Nemaska Lithium on the edge of production for the booming lithium battery market

The coming year looks to be an interesting one in the lithium space; a number of companies are rapidly approaching producer status, and Nemaska Lithium Inc. (TSX: NMX | OTCQX: NMKEF) ("Nemaska") is perhaps one of the entities closest to that title. When using the phrase "near-term", one must be able to see that a project is a matter of mere formality away from completion, and preferably with offtake agreements already in place. Nemaska partnered with Johnson Matthey Plc ("JM") in 2015 in a memorandum of understanding which stated that funding would be provided for the construction of a pilot plant in addition to a long term materials contract should Nemaska's product meet JM's stringent quality requirements, later formalised in a collaboration agreement in May 2016.

The companies announced at the end of last month that Johnson Matthey has released the final CAD$1,000,000 milestone payment following receipt and acceptance of a second shipment of 3.5t of lithium hydroxide from Nemaska. Both organisations confirmed that this shipment met Johnson Matthey's lithium hydroxide specifications and concluded the milestone payments from Johnson Matthey, with Nemaska Lithium having met all of the requirements set out in the collaboration agreement. Nemaska reports that the commissioning and start-up of the Phase 1 Plant to date has gone exceptionally well and the company has delivered battery grade lithium salts to Johnson Matthey exactly as promised.

Nemaska intends to supply both lithium hydroxide and carbonate to the booming lithium battery market. The ever-increasing demand for electric vehicles, mobile devices and other battery-dependent technologies is expected to create a

shortfall in supply which would send prices through the roof. In fact, leading banks and analysts say that, by 2050, 81% of 132 million new auto sales each year will be electric, with each battery requiring around 63 kg of lithium (estimated content of a 70 kWh Tesla Model S battery pack).

Ahead of the construction of a full commercial processing facility, the Phase 1 plant will have an average combined capacity of 610 tonnes per year, but the mine plan and feasibility study state that, when in full swing, the site will produce 2,740 tonnes of ore per day over a mine-life of 26 years. Given that the company has repeatedly assayed lithium grades well in excess of 2%, we should expect to be seeing viable commercial production in the very near future using the company's proprietary processing solution which eliminates the use of the expensive reagent, soda ash (sodium carbonate), from the flowsheet.

The process utilises electrolysis to replace soda ash since the material is subject to frequent price fluctuations which can disrupt the through-rate of any chemical processing operation. Being located in Quebec, the company can enjoy low-cost and dependable renewable energy, further lowering costs and strengthening the business case. To feed this process, the company is developing in Quebec one of the most promising spodumene lithium hard rock deposits in the world. The spodumene concentrate produced at the Whabouchi mine will be shipped to the processing plant to be built in Shawinigan, Quebec.

Nemaska recently announced drill results from Whabouchi the featured frequent occurrences of greater than 2% Li2O, as well as occasional measurements of over 4%. With grades and volume as high as they are at Whabouchi, it's looking incredibly likely that Nemaska will be able to make the leap to full-blown producer. Either way, the project is certainly near-term, and any bets should be placed sooner rather than later.