

Does Nationalization Loom for Critical Minerals

written by Peter Clausi | May 12, 2023

The world is finally starting to pay attention to the importance of 'critical minerals'. Different countries have different lists of what those minerals are, but every list includes lithium, rare earths ("REE"), cobalt, copper, nickel, and zinc. (One region mystifyingly includes rubber on its list, but I digress.)

The problem is, most people are missing the point of why these minerals are critical and what that means for private ownership. So let's go back to basics.

The Importance of Critical Minerals

One of the definitions of the word critical is "important or vital; irreplaceable". When it comes to the Green Revolution, that definition is spot on. Critical minerals are irreplaceable in the march away from fossil fuels. Without those minerals, we will continue to use fossil fuels until a better technology comes along, decades from now, during which interlude we will choke out Mother Earth.

But saying 'we need those minerals to make rechargeable batteries and permanent magnets' is rather simplistic. That's not really the point. A recent article in *The Economist* gives better arguments about why the Green Revolution is good for countries, apart from saving the planet.

The article titled "[The green revolution will stall without Latin America's lithium](#)" argues that nationalizing critical mineral deposits and mines (and by extension, minerals like silver that aren't on critical mineral lists) offers benefits

like a broadened tax base and more jobs within the country. Nationalization, it argues, can be good for the economy.

That argument rings hollow with me. Jobs can be created and taxes can be paid without the national government owning the assets. Mining rights can be exercised by foreign companies under a regime without the government getting into the mining business, plus does any government operate any business well? *The Economist* has missed the point.

Companies are Protecting Vertical Supply Chains for Critical Minerals

Before we get to the point, let's revisit the February 2023 announcement of a [General Motors Company](#) (NYSE: GM) investment into [Lithium Americas Corp.](#) (TSX: LAC), which holds among other assets Thacker Pass. Thacker Pass is the largest known potential source of lithium in the United States of America. We've seen other investments from auto manufacturers into lithium companies.

Do you think they're doing this as a long-term investment to be monetized at some point in the future? When one of the shadow Chinese investment companies invests in a critical minerals company, do you think it's for the portfolio?

No, these are not portfolio investments. These are functional investments into irreplaceable assets. Everyone is worried about the vertical supply chain for those critical minerals for their own uses.

GM is looking to ensure it has access to lithium for its own purposes. GM isn't going to share the lithium eventually produced at Thacker Pass (assuming Thacker Pass overcomes community challenges and gets into production).

[Mercedes-Benz Group AG](#) (XTRA: MBG) won't share the lithium it gets from [Rock Tech Lithium Inc.](#) (TSXV: RCK), northwest of Thunder Bay, Ontario. These investments are to help ensure a vertical supply chain of lithium. Expect other investments into other critical minerals.

Countries are now Protecting Vertical Supply Chains for Critical Minerals

What did *The Economist* miss? Countries aren't nationalizing or protecting mineral assets for tax or employment reasons. They are doing so to protect their own vertical supply chains for critical minerals. To do otherwise would be to turtle, to offer up a neck to be crushed by a foreign actor who has such minerals.

Countries like Peru, Argentina, Mexico, the Congo, and Kazakhstan have either announced or enabled plans to nationalize their natural resources.

Even nice Canada has taken some steps to put the ownership of Canadian assets into more friendly hands (too little, too late).

These countries won't be the last.

When you're investing, jurisdictional risk just became one of the largest risks to consider.

The Great Wall of China and

the Critical Minerals Shortage

written by Peter Clausi | May 12, 2023

There are some facts that we just know are true. Lewis Carroll wrote *Alice in Wonderland*. You can see the Great Wall of China from space. The Earth rotates around the sun. And we're suffering from a critical minerals shortage.

Except none of these 'facts' is true. Lewis Carroll wrote *Alice's Adventures in Wonderland* and *Alice Through the Looking Glass*, but never did he pen *Alice in Wonderland*. As for the visibility of the Great Wall, NASA disproved that 'fact' in 2004 with a photo from the International Space Station. The Earth actually rotates around the centre of our solar system's mass, not the sun. And no, there is currently no critical minerals shortage.

The thesis for the critical minerals shortage is this. The world is facing a climate change disaster (agreed, and part of the cause is anthropomorphic). Humans need to change the things we can change to mitigate that disaster (again, agreed). Migrating away from fossil fuels is part of that mitigation (again, agreed). Migrating to Green Energy is the only rational solution (partly agreed). Green Energy needs lithium, cobalt, our friends 59 and 60 on the periodic table, uranium, zinc, cesium and others. There aren't enough of those critical minerals to enable the Green Economy, so therefore we are suffering from a shortage of them.

Until recently that seemed like a self-evident truth. Then I listened to Dr. Jon Hykawy. He and I were on a panel together recently at the [Critical Minerals Institute](#) Summit in Toronto. Dr. Hykawy's thinking is that there are no budgets, no hard targets, no actual real-life numbers from mining companies or governments for the production and consumption of items like EVs

and other rechargeables. There are thoughts from brokerage firms (and we've seen from their predictions for the cannabis industry how accurate those thoughts can be), and there are thoughts / corporate presentations from explorers for critical minerals. There are government vague statements of goodwill and targets twenty years out, but there are no hard numbers. There is no actual data.

Instead, we get [prognostications](#) like, "By the year 2035 the world will need..."

If there is no data, how do we know if there is a shortage of critical minerals? Perhaps we're actually in a surplus situation. Perhaps the supply and needs are balanced.

