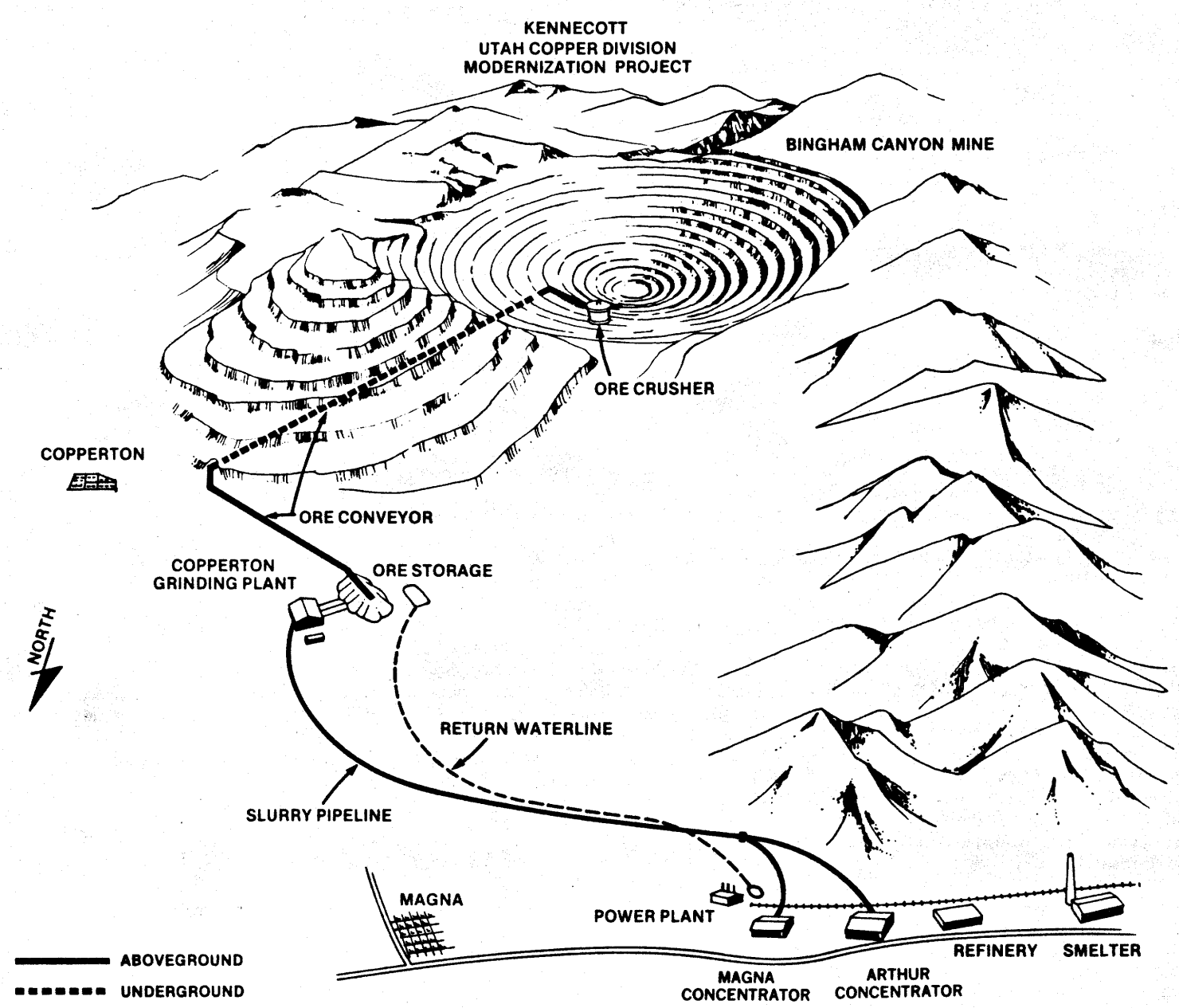


Kennecott seeks major cost reductions at UCD

In-pit crushing, ore conveyor and new grinding plant are main features

By Karen Walenga
Staff Reporter

Standard Oil Company of Ohio is biting a $400 million bullet to modernize mining and milling facilities at Kennecott's Utah Copper Division.

