

# The Erikson mine story

*(L'histoire de la mine Erikson)*

By AL BEATON

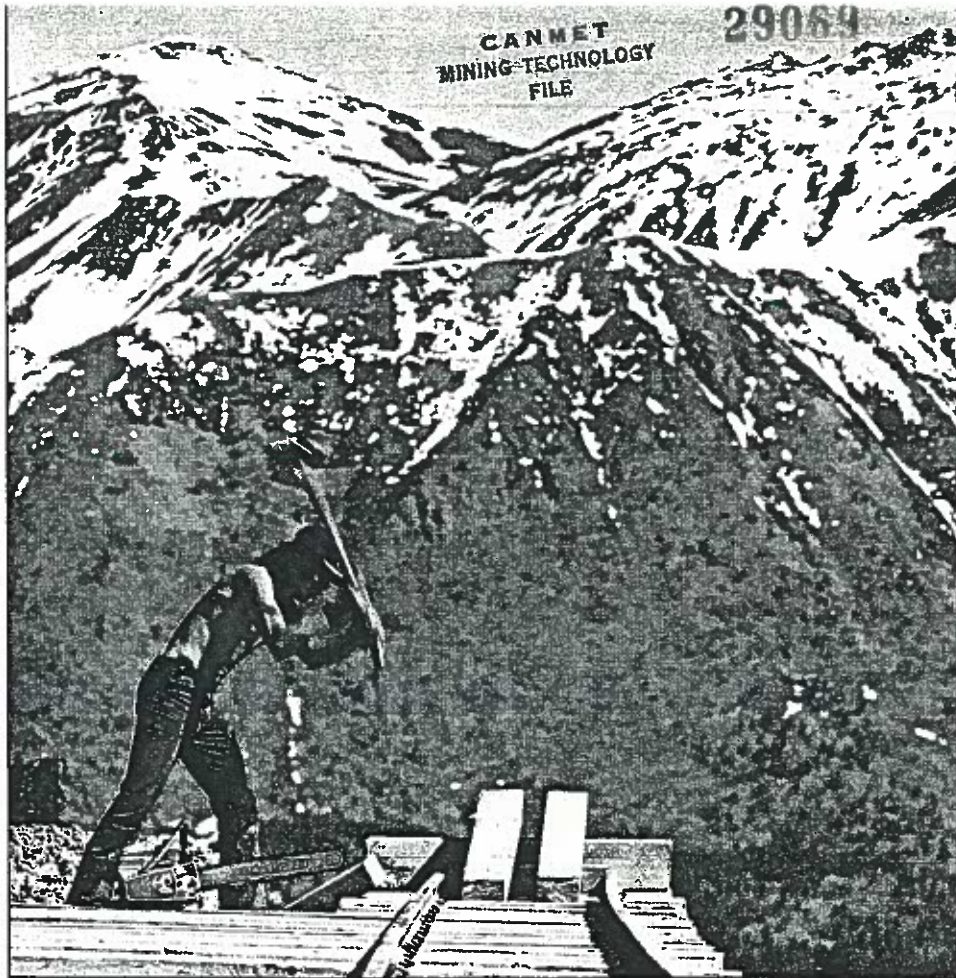
The story of the Erikson Gold mine is the story of the age old lure of gold and the story of tough prospectors and gold miners from the century before. It is also the story of two determined men from this century who had the imagination to recognize the modern potential of an old gold camp.

It is the story of two prospectors, Dave and Kristian Ross, a father and son team who had the persistence and courage to go ahead and build a mine on their own. Erikson is also proof of the old mining cliché that mines are made, not found.

Since commencing production in 1978, the Erikson mine has produced well over 100,000 oz gold from more than 200,000 tons of ore, giving it an average of about 0.5 oz. The latest reserve estimate was 196,000 tons grading 0.456 oz. gold.

One could actually say that the story of Erikson started at Sutter's Mill in California in 1848. That was the first significant placer gold to be discovered in the American west. In the following year the population of California went from 20,000 to 80,000 men in the gold rush of

*Al Beaton is mine manager of the Erikson operation, and presented an earlier draft of this paper at a conference in Smithers, B.C. last year.*



The tale of two prospectors who made use once again of that old cliché that mines are not found, they are made.

1849. Within 10 years other great gold rushes followed in Colorado and Nevada. The time of the gold miner had arrived and western North America would never be the same again.

