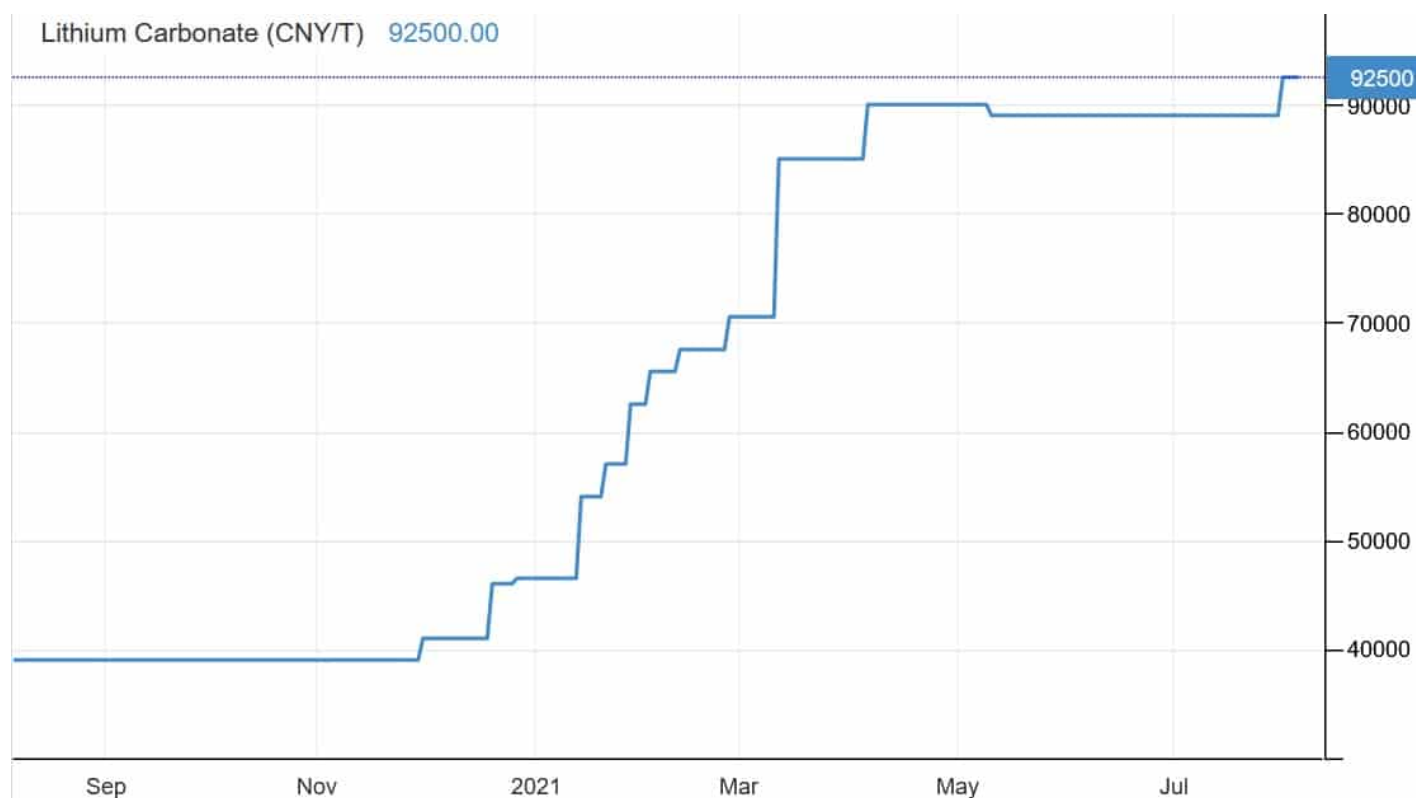


Can Avalon Advanced Materials ride the lithium tidal wave?

written by Investor News Writer | August 5, 2021

Lithium miners have been the best performing sector of almost every sector of the stock market over the past year. This has been due to a 'tidal wave' of new lithium demand as electric vehicle (EV) sales dramatically increased over the past year. For example global electric car market share more than doubled from [4.2% in calendar year 2020](#) to [8.7% in the month of June 2021](#). This has led to a surge in lithium demand and subsequently lithium prices in 2021.

Lithium prices (1 year chart) have risen rapidly due to a massive demand increase from booming EV sales



Source: [Trading Economics](#)

One under the radar lithium junior is [Avalon Advanced Materials Inc.](#) (TSX: AVL | OTCQB: AVLNF) (“Avalon”). Avalon has six projects, providing investors with exposure to lithium, tin and indium, as well as rare earth elements, tantalum, cesium and zirconium. Avalon is currently focusing on developing their Separation Rapids Lithium Project near Kenora, Ontario, while looking at several new project opportunities, one being a lithium hydroxide (and other materials) refinery in Thunder Bay, Ontario, Canada. They are also working to advance their Lilypad Cesium-Tantalum Project, in Ontario, Canada.

Separation Rapids Lithium Project (100% owned; Ontario, Canada) + possible lithium battery materials refinery (Thunder Bay, Canada)

Avalon completed a [PEA](#) of their 100% owned Separation Rapids Lithium Project in 2018, resulting in a pre-tax NPV8% of [\\$156 million](#), post tax IRR of 22.7%, CapEx C\$77.7 million with a 20 year mine life.

