



Rick Rule: Natural Resource Investing February 22, 2018

Erik: Joining me next on the program is [Rick Rule](#) from [Sprout Global](#). And, for anyone who's not familiar – which is hard to believe, because he really gets out there and explores new opportunities in the resource space, whether it's getting off the next airplane to go look at a junior goldmine or whatever is going on, Rick has the reputation for being the guy who knows the most about it.

And, Rick, what I'd like to start with is we have so many people that are Wall Street guys, whereas you tend to be out in the field really looking at natural resources. I think this really is a different animal. It's a different style of investing.

So why don't we start with the big picture? How do you think about the world around you? Where is the opportunity? Why natural resource investing in the first place? And how do you approach it?

Rick: Well, I think probably every one of your specialists would suggest that they were off Wall Street in a way, but not all businesses correlate. I would of course agree with your premise that natural resource investing is different than most mainstream forms of investing.

The first is that resource investing is unusually capital-intensive, which means that it is unusually cyclical. The truth is that, in resources, the old truism: "A bear market is the author of a bull market and a bull market is the author of a bear market" is particularly true.

And that's important to understand. Because, during periods of time when mature natural resource companies appear cheap (that is their enterprise value relative to their EBIT is low), they normally correspond with periods of very high commodity prices. Meaning that the price of the commodity is about to go down, so that the free cash flow is about to go down, so that the debt is about to go up.

When, by contrast, mature natural resource companies seem expensive on an EBIT to enterprise value basis, it's normally when commodity prices are low. Meaning that cash flow is going to get higher and debt is going to get lower.

So it turns out that, from an investor's perspective, the best of times herald the worst of times. And the worst of times herald the best of times.

In truth, in the 40 years that I have been involved in the game, one looks first for commodities where you believe that ongoing demand for five or ten years is assured, because of the utility

afforded by that commodity to society. That is where ongoing demand is assured. Where the price of the commodity – the price that the commodity sells for worldwide – is below the median cost of production.

In other words, you buy the best producers in industries that are literally in liquidation. What that means is that you have a circumstance where, either the price of the commodity goes up, or society does without the commodity. In terms of the broadly traded commodities, the truth is that our way of life depends on commodities. And I would suggest that that's what sets apart the resource business from other businesses.

Erik: Maybe you'll disagree with me, I don't know: What I think sets apart the resource sector – of the stock market at least – in theory, the efficient marketplace hypothesis tells us that all stocks are fairly priced. Analysts have figured out what they're worth, and, unless you have new secret news, you can't beat the market.

If there's a space where some of these companies are run by really bright geologists that know about rocks and so forth, and not a whole lot about business, particularly mining companies that seem to pay too much for acquisitions – it seems like some of the management just isn't really on board in terms of managerial competence.

Am I wrong to think that there are probably pretty significant dislocations in terms of what the listed shares are trading at, versus what the company is really worth? It seems to me that dislocation is bigger in this space than in other parts of the stock market.

Am I wrong to think that?

Rick: I don't know about bigger than other parts of the stock market. I would suggest that the efficient market thesis doesn't work very often very well in the near term. And I would define the near term as three or four years or less.

I would certainly agree with you that, in the first instance, management capability isn't distributed evenly through companies. And the analytical capability isn't distributed well through analysts.

When you look at extractive industries – and I guess I'm damning myself in this next statement – over the last 40 years, relative to some other industries, they haven't exhibited as much opportunity for analysts, salesmen, financial services people. The consequence of that is that the median level of market intelligence in financial services as it relates to natural resources is unusually low.

And the consequence of that, I suspect, is that, as you say, the efficient market thesis is unusually poor with respect to natural resources investments in equities.

Erik: In terms of how you go about this, the first thing you said is you're looking for

commodities that are literally in a state of liquidation, where the commodity is selling for less than the cost of production. Therefore, as you say, the price has to go up or else society has to not live with it anymore.

And the next major thing is it may or not be that there's competent management in all of these companies.

So walk us through the process. Does it start with looking for competent management? Does it start with looking for the industry that is most distressed? How do you go about it?

