PETROGRAPHY OF THREE SAMPLES FROM TAROOK-1

Sample 9060-70': TS C8391:

Location:
Tarook-1.

Rock Name:
Alkali olivine basalt.

Hand Specimen:
Cuttings from the core. The colours are grey, greenish black to brown-black. The fragment size is ≤4 m. Several rock types are present.

Thin Section:
Several varieties of igneous rock, all related, are present. Grains are present which contain:

(a) fresh plagioclase, fresh olivine, opaques
(b) titanaugite, fresh plagioclase, partly altered olivine, opaques, green amphibole (alteration product), brown biotite and apatite
(c) altered titanaugite, altered felsic material of uncertain composition, now replaced by calcite and fibrous ?tremolite; opaques
(d) olivine, titanaugite, ?glass (colourless, isotropic) serpentine and green mica
(e) titanaugite rimmed by brown amphibole with altered felsic groundmass, perovskite or sphene
(f) calcite, green/brown phyllosilicates
(g) serpentine after olivine, titanaugite, brown amphibole, brown biotite, highly turbid altered "feldspar" with carbonate, apatite, opaques
(h) calcite, feldspar, amphibole needles

Some gradation takes place between these types of rock. The maximum grain size of the ferromagnesian minerals is just over 1 m; that of the feldspar has once been greater .