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Jan. 8/07

"HISTORY OF MOUNT POLLEY"

BOOT JACK LAKE 1964

10

MI POLLEY MINING CORP. 1996

RECOLLECTIONS

Can Stevens informal history.

-forwarded to TOS by Steve Robertion

# SAM = JAM MCBEATH - EX ROAF

GEOLDENST - PROSPECTOR.

#### The Bootjack Lake Project. 1964

I told Sam about the air mag anomaly at Bootjack Lake and asked him to go there. I think I had learned there was a hunters trail to the lake. He was to find whatever trail he could into Bootjack Lake and set up his camp. I said I thought it strange but many of the minerals deposits in B.C. seemed to occur near the tops of hills. I also remarked that the Stikine Copper deposit was in a monzonite intrusive. The Bootjack anomaly was on a monzonite intrusive. I wanted him to go to the top of the little mountain on the east side of Bootjack Lake (Mt. Polley, Elev. 4,132 feet) and use the rubeanic test for copper on the soils and silt samples he could collect there. I said I would come and help him as soon as I could.

I gave Sam a day for getting supplies and for travel plus a day or two to set up his camp and get started on the prospecting. Then I followed. It was a wet miserable day. The six ? miles of hunter trail into Boootjack Lake was not much better than that, a trail. The ground was soft and four wheel drive was necessary. I do not remember getting stuck on that first trip but it was near supper time when I got to Bootjack Lake. I had to look around a bit to find Sam's tent as it was somewhat hidden. He was not there.

With regard to the trail, which became our road and which was already a problem because of its bad condition, we never drove the six miles in less than 1 ½ hours and one trip, because of being badly stuck, took 16 hours. We cut poles to make a corduroy road bed in places. There were areas of what the placer miners called 'slum' which is a blue grey clay which is so fine it retains water even in dry weather. When it is disturbed by things like wheels, it turns to liquid and provides no traction. I once had the right hand side of the Land Rover sink to near the tops of the wheels in it. Darby, my border collie dog, hated this road with a passion and he would want out of the vehicle so he could run in the bush rather than be thrown about inside the vehicle as it pitched and swayed over the bumps and ruts.

Up to this time we still used the prescribed rope and capstan pulling method installed on the Land Rovers. I had found the rope to be useless and, on this job, I found there was a small hole in the side of the capstan drum in which I inserted the end of a 3/8 inch steel cable. I wrapped that cable several times around the capstan and used it as a winch. That was a huge improvement.

When I had found Sam's camp at Bootjack Lake, I waited a few minutes and, when Sam did not arrive, I started to cut some wood for a fire and was planning on starting supper. As I was knelt down trying to blow on the shavings and kindling to get the fire to go, I suddenly felt something behind me and I ducked sideways. It was Sam with his axe. He had come back to camp and found a stranger in his camp and was going to give him a knock.

We had supper. Sam was telling me he had set up camp and the next day had gone up the west side of the mountain within the anomaly. He had taken the rubeanic acid kit with him and he took a number of silt samples on the way. When he had gone well up the mountain he stopped and ran the rubeanic acid test on his samples. They showed strong copper reactions. The next day, the day I had arrived, he had started to stake claims. We were both elated.

I did not want to set up my tent in the wet and insisted on moving into Sam's tent. He was mightily put out. The next morning we set out to continue staking. I think we called the claims the B.J. Group for Bootjack Lake. Later we found old claim posts near the lake which indicated another prospector had staked this ground, at least in part, just when the first aeromagnetic map was being published. That was when I had been in Victoria and Bill and Ed Wozniak were waiting in Williams Lake. If I had sent them out to Bootjack by helicopter to stake claims based on that new map, the claims would have been invalid since someone else had already staked the ground. By the time Sam arrived in 1964 the ground was free.

When we did the staking we followed the same plan as Sam had started with the previous day. I had Sam go ahead with the compass and it was up to him to keep track of distance by pacing. My job was simply to follow along to blaze the line well. At each set of claim posts we both worked on cutting the posts and he tagged them. We ran a line along the trend of the country to the southeast for about six ? claim lengths. That would give us 12 claims under the B.C. system. Then Sam paced what was to be 2,800 feet to the northeast to where the parallel claim line should be and we ran that line back the same distance to the

northwest. Then we pace and compassed back from that point to our starting point in the morning. As we got close to 2,800 feet going back to the starting point we wondered how close we might be to our target. There was a small hump in the slope just there and as we topped the hump we could see the post exactly where it should be. I could not believe how accurate Sam's pacing and compass work had been.

