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AFTON.

AFTON MINES LTD.

(N.P.L.)

PROPERTY FILE

AFTON

Project	A 7,000 tons per day mining and milling operation, and British Columbia's first modern copper smelter.
Location	Eight miles west of Kamloops city centre, south of the Trans Canada Highway.
Capital Cost	\$80,000,000.
Capacity	25,000 tons of copper per year.
Employment	350 new jobs on the site, and additional new jobs in Kamloops and elsewhere through the ripple effect.
Sponsorship	Afton Mines Ltd. is a B.C. company, over 99% owned by Canadians. Teck Corporation, Afton's sponsor and major shareholder, is a Vancouver based company, 95% Canadian-owned by 14,000 shareholders.

October, 1975

PRODUCTION DECISION

The decision to proceed came after many years of exploration work on the property by Afton and a variety of major companies. This included over 29 miles of drill holes and extensive engineering and pilot plant investigation.

Mining will be by conventional open pit methods for the first 14 years, followed by conversion to an underground operation.

Milling will employ specialized techniques suited to the particular ore, which consists in large part of native copper rather than the more common copper sulphide mineral assemblage.

Smelting will be by the new Top Blown Rotary Converter (TBRC) process, bringing technology recently developed for the nickel industry into copper smelting.

The resulting blister copper, over 99% pure, will be shipped to customers in the United Kingdom, contributing materially to Canada's balance of payments.

COMMUNITY BENEFITS

Development of the Afton mine, concentrator and smelter will help to expand and diversify the economic base of the Kamloops area.

About 450 people will be employed during the peak construction period and 350 permanent jobs will be created on the site. Annual expenditures on payroll, supplies and services will provide a substantial stimulus to the local economy, helping to create new businesses and leading to expansion of existing ones.

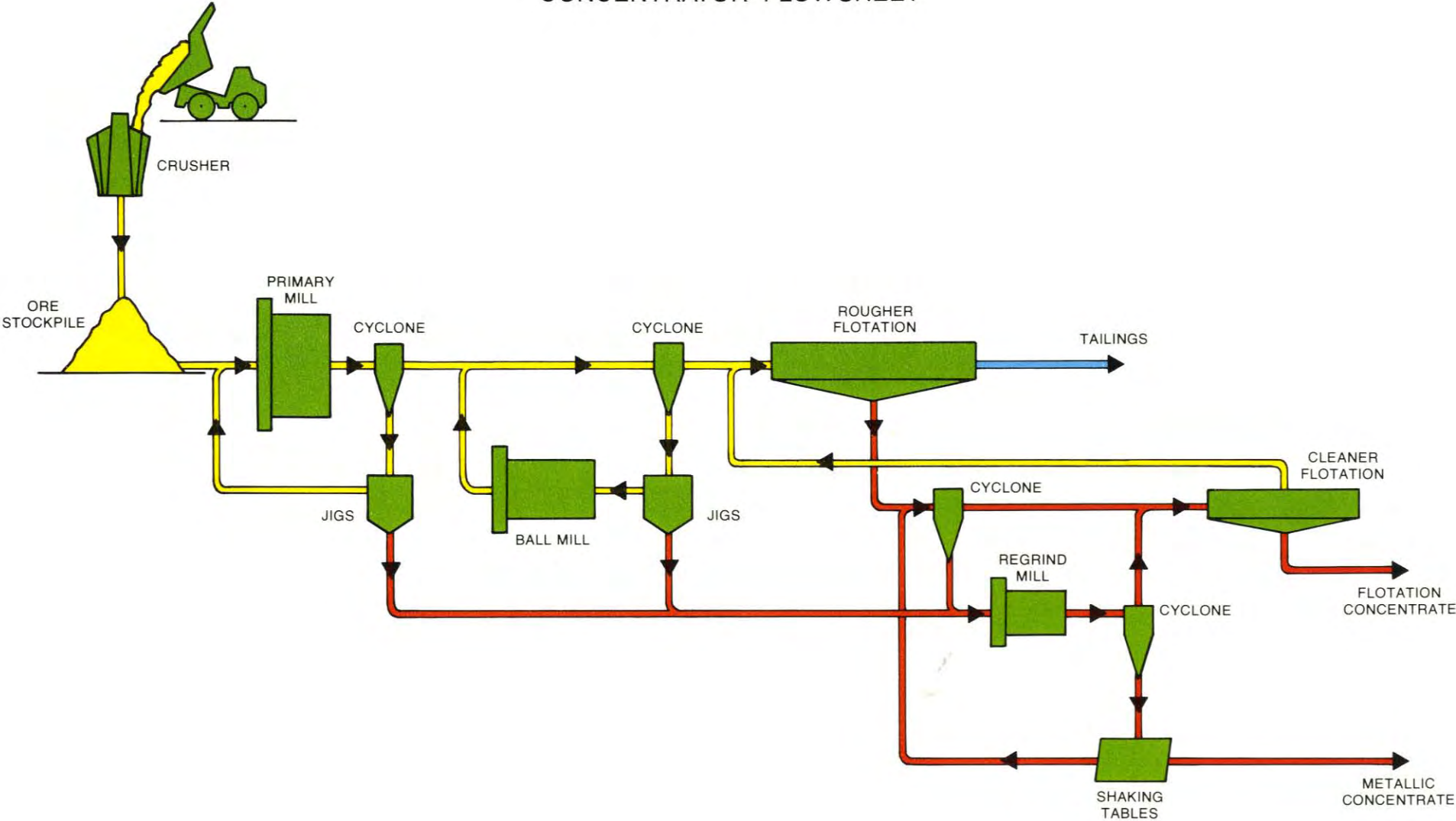
Government revenue through corporate and personal income taxes, property taxes and sales taxes will increase significantly.

