**

This sample is a dark green chlorite-altered weakly plagioclase-phyric dacite lava.

**THIN SECTION:**

This rock was originally a sparsely plagioclase-phyric glassy dacitic lava. The groundmass has altered to a heterogeneous quartz-chlorite-albite mixture subsequent to devitrification. The rock contains around 1-2 modal% of small albite phenocrysts which occur in multi-crystal clots less than 2mm across, or as occasional poorly-formed single crystals often notably reacted and rounded. They are partially replaced by calcite and sericite, but are mainly fairly fresh. No definite former mafic silicate phenocrysts have been observed, but leucoxenized FeTi oxide microphenocrysts are not uncommon.

The groundmass of this sample was undoubtedly glassy, and even though the texture of the groundmass now is exceptionally heterogeneous, I think that the sample was a massive or weakly hydraulically fractured lava rather than a lava breccia. The groundmass varies in both grain size of the intergrown secondary quartz and albite crystallized from devitrified glass, and in the amount and concentration of chlorite in various domains of the altered groundmass. Chloritic regions appear to define diffuse channels and large angular 'intersections' of channels that probably represent primary cracks in the fractured surface of the cooling dacite lava flow or lava dome. In places the chloritic alteration is so intense that the virtually pure chlorite domains are evident. Weak calcite and sericite alteration is spread diffusely throughout the rock.

This dacite is certainly more chlorite altered than standard regionally metamorphosed Mount Read Volcanics dacites, and except for the lack of perlitic cracking, this sample is essentially identical to chloritized dacites such as 431310 from 170m higher in the hole.