



**QUINSAM AREA, VANCOUVER ISLAND
(92F/13E, 14W; 92K/3W, 4E)**

By G.E.P. Eastwood

As part of a preliminary joint venture agreement with respect to the Quinsam property between Weldwood of Canada Limited and Luscar Ltd., Lexco Testing drilled steadily from mid-February into the summer, and by early July had drilled about 10 200 metres in 174 holes. This was principally fill-in drilling at 75-metre centres.

The writer completed reconnaissance geological mapping of the area of Comox Formation sedimentary rocks between Campbell Lake and the Iron River, and remapped the Iron River section below Chute Creek in greater detail. Exposures along the north-flowing section of the Quinsam River are thin to thick-bedded sandstone, containing widely separated shaly and organic horizons. The lowest of these contains an aggregate of 2 metres of coal, and may be correlative with No. 3 seam south of Middle Quinsam Lake. Two higher horizons contain 35 and 18 centimetres of coal respectively. Measurements on the lowest horizon yielded an average dip downstream of 5 degrees 15 minutes. Crossbedding in the sandstone is conspicuous in places and is probably present to some degree through most of the section, for the sandstone beds dip 10 to 14 degrees downstream in most exposures. The result is that the thickness of Comox near the Karmutsen contact is less than half what would be inferred from the sandstone dips, and an upturn to an on-lapping contact is possible. Farther north, at the outlet of Lukwa Lake, pebble and cobble conglomerate, very similar to that exposed along Highway 28, is exposed close to Karmutsen outcrops. It appears unnecessary to invoke a fault along this segment of the contact.

On the south shore of Campbell Lake outcrops of Bonanza lava and Comox sandstone are separated by 150 metres of cover. The sandstone contains shells and bits of unaltered bark and wood, indicating minimum diagenesis.

On the Iron River the main coal seam pinches out a short distance upstream. It is now known to lie only 3.8 metres above the basal conglomerate and is clearly the No. 1 seam. The No. 2 seam is probably represented by coal exposed in the bed of the access road, but no further exposures were found to the south. The basal conglomerate was deposited on a rough surface and varies greatly in thickness; in the thicker sections it grades down to arkose. This basal unit disconformably overlies thin-bedded chert and striped tuff, which in turn overlie Karmutsen lava. Many dykes of felsite porphyry cut these beds, but none was found penetrating basal Comox rocks. The ages of these rocks therefore lie somewhere between Late Triassic and Late Cretaceous.

REFERENCE

Eastwood, G.E.P. (1977): Quinsam Area, Vancouver Island, B.C. *Ministry of Mines and Pet. Res., Geological Fieldwork*, 1977, pp. 55, 56.