

Foundation conditions at Chimney Saddle storage basin
and Dunedin area.

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The Department of Mines was requested by Cutteridge, Haskins and Davey, Consulting Engineers, to the Rivers and Water Supply Commission to report on foundation conditions for a treatment plant in the North Esk Regional Water Supply scheme. This development was proposed in one of two areas.

- (1) Close to the Chimney Saddle storage.
- (2) At an elevation of 500-700 ft between Corra Linn and St. Leonards, the Dunedin area.

In both areas only dolerite foundations were considered as the risks involved in building on Tertiary clay sediment are such that if possible they should be avoided.

Chimney Saddle

Two areas, one to the south of the storage basin and the other to the east of it, uphill of the access road, were examined on 13 April 1972. Both showed a very thin or absent soil cover over flat slabs of dolerite, having joints spaced from 1 ft to upwards of 10 ft. It is anticipated that no bearing strength problems would therefore arise, but excavation may be difficult and expensive. A seismic survey would help to decide how excavation may best be done.

Dunedin area

This area, being more indefinite, was only examined in a general way. Dolerite outcrops again appear solid, with widely spaced joints and the same comments applying as above.

It is therefore recommended that when a decision can be reached on which more definite location proposals or alternatives can be based, one or more seismic surveys be carried out to determine the strength of the dolerite.

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