

SUMMARY AND CONCLUSIONS

A comprehensive rotary drilling program, in the Launceston Tertiary Basin, comprising 122 holes, has failed to discover significant radioactivity, the maximum encountered being four times background.

Fluviatile deposition has provided substantial sand-silt and even conglomeratic facies over large areal extent, which, having a reducing environment and abundant carbonaceous material present, might have provided suitable hosts for deposition of sedimentary uranium. In addition these favourable units are often constrained vertically by impermeable clay units and laterally by facies changes.

The only significant zone of apparently ferruginised material that lies beneath the present surface oxidation limit is located at the north areas of R and S sections. It is present over considerable vertical extent, and includes ferruginous sands and clays. Some low order anomalous radioactivity is present in this zone towards the north of section R, but does not appear to show typical roll front characteristics.

The sediments of the basin are generally poorly compacted and have been laid down during the early to middle part of the Tertiary. The source rocks, for the most part, have not been metamorphosed. Permian and Triassic sedimentary rocks and Jurassic dolerite occupy about 90% of the land surface of the present drainage basin. The Ben Lomond Granite has been buried by Tertiary sedimentation, as have basal Permian beds.

The role of another possible source, Cambrian metasediments and metavolcanics, is unknown. However, minor anomalous radioactivity detected in the basin near Cressy may have been derived from a nearby (albeit small) area of these rocks.

Evidence of pyroclastic activity in the basin area is absent. The only form of effusive rock is an olivine rich basalt which occurs over two large areas. This probably emanated from fissure flows associated with renewed tensional activity late in the Tertiary.