

Mining

"Investors need to be careful because most don't realize they are putting in money now that they likely will never see again"

Edward Anderson

President

By Raúl Ferro - Friday, January 22, 2010

BNamericas: Do you expect any supply problems over the next 10 years? Are there enough lithium reserves to meet demand?

Anderson: There won't be any problems in the next 10 years. The existing producers - [Chile's] SQM, SCL [a Chile-based subsidiary of Germany's Chemetall] and [North Carolina-based] FMC - are all able to significantly expand carbonate production.

The Chinese, and CITIC in particular, also have very big plans. They have been plagued by technical problems but these will be resolved, because the Chinese are in fact quite good with lithium technology. There is also a new facility in the works in Argentina called the Rincón project, which will create excess supply by 2013. By 2013 we will have overcome any initial problems with supply.

Right now the market is balanced, there's no shortage or excess and the industry will expand in a very orderly fashion until at least 2017 or 2018 and there are at least five possible new lithium projects between now and then. There's Uyuni [Bolivia], several in Argentina, even one or two possibilities in Chile, and in China, and at least one of these projects underway now will start producing around 2017 or 2018, since it takes about 8-10 years to get a salar into production.

BNamericas: I wrote about Uyuni 20 years ago and it's still there. Do you think something will happen at Uyuni in the next 10 years?

Anderson: I have met the government team that is working at Uyuni. They're a strong team, very serious about the project and I wish them the best but I think they are going about it the wrong way. The Bolivian government could readily and fully finance the project on the North American or Chinese stock exchanges yet still keep their control of the project.

One thing I would like to say, which applies not just to Uyuni but to all South American companies, and in particular Argentine junior mining companies, is that lithium is a very complicated chemical and it's not smart to go at it alone. Unfortunately, the teams working at Uyuni, in Argentina and most other junior mining companies in the region mistakenly believe that lithium development is very straightforward, so they go to the local university and carry out a bit of research and head straight out to build a very complex chemical plant, despite a total lack of expertise.

My recommendation to Bolivia and the rest of South America is to make sure you have the proper experts behind your projects otherwise you'll be throwing away a lot of money.

BNamericas: Here in Chile there are some reports that expanding production in Atacama, in particular at SQM, could cause problems with brine quality. What's your take on that?

Anderson: There's some truth to that, but it's not a critical issue. Remember, SQM is a very smart, experienced company and they know, as we do at TRU, that you can really hurt your resource [by expanding too much]. While SQM can expand significantly, it cannot expand forever, and what we here at TRU disagree with is how SQM claims it can indeed expand forever in its presentations.

BNamericas: How sensitive are consumer forecasts or electric battery use forecasts to the price of lithium?

Anderson: I'm very glad you brought prices up, because it's a very big issue right now. In September SQM reduced its lithium prices by about 20%. In January 2009 I predicted that prices would fall but they actually remained stagnate throughout the year, because although there was a surplus of lithium, the behavior of the US dollar held lithium prices at this stagnate level.

So, in that respect, SQM was absolutely correct in lowering their prices, since prices must go down if there's a surplus, and also because the Chinese are increasingly competitive. If SQM and the West don't want to lose market share to China, prices must go down. While the Chinese are not nearly as efficient as SQM, if prices are kept high, market share will be lost anyway.

Also, I would really like to emphasize according to our forecasts, the industry is going to remain stable, and prices are not going to rise. A stable industry means stable prices and it's very important to highlight this because there are a lot of junior companies, including those in South America - well basically those in Argentina - that completely exaggerate the price of lithium by as much as 30-40%. The actual price of lithium is much lower, 30-50% lower than what almost every single junior company is reporting.

This means that all of these projects are based on totally false prices. Even some analysts who are perhaps not as knowledgeable as we are here at TRU have come out with absolutely ridiculous prices and forecasts. They are so ridiculous that I can call them ridiculous without getting into trouble at all.

BNamericas: Do the production costs of these new projects match your price forecasts?

Anderson: There are more than 20 companies trying to get a salar project into production but only around three of these actually make sense. Most companies don't really know how feasible it is, which is where TRU comes in and tells them to forget about it. Even so, a lot of companies will bring in investments and live for three or four years on investors pumping money into these projects even though there's absolutely no chance of getting into production.

While no one can beat SQM, SCL and FMC - which are all strengthened by their existing funds, high profits and because they don't need to bring in any investments - there are a few projects that could be economic, make good money, although not huge sums since any new project will have to invest US\$100mn or so, and wait 8-10 years to get into production.

This is one of the most troubling things in the lithium industry: investors need to be careful because most don't realize they are putting in money now that they likely will never see again. Investors are finally starting to realize this, and understand that a project must be carefully studied and assessed by both its developers, and an independent company like TRU. Only then, and with a realistic price and a good idea of how long it actually takes to start production, should investors make their move.

BNamericas: Why does it take so long to start production? The natural process of solar evaporation or some other factor?

Anderson: Exactly that plus you must build ponds for any conventional lithium development process... there are some new techniques that could speed up getting a salar into production but most salars would still require some kind of evaporation and that takes a long time. It takes 2-3 years just to get good workable brine for starting development. Also, every salar has a different process. SQM and SCL have very similar carbonate bases but FMC is completely different. Companies in South America need to get really clever people on their team. It's a lot of work, and very time consuming, to create a specific process for a certain salar.

BNamericas: Besides time and money, what are the other keys to the feasibility of a lithium operation?

Anderson: Lithium has a very complicated chemistry, however, most of the people leading these projects are geologists. The leaders of Lithium Americas, an Argentine company, Los Boros and Rincón, for example, are all geologists, but chemical engineers are who should really be at the helm. This is also the case at Uyuni. FMC, SQM and SCL, on the other hand, are all big chemical companies.

BNamericas: Are there enough professionals to meet the industry's future growth?

Anderson: Well the industry is only growing by 7-8% so it's more a matter of using the right people. Right now the wrong people are being used and this is going to cause a lot of problems. It's a highly specialized field, and I have personally met or read the resumes of nearly every lithium expert in the world, and I can assure you, there aren't many. These companies must be more careful in getting a proper expert behind their projects before going to investors.

There are only about 20 people in the world who really know lithium and about 15 of them work on our team. The expertise is out there, but it's not in a university in South America. These universities have failed in the past and they should not be used.

BNamericas: Some car manufacturers have decided to use nickel batteries instead of lithium batteries. Do you think this is because they are worried about lithium supply?

Anderson: I think this is a short-term decision for carmakers. Battery technology leans very strongly towards lithium. There were some issues with safety and I'm not totally sure if they've all been resolved, but a large number of companies have adopted lithium batteries and implemented new designs to make them safer, and it appears that the industry will most likely head towards lithium battery use. But again, we can't really say what's going to happen in another 20 years; really, we can't predict further than 10 years out. A fuel cell or some other battery technology that doesn't use lithium could be invented. I've been asked this before, and my answer is we just can't know and you would be foolish to try and make predictions beyond 2020.

About the company

TRU, with offices in Tucson, Arizona, Toronto and Sonora in Mexico, assists companies from exploration, through process engineering to lithium product design. In 2009 TRU technically assessed, modeled and ranked 170 lithium salt lake salars and the 30 pipeline mineral-based projects being promoted globally, according to the company's website.

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BNamericas Customer Service Center

info@BNamericas.com

Tel: +56 (2) 2232 0302

Fax: +56 (2) 2232 9376

Voice/Fax: +1 (305) 513 5782 (USA)