

## **Potash Jr's, are you buying what they're growing?**

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

When looking for a dominant long term investment theme the approach I take involves looking at global - big picture - conditions. I study trends, read the news, basically watch and listen to what's going on in the world. Then I study the different sectors in order to select the one that I think is going to match up well with the over riding theme and outperform the rest. This is called "Top Down" investing.

For instance when Barack Obama was running for election two of the planks in his platform were electrification of America's transportation system and that the US was going to eliminate its dependence on foreign supplied energy.

If your going to place one million hybrid/electric cars on American roads by 2015 you are going to need an awful lot of batteries. Lithium-ion was, and still is, the leading battery technology. To me everything Obama said meant a company that owned a lithium deposit in the US was likely going to be a pretty good investment. When I had my theme - America's Energy Independence/Electrification of the Transport system - it was time to do some due diligence on specific companies. This type of investing, and doing the necessary due diligence to find the right stocks can pay off quite handsomely. Rodinia RM-TSX.v went from a dime to a high of .80 and currently is trading at .48 with a bright looking future.

Today there is something happening that truly affects us all and the theme is one you might want to learn more about.

The Intergovernmental Panel on Climate Change (IPCC) has made some startling and extremely alarming predictions. They say that the availability of water will decrease by as much as 30% in already dry parts of the world.

Many countries already do not have enough water to meet domestic demands for growing food and these water-short countries are increasing their grain imports.

The second day of a 192 nation meeting on climate change in Copenhagen, on Tuesday 8<sup>th</sup> of December, saw the UN Weather Agency release an update that said for most of the world this decade is on track to be one of the five warmest on record. The year 2009 is on track to be the fifth warmest year on record. Only the US and Canada experienced cooler conditions than average. The agency also said there was an extreme heat wave in India in May with China experiencing one in June. Parts of China have experienced their warmest year on record and Australia is experiencing their third warmest year on record.

The world's population is averaging growth of 75 million people a year. The United Nations Food and Agriculture Organization (FAO) reported they think that the total world demand for agricultural products will be 60 percent higher in 2030 than it is today.

Rising incomes in developing countries means more money in the household budget. These consumers will add more protein - meat and dairy products - to their diets. The newly added protein requires additional growing of grains.

One of the greatest threats facing us is the loss of arable land that was once used for food production. Land is being used for production of bio-fuels, topsoil is eroded away by wind and water and the agriculture land base is being paved over as we become more and more urbanized.

**Feeding the world** is going to become an overriding dominant theme in the years to come.

Quite simply, **we have to grow more food on less land**. There are several ways farmers can get increased yields, Genetically Modified Organism (GMO) seed, pesticides, fertilizers, and satellite (GPS) farming.

Improved seeds, pesticides and new farming techniques are all going to be needed, improved and used. But the nutrients in soil are soon used up by ever more intensive farming - and Mother Nature can't replace them fast enough. But these nutrients need to be replaced or you have land where crops cannot grow.

The availability of nitrogen, phosphorus and potassium in the soil, in a readily available form, is the biggest limiter to plant growth. Plants give us what we need to survive, if our soil is nutrient deficient then we need to fertilize, without fertilizer we are not going to eat.

## **The Investment**

I think there is a good chance that we've seen the bottom in the junior potash market. The senior producers have seen their stocks jump 15%-20% recently, as it was reported that market-savvy investor George Soros (the man that broke the British pound) is stepping back into the potash sector. Mr. Soros boosted his funds position in Potash Corp by 50%; some \$240 mm. Potash Corp is North America's largest potash producer.

What isn't known is if he did that because he believes in the long-term future of potash, or if he smells a take-over about to happen - Bank of America is on the record stating that BHP Billiton could buy POT.

Also in the rumor mill is that Warren Buffet is buying German potash producer K+S Aktiengesellschaft.

Between the BHP rumor, and the confirmed Soros purchases, many of the major producers have seen their stocks levitate near or at year highs, despite the price of potash being 50% lower than a year ago. On December 7<sup>th</sup> shares of two of the biggest fertilizer makers - Potash Corp (POT-TSX) and Agrium (AGU-TSX) - rose on broker upgrades. Potash Corp rose after a Goldman Sachs upgrade while rival Agrium rose after a UBS upgrade.