And I know that one of the things that you do, you've been a very big player in introducing accredited investors to opportunities to get involved in private placements in very early stage companies. What's the tradeoff?

If you're a sophisticated investor, I would think that listed shares in going concerns are better in some cases, and that getting involved on the ground floor might be better in others.

How do you decide that? And how do you approach the market? What's your process?

Rick: I think you are part of the way along to answering your own question. It really depends on who the investor is. And what his or her tolerance for risk and intentions are.

Investors (people who place money in the expectation of a decent return on capital employed) rather than speculators (who are looking for outsized gains but are willing to take substantial principal risk) are probably better advised to be looking at the very largest companies in the sector. Buying the best of the best, when the rest of the market has thrown them away.

An example would be, if you dialed back 18 months ago when the oil price was below \$45/barrel, it was pretty clear – given that the International Energy Agency said that the median cost of production worldwide, including cost of capital, was \$60/barrel – that the price of oil had to go up.

If you're losing \$15/barrel, 100 million times a day – in other words, if the industry is losing a billion and a half dollars a day – eventually that gets tiring. Either the price of oil goes up or price becomes unavailable.

The consequence of that thesis is that you buy the very best oil companies in the world. Ones that can survive during \$45/barrel. So that you're sure that they're around when the price returns to \$65/barrel.

By contrast, if you're a speculator, if you're willing to work harder and take more risks, then you become much more management-centric than commodity-centric.

Warren Buffett famously said that he likes companies that could be run by a moron, because

sooner or later they will be.

So the investor in the later-stage company is really looking at the whole range of management. And the whole range of the business. Speculators, in earlier-stage activities are looking much more importantly at people. In fact, much more importantly at the CEO and larger shareholders.

Erik: And in the speculative space, where I know you do a lot of work at Sprott Global, do you drive your selection of what kind of companies you invest on based on a macro view?

For example, if you think electric vehicles are going to be a big thing, and so lithium is a commodity you're interested in because of its role in batteries?

Or do you just look at the commodities in terms of, as you said earlier, whatever is in liquidation without caring what reason it's in liquidation – that's where you want to be investing because that's what has to reverse?

Rick: I certainly prefer that. The technology stories often enjoy a lot of market favor – that is equity market favor, narrative favor – before they generate economic returns as a business activity.

And the small markets – which attract market attention because they are volatile – in fact suffer because of their size. And what that means in the very small markets is that the small companies never become significant players.

If you were, as an example, a rare earth consumer. If you were the purchasing agent for some technology company that relied on rare earths in your supply chain, you would rather buy rare earths from one of the larger mining companies in the world rather than from a rare earth startup that might be able to offer you lower prices. Because security of supply is of much more importance to you than anything else.

In the technology metals, very often the companies that are important to the supply are companies that are so large that the metal is unimportant to them. So developing an investment theme in the minor markets is very, very difficult.

It's interesting to note as an example that, although the case for lithium, as expressed by physical demand for lithium in the last three years, has been extraordinary, the same four companies dominate lithium supply now as they did before.

Secondly, what we've learned in the case of lithium is that we don't have a problem with lithium supply. The world is awash in lithium. What we have is a shortage of fabrication capability to extract the lithium from known reserves and resources.

We have 200 companies, mostly characterized as exploration companies that have no lithium,

that are suggesting that lithium is in short supply. And I guess, in their case, it is.

On the other hand, we have four companies that are existing lithium producers, with reserves and resources varying between 30 years and 120 years, that are frantically building processing capabilities able to meet the near-term demand.

So it's important to understand, in the case of these minor metals, a lot more than most people do about the economics of the industry.

Following further on your question though, importantly for smaller companies, the resumes of the principle players are important. Really, what you're doing when you're making money in a small company is analogous to what happens when you're making money in technology. You're answering a series of unanswered questions.

The industry likes to pretend that early-stage mining companies are asset-intensive. But most exploration properties offer the opportunity to spend the money, rather than the probability of generating strong free cash from those properties.

I am tempted to say that most exploration properties, properly categorized on a balance sheet, would be liabilities rather than assets. It is the management team's intellectual capital, and the management team's ability to answer unanswered questions around the supposed asset, that will make you the money.

