

Hochschild chases rare earths in Chile – Is it worth the risk?

On October 2, 2019, Hochschild Mining PLC (LSE: HOC) announced it had bought the BioLantanidos Ionic Rare Earth Clay Project in Chile for an additional \$56.3 million to achieve 100% ownership (previously \$2.5 million for a 6.2% project share). The question and challenge for Hochschild Mining is have they bitten off more than they can chew?

Hochschild Mining is a leading British-based silver and gold mining business operating in North, Central and South America. Hochschild is headquartered in Lima Peru with a corporate office in London. The main shareholder is Peruvian businessman Eduardo Hochschild.

The positives of the deal

On the positive side, Hochschild has only spent what for them is a small percentage of their GBP 1 billion market cap, and they have mining experience in South America. The world is crying out for non-China sourced rare earths. Furthermore, the Ionic Rare Earth Clay Project has a high concentration of key magnet rare earths such as neodymium (Nd) and praseodymium (Pr), as well as the important heavy rare earth elements terbium (Tb) and dysprosium (Dy). The mineralization occurs from the surface to about 20-30 meter deep, so it will be easy to mine. The concession has three main districts covering a total of 72,000 hectares.

BioLantanidos has constructed an on-site pilot plant that has demonstrated both technical and commercial viability, also has a Feasibility Study (FS) prepared.

Hochschild stated that “the process is environmentally

friendly and as it does not require potentially harmful chemicals, whilst capital and operational expenditure is projected to be low with the result that **the project is expected to be one of the lowest cost rare earth producers.**" Hochschild plans a staged modular approach which is sensible and spreads out the CapEx, and increases the chance to make it to at least Stage 1 production.

Acquisition highlights according to Hochschild Mining

- Ion Adsorption Clay deposits are currently the lowest cost sources of rare earths in the world
- Special concentration of high demand rare earths – Terbium, Dysprosium, Praseodymium and Neodymium
- Simple and low cost to extract with no use of explosives
- Environmentally friendly process to extract rare earths with no tailings dam
- Low capex, modular processing facility allowing for staged growth
- Geopolitically independent source with traceable and sustainable production
- Significant exploration upside potential
- Low risk and proven mining jurisdiction
- Substantially de-risked post initial 6.2% investment in 2018

BioLantanidos ionic rare earth clay pilot plant in Chile



Source

The negatives of the deal

- Rare earths are extremely difficult to process. Extracting from clay can be difficult and expensive. Current rare earth miners have billion dollar initial CapEx costs when including the rare earth processing. This suggests we may see cost blowouts for this project.
- Rare earths mining is a dirty and polluting industry, often leading to environmental concerns by the host country as Lynas Corporation has experienced in Malaysia.
- Hochschild Mining has no experience or expertise in rare earths mining, or more importantly rare earths processing. Biolantanidos has an agreement with Rare Earth Salts (RES), but RES has not yet proved it can do the separation at scale.
- Chile is currently under siege with millions of protestors wanting equality. Two large lithium miners SQM (SQM) and Albemarle (ALB) have had recent issues with the Chilean Government (CORFO) and have been hit with very high tiered royalty payments. Protestors have recently blocked their Atacama mine site. All of this emphasizes geopolitical risk is high in Chile.

Based on current information Hochschild has invested 2.5 million initially for 6.2% in 2018, and another \$56.3 million to own 100%. Next, they plan to invest another \$10 million to de-risk the mine with an updated FS, then a further \$40-50 million for the first stage with an 18 month construction period. All up that is over \$100 million, which a sizeable investment on an unproven process at scale, in a relatively high geo-political risk country, and to achieve Stage 1 production only.

Only time will tell if Hochschild Mining's rare earths Chile bet will pay off, or would they have been better off partnering with other safer country projects in Australia, USA, or Canada. Some examples are Alkane Resources Ltd. (ASX: ALK | OTCQX: ANLKY), Avalon Advanced Materials Inc. (TSX: AVL

| OTCQB: AVLNF) or Search Minerals Inc. (TSXV: SMY). All are in safe jurisdictions.

The jury is out on this one. I would have chosen a safer location like Australia, USA, or Canada and used a low interest rate Government loan as Lynas did with Japan, or gone with an Australian rare earth project where the Australian Government is considering to support.

What do you think?