Ian Nakamoto, director of research at MacDougall, MacDougall & MacTier, said, referring to fertilizer companies - *"The whole sector is becoming more favorable amongst investors. It was down in the dumps, the fertilizer stocks in particular in the last year, and I think it's one sector that has moved recently, but still lags the overall market."*

## **Potash is mined in one of three ways.**

1. There are conventional underground mining operations; western Canada's potash deposits occur in the Middle Devonian Prairie Evaporite formation at depths in excess of 900 m. Start up costs can run in excess of \$2b. These

costs include driving vertical shafts down to the potash and purchasing underground mining/surface milling equipment. This money needs to be paid up front before any production can start leaving the company at risk to commodity market swings. Very few junior companies will have the experienced management team and the requisite financial backing necessary to pull off building conventional underground potash mine.

2. Solution mining involves pumping heated water through the ore body to dissolve the potash and pumping the resultant brine solution to a refinery for extraction. Deposit temperature is an important component in the economics of solution mining - a minimum temperature of 50 degrees Celsius is thought to be needed. The solubility of potash increases with temperature such that the higher the formation temperature, the higher the yield of potassium chloride in the brine solution.

The presence of carnallite is also a factor; carnallite will not dissolve and creates an impediment to the flow of the brine solution.

Start up costs are fractionalized; \$100,000,000 will give you production of 100,000 tonnes per year allowing current production to pay for future expansion.

Its cheaper to drill brine injection/production wells to handle solutions than to construct a pair of extremely deep conventional shafts, undertake the initial underground development work and install mining machinery. So there should be a significant saving in the initial capital cost of a solution mine versus a conventional underground mine. But solution mines use hot brine instead of mining machines to extract the potash from underground deposits and for this reason their operating costs are very sensitive to the price of fuel. When natural gas prices were low, solution mining was very competitive, but the rise in fuel prices since 2000 has changed this situation.

3. Thirdly there are Salares, or salt lakes, as well as near surface saturated gravels and underground aquifers. These contain minerals dissolved in brines and some include buried layers of evaporite minerals. The brines are pumped to the surface into evaporation ponds. There the water evaporates leaving the potash, lithium, boron and salts behind. Start up costs can be fractionalized and the diversification of selling more than one product gives the producer some protection from seesaw commodity markets.

Below are some junior potash companies that appear poised to move up the food chain.

**Encanto Potash** (EPO-TSX.v) has made deals with several First Nations groups regarding potash projects on their traditional territories in South-Eastern Saskatchewan. These projects are located within a radius of about 80 kilometers of each other and cover an aggregate area of over 187,000 acres (76,000 hectares). Encanto has also acquired the rights to four potash properties from Raytec Metals. These four potash properties cover more than 179,000 acres (72,800 hectares) of potash permits and are also in Saskatchewan.

Drilling is now underway, and 2D seismic is complete. Nearby historical oil and gas drilling logs clearly show potash beds present (these beds in the Saskatchewan Potash Basin are known for their consistency over many kilometers).

Encanto Potash has the backing of the Endeavor Financial Group so access to capital should not be a problem. First Nations involvement and having the projects on their traditional territory lessens the number of stakeholders in negotiations and consultations. The deals are heavily weighted towards the backend, meaning benefits such as training, jobs, shares and royalties do not come till certain milestones, such as feasibility and production, are reached.

Having the financial backing of the Endeavor Group and the partnership with Saskatchewan's First Nations makes Encanto Potash worth spending due diligence time on.

**Western Potash Corp.** (WPX-TSX.v) has three contiguous permits comprising a total of 123,948 acres in South-Eastern Saskatchewan.

The permits are located approximately 30 km southeast of Regina and to the southeast of the Mosaic Belle Plaine KL-106-R mining lease, which hosts one of the largest producing potash solution mines in the world. They are also immediately adjacent to potash permits held by BHP Billiton, Vale and Potash One.

Seismic data has confirmed the presence of potash prospective salt beds, possibly amenable to solution mining technologies, on the eastern portion of

the Milestone property. Temperature measurements from all the wells show minimum formation temperatures ranging from 60° C to 65.5° C and results from the Milestone-005 well shows no carnallite present in any of the three potash members encountered.