And, if you don't understand that you will fail in early-stage companies.

Erik: Staying on lithium as an example, do you as part of your analysis try to look at where longer-term technology trends are headed? For example, as I understand it, there are known limits to what you can accomplish with lithium ion batteries. And most experts think that to go to the next level it would be a different battery chemistry which maybe hasn't been invented yet. But it's probably not lithium that that next generation of batteries is based on.

Is that reason for pause in investing in lithium resource play? Or do you just say, there's demand right now for lithium, this makes sense, we can't control what the future is going to bring?

Rick: The truth is that we try and out-compete our competitors in being forward-thinking. We believe that distributed energy is a very, very, very big theme.

And maybe the most important theme that exists in the natural resource business.

We think that other technologies will be developed. But we think the demand for batteries, for many applications of all types, will be so extraordinary that we are interested in lithium. We're interested in nickel. We're interested in copper. We're interested in cobalt. And, believe it or not, we're still extremely interested in lead.

The ability to store energy on a distributed basis, closer to where it's produced, is one of the literally next steps in the ascent of man. Having the ability, as an example, to generate power off the grid. Having the ability to actually utilize, on an economic basis, alternative

energies – things like solar power when the sun doesn't shine, the application of battery technology in applications as small as a watch and as large as a major municipality in the Sun Belt, like Las Vegas – is such that we're attracted to battery and distributed power storage technologies of all types and utilizing all materials.

Erik: Now, this brings me to another question that's something I think a whole lot about. A lot of people will tell you electric vehicles are the way of the future, therefore oil doesn't matter anymore. It's going to be forgotten. We're going to have peak demand any day now.

And it just blows my mind that people don't seem to realize that electricity is not a source of energy – it's a way of delivering energy.

In terms of where the source is going to be, help me with how you think about nuclear. Because it seems to me that, on one hand, I can make a very strong argument that the world very badly needs to improve the safety and implement better designs for nuclear energy and to embrace it in a big way.

On the other hand, I can't remember a time in my lifetime when the public sentiment against nuclear has been stronger than it's been since the Fukushima disaster.

So do you think that nuclear plays a big role? And, if not, where does the energy come from to charge these batteries, to power these electric vehicles? And to power the rest of society?

Rick: You've asked a lot of important questions there. But let's begin with the last one.

First of all, the future for nuclear energy is very bright. Irrespective of the current political whims in countries that believe that they can do without nuclear power, nuclear power has a future as an efficient source of energy on a global basis.

Uranium stores more power in a smaller unit of volume than any other power source known to man. And if you look out four or five years, looking at the pace of, as an example, nuclear starts in China, in the Gulf, places like that, the nuclear industry is in extremely good shape, the doubters notwithstanding.

Even in countries that have forsworn nuclear use. Germany comes immediately to mind. What the Germans have done is shut down domestic nuclear production and they have replaced that production, really, with four sources:

The first is imported electricity – ironically, generated from nuclear sources in Poland and

France.

The second is high-sulfur coal. In other words, they have blown their Kyoto protocol pledges all to hell as a consequence of substituting coal for nuclear.

The third is, ironically, solar energy – in a part of the world where the sun doesn't shine. Which has resulted in power rates in Germany increasing threefold in six years.

And the fourth is increasing reliance on Russia for natural gas.

My suspicion is that, even in countries like the United States and Germany that can afford irrational responses to power markets, that the markets ultimately will prevail.

The near-term question about nuclear power really revolves around Japan. The Fukushima disaster did two things. One, it made people, arguably, very nervous – and rightly nervous – about the efficacy of current nuclear standards on a global basis.

And, from the market's point of view, it took 15 or 16 million pounds of demand out of the market and added 100 million pounds of inventory as supply. In the near term, the price of uranium will be determined by the pace of Japanese reactor restarts. We have eight restarted now, with about 30 in the permitting phase.

I'd like to go to an earlier part of your question, though, where you talked about the safety of nuclear power. If we looked at nuclear power safety from a statistical point of view relative to other kinds of energy, and we asked ourselves how many people got electrocuted every day, are we prepared to make electricity illegal? Or, if we thought about the real risks associated with flammables like natural gas, and how many people die every year of various accidents associated with natural gas?

