

Going for Gold at the Haile Mine

By Julian Brewer Culvern

The gleam of nuggets of solid, beautiful and everlasting yellow gold has magnetized and captivated the minds of people since the beginning of history. Man's continuous desire to possess this unquestioned wealth has reached fever pitch on numerous occasions. "Gold fever" was not far from the boiling point when the London common price of gold increased from \$45 per ounce in 1971 to about \$180 per ounce in early 1974. At the beginning of 1974, the citizens of this nation were permitted by Congress to buy and sell gold for the first time since 1934. There was much speculation regarding what the price of gold would do when the dust settled. During the late 1970s, gold's value increased to around \$800 per ounce.

From 1985 to 1991, the price dropped to \$325-\$447 per ounce, which meant several gold mines in South Carolina were operating at only marginal profits. By 1999, all had closed. But world conditions could change. Gold again could be high and gold fever brought to very high "temperatures." At this writing, gold is at \$622; the value changes every day, to some extent.

This leads us sandlappers to wonder just where to look for some of this soft metal that remains untarnished and unchanged almost forever. One quick answer is to look at what used to be the largest gold mine in the eastern U.S.: the Haile Mine, three-and-a-half miles northeast of Kershaw in Lancaster County. Here, you can see almost a fairyland of beautiful colors. Iron can cause many colors sprinkled among the rocks and the snow-white, soft earthen cliffs that make up the many deep and now filled abandoned pits and gold workings of bygone days.

Gold was discovered in this area in 1827 by Col. Benjamin Haile Jr. He reportedly heard of the gold discoveries around Charlotte in the early 1800s—including the 17-pound nugget found by 12-year-old Conrad Reed in North Carolina's Cabarrus County in 1799. It has been said that Haile was seeking gravel from Little Lynches Creek, which passed through his property, when he noticed yellow particles. He soon became a very rich man—arguably the wealthiest in the state. During the mine's early stages, gold was panned; then miners leased land in lots of 50 square feet and worked them as deep as 25 feet. In 1829, gold from the Haile mine reached the

USGS field geologist L.C. Graton took these photos of the Haile mine in 1904.

A historic mining operation just might —market willing— be profitable once again.

U.S. Mint in Philadelphia—the first domestic gold produced in South Carolina.

From this small beginning, the Haile mine became the largest single producer east of the Mississippi. Haile undoubtedly had little idea his mine would produce as much as \$6.6 million worth of metal by 1942 (which, of course, is worth much more in today's currency). Meanwhile, in 1866, ownership of the Haile property passed into other hands.

Gold was discovered at the Brewer mine in 1828 near Jefferson, in Chesterfield County, about 10 miles away. Soon, there were gold discoveries in some 18 South Carolina counties. In his book *The Carolina Gold Rush*, Bruce Roberts says

America's first gold rush was the one that occurred in the early 1800s in the Carolinas. Not until 1849 did California's gold rush occur.

On the Haile property, a Frenchman named Cugnot in 1838 built a five-stamp mill, an early primitive machine for separating gold to crush and screen ore. During the Civil War, gold and other metals were produced but Sherman's troops, on special orders, laid waste to the machinery when they passed through the area. Around 1880, E. Gybbon Spilsbury built a 20-stamp mill. In 1889, Dr. Adolph Thies, a famous German mining engineer, was employed to solve the difficult problem of extracting gold from sulfide ores. Thies accomplished this with his famous barrel chlorination process, attract-



Editor's note: The author is the great-great-great-grandson of Benjamin Haile Jr. and Samuel Hammond Brewer, and the great-great-nephew of Burrell Brewer—pioneers in South Carolina gold mining. A retired chemist/naturalist, Culvern worked at the Haile Mine's assay lab during the summers of 1940 and 1941 while he was a chemistry student at North Carolina State University.

ing the attention of gold mining experts all over the world. Thomas Edison visited the mine around 1900 to inspect its electrification.

On August 10, 1908, a boiler explosion killed mine manager Ernest Thies, Adolph's son. The explosion wrecked the 60-stamp mill and several other important buildings.

