

COPPER IN 1962

REVIEW BASED ON PRELIMINARY STATISTICS PUBLISHED BY U. S. BUREAU OF MINES

By Frank J. Tuck, Arizona Department of Mineral Resources

The preliminary estimate of recoverable copper production from U. S. mines in 1962 was up only 5.4 percent from the final figure of the 1961 production (1,165,155 tons). The U. S. Bureau of Mines estimated the 1962 production to be 1,228,118 tons while the Copper Institute's estimate was 1,247,259 tons.

Based on an estimated annual capacity of 1,400,000 tons of mine recoverable copper in 1962, the preliminary estimated domestic mine production was about 87.7 percent of capacity.

May 19, 1962 marked the end of a complete year during which the copper price had been unchanged at 31 cents a pound. The calendar year, 1962, saw no change in the price throughout the year. Previous periods of an unchanged copper price occurred from May 1929 to March 1930 (18 cents a pound) and from November 12, 1959 to October 12, 1960 (33 cents a pound). On the London Metal Exchange a producer maintained price of £234 (29.25 cents a pound) has been in effect since March.

U. S. output averaged 106,600 tons monthly in January - June but fell to a low of 91,400 tons in July, and averaged only 98,000 tons monthly during the last six months of the year.

Outside the U. S. A., Free World production averaged about 217,000 tons monthly from January - June 1962, but dropped only 2,200 tons monthly during the last six months of 1962. The Copper Institute reported the production of copper in the Free World outside the U. S. A. to have been an estimated 2,600,000 tons of mine copper, assuming that the Institute coverage represented approximately 90% of the Free World.

By the middle of 1962 supplies of copper began to exceed requirements, and producers moved to curtail production throughout the Free World.

Short-term strikes halted operations at U. S. Chilean and Rhodesian properties during 1962. The Lumbashi smelter of Union Miniere du Haut Katanga closed in December, 1961, resumed operations near the end of February 1962. Longer work stoppages included a 21 - day strike in May at Northern Rhodesian mines, and the Southern Peru Copper Co., Peru, closure from August 11 to September 18. A 74-day strike at La Africaner mine of Santiago Mining Co., Chile, a subsidiary of the Anaconda Company, was settled September 7. The El Salvador mine and Portrerillos smelter of Andes Copper Mining Co., another Anaconda subsidiary, was closed November 1. The Andes Copper Mining Co. strike was settled December 7, and operations were resumed at the Toquepala mine, Peru, on December 18. In Northern Rhodesia, operations of Roan Antelope Copper Mine Ltd., were adversely affected by an 11-day strike, and the electrolytic refinery of Ndola Copper Refineries, Ltd., struck on December 18, was closed through the end of the year.

In early December, Union Miniere du Haut-Katanga announced start of operations at the new Katanga concentrator. Capacity was at the rate of 660,000 tons annually yielding 110,000 tons of concentrates, containing 27,000 tons of copper.

In South-West Africa, the Tsumeb Corp., Ltd., copper smelter was put into operation on November 2.

Production of copper by Arizona mines (644,000 tons) amounted to 52.4% of the total U. S. Production in 1962. Both the U. S. production and the Arizona production were the highest in history. Utah was second with a production of 219,800 tons. Montana third with 91,839 tons; New Mexico fourth with 84,200 ton; and Nevada fifth with 81,675 tons.

Preliminary estimates of Free World copper production in 1962 consisted of 1,228,000 tons for the U. S. A. and 2,600,000 tons in the rest of the Free World. Copper production in Communist controlled countries is not known but it is believed to have been at least 600,000 tons. The total World mine production of copper for 1962 is therefore estimated at 4,428,000 as compared with an estimate

of 4,343,000 tons in 1961.

The Free World mine production of 3,828,000 tons amounts to about 88 percent of an estimated Free World capacity of 4,350,000 tons.

The U. S. Bureau of Mines reported producers' refined copper stocks at the beginning of the year at 49,000 tons, and at the end of the year at 71,000 tons. The Copper Institute, which differs from the Bureau's figures by including refined copper in process, reported 79,755 tons in the hands of producers at the beginning of the year, and 117,441 tons at the end of the year.