Sohio announced December 3rd the three-year project to replace antiquated ore transportation and milling facilities will reduce production costs by more than 20 cents a pound and return UCD to profitability. The project is based on years of studies and planning.

UCD operations, idled since last spring after operating at a reduced capacity in 1984, had been losing about $25 million per quarter as a result of depressed conditions in the copper industry. Modernization of UCD has been in the works for about four years and resumption of copper production at the site near Salt Lake City has been a point of speculation within the industry for months.

Sohio and Kennecott's years of planning and evaluation of UCD have resulted in a program to resurrect the largest copper producer in the United States with in-pit crushing, replacement of ore-hauling railroads with a belt conveyor system, the construction of new grinding facilities closer to the Bingham Canyon mine, and the installation of pipelines for concentrate transportation in slurry form between the new grinding plant and the existing Magna and Arthur concentrators.

According to Sohio Chairman Alton W. Whitehouse, "The Utah property contains high-quality reserves that we believe are competitive on a world scale. At the time we acquired Kennecott, we realized that the property was not competitive because of its antiquated mining, transportation and concentrating facilities and high labor costs.

"Accordingly, we initiated studies to determine an optimum mine modernization plan. This plan achieves an effective

UCD modernization . . .

modernization at a capital cost considerably below that of earlier studies," Whitehouse said. Previous UCD modernization plans carried a $1-billion price tag, although processing capacity would have been larger.

PREDICTS PROFITABILITY

"Previous actions taken at our other two copper mining operations, in Arizona and New Mexico, have brought them to essentially break-even at today's prices. We believe that the Utah modernization program, coupled with labor cost reductions, will make it a low-cost domestic producer and competitive with other international producers. This will return our metals mining operations to profitability, even at today's depressed prices," the chairman said.

Kennecott President G. Frank Joklik concurred, saying, "Four years of intensive planning, design engineering and evaluation had gone into the decision to invest $400 million in the modernization of the Utah Division.

"The quality of the Bingham Canyon orebody and the benefits of modernization will permit profitable operations even in periods of depressed copper prices," Joklik said. The UCD modernization program will reduce production costs by more than 20 cents per pound of copper, he noted.

MODERNIZATION DETAILS

Two-thirds of the $400 million to be spent on modernization will be used to remove the "principal bottlenecks" at UCD, the outdated ore reduction facilities at the Magna, Arthur and Bonneville concentrators, Joklik said.

According to the modernization plans, a 60-inch by 109-inch gyratory primary ore crusher will be installed in the pit at the Bingham Canyon mine. The crusher will be portable "and will be relocated in the mine as a function of the mining plan," the company said.

