

spacings and a 100 m detector clearance. Several promising anomalies were detected and these have now been investigated.

At Tin Spur a possible low grade tin-gold occurrence had been outlined by Comalco. Numerous other small gold shows are present throughout the licence, and some of these areas may have similar potential to the Tin Spur/Devonian area.

The Cambrian volcanics at Black Bluff are known to host volcanogenic Pb/Zn mineralization. The Black Bluff/Smiths Plains area and various other windows of Cambrian rocks require further investigation to determine their potential.

The areas of Gordon Limestone may be prospective for Irish style Pb, Zn deposits. Numerous small Pb, Zn, Ag vein-type deposits occur and significant Zn mineralization is present at the Shepherd and Murphy prospect. Major north-south and north-west structures through the area have been active since at least the beginning of the Ordovician and these may have controlled the upward flow of metal bearing fluids.

Regional and local stream sediment sampling has been carried out. Samples have been analysed for tin/tungsten as well as for copper/lead/zinc style mineralization. Comalco carried out two main regional surveys over the area; one using -20# stream sediments and a second more localized survey using -80# stream sediments. Other localized surveys were also carried out. Several anomalies detected during these surveys have not yet been investigated.

6.0 SHEPHERD & MURPHY AREA

6.1 General

An area of approximately 8 sq km around the old Shepherd and Murphy workings was gridded by Comalco. Soil geochemistry, ground magnetics and IP/MIP surveys and diamond drilling were carried out over the area. This work indicated a resource of 26×10^6 tonnes at 18% CaF_2 , 0.1% Sn and 0.1% W. (P.W. Askins 1978 and 1979).