By 1898 the gold miners, some of them veterans of the earlier rushes, had discovered the Klondike on the Yukon River and the north was opened up. In the meantime gold had first been discovered in the Dease Lake country in 1872 on Thibert Creek by Henry Thibert. The following year a black prospector, Henry McDame, hit pay dirt on McDame Creek and the mining town of Centreville was born. Local legends say Henry McDame swore he wouldn't leave the area until he had the weight of his dog in gold. He must have succeeded with that claim because within the next 10 years 65,000 ounces of gold were recorded from McDame and surrounding creeks. This includes a 73 ounce nugget, the largest ever recorded in British Columbia.

It is interesting that mining methods at this time included some underground work. Six miners reported recovering between 100 and 300 ounces of gold per week by tunnelling underground in the Christie Lead in 1877 on Snow Creek. Local legends also say that miners recov-

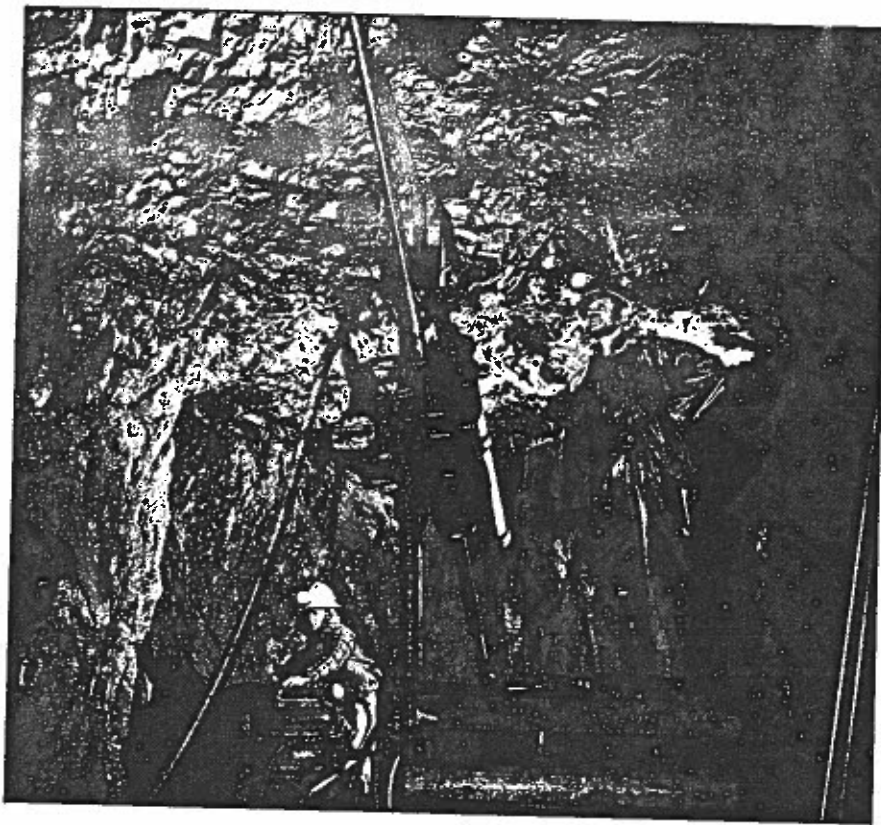
ered over 30,000 ounces from the 500 foot Pocahontas Tunnel at Centreville.

From 1895 onward the easy gold had been mined out and the white miners left for the Klondike and other gold camps leaving the McDame gold field to the Chinese (who were barred from the Klondike). The Chinese stayed in the area until 1910 and the remains of their workings, particularly the hand-removed boulder piles, are still evident on McDame and other creeks. Placer mining never completely died out although it was on a much reduced scale until today.

From 1947 to 1950 Moccasin Mines Ltd recorded 16,000 ounces from a dragline operation on McDame. They had to build a 70 mile tractor road from the recently completed Alaskan Highway to the north to get into the country.

This part of B.C. was a tough place to reach. The traditional route was by way of river boat from Wrangell, Alaska, up the Stikine River to Telegraph Creek and then overland to Dease Lake, down the lake and Dease River to McDame Post 15 miles from McDame Lake. If anyone has ever been to Telegraph he will appreciate the first trails over the canyons from Telegraph to Dease.

The country was made more accessible



The Erikson reserve grade is 0.73 oz gold, one of the highest in Canada.

in the early '50's with the discovery of the Cassiar Asbestos deposit which led to the mine and town of Cassiar in 1955. That is a story in itself.

Local Indians had known of this deposit for some time. The wool of the famous Stone Sheep on McDame Mountain was green from the asbestos in the area and the birds built nests which wouldn't burn.

The first recorded hard rock activity was in 1934 when Lynch Callison, who lives in Dease Lake today, crashed with his brother in Callison Lake, one half mile from the Erickson Mill, 50 years ago. They were flying the first quartz ore from Erickson Creek to Juneau, Alaska.