We worked together another day or two to obtain about 48 claims. Then I left Sam to continue with prospecting and mapping. We had seen no rock outcrop to speak of. The staking was based entirely on air magnetics and field geochemical tests. As we found later, the peculiar soil and oxidation conditions at Bootjack Lake made the rubeanic acid test unusually reliable in this case.

Later, as work progressed on the property we found Sam had lost 100 paces on both the line going out and on the line coming back. As a result there were two major sized fractional open areas in the claim group, each abut 300 feet wide and 3,000 feet long. That was a major problem and required additional staking. Those fractions occurred in the best mineralized areas although it was a long time before we knew that.

We had seen little or no rock. Sam spent weeks looking for float fragments of rock, taking soil samples and doing the rubeanic tests and searching for fallen trees where rock fragments might be uncovered. He outlined a large area of interest within which he found significant signs of mineralization.

#### **Exploration Budgets !!!**

When the Stikine Project was being planned I had never been told what the overall budget might be and I had not been given any limits to how much money I could spend on equipment. When I removed myself from that project and started in the Cariboo, I did not ask, and no one told me, what the exploration budget might be. We had two Land Rovers and camp gear and we went to the bush. When I wanted surveys or staking I had simply hired McElhanney Engineering. All the bills went to the office.

Now, after completing staking with Sam, I had the Red Claim Group on West Redonda Island, the 300 claims east of the Quesnel River and the B.J. claim group on Bootjack Lake. I needed more men to carry out the soil sampling, line cutting and so on, on these claims.

I went back to the office in Vancouver and told them I was there to hire more people. John Munroe, the Office Manager and Accountant was aghast. He said, "You can't do that, you are already over your budget." I said "I didn't know I had a budget. How much is it?" and he said "Your budget was \$10,000." To which I replied "How much have I spent." And he told me "\$15,000".

So I said, "Well I need more men." And there was some shaking of heads and I tried to hire people to work in the bush. I got one big beefy, tough man, Armas Turga, who was an alcoholic but had been on the staking crew with McElhanney. On the way up the highway north of Williams Lake one morning, I found a car in the ditch with a young couple stranded. I drove them to Quesnel and, since the guy needed a job, I hired him. One way or another I had the three men on Quesnel River and I was able to put three or four on Bootjack Lake. The work went on.

#### Back to the Bootjack Lake, B.J. Claim Group, Project 1964

After the end of August the Stikine Project wound down due to weather. Students went back to university about the end of August. Ed Holt, who was a young, new graduate geologist on the Stikine Project, was sent out to me to map geology at Bootjack. That was one of the best things that could happen as Holt proved to be absolutely outstanding.

During September and October Ed Holt, with a couple of helpers, was camped in a somewhat run down log shack on the east side of Polley Lake near the east side of the Bootjack claim group. There were no proper grid lines on the property and the air photos were poor. Ed did a marvellous job of mapping geology in spite of all that.

Bootjack Lake, the B.J. Claim Group



Bill Bacon hired the Jean Alix line cutting contractor from Val D'Or, Quebec to provide a crew to cut grid lines on the Bootjack Lake property. These were a tough lot of French Canadian line cutters who carried both axes and machetes. The bush on Polley Mountain was bad, including cedar swamps, and they worked very hard. One of the Audet brothers brought his wife to cook at the camp. On a trip to Val D'Or in about 1985, along with Jens Hansen of Nepean, Ont. we visited this couple at home and they recognised me at first sight. It was a great reunion.

I think Sam McBeath was on the property to continue with soil sampling. It was about this time geochemical assay methods began to be available at the better Vancouver assay laboratories and the soil samples were going there for analysis. A major I.P. survey was undertaken.

I had several slides illustrating the 1965 work on Mt. Polley within the B.J. Claim Group. They seem to be missing.

In the spring of 1965 Ed Wozniak had suggested that the prospector/geologists working for Karl Springer's companies should pool a portion of their interests in discoveries. This had been agreed to but I am not sure it was ever documented in writing. In 1964, after the staking of the Gerimi Creek, B.J. and Red claim groups I would have been in line for any possible equity interests in those claim groups. My crew was small and the relative importance of individual properties was not at all clear. I had put Sam McBeath in charge of the B.J. Group and I, verbally, gave him the interest in that claim group saying I would retain the interest in Gerimi and Red claim groups. They were keeping me busy at the time.

