

010

hypersphere-bearing co-magmatic intrusive and extrusive rocks of the St. Mary's porphyrite to hornblende/biotite granodiorite - adamellites of the St. Helen's Pluton - Scamander Tier Dyke - Avenue River Dyke, to biotite granite/adamellite of the Mt. Pierson Pluton to late stage fractionated two mica alkali granites which form in the roof zone of the Mt. Pierson Pluton (Plan D/LH02/527 R, Fig. 3). Tin mineralization is associated with late stage differentiated contact phase granites of the Mt. Pierson Pluton in the Scamander area.

Contact metamorphic effects include spotting and recrystallization in the Mathinna Beds. The degree of spotting to some extent depends on the initial chemistry of the sediment. The width of contact aureoles is generally measured in 100's of metres.

Thin dolerite/diorite dykes (10 to 20m thick) which trend NE across the licence area are associated with major faults and accompanied by linear aeromagnetic anomalies. The age of these dykes is not precisely known, they however, cross-cut Mathinna Bed sediments and are related to faults which displace the Scamander Tier Dyke. Alteration to amphibole and pyrite is common. Magnetic susceptibility measurements range upto  $2,000 \times 10^{-5}$  cgs units. McClenaghan etal (1982) suggest a late Devonian age for these basic dykes.

Mineralization spacially related to the Devonian granitoids is generally Mathinna Bed hosted. A zoned sequence of deposits exists in the Scamander Mineral Field from quartz veins with  $WO_3$ -Mo to fracture/vein-related cassiterite/quartz/sulphides to fault-related Cu, Pb-Zn, Ag and Au. No mineral prospects of the Scamander Field occur in the relinquished portion of the Scamander Licence.

Siluro-Devonian rocks are overlain unconformably by flat-lying Permo-Triassic sediments and volcanics laid down on a gently dipping carboniferous peneplain. A capping of