If we were going to pay attention to science and arithmetic, we would advance nuclear power, relative to natural gas and electricity.

The truth is that somebody who makes their living from investing has to be very hard-headed. They have to get past the narrative. They have to look at the math. And they have to realize that, over time, no matter the stupidity of the politics, that markets work.

Erik: Rick, there's something that I'd really love to run by you. There's a fellow called Kirk Sorensen who tells a fascinating story (this is an ex-NASA engineer) who would like the world to listen to him. And not many people do listen to him, unfortunately – but he says that there is something called a liquid fluoride thorium reactor, which was actually invented and tested 50 years ago, which is orders of magnitude safer, better, smarter.

It doesn't have the failure modes that a boiling-water uranium reactor has. It's a better way of doing things if we were serious. And I think his contention is that if we were serious about

safety we would engineer thorium reactors instead of uranium reactors. And that would be the way of the future.

Now, when I listen to this guy, he sounds like he knows what he's talking about – although I certainly am not a nuclear engineer, so I have no idea.

Is his thorium story credible? And, if so, is there an investment at play there in terms of thorium as a fuel for future reactors?

Rick: I'm fascinated with thorium technology. But I need to tell you that, despite about 15 years of study, it's still embarrassingly a bit above my pay grade. Right now, the economic implications of thorium are that, occasionally, as a subject, it succeeds in selling an awful lot of investment letters.

When I look at the economic implications of the thorium versus uranium debate, the only thing I can say is that the global engineering community seems to have caused about 120 billion dollars in current financing for the construction of nuclear plants. And no dollars for the construction of thorium plants.

What that tells me is that, for the next ten years – and I need to say at an 8% discount, ten years is most of what I'm concerned about – I need to know a lot more about uranium, but I need to know about thorium.

When I begin to see the embrace of the technical community around thorium at a degree that's substantial enough that real capital begins to be deployed in thorium – say, two reactors, 12 billion to 15 billion dollars – then I will begin to think it's time for me to really truly get to understand thorium.

But I need to say that, when I look at the debate, and I think about my capabilities in the debate, I'm inclined to believe that a community of 25,000 engineers worldwide has had the debate long enough and hard enough that they're willing to spend 125 billion dollars on the uranium side and none on the thorium side. And that's as close as I can come to an answer for you.

Erik: There's another related topic I've heard a bit about that I'd love to get your comment on. Aside from thorium reactors, the contention that I've heard from some very smart people is that the problem we have with nuclear energy is that these very, very large Westinghouse boiling water reactors are failure prone, the technology is not perfect, this is 1960s and 1970s technology.

What you really should move to is a completely different approach of modular reactors, where these things are built in a factory, they're shipped with maybe the fuel in a separate truck or something for safety, and then put together.

They run the thing and you can physically pick it up and send it into an overhaul facility. The reactor itself can be picked up from wherever it was used and sent back to the overhaul facility for servicing. And that this modular approach could be orders of magnitude safer than in-place construction of very large nuclear power plants.

It's also been suggested that this would make nuclear power viable in much smaller markets, small countries, and so forth.

It seems to me that it sounds like a good story. I don't know if the engineering is solid behind it. If it is, that ought to open up an incredible equity market in terms of whoever is going to run the company that builds these modular markets, whoever is going to figure out the transportation logistics to get them in place, whoever is going to figure out the financing for the contracts that service them and provide long-term maintenance for them.

There's just a huge industry there, if this story is true. Is the story true? And, if so, where is the investment opportunity?

Rick: I think the story is true. I think that we need more and better technology in large-scale industrial reactors. But the industry is spending literally billions of dollars on marginal reactor technology. Including (ironically), recently, Westinghouse, despite the fact that it's in bankruptcy.

I think that there is lots and lots and lots of room for both technologies. And I think that they'll exist side by side.

