

The mineral transfer shaft was built from the extraction level to the transport level, with a length of 515 meters, and the flotation capacity of the El Cobre concentrating plant was increased.

Disputada will set up an Oxidized Mineral Treatment Plant at El Soldado with a US\$ 15 million investment. The project is designed to produce 3,500 tpy of copper cathodes by heap leaching, solvent extraction and electrowinning. The plant's start-up is planned for the first quarter of 1993.

5.4 million tons with an average grade of 1.42% were processed at El Soldado in 1991. Production of concentrates was 214,731 tons containing 65,921 tons of fine copper.

II.2.5.3 Chagres.

Along with the expansion of Los Bronces, Disputada is studying expansion of the Chagres Smelter located next to the Aconcagua

River in the Fifth Region. The feasibility study requested of Davy MacKee concluded that the investment necessary for the project would be US\$ 176 million to triple current capacity from 47 thousand tons to 125 thousand tons of blister copper as of 1994.

The technology to be used is an Outokumpu flash furnace which will replace the existing reverberatory furnace. It also includes installation of an oxygen plant, cooling systems, a new acid plant, and a casting wheel. Personnel training will cost another US\$ 5 million.

The incorporation of flash technology and expansion of the sulfuric acid plant's capacity will make it possible to increase the recovery of sulfur contained in concentrates to 95%. Currently, as much as 75% has been obtained after several investments.

Production of sulfuric acid would increase from the current 66 thousand tpy to 300 thousand tpy.

The Canadian company, SNC-Lavalin, has recently been awarded the bid for the engineering, equipping and construction of the sulfuric acid plant for the Chagres smelter. This is a US\$ 23 million operation.

The expansion of the smelter will make it possible to increase the aggregate annual value of Disputada's production by approximately US\$ 50 million. Detail studies were initiated in April, 1991.

The Company's sales revenue was US\$ 274 million. This revenue corresponds to the sale of 48,605 tons of blister copper and 203,323 tons of copper concentrates, as well as 69,387 tons of sulfuric acid.

Production of fine copper was 107,138 tons obtained in 1991 by processing 9.1 million tons of mineral with an average grade of 1.38%.

The Chagres smelter treated 142,039 tons of concentrate, mainly from El Soldado. Blister production was 52,648 tons.

II.2.6 Sociedad Minera Pudahuel - SMP.

Sociedad Minera Pudahuel (SMP) belongs to a group of companies related to the Banco de Chile and the Banco de Santiago. The principal shareholders are Inversiones San Patricio S.A. (30.9%), Sociedad Desarrollo Industrial y Agrario San Pedro Ltda. (24.9%), and Sociedad de Desarrollo Industrial y Agrario Las Cañas Ltda. (24.9%).

II.2.6.1 Lo Aguirre.

The Lo Aguirre mine, located 15 kilometers west of Santiago, was the first mine in Chile to use the electrowinning - solvent extraction process, and it owns the patent (TL process). This technology will be used in the Lince, Zaldívar and Quebrada Blanca projects.

At the start-up of the Lo Aguirre project exploitable reserves for a cut-off grade of 0.8% of total copper were slightly more than 12.2 million tons of ore, with an average real grade of 1.77% of total copper and 1.07% of soluble copper.

The exploitation system is an open pit mine with a 4.5 gravel/mineral ratio. Between 1980 and 1990 approximately 10.3 million tons have been extracted. This operation was carried out directly by SMP with its own equipment.

Lo Aguirre is an open pit operation with an annual capacity of 17,000 tons of fine copper. It employs 574 people. Production is 14,000 tons of electrolytic cathodes