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Situation and History.

The Kune mine is located in Sakuma, Iwata County, Province of Tōtōmi, about 75 kilometers north of Hamamatsu.

There is no authentic record as to the time of its discovery, but is said to have been opened in 1728 and worked on a small scale for a short time. Then it was abandoned for a long time until 1892. In 1892, Messrs. Ishida and Hara commenced trial workings and, in 1898, they succeeded in finding large ore deposits. In 1899, the mine was transfered to the Furukawa Mining Company, which in the same year started mining with an extensive equipment.

The annual output of copper since 1912 has been as follows:

The Ores in Tons (Crude Ore).

1912	87,923.99	1917	171,117.71
1913	120,231.73	1918	160,230.26
1914	126,392.25	1919	128,741.33
1915	113,602.58	1920	112,992.99
1916	150,782.66	1921	57,112.92

Geology and Deposits.

The district consists of crystalline schist, in general trending N E. with the dip N.W. 50° to 60°.

The ore deposits occur between graphite schist and epidote chlorite schist, or in graphite schist, or in epidote chlorite schist, and run almost parallel in bedded form, having a rather longer extension towards the pitch than along the stope. Of the six ore bodies, Okuhi is the largest, and the uppermost, being 800 feet along the stope, more than 1300 feet

in pitch, and 100 feet in thickness. Maehi, the smallest and the lowest one, is 6 feet in thickness and less than 100 feet both in pitch and stope. In the upper portions of the Tsūdō level, the general dip of the ore bodies is toward N.W. 30° or more, but in the lower, on the contrary, the dip changes toward S.E. about 70°, due to a series of strike faults. In the lower levels, the Okuhi is the only deposit now being worked; no others have yet been discovered below the parallel faults above mentioned.

The ore is an intimate mixture of pyrite, chalcopyrite and quartz with pyrrhotite, magnetite and covelline. When the deposit widens the ore is generally rich with some crystals of pyrite and quartz, which gradually increase on both sides of the deposit along the stope until the ore consists of pyrite and quartz in banded structure. The average copper content is 5 per cent, being 15 per cent in the highest grade ore and less than 2 per cent in the lowest.

APPENDIX.

The Ayudzuri and Ōi Mines.

The Ayudzuri and Ōi mines, close to each other, are situated 4 kilometers S.E. of the Kune mine.

There is no record as to their discovery, though it is said that they were opened in 1867 and abandoned after a short time. The Ayudzuri mine was re-opened in 1884 by Nagi, and the Ōi mine in 1885 by Takada & Co. In the former work is now suspended, while in the latter prospecting is in process, though it was worked on a small scale until first half of 1920.

The ore deposits of the former occur in graphite schist in bedded form rending N.E. with the dip N.W. 30° to 60° while that of the latter is in epidote chlorite schist, trending N.N.E. with the dip W.N.W. about 50°. Both the deposits are similar in from and almost the same

in size, being 200 feet along the stope, less than 200 feet in pitch and 13 feet in thickness. The ores are very similar to that of the Kune mine, though in the Ayudzuri mine pyrrhotite predeminates in parts. The average copper content of the ore is about 4 per cent.

The Tempaku and Nakō Mines.

These two neighbouring mines are situated on the left bank of the Tenryū 6 kilometers south of the Kune mine.

The deposits were discovered in 1902 and worked by the Furukawa Mining Co. for six years from their discovery until 1912, when work was suspended.

They occur in epidote chlorite schist and run from N.N.E. to S.S.W. with the opposite dip, i.e. W.N.W. about 60° in the deposit of the Tempaku mine and E.S.E. about 70° in that of the Nakō mine. The deposit of the Nakō mine is much larger than that of the Tempaku, being 600 feet in stope, more than 270 in pitch with a thickness of 30 feet in the Nakō mine, and 60 feet in stope ; and 100 feet in pitch with a thickness of 15 feet in the Tempaku mine. The ore which is mostly composed of pyrite, magnetite and quartz, is so inferior in copper content that even the highest grade ore does not exceed 2 per cent.