Pretend I'm building a house. We all know there is a shortage of lumber, right? So how will I build the house without lumber? If I need 800 2x4's, and there is a shortage at the local DIY shop, what do I do? I search other shops. I drive around. I put in orders at various stores for delivery to the job site. If I have to I'll make my own 2x4s. There is no shortage of lumber – I just have to work harder to get what I need. The bottleneck is in the supply chain, not in the lack of lumber.

Maybe the critical minerals 'shortage' is similar. As Mark Chalmers from [Energy Fuels Inc.](#) (NYSE American: UUUU | TSX: EFR often says, "Rare earths aren't that rare." There are a multitude of rare earth and other critical mineral deposits around the world. Any geologist with any experience can point to good deposits of critical minerals, begging for further work and exploitation. I'm only a lawyer and I can think of 5 critical mineral deposits in Canada deserving of advanced geologic work. Why doesn't that work get done?

Because it's not the deposits that are in shortage. What the world lacks is the processing capabilities to exploit those

deposits. The world lacks enough metallurgists to work them all. We lack engineers and chemists who can figure out a way to economically separate the good stuff from the host rock to create saleable product.

The world doesn't have a critical mineral shortage. The world has a critical mineral processing shortage.

I applaud the North American approach, albeit recent, to defend its mining assets from 'bad actors'. Those assets are available to be developed domestically, with their output to be consumed by the domestic supply chain. What we need now is investment into mining schools for more and better highly [skilled talent](#). We need investment into new research, knowing full well some research will result in successful new processes and some will not. That's the nature of science. We need the mining assets working together to create processing facilities to eliminate the bottleneck of a lack of technology, not in competition. We need true leadership on these complex issues, from government and First Nations and mining companies, all working together for the benefit of all.

And with advances in processing technologies, some of what we think today may be in shortage in 20 years will actually be in surplus or not be needed at all. The need for lithium in the electrolyte may be reduced or even replaced by a much more accessible element.

You can't see the Great Wall of China from space and the world does not have a shortage of critical minerals. The world has a shortage of critical minerals processing capabilities. Let's not have governments waste money asking the wrong question or even worse believing the wrong fact.

Charlie Angus and the story of Cobalt's ESG failure

written by Peter Clausi | May 12, 2023

Charlie Angus is pissed off.

Charlie is the Canadian [Member of Parliament](#) for Timmins – James Bay in northern Ontario, a federal position he's held since 2004 through 7 elections. He sits on the Canadian Government's Standing Committee on Natural Resources. He's also an author, activist, journalist, guitar player, and frontman for the alt-folk Grievous Angels (who I saw play in the late 80s at the Empire Hotel in Timmins). He's also deeply passionate about First Nations rights. Not entitlements, *rights*.

And he's pissed off. If you're in any way connected to the mining industry, anywhere in the world, pay attention.

House of Anansi Press recently published Charlie's well-researched book "[Cobalt: Cradle of the Demon Metals, Birth of a Mining Superpower](#)". It's a riveting telling of how the town of Cobalt was founded at the turn of the 20th century, how its minerals were exploited, its wealth exported and its environment destroyed, while turning Canada into a mining superpower. Despite the grim material, it's a fun informative read. Charlie today lives in Cobalt.

Toronto at the turn of the 20th century wasn't much of anything. "Toronto? Ah yes, that's where you switch trains to get to Cobalt." But it was through the extraction of wealth from the ground around Cobalt that Toronto learned how to be a center of

finance, how to re-invest in new projects, and how such projects should be regulated. Toronto owes much of its current financial hi-life to minerals taken from Cobalt over a century ago.

Charlie's book is also a painful narration of how First Nations got screwed, again and again and again. From murder to claim jumping to starvation and rape, First Nations didn't stand a chance.

The history books we read seem to think God (whatever that is) created northern Ontario in about 1900, just for Europeans to 'discover' and exploit. Actual data contradicts that historical claptrap. As Charlie points out (with extensive footnotes), silver from this region has been found in jewelry, pottery and religious ornamentation across eastern North America, proving up an extensive trading network predating Europeans. First Nations were doing just fine without Europeans thank you very much within their own local context.

But as written about in the Pulitzer Prize winning book *Guns, Germs and Steel*, that local context changed when faced with European disease and firearms. Suddenly First Nations were on their back foot, and heading backwards. Forced into corners, ignored by the legal system, the only alternative was to settle with the Crown and reach reasonable accommodation, also known as 'treaties'.

In mining in Canada, we keep hearing about 'the honor of the Crown'. It's a dubious honor. The Crown has broken every treaty it signed in Canada – it's hard to call that honorable. First Nations' rights have been trampled, spat upon, ignored.

Did you have fresh water this morning? A lot of First Nations didn't. As of November 1, 2021 there were 99 drinking advisories in place for First Nations communities across Canada. These are Canadians, with drinking advisories? Imagine Forest Hill in

Toronto with a drinking advisory. Westmount in Montreal? North Vancouver? It's pretty much a guarantee water advisories in those communities wouldn't last very long. But since it's *only* First Nations, most of Canada seems to think it's OK.

Charlies' riding includes many reserves and First Nations members living off-reserve, on an everyday basis trying to deal with the Crown's dishonor. No wonder he's pissed off.

At 260 pages, the book is a solid read without becoming pedantic or redundant. It would be great if the Canadian Securities Administrators could somehow make it a precondition to being on the board of a Canadian-listed mining company to have to read *Cobalt*. As a book, it stands on its own just fine. But there's a much larger point, larger to the point of being global. Charlie uses the horrific indigenous experience in northern Ontario as a metaphor for communities around the globe displaced by invasive miners. Whether in Brazil or the DRC or Papua New Guinea, every mining exploration play is on someone's native lands. Every producing mine is in someone's backyard.