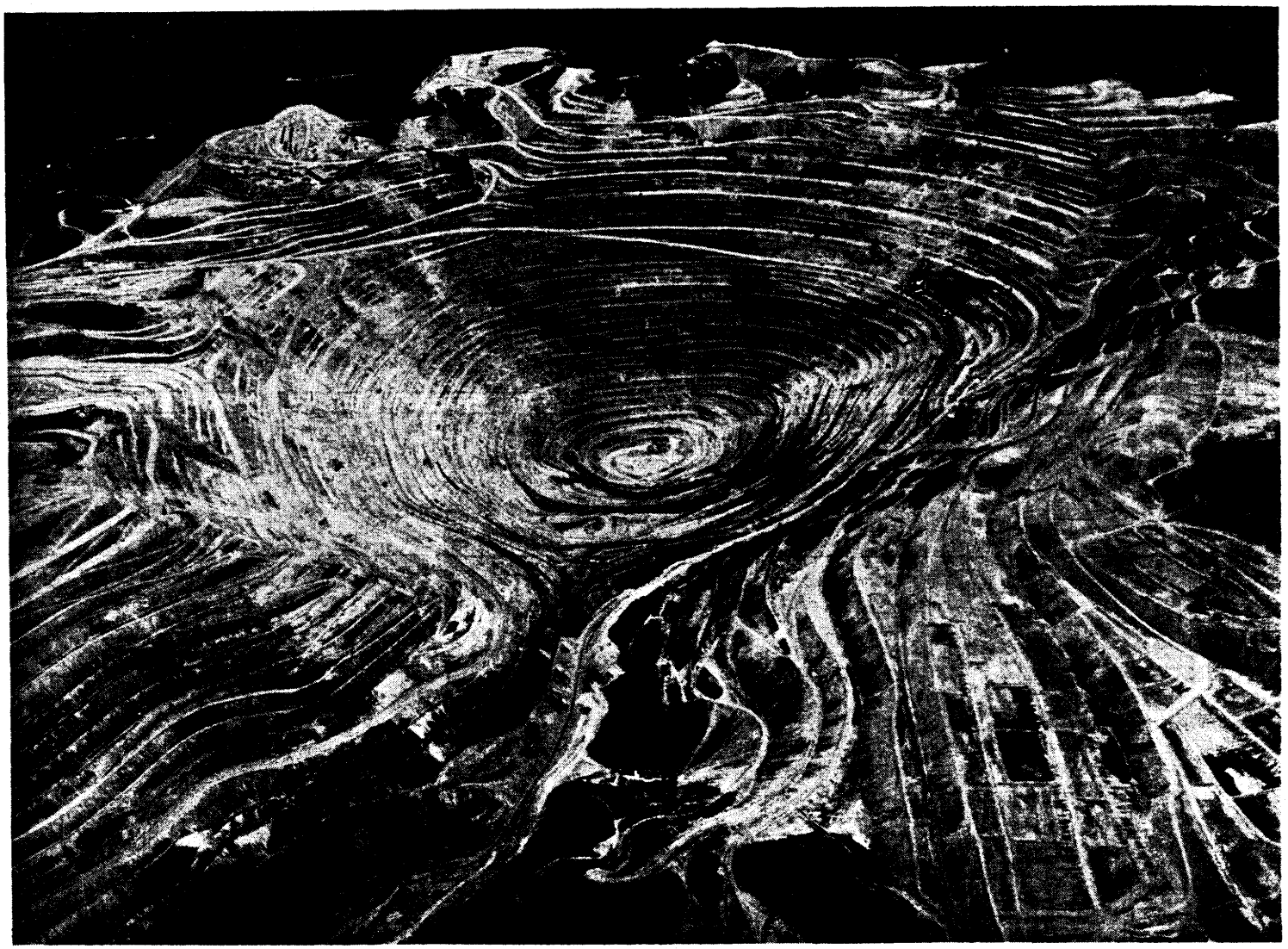
Kennecott has yet to decide on the exact model of crusher to be used, said Ken C. Hochstetler, Kennecott director of communications and public affairs. The company did receive prices on different crushers during its studies of the modernization plan, but has not yet announced any contracts for equipment purchases or construction work, Hochstetler noted.

A second component of the modernization plan is the installation of a five-mile-long belt conveyor system that will move ore from the mine to the site of the new Copperton grinding plant, one mile north of Copperton.

The 72-inch-wide main ore conveyor will run from the mine through an existing railroad tunnel at the 5,490-foot level, the company said. The underground portion of the tunnel is about 3 miles long, Hochstetler said. He was unable to disclose the rate of capacity of the conveyor system other than to say it would be able to sustain a mill capacity of 77,000 tpd.

The new Copperton grinding plant will consist of a coarse ore stockpile and a grinding building with three grinding lines.

Each line will contain one semi-autogenous grinding, or SAG, mill (34 feet in diameter by 15 feet in length) and two ball mills (18 feet in



The Bingham Canyon mine, shut down since early 1985, is rated as the largest manmade excavation in the world. Thanks to the $400 million modernization project by Kennecott, it appears that the hole will be getting even larger.

UCD modernization . . .

diameter by 28 feet in length).

There is additional room for expansion at the Copperton site, Hochstetler noted, enough for a fourth grinding line. However, Kennecott currently has no plans for additional lines, according to the mining plan, he said.

TWO LONG PIPELINES

In addition, two pipelines will be constructed between the Copperton grinding site and the existing Magna and Arthur plants, the company said.

A 48-inch-diameter concrete line will transport ore slurry from Copperton to the flotation portion of the Magna and Arthur concentrators.

The Bonneville concentrator will not be reactivated.

New flotation cells, measuring 1,500 cubic feet each, have been added at the Magna and Arthur concentrators over the last few years, Hochstetler said. The number of new cells was not available but only the new cells will be used at the concentrators after modernization, he said.