As a result of the work done on B.J. Group in 1964, and possibly including results on the property well into 1965, Springer formed a new company, Cariboo Bell Copper Mines Ltd., Mastodon Highland Bell Mines Ltd. and Leitch Gold Mines Ltd. provided the funding and were the main shareholders. The prospectors interest was awarded to Sam McBeath. LATER, SAM ARRANGED TO HAVE 50% OF 1415 PROSPECTOR'S INTEREST RETURNED TO ME & SELLING TOOSE SHARES PROVIDED THE MONEY TO BUY During the summer of 1965 the Jean Alix group of contract line cutters cut a large grid on the B.J. claims our Finst House for soil sampling and future I.P. surveys. There was little outcrop and I do not think much geological 15 NOLTH mapping was attempted after Ed Holt's work in late 1964. The I.P. survey had indicated large and strong VANCOUVER, anomalies in a crescent shape approximately in the area where Sam had found float mineralization and had obtained strong rubeanic acid copper indications. I cannot recall the pattern of any geochemical map resulting from analysed soil samples. By the time I arrived back from the Lake Athabaska area it had been decided that tractor trenching should be conducted on the B.J. claims to investigate the cause of the LP. anomalies. I was sent up to the property to look after that work. In those days we were quite inexperienced with I.P. survey interpretation.

Two D-7 bulldozers, one equipped with a rear mounted winch, and the other equipped with a ripper, were contracted to bulldoze a road along the line of the hunters trail to near Bootjack Lake. They then bulldozed a road up the west side of Mount Polley to the area of the I.P. anomaly. I do not remember whether we had laid out the location of the first one or two trenches during discussions in the Vancouver office, but that is likely.

Sam McBeath had a tent or perhaps a small camper for living quarters and he had been on the property all season I believe. I may have had a tent frame as left by the line cutters, but I simply do not remember what I lived in. The tractor operators had their own campers and looked after themselves.

The first four trenches were excavated east west on the highest I.P. readings. One of those trenches failed to reach bed rock. The second and third got into rock but there was no sign of copper. There was probably some pyrite but that may have been weathered out as I do not remember much mineral at all. We did not realize at that time that much of the sulphide mineralization had been oxidized and weathered out of the near surface rock. I have a feeling I moved the 4<sup>th</sup> trench farther north than expected. That trench got a very little copper stain.

At that time Bill Bacon came up to visit. It is my recollection that this was his first visit to the hillside. There had not been much to see up to this time. Bill was shocked and very discouraged at the lack of mineralization in the first four trenches. It is likely he went back to Vancouver and consulted with geophysical types. It is possible that he and I decided to move the trenching back within the vague crescent

shape of the I.P. anomaly or that we simply decided on longer trenches. At any rate the trenches were subsequently longer and they started some distance to the east of the first four trenches. We started to get indications of copper mineralization. The trench would be dug along marked lines 400 feet apart. If one tractor got stuck the other could help pull it out but, generally, there were two cats, each digging a trench, at any one time.

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When a trench was completed to uncover the badly fractured and weathered rock, the tractor with the ripper would rip along the centre line of the trench from one end to the other. This would produce a narrow line of broken rubble which was generally all I could use for mapping and sampling. I would measure along this line in 10 foot sections and collect sample bags of rubble from each section for assay. I would record a description of the rock and I tried to make a geological map. There were numerous variations in the material and I tried to make too many fine distinctions. The mapping was telling us nothing. I finally abandoned that procedure and simply adopted Ed Holt's rock type designations and mapped broadly different types. The maps now started to make sense. The assays started to give encouraging copper values. We may have started to assay for gold at the beginning but I am not sure of that. In any case, I once found a single speck of visible gold in a rock fragment and we did assay all the material for gold.

At about this stage Karl Springer came for a visit. I showed him my single tiny speck of visible gold in that piece of rock and he confirmed that it was gold and, conversely, that helped convince Springer the property had merit. It is remarkable that, even up to the time that property went into production at the endl of 1996, that was the only recorded visible gold identification.

During this trenching program we had a number of interested visitors. Dr. Athol Sutherland –Brown visited and I think Dr. Bacon was with him. Athol was quite impressed and stated at some time that he thought the potential was better than that at the Gibralter Mine north of McLeese Lake which was at a slightly more advanced stage of development. As time proved, the Gibralter was by far the better and more successful mine.

Charlie Ney, of Kennco Exploration, visited and was very helpful to me in identification of copper oxide minerals. A representative of Phelps Dodge arrived on foot one day, early in the program. He was driving a large 4x4 pickup truck with a heavy camper on the back. He had got stuck along the way and had to walk a mile or two. I went down with him with my Land Rover with the capstan with its 3/8 inch steel wire cable. I may not have mentioned before but, at some time when I had got badly stuck, the capstan had so much pull, with this 3/8's cable, that it broke the shear pin provided for in the capstan itself. I had had that shear pin replaced with a very hard valve stem which was the same diameter. That valve stem was very unlikely to break or be cut.

