

010

3. GEOLOGY OF EL 20/80 LAUNCESTON3.1 Regional Geological Setting

Tertiary brown coals at Rosevale occur in a different structural and stratigraphic setting from Tasmania's better-known Permo-Triassic black coals. Within EL 20/80, it is the Permo-Triassic Parmeener Supergroup and intrusive Jurassic tholeiitic dolerite dykes and sills, which constitute "basement" to the Tertiary coal-bearing Launceston Beds. Black coal has been recorded from EL 20/80 at several horizons within the Parmeener Supergroup (see stratigraphic column, Figure 3.1.1), but not in quantities of any economic significance. However, one area of outcropping Upper Parmeener Super-Group coal measures, that flanking the Hummocky Hills dolerite sill west of Epping Forest, remains to be tested for black coal occurrences. Dolerites, as sills up to 300m thick, have consistently intruded Parmeener sediments in the Launceston Basin area at the base of the Triassic succession.

In Tasmania during the early Tertiary a series of north to north-west trending grabens formed, in which predominantly non-marine sediments ranging up to 1,000m in thickness accumulated. Four main grabens are recognised, and each contains traces of brown coal or carbonaceous material. The northern part of the Midlands Graben (Figure 3.1.2), known as the Launceston Basin, contains the largest volume of Tertiary sediments in Tasmania, and consequently has the best potential for development of brown coal deposits in the state. The presence of brown coal has been recorded at several locations in the Launceston Basin, extending from Conara Junction in the south, north to Launceston and north-west to Rosevale (Figure 3.1.3).