Thus the modernization of grinding facilities and the utilization of the existing larger and more efficient flotation cells are being combined in economical fashion. Too, the new grinding plant is being located closer to the mine to hold down length of the conveyor system, which will reduce both capital investment and operating costs.

"Reclaimed water from the tailings pond, together with make-up water, will be pumped back to the grinding plant in a buried 48-inch-diameter steel pipeline," the company said. Each of the two pipelines will be about 13 miles long.

"We hope to start moving dirt . . . after the first of the year," Hochstetler said.

It was estimated that during the peak of construction, in 1987, about 1,200 workers would be employed for the modernization work.

In addition to copper output, gold, silver and molybdenum will be recovered as by-products from Bingham Canyon.

Helping make UCD's modernization project feasible is its modern smelter, seen here in a bird's eye view from atop the new 1,200-foot-tall smokestack. The smelter, updated in the 1970s at a cost of hundreds of millions of dollars, operates in compliance with a Utah air plan approved about a year ago by the EPA.

WARNING TO LABOR

In conjunction with announcement of the modernization plans, both Chairman Whitehouse and President Joklik sounded words of warning about labor costs and labor contract negotiations, obviously an integral part of the modernization.

"Because of large operating losses, we decided earlier this year to suspend Utah Copper Division operations," Whitehouse said.

"Whether we resume operations at Utah prior to the completion of modernization will depend largely on whether we obtain the necessary labor cost reductions from the labor unions," he added.

Plans call for the modernization work to begin in 1986 with completion scheduled for late 1988. Kennecott's current labor contract expires June 30, 1986.

According to Joklik, "This investment coupled with reduced labor costs will enable the Utah Division to be one of the lowest cost copper operations in the Free World.

"Labor costs are presently too high," he continued, "and during our labor negotiations next year, we will address that situation. In further efforts to reduce operating costs, Kennecott's staff organizations are being streamlined in the context of a Sohio-wide review." (See related story.)

Kennecott will begin meeting in January with the 13 labor unions that represent its workers, said Hochstetler. Negotiations for the new labor contract will open January 21st, but a location for the first round of talks has yet to be set, Hochstetler told **PAY DIRT** December 9th.

Once modernization is completed at UCD, the operation will employ 2,100 hourly and salaried employees, according to Kennecott. A break down of the 2,100-member work force into hourly and salaried members was unavailable, Hochstetler said.

During the latter part of 1981, UCD employed 6,700 hourly and salaried workers, he noted. By 1982, that figure was cut to 4,700 employees, although production was still at the same capacity.

In 1984, UCD operated at a third of capacity with about 2,500 employees remaining. Currently, about 250 workers are employed at

UCD modernization . . .

UCD, following the shutdown earlier in 1985.

INCREASED PRODUCTIVITY

Following modernization, UCD production capacity will be 77,000 tpd of ore, an approximate 25 percent reduction compared to 103,000 tpd most recently, Hochstetler said. In the past, capacity ranged between 100,000 tpd and 110,000 tpd, he noted.

However, annual copper production capacity following modernization will decrease only about 10 percent, to 185,000 tons of refined copper per year compared to approximately 200,000 tpy. During its last full year of production, UCD produced 220,000 tpy, according to Hochstetler. (Annual refined copper production fluctuates, the director noted, due to such factors as mining plans or labor strikes.)

Although daily ore capacity will be about 25 percent less, annual production of refined copper will decrease only 10 percent because of "more efficient equipment as a result of modernization," Hochstetler said. The plans do not include mining a higher grade ore, he said.

Details of a new mining plan were not released by Kennecott, but improved production techniques will require fewer workers, the director said.

Kennecott's recent purchase of the adjacent Carr Fork property from Atlantic Richfield Company's Anaconda Minerals Company "plays a part" in the modernization plans at UCD, Hochstetler said. It extends Kennecott's ability to mine its existing reserves at Bingham Canyon, according to the director.

As previously reported, Kennecott had extended the openpit wall of Bingham Canyon onto Carr Fork property, under a former agreement with Anaconda. "We'll be mining on that side of the mine more," Hochstetler said when asked if the company would be extending the Bingham pit wall further.