In 1935 there was a small gold rush which led to the discovery of most of the known surface showings in the area and to the first claims on Table Mountain. John Vollaug and his partner, Hans Erickson, staked the Vollaug Vein on top of Table Mountain. This 9,000 foot vein was a well known landmark to the local Indians.

Erickson staked the Jennie claim on Erickson Creek which contained a 40 foot outcrop of the Jennie Vein. The Agnes claim was also staked at this time by Gerry Davis. Gerry and his wife, Agnes, are still actively mining today on Boulder

Creek in the Dease Lake country. Gerry, who is close to 80 years old, still flies his Cessna 180 into his placer operation in the summer.

Another well known prospector of that time was Pete Hamlin who staked and worked the Hamlin veins on the west end of Table Mountain. These veins are on ground held today by Cusac, two miles west of the Erickson portals.

The first of many unsuccessful milling operations was attempted in 1939. A small mill was freighted up Erickson Creek by pack horse. One of the packers, Joe Reid, still lives in the Cassiar area today. They recovered over 100 ounces of gold from float off the Jennie outcrop. The mill was washed down the creek the following spring by runoff.

The ball mill is buried in Erickson Creek somewhere to this very day. This group was responsible for an adit discovered by Erickson miners in 1979. The buried adit had been driven into the Jennie Vein 100 feet below the outcrop. They had taken only one round on the vein which did not run and stopped 100 feet short of two ounce ore.

Cominco extensively worked the area in 1937 and spend at least one full geological season mapping, sampling and drilling. They dammed two lakes to give enough water for a large float plane. They missed the Jennie Vein and moved on to their new gold prospect, the Con Mine, in the Territories.

The time was not right and the area still

was very isolated. The prospectors were still looking for the impossible dream... the vein that consistently ran better than one ounce. There were men like Glen Hope, an old Juneau gold miner, who sank shafts and declines and drove tunnels at Quartz Creek. Glen set up an old circular stamp mill and although he was unsuccessful in finding the "mother lode", he and men like him paved the way for Erickson's success.

Gold mining remained dormant until 1962 when Hanna Gold Mines drove 5,000 feet of drift and raise on a set of veins lying below Snow Creek several miles west of Erickson. This property was ultimately put into production at 100 tons per day in 1981 by United Hearne and Taurus.

Also in the '60's, Troutline put a road up to the Vollaug Vein on the east side of Table Mountain. They set up unsuccessful mill operations directly opposite the Erickson Mill across McDame Creek.

Table Mountain Mines, who had been semi-active in the area since 1952, drove a small decline on the west end of the Vollaug Vein in 1973. The results were encouraging enough to drive an adit 300 feet below the vein in the same year. In 1977 they extended the adit and in 1979 drove two raises to surface.

Dave and Kristian Ross came into the area in 1973. They had done their homework and they liked what they saw. Dave Ross, who was involved in the early days with Lornex and Afton, had the experience and Kristian had the energy.

They formed the Agnes and Jennie Mining Company Ltd after their first claims on Erickson Creek. The following year they sampled and trenched the Jennie Vein. In 1975 they drilled six percussion and three diamond drill holes. They also picked up a few additional claims from Silver Standard who was mainly preoccupied with the Vollaug Vein on top of the mountain.

The percussion driller was supposedly partially blind but one day he said to Dave Ross, "Is this what you boys are looking for?" He held a nice chunk of free gold from the drill cuttings in his hand.

The results from the first two years were encouraging enough for Dave Ross to bring in a partner, Nu-Energy Development Corp. Together they drilled an additional 18 short diamond drill holes which indicated a small high grade ore shoot in the Jennie Vein. The decision to go underground was made.

On Boxing Day, 1976, Kristian and Jerry White's miners left from Vancouver in two motor homes. Kristian claims it was the miner who drove one camper into the ditch. Anyway, on January 1, 1977, the rented campers were dragged by Cat up Table Mountain and the first under-

ground work was started on 35 Portal . . . 200 vertical feet below the Jennie outcrop.

Erickson has a nasty habit of starting its portals in late fall or midwinter. Within six weeks the 700 foot adit had intersected the Jennie Vein and the vein was drifted out a short distance on the level.

The following year 15,000 feet of surface drilling was completed and the 35 drift was extended several hundred feet . . . approximately 400 feet of vein was exposed, not all of it ore grade. In February, 1978 the drift was stopped and a 100 foot raise was driven up on the vein. Ten thousand tons of ore had been proven out.