The Afton property, located in cattle ranching country, offers an opportunity to practice multiple land use. Afton intends to operate a cattle ranch in the area surrounding the mining operation. Although soil quality is generally poor, being thin, rocky and alkaline, it is expected that both its productivity and appearance in some areas can be improved through irrigation water supplied in conjunction with process water.

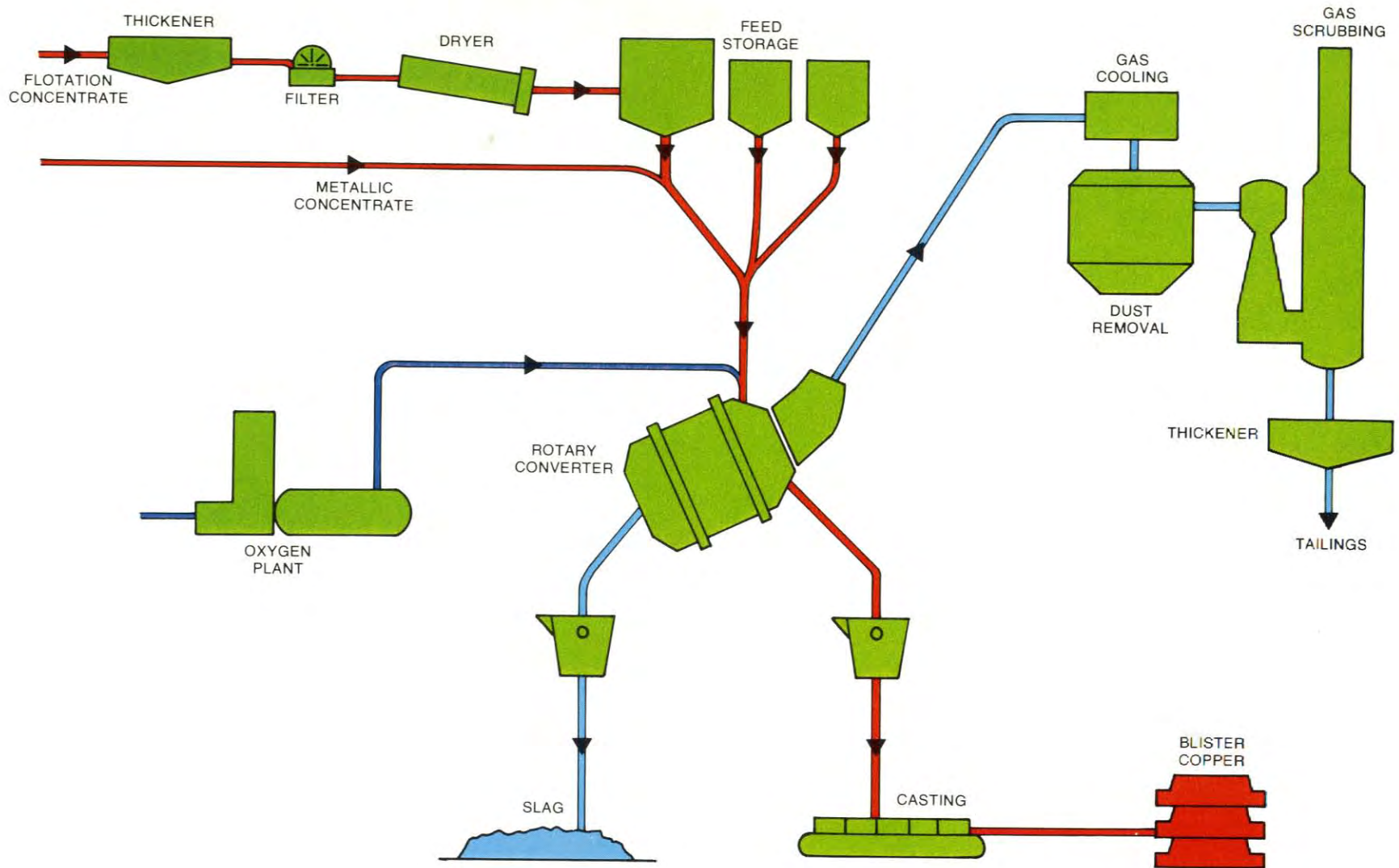
The easy accessibility of the mine should be an asset to the people of the Province. Considering the importance of mining to the economy of British Columbia, it is unfortunate that most producers are located far from population centres and can be visited conveniently by only a small proportion of the population. Special efforts will be made to provide viewing and touring facilities for students and the general public, and to make the mine a showpiece for the industry.

