

Prior to Comalco obtaining the lease the Moina area had been investigated by BHP and the Mt. Lyell Mining and Railway Co. Ltd. These companies conducted regional aeromagnetic and stream sediment geochemical surveys over the whole area. The Mt. Lyell Mining and Railway Co. Ltd. drilled three diamond drill holes at the Shepherd and Murphy Mine area and two in the Devonian area.

Comalco undertook the most intensive search. Most attention was focused on the Shepherd and Murphy mine where 26 diamond drill holes were drilled. Other main areas of interest were the Tin Spur/Devonian prospects with four diamond drill holes and the Mt. Jacob area with two diamond drill holes completed. Various regional stream sediment geochemical surveys were done with only a few of the resultant anomalies being followed up.

Two main target areas had been defined at the time of SCOA's entry into the Joint Venture. The main wiggilite/pyrrhotite/sphalerite skarns at the Shepherd and Murphy Mine Area and a possible low grade tin-gold zone in the Tin Spur area.

A comprehensive reference to previous reports and investigations is included as Appendix 1.

4.0 REGIONAL GEOLOGY

On the Sheffield and Middlesex sheet areas all the units from Pre-Cambrian to Devonian age change their geological trends from N-S in the west, to E-W and NW in the east. The licence is located over the E-W, NW trending areas. Superimposed on this is a strong north-west structural trend.

In the south of the licence PreCambrian rocks of the Tyennan Nucleus are exposed. These are unconformably overlain to the north by Cambrian volcanics and sediments, which are also overlain unconformably by the Ordovician sequence of the Roland Conglomerate, Moina Sandstone and Gordon Limestone. The Devonian Dolcoath and Dove Granites intrude all these units. Overlying these units with considerable unconformity are Tertiary basalts and some Jurassic Dolerites. (Refer plan D/MZ 01/148).