

stratabound or strata-controlled. **This is a very important concept to accept, because it forms the very basis of resource lens definition.**

If grades were controlled by alteration, and alteration was discordant to overall stratigraphy, then resource estimation would be exceedingly difficult.

The following descriptions of alteration styles are based on the writer's visual observations of drill cores during logging.

5.3.1 Recrystallisation and Dolomitisation:

White and light gray primary magnesite appears to have been extensively fractured or brecciated, accompanied by the development of clear-gray interstitial crystalline magnesite, resulting in an overall mottled texture to the core. Where the crystalline magnesite is light coloured, MgO grades are generally very high and CaO grades are low. Where the crystalline magnesite is gray, the CaO grades tend to be higher (typically 3-5%).

Development of crystalline magnesite can also be accompanied by dolomitisation of the primary magnesite. In such instances only relict blocks or lumps of magnesite remain within a matrix of mixed gray dolomite and crystalline magnesite.

No gross spatial patterns of crystallisation and dolomitisation have been recognised to date.

5.3.2 Silicification:

Silicification in the form of small seggregations and irregular patches of smokey gray quartz is widespread but appears to be more concentrated towards the top of the Carbonate Sequence. In some areas of intense silicification, finer grained silica also accompanies crystalline magnesite and dolomitisation (see top section of MC 53).

5.3.3 De-silicification:

Some magnesite units, often towards the footwall of the Carbonate Sequence, have a very soft chalky porous texture and are completely devoid of silica (<0.05% SiO₂). It is thought this is a result of removal of fine primary silica from the magnesite. Such magnesite units are high in MgO but 3-4% CaO.