Every mine activity will be handled in a manner consistent with good environmental protection practice. Obviously this will include compliance with all environmental regulations of government agencies. Beyond this, Afton will endeavour to do what is needed, not only to minimize adverse environmental impact, but to improve existing conditions wherever possible.

CONCENTRATOR FLOWSHEET



SMELTER FLOWSHEET



*Flow gently, sweet Afton
Among thy green braes.*

HISTORY

Exploration on the Afton property can be traced back to 1898, when a 330-foot shaft was sunk on the Pothook claim, 2000 feet south of the main mineral deposit. Since then, many companies conducted exploration programmes on this and nearby properties.

Most recently, Kennco Explorations (1951-2), Graham-Bousquet Gold Mines (1956-7), Noranda (1958), New Jersey Zinc (1960), Afton Mines (beginning in 1964) and Quintana Minerals (1971) all explored the claims in question. Finally, in 1972, Afton was able to establish a significant zone of copper mineralization, and subsequent drilling confirmed the existence of an important orebody.

Since then, Teck Corporation and its affiliate, Iso Mines Ltd., have carried out extensive engineering and development work under a development agreement with Afton. This included definition drilling, engineering on both the mining and milling facilities, investigation into the practicability of smelting the concentrate in British Columbia, and pilot plant tests on the selected process. Teck has also arranged the financing and marketing necessary for the project to proceed.

Considerable credit is due to Chester Millar and his associates, who persevered for many years before locating the present orebody, and to the engineers and management of the Teck team, who saw the possibility of a smelter and were able to bring the project to the production decision stage despite less than ideal economic conditions.

MINING AND MILLING

The mine will be developed initially as an open pit operation, permitting optimum recovery of low grade ore through the low unit costs possible with surface mining methods. Definition drilling has concentrated on this phase of the operation, resulting in proven ore reserves of 34 million tons grading one percent copper. Additional mineralization has been indicated at depth which, it is contemplated, will be developed ultimately by underground methods.

Mining will employ conventional shovel and truck haulage systems. Unmineralized rock will be placed on dumps near the mine. These will be terraced for aesthetic reasons and reclaimed as they reach the final configuration. The ore will be trucked to the nearby milling plant.

The milling system begins with crushing to a size that can be fed to grinding mills, where the ore will be reduced to a fine powder containing grains of rock and copper minerals. During this stage, coarse native copper flakes will be removed by screening. The powder will then be processed through a series of steps including tables, jigs and flotation cells, resulting in two types of copper concentrate: a high grade metallic concentrate and a more conventional flotation concentrate.

The residual rock powder, known as tailings, will be re-deposited in impoundment areas on the property. These will be totally enclosed using natural hill contours and structures built from prepared aggregate and waste rock from the pit, designed consistent with regulations of the Pollution Control Board and Department of Mines and Petroleum Resources.

SMELTING

The Afton smelter will be the first copper smelter in British Columbia in modern times. It will employ the TBRC process, incorporating technology recently developed for the nickel industry.

Copper concentrate from the mill will be blended first with iron and lime to form a suitable charge. This will be fed to the conversion furnace and melted by the heat generated from combustion of natural gas and oxygen. The charge will separate into a liquid slag floating on molten copper. The slag will be skimmed off, cooled, crushed and recirculated through the mill to recover residual copper values. The molten copper will then be poured into molds to cast blister copper billets weighing 1200 pounds each. Smelter recovery is expected to be 99% or better, and the blister castings will assay approximately 99% copper.

Gases from the smelter will be collected and processed to meet rigid provincial air emission standards. With the control systems incorporated in the design and representing an investment of \$3,000,000, the Afton smelter is expected to be the cleanest copper smelter in North America.

THE COMPANIES

Afton Mines Ltd. is a British Columbia company which was incorporated in 1965 to explore and, if successful, to develop the Afton property. The shareholders are mostly Canadians and residents of British Columbia.

Teck Corporation is the largest shareholder of Afton and is providing management and financial sponsorship. Teck is a Canadian company based in Vancouver, with over 95% of its 14,000 shareholders Canadian residents. Teck currently produces gold in Quebec, zinc in Newfoundland, silver in British Columbia and Ontario, oil in Saskatchewan and natural gas in Alberta. Teck brought the Newfoundland zinc mine into production several months ago and is also developing a new Quebec columbium deposit which is scheduled to come into production in early 1976.

Iso Mines is an affiliate of Teck Corporation and is primarily an exploration company.