The decision to go into production was made and a financing of \$1.5 million was arranged with the Royal Bank. Bank approval was received at the end of August that year and building began in early September. The gold price then was only \$200 (U.S.) per ounce. The company had anticipated earlier bank approval and found themselves building the mine, mill and camp in fall and winter with a summer budget.

The fall and winter of '78-'79 was cold and severe with temperatures dipping to minus 60° F. The little camp above McDame Lake struggled with frozen water and sewer lines but work continued. On December 22, three months after construction started, the mill turned over for the first time and Erickson Gold Mine was noted in official mining records as the only mine in Canada to go into production in 1978. Full production was achieved in April, 1979.

The mill was essentially set up for 100 tons per day with a small jaw crusher, cone crusher, ball mill and jigs and one bank of cells.

It had taken one hundred years but the time was right again for the gold miner on McDame Creek.

That was the summer gold prices took off and the initial bank loan was paid October, 1979, just nine turbulent months since turning over the mill. That same fall Erickson's second portal was collared, 230 vertical feet below 35 Level. All Erickson levels are indicated in metres: 35 Portal is 1,350 m above sea level and 28 is 1,280 m, etc.

From December '78 to September '79 mining was solely on previously drill-indicated Jennie ore. That fall the Jennie was extended west for 300 feet. Over 800 feet of continuous strike length on the Jennie was ultimately mined.

This extension to the Jennie Vein convinced the company of the long term possibilities of the mine. From that time on Dave and Kristian started concentrating on acquiring additional ground to protect and extend the mine and to change the corporate structure of the

company to give it flexibility and the means of raising money if required. At this time the mine was half private, Agnes and Jennie, and half public, Nu-Energy.

Also at this time the mine was vulnerable because it was limited to only one vein. Bob Roscoe, the mine engineer at the time, used to quote his father, who had been the mine manager of the Horn Mine for Noranda. "Mining a single vein is a salvage job from day one."

Erickson had trouble with the Jennie Vein on 28 – it was badly faulted and very difficult to line up any size stope. But exploration came to the rescue and the first ore from the Maura Vein on 28 Level was mined in October, 1981. It turned out to be a real winner. The vein was blind . . . did not outcrop on surface, as all the veins to date have been except the Jennie.

Erickson's third portal, 21 Portal, was started the fall of 1981. It was a 2000 foot drive aimed for the heart of the Maura.

This portal initially gave a lot of problems – it took over 300 feet of timbering to get in good ground. On January 8 the first round without timber was taken. On February 7 the Bear Vein was intersected 900 feet in. This was a one ounce vein nine feet wide dipping slightly the opposite way and 1000 feet early from the Maura target. It caused a little bit of excitement.

**T**he Bear was not alone. Seven veins were intersected within 300 feet. The Devine, Bear, Dease, Goldie and McDame. The Bear and Dease were economically mined and all the other veins contained gold. Erickson suddenly went from one to seven significant veins.

On April 21, 1982, the crosscut hit the Maura Vein. Seven miners had given 1000 feet of drift and raise in one month. The vein was very big, very wet and very exciting. It averaged 14 feet wide on the drift and went to 25 feet in the centre of the stope. The Maura was stoped by conventional shrinkage methods, that is drilling six and eight foot uppers with stopers. Five miners yielded 11,000 tons in December, 1982.

Earlier that fall the decision was made to expand the mill capacity by the installation of a second 7 x 8 ball mill. In January of '83 the mill production was pushed to 200 tons per day. This production has been increased over time to about 265 tpd, with a reduction in the average grade from the historical 0.5 oz to 0.4 oz. Grade at Erickson varies considerably from day to day and from month to month. The lowest monthly grade was 0.25 ounces per ton back in 1980. The highest was 1.27 ounces per ton in April, 1982.

Erickson is blessed with a very forgiv-

ing ore and an ore capable of withstanding considerable variations in grade with no appreciable affect in the mill recovery. The historical recovery today is 95%. The Erickson ore is free milling and over 60% of the gold is recovered immediately in the jigs. This allows for a very rapid turnaround in payment, and was a very significant factor for Erickson, particularly in the early days. The remaining gold is recovered in a float con which is shipped by truck to East Helena, Montana. The milling process requires no mercury or cyanide chemicals. The expansion to 200 tons has allowed for more leeway in mixing ore and the grade is now more consistent in the 0.5 ounce range, which is the ideal grade for recovery at Erickson.

In March of '83 the 28 and 21 Levels were driven further to the south to intersect the drill-indicated Alison Vein. This was a flat lying 30 degree vein about five to six feet wide that extended from 21 to 28 Levels or approximately 450 vein feet. The Alison ran over 1.5 ounces on 28 Level and also caused a little excitement.