Being in someone's backyard is a challenge. You have responsibilities to your neighbors, to the government, to the industry as a whole. Not everyone is up to that challenge.

For example, I stopped by a booth at PDAC 2022 in Toronto to chat with a PGeo friend. The CEO came over to try to make an impression, with talk about the asset and the company's commitment to ESG. I asked him if he knew what ESG stood for. He didn't. Rhetorically I asked, how can you be committed to something if you don't know what it is? The CEO just laughed weakly and walked away.

An obligation to each of Environment, Social Justice and Good Governance (ESG) is a key part of any successful company, not just a miner. While ESG is largely about the company's relations

with the communities around it, DEI (Diversity, Equity, and Inclusion) relates to matters internal to the company. The scorched earth policies historically enacted at Cobalt and elsewhere around the world have no place for ESG or DEI. That has to change. And you and I have to be those agents of change.

I'm pissed off, too. Get [the book](#).

Goodbye, SEDAR. Hello, SEDAR+

written by Peter Clausi | May 12, 2023

In theory, [Sedar](#) (System for Electronic Document Analysis and Retrieval) was intended to be a filing system developed for the Canadian Securities Administrators to:

- facilitate the electronic filing of securities information as required by Canadian Securities Administrators;
- allow for equal access to and the public dissemination of Canadian securities information collected in the securities filing process; and
- provide electronic communication between electronic filers, agents and the Canadian Securities Administrator.

In reality, as anyone who has ever used it can attest, it is not user-friendly, and hasn't been since it was first introduced. Here's a simple example. Assume a company has changed its name but you want to find its by-laws or articles under the former name (those by-laws and articles remain in effect). Unless you know the former name, it's hit-and-miss whether you will be able to find those documents under the former name.

That seems like a minor thing, but the by-laws for every company

set out how to call a shareholder meeting for that company. If you're planning a dissident shareholder meeting to oust underperforming management (as I do from time to time) you need those by-laws to guide your decision-making. Without the by-laws you're reduced to guessing as to the proper process, and if you don't follow the proper process then your dissident shareholder meeting is invalid. Time and money are wasted, and underperforming management continues to underperform.

To file at Sedar is a monstrous pain as well. Whoever does the actual filing needs to apply to get the Sedar application software to become a client. I've been through the application process and it is not simple, straightforward, or transparent. Once the special client software has been installed, the filing process is not intuitive and it's not unusual to have to call the help desk on routine matters. Payments for the filings are made through an ancient Electronic Data Interchange system.

Finally, with the evolution of technology and the rise of cybercrime, this antiquated system cannot be secure against the malicious. Every filer has financial information in the Sedar system, which information is at risk.

After 25 years of clunkily serving the investing public, Sedar is finally being put to rest. Replacing it is a new system called Sedar+ (not real imaginative there with the new name).

The change is supposed to happen in late 2022. The new system will be web-based, so filers won't need clunky dedicated client software. The CSA claims, "SEDAR+ will be easier to use, more intuitive, and more modern compared to the legacy systems, which are end-of-life and cannot respond to the evolving needs of market participants."

Eventually, it is the plan to pick up other databases into Sedar+, including the horrific pain that is Sedi (System for

Electronic Disclosure by Insiders), the Cease Trade Order list, the Disciplined List, and exempt market filings. This should provide investors with better search functionality and an integrated view of issuer information. Another benefit of the integrated data is intended to be the ability to access a reporting issuers list that includes data from all jurisdictions.

Why does this matter? How you do due diligence review in the investing world can be as important as the facts disclosed in the process. Knowing how the new systems work provides a smart investor with advantages over the uneducated. Better access to the data you need facilitates more efficient all-in-one-place research. Making the filing process better reduces the burden on reporting issuers (and later insiders). Finally, it offers better cybersecurity for those with financial information in the system.

Let's hope it does better than CNN+.

Looking Beyond USD for Gold

written by Peter Clausi | May 12, 2023

Note from Peter Clausi: On June 24, 2019 I originally published this piece. Today, it is arguably even more relevant; and as such are re-publishing for your review.

Gold is glittering again, having its strongest week since April, 2016. Many reasons are offered for this long-expected global run, including natural economic cycles, industry consolidation, the new-normal of rape talk in The White House, conflicts in the

Middle East and trade uncertainties.

Whatever the reasons, a [higher gold price](#) has a trickle-down impact on the junior exploration companies, the ones in the field doing the high-risk heavy lifting to bring new projects into development and production. It's a well-known axiom to search for gold in the shadow of a headframe, which is why gold camps develop. You find gold near to where someone else already found gold.

Many of these gold camps were historically in production but became economically non-viable when the gold price fell below all-in sustaining costs. I remember attending the world's greatest mining show, [PDAC](#) in Toronto, in 2001 when gold was under USD\$300 an ounce – a very grim time to be in the mining industry! Mines and exploration projects were shuttered because the anticipated revenue from the deposits was less than the cost of running the mine, which left no cash for corporate operations, and that's not a recipe for success.

Those same projects will be back in play, likely in new hands if gold is able to sustain this run.

PDAC 2012 was giddy as gold had hit its all-time high of USD\$1,900 per ounce the previous August. Projects with iffy economics were being green-lighted to try to exploit that price. We all know how that ended.

