

SOUTHERN UTAH'S SILVER LINING

BY TERRI DRAPER

Not very many dare. Mining isn't like cliff diving, or lion taming. A miner doesn't just eyeball the lion's gullet, he walks right in and jackhammers its ribs.

That's what happens at the sixth leading silver producer in the nation anyway. The Escalante Silver Mine, located about 50 miles northwest of St. George, has produced over 5,800,000 ounces of silver in the short five years since Ranchers Exploration and Development acquired it in 1979.

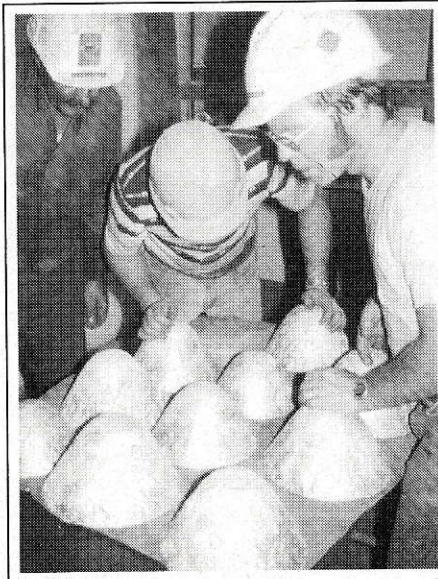
According to general manager Ed Hahne, the silver leaves its humble Utah niche refined to approximately 95% purity. "It's difficult to pinpoint exactly where the silver will go, or what it will be used for," Hahne said. "I would imagine most of it goes to the photography industry."

The mine itself is a clean-cut network of underground roadway. Dimension-wise the tunnel is 11' x 17', and 2,800 feet long. That's almost large enough to comfortably garage a convoy of 700 diesels, two by two. Passageways are lit by the miners' headlamps and the lights on the machinery at work below. It isn't quite bright enough for reading, but the dynamite is easily distinguishable from the ore. The air is perfumed with the scent of moist earth, and the walls glisten. All in all, though living above ground maintains its advantage, the mine is a pleasant, interesting place to visit.

At the core, powder men begin the process of torturing the rock for its silver. Dynamite is loaded into holes near the vein, and when the dust settles from the explosion, front end loaders scoop up boulders the size of your television set or larger. The loaders take them to the crusher where they are shattered into pieces no bigger than six and a half inches in size. The fragments are then conveyed to the dreaded SAG mill. (SAG stands for semi-autogenous, which in English translates as self-generated for the most part.) This mill is a cruel, Goliath version of the household wheat grinder. Its entire purpose is to return dust to dust.

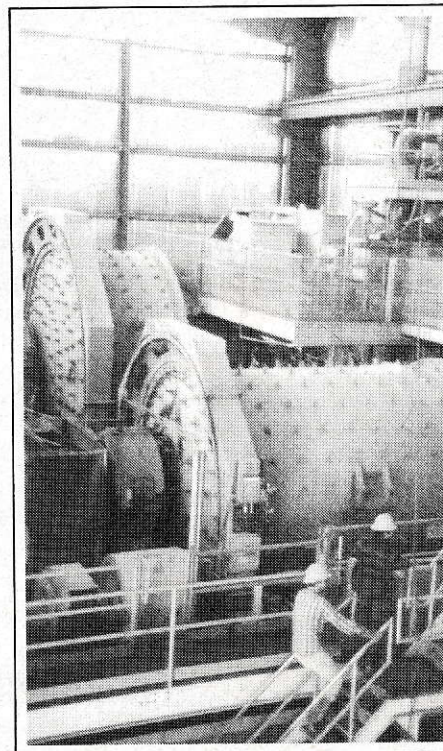
After this grinding workout, the grains soak in a bubbly cyanide solution. For 72 hours the particles of ore soak, then finally combine with zinc to escape the poison. Around and around they go through four mammoth, rotating filters. The SAG mill does its work well, and 75% of the powdered ore screens out. The silver-zinc concentrate is again leached in a burn solution of sulphuric and hydrochloric acids to purify the silver of the zinc and other contaminants.

Finally the silvery wet grains are smelted to liquid form and cooled into buttons about the size of a large ant hill. Later on, at a refinery, the buttons will be made into ingots



"And since the dwarves fled, no one dares to seek the shafts and treasures in the deep places..."

—J.R.R. Tolkien's "Lord of the Rings"



bound for their careers in photography, electronics, or simply hanging around some body's appendages.

It hasn't always been this mechanically efficient. Back at the turn of the century when Henry D. Holt herded his cattle over the vein, mining was like a scene from "Motherlode." According to Heber Holt, Henry's nephew, everything had to be done pretty much by hand.

"Uncle Henry joined up with Heber J. Grant in 1910," Holt says. "Grant later became LDS church president. Uncle Henry finally sold out to President Grant just before miners hit the underground water table."

"The mine was donated to the Enterprise ward of the LDS church upon the death of president Grant in 1945," says Holt. "The church promptly sold it to Sam Arentz so they could build the chapel they are now using."

From the discovery of the mine in 1896, until the miners dug up the subterranean swimming hole, the silver production was not even close to significant enough to pay its bills. Since swimming underground hasn't been a popular sport in the United States, the mine was virtually useless until 1969.

It was about this time that technological mining advancements started snowballing. The Anglo-American Mining Company poked around the mine, running tests, ascertaining this and that, and most valuably, recording their findings. A few small operations came and went, but until Ranchers took over in 1979 the mine remained similar to its original shafts and diggings.

According to Mr. Hahne, the mine plans another change in the near future. "We plan what we call a true merger with Hecla Mining Company. It won't alter production at the mine any, the most significant change will be the shift of headquarters from Albuquerque to Idaho," Hahne says. "With this merger Ranchers/Hecla will be the largest mining operation in the United States."

In 1979 assayers gave the mine a ten-year lifetime. Already five of those years have passed, but no signs of middle-age have set in. Hahne says that more recent discoveries indicate additional reserves that will extend production. More than likely it will live out its life as indefinitely as the rest of us.

For almost a century the diggings have felt time's passage. They've almost felt a backward aging process, looking younger with each new technological facelift. Despite all its changes and setbacks, the old hole remains a place of secrets, earthy smells, crystalline sparkles...and silver. ■