

Crimson Creek greywackes and the interbedded shales and pyroclastics of the Dundas Group has highly anomalous zinc values in stream sediment samples (anomalies H1 and H2). This contact may be the northern continuation of the Owen Shear.

West of the Owen Shear, in the Pieman and the Renison areas, rocks with similar lithologies to those in the Burns Peak and Que synclines have a depositional environment suitable for stratiform massive sulphide deposits, but there is no obvious source for the cations. The source for the cations in these rocks could be either the same source as the Rosebery and Hercules deposits, or a deep seated lineament could have tapped a different source to produce Mt. Isa style mineralisation.

The massive volcanics south and east of the Burns Peak Syncline are given low priority, since the absence of obvious sedimentary horizons indicates that any sulphide deposits will probably be relatively small and similar in size to the Que River deposit.

#### 4.2. Hydrothermal Deposits

The target for exploration is a tin deposit of the order of 10 million tonnes grading 1% Sn. To meet this target the following parameters are most favourable:

- a) A granite source
- b) A conduit for tin bearing solutions
- c) A host rock which can be replaced

In a previous section it was stated that the tin rich Devonian granites form an arcuate pattern parallel to the margin of the Tyennan Geanticline. There is strong evidence that these granites underly a large part of the western and northern licence areas (see TAS/2/1693).

There is extensive faulting at both the Renison and Cleveland Mines, and it has been shown conclusively at Renison that the Bassett-Federal Fault acted as a conduit for the tin bearing solutions. Published ore reserves of Renison Limited give 5.15 million tonnes grading 0.94% Sn in the Bassett-Federal Lode, and a similar size deposit is possible on one or more of the faults in Renison East or Pieman.