Gold is almost always quoted in USD. That's the revenue number, the price at which the producer can sell the gold. What's very interesting is that the majority of costs on a gold project are incurred in local currencies, not USD, so it's important to track not only the USD sale price for gold but the movements of gold in the local currency. If the revenue number is up and gold is sold in USD, and the costs are held steady and incurred in local currencies, the opportunity exists for miners in those

jurisdictions to increase their margins. What were barely viable projects can be made economically healthy due to exchange rates. This isn't another trick of accounting from those ivory tower theorists under [IFRS](#). This is the real world of real cash flow.

Look at Australia. The [Frasier Institute](#) recently pronounced Western Australia to be the world's second most attractive mining jurisdiction. Gold there is not flirting with a mere \$1,400 an ounce. No, gold quoted in AUD hit an all-time high of \$2027 last week, and closed out the week above \$2,000. (Thanks to [goldbroker.com](#) for the chart below.)



This gives the Australian gold projects an advantage in attracting foreign investment capital. If costs are incurred in Australian dollars, and the [inflation rate](#) continues to be under 2%, the expanded gross margins will see Australian projects on a fast track. Previously worked mines that had to be shuttered due to the fall in gold will be re-opened.

(Note this only speaks to gross margins. Australian mining companies have the stereotype for being lifestyle companies for their directors and management team, killing the net margins. The shareholders must ensure that new investment capital goes into the ground, not the Managing Director's pocket.)

Canada is in a similar position. Gold closed the week at CDN\$1,852, and Canada had an inflation rate of 2.4% in [April, 2019](#). Low inflation plus a rising revenue number equals renewed global interest in Canadian gold projects.

Saskatchewan finished third globally in that same Frasier Institute report. Quebec, the Yukon, Northwest Territories also made it into the Top 10 globally. Nunavut came in at 15, Ontario at 20. Of the fifteen provincial or territorial mining

jurisdictions in Canada, six finished in the top 20 globally. That's impressive, and that's why that same report ranked [Canada as the #1 mining jurisdiction](#) on a national level beating out (who else) Australia.

There's more to gold than USD.

Zombies in the Land of Cobalt

written by Peter Clausi | May 12, 2023

It's like *Pet Sematary*. Just when you thought they were buried and gone, just when you come to terms with your losses and say goodbye, they come back. No, not recycled politicians, ex-spouses or 70 year-old rock&rollers on their fourth farewell tour. We're talking about the metals.

There weren't many consistent themes at [PDAC](#) in Toronto this year, but one constant credible whisper was that this will be the year gold finally makes a big move. Since hitting its high of over USD\$1900 per ounce in late August, 2011, gold has given the market a few reasons to hope but few reasons to believe. The current global macroeconomic factors now in play finally add to the reasons to believe.

As [stated by Jeff Currie](#), Goldman Sach's global head of commodities research in early March, 2019, "We actually think this is a pound-the-table time to be buying gold right now. We're sticking to our \$1,450 target."

When gold is alive, all the metals get to suck in a deep breath of fresh air. Our pick for the metal that should have a tremendous 2019 is our old friend, #27 on the periodic table,

cobalt.

Our thesis is first, gold's spike will renew interest in the mining sector generally, and second, the globe is facing a shortage of key minerals vital to drive the Green Revolution. The Green Revolution requires cobalt or there won't be mass produced lithium-ion batteries. Without those batteries, there is no Green Revolution. If you think the world will produce more electric cars than last year, then be a cobalt investor.

Our [last look at cobalt](#) was in September of 2018. We looked at how the price per tonne on the London Metal Exchange had blown up from roughly \$24,000 to \$94,000, and then over the past year sank back around \$30,000. It was not a happy time to be a shareholder in cobalt explorers, as pricing in their shares tracked downwards with the plunge in cobalt pricing.

At PDAC this year I asked the question to many industry participants, what caused the ill health in the cobalt market? There was no consistent first answer, but it seemed like everyone's second answer was to blame China for some form of market interference.

Artificial market conditions can only continue for so long before they return to the norm. That might be happening now.

In September we looked at six cobalt companies and their performance YTD. Here they are as of today's date.

Name	High	August, 2018	Today
First Cobalt	\$1.65	\$0.26	\$0.165
Cobalt Power *	\$0.50	\$.045	\$0.01
Cruz Cobalt	\$0.41	\$0.08	\$0.05

eCobalt Solutions	\$2.10	\$0.54	\$0.34
Cobalt 27	\$14.00	\$5.73	\$4.30
CBLT **	\$0.09	\$0.03	\$0.025

*Cobalt Power changed its name to Power Group Projects and carried out a 1-for-12 consolidation, and is now trading at \$0.13 per share. The price in the table above reverses the consolidation for comparative purposes.

**The author is an insider at [CBLT Inc.](#) (TSXV: CBLT).

The numbers show the junior cobalt explorers are still in a coma.

The main reason for continued enthusiasm for cobalt recovery is that the basic economics of supply and demand have not changed. Cobalt is an essential element in lithium ion batteries. The average cell phone, for example, requires roughly 12 times more cobalt than lithium. Tesla's Model 3 requires 15 kg of cobalt per car. Assuming Tesla hits its production target of 500,000 units, an additional 7.5 million kg of cobalt will be consumed for one model for a minor car producer. That's roughly 7% of incremental global supply needed for only that one model.

The global market for cobalt is only 100,000 tons per year. That sounds like a lot, but realize that a freighter can take a 100,000 tons of iron ore in one load and ship it across the oceans to India for processing. The cobalt market is comparatively small, leaving it more exposed to kinks in the supply chain.

