

Avalon Advances Lithium Process Optimization Work for its Proposed Phase 1 Production Facility at Separation Rapids Lithium Project

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Toronto, Ontario--(Newsfile Corp. - November 16, 2017) - **Avalon Advanced Materials Inc.** (TSX: AVL) (OTCQX: AVLNF) ("Avalon" or the "Company") is pleased to report that it is proceeding with three key metallurgical testwork programs designed to optimize its lithium process flowsheets and prepare for final design and engineering of its Phase 1 demonstration scale production facility at Separation Rapids near Kenora, ON. These programs will target improved recoveries, increased concentrate grades, lower operating costs, reduced reagent consumption and a further reduction in waste materials requiring disposal.

Lepidolite Recovery and Flotation Testwork

Further to the Company's news releases dated [October 26, 2017](http://avalonadvancedmaterials.com/news_media/display/index.php?id=29974) (http://avalonadvancedmaterials.com/news_media/display/index.php?id=29974), Avalon is proceeding with further testwork to optimize the flowsheet designed for recovery of a concentrate of lepidolite. Lepidolite is a second lithium ore mineral (in addition to petalite) estimated to constitute approximately 20% of the known lithium resource at Separation Rapids. Previous testwork has already demonstrated that a lepidolite flotation concentrate assaying 4.5% lithium oxide (Li_2O) can be readily recovered from Separation Rapids ore. The current lepidolite testwork is designed to confirm or improve upon the 90% recovery previously achieved, as well as to increase the Li_2O content of the concentrate.

The Company continues to receive expressions of interest from international lithium processors interested in securing lepidolite concentrates. Improvements in lepidolite concentrate grade will make Avalon's product more attractive and reduce unit transportation costs per tonne of Li_2O delivered.

The flotation testwork will also include additional work on the petalite concentrate flowsheet through further locked-cycle tests that will generate additional petalite concentrate for product marketing purposes and hydrometallurgical process optimization.

Finally, the current flotation flowsheets for both petalite and lepidolite include an initial magnetic separation stage to remove iron-bearing minerals from these concentrates. Since the main iron-bearing minerals in the ore are micas that also contain significant lithium, the magnetic separate is effectively another lithium concentrate. Additional testwork is planned to upgrade this concentrate and create another potential economic feed for the production of lithium battery materials from the Separation Rapids resource.

High-grade Petalite Concentrate Production

In a separate flotation test program, Avalon is designing a process to produce a high grade petalite concentrate (4.5% Li_2O) with greatly reduced levels of sodium and potassium to meet a potential customer's requirements for a specialized, high purity product. Initial results have already achieved acceptable levels of 0.11% sodium oxide (Na_2O) and 0.29% potassium oxide (K_2O) with the

expectation that additional testwork will further reduce these levels. This high purity petalite concentrate will be a premium quality material for certain specialty glass applications.

New Membrane Technology Testwork

The introduction of specially tailored membranes into the petalite hydrometallurgical flowsheet has the potential to significantly reduce plant operating and capital costs, as well as greatly lowering energy requirements and the overall environmental footprint of the operation.

In a new testwork program, Avalon has engaged the services of an international specialist consultant in the field of membrane technology to conduct a series of trials in their laboratory utilizing potential membrane alternatives. The work will focus initially on simplifying the current three-stage impurity removal processes, as well as generating a more concentrated intermediate lithium sulphate stream ahead of conversion to lithium hydroxide.

Patent Application

Avalon recently filed an International Patent Application for its new hydrometallurgical process flowsheet the Company created for producing lithium hydroxide from petalite. Earlier in 2017, the National Research Council successfully synthesized a lithium and nickel-manganese-cobalt (NMC) cathode material using the very high purity lithium hydroxide produced by Avalon using this process. (See Avalon's news release dated [July 6, 2017](http://avalonadvancedmaterials.com/news_media/display/index.php?id=27824) (http://avalonadvancedmaterials.com/news_media/display/index.php?id=27824)).

For questions and feedback, please e-mail the Company at ir@AvalonAM.com, or phone Don Bubar, President & CEO at 416-364-4938.

The technical information contained in this news release has been reviewed and approved by Dave Marsh, FAusIMM (CP), Senior Vice President, Metallurgy and Technology Development: a qualified person for the purposes of National Instrument 43-101.

About Avalon Advanced Materials Inc.

Avalon Advanced Materials Inc. is a Canadian mineral development company focused on technology metals and minerals. The Company has three advanced stage projects, all 100%-owned, providing investors with exposure to lithium, tin and indium, as well as rare earth elements, tantalum, niobium, and zirconium. Avalon is currently focusing on its Separation Rapids Lithium Project, Kenora, ON and its East Kemptonville Tin-Indium Project, Yarmouth, NS. Social responsibility and environmental stewardship are corporate cornerstones.

This news release contains "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 and applicable Canadian securities legislation. Forward-looking statements include, but are not limited to, statements that it is proceeding with three key metallurgical testwork programs, and that these programs will target improved recoveries, increased concentrate grades, lower operating costs, reduced reagent consumption and a further reduction in waste materials requiring disposal, that improvements in lepidolite concentrate grade will make Avalon's product more attractive and reduce unit transportation costs per tonne of Li₂O delivered, that the flotation testwork will also include a component of additional work on the petalite concentrate flowsheet through further locked-cycle tests that will generate additional

petalite concentrate for product marketing purposes and hydrometallurgical process optimization, that additional testwork is planned to upgrade this concentrate and create another potential economic feed for lithium battery materials production from the Separation Rapids resource, that a high purity petalite concentrate will be a premium quality material for certain specialty glass applications and the introduction of specially tailored membranes into the petalite hydrometallurgical flowsheet has the potential to significantly reduce plant operating and capital costs, as well as greatly lowering energy requirements and the overall environmental footprint of the operation. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "potential", "scheduled", "anticipates", "continues", "expects" or "does not expect", "is expected", "scheduled", "targeted", "planned", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be" or "will not be" taken, reached or result, "will occur" or "be achieved". Forward-looking statements are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of Avalon to be materially different from those expressed or implied by such forward-looking statements. Forward-looking statements are based on assumptions management believes to be reasonable at the time such statements are made. Although Avalon has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. Factors that may cause actual results to differ materially from expected results described in forward-looking statements include, but are not limited to market conditions, and the possibility of cost overruns or unanticipated costs and expenses as well as those risk factors set out in the Company's current Annual Information Form, Management's Discussion and Analysis and other disclosure documents available under the Company's profile at www.SEDAR.com. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Such forward-looking statements have been provided for the purpose of assisting investors in understanding the Company's plans and objectives and may not be appropriate for other purposes. Accordingly, readers should not place undue reliance on forward-looking statements. Avalon does not undertake to update any forward-looking statements that are contained herein, except in accordance with applicable securities law