



## Management's Discussion and Analysis of Financial Statements for the year ended August 31, 2020

This Management's Discussion and Analysis ("MDA") of Avalon Advanced Materials Inc. (the "Company" or "Avalon") is an analysis of the Company's financial results for the year ended August 31, 2020 (the "Year" or "Fiscal 2020"). The following information should be read in conjunction with the accompanying audited consolidated financial statements and the related notes thereto. This MDA is prepared as of November 27, 2020.

### Nature of Business and Overall Performance

Avalon is a Canadian mineral development company that is listed on the Toronto Stock Exchange in Canada, traded on the OTCQB Venture Market in the United States and also trades on the Frankfurt Stock Exchange in Germany. The Company seeks to build shareholder value by becoming a diversified sustainable producer and marketer of specialty metals and minerals and by expanding the markets for its mineral products.

Avalon operates primarily in Canada with a focus on the "Technology Metals" or "Cleantech Materials", including lithium, tantalum, cesium, indium, gallium, germanium, tin, rare earth elements ("REE"), yttrium, and zirconium.

The Company is in various stages of developing three of its five mineral resource properties. Avalon continues to evaluate new opportunities with near term development potential such as extracting valuable products from mine wastes using new technologies. This is an opportunity the Company has modelled at its East Kemptville Project and is attracting increasing interest from ESG investors and government particularly for rare earth elements.

All three of the Company's advanced projects have significant mineral resources and preliminary economic evaluations for which the next step is identifying markets for the mineral products and/or processing bulk samples to demonstrate appropriate extraction processes and produce product samples for customer evaluation. Advances in technology can suddenly create new demand for certain critical minerals providing opportunities for new producers if one is in a position to react quickly to serve the new demand. A recent example has been the sudden growth in demand for the "magnet rare earths" neodymium and praseodymium ("Nd-Pr"), coupled with the risk of supply shortages due to China's control of the rare earth supply chain.

The Company has embraced the principles of sustainability as core to its business practice and has made a strong commitment toward implementing corporate social responsibility ("CSR") best practices. In November 2020, the Company will release its ninth comprehensive Sustainability Report (the "2020 Sustainability Report") and is in the process of securing an ESG Risk rating license from Sustainalytics.

The Company believes that industrial demand for the advanced materials products it seeks to produce, particularly lithium, cesium, tantalum, rare earths and tin, is growing due to their critical importance in an expanding array of applications in new clean technology, notably clean energy generation and storage, and electric vehicles.

## Selected Annual Information

The following selected financial data for each of the three most recently completed fiscal years are derived from the audited annual financial statements of the Company, which were prepared in accordance with International Financial Reporting Standards (“IFRS”), as issued by the International Accounting Standards Board (“IASB”).

For the Years Ended August 31,	2020	2019	2018
	\$	\$	\$
Revenue	134,138	53,023	61,777
Net Loss before discontinued operations	5,367,264	3,386,335	3,240,744
Net Loss before discontinued operations, per share basic and diluted	0.016	0.012	0.015
Net loss	5,367,264	3,386,335	3,240,744
Net loss, per share basic and diluted	0.016	0.012	0.015
Total assets	116,597,484	124,012,322	121,932,188
Total long term liabilities	1,052,001	1,463,794	3,768,171
Cash dividends	-	-	-

The Company has recorded losses in each of its three most recently completed fiscal years and expects to continue to record losses until such time as an economic mineral deposit is developed and brought into profitable commercial operation on one or more of the Company’s properties, or is otherwise disposed of at a profit. Since the Company has no ongoing revenue from operations, annual operating losses typically represent the sum of business expenses, any impairment losses recognized on its mineral properties and adjustments to the fair value for the derivative liabilities and convertible redeemable preferred shares. The Company may increase or decrease its level of business activity in coming years and if it does, investors can anticipate that the Company’s annual operating losses will also increase or decrease until an economic operation is brought into profitable commercial production, or one or more of the Company’s properties are disposed of at a profit.

## Resource Development Activities

Expenditures on resource properties for Fiscal 2020 totalled \$635,546, a 38% decrease from the level of expenditures for the year ended August 31, 2019 (“Fiscal 2019”) which totalled \$1,031,100. Of these expenditures, 79% were incurred on the Separation Rapids Lithium Project, 13% were incurred on its East Kemptville Project, 5% were incurred on the Nechalacho Project and 3% were incurred on the Lilypad Cesium-Tantalum Project. Expenditures on the Separation Rapids Lithium Project were at a similar level totaling \$503,191 in Fiscal 2020 compared to \$511,188 in Fiscal 2019. Expenditures on the East Kemptville Project decreased to \$83,633 from \$315,087 in Fiscal 2019, due to reduced activity on the Project in 2020. Expenditures on the Nechalacho Project decreased to \$30,340 from \$201,097 in Fiscal 2019, following the completion of the purchase and sale agreement with Cheetah Resources Pty Ltd. (“Cheetah”) on the Upper Zone in December 2019.

