

There is an uncertain amount of folding of the rocks in the mine area. At only one point in the underground openings has a fold been mapped in the past (no mapping has been carried out underground by Comalco). At this point the sandstone - calc-silicate rock contact is an open anticlinal fold about 100 m across plunging about 50° to the west. On the Cradle Mountain road there is irregular "drag" folding adjacent to the Bismuth Creek Fault - a similar fold pattern of both E-W plunging folds and "drag" folds with axes parallel to the Bismuth Creek fault possibly persists through the whole mine area.

c) Dolcoath Granite

This granite occurs at a depth of about 200 m in diamond drill holes ML 1 and ML 2. It is extremely greisenized at the top, becoming less greisenized with depth. Where it is only partly greisenized it has a granitic texture with grain size about 4-5mm, and now consists of 60% quartz, 20% mica (mainly phlogopite), orthoclase which is extensively sericitized and kaolinized, and oligoclase which is also highly altered. It has accessory fluorite, topaz and magnetite (Webb, 1974). A study of the greisen-granite relations from core samples is now being undertaken by Dr. T. Kwak at Latrobe University.

Unaltered granite outcropping in the Forth River Valley, 4 km east of the mine, has an average composition of potash feldspar 40%, quartz 35%, plagioclase 20% and biotite 5% (Gee, 1966). The granite contains accessory fluorite and zircon (Jennings, 1963). An analysis of the Dolcoath granite is shown on Table 1.

d) Moina Sandstone

The Moina Sandstone is a well bedded sequence of pale coloured quartz sandstones and quartz siltstones with rare pebbly beds and rare shale. At the top of the sequence finer silty beds predominate over sandy beds.

In many places, particularly close to the granite, it has been indurated and partially recrystallised to a dense off white quartzite. A network of fine microfractures and veinlets of fine grained dark minerals (presumably biotite + chlorite + sericite + magnetite) occurs throughout, but is particularly dense at the top of the sequence. Coarser grained greisen veinlets consisting of quartz, pale micas, fluorite, traces of cassiterite, wolframite, bismuthinite, pyrite occur scattered throughout. The top 10 m of the sequence, below calc-silicate rocks, contains scattered veinlets up to 1 cm wide of pink and white feldspar (adularia