The car manufacturers understand that vertical integration in their cobalt supply chains will be vital to their success, just as in the rare earths industry. We have seen Volkswagen and BMW announce forays into the cobalt market to secure a long-term

cobalt source for their vehicles. They are not content to rely on the Congo (source of 60% of the world's cobalt) or upon China who processes is more than half of the world's cobalt.

This is part of the thinking behind FocusEconomics' [latest cobalt projection](#), which is calling \$40,000 per tonne this year for cobalt and then \$50,000 in 2021.

We are finally seeing normalization start to play out in the global pricing for cobalt. After a punishing spiral, cobalt has had a 13% jump since March 15/19. While it's possible these are just zombies stumbling in the dark, we believe this is Life returning to a once buried market.



What the Mining Industry can Learn from the Boston Red Sox

written by Peter Clausi | May 12, 2023

The mining industry can learn a lot from the Boston Red Sox. I just learned that lesson at PDAC 2019, the greatest mining show on Earth. More than 25,000 people attended in Toronto to meet, mingle, learn, look at core, party, buy, sell and schmooze.

I've been attending the mining show annually since 1992. I've missed two years. Before I go I have a list of goals that I want to achieve. Overall, it was a very good year at the show as I ticked off all the items on my to-do list and as always found a few more.

Wandering the booths and hallways and seminars, one of the things I learned was that there is a dearth of good projects under development. Simply put, we are consuming metals and not replacing them, causing analysts to believe the world will be in a deficit position over the next few years. This [2015 infographic](#) from the Visual Capitalist makes the case for the coming copper crunch or you can read it in [The Mining Journal](#).

Similar alarms are being sounded for [silver](#) and [gold](#). The shortages in the battery metals (nickel, manganese, lithium, graphite and of course perennial bridesmaid cobalt) are obvious as the world decentralizes grid electricity.

Refined zinc metal output is expected be 13.81 million tonnes in 2019. The problem is, the output estimate for 2019 is lagging behind the expected metal usage of 13.88 million tonnes for the year.

We are consuming the metals faster than the mining companies can

replace them.

How does this relate to Boston Red Sox, winners of last year's World Series?

The Bosox over many years invested heavily in scouts to find a larger pool of young possible players, signed players at a young age, developed them patiently through the system, and brought them to the major leagues at the appropriate time. Not downplaying Steve Pearce's World Series, the most important players on Boston's championship run throughout the season and the playoffs were homegrown, like Mookie Betts, Andrew Benintendi, and Jackie Bradley Jr., Xander Bogarts was signed when he was 16 years old and made major contributions to the team's success.

The cost of finding and developing young talent is far less than the cost of trying to acquire that talent once developed. Look at Bryce Harper's USD\$330 million contract with the Phillies after spending the first 7 years of his professional career in Washington. In Year 1 of that Washington contract, Harper was paid a total of \$3 million and had a tremendous year, earning a spot in the All-Star game and winning NL Rookie of the Year. His 7 years in Washington were very cost-effective for the team and the returns he provided. Once developed, he priced himself out of the Washington budget.

There's also Mannie Machado who in 2012 was paid \$112,786 by the Baltimore Orioles. Drafted and developed by Baltimore, Machado provided Baltimore with gaudy numbers and strong defence. For you data geeks, his Wins Above Replacement (WAR) is 5.7. He was a bargain for what he contributed to the team. He just signed a 10-year, USD\$300 million contract with the San Diego Padres, priced out of Baltimore's budget.

Finding, drafting and developing your own players allows a team

to control costs, keep these players under contract for a (relatively) low cost for an extended period of time, provides some degree of economic stability for the team, and de-risks the overall organization.

And that is one of the things that's missing in the mining industry. There are few large projects in development to replace the copper, gold, copper, nickel, tin, silver, and battery metals that are needed. The majors have failed to invest in their minor league systems, leading them to have to effect risky M&A transactions to replace lost ounces.

This failure to invest in development started in about 2013, after the mining industry blew up following an acquisition spree. You remember Kinross' 2010 free agent acquisition of Red Back Mining to acquire ownership of Tausita Gold Mine in Maruitania? Kinross paid \$7.1 billion for an asset that was written down by \$3.2 billion in 2013, crushing Kinross' share price with it. There are other examples as well, but this write-down was massive and caught the market's eye. Fear crept into the market and brought an end to M&A activity.

Following the fear came severe cost-cutting. The majors dramatically scaled back in all areas of operations, including not investing in the intermediates and juniors. If the juniors aren't being funded they can't explore (scout), the number of development opportunities shrinks, which reduces the number of opportunities for the intermediates to shepherd good projects along. And that decreases the odds that a major deposit would be found. And that of course means that fewer deposits are making it to the Major Leagues.

The cost of acquiring already-developed properties is extremely expensive. Grabbing proven ounces is what is driving the current \$17.8 billion attempted takeover of Newmount Mining by Barrick

Gold. It's like the Phillies acquiring Bryce Harper for \$330M after he was cheaply developed by Washington.

The Bosox are 6/1 favourites to win the World Series again, due mainly to the core of highly talented home-grown inexpensive players. It would be cheaper for the majors in the mining industry to invest more broadly in the juniors, knowing there will be winners and losers along the way, than to continue relying upon free-agent signings.

Goodbye August, you crappy unhappy month.

written by Peter Clausi | May 12, 2023

Goodbye August, you crappy unhappy month. Nothing good happened in August. Of all my friends and business associates, no one had anything good to say about that stupid month.

Among the people especially mad at August are investors in Canadian cobalt companies. After a strong 2017, the price of shares in those companies plummeted and August brought no relief. Let's look at a few Canadian names with their 12 month highs and lows.