United States refined copper production in 1962 was reported by the U. S. Bureau of Mines at 1,214,146 tons of domestic copper and 397,584 tons of foreign copper, or a total of 1,611,730 tons. This includes an estimated 288,000 tons of secondary unalloyed copper. The Copper Institute reported a total refined production of 1,768,198 tons, which includes 1,246,931 tons of U. S. mine production, 162,745 tons of secondary, and 358,522 tons of foreign copper.

According to the U. S. Bureau of the Census, U. S. imports of copper in 1962 amounted to 43,000 tons in ore, matte and regulus, 332,000 tons of blister, and 99,000 tons of refined, total 474,000 tons; as compared with 47,392 tons in ore, matte and regulus, 340,212 tons of blister, and 66,856 tons of refined, total 454,460 tons in 1961. Copper exports in 1962 amounted to 2,000 tons of copper in ore, concentrates and matte, and 334,000 tons of refined ingots, bars, etc., total 336,000 tons, as compared with 4,478 tons of copper in ore, concentrates, and matte, and 432,253 tons of refined ingots, bars, etc., in 1961. The net excess of imports over exports in 1962 was 138,000 tons, as compared with 17,729 tons in 1961.

Apparent consumption of new refined copper in the United States in 1962 was estimated by the Bureau of Mines at approximately 1,352,000 tons, while the actual consumption was estimated at approximately 1,556,687 tons.

These figures compare with an apparent consumption of 1,234,000 tons in 1961, and actual consumption of 1,432,187 tons for the same year.

OUTLOOK

The 1962 copper statistics have been analysed by such copper authorities as Phelps Dodge's president, Robert G. Page, the Rhodesian Trust Groups' Chairman, Sir Ronald Prain, American Metal Climax, Vice President, Jean Vuillequez, and Miles Metal Corporation's Dr. Joseph Zimmerman. They have all agreed that the copper industry is healthy. All large producers, both here and abroad, maintain exploratory staffs which have developed substantial untapped ore reserves. Because of good production and marketing discipline by many individual producers, the price for copper has fluctuated very little over the past two years.

The answer as to how long the foreign producers will succeed in keeping the price of copper stabilized has been supplied by Sir Ronald Prain, who, in a recent statement said: "Future stability will, therefore, depend largely on the willingness of producers to continue to adjust their primary outputs to the pattern of consumption".

The E. & M. J. price for copper in 1962 averaged 30.600 cents per pound, while the foreign refinery price averaged 28.514 cents per pound.

Attached hereto is TABLE I, giving a summary of U. S. Copper Industry Preliminary Statistics for 1961 and 1962.

TABLE I

SUMMARY OF U. S. COPPER INDUSTRY PRELIMINARY COPPER STATISTICS FOR 1962

COMPARED WITH STATISTICS FOR 1961

Unit: Short Tons
Source: U. S. B. M.

	1961	Prelim. 1962
Mine production of New Cu from U. S. ores	1,158,894	1,228,118
Ref. Prod. of New Cu from U. S. ores	1,181,015	1,214,146
Ref. Prod. of New Cu from Foreign ores	369,124	397,584
Total Ref. Prod. of New Copper	1,550,139	1,611,730
Imports of Refined Copper	66,855	98,819
Stock at beginning of year	98,000	49,000
Total Available Supply	1,714,994	1,759,549
Exports of Refined Copper	432,253	336,524
Refined Stocks at end of period	49,000	71,000
TOTAL	481,253	407,524
Withdrawn on Domestic Acct. (Apparent Consumption)	1,234,000	1,352,000
Actual Consumption	1,432,187	1,556,687
Imports of Ores, Matte & Regulus (Copper Content)	47,000	43,000
Imports of Blister Copper	340,000	332,000
Imports of Refined Copper	67,000	99,000
Total Imports of Crude & Refined	454,000	474,000
Exports of Ores, Concls. & Matte (Copper content)	4,500	2,000
Exports of Refined	432,000	334,000
Total Exports of Crude & Refined	436,500	336,000
Excess Imports of Crude & Refined	17,500	138,000
Secondary Copper Recovered as Unalloyed Copper.	283,000	288,000