The truth is that the Westinghouse technology on an industrial scale does need to be upgraded. You may have seen that Westinghouse was recently – or is recently being – bought out of bankruptcy by a large Canadian infrastructure company. Which, theoretically, will have the staying power both to enable Westinghouse as a contractor to suffer through the vagaries of the political cycle and the construction cycle, but also to put in place the upgrade in reactor technology that will allow Westinghouse to continue to be competitive with Japanese, Chinese, and Russian industrial-scale reactor technologies.

At the same time that that's taking place, the distributed reactor technology that you described is something that literally everybody in the nuclear industry, and almost everybody in the power industry, is frantically pursuing. And billions of dollars are being spent on commercializing this technology.

Erik: With that backdrop in place, it sounds like you and I agree that there is plenty of reason to think uranium will be needed for many years to come. At the same time, it sounds like it's very much out of favor politically now.

So does this meet the qualifications that you described earlier as being a good investment opportunity right now? To look at uranium mining? And, particularly, I think there is a lot of

complexity that comes into play with the decommissioning of nuclear weapons and downblending the uranium that was previously weapons-grade to make more.

Is there an overhang of supply that needs to be exhausted before there's going to be a market for more uranium? And, if so, does that mean it's not time yet?

What's the opportunity in terms of the investment landscape, relative to uranium?

Rick: Another great and complex question. I'll try to remember all of it so that I can answer all of it.

First of all, you have a commodity that is priced currently at about \$23/lb. That costs about \$60/lb to make. So the industry is losing about \$35/lb. And, of course, being miners, trying to make it up on volume.

We are seeing supply destruction in the uranium business right now, which is always what you look for. The industry is in liquidation. And, despite what some detractors might say, demand for uranium is assured because people around the world want the lifestyle that you and I enjoy. And doing that is energy-intensive.

With regards to supply, two issues. One you talked about is the downblending of nuclear weapons. Thankfully, this is a theme that has been happening since 1992. And something that continues. The inventory of nuclear weapons, relative to the fuel needs of a world that churns uranium into watts, is fairly small. So that inventory is manageable.

Most of the inventory in the uranium business comes about as a consequence, in the very near term, of the shutting down of nuclear power in Japan. The most important thing to note in the near term – that is the next two or three years – with regards to uranium prices, is simply the pace of Japanese restarts.

And, hence, is this an investable theme? I recently turned 65, which means as an investor I've now gone through nine five-year periods. And it turns out that a five-year period for me is much shorter than it might be for other people.

If I believe that an increase in the uranium price to a level that covers the industry cost of capital is inevitable – meaning that, for sure, the uranium price will escalate from \$25/lb to at least \$60–\$65/lb – And it will do so within five years (but much more likely within three and a half years).

That escalation in uranium prices, if you look at the impact that that would have on the balance sheet and the income statements of the small number of uranium producers that continue to exist in the world, means that, for me, this is a very, very investable theme.

Increasingly, of course, we are dealing with investors or speculators who have trauma holding

stock over a long weekend, because of some aspect of technical analysis or something that Trump might do. Or simply because they are governed by investor expectations that in turn govern their quarterly bonus.

For me personally, I intend increasingly to invest in circumstances where the answers to the questions begin with “when” rather than “if” an event is going to occur.

And I very much believe that the world is going to continue to demand electricity. And some parts of the world are going to demand baseload electricity, which is delivered cheaply and efficiently.

And \$60/lb is the number that is required to produce uranium on a global basis, including sustaining capital costs, prior year write down, costs of capital, stuff like that. Therefore, from my viewpoint, will the uranium price escalate from \$25/lb or \$22/lb, or whatever it is, to \$60/lb? Yes. That’s a “when” question, not an “if” question.

So, for me, it’s a very investable theme.

Erik: Now, I’ve asked you so far about lithium and uranium, primarily because I personally just happen to be very fascinated by the stories of what goes on behind them.

But we probably should approach this the way that you described your approach in the beginning and just ask the question: What commodities are selling for dramatically less than their cost of production that the world is going to continue to need? And where are the investment opportunities relative to those commodities?

Rick: Well, certainly uranium is what, if we have a circumstance where either the oil price falls again substantially – oil at \$60 or \$65 works; oil at \$45 or \$50 doesn’t work – if we have a situation where the oil price falls again, that would be a lovely circumstance.

