

MINERALOGICAL AND GEOLOGICAL SERVICES

806102

47 MANUKA ROAD, PANTON HILL, VIC. 3759

TEL. 478-3122 X 2649
A.H. 719-7479

..2..

Outside magnetite, in chlorite, it often forms large (to 20m μ) grained aggregates of crystals. Some fine grained cassiterite also occurs. The coarse grained cassiterite often contains a dark core zone and an outer, pale rim. Late limonite-carbonate veins have cut all the assemblage. The amount of fluorite is much less than sample MD32-69.4m.

Conclusion

1. At least 95% of the tin values occur as cassiterite.
2. This cassiterite occurs as a primary precipitate included in magnetite (not as ex solution lamellae) and as crystals having different form (and thus, recrystallized) in chlorite.
3. Much of the latter type is very fine grained but in sample MD32-38.2m large (to 20m μ) grains are common. As such, they are of extractable size.
4. No amphibole alteration was observed so that Sn could not form in silicate structures (the Sn content of probed chlorite and magnetite was <0.02 weight percent).
5. Recrystallized fluorite also formed with chlorite. Sample MD32-38.2m is relatively low in fluorite while MD32-46.9 is very enriched. Whether there is a relation between cassiterite grain size and fine grained micaceous alterations and/or fluorite contents is possible but not determinable from only two samples.