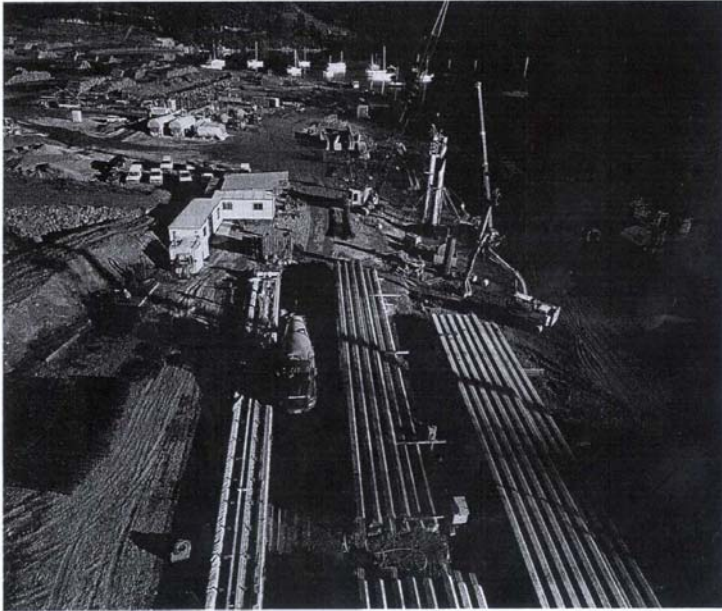


MetaMax Strengthens New Zealand Wharf

The Port of Marlborough's new log loading wharf at Shakespeare Bay in Queen Charlotte Sound, New Zealand, opened in May 2000. A multi-purpose port catering for vessels of all sizes, it has the deepest export wharf in New Zealand and is strategically placed for both coastal and international shipping operations.



Pouring concrete for one of the 176 600mm piles (30m long, 23 tonnes)

The wharf was built on concrete piles up to 30m long and has a 200m long deck. Allied Concrete, the concrete supplier for the project, chose to supply a ternary cementitious blend of portland cement and ground granulated blast furnace slag from Milburn New Zealand LTD, and MetaMax® high reactivity metakaolin from Engelhard Corporation. MetaMax was chosen because the project required early strength development and workability, both of which are improved by MetaMax. In addition, MetaMax gives added protection from chloride ingress.

To produce the 6800m³ of concrete needed for the wharf project, Allied commissioned Zenith Equipment to purpose build a mobile plant to fit on the deck of a forty-foot truck. This was the first plant of its kind in New Zealand. Zenith also built two 40 tonne cement silos. Principal contractors on the project were McConnell Smith, consultants Promanco Kenman, design consultants Ocel, and review consultants Holmes Consulting Group.

The development of the new wharf reflects the growth of export bulk cargo in the region and the need for storage and shipping facilities capable of handling large volumes of timber, logs, and coal. The Marlborough forestry resource is rapidly approaching maturity and will reach a sustainable yield of 800,000 to 1,000,000 cubic metres a year over the next decade. Development of West Coast coal requires access to a deep water export port and there is a potential for bringing the coal from Greymouth and Westport to Shakespeare Bay for export.