- First Cobalt Corp.: following its three-way merger with CobaltTech and US Cobalt, FCC's shares have been hammered from a high of \$1.65 down to 26 cents in August, now clawing back to around 45 cents
- Cobalt Power peaked at a high of fifty cents in January/18 but mean vicious August brought it to its low of 4.5 cents

- Cruz Capital cruised all right, all the way down from \$0.41 to its August low of eight cents
- Mr. Market clobbered eCobalt Solutions, the company with the North American cobalt property nearest to production, tearing almost 75% from its market value, from \$2.10 per share down to its August low of \$0.54
- CBLT27, the cobalt streaming / holding company with 85 million shares outstanding, lost \$700M of market cap as it fell from \$14 to \$5.73. More on CBLT27 and a bizarre theft below
- Finally, let's not forget junior cobalt / gold / copper explorer CBLT Inc., which despite a stronger balance sheet and profitable M&A activity, fell from \$0.09 to three cents in August (Market note: I'm an insider at CBLT Inc.)

Stupid month.

But there are reasons other than August for the Canadian cobalt companies getting pounded. Let's start with the price of cobalt on the London Metal Exchange. Three years ago it languished around \$20,000 to \$25,000 per tonne. In 2017 it shot up to \$94,000 per ton, only to see 2018 bring it back to roughly \$60,000 per ton. While that is still a tremendous leap from 3 years ago, it has fallen a third from last year. The cobalt stocks have moved more or less in sync with the commodity price.

It's not just cobalt that has been pressured in this commodity lull: copper is down, gold is down, zinc is down, silver is down, the list goes on and on. Even darling lithium is having its challenges. The general commodity malaise has leaked capital out of the junior explorers.

Another leak of capital out of the juniors has flowed into Canadian cannabis and cryptocurrency stocks. The risk capital market is only so big, and a diversion of capital into other risk sectors means there is less for the junior explorers,

including the cobalt ones. Less capital means less exploration capital, less working capital, and less flow of market funds, all of which add up to lower stock prices.

A problem that is endemic to this cobalt market is a lack of credibility specifically among the junior cobalt explorers. Many of them are new or repurposed companies trying to create an identity and find their way. Some of them deserve your attention, and some certainly do not. There have already been many re-stated or amended press releases that were initially not in compliance with either JORC or NI43-101. Every one of those recalled press releases hurts the credibility of all the cobalt juniors.

Another credibility problem arises from inventive new ways of reporting assay results. "Adjusted EBITDA" is a non-GAAP, non-IFRS phrase that each user defines differently, which means it means whatever the reporting company wants it to mean. It's usually used by a business that has a strong top-third in its P&L, but is consuming much capital to get there. Many an operating loss has been 'adjusted' to a profit by playing with the underlying definitions.

"Cobalt equivalent", or CoEq, is this market's equivalent of Adjusted EBITDA. One company reported its cobalt results in "CoEq" by including non-economic trace showings of silver, gold and copper from its assay results. Then the company gave all those trace elements a dollar value, converted it somehow to a cobalt value, and voila! reported the final number as a higher "cobalt equivalent".

Yet another challenge is that cobalt is a bizarre metal. It's scattered around the globe in only a few mineable locations. One of those unique geologic settings is in the historic Gowganda / Cobalt silver and cobalt camp in northern Ontario, whose

geologic history and mineralization still have not been satisfactorily explained. Until the agents of mineralization are better understood, larger companies see excessive risk and will be reluctant to invest large sums in that part of the world.

The majority of the world's cobalt comes from the Congo, where the 2016 Presidential Election still has not been held. It's also the birth place of ebola. The supply chain out of the Congo is always at risk.

Then there are problems unique to each company. First Cobalt, for example, is still suffering from the effects of merging with CobaltTech, whose shareholders have been according to market rumours banging away at the FCC bid. FCC's success in the field at Iron Creek, Idaho has not translated into market success, as even at these depressed prices those original CobaltTech shareholders are still in the money – hence the bid-banging.

CBLT27 had its own embarrassing company-specific issue this summer. In its quarterly filings, CBLT27 reported that roughly USD\$5M of cobalt had been stolen in July from its holdings, held at a third party's warehouse in Rotterdam. How do you steal 76 metric tonnes of physical cobalt? It boggles the mind. Can you hear the intro from *Mission: Impossible*? The property was insured and so CBLT27 won't suffer a financial loss apart from any deductible, but it will have an impact on its market perception.

One final reason that may explain why the Canadian cobalt stocks are down is that it is still a new market. It took investors a long time to understand the need for lithium. Lithium 1.0 ran its course, then Lithium 2.0 had its day, and we are in the valley before Lithium 3.0. As investors and more senior companies better understand lithium, so too will they understand the greater need for cobalt. The conventional project generation

model should appear in cobalt, providing much needed financing to support many smaller projects in development.

What does all of that mean for investors? Going back to the great Sage of Omaha, be greedy when others are fearful. The cobalt stocks are out of favor but the long term fundamentals are extremely strong. Now is the time to buy the good ones. Do your research and buy at least three to spread your risk. Call the management of each company and actually ask about the assets, that work plan, the mistakes made to date, the plan for success going forward. When it turns, this market will turn hard and fast. Say hello to September.

Tesla is Using Nortel's Business Plan (that's not a good thing)

written by Peter Clausi | May 12, 2023

Those who don't learn from history are doomed to repeat it, so let's use Nortel's history to learn why Tesla, Inc. may be about to drive itself into deep trouble.