**Allana Resources** (AAA-TSX.v) has three potash concessions collectively called the Dallol Potash Project. It's located in Ethiopia's northeastern Danakil Depression and totals 150 square kilometers. The Dallol Potash Project area is approximately 100 km from the Red Sea coast.

Allana has completed a NI 43-101 compliant technical report for the three concessions highlighting several unique advantages of this project:

- An Inferred Mineral Resource of 105,200,000 tonnes of potash mineralization (Sylvite and Kainite) with a composite grade of 20.8% KCl
- Near-surface (shallow-depth) potash mineralization (within 50 meters of surface)
- Potential for solution or open-pit potash mining

Wellington West, Loewen, Ondaaje and McCutcheon (LOM) and Dundee Capital Markets have initiated coverage on Allana. The company has secured a Strategic off-take/financing deal with China Mineral United Management Ltd.

**Dajin Resources** (DJI-TSX.v) company representatives have submitted to the local governing authorities in Salta and Jujuy provinces of Argentina applications to acquire a 100% interest in certain mineral concessions covering approximately 130,000 hectares (320,000 acres).

These concessions - as reported by a specialist consultant, various Government and academic sources - cover regions with brines rich in potassium, lithium and boron. Historic sampling done by another company report potash concentrations at over 10,000 ppm.

A national highway, gas pipeline and electric power grid cross the project providing vital infrastructure and low cost access to regional agricultural markets for a potash product. Imported potash carries a large transportation premium. The characteristics of these brines and the large basin size give this project a fast track shot at large scale low cost Potash production.

Dajin recently announced a small private placement. The proceeds from the Private Placement will be used for the establishment of corporate operations in Argentina and for testing of there 100% owned mineral concessions.

**Amazon Mining** (AMZ-TSX.v) has a potash asset in Brazil, at surface, that is so large it's simply hard to believe. Imagine a deposit 100 km long! But it has different chemistry than conventional potash so would need a different process (Agrifirma Brazil, a United Kingdom based farmland operator and developer, is going to fund agronomic tests using Amazon Mining's proposed ThermoPotash product). Brazil is a country that wants and needs potash - Amazon is definitely going to attract attention and capital.

What's the goal for our above listed juniors? Well the next stage, if shareholders are lucky enough, is defining a large enough resource with a high enough grade to become a development stage company like the two listed below: Potash One and Athabasca Potash. What this would mean to an investor is huge - it's the difference between a \$50 million market cap company and a \$250 million market cap company.

### **Potash One KCL-TSX**

Potash One is the acknowledged leader among the junior potash companies; they might own the first potash mine built in Saskatchewan in 40 years.

Potash One just announced it has started a feasibility study on its Legacy Project. Potash One has a NI 43-101 compliant Measured and Indicated Mineral Resource of 251 million tonnes of KCl grading 26% and an Inferred Mineral Resource of 852 million tonnes of KCl grading 23.8%.

### **Athabasca Potash API-TSX**

Like Potash One, Athabasca is a development stage company. Athabasca Potash's Burr deposit contains a Measured Mineral Resource of 125,800,000 tonnes at a grade of 21.27% K<sub>2</sub>O, an Indicated Mineral Resource of 299,000,000 tonnes at a grade of 23.07 % K<sub>2</sub>O, and an Inferred Mineral Resource of 186,900,000 tonnes at a grade of 23.55% K<sub>2</sub>O

A prefeasibility study is expected to be completed in the third quarter of 2009.

## **Conclusion**

The potash story is just starting. Potash is a high margin product and there is no commercial substitute. Unlike other resource plays there is no cycle, demand is always going to be there and its rising year over year making potash an excellent play in what will be a long term agricultural commodities bull market.

The right potash juniors should be on every investor's radar screen.

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If you're interested in the junior resource market and would like to learn more please come and visit us at [www.aheadoftheherd.com](http://www.aheadoftheherd.com)

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Bio - Richard is host of [www.aheadoftheherd.com](http://www.aheadoftheherd.com) and invests in the junior resource sector. His articles have been published on over 80 websites including - Wall Street Journal, SafeHaven, Market Oracle, USAToday, National Post, Stockhouse, Casey Research, 24hgold, Vancouver Sun, SilverBearCafe, 321Gold, Kitco, Gold-Eagle, The Gold/Energy Reports and Financial Sense.

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