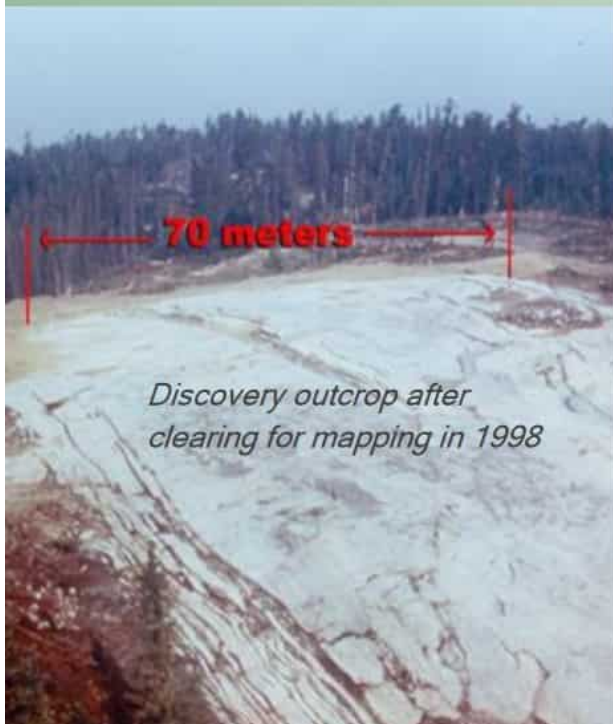
Then in March 2021, Avalon [announced](#) a Letter of Intent (“LOI”) with Fort William First Nation (“FWFN”) to collaborate on the development of a lithium battery materials refinery located on industrial lands owned by FWFN in Thunder Bay, Ontario. As stated in the announcement: “This facility would be designed to accept lithium mineral concentrates from Avalon’s Separation Rapids Lithium Project (70 km north of Kenora) and Rock Tech’s Georgia Lake Lithium Project (145 km northeast of Thunder Bay), as well as potentially other emerging, new lithium mining operations in northern Ontario, to produce lithium hydroxide and other lithium battery materials.”

Then in May 2021, Avalon [reported](#) that their recent process testwork using dense media separation (“DMS”) technology had proven to be successful at producing a high-quality petalite

lithium mineral concentrate (4.0% – 4.2% Li_2O) from their Separation Rapids Lithium Project. The concentrate is suitable for the needs of specialty glass-ceramic end-users. As a result, Avalon is now looking at acquiring their own DMS equipment so they can more quickly meet the needs of the many end-users that have expressed interest over the years in their petalite product samples. Avalon will also resume exploration work this summer on the western part of the Separation Rapids property to further work towards growing their resource.

Avalon Advanced Materials Separation Rapids Lithium Project – PFS & PEA completed

Separation Rapids Lithium: Avalon's most advanced project *A large LCT pegmatite enriched in the rare lithium mineral petalite*



10 million tonne resource amenable to open pit mining, discovered in 1996

- › Pre-Feasibility Study completed in 1999 on model to produce petalite for glass-ceramics.
- › New Preliminary Economic Assessment model created in 2016 to produce lithium battery materials. Further updated in 2018 based on new glass-ceramic markets.
- › Secure Tenure under Lease: 100% owned plus 6,000 acres of exploration lands
- › Located close to transportation (road access) and power infrastructure, including clean hydropower
- › No undesirable environmental impacts
- › Strong local community support

Source: [Company presentation](#)

[Announced](#) in July 2021, Avalon is now in active discussion to potentially progress their lithium materials refinery in Thunder Bay. The release [stated](#): “On the lithium battery materials

market development work, Avalon continues to engage with potential customers looking for new supply sources and are in active conversation with one group in Europe. With a firm commitment on off-take, Avalon can then proceed with its plans for establishing a lithium refinery in Thunder Bay.”

Lilypad Cesium-Tantalum Project (100% owned; Ontario, Canada)

Avalon’s Lilypad Property, located 150 km northeast of Pickle Lake, Ontario, is an exploration stage project with cesium-tantalum-lithium mineralization. It has some potential to be a secondary lithium supply source for Avalon, however, cesium and tantalum are the key products for now.

In July 2021 news, Avalon [stated](#): “Following the closing of the recent flow-through financing, an exploration work program was initiated in June on its 100% owned Lilypad Cesium-Tantalum Project involving re-establishing a field camp and new grid on the property **in preparation for detailed mapping and geochemical sampling to commence later this month**. Additional cesium mineralized rock was collected from the Pollucite Dyke for continued process research on techniques to efficiently concentrate the rare cesium mineral pollucite, which continues to be in high demand. **Drilling is planned for later this year.**”

Avalon Advanced Materials project pipeline

Critical Minerals for Clean Technology Project Pipeline



Source: [Company presentation](#)

Closing remarks

As evidenced by a recent record lithium spodumene spot market price achieved this past week of [US\\$1,250/t](#) (around 3x the contract prices from 12 months ago), there is now a new realization that lithium supply is critically low. This means it is a great time to be a lithium miner and it generally acts to boost the sentiment of the sector thereby helping lithium juniors raise capital and hopefully reach production.

Avalon Advanced Materials is not only a junior lithium miner, as they have a total of 6 projects across multiple critical metals and rare earths. Key critical metals Avalon has are lithium, tantalum, cesium and zirconium; all are on [the list of U.S critical materials](#). The Company trades on a market cap of only

C\$52 million. One to watch.