The Nechalacho Rare Earth Elements ("REE") Project, Thor Lake, NWT, Canada, is the most advanced large heavy rare earth development project in the world outside China, and is also host to substantial zirconium, beryllium, tantalum and niobium resources. With a completed Feasibility Study and approved environmental assessment, the Nechalacho REE Project is uniquely positioned to bring a new supply of critical raw materials to the marketplace.

Location
Thor Lake is located approximately 100 km southeast of Yellowknife, Northwest Territories. The Nechalacho Deposit is directly accessible by barge in the summer, ice road in the winter and year-round by air transport.

Project Development
Since acquiring the property in 2005, Avalon has invested over C$100 million to further explore and develop the Nechalacho REE Project. This has included metallurgical, environmental and market studies and 120,197 metres of diamond drilling in 559 holes resulting in NI 43-101 compliant measured, indicated and inferred resources in a high grade sub-zone called the Basal Zone.

Environmental Studies and Permitting
While permits for pre-construction work are already in place, the Company is continuing to progress the permitting process to obtain the Class A Water Licence and Land Use Permit authorizing mine construction, operation and closure activities. Once there is renewed investor interest, the process will be accelerated again with the expectation that it can be completed in approximately 4-6 months.

Feasibility Study Production Model
The 2013 Feasibility Study contemplated production of a mixed rare earth precipitate and enriched zirconium concentrate ("EZC") containing by-product tantalum and niobium from a hydrometallurgical plant originally conceived for Pine Point, NWT. An alternative hydrometallurgical process has been developed and an updated feasibility study will be produced to reflect this significant change to the development model once a new location for the plant is defined and the final pilot plant trial is completed. The new process would involve a different reagent suite designed to crack the EZC and requires additional infrastructure than is presently unavailable in the NWT. The Feasibility Study estimated combined production of 9,286 tonnes per annum ("tpa") TREO, plus by-product zirconium niobium and tantalum.

Financial Analysis
(As per Feasibility Study, April 2013)
The 2013 Financial Analysis covered mining, mineral concentration, hydrometallurgical processing, refining and all related infrastructure. Results of the discounted cash flow analysis produced for the Feasibility Study yielded a pre-tax IRR of 22.5% and an NPV at a 10% discount rate of C$1.35 billion, with a payback period of 4.3 years and a C$1.575 billion capital cost.

Operations Management Team
- Dave Marsh, FAusIMM (CP), SVP Metallurgy & Technology Development
- Bill Mercer, Ph.D., P.Geo., VP Exploration
- Mark Wiseman, B.Sc., MBA, VP Sustainability
- Pierre Neatby, BA, VP Sales & Marketing

Sustainability Reporting
In November 2016, Avalon released its fifth Sustainability Report, which includes a self-assessment of sustainability performance in accordance to the Global Reporting Initiative G4 core level and the Mining Association of Canada’s Towards Sustainable Mining standards. The full report can be found on Avalon’s website.
The technical information contained in this document has been reviewed and approved by Bill Mercer, Ph.D., P.Geo. (OIQ), P.Geo. (NWT), Vice President Exploration of Avalon and Donald Bubar, P.Geo. (ON), President and CEO of Avalon, the qualified persons for the purposes of National Instrument 43-101. For additional information on the Nechalacho Rare Earth Elements Project, see the technical report entitled “Technical Report: The Nechalacho Rare Earth Elements Project” dated May 31, 2013 and effective April 17, 2013.

FORWARD-LOOKING INFORMATION: This document contains or incorporates by reference “forward looking statements” within the meaning of the United States Private Securities Litigation Reform Act of 1995 and applicable Canadian securities legislation, which may not be based on historical fact. Readers can identify many of these statements by looking for words such as “believe”, “expects”, “will”, “intends”, “projects”, “anticipates”, “estimates”, “continues” or similar words or the negative thereof. Such forward looking statements are based on historical facts contained in this presentation, including through documents incorporated by reference herein, are forward-looking statements that involve risks and uncertainties that could cause actual events or results to differ materially from estimates or anticipated events or results expressed or implied or forward looking statements. Among other things, statements regarding targets, estimates and/or assumptions in respect of reserves and/or resources, and are based on estimates and/or assumptions related to future economic, market and other conditions that, while considered reasonable by Avalon, are inherently subject to risks and uncertainties, including significant business, economic, competitive, political and social uncertainties and contingencies. These estimates and/or assumptions include, but are not limited to: grade of ore; rare earth and by product commodity prices; metallurgical recoveries; operating costs; achievement of current timetables for development; strength of the global economy; availability of additional capital; and availability of supplies, equipment and labour.