Resource property expenditures for the three months ended August 31, 2020 (the “Quarter”) totalled \$154,717, a similar level of expenditures as in the comparative quarter in 2019 (\$156,856). However, the Company had spent a significant portion of its efforts in the comparative quarter in 2019 assisting Cheetah with its work program on the Nechalacho Project, for which it was reimbursed. Of these expenditures, 90% were incurred on the Separation Rapids Lithium Project, 3% were incurred on the East Kemptville Project, 1% were incurred on the Nechalacho Project and 6% were incurred on the Lilypad Cesium-Tantalum Project.

No properties were abandoned during the year but during the Quarter the Company recorded an impairment loss of \$5,587,210 on its East Kemptville Project. During Fiscal 2019, the Company abandoned three peripheral exploration licences surrounding the East Kemptville Special Licence and wrote off the related costs of \$639,034.

## ***Separation Rapids Lithium Project***

The Separation Rapids property now consists of nineteen mineral claims and one mining lease covering a combined area of approximately 4,414 hectares (10,910 acres) in the Paterson Lake Area, Kenora Mining Division, Ontario, all of which are owned 100% by Avalon. The lease covers an area of approximately 421 hectares over the area of the main lithium pegmatite deposit and adjacent lands that may be used for mine development infrastructure. Avalon also owns three aggregate permits along the road to the site, which cover a total area of approximately 16 hectares and are located within the area covered by the claims. The Separation Rapids deposit is a potential source of lithium minerals for use in the glass and ceramics industry as well as lithium compounds for the battery industry.

During fiscal 2018, the Company completed an updated preliminary economic assessment (“PEA”) on a simplified business model that focuses on initial production of lithium mineral concentrates for the glass industry, with potential for future expansion into production of the battery materials lithium carbonate and/or lithium hydroxide. This smaller scale development model reduces capital expenditure requirements substantially from the lithium hydroxide production model completed in September, 2016, while generating attractive returns and reducing overall business and permitting risk. However, with growing interest in establishing new lithium battery materials supply chains in Canada, the Company is now looking at potentially accelerating its plans to produce lithium battery materials and has begun looking at potential sites for a processing facility in NW Ontario.

During the Year, the Company incurred \$503,191 (2019 - \$511,188) in exploration and development expenditures on the Separation Rapids Lithium Project. Approximately 28% of these expenditures were incurred primarily on a small field sample collection program and preparation for a bulk sampling program tentatively scheduled for later this year after freeze-up, 10% were spent on permitting for the bulk sampling program, and 61% were incurred on metallurgical testwork. This work was focused primarily on the development of a Dense Media Separation (DMS) flowsheet to produce a petalite concentrate without the use of froth flotation for a specific new glass-ceramic product application developed by an Asian customer. In addition, approximately \$65,000 was expended on lithium market development work towards securing offtake agreements for the petalite products

During the Quarter, the Company incurred \$139,428 (2019 - \$155,113) in exploration and development expenditures on the Separation Rapids Lithium Project. Approximately 25% of these expenditures were incurred primarily on a small field sample collection program and support for ongoing academic geological research work, 4% were spent on permitting, and 71% were incurred on metallurgical testwork firstly to produce a 20kg sample of pure petalite concentrate using the DMS process, and secondly to investigate the potential of a novel “crushing” process called “Electric Pulse Disaggregation” intended to reduce over-grinding and fines generation. Approximately \$18,000 was also expended on lithium market development work towards securing offtake agreements for the petalite products.

### **Lithium Markets**

Recent marketing work has been focused mainly on high strength lithium glass-ceramics where a number of new market opportunities have been identified in aerospace technology. Production of petalite product samples for customer evaluation continues with strong interest from customers in Asia. Although recent reported global lithium carbonate prices remain soft, all lithium market forecasts continue to predict rapid growth in demand driven mainly by the battery market with supply shortages expected within the next 2-3 years. The Company is also revisiting the potential to produce a lithium hydroxide battery material, as outlined in Avalon’s 2016 Preliminary Economic Assessment, because of the new interest in establishing lithium battery materials supply chains in Ontario.

With Ontario Premier Doug Ford recently announcing Ontario’s interest in establishing new battery materials supply chains in the province, Avalon has been investigating collaborative opportunities to establish a lithium processing facility in Northwestern Ontario, and recently has signed a letter of intent with another aspiring lithium producer in Ontario; Rock Tech Lithium Inc.. The facility being

planned would be adaptable for producing different lithium battery materials products, and would also be expandable to increase output and accept concentrates from other producers of lithium minerals from the many pegmatite deposits that occur in northern Ontario.