If you're reading this, you've heard of Tesla. It has been a stock market marvel. The past five years have seen wealth created for long-holding shareholders – 5 years ago, Tesla was trading around USD\$45 a share, and today it's around \$297. The chart from Nasdaq shows for the last year Tesla has been the poster child for “choppy”, as its stock price has oscillated with amplitude between \$390 and \$245 per share.



Tesla's PromotionMachine has been sleeping at the factory trying to convince the investing public that revenue and earnings will ultimately catch up with the stock price. Bears and shorts are convinced the last part of that sentence is backwards.

Tesla is at a difficult stage of its existence as it tries to go from start-up to establishment. It needs to show the doubters that it has revenue, that the pre-orders for the Model 3's are not being cancelled and are actually being converted to sales, and that the Holy Grail of positive cash flow is glowing in the road ahead. The latest Q2 was Tesla's most productive in its history.

The problem is, Tesla has had and continues to have horrific issues on the shop floor. Production, while up, remains far behind the original and the revised targets. Panasonic and the [Cobalt Cliff](#) have something to do with this, but Tesla has acknowledged the production failures are mainly a function of over-automating the shop floor to a point of unmanageability.

Tesla and its CEO Elon Musk need this year to be an operational success. The company can't run forever on champagne wishes and caviar dreams. It must show Wall Street and the global green investing community that it can dent the Detroit Big Boys, it can take a run at Honda and Toyota, that German engineering is

secondary to American gee-whiz know-how.

Litigation lawyers will tell you when the facts are against you, pound the law. When the law is against you, pound the facts. When the facts and the law are against you, pound the table. Tesla looks like it's opting for the table pounding.

The Wall Street Journal [reported recently](#) that Tesla, "has asked some suppliers to refund a portion of what the electric-car company has spent previously". WSJ also reported that Tesla confirmed it is seeking price reductions from suppliers for projects, some of which date back to 2016, and some of which haven't been completed.

Did we mention that Tesla is [burning through](#) about USD\$1,000,000,000 per quarter, with only about \$2.7B in the bank ? And don't look at the convertible debt pricing issues lurking over the horizon...

What Tesla needs is a much higher stock price, for the inevitable equity financing and to help with those pesky convertible debt problems.

Bring Nortel back into the picture. Visit the [Wikipedia page for Nortel](#) for links to the painful facts below.

Nortel Networks Inc. (then called the Northern Electric and Manufacturing Company Limited) was partially spun out of a predecessor to mighty BCE Inc. in 1895 (yes, 123 years ago), and completely spun out from BCE in the internet madness of the year 2000. It was a huge financial win for BCE. Nortel ultimately made equipment for the heavy-breathing internet industry – switches and multi-protocol optical networks.

Nortel was a strange chimera, a combination R&D – manufacturer – vendor; much like Tesla is today. The hype machine was running

well ahead of the financial statements as the company was worth roughly one-third of all companies then listed on the Toronto Stock Exchange.

You remember what happened next, right?

Sufficient cash flow and revenue failed to materialize. Nortel's market cap went from close to \$400B to only \$5B, and ultimately Nortel filed in court in Canada and the USA for protection from its creditors. Goodbye, over 95,000 jobs worldwide.

The bankruptcy process ended in 2017, by when over \$2,000,000,000 had been chewed up in the process, including legal fees.

Prior to bankruptcy, one of Nortel's operational problems was negative cash flow. Despite growing revenue, over the years its cash flow never did catch up to the expected glowing future and the soaring stock price. The car-wreck crash in the stock price, followed by the creditor protection process, were reflections of that failure.

Nortel's management team used every tool at hand to bring new revenue onto the P&L. Some of those tools could not be used today under new accounting standards such as under [IFRS 15](#). Back then, one of the tools available to increase revenue was to vendor finance its own customers.

That vendor financing worked like this. Internet usage was booming, so websites and networks needed better equipment capable of processing the growing loads. Nortel and its advanced optical technology were the solution, but the equipment was very expensive. Not many start-ups had \$10M to spend on a network switch, but without all those start-ups buying equipment Nortel couldn't hit its targets which would have lead to a cratering of its stock price.

Nortel's fix was to finance those start-ups and deliver the switches before receiving full payment. In some cases up to 80% of the purchase price was financed, which meant Nortel was using its working capital to sell at a loss to gain future cash and to buttress the current revenue number.

As always, after the boom comes the bust. Internet stocks tanked in 2000, killing many of Nortel's customers and wiping billions in financing off Nortel's financial statements. The cash flow that seemed so clear just months before failed to materialize, eventually taking Nortel into the sad tale of creditor protection.

Nortel, like Tesla, artificially distorted its own business model by causing elements in its supply chain to finance its activities. Nortel used its clients, Tesla is using its suppliers.

Tesla declined to provide the markets with a copy of the recent memo but confirmed it is seeking price reductions from certain suppliers for historic projects, some of which date back to 2016, and it is engaged in discussions concerning future pricing based on production ramp-up.

The automotive industry is a highly competitive margin-driven business, and Tesla is looking to save a buck / make a buck anywhere it can, as it should. While it's true that ongoing discussions with Tier 1, 2 and 3 suppliers are common, asking suppliers for cash back is closed-system cannibalistic behaviour, and reeks of desperation. As Tesla's cash dwindles and its options slowly disappear, Tesla must fix its manufacturing issues and create real value by executing on its business plan, not by parasitically sucking cash out of the system by draining its suppliers.

Nortel taught the lesson. Will Tesla learn from it or repeat it?