Certainly the copper price is up substantially from where it was. We believe that an incentive price for putting copper mines into production is about US \$3.50/lb, while it sells for \$3.20/lb. Note that this is a very capital-intensive business. And if you see the interest rate go up by, say, 200 basis points, that \$3.50/lb number has to go up because of the cost of capital for copper producers. But I’m still attracted to the copper market, despite the fact that the price is up 40%.

I am also attracted to agricultural minerals markets, in particular phosphate and potash. They absolutely can’t catch a bid. There’s a fight going on between the Canadian, the Belarusians, and the Russians – particularly in the potash business – that has decimated the potash business worldwide.

But the truth is, everyday more people are born and all of those people want to eat. And, without potash and phosphate and nitrogen, the ability to sustain the population that the world has now simply doesn’t work. The green revolution goes away. Which is highly unlikely to

happen.

So I'm looking, myself, at the agricultural minerals business.

Another business that I should talk to you about, although it's a little outside my realm of expertise, is dry bulk shipping. The incredible slowdown that the world economy experienced after 2008, and an amazing over-construction of capacity in dry bulk shipping during the last decade, caused a situation where dry bulk freight rates on a global basis fell by as much as 95%. Which is astonishing.

The dry bulk shipping business on a global basis is barely on life support. But what you're seeing now is exactly what you want to see. You've seen the marginal companies go broke. In fact, you've seen some of the big companies go broke. You've seen some of the older, less efficient capacity in the business coming out of service. You are seeing more of the shippers merge, so that they lower their general and administrative costs relative to their assets under management and their EBITDA.

So, one of the things that I would suggest to a sophisticated audience like yours is that you think about playing the rebound in the commodities business by looking at the solvent dry bulk shipping companies on a global basis. Some of them are generating reasonable amounts of free cash, after debt service. Even at today's rates. And I suspect the circumstances where rates double – which they have to do at least to sustain the current level of shipping activity that we're seeing on a global basis – again represents a “when” not an “if” question.

The third place – and this is very much more difficult to implement – is water. Water is the most mispriced commodity in the world. Because water is allocated politically. It is believed to be a right, as opposed to a commodity. The consequence of that – as an example, here in the US Southwest, we have taken sources of water, like the Colorado River, and we have allocated approximately 130% of the flow of the river to various claimants. This is sort of hard on the river. You have a circumstance where water flows uphill to votes rather than downhill for money. And you can't allocate something that doesn't exist.

And also because of the structure of the American water business. Because of the fact that most of it is delivered politically rather than via markets. The rents that go to water, while they are insufficient to maintain supply, go to municipalities. And they go to fund current political goals as opposed to maintaining the infrastructure for the production and distribution of water.

It is believed, on a country-wide basis, that we have deferred as much as 3 trillion dollars in sustaining capital investments in the water business. I can't tell you when this theme comes home to roost. But when it does come home to roost, this might be one of the great resource themes of all time.

You'll remember, in California, when we had our power crisis, we deregulated what the power industry could pay for power. But we regulated where they could get the power from and how

much they could charge for power. The consequence of that was that the power industry ran out of power and California went into a series of brownouts.

Now, what we were able to do is we were able to call up the Canadians and say, please, we need electricity, send it to us now, we will pay you later, any price. And after they sent it to us, and after they got us through our crisis, we said to them you gouged us and we're not going to pay you.

The difference with water is there's no wires to send it through. If we have a shortage of supply in California or Texas or Nevada or Arizona or Colorado, or all those places where we're going to have shortages of supply, the infrastructure doesn't exist to get the water from where it is to where it's needed.

So one of the really great themes that people, professional investors, need to begin to wrap their heads around are water-related themes. Boring now, explosive later.

Erik: I want to come back to something else that you mentioned earlier in the interview, which is rare-earth elements. Now, just a few years ago, it felt to me like this was a little overdone. It seemed like you literally could not open an investment letter and not read about rare earth elements. And these are things like neodymium that are used to make these very strong magnets.

And the story at the time was basically the whole green movement, all the windmills, they need these things. You can't possibly make a lot of really important things without them. And they're in extremely limited supply. And you can't possibly go wrong.