With demand for lithium growing rapidly and few advanced lithium projects ready to commence production, the Company remains well-positioned to bring a new supply of high-purity lithium minerals to the market to serve priority customers, once project financing and all required permits are in place. While project permitting has been progressing slowly, the Ontario government now recognizes that changes need to be made to the existing regulatory regime (“cutting the red tape”) to differentiate critical minerals like lithium from traditional exchange-traded commodities and facilitate their more rapid development in Ontario. There is also growing interest in the Federal government to encourage development of critical minerals supply chains for clean technology in Canada, particularly in the context of supporting economic recovery post-COVID-19.

### **Recent Activities and Future Plans**

The next step in the project’s development is to proceed with a pilot plant program on the bulk sample to finalize flowsheet parameters for engineering purposes including reagent recycling and water treatment processes, after which a feasibility study can be completed. This work will also generate product samples for customer qualification and acceptance and is now expected to proceed in 2021 subject to arranging project financing. Discussions on financing continue with several interested parties and planning for this program has been initiated.

The use of gravity concentration and ore sorting pre-concentration methods are to be further investigated, with the objective of reducing costs for the flotation circuit, reducing energy and waste volumes and overall environmental impacts by reducing the amount of feed reporting to the milling circuit. Some additional drilling is also contemplated to collect more geotechnical data for pit and infrastructure design work. Continued exploration including drilling on the Paterson Lake claims in the vicinity of the new Snowbank petalite pegmatite discovery and the Glitter pegmatite is planned, subject to financing.

In its 2016 Preliminary Economic Assessment, Avalon developed a proprietary process flowsheet to produce a high purity lithium hydroxide product from petalite for the lithium battery material market. The flowsheet has the advantage of generating limited waste by the recycling of the sulphuric acid solvent. To further optimize this flowsheet, Avalon has recently shipped a 50 kg sample of petalite concentrate to XPS (Expert Process Solutions) in Sudbury, Ontario to generate leach solution for use in optimizing the final stages of the process, which involves the use of electrolysis to produce lithium hydroxide. The program will focus on an improved membrane alternative and efficient crystallization of the final high purity product. The results (expected in January, 2021) will enable finalizing equipment selection and design.

In the glass-ceramics market, the innovation of new products is creating many new market opportunities for Avalon’s petalite product. One such market requires a petalite product that has not been concentrated by froth flotation, as residual reagents on the surface of the product can compromise its performance in this specific glass-ceramic material. Recent testwork conducted at Met-Solve Laboratories, Langley, BC has successfully demonstrated that an acceptable quality petalite product to serve this market can be produced simply by using DMS. The Company’s next step is to generate a larger product sample for evaluation by the customer that expressed interest in it.

Other testwork underway is focused on ways to reduce processing costs and energy consumption, including alternative milling technologies. Samples from three mineralogical sub-zones within the main Separation Rapids resource have been sent to Selfrag AG in Switzerland, for testing using their patented electric pulse disaggregation (“EPD”) process. EPD uses high voltage electrical pulses to fragment broken rock along internal mineral grain boundaries. The result is a crushed mass of single mineral particles, as opposed to the less selective breakage that occurs with traditional mechanical comminution methods. Avalon believes EPD is the most relevant alternative milling method for

reducing over-grinding and improving overall petalite recoveries as well as reducing energy consumption.

### **Environmental Assessment and Community Engagement**

Avalon is committed to developing the Separation Rapids Lithium Project based on modern CSR principles and reporting on its performance in its annual Sustainability Report. These CSR principles include commitments to minimize environmental impacts, ensuring the health and safety of employees, creating benefits for local communities and providing full transparency in its social and environmental performance. The Company and the project are now well known in the local community.

The project is located in the traditional land use area of the Wabaseemoong Independent Nations (“WIN”) for which they have stewardship under an agreement with the Province. The Company first signed an MOU with WIN in 1999 which was renewed when the project was reactivated in 2013. Avalon management has been keeping WIN leadership informed on project activities and remains committed to fulfilling its community consultation obligations and partnering with WIN on business opportunities and providing training for community members. The Company has also initiated dialogue with the Métis Nation of Ontario which holds Indigenous rights in the area. Engagement is ongoing with local Indigenous communities, regulators, and local government most recently on the update of the closure plan for the planned bulk sample program. All the Indigenous groups continue to be supportive of the project.