Apathy Let Cambridge Analytica Abuse 50 million Facebook Accounts

written by Peter Clausi | May 12, 2023

It was [revealed last week](#) that Cambridge Analytica abused personal information from 50 million Facebook accounts in early 2014 to build a system to profile individual American voters for the 2016 presidential election. The goal was to then target the users with personalised political advertisements attacking Hilary Clinton and loving The Donald. It's still not clear whether this was illegal or merely repugnant.

Most people are focussing on the fact that Cambridge Analytica was headed at the time by Steve Bannon, which provides yet another malodorous link to Trump. Facebook's share price is down about 12% but so far there has been no accountability apart from the inevitable class action litigation lawyers circling. What matters the most here is that we are becoming de-sensitized to data breaches like this.

\$300M of Ethereum [permanently lost](#). Hey, it's just crypto and it wasn't mine, so who cares?

Do you know anyone who lost sleep over 143 million Americans and 100,000 Canadians that were exposed by [Equifax's massive data breach](#).

Every [Yahoo account](#) was compromised in 2013, which Yahoo did not figure out until 2017. That was 3 billion accounts. You likely

had one of those accounts. Did you complain about it?

[Citibank failed](#) to protect the personal data (including birthdates and Social Security numbers) of approximately 146,000 customers who filed for bankruptcy between 2007 and 2011. That's adding insult to injury.

40 million [Target customers](#) were exposed in 2013. The remedial cost to Target, not including the class action litigation, was roughly \$252M. Did you join the class to get your rightful piece of the settlement?

\$81 million [stolen](#) from the Bank of Bangladesh by compromising the Swift system in 2016. This was the second time Swift was used as a medium of theft. But hey, that could never happen over here in the civilized world, right?

Look at the lists [here](#) and [here](#) and [here](#) for some of the largest data breaches of all time. How many of these do you remember, or care about?

Even worse, according to the Online Trust Alliance in its terrifying [Cybersecurity and Breach Trends Report](#) from January of this year, is that 93% of these breaches were self-inflicted and easily preventable. Apathy is our real enemy.

And next up are the assaults from Artificial Intelligence.

AI spans a broad area. A Nest WiFi-enabled thermostat can self-regulate if it feels the sun directly on it rather than air in the home environment – is that 'intelligent' or just good programming? Cruise control on your car? A video game that gets harder the further you go and that learns your favourite moves? Neural networks? Deep learning? The hated robo-advisor? Predictive weather analysis? Smart tokens in the ICO universe?

AI is just a software operating in a hardware environment, but

somehow it has gained noble status. Perhaps it's the use of the word "intelligence" that lulls us into thinking that the software is actually alive.

It's not. It's just software, a compendium of zeros and ones that open and close circuits inside chips. Software is vulnerable to coding errors, intentional or negligent. It's vulnerable to breakdowns in its hardware. And it's entirely vulnerable to malicious third parties for cryptojacking.

Our courts and insurers will have to address who becomes liable when those things go wrong. The worse situation is where software causes death, like earlier this week when a [self-driving car killed a woman](#) in Tempe, Arizona. Elaine Herzberg was walking her bicycle when she was hit by a vehicle in autonomous mode going 40 km/h. It doesn't take a crystal ball to see Mr. Herzberg is the first of many such deaths.

Who will carry the financial burden of the error when smart tokens co-ordinate a contract for one billion rolls of toilet paper when the intention was for 100 rolls of paper towel? Is this contract law or negligence? Can you contract out of liability? Medical diagnostic software misses an obvious cause resulting in patient death? Who pays the repair bills when Skynet finally goes live and the Terminator kicks in your door?

Vernor Vinge's 1993 short paper [The Coming Tehnological Singularity](#) is a marvel of literature that manages to inspire and terrify at the same time. Should something we created actually develop its own intelligence, the pace at which technology would from that point develop would be inconceivable to humans. The human era would be over.

Back to the breaches, both malicious and self-inflicted. Incompetence and thievery have been with humanity for recorded history. The first trojan horse was the serpent surreptitiously

attacking the Old Testament God by way of his human creations and an apple. Sadly, we do need various levels of government to help us defend ourselves. This will require some levels of regulation, even if unwanted.

The CryptoCrowd may not like it, but regulation is needed and it's coming. At least there seems to be some regulatory recognition that data is a different world requiring a different set of regulatory parameters. See for example the British Columbia Securities Commission's 2018 [outreach efforts](#) seeking innovation while maintaining confidence in the capital markets.

This apathy is a strange mindset, especially since the business world otherwise takes confidentiality seriously. We sign confidentiality agreements and NDA's. We expect our employees to leave our IP at the office. Securities laws exist to prevent insider trading and to protect the dignity of the market. Larger boards have committees specializing in privacy and data protection. There are few things more valuable to any company than the integrity of its data.

So we should be outraged by these ongoing assaults on us, our data and our companies. We should be in the streets, with torches and pitchforks, demanding that heads roll and attackers be found. Instead, we shrug and say "What can we do? I'm just one helpless person. The government will protect us." That only goes so far.

We have to use what the government gives us. CASL (Canada's AntiSpam Legislation) is a horribly mis-named piece of legislation that has teeth. It codifies an individual's right to control the inbox. It isn't about spam, it's about your digital liberty.

The GDPR is the European Union's approach, and it's a good one. A prior article explaining [GDPR](#) is here. [Recent recommendations](#)

from House of Commons Standing Committee on Access to Information, Privacy and Ethics indicate that Canada will adopt an approach similar to GDPR to give you the tools to protect yourself. So use them.

Ultimately, it's up to you. Be vigilant. Protect your local network. Follow good protocols. Don't be sloppy. And be angry over every breach. Demand accountability. Next time it could be you.