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Foundation conditions at proposed factory sites at Clarence and Glenorchy

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Two proposed factory sites have been inspected to determine if the foundation conditions would be suitable for heavy industries. Both sites have disadvantages, it is suggested that better foundation conditions could be located at numerous other points in the vicinity of Hobart. However, the localisation of the site will no doubt be influenced by other factors and more information is required in order to pursue the investigation further. Details of the sites inspected are given below.

Site 1

This site is situated on a 5 acre block on the Western side of the Pass Road and bounded by that road and the Tasman Highway in the Clarence Municipality. The site is underlain partly by Permian mudstone and possibly partly by Triassic sandstone. The boundary between the two formations is formed by a major Tertiary fault having a displacement in excess of 1,000 ft. Outcrop in the immediate vicinity of the site is poor but as far as cam be ascertained from surface geology the fault passes roughly through the centre of the site. In addition to the main fault which trends roughly E-W there is some evidence of smaller cross faults trending at right angles to this. Recant seismic and resistivity surveys of the main fault about 20 chains east of the proposed site indicates that the fault zone is about 200 ft. wide. The site would therefore be underlain by crushed and brecciated mudstone and traversed by one major fault and possibly several smaller faults. It is concluded that such a site would be quite unsuitable for an industry requiring foundations suitable for heavy plant.

Site 2

This is a 3 acre site situated just west of Humphrys Rivulet in the Municipality of Glenorchy. No solid rock outcrops occur on the site or in the immediate vicinity but some geological information is available from earlier geological surveys for underground water and for sewerage works. These reports indicate that the area is occupied by an ancient alluvial fan, deposited in an early erosional cycle, by the Humphry Rivulet. The present ground surface is composed of sandy soil containing rounded boulders and cobbles of dolerite, which supports this view. The thickness of this material is not known precisely but earlier workers suggested a depth of about 25 ft. Beneath the sand and gravel deposits there occurs an unknown thickness of relatively soft sands and clays of Tertiary age. It is reported that a shaft sunk by the Glenorchy Council in this area in 1945-46 struck the water table at 6 feet and that it yielded a groundwater flow of 50,000 gallons per day at a depth of 25 feet. Whilst it would be possible to construct suitable footings in such ground they would clearly be much more expensive than in a site underlain by rock and it is recommended that an alternative site be sought.

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