In 1913, a 15-ton cyanide plant was erected on the property to treat some of the richer "tailings" from previous operations. This was an unsuccessful venture. From 1914 to 1918, iron pyrite was mined for use in the manufacture of sulfuric acid, an important wartime (and peacetime) chemical.

From mid-1937 to 1942, large-scale gold production was resumed at the Haile mine using the efficient and—at that time—more modern cyanide process. Relatively low-grade ores with a value as low as \$3.50 to \$5 per ton were processed in large quantities of up to 350 tons per day. Normally, every two weeks, a nice gold "brick" was poured. It was a little larger than a house brick and usually weighed about 65 pounds, having a value of about \$17,000 at that time. The brick consisted of approximately 60 percent gold, 20 percent silver, 10 percent copper (chiefly dynamite wire) and 10 percent miscellaneous impurities. It was guarded at all times and shipped directly to the U.S. Mint in Philadelphia as soon as it was analyzed for gold and silver.

Knoxville geologist Earl M. Jones investigated the area around 1966 and returned about 1971 for more exploration and geological work. He had much faith in the Haile's gold deposits (spending much of his own money), which he says are not vein deposits but hot springs/volcanic deposits. Jones' positive vision of the Haile area and approximately 30 years working with the mine paid off: He became the president and chief operating officer for Piedmont Mining Company, with Dr. Robert M. Shields Jr., an MIT geochemist, as CEO and chief financial support and manager. In 1980, Piedmont Land & Exploration Company was formed. In 1981, the Haile property was leased and in 1983, Piedmont Mining Company was incorporated. Exploration and drilling began in 1984; in 1985, mining began. The first gold bar was poured in April that year. September 1987 saw the public offering of common stock.

The Haile was the first operating gold mine in the eastern U.S. since 1942. In 1987, a beautiful half-ounce gold coin was issued with the Haile Gold Mine name and the *U.S.S. Constitution* on the other side. About 600 were sold at \$495 each. Earl Jones owns a number of them.

Piedmont Mining continued operations until April 1991, producing about 88,000 ounces of gold, then sold

A richness of natural colors seems to hint at the gold believed still remaining on the property. The problem with extracting it is the daunting operational cost.
Inset photo: Biologist Terry Turner with remnants of an earlier Haile mining endeavor.

62.5 percent of the company to Amax Gold for \$17.5 million. The price of gold bullion per ounce ranged from about \$325 to \$450 during most of that time.

Piedmont was sold to Amax before any environmental work was done. Earl Jones says that Amax discontinued operations at the Haile not just because of the price of gold but because of larger deposits found out West and in Africa. In March 1999, Amax sold to Kinross of Salt Lake City and Toronto. They now lease about 1,300 acres and own about 500 acres, of which about 250 acres are at the original mine site. Kinross has spent many millions on environmental clean-ups, Jones says. These days, Terry Turner, a University of South Carolina biologist/chemist, is the Kinross operations manager, while Ramona Schneider is the environmentalist. They cleaned the mine in a manner that will allow it to reopen if the price of gold makes it feasible.

In 1994, Amax Gold announced that the drill indicated the gold reserves of the property were 1,540,000 ounces, and this was the end of its exploration. In Jones' opinion, probably more than 2 million ounces is present. If this much could be extracted, and if the price of gold reached \$700 per ounce, the \$1.4 billion in potential gross sales would be worth some digging. In that event, Haile may be a long way from dead, as was lamented by Clyde C. Pittman, who grew up at the mine, in his 1972 book *Death of a Gold Mine*. There may well be more gold fever at the Haile Mine someday.

Around 2000, Jones thought that high environmental costs would prohibit gold from being mined again at the Haile, but in 2003, he said that it could if the price got high enough. In previous years, Jack Robinson had been mining 10-15,000 tons of mineralite per year. Mineralite is a white material composed of sericite, quartz, mica and kaolin and used chiefly in paints. This now has been leased to another group.

A summary of gold production at the Haile Mine:

1829-1877: The Haile made \$1 million at \$20.67 per ounce.

1878-1939: The Haile made \$4,113,451, at \$20.67-\$35 per ounce.

1939-1942: The Haile made \$1.5 million at \$35 per ounce, as estimated by the author based on work experience at this time.



