

## **#92 Electric Avenue**

By Richard (Rick) Mills

As a general rule, the most successful man in life is the man who has the best information

The Nuclear Age began on December 2, 1942 at the University of Chicago when Enrico Fermi created a chain reaction in a pile of uranium. Today, there are some 436 nuclear power reactors operating in 30 countries and nuclear energy provides approximately 15% of the world's electricity.

These 436 reactors, with combined capacity of over 370 Gigawatts (One GWe equals one billion watts or one thousand megawatts), require 77,000 tonnes of uranium oxide (U<sub>3</sub>O<sub>8</sub>) containing 65,500 tonnes of uranium (tU). According to the World Nuclear Association, about 50 power reactors are currently being constructed in 14 countries. In all there are over 130 power reactors planned and 250 more proposed.

Each GWe of increased capacity will require about 195 tU per year of extra mine production – three times this for the first fuel load. Let's also consider the fact that no one builds a \$4 to \$6-billion dollar reactor just to watch it go idle. They will order one or perhaps several years' worth of fuel supply to guarantee it doesn't. And it looks like several Asian countries – China in particular – along with India, might start strategic stockpiles.

In 2008, mines supplied 51,600 tonnes of uranium oxide concentrate containing 43,760 tU, which means mining supplied roughly 70% of nuclear utility power requirements. The remaining supply deficit used to be made up from stockpiled uranium held by these very same utilities, but their stockpiles are pretty much depleted. Mine production is now primarily supplemented by ex-military material - the Megatons to Megawatts program ends in 2013.

“The more that prices are depressed in the short term, the fewer mines that are likely to be built and developed and that could possibly exacerbate any price spike,” Will Smith, London-based portfolio manager Geiger Counter Fund told Reuters recently.

“A gap of almost 12 trillion kilowatt hours needs to be filled by 2030.... We expect nuclear energy to play a major role in this growth.” CIBC analyst Ian

Parkinson said in a research note.

I'm not saying there is a shortage of uranium - there is enough to meet expected demand for the foreseeable future. Unfortunately, a lot of it is just not economic to dig out of the ground at current prices. Exploration for new deposits seems to be falling drastically and with lead times approaching a decade or more, the mining industry looks like it is not going to have enough supply to meet the called for increased demand.

A flat to downward uranium price through 2009 kept most uranium juniors in check throughout the year. There were only a very few companies that got any respect from investors. But this lack of respect wasn't for a lack of news - there was plenty going on - many development-stage companies with advanced properties and assets received permits and approvals, but their share prices did not rise. The companies that did get some respect, in the form of a higher share price, all had one thing in common - they were large, open pit, lower grade deposits.

The lower grade open pit deposits being developed in Africa were, for 2009 anyway, the investment stars of the junior uranium sector. Could investors be catching on to the fact low-grade deposits can have low costs and therefore high profitability?

Maybe investors are starting to focus in on profitability and mine life instead of solely on grade. Are investors starting to catch on to the fact that the extremely high-grade deposits in the Athabasca Basin of Saskatchewan, Canada are freaks of nature and a deposit with a much much lower grade is more representative - more the norm - for uranium deposits? Only time will tell.

But this is a fact: Despite the huge disparity in ore grade between high and low grade deposits, the other inputs of scale/cost can offset the lower grade. This results in almost identical gross margins between the two types of deposits. Of course, with a low-grade deposit, asset size does matter more. You need the size - the overall tonnage of the deposit - to be very large. This tonnage is required for success in spreading a big fixed capital cost over a large enough amount of input and over a long enough period of time.

If companies can do that, their unit costs will be low enough to build an economically robust mine even in times of low uranium prices. Low grade

can mean big profits for investors. Here are three examples....

Extract Resources Ltd. went from \$1 to \$10 per share this year as investors reacted positively to developments at the company's open pit Rossing South deposit in Namibia.

The share price of Bannerman Resources Ltd. doubled from 55¢ to \$1.10 as they developed their Etango deposit, which is also in Namibia.

Mantra Resources Ltd. has gone from \$1 per share to \$4 (in Aussie dollars) as it developed its Mkuju River deposit in Tanzania.

I think these three names show that the investing public has, or is becoming, a little more open and better educated about the lower grade, bulk tonnage deposits. As a result, I believe that Uracon Resources Ltd. could become a very interesting situation moving forward.

This uranium junior has a large and growing inferred resource on its North Shore project in Quebec, Canada. Quebec has been consistently rated as one of the best mining jurisdictions in the world, according to the Fraser Institute's Survey of Mining Companies annual report. Combining all three zones of the deposit produces a total inferred resource estimate of 154.9 million tonnes, containing 18.48 million kilograms (40.73 million pounds) of uranium.

But Uracon could quickly change these numbers in the new year if recent results are any indication. Surface sampling has found many new higher-grade samples at several locations. Their 40 million pound resource has been delineated in a U formation. Much of the newer higher-grade material found is in the middle area of the U. I believe this creates great potential for more tonnage.

Forsys Metals Corp. has an almost identical deposit to Uracon's North Shore Double S project. There are of course some basic differences: Forsys is further along the development path, it is larger and it is in Namibia. But geologically speaking it's virtually the same. It also has its permits. There has never been a uranium mine in Quebec, so investors really don't know how easy it will be to get Double S permitted.

All new uranium production in the last five years has been from lower-grade

material. When I started looking at the line-up of near term producers (those with economic studies), they were all lower-grade deposits. Remember, we're not talking deep and complicated underground mining situations. We are talking about open pit mining prospects, simple, low-cost earth-moving operations. Investors can wrap their heads around these kinds of situations and do seem to be catching on to low-grade economics.

So where should uranium investors look for an investment? Well, companies with what appear to be extremely large low-grade bulk tonnage open pit deposits, located in good mining jurisdictions, might be a good place to start.

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