

From: A. Vowles

Date: Jan 21, 2017

Subject: Mining Potential and Rail Transport of Ore

This letter is addressed to you as individuals who I believe have the best interests at heart for the future and well-being of Flin Flon and The Pas. Let me begin by saying that I am saddened by the news that Flin Flon appears to be in its final years as a prosperous mining community. It was one of the richest mining towns in Canada with a colourful history and contributed a vast amount of wealth to the Canadian economy for more than a hundred years. I would like to explain the reasons why I believe there is still potential for a prosperous future for the area.

Hudbay Minerals and several junior mining companies have been aware for many years that the region lying between Ponton and Talbot Lake, west of Hiway #6 has the potential to become the next major mining camp in Canada. Since 1995 five significant base metal deposits and at least another half dozen zones were discovered. The Watts River Deposit, which is only 12 kilometers from Ponton is the largest of these deposits, with an estimated 7-8 million tonnes and the Talbot Lake Copper Deposit which is currently at more than two million tonnes is the richest, with grades as high as 12% copper along with significant gold, silver and zinc. A lack of infrastructure and low metal prices were two reasons why the area has not seen much new exploration and development.

The Talbot/Watts area has only had a couple of hundred holes drilled and almost a dozen deposits were discovered. By comparison, mining companies have drilled more than 30,000 holes in the Flin Flon and Snow Lake areas over the last 100 years and they are still making discoveries. So it begs the question "what is the potential for the "Talbot/Watts" belt with so little drilling, so many untested targets and so little state-of-the-art geophysics completed? Alistair Callegari, who was Supervisor of Geophysics for Hudson Bay Exploration for many years, put it so succinctly when he said "you can't drill a hole in the area without hitting copper and zinc"

Hudbay's rationale for not doing further exploration in the area was (1.) that the deposits were too small, (2.) that there was a lack of infrastructure (ie: a nearby mill to concentrate the ore) and (3.) that it was too far to truck raw ore up Hiway #6 to Ponton, down Hiway #39 and up Hiway #392 to the Snow Lake mill. At the time when the Talbot Deposit was first discovered in 2003 the Chief Mining Engineer, took one look at the topographic map of the area and said you could inexpensively run a road straight north from Talbot to the Wekusko railway siding on the main railway line. The Talbot Deposit, however, was still too small at the time but that has changed recently when Rockcliff Copper Corp. optioned the property and increased the size significantly with new drilling. When Hudbay quit drilling this high grade deposit the tonnage estimate was 772,000 tonnes. It is now more than three times that tonnage and the grade has improved. Recent geophysics and geological analyses indicate the potential for the deposit to double in size again.

In recent years two significant changes occurred which will affect the future of operations in Flin Flon. First; with Lalor Mine going into production the Snow Lake mill is now running at capacity and could not accept feed from Talbot. Second, with the declining reserves at Triple Seven and Reed Mines the Flin Flon mill could accept ore from Talbot in two to three years.

The person in charge of traffic at Hudbay who manages the transport of raw ore and concentrate by truck or by rail was asked if the company had examined the economics of moving raw ore by rail from Watts and Talbot to the Flin Flon mill. The response was that no one had considered it but added that it was far too expensive to put in new rail lines. What he would not have known was that in the Talbot Lake area there is no rock exposure like around Flin Flon. There would be no rock cuts or expensive blasting required and it is mostly dry sandy terrain and perfectly flat because it is on limestone and not in the rocky Precambrian Greenstone like the Flin Flon Area. The local logging company has run all weather roads throughout the area for little more than the cost of lowering the blade of a cat and removing the trees and spreading gravel. So laying a rail spur would be relatively inexpensive compared to the cost of running a rail line in the Precambrian Greenstone region which requires blasting numerous rock cuts.

I took the opportunity to speak with a Vice President of a railway company in The Pas and explained to him the mining potential in the Talbot/Watts area and the opportunities for the railway. He was very interested and said he would meet with the fellow in charge of traffic at Hudbay but apparently the issue was never followed up on.

Note on the map below how short a distance it is between the Talbot Deposit and the main line at Dyce Lake. If the ore was crushed at the mine site and loaded directly onto rail cars it would only be handled once and then could be transported directly to the mill in Flin Flon at a fraction of the cost of trucking. It is the handling or transferring of material from one mode of transport to another which drives the cost up. Once the ore is on a rail car it is very inexpensive to move it a couple of hundred kilometers.

A number of years ago when some of the Hudbay exploration team was promoting the Talbot/Watts area the general consensus within senior management was that none of these deposits would be economic without a local mill being built and that the biggest hurdle would be getting an environmental permit for a tailings pond. At the time shipping raw ore to the Flin Flon Mill was not an option because it was running at capacity with 777 and Trout. Very soon, however, this will all change with the closing of the Triple Seven and Reed Mines and the Flin Flon mill will be empty.

So the two most significant obstacles standing in the way of developing mines in the Talbot/Watts area are: one; the huge cost of building a mill and two; the environmental considerations with creating a tailings pond. Both of these obstacles would be eliminated by transporting raw ore to Flin Flon. Additionally this should allay the fears of environmentalists and First Nations' due to their concern for damage to the environment. Developing a mine alone without a mill or tailings such as the new Reed Mine has a very small footprint and will have minimal environmental impact.

First Nations in The Pas already own one of the railway companies so with unemployment being so high would it not be a win win situation if Rockcliff, Hudbay and the rail company could work with the Manitoba government to build a spur line to link up with the main line at Dyce Lake and move the Talbot ore to feed the Flin Flon Mill ? Furthermore if the railway company's business is on the decline then by adding this new business it could remain profitable and save any existing jobs as well as adding new ones.

So far I have focused mainly on the high grade Talbot Deposit. The Watts River Deposit is lower grade but more than three times the tonnage of Talbot and only 12 kilometers from the main rail line. There are also numerous other smaller deposits such as the Harmin, Fenton, Tower, Koff and also the Sylvia Deposit which is within three kilometers of the main rail line. Most of these deposits remain

underexplored. With the use of modern exploration techniques and geophysical equipment and a means of transporting the ore to an existing mill some of these deposits might become economically viable.

As I am now living in Alberta it is my hope that someone within this group who lives in the Flin Flon / The Pas area will take the lead and organize a meeting to approach government, industry and First Nations and investigate ways in which to take advantage of this opportunity to rejuvenate the mining and rail industries in the north. I am always available by telephone at 780-231-8999 and email at alankvowles@gmail.com and I look forward to more communication with all of you. Please feel free to circulate this letter to other interested parties and stakeholders.