To date all the veins are indicating a general east to west rake and also the ore shoots appear to rake east and west. If you intersect a vein, you turn and drift west and also drive your exploration raises up to the west.

Erickson had to change from the typical shrinkage mining to open stoping on the Alison. The dip length on the Alison was partially overcome by the introduction of the first electrical slushers at Erickson.

To date it appears that over 85% recovery is possible on the flat veins without any timbering or support. The remaining pillars will be recovered where economical.

Erickson has had no real ground problems to date and 100% extraction has been achieved in shrinkage mining. Dilution is approximately 5% which includes intentional dilution.

**I**n 1979 when Erickson was in full production and gold prices took off, there was a dramatic increase in mining and exploration in the valley. United Hearne and Plaza Resources quickly followed Erickson into production. United Hearne put the Hanna Gold Mine property into production in the summer of 1981 at 100 tons per day. This mine is currently operated by Taurus after a share exchange with United Hearne.

Plaza went into production the same summer. They were carrying out mining operations at Quartz Creek and on Table Mountain. They had acquired 3,000 feet of the Vollaug Vein from Troutline east of the Table Mountain property. In 1980

they had commenced open pit operation on the Vollaug and had mined 18,000 tons by the fall of 1981. After milling 9,000 tons and leaving 7,500 tons on Table Mountain, they went into receivership in December, 1981.

Cusac started actively working in the area, particularly Table Mountain, in 1979. Their main activity is on the northwest side of Table Mountain, two miles from Erickson's portals.

The two brothers, Gil and Fred Brett, have prospected around McDame since 1952. In 1980 they brought in a portable mill and have carried out summer exploration, mining and milling since that time.

In 1980 Agnes and Jennie Mining Company optioned the Elan property from John Hope and Stan Case. This property lies due north from Erickson and contains extensive quartz veins. The Elan Vein carried high silver values with small amounts of gold. Erickson acquired the property in December, 1982, when Agnes and Jennie Mining Company and Nu-Energy Development Corp. were merged to form Erickson Gold Mine.

The effect of this merger enabled the company to accelerate the development of the Erickson Gold camp. In September of last year Erickson acquired the Plaza

mill and claims when Plaza went into bankruptcy. Also at that time Erickson completed the acquisition of 95% of Table Mountain Mines, a company which held claims nearby containing an open pit deposit that was mined this past summer. This helped the company reduce costs. Erickson has mined about 40,000 tons so far from the pit, at an average grade of 0.35 oz gold. This and other acquisition have increased Erickson's land position in the area to more than 130 sq mi.

The large amount of development work required to keep a mine like the Erickson in constant production — there are currently four active portals with another three that can be termed semi-active — contributed significantly to the losses by Erickson in the first quarter of this year of \$1.3 million. However, the losses were reduced to \$500,000 in the second quarter, and the mine is now making a profit despite low gold prices and a mining grade of 0.4 oz. The historical grade at the mine has been 0.5 oz. Although much reduced, the development work continues with the driving of a 4,000 ft portal, the lower-most to date. It is currently at the 500 ft mark.

**E**rickson is utilizing its own miners for this work. Portals are initially being

driven with scoop and all will be changed over to track. Erickson is a track mine with already several miles of drift.

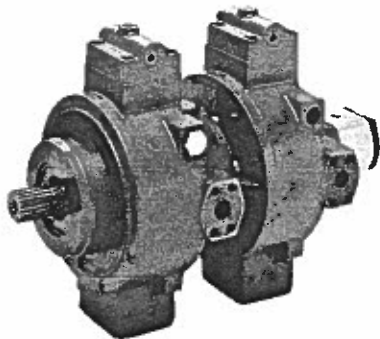
The ground to date is excellent, requiring very little support. All mining is carried out by jackleg and stoper. Driving portals the miners average better than six feet a man shift and the Caitland drive has achieved over 40 feet advance in 24 hours.

The miners are high quality coming mostly from British Columbia and the Yukon. Some men have been with the company from day one and one miner has already driven over a mile of development. Erickson's mining philosophy has always been pay as you go and to avoid carrying a high debt load. This presents a continuing challenge due to the expanding nature of the mine.

In this respect the mine is very similar to the classic vein mines, particularly Bralorne. All the high grade multiple vein operations started small and took a number of years to develop and to reach the natural or optimum tonnage.

Management feels that the key to Erickson's past and future success lies in the close working relationships of the mine employees and the staff. In most cases decisions are made jointly between workers and supervisors. ❖

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