The Haile made \$6,613,451 from its opening in 1829 until 1942. It ceased production from 1943 to 1984 because of World War II and the price of gold. When gold production resumed in 1985, a total of \$32,721,000 was made until it was stopped in 1991. The gold price varied from \$325 to \$447 during this time. Thus, the Haile Mine has produced a total of approximately \$39,334,451 in its history.

The Haile isn't South Carolina's only gold mine. Ridgeway Mine in Fairfield County started production in 1988 and continued until 1999, producing 1.46 million ounces of gold—almost 17 times what the Haile produced during its recent 6-7 years. John DeWitt Chapman discovered gold there in 1969 after following many stream branches and tributaries that led to the Ridgeway area. Now owned by the Kennecott Ridgeway Mining Co., this operation invested heavily in environmental improvements and shut down after the depletion of gold reserves.

Gold at the Brewer Gold Mine near Jefferson, in Chesterfield County, was discovered in 1828—about a year after the Haile mine, nine miles away. The Brewer mine reportedly produced \$450,000 from gold up to 1942 and was the third leading producer in the state. The Brewer produced a gold half-ounce coin. The mine was closed after spending more than \$27 million in clean-up and going into bankruptcy.

The Dorn Gold Mine near McCormick was second to the Haile in total gold production in the state,

reports *Carolina Gold: A History of Gold Mining in South Carolina*. William B. “Billy” Dorn discovered a small amount of gold on his country estate in 1835. In 1852, he made a big strike and became wealthy. By 1859, at the peak of its production, the Dorn Mine yielded nearly \$1 million worth of the precious metal. Famous for his generosity, Dorn gave his 15-year-old bride (he was 55) \$500 to spend on wedding presents. He gave the minister a pair of gloves as payment for the ceremony, with a \$100 gold piece in each finger. Dorn closed his mine permanently in 1865.

By 1966, gold had been found in 135 places in South Carolina, a figure that holds today, according to Gary Taylor, senior geologic technician with the South Carolina Geological Survey in Columbia. The only active gold mine in the state is the Candy Branch Mine in Abbeville County, says R. Craig Kennedy, professional geologist and assistant director of the Division of Mining and Solid Waste Management with the South Carolina Department of Health and Environmental Control. At approximately 10 acres, Candy Branch is a small operation where—unlike earlier mines—cyanide solutions to extract gold from the mined ore aren't permitted. Ore is mined from 10-foot-deep pits and washed through sluices. Gold separates from other rock particles by gravity.

Thus, South Carolina is not only a place rich in wonderful heritage and places to visit, but also a place rich in a most desirable metal. ❖

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Julian Brewer Culvern is listed in Who's Who in Science and Engineering. Reared chiefly in Kershaw County and Charlotte, he lives in Morristown, Tennessee.

Setting the Genealogical Record Straight

Benjamin Haile Jr. (1767-1849), who discovered gold on his sizeable plantation, did not come from Virginia nor serve in the South Carolina legislature, as is recorded erroneously in many publications. It was his father, Capt. Benjamin Haile, who did. Capt. Haile arrived in Lancaster County from Virginia around 1760, was an officer during the American Revolution, and represented Lancaster in the 10th General Assembly (1792-1794). Locally, he was a tax inquirer, assessor and collector for the district east of the Wateree River and a justice of the peace for Lancaster County. He died in Columbia in May 1794. His wife Catherine was born in Rappahannock, Virginia, in 1738 and died in Lancaster District at age 102. She was a classmate of Gen. Thomas Sumter.

Their son, Benjamin Jr., was born in Lancaster County about seven years after his parents arrived from Virginia. Besides inheriting much of his father's land, he acquired other lands.

He was 60 when he discovered the gold, and subsequently bought more land, eventually owning more than 22,000 acres. This included property around Boykin, a famous home in Camden (Bingham House on Broad Street), bank stock there, a nearby boatyard and S.C. Railroad stock. His fine summer home in DeKalb, between Camden and Kershaw, was razed in the 1970s.

Benjamin Haile Jr. was referred to as “Colonel.” This presumably was an honorary title, because no record of military service has been found.

—JBC