

Aggregate for concrete block manufacture in the St Helens area

by V. M. Threader

A request for assistance in locating a new gravel deposit was received from Mr P. Burns of St Helens. A run of pit sample was taken for sizing and chemical analysis and the area was visited on 4 February 1969.

The results of the sizing analysis indicate an even distribution of particle size through the entire sand range. This analysis conforms to the Standard specification A77-1957 for fine aggregate. The low degree of sorting, combined with high purity (98.1% SiO₂), indicates a high quality material.

The sand occurs as a hill capping lying on the Georges River–Golden Fleece Rivulet interfluvium and as such is probably a remnant of a formerly widespread deposit laid down during an earlier fluvial cycle. The deposit is 10–20 feet thick and rests on iron stained clay (presumably decomposed granite). Other smaller and shallower sand deposits occur along the interfluvium by the Tasman Highway between St Helens and Goshen. Similar conditions are apparent on a roughly parallel ridge on the west valley wall of the Georges River, i.e. between the river and the east coast. This area appears favourable for locating further supplies and it has been suggested to Mr Burns that he prospect it himself by test pitting.

The nature of these deposits of granitic-derived material merits further investigation, not only for its own value as a high quality concrete aggregate but also for the information such an investigation may yield regarding the Cainozoic history of the area and the possible relevance this has to the distribution of tin-bearing gravels.

It is intended to extend the proline drilling for kaolin to the St Helens area when the rig next becomes available and it would then be a simple matter to incorporate this work into the general programme.

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