

How Henry Linklater, prospector, discovered Thompson orebody and how you can find more like it...

Here are a few reasons and references why a prospector may wish to use the Beep Mat to help him to find a showing and potentially a mine more quickly and inexpensively than any other approach currently available.

First and not the least, the rich Thompson orebody of Inco, officially discovered by geophysics, was actually found in a small outcrop next to Cook (Thompson) lake by a linecutter. That "prospector" was Henry Linklater, an Indian from Nelson House, now retired. I met him a few times with my father. After the discovery, he worked for Inco for more than 30 years as a practical "mine geologist". His employment at Thompson and his excellent performance in that capacity was confirmed to my father by the chief geologist of Thompson, Mr. Boris Shepertycky. The rich ore showing that he found happened to occur in gneisses on a folded 10 kilometer long "formational" conductor. Near the surface, the conductor was 2 % nickel ore only over a third of its length, the rest contained 0,1% Ni in "barren" pyrrhotite. As that conductor was only weakly magnetic it was not scheduled to be drilled. Only conductors that had associated 2000 gammas magnetic anomalies were supposed to be nickel bearing. After the discovery, Dr. Hugh McKinstry was requested by Inco to redefine the criteria to select drilling targets for Inco's exploration crews. Dr. McKinstry was consultant to Inco in the summer and full time professor at Harvard in the winter, where my father was studying at that time. Back in 1958, Dr. McKinstry told his students about a major mining company that had drilled hundreds of DDH on carefully selected geophysical targets, and had only discovered poor grade orebodies, until a prospector discovered a rich showing in gneisses, away from the area of favorable geology. He did not mention Inco or nickel but the students knew he consulted for Inco, so they assumed he spoke about Thompson. Except for the samples brought by the prospector, all the facts mentioned in this paragraph come from the proceedings of the 1968 Niagara convention on Exploration and the Great Thompson discovery by Mr. Fraser.

Second: Prospectors have found showings that led to the discovery of 70% of all the mines found in the Province of Quebec. The same ratio probably holds for the rest of Canada. The Beep Mat is just an enhanced prospecting tool. By having many, if not most of the numerous airborne conductors trenched by his crew, a geologist or prospector can discriminate the good orebearing conductors from all the other ones in real time. Guided by a GPS so as to follow airborne EM targets, a worker pulling a Beep Mat is testing 10 times per seconds, down to 10 feet deep, for the presence of near-surface subcrops of conductors. Once he gets the first beep, some further walking with the Beep Mat will indicate him by the intensity of the signal where the subcrop comes close to the surface, so he can easily trench to get fresh sulfides for assays.

Third: All those excellent geoscientific tools available on the market will give generally many targets to drill but no samples to assay. Every conductor drilled will cost about 100 times more than a site sampled with a Beep Mat by a trench or a pit. One saves not only the cost of the drill hole but also there is no need to cut lines or to run ground surveys before sampling with Beep Mats. If one wants to select targets by advanced geophysics, let us remember that, for instance, gravity is an excellent tool for massive zinc orebodies where one needs a grade of 10% of zinc and, therefore, one looks for big bodies of sulfides. For nickel, a 2% nickel orebody is quite rich, and there may be much less total sulfides associated. Inco have run gravity profiles over the Thompson orebody, and there is no anomaly. Inco do not use gravity to select their drill targets, at least for nickel orebodies.

Fourth: Back in 1996-97, North of Sept-Iles, Roger Lambert, former manager of exploration for Inco in Eastern Canada, has been very successful in using some ten Beep Mats to explain around 500 airborne EM conductors within a few months. We could explain how he did it.

Fifth: One former employee of WMC currently uses a number of Beep Mats with great success: Paul Archer who used to be the Exploration Manager for WMC in Chibougamau is now the VP of exploration for Virginia Gold. He has found the Gayot showing using the Beep Mat to follow-up airborne EM anomalies in a favorable geological environment. The showing grades 9.8% nickel, plus PGE.

Sixth: Several other groups have been very successful using the Beep Mat. Generally, people do not speak about that instrument since it gives them a technical advantage. Therefore, you won't find much about it in the literature. However, at the CIM convention this spring in Quebec city, a mining company acknowledged its efficient use to identify magnetic rocks in the search of diamonds. The Beep Mat not only signals conductors but also independently measures magnetic susceptibility.

Seven: It is so powerful that you will quickly find many good showings. The error that most people do is to stop using the Beep Mat because they think after the first good showing that they have found a mine. But finding a mine is more like a game of statistics. You need to sample 1000 to 10,000 conductive sites and then do advanced geophysics and drill the 10 to 100 selected good showings before finding a mine. As a site sampled by a Beep Mat costs you only 1000\$, or one hundredths (1 / 100) of the 100 000 \$ of the cost of a DDH, you will examine many more conductors per dollar invested. If you use expensive tools to discriminate the anomalies and drill perhaps 1% or at most 5 % of the conductors, you will miss sampling 95 or 99 %. By using the Beep Mat, one can often sample and explain up to 80% of the airborne anomalies for only 10% of your exploration budget.

Eight: In 1991, on a certain project, Soquem was not able to explain even a single conductor after investing in airborne EM, line cutting, MaxMin, geochemistry, prospecting and geology. Yet, after one month of work using one Beep Mat and with the same two-man crew, they were able to sample 40 conductors, or 80% of the anomalies. Thanks to the good assays obtained, the project geologist was able to obtain two millions of dollars to extensively drill the showings after advanced geophysical tests. In fact, once I gave his crew a few hours of training, they found every day some new conductors that were immediately trenched with a hand shovel, then sampled with explosives or more simply by collecting cuttings from a gasoline percussion drill. Explosives are especially useful to help dig down to bedrock.

Instrumentation GDD Inc. could demonstrate the Beep Mat in the field on a massive sulfide showings it discovered 80 km south of Quebec city. We can also do it in the bush directly on your property. Once you get good assays, on the average in one out of every 100 conductors sampled, then you can focus on that mineralised area with the more powerful but more expensive tools. That is exactly the way that mining companies doubled in 5 years the world reserves of uranium in Western Canada in the 1970's, by following airborne anomalies on the ground with scintillometers, and tracing minute radioactive floats back to the vicinity of valuable targets.

Hoping that the above may have convince you, don't hesitate to call or write to inquire more information on how we can help you to find a showing and potentially a mine.

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