The geologist's truck was truly stuck. I wanted to get his truck out so he could drive it up the hill to the camp. As a result I was stupid enough to try to pull it ahead. I hooked my cable to the camper truck and started my capstan winding. The cable pulled my Land Rover up to the camper truck. I unhooked and backed up. If I remember correctly, the capstan would only wind in one direction. Once the cable was wound up, you had to unhook and unwind the cable by hand. I took a heavy length of chain and chained the back of the Land Rover to a large tree. Then I hooked the cable on the camper truck again and pulled. I thought the Land Rover was going to be stretched to twice its length. The camper truck did not: move. There was a sudden loud 'Bang' and the cable went loose. I did not know what had broken. It was not the cable. I was afraid it might be something in the drive train or the engine. I coiled up the cable. The capstan head could be moved by hand. Obviously it was no more use.

I drove the Land Rover through the trees and got behind the camper truck and chained up the two vehicles. I put the Land Rover in low, low gear and towed the camper out backwards. We got that camper turned around and the geologist left.

Later, when I took the Land Rover to town and we started taking things apart, we found there wais was a very large brass, or brass coloured, bull ring gear below the capstan. It was geared to a much smaller gear running on a drive shaft. The 'mechanical advantage' of the system must be immense. The key which held the bull gear on its shaft had been sheared off !!! The valve stem shear pin I had put in the head of the capstan was partly bent and partly cut but it had been still holding. After that we bought electric winches.

#### Cariboo Bell Copper Mines cont'd 1966

In March 1966 it was decided that, if Cariboo Bell should become a mine, we would need more low ground on which to place the tailings dumps. I was asked to stake an additional 44 claims in the area southeast of the property we had originally staked. It may have been Dave Heino who went with me. He was very tough and a good bushman. There was certain equipment in our company supply which was rather worn out or which I disliked intensely. I planned to fly into the area by helicopter. We would take a minimum of camp equipment and, when we were finished, we would walk out to the Cariboo Bell drill camp, which was under construction with Roy Lambert in charge. We would abandon the tent and certain other items to get rid of them.

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Dave and I were prepared for very heavy, hard work on snowshoes in staking these claims. Since it was now March, we could expect the snow to be melting and I remembered how hard it had been to work on snowshoes in wet snow back in 1949 north of Central Patricia, Ontario.

We flew into the area and set up our small tent and cut spruce boughs for beds. We were to cook on a Primus stove I hated. It was one of the reasons for wanting to abandon equipment. The weather turned out to be simply wonderful. Each day was clear and bright. Each night it froze hard. A most remarkable crust developed on the top of the snow and we never used the snowshoes at all.

We completed the staking in some four days and abandoned the tent and the hated Primus stove. We packed our snowshoes with us and headed north along Polley Lake and then over the top of Mount Polley and down the west side to the new drill camp which was under construction. The first thing that struck me was the sight of a TV antennae.!!!

We arrived at a drill camp such as I had never seen. A row of individual rooms, like a motel, lined one side of a narrow 'road'. At the upper, uphill end of the row, was an elaborate toilet and washroom facility with showers. See slide # 9. It appears there was a white generator house ? at the upper, east end of the row of rooms. Behind the rooms was a 2,500 ? gallon fuel oil tank to feed the oil heaters in all the buildings.

On the opposite side of the 'road' was a store house and, at the upper end, a large dining room and kitchen. Behind, according to the picture (slide # 9), were three plywood cabins and two large tents. Behind the spot from which slide # 9 was taken, was the row of drill core racks and the drying shed shown in slide # 8. The large metal garbage cans were for collecting sludge from the percussion drill shown in the 35mm size slide. There were, originally, a number of other slides of this camp and project. Those seem to have disappeared.

Unfortunately, at the time we arrived, the lack of proper design planning had become evident. The washrooms and toilets were uphill of the rooms. Same with the kitchen. Now they were having to dig deep trenches the length of the camp to put in sewer line to drain waste to a septic tank beyond the lower end of the camp. The fuel oil truck could not get to the 2,500 gallon tank to refill it since the camp had been built between the road and the tank.

The geologist had so abused my Land Rover, that it would run no more and they had had it trucked back to Vancouver. That geologist drove my helper and I to Williams Lake so we could return to Vancouver. He was now using a big new Dodge 4x4. It had 900 miles on it and it was bashed and abused to death already. The tracked bombardier type service vehicle, shown in the 35 mm size slide, lasted only a few days longer when Lambert himself nearly destroyed it trying to knock down a tree. I was not impressed with the operation.

