Is Imperial Mining Group the real scandium play?

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When I first started looking into scandium, I found out that it was used in bicycle frames, aluminum alloy baseball bats and some fishing rods, which was good enough for me to be interested. However, improving the strength, corrosion resistance, and reducing the weight of those items isn't going to raise an eyebrow at COP26 nor is it likely to dramatically improve demand for scandium. That's why it probably makes more sense to talk about how a scandium-aluminum alloy is used in weight reduction applications in the high volume automotive, aerospace, fuel cell, and defense sectors. In fact, scandium can reduce our carbon footprint by making commercial aircraft and vehicles lighter and more fuel efficient thus lowering emissions. In EVs, scandium is used in light weighting vehicle components to extend battery range and improve fuel cell efficiency. Airbus SA has patented scandium-aluminum alloys for welding of aircraft structures in place of rivets for assembly, which reduces weight by 20%. With all the bad press emissions from air travel have gotten the last couple of days out of Glasgow, this could become a very important issue for the future of plane manufacturers.

Now that we've determined scandium is a good thing and could possibly be on the upswing as a commodity in demand, perhaps we'll discuss a North American source given that there isn't a whole lot to choose from currently. Scandium is a moderately abundant element, although it tends to be spread out throughout the earth rather than concentrated in a few places. Currently, in North America, the only notable possible production comes as a by-product of planned niobium mining at NioCorp Developments

Ltd.’s (TSX: NB) Elk Creek project in Nebraska. This makes the Crater Lake scandium-REE project of Imperial Mining Group Ltd. (TSXV: IPG | OTCQB: IMPNF) a unique find. It’s the only hardrock scandium deposit in the world and happens to be in the mining friendly jurisdiction of Quebec, close to hydroelectric capacity and Quebec’s aluminum metal production where 90% of Canada’s “Green” aluminum is produced. That’s already a lot of boxes ticked and we haven’t even gotten into the grades of the Crater Lake project.

But first a little about Imperial Mining Group. Imperial is a Canadian mineral exploration and development company focused on the advancement of its Crater Lake scandium-Rare Earth property. The company is led by an experienced team of mineral exploration and development professionals, who have a strong track record of mineral deposit discovery in numerous metal commodities. The Company also has a pair of gold prospects, Opawica and La Ronciere all in Quebec.

As for the Crater Lake project, in September Imperial received the inaugural NI 43-101 Technical Report for the Crater Lake TG Zone Mineral Resource Estimate.

Source: Imperial Mining Group Ltd. press release Sep 23, 2021

The results of the Resource Estimate for the Northern Lobe of the TG Zone far exceeded the minimum threshold resource Imperial internally set for a 20-25-year notional mining operation, based on a 10 million ton lift. And the good news is that mineralization remains open laterally and at depth, demonstrating the potential to increase the mineral resource with additional drilling. Imperial will soon commence work on an NI 43-101 Preliminary Economic Assessment (PEA).

Another strategy that sets Imperial apart is that it is actively collaborating with partners to further the development of strategic scandium marketing activities to projects that require important weight and carbon footprint reductions. A great example is their work with Eck Industries to begin prototyping components while concurrently looking to maximize weight savings for the transportation sector. They recently showed that the material properties for EV battery box requirements, as specified by a major North American automotive manufacturer, have been met or exceeded. Last month the Company was awarded, along with its partner FusiA Groupe, C$2.6 million for a scandium-aluminum material R&D project. The project will focus on the industrialization and the development of a vertically integrated supply chain for a scandium-aluminum alloy for 3D printing. I'm impressed by the fact that Imperial is increasing the awareness and demand for their product before they've put their project into commercial production.

Unless you've been living under a rock for the last few months, we all know the impact that the interruption of supply chains has had on virtually everything. The manufacturing world is learning the hard way that it might be time to "on-shore" critical parts of their supply chain if they want to complete their product manufacturing, let alone compete. So, to be one of the best grade scandium resources in the world and be located on mining friendly, North American, soil means we should all probably pay a little closer attention to Imperial Mining.