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## NEWS RELEASE

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### **Avalon announces start of 2015 pilot plant program on its Separation Rapids Lithium Project, Kenora, ON**

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Toronto, ON – [Avalon Rare Metals Inc.](#) ([TSX](#) and [NYSE MKT](#): AVL) (“Avalon” or the “Company”) is pleased to announce that a \$750,000 pilot plant program has commenced on the Company’s Separation Rapids Lithium Project (“Separation Rapids Project” or “the Project”) located near Kenora, Ontario. The 2015 pilot plant program will provide a trial of the new lithium minerals process flow sheet developed at the bench scale over the past year under the direction of SVP, Metallurgy and Technology Development, David Marsh. A total of 30 tonnes of crushed ore will be shipped to a laboratory in Germany for processing to produce a minimum of 1 tonne of pure lithium mineral (petalite) concentrate.

This petalite concentrate will be used for two purposes: 1) to provide product samples to potential customers in the glass-ceramics industry who have expressed interest in evaluating these samples and 2) to provide concentrate for additional process development toward producing a high purity lithium chemical product for use by customers in the lithium ion rechargeable battery manufacturing business. The lithium chemicals work will be done at the laboratories of the Saskatchewan Research Council (“SRC”) in Saskatoon. The entire program is expected to be completed over the next 6-8 months.

#### **The Opportunity**

The Separation Rapids Project hosts an exceptionally large deposit of the rare lithium mineral petalite, which is noted for its lack of contained impurities. For this reason, petalite has a long history of use in specialty glass-ceramic products that require raw materials with a high degree of purity. Demand for petalite in this application has been growing steadily, with users now looking for new long term sources of supply. Avalon re-activated the Project in 2013 after receiving a number of expressions of interest from glass-ceramic manufacturers. In 2014, the Company successfully re-established and improved upon its original process flowsheet at the bench scale to produce high purity petalite concentrate containing an average of 4.2% lithium oxide and less than 0.01% iron oxide (a glass contaminant). Small samples of this material were subsequently analyzed and approved for further evaluation by a number of glass-ceramic end-users, leading to the decision to proceed with a larger scale pilot plant trial in 2015.

High purities have also been increasingly required for lithium chemicals used in the manufacture of lithium ion batteries. Accordingly, the Company is now investigating how its high purity mineral can be used to make ultra-high purity lithium chemicals relatively inexpensively compared to other existing alternative lithium source materials. Laboratory test work performed earlier this year at SRC provided encouraging results with a battery-grade lithium carbonate (>99.5% pure) being produced using proven leaching and precipitation technologies. Further, there is the potential to produce an enhanced grade product, achieving greater than 99.9% purity, with

relatively few additional impurity removal steps. The potential for production of high grade lithium hydroxide was also demonstrated during this work.

The opportunity now exists for Avalon to uniquely position itself as a long term supplier of both high purity lithium minerals to the glass ceramics market and lithium chemicals to the rapidly growing lithium ion rechargeable battery market.

## **Project Background**

The Separation Rapids Project is located approximately 70 km north of Kenora, Ontario in the traditional territory of the Wabaseemoong Independent Nations. The Project is 100% owned by the Company, with the deposit held under a 21 year Mining Lease. Avalon has worked on the Project intermittently since 1996, first completing a Pre-feasibility Study in 1999. Expenditures to date total approximately \$6.2 million. In 2006, the Company extracted a 250 tonne bulk sample for new market development purposes. This material is being used for the current bulk sample test program, and earlier in 2015, Avalon shipped 2 tonnes of crushed ore to a potential customer in China for independent analysis and market evaluation. No feedback has been received to date.

## **Lithium Markets**

Over the 5 year period ending in 2014, global consumption of lithium increased 80% while consumption of lithium for battery applications (the largest single market segment) grew by 166%, according to independent industrial minerals market analyst, Roskill Information Services.

Growing demand for rechargeable batteries in electric vehicles and home energy storage is expected to result in continued growth in consumption of lithium which is estimated by industry analyst Stormcrow Capital to reach 410,000 tonnes of lithium carbonate equivalent per year in 2025. This translates into an impressive compounded annual growth rate of a 7.8%. In their May 2015 Industry Report, Stormcrow further predicts that a supply deficit will emerge in the market as existing producers struggle to meet the rapidly growing demand.

Avalon has commissioned a market study to gain a better understanding of how it can use its unique high purity petalite resource to best serve the rapidly evolving market in energy storage technology. This study will be completed during the fourth quarter of 2015.

## **Future Plans**

Avalon is also preparing for a large scale pilot plant trial involving the processing of over 5,000 tonnes of ore to produce several hundred tonnes of petalite concentrate for full scale production trials by prospective customers in the glass-ceramics industry. Some of the petalite concentrate produced would also be utilized for a pilot plant trial of the lithium chemical production process to be designed over the next 12 months. The lithium chemicals produced from this trial would also be used for market development purposes.

To complete the bulk sampling program Avalon will need to rehabilitate its 2003 access road to the site. Avalon has applied for the necessary work permit and expects to complete this work in September 2015. The timing for the bulk sampling program is still to be finalized and is subject to arranging necessary financing. Avalon is also looking at potential sites for establishing future production facilities in the Kenora area, including at the Separation Rapids Project site itself.

The current pilot plant program will provide the Company with the engineering and design information needed to prepare an updated Pre-feasibility Study in 2016.

The technical information included in this news release has been reviewed and approved by the Company's Senior Vice President Metallurgy and Technology Development, Mr. David Marsh, FAusIMM (CP), who is a Qualified Person under NI 43-101.

#### **About Avalon Rare Metals Inc.**

Avalon Rare Metals Inc. is a mineral development company focused on rare metal deposits in Canada, with three advanced stage projects. Its 100%-owned Nechalacho Deposit, Thor Lake, NWT is exceptional in its large size and enrichment in the scarce "heavy" rare earth elements, key to enabling advances in clean technology and other growing high-tech applications. Avalon is also advancing its Separation Rapids Lithium Project, Kenora, ON and its East Kemptville Tin-Indium Project, Yarmouth, NS. Social responsibility and environmental stewardship are corporate cornerstones.

For questions or feedback, please email the Company at [ir@avalonraremetals.com](mailto:ir@avalonraremetals.com), or phone Don Bubar, President & CEO, at 416-364-4938.

#### **Cautionary Statement**

*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 regarding the commencement and completion of its work programs, that the 2015 pilot plant program will provide a trial of the new lithium minerals process flow sheet, that a total of 30 tonnes of crushed ore will be shipped to a laboratory in Germany for processing, that the petalite concentrate will be used for two purposes, that the lithium chemicals work will be done at the laboratories of SRC, that the entire program is expected to be completed over the next 6-8 months, that there is the potential to produce an enhanced grade product achieving greater than 99.9% purity with relatively few additional impurity removal steps, that growing demand for rechargeable batteries in electric vehicles and home energy storage is expected to result in continued growth in consumption of lithium, that the market study will be completed during the fourth quarter of 2015, that some of the petalite concentrate produced would also be utilized for a pilot plant trial of the lithium chemical production process to be designed over the next 12 months, that the lithium chemicals produced from this trial would also be used for market development purposes, that to complete the bulk sampling program Avalon will need to rehabilitate its 2003 access road to the site and that the current pilot plant program will provide the Company with the engineering and design information needed to prepare an updated Pre-feasibility Study, in 2016. 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, the possibility of cost overruns or unanticipated costs and expenses, and unanticipated results from the work programs, 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](http://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 laws.*