

ALASKA IT'S LAND AND PEOPLE.
Dr. Frank Dawson.

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KAKO GOLD MINE:
PAST AND PRESENT.

By Jeanie Fabich

Ten miles up the Yukon River from my home in Russian Mission, is the very unique "Kako Gold Mine." Over the last year and a half, I have been fortunate enough to travel up there and get to know the owners, Dave and Vera Penz, who are currently working the mine. They have also shared it's interesting history with me.

After the big gold strikes in the Klondike, and later in Nome, miners spread out sampling the thousands of creeks that they came to, hoping to finally find their fortune. Many ventured south east to the Lower Yukon River region, approximately one hundred and fifty miles inland from the Bering Sea.

The land there offers a variety of terrain. There are many small rolling mountains topped with tundra; none in this area are taller than sixteen hundred feet. There are also heavily wooded areas covered with beautiful birch, cottonwood, and spruce trees. Much of the rest of the country is marshy swamps. The abundance of wildlife such as moose, and small ground animals, along with the availability of fish, fresh water, and timber, made survival easier for the prospectors.

In 1913, claims were staked and worked in the Willow and Bumble Bee Creeks. (This is very close to where present day Marshall is now located; aprox. thirty miles west of Russian Mission.) The area turned out to be quite a rich spot. In 1917 with gold being worth about \$18.30 per ounce, \$423,000.00 worth of gold was taken out of the two creeks. (Geology Notes, 1940) Mining continued on and off here until about 1954. (Penz, 1993)

More searching by ambitious gold seekers, led them east of Marshal approximately thirty miles, to Kako Creek; a large creek with several smaller tributaries feeding into it. In 1919, several families set up a "ground sluice" type of operation, on Bobtail Creek, which is one of the tributaries.

The type of mining done here is "placer mining" which means that the gold has already been removed from it's source by gravity or erosion. The miners just separate the gold from sand and gravel. In "hard rock mining", the gold is usually underground and still actually trapped in rock and must be removed.

These early prospectors used a "sluice box" to filter the gold out of the streams. A sluice box is a trough through which water passes over obstructions called riffles. It is placed right in the stream's current. Sand is shoveled in one end, and the force of the current carries it over the riffles where it is agitated and concentrated. (Black, 1988) The size of the sluice varies according to the situation. The water can be controlled by using simple dams, or pumps. Theoretically the heavy flakes of gold should be caught in the riffles, however if the gold is fine enough, or the current too swift, the gold is swept away. This is a very inexpensive type of mining, but not very effecient for this area. (Geology Notes, 1940)

In 1935, Joe Ramstead decided after working for a man in Flat, Alaska, that he was ready to be his own boss. He created "The Yukon Mining Company" and bought the mining claims at Bobtail and Buster creeks. By 1936 Ramstead was bringing in some modern equipment working Bobtail creek and taking more samples of the land. To do these samples, he would use a huge drill with a 6 inch casing to pound down about fifty feet or until he would hit bedrock, bringing up samples of the different layers that lay below. This is called "churn drilling" and is a lot of work. It takes three days for the bit to go down, and another day or two day for it to bring the casing up to the surface again. (Penz, 1993) Ramstead's hardwork finally paid off and by 1940 he was ready to start production in Buster creek. He had done his homework, and it is said that he had a good idea of where the gold was located. Now he just had to get it out.

He started with the richest section and mined east to west in Buster Creek, moving toward a large mountain. He was using an "elevated sluice box." Because he had three cats, and a dragline, which looks like a hundred foot crane with a bucket that holds two yards of dirt, he was able to move much more dirt than the previous miners could, so he had to modify his style of mining. Ramstead built what looked like a twenty foot tall

railroad bridge close to the creek, and placed his sluice way up on top of the bridge. The miner would scoop the dirt up using the dragline and dump it in the sluice. He used water pumps, and the slope of the elevated sluice to increase water current. The material was sized by being washed over a "grizzly" which is a heavy iron grate used to screen the large pieces of ore from the fines. When he was done with one spot in the creek, he would pull the sluice upstream with the cat, and continue. This method was more effective, and could process much more material than the ground sluice. Penz's old minening records show that gold was worth about \$30.00 per ounce, and four thousand ounces were collected. (\$120,000.00)

In 1941, Ramstead was notified that all equipment that could aid in the building of the Alcan Highway, would be bought by the government, for the going price, and must be on the next barge. (Penz, 1993) Just think, Ramsted had worked for more than four years and was just really getting started, and now he would be shut down! He loaded the cats and the dragline on the barge. Without the much needed equipment, he could not continue his operation and make it profitable. He left a caretaker in charge of Kako Mine, and landed a contract to build approximately fifty miles of the Alcan Highway.