How did that work out for people who invested in those speculative plays in rare earths? And, if it has fallen out of play – I haven't heard much about it in the last couple of years – is there now a better opportunity than might have existed then?

Rick: The answer is that it worked out for most speculators in disastrous fashion. The same way the last uranium boom panned out.

It's interesting that nobody cares about a commodity when it's cheap and it has to go up. Rising prices validate the thesis. People are attracted to a sector, normally, when it's already fully priced or overpriced.

What we learned about rare earths is that the narrative was wonderful, but they weren't rare. People weren't looking for rare earths, because the Chinese were such efficient producers that nobody in the world could compete with them.

When the price began to rise as a consequence, partly, of a Chinese embargo on exports, we began to look for rare earths around the world. And, lo and behold, we found them. When the Chinese found out that some of those extortionate price increases couldn't hold, they of course

lowered the price of all those rare earths.

My joke at the time was, in junior equity markets, the most prominent rare earths were [fraudium, storium, and scamium](#). Because most of the companies that were purporting to look for rare earths were staffed by management teams that couldn't have spelled the commodities that they were looking for before they became hot.

Now, what's interesting is that, in the period of time where the rare-earths boom turned into the rare-earths bust, several fundamental factors have changed in favor of rare earths that haven't been noticed by the market because the sector is out of favor.

The most important is that the Chinese are beginning to enforce environmental standards in their mining industry, including in far-western China. And much of the informal sourcing of rare earths that occurred in really, truly environmentally disastrous form, has been reined in and regulated by the Chinese authorities. Which has constrained the supply of rare earths.

Secondly, technology moves apace. And the fact that fabricators have begun to see that we will be able to supply their needs for these micro materials, and the consequence of that, of assured supply, means that the fabricators have developed technologies based on materials, knowing that they had access to supply.

You wouldn't spend 100 million dollars to develop a fabrication technology for a material that you were unsure would be available to you as a manufacturing component in four or five years. So the fact that some supply has been assured has, in fact, in and of itself, stimulated demand.

The third thing to happen is, out of the three or four hundred companies that went looking for rare earths during the rare earths boom, seven or eight of them actually found some. And they've been beavering away in the last five or six years in the sort of deep winter of rare earths.

And my suspicion is that, when rare earths come to favor again, as they will, in three or four years, five or six or seven or eight of the junior companies that survive will do extremely well.

Repeat though, rare earths aren't rare.

We didn't look for them because we didn't get paid to look for them. When we went looking for them, we found pegmatites in big cratons and archons. Places like Brazil. Places like Central Africa. Places like Australia. Places like Siberia. Even places like Wyoming. And the Canadian Shield.

The exploration effort has begun to bear fruit, but nobody cares. Now. People will care again later.

Erik: Well, Rick, I can't thank you enough for a fantastic interview. This is just fascinating

material to me.

Before we go, though, I want to touch on a few things. For people who want to find out more about these subjects, I know that you have an excellent blog.

You also run a natural resource conference, which, I think, is coming up this summer in Vancouver, Canada. If you could tell us about that. When it is and how people can register for it.

And also, for the accredited investors in the audience, who may be interested in the private placements that your firm does in the natural resources space, how do they contact Sprott Global in order to find out more about that?

Rick: In reverse order, contacting Sprott Global is simple, do it online: www.sprottglobal.com Or by emailing me personally at rrule@sprottglobal.com.

With regards to the conference that you mentioned, that's the [Vancouver Sprott Natural Resources Symposium](#), in my humble opinion the finest natural resources investment conference on the planet. It takes place July 17 through July 20 in Vancouver, British Columbia. It's particularly attractive to people who are interested in exploration in the more speculative parts of the natural resource business.

With regards to the blog, it's call [Sprott's Thoughts](#) – click on [Subscribe](#). It will come to you three times a week. I guarantee you will get your money's worth, because it's absolutely free.

Erik: Well, fantastic, Rick. The price is right.

And on that note we're going to need to leave it there. I can't thank you enough for a fantastic interview. Patrick Ceresna and I will be back as MacroVoices continues right here at macrovoices.com.