The North Ore Shoot exploration project is not directly affected by the modernization plans, the director said. Exploration and drifting continue in the exploration and evaluation of the deep ore deposit that lies beneath one side of the Bingham Canyon openpit mine. Hochstetler said the company has yet to release testing results from any samples or related information about the North Ore Shoot.

According to Kennecott, the UCD modernization program will use state-of-the-art control technology throughout "and will result in UCD achieving a net air quality gain as overall emissions will be reduced."

In addition, the modernization will not affect surface or ground water quality.

Tax benefits should help UCD modernization project

By Bill Epler
Staff Reporter

Tax benefits are expected to lend considerable assistance in financing the $400 million modernization project at Kennecott's Utah Copper Division, according to some observers.

That point of view was partly concurred in by a Sohio spokesman.

Final approval of the UCD modernization was only one of three actions taken at the December 2rd meeting of the board of directors of Standard Oil Company (Ohio).

The other items were:

—Special charges against fourth quarter earnings estimated to total $1.86 billion pretax ($1.15 billion after tax).

—A capital expenditures program for 1986 expected to be in the range of $2.3 billion.

A Sohio news release reporting the board's actions said, "The special charges relate to assets made excess or obsolete by the modernization decision, the reassessment of certain mineral reserves, the previously announced staff (mostly Sohio) reduction and reorganization programs, regulatory matters and anticipated asset dispositions."

In a discussion of the UCD modernization project, Sohio said, "The company is taking a special fourth-quarter pre-tax charge of $440 million related to certain operating assets that will be made excess or obsolete by the Utah modernization, reassessment of certain other aspects of the metals mining business and a provision for future shutdown costs which will be incurred during the period in which Utah mining operations are suspended."

Noting the close relationship between the $440 million charge and the $400 million project at UCD, PAY DIRT discussed possible tax considerations with a financial officer of a major copper producer, who asked not to be named.

After making the disclaimer that he certainly was not privvy to pertinent information that could change any given case, he said that in general the write-off should help finance the modernization project. The resultant reduction in taxes would generate increased cash that could be applied towards paying for the project.

He was also asked by PAY DIRT if announcing the project before the end of 1985 would help secure current tax benefits, especially investment tax credits and accelerated depreciation, before a so-called tax reform package that reduces or eliminates these provisos is approved by Congress and signed by the President.

That would likely depend on the wording of whatever "grandfathering" provisions are contained in the new legislation, the financial officer said. Usually there is a provision

Kennecott reducing management staff

By Karen Walenga
Staff Reporter

The completion of a company-wide organizational review by Standard Oil Company of Ohio will bring about some changes in management in Sohio's wholly-owned Kennecott subsidiary.

David A. Kinneberg, general manager of Chino Mines Company, will retire by the end of 1985, said Ken C. Hochstetler, Kennecott's director of communications and public affairs at company headquarters in Salt Lake City. The Chino copper operation in Hurley, New Mexico is two-thirds owned by Kennecott, with Mitsubishi holding a one-third interest.

C. Ken Vance, currently general manager at Kennecott's Utah Copper Division, will become vice president and general manager of Chino, Hochstetler told PAY DIRT December 9th.

Burgess Winter, senior vice president of operations, will become vice president and general manager at UCD, the director said. No successor will be named as senior vice president of operations because the position will be eliminated, Hochstetler said.

In addition, R.W. Banghart, general manager of Kennecott's Ray Mines Division in Arizona, will be vice president and general manager at Ray Mines, he said.

Banghart, Winter and Vance will report to Kennecott President G. Frank Joklik, Hochstetler said.

Also, Robert Dimock, vice president of project development and technology, will be company vice president of technology, he added.

Additional announcements regarding the company-wide Sohio review can be expected in the future, according to Hochstetler.

As previously reported, the internal review, conducted by Sohio at all of its units, aimed to ensure that managerial staff is adequate for the future.

According to President Joklik, the Sohio organizational review will streamline (reduce) Kennecott staff in an effort to help lower operating costs at the three copper operations.

UCD's Bingham Canyon mine is the largest of the Kennecott operations, with Chino and Ray each having about half the capacity of Bingham.