

in the Blue Tier Tin Field has been recognised for over eighty years. The early miners recognised a "tin granite" which either hosted primary tin deposits or was spatially related to secondary detrital cassiterite deposits. Vein style tin lodes occurring in an older barren granite were considered to be genetically related to the intrusion of the "tin granite".

In the period 1968-1974 a regional study of the Blue Tier Batholith established the structure and petrological, geochemical characteristics of the major granitic groups which constitute the Batholith (Groves 1977). In the Anchor area the major constituents recognised in that study were the Poimena Pluton and the Lottah Sheets. Alteration and mineralisation were confined to a flat lying, undulating part of the upper contact of a muscovite-biotite granite (Lottah Sheet) with an older adamellite of the Poimena Pluton. (Groves and Taylor 1973).

Subsequent 1:50,000 mapping by the Geological Survey has led to amendments of Groves' nomenclature and additional subdivision of the Poimena and Lottah Plutons. (McClenaghan et al, in press). In the vicinity of the Anchor mine, 1:5000 mapping and soil geochemical surveys have also indicated fundamental differences in the granites previously interpreted as Lottah Sheets (Ross 1979). Apart from the Poimena Adamellite, the writer distinguished a distinctly stanniferous granite and another barren granite — phases (iii) and (iv).

The "Anchor Granite" hosts the alteration and mineralisation at the Anchor Mine and weathers to highly stanniferous soils. The other barren granite was not recognised as a separate unit lithology in the Anchor Mine area at that time. (Ross 1979).

Subsequent petrological investigations of the stanniferous Anchor Granite and the barren granite