PETROGRAPHIC DESCRIPTION

Rock name: Rotokawa Andesite

Well name/Depth: RK21/1876 mRF

Petrographic description of hand-specimen

Colour: Greyish green

Texture: Porphyritic

Grain size (fine < 1 mm, medium 1-5 mm, coarse > 5 mm): Medium

Petrographic description of thin-section

Phenocrysts present and their shape, size and signs of alterations:

1) Plagioclase: Tabular (0.6/2.4 mm) with irregular patches of calcite, chlorite and epidote. Most phenocrysts have a weathered appearance while some are completely altered.

2) Augite: Ferromagnesian minerals are altered to mainly chlorite. Pseudomorphs are rectangular to prismatic (0.5 mm) with a brownish rim - smectite?

3) Hypersthene:

4) Opaques: Cubic (0.1/0.2 mm) crystals of titanomagnetite plus dark irregular crystals (0.1/1 mm) which may be leucoxene.

5) Others:

Groundmass: Aphanitic, intersertal groundmass with strong selective replacement of alteration minerals.

Alteration minerals: Albite, calcite, chlorite, epidote, leucoxene, quartz.

Alteration textures: Selective replacement of matrix and phenocrysts. Vugs with layered infill of chlorite rosettes, calcite and quartz.

Alteration intensity: Subtle – Weak, Moderate – Strong, Intense –