

Limestone Lens - West side of Tod Inlet

Sanich District, B.C.

by

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On October 11th, 1944 a brief investigation was made of a limestone lens situated on the west side of Tod Inlet. The exposures lie between about 200 and 300 feet north of the south boundary of lot 23 and are entirely within the holdings of the B.C. Cement Company. The lens is accessible only by boat.

Although the lens is situated on the steeply-sloping west wall of Tod Inlet, exposures are poor, and limestone surrounded by overburden, outcrops for a distance of only about 100 feet along the shore and to an elevation of about 20 or 30 feet above high-tide mark. The lower limit of the limestone is exposed at the north end where it rests on volcanics of the Vancouver Group (see Clapp - Geology of the Victoria and Sanich Va. - areas, Vancouver Island, B.C. - Geological Survey of Canada, Memoir 36). Above this lower contact is about 10 feet of calcareous tuff and impure (siliceous and dolomitic) limestone. Bedding, which is evident at one point strikes north 30 degrees west, meeting the northerly trending contours of the hill side at an acute angle, and dips at from 30 to 35 degrees <sup>west into</sup> westerly out the hillside. Above the impure limestone about 20 feet of apparently high-calcium limestone is exposed. A probable outcrop of volcanics is exposed about 100 feet stratigraphically above the base of the high-calcium limestone, indicating the probable maximum thickness of the limestone lens. No additional exposures of limestone were found in the area along strike to the north-west, and float on the hillside, and in a creek several hundred feet from the <sup>outcrop</sup> outcrop

on the shore, failed to indicate the presence of more limestone.

The available information, therefore, indicates a body of apparently high-calcium limestone with a <sup>an exposed</sup> minimum thickness of about 20 feet and a probable maximum thickness of about 100 feet, striking north 30 degrees west and dipping at about 30 or 35 degrees south-west into the hill. Its length cannot be determined but exceeds 100 or 150 feet. Its size does not justify any great expense in exploration or development. Moreover its altitude does not favour quarrying for, after advancing a face not more than 100 or 150 feet into the hillside an over-hanging roof of volcanic rocks would be encountered. The deposit, therefore, does not offer promise for quarrying.

If, however, any additional information is felt necessary to prove or disprove the value of the deposit, a trench through the overlies should be cut at right angles to the bedding, that is in a direction south 60 degrees west, from the uppermost exposure of limestone until the overlying volcanics are encountered. This would establish the thickness of the lens with closer limits than can at present be given and would indicate whether any additional exploration would be justified. Should a width of close to the maximum, 100 feet, be revealed, then additional cuts, parallel to the first, could be dug at successive intervals of say 100 feet across the upper and lower limits of the limestone until the north-western termination is reached.