Factors that could cause the Company’s actual results, performance, achievements, developments or events to differ materially from those expressed or implied by forward looking statements include, among others, but are not limited to, market conditions, the possibility of cost overruns or unanticipated costs and expenses, the impact of proposed optimizations at the Company’s projects, actual results of exploration activities, mineral reserves and mineral resources and/or recoverable resources, differences between actual and estimated production rate, mining operational and development risks and delays, regulatory restrictions (including environmental), activity by governmental authorities, financing delays, joint venture or strategic alliances risks, or other risks in the mining industry, as well as those risks factors considered or referred to in the Company’s annual Management’s Discussion and Analysis and Annual Report filed with the securities regulatory authorities in all provinces and territories of Canada, other than Quebec, and available at www.sedar.com. Most of the foregoing factors are beyond Avalon’s ability to control or predict. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that the plans, intentions or expectations upon which these forward looking statements are based will occur. The forward looking statements contained herein are qualified in their entirety by this cautionary statement. Readers should not place undue reliance on the forward looking statements contained herein for the purpose of assisting readers in understanding the Corporation’s expected financial and operating performance, and the Company’s plans and objectives, and may not be appropriate for other purposes. Avalon does not undertake to update any forward looking statements that are contained herein, except in accordance with applicable securities law.

**Strategic Advantages**
- The Nechalacho Deposit is exceptional among hard rock rare earth deposits for its **large size and enrichment in the heavy rare earths** (greater than 20% of total rare earth oxides or “TREO”).
- Flat lying deposit geometry with low permeability, good rock mechanics and shallow depth make the Nechalacho Deposit amenable to **low-cost underground bulk mining methods**.
- Large size of the Nechalacho Deposit offers the potential for creating a **multi-generational, scalable business**.
- Thor Lake is **accessible** by air transport, barge in the summer and ice roads in the winter. Hay River is a port with an existing barging terminal and the Hay River railhead is accessible year round by an all-season highway.
- A proposed expansion of hydro power generation and transmission capacity in the NWT, potentially offers Nechalacho a low-cost alternative to diesel generated power at the site. Mine and processing facilities are designed to **significantly minimize impacts to water, land and air** and reduce the Project’s carbon footprint.

**Proven and Probable Mineral Resources in the Basal Zone**

<table>
<thead>
<tr>
<th>Tonnage</th>
<th>TREO</th>
<th>HREO</th>
<th>HREO/TREO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proven</strong></td>
<td>3,682,347</td>
<td>1.73%</td>
<td>0.47%</td>
</tr>
<tr>
<td><strong>Probable</strong></td>
<td>10,917,653</td>
<td>1.69%</td>
<td>0.45%</td>
</tr>
<tr>
<td><strong>Proven and</strong></td>
<td>14,600,000</td>
<td>1.70%</td>
<td>0.46%</td>
</tr>
</tbody>
</table>

The fully diluted Proven and Probable Mineral Resources estimate includes planned internal dilution averaging 8.5% over the LOM from Inferred Mineral Resources added at zero grade and Measured and Indicated Mineral Resources that are below the cut-off of US$320/tonne added at an estimated grade. Additional external dilution of 5% was added to tonnage in secondary stopes, about half of all stopes, for an average of approximately 11% total dilution.

NOTES: CIM definitions were followed for Mineral Resources. A cut-off NMR value of US$345 per tonne was used for the Base Case. NMR is defined as “Net Metal Return” or the in situ value of all payable metals, net of estimated treatment, smelting and off-site processing costs. Prior to August 2013, and for the reserves quoted here, formulae for rare earth oxides utilized in resource and reserve estimates were for HREO comprising Y2O3, Eu2O3, Gd2O3, Tb2O3, Dy2O3, Ho2O3, Er2O3, Tm2O3, Yb2O3 and Lu2O3 and TREO grade was comprised of all HREO and La2O3, Ce2O3, Nd2O3, Pr2O3 and Sm2O3. For the August 15, 2013 resource estimate onwards, this was changed to HREO comprising Y2O3, Eu2O3, Gd2O3, Tb2O3, Dy2O3, Ho2O3, Er2O3, Tm2O3, Yb2O3 and Lu2O3 and TREO grade was comprised of all HREO and La2O3, Ce2O3, Nd2O3, Pr2O3 and Sm2O3 which is common industry practice.