

4.2 Loatta Sub-Basin

The northern and western limits of the Loatta sub-basin, that is north and west of cored hole C021, are constrained by outcropping Jurassic dolerite basement. A dolerite basement high extends on a northwest trend between rotary holes R010 and R001. Basement outcrops along the northwest margin on the Inglewood property. Basement highs which were intersected in rotary drill holes R017, and R011 delineate the maximum extent of the sub-basin to the south and southeast. The outline of the Loatta deposit as depicted in Figure 4 is defined by the 1.5 metre LA0 and LBO seam brown coal isopachs.

Isopach maps of Seam LBO of the Loatta Sub-basin where used for reserve calculations are included in Ellis (1982). Figure 4 shows that brown coal seams are present south of rotary hole R084. These seams extend southwards to rotary hole R018, but are not included in reserve calculations because rotary hole R018 is the only hole to have intersected brown coal seams thicker than 1.5m. Other holes R013, R014, R015 and R016 have only intersected lateral facies equivalents of brown coal (carbonaceous or ligneous clay containing thin brown coal seams). The drill hole spacing is considered inadequate to define reliable seam correlations and reserve calculations.

4.3 Pipers Lagoons Sub-basin

The northern and eastern extent of the Pipers Lagoons sub-basin is constrained by outcropping Jurassic dolerite. Basement highs which were intersected in rotary drill holes R0039 (formerly BH22), R011, and R010, constrain the limits of the sub-basin to the south, southwest and northwest respectively.

Isopach maps of Seams PCO and PDO are appended in Appendix 2, of Ellis, (1982).

Reserves of the Pipers Lagoons sub-basin have been delineated by the 1.5m seam PCO and PDO isopachs, (Figure 4).

4.4 Selbourne Sub-basin

The Selbourne deposit has been defined by the 1.5m brown coal isopach. Development of brown coal seams thicker than 1.5m in the Selbourne sub-basin are not as tightly constrained by outcropping pre Tertiary basement as the brown coal seams of the Loatta and Pipers Lagoons sub-basins. The thickest accumulation of brown coal occurs towards the central portion of the sub-basin. Lateral facies equivalents of the brown coal, namely ligneous and carbonaceous clays, are developed in the peripheral areas of the sub-basin. Ligneous facies containing thin brown coal seams are developed between the Selbourne and Loatta sub-basins.