Coco Grove production for December was ₱84,842.67, from the dredging of 250,529 cubic yards of gravel.

The dredge "Mary Angus" handled 150,781 cubic yards, from which ₱56,000 was recovered. The area dredged was 125,530 square feet, to an average depth of 32.5 feet.

of 32.5 feet. The "Anne Petronella" handled 99,-748 cubic yards, and recovered **P**28,841.-77, dredging a total area of 52,630 square feet to an average depth of 51.1 feet. This dredge was shut down from December 3 to 14 while waiting for permission to cross a street in the town of Paracale. After crossing it the dredge was in pay ground of higher value.

Two shutdowns for repairs were made by the "Mary Angus".

The suction cutter dredge "Rotterdam" dredged 37,538 cubic yards of overburden, covering an area of 131,070 square feet to an average depth of 7.7 feet. This dredge discontinued operations for the season on December 19.

Weather conditions in the bay were stormy during the month, and two typhoons were experienced.

## MARSMAN EXPLORATION COMPANY

Production at the Twin Rivers project for December was P25,086.53, from the treatment of 15,991 tons of tailings. Average recovery was P1.568 per ton, while extraction was 54.8%.

The changing of No. 2 mill from a center discharge to a grate mill by installing grates and a door resulted in an estimated capacity increase of 60 tons per 24 hours at same grind as formerly obtained. All mill units operated satisfactorily.

About 3,000 tons were milled from

## TUBA MINES

The production at Tuba Mines for December was P52,266.13, from the treatment of 1,687 tons of ore, an average recovery per ton of P30.98. Extraction was 94.3%.

During the month 630.5 feet of development work were done, 296.5 feet in capital, and 334 feet in operating. Of the capital advance, 72 feet were in ore, as were 174.5 feet of the operating.

On the 150-foot level, ore was produced from 101-C, 103-D, and 103-E stopes. Good values were encountered in the sublevel into the footwall of 203-D raise.

On the 250-foot level all 209 stopes, 201-A and B, 202-A, B, and D, 212-A, 206-A, and all 204 stopes continued to produce. Ore was encountered in raise 208-A four sets below the 150-foot level.

On the 350-foot level, drift 306 and raise 301-A encountered mineable ore. Preparations are being made to sink a winze in 301 drift at the location of 301-D raise, to the 450-foot level. Raise 301-D holed with the 250-foot level between 209-C and 209-D chutes.

Heavy rains increased the mine water flow noticeably during the month but this was taken care of. The road between Tagkawayan and Tuba was weakened considerably by this rainfall, but it can be repaired easily.

storage pile in December. This brings the total to 51,000 tons that has been milled from storage. The remaining tonnage milled came direct from the river.

The Balatoc dam and sandtraps were completed and put into use during the latter part of December. This trap is working quite well in collecting sand.

