

andesite. The ore deposits occur for the most DESCRIPTION (continued) part along fissures or wide zones of fracturing, and as a rule are simple veins or replacement lodes, though there is one lodelike contact-metamorphic deposit at Copper Canyon. There are four well-marked types of mineralization: (1) silver-lead lodes, (2) copper deposits in the vicinity of intrusives, (3) pyritic gold-quartz veins, and (4) veins and replacement lodes carrying stibnite. The silver-lead lodes are fissure veins in the sandstone and quartzite and replacement lodes in the shales. The minerals present are galena, sphalerite, pyrite, and tetrahedrite. The oxide ore contains cerussite, anglesite, and hornsilver, and the secondarily enriched ore, polybasite, pyrargyrite, argentite, and tetrahedrite. At Copper Canyon the ore occurs in 3 fracture zones in altered quartzite intruded by a monzonite laccolith and dikes. The lodes are from 10 to 30 feet in width, with magnetite, pyrite, chalcopyrite, galena, and sphalerite in the primary ore, chalcosite in the secondary, cuprite and native copper in the oxide ore. At Copper Basin, limestones, shales, and quartzites are cut by numerous monzonite dikes; and disseminated primary mineralization with 0.3 per cent copper has been enriched in the shale beds to ore. Gold ore reportedly occurs replacing limestone at one property in the northwest part of the district.