there is evidence that at some points it has penetrated a limestone strata. This is especially seen on that portion of the divide which lies between the Nanaimo Road and the Qualicum Pass, where limestone is seen in places, and where there are numerous limestone caves. While the main mass of the Beaufort Range is a diabase or a basic gabbro along the rim of the cretaceous area, there is in places schist and agglomerate.**

At numerous places the diabasic flow has penetrated the edge of the cretaceous area with its overlying strata of sand and gravel, forming at points masses of agglomerate. The cretaceous area is bounded on its eastern border by the Beaufort Range, and to the west the Somass and Stamp Rivers seem to mark its extent in that direction, shale and agglomerate being noted on the eastern banks of the rivers, while only diabase is seen on the western, with the exception of small basin-shaped areas on Sproat Lake, which survived the period of glacial errosion. To the south the sedimentary area probably does not extend more than three or four miles south of the Nanaimo Road, while to the north it extends up the valley till the divide separating the district from Comox is reached. A mass of diabasic rock has broken through the sedimentary strata of the valley. It is known locally as the Kitsuxis Ridge,* and is some two miles long by three-quarters wide, and rises to an average height of 150 feet.

The lower portion of Roger Creek runs entirely through shale banks, 100 feet or more in thickness; towards the mouth of the

******No. 4,584.—Schist from Niagara Creek.—A fine-grained schistose rock having a gray colour and a slightly unctions feel. In the slide it is found to be a finely laminated schist consisting essentially of chlorite, biotite, sericite, with smaller amounts of magnetite, feldspar, quartz and probably a little tale. It is best designated as chloritic mica schist. The chlorite and sericite, at least use desumasition products of the biotite.

lenst, are decomposition products of the biotite. No. 4.581.—Conglomerate cast of Niagara Creek.—This tock is conglomerate carrying pebbles of chioritic schist and quartz, enclosed in a minday ferringinous cement. The pebbles are sub-angular or rounded. The cementing material, or matrix, is a fine-grained sediment freely stained with iron oxide. The rock is a conglomerate and so could not form an intrusion, but has probably been formed from the gravel bed in which it is reported to occur by the cementing action of iron-bearing water, perhaps from a recent spring.

*No. 4.580.—Country Rock Kitsurus Ridge.—This is a fine-grained greenish gray rock which has a brown rusty wenthering. Fine white scatus of calcite appear on a freshly fractured surface. The rock effertesces readily when treated with cold dilute hydrochloric acid. In the microscopic section it is found to be a highly nitered rock with no primary minerals remaining it now consists essentially of epidote, chiefly zoisite and calcite. It is a decomposition product of some fine-grained basic emptive rock. The origina structure, as well as the mineral constituents, has been obliterated in the metamorphism which the rock has suffered. In general aspect it closely resembles much of the altered datase of the Keewatin formation in the northern part of Quebec and Ontarlo.