Alex Mingo was the man who was left to take care of things at Kako.

He was a very strong man who was born in France. He held many awards for being a strong runner. During WW1 he would run messages across the enemy lines. Mingo's main responsibility was to file "assessments" for Ramstead so that he would not lose his claims.

In mining, claims are filed, you don't own the land, you just own the mineral rights to the land. In order to retain a claim, assessments must be done every year and filed with the Federal Claims Department.

Mingo ended up staying out here for many years as the caretaker. Gold prices were now low, and wages were high and Joe Ramstead's interests had shifted to building roads, and airports. One year he notified Mingo that he was not going to pay him. When Mingo filed his assessment in Bethel that year, instead of filing it in Ramstead's name, he filed it in his own name. This is called "top filing" and was quite common in these days. Now Mingo owned the mineral rights, and continued "his" mining.

Throughout the years, people would come to visit the old man and lend him a hand. One such gentleman was Eddie Hooley, a school teacher in near by Russian Mission. Eddie was single and very interested in learning about the mining procedures. He would walk up to Kako, and bring Mingo his mail and some groceries. The two became close friends, and as Alex Mingo got

older, and his health deteriorated, around 1960, he made Eddie Hooley half owner of the claims. He also told Hooley of the results of all the years of drilling; basically he filled him in on where he felt the gold was. (The other half of the claims were given to a mutual friend.) Soon after this, Alex left Alaska and went outside due to his poor health. He later died of cancer in 1971.

By 1963, Eddie was married and still teaching school, but had moved to Aniak. He continued to file the required assessments, however he never really mined the claims. He had taken up the hobby of ham operating. One of the people he communicated with on the air was a man from Stoney River, named Dave Penz. They got to know each other and realized they had much in common. They were both pilots, and they both loved working with children. For years Eddie Hooley had thought of starting a "kids camp" at Kako and had talked with Dave about how he would go about it. Dave was already involved with this type of thing in Stoney River.

In 1975-76 Eddie started the very long process of "taking the land to "Patent" This means that they would try to gain complete ownership of the land; not just mineral rights. To do this you must prove to the Federal Claims Dept. "that it is profitable to mine." This was a way for the government to keep the land free from homesteaders and people just look

ing for recreational land. (this also enabled the government to remain "in control.")

Hooley felt if he could purchase this land he could possibly start his camp.

He was meticulous when it came to filling out the many forms, and correctly going through the "patent" process. It would be just a matter of time before the land was his.

In February 1977, Hooley and his wife were flying in their plane from Aniak to Anchorage to go join in the festivities of Fur Rendezvous. They never did arrive. Dave Penz, his long time friend, who was already in Anchorage, set out in his plane, along with the search and rescue helicopter, to find the missing plane. It was finally spotted at Merrill Pass. It appeared to have "iced up." There were no survivors. (Penz, 1993)

What a terrible loss! Local people still talk about what a kind person Eddie Hooley was. " He is still respected and remembered as a very good teacher and friend." (Kozevnikoff, 1993) This was a terrible loss for Koko Mine too! Who would file the assessments, and take care of everything that had been accomplished thus far?

Well, Dave Penz was named executor of the estate. He sold both halves of the claims to a contractor in 1979. Gold was up to aprox. \$800.00

an ounce, and they were prepared go into operation. Penz worked with the contractor for several years until 1983, when gold price dropped to about \$300.00 dollars per ounce. It was no longer profitable to mine, and they wanted to sell. Production ceased. Dave remained at Kako as the caretaker; continuing to file those very important assessments.

Dave finally bought the claims in 1985, and began to mine again. The price did rise slightly, however it has never fully recovered.

