

State Department of Geology and Mineral Industries

1069 State Office Building
Portland 1, Oregon

HIGH GRADE DISTRICT - LAKE COUNTY

The High Grade District is at the southern end of what is probably the same thick rhyolite flow, which runs north from California at least as far as the Windy Hollow District. Here, as elsewhere, the rhyolites carry minute quantities of gold-bearing sulfides disseminated and in primary stringers. The rocks, due to the brittle character, have been much broken and fractured. Solution and the reconcentration of these sulfides and their values is marked to considerable depth, and here, as elsewhere, pockets of ore are found, and the oxide in the fractures between blocks also carries values. The rhyolite in the High Grade District overlies a thick bed of rhyolite - pumice tuff composed of angular fragments of rhyolite and pumice in a tuffaceous matrix. Gold and quartz veinlets apparently have been deposited along fractures which have cut both formations and some values are thus formed in the tuffs underlying the rhyolite. The quartz in these veinlets is colorless and glassy with numerous open cavities, contains no other visible minerals, The quartz veinlets have been broken and displaced within a gouge of limonitic and hematitic material. The quartz is probably per-gold mineralization.

John Eliot Allen: rh

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