Later, I suggested to management they should have a ground magnetometer survey done to outline the favourable rock types. They were not interested. I took a good man, Dave Mark, off my crew and put him at the Cariboo Bell camp to do such a survey. Two weeks later, I visited to see how he was doing. I found him in the kitchen peeling potatoes. He had been ordered there by Lambert. I blew up and he went back to the survey. Dave went back to continue university and became a geophysicist.



A TRUCK MOUNTED PERCUSSION DRILL WAS USED IN CONSUNCTION WITH SOME DIAMEND DRILLING IN 1966. THE RED BOMBARDIER WAS USED TO TRANSPORT MEN + SUPPLIES.



THE TV AERIAL, THE BURKHOUSE, OFFICES ETC



PERCUSSION DRILL CUTTINGS, WET, WERE COLLECTED IN GALVANIZED CANS, WATER WAS DECANTED + CUTTINGS WERE DRIED IN FLAT TRAYS. DRILL CORE ROCKS BEYOD.

Some time later, while my crews were prospecting and working on the Blue Rose and other targets in the area, (Slides # 6; 12; 13) Bill Bacon informed me he would be visiting Cariboo Bell and that he would like to meet me at the ?? Café. That café was on the road to Likely near where the Cariboo Bell road went off into the bush. I met Bill there and, a short time later, Jack Crowhurst joined us. We had quite a talk about a number of things. Jack then was telling me they were drilling a diamond drill hole on the third of the mineralized zones. I asked which way they were drilling and he told me they were drilling to the cast. I told him they were drilling down the dip. He was insulted that I thought they did not know what they were doing. Ultimately they began to think I was right. They drilled a second hole westerly from the opposite side and then they drilled a hole vertically in the middle. For a long time that was the only drilling on that zone.

In the fall I was still mad at how the drilling program had been carried out and that they ignored practically all geological and all geophysical data. I had Dave Mark's magnetometer survey plotted on a huge map and I put on that map the geochemical soil results, Sam McBeath's copper bearing float and the drill hole locations and assays. I put that map up on the library wall in the Vancouver office. It was about seven feet high and ten feet long and took a whole wall. One of the main things shown by the map was a high grade zone, relatively rich in magnetite, which had been straddled by two vertical drill holes 200 feet apart. I had also pointed out a vertical diamond drill hole that was collared 15 feet west of the mineralized zone. That hole had stayed in waste all the way down. I did not make myself popular pointing that kind of thing out.

In 1996, when Mt. Polley Mines was actually going into production, I visited the property and toured with the Manager and spent some time with the geologist. I asked about that magnetite zone and they told me it was one of their main targets for early production because of its relatively high grade. At least it had not got lost.!!

Slide # 13 shows a view of the Bullion Pit which was a placer (alluvial) open pit mine, quite famous in its day. It was, about 1940, said to be the largest man made excavation in the British Empire. This pit has an interesting history and some articles, such as in the 1928 B.C. Minister of Mines Report, are quite fascinating.



## MOUNT POLLEY MINING CORPORATION

# A GOLD - COPPER PORPHYRY DEPOSIT LOCATED IN

## CENTRAL BRITISH COLUMBIA, CANADA

THIS DEPOSIT WAS DISCOVERED IN 1964 USING PUBLISHED AEROMAGNETIC MAPS, PUBLISHED GEOLOGY MAPS AND "IN THE FIELD" GEOCHEMICAL TESTING FOR SOLUBLE COPPER.

PUBLISHED ORE RESERVES ARE:82.3 MILLION TONNESORE GRADE IS:0.417 GRAMS GOLD AND 0.30% COPPERSTRIPPING RATIO WILL BE:1.16 / 1.0PROCESSING RATE WILL BE:17,800 TONNES / DAYTOTAL CAPITAL COST WILL BE:Cn \$ 123.5 MILLIONPROJECT PAYBACK:3.7 YEARS



BLAST HOLE DRILL PATTERN FOR FIRST OPEN PIT BENCH



:1

INITIAL CONCRETE POURING FOR FOUNDATION OF COMBINED MILL AND ADMINISTRATION BUILDING. DISTANT BARE HILL IS START OF OPEN PIT OPERATION.



CONCRETE MIXING TRUCK POURING AT MILL FOUNDATIONS







CLEARING AROUND PLANT WITH 85 TON TRUCKS IN BACKGROUND