Similar to Hooley, Dave had a "master plan." He wanted not only to make the mine into a profitable business, he wanted to be able to continue his work in counseling and support services to the local people. He wanted to start a "retreat". He began the process again of "taking the land to patent." He began drilling again, because Hooley had died without passing along his results of his years of drilling. He gathered information that would prove that "yes, these claims could be mined profitably."

In 1988, Dave, and his wife Vera, celebrated! They had done it! Eighty eight acres was theirs to purchase. The land sold for \$2.50 per acre, which sounds very cheap, until you look at all the expense, and man hours it took to prove the land profitable. Dave estimates that it comes out to about \$400. - \$500. per acre!

His next step in his plan was to get Kako producing profitably. Dave

was, and still is, learning about this complex livelihood. He has come up with some very good ideas that worked very effectively with the type of gold found here.

First of all, the gold found in this area is very fine. They call it "flour gold." (95% of the flakes could go thru a fine window screen.) (Penz, 1993) Using the traditional "sluice box" method was a very ineffective way to try to capture this type of gold. The water current needed to move the material, also was taking 40%-60% of the gold with it. The sluice box method is also a contributor in poor water quality.

Eventually Dave invested \$30,000 into a four step jig, and completely got rid of the sluice box. After many adjustments, and lots of trial and error, he has greatly increased the amount of gold that is captured. The gold is there - and he is able to hang on to it.

After several years of drilling, Dave decided that the richest deposits sat in the old "Buster Creek bed," which was now thirty feet below the dirt surface. After he removes the top thirty feet of over burden, with a cat, he starts the process of separation. Here's briefly how it works.

A payloader is used to scoop up the sand and gravel of the old stream bed and dump it into the "trommel" which is a very large cylinder that ro-

tates around and around. Water is used in the trommel which washes the ore and causes the gold to be set free. After the trommel, the material is sized through a large screen. The larger rocks are removed on a conveyor belt and discarded. The smaller material goes to the first of four jigs. The jig is a box that is full of water. It has a screen near the top and the screen is covered with a layer of iron pellets. The water is pulsed up and down, an inch and a half, at sixty pulses per minute. This causes the gold to vibrate below the pellets, through the screen, and on to the next jig, which pulses a shorter distance, and at a faster speed. The material travels through two more jigs, and at the end of this process only black sand and gold remain. All material rejected in the 2nd through 4th jig is recycled back to the secondary jig.

The final step is a "dister table." This is a table with many ridges. It is positioned at a slight angle, and vibrates horizontally. The very fine black sand and gold vibrate into a five gallon bucket, while anything else is again recycled through the jigs.

At the end of the day the gold and sand are separated. The black sand is stored for further inspection and testing, and the gold is eventually melted into gold bars and sold on the gold market. The gold is "800 fine." This means that it is 80% gold, and 20% silver. The current gold price is right

around \$330.00 per ounce, however, Dave receives approximately 20% less because it is not pure.

In the past years the environmental agencies have tightened requirements to help protect and restore the quality of the environment. Mining depends a great deal on the use of water. Dave has created a "closed water system" which means very little water is allowed to escape. He recycles the water over and over. If any water does escape, it is diverted to a settling pond. This is in contrast to methods used in the past such as the ground sluice, or elevated sluice, which added mud and fine silt to the nearby creeks and may have had adverse effects on fish and wildlife.

Dave occasionally hires a local community member to help out, however he operates this enterprise primarily with his wife and son and occasional volunteers. In the last seven years, since the Penz's have been at Kako it has really grown. In addition to the five preexisting cabins and shop buildings, there are now two modern homes with indoor plumbing and running hot and cold water, several more cabins, and a bath house. All power is provided by a diesel generator. They have a large garden, and even raise their own chickens!

This sounds like quite the settlement to accommodate three miners

doesn't it? Well, the long time goal of Dave's to have a "retreat" has finally been attained. They are able to provide drug and alcohol counseling, emotional support for families having a difficult time and some parenting classes. Many people just need to get away sometimes, and this provides a place for them to go. The retreat is still in the developmental stages however is well on it's way!

For more than seventy years Kako Mine was passed from one person to another, but it patiently waited to bloom. It is wonderful that Kako is finally able to "give", and it appears to be "giving" much more than just gold.