Environmental studies of the proposed power transmission line route are planned and opportunities to reduce costs and greenhouse gas (“GHG”) footprint with green energy supply are also being investigated. With the exception of the powerline route study, the environmental studies are largely complete. Once applications are submitted, it is anticipated that all necessary permits for construction can be obtained in under a year. Construction activities for many project components can be initiated prior to receipt of all permits.

Avalon has now received the necessary approvals to proceed with the minimum 2,500 tonne bulk sample extraction program, originally planned for 2019, to recover petalite product samples for testing and qualification by glass and ceramic companies that have expressed interest in the high-purity petalite mineral product. This includes acceptance for filing by the Ministry of Energy, Mines and Northern Development of the Company’s revised Closure Plan for Advanced Exploration dated January 22, 2020, which was received on May 29, 2020, and the May 13 Mining Act Section 91 Exemption.

As a result of progressive rehabilitation and improvements to the closure plan, financial assurance to be filed with the plan is significantly less than that which is already filed for the existing advanced exploration permit. A maintenance agreement and Quarry Permit from the Ministry of Natural Resources and Forestry allows for any needed road maintenance work, if required for bulk sampling. In an effort to minimize site environmental impacts and reduce costs, an application for a quarry amendment was submitted. This amendment, approved on March 25, 2020, allows unlimited extraction of aggregate from its dimension stone quarry and would permit the bulk sample crushing at the quarry site. The COVID-19 lockdown delayed implementation of the program but Avalon does have sufficient inventory of sample material for its present needs. The Company now intends to proceed with the additional bulk sampling work later this year after freeze-up. As a result, planned upgrades to the access road can be delayed until 2021, reducing bulk sample acquisition cost.

Unless otherwise noted, the technical information on the Separation Rapids Lithium Project has been reviewed and approved by the Company’s Consulting Metallurgist, Mr. David Marsh, FAusIMM (CP), or Dr. William Mercer, PhD, P.Geo. (Ontario), Vice President, Exploration, who are both Qualified Persons under NI 43-101.

## **Nechalacho Rare Earth Elements Project**

The Nechalacho Project is located at Thor Lake in the Mackenzie Mining District of the Northwest Territories (“NWT”), approximately 100 kilometres southeast of the city of Yellowknife. The property is now comprised of eight contiguous mining leases totalling 5,786 hectares (14,297 acres), after three mining claims totalling 332 hectares on the southwest side of the original five leases were converted to mining leases. The original five leases are subject to one independently owned 2.5% Net Smelter Returns (“NSR”) royalty agreement. Avalon has the contractual right to buy out this royalty on the basis of a fixed formula, which is currently approximately \$1.6 million and which will increase at a rate equal to the Canadian prime rate until the royalty is bought out.

During Fiscal 2019, the Company and a private Australian company, Cheetah Resources Pty Ltd. (“Cheetah”), entered into a definitive agreement (the “Agreement”), under which Cheetah acquired ownership of the near surface resources principally in the T-Zone and Tardiff Zones of the property (“Upper Zone Resources”) for a total cash consideration of \$5 million. Cheetah was subsequently acquired by Vital Metals Limited, a publicly-listed company in Australia (VML-ASX). The sale closed in the Year.

The Company retained ownership of the mineral resources below a depth of 150 metres above sea level (“Basal Zone Resources”), a 3.0% NSR royalty (the “3.0% NSR Royalty”) and will continue to have access to the property for exploration, development and mining purposes. Avalon has also agreed to waive the 3.0% NSR Royalty for the first five years of commercial production and to grant Cheetah the option to pay the Company \$2 million within eight years of the transaction closing to extend the waiver of this royalty in perpetuity. This agreement also grants Cheetah an option to purchase the Company’s option in the 2.5% NSR Royalty for an inflation adjusted fixed amount estimated at \$1.5 million as at the agreement date, provided that, upon exercising the option, it extinguishes this royalty. The eight mining leases are jointly recorded in the names of Cheetah 50% and the Company 50%, while the beneficial ownership is held in trust by Cheetah and Avalon as to their respective beneficial ownership entitlement in and to the Upper Zone Resources and the Basal Zone Resources, respectively.

During the quarter ended February 29, 2020, Avalon and Cheetah formed a jointly-owned corporation to hold the exploration permits and related authorizations related to Nechalacho. Avalon and Cheetah also entered into a co-ownership agreement governing each party’s activities and management at site. The Company continues to provide Cheetah with assistance as needed in support of their permitting efforts and future development plans, for example by managing a drill program on the property in the fall of 2019. Cheetah has filed financial assurance that was approved by the NWT regulator for all their activities in the T-Zone, which reduces Avalon’s overall site closure liability. In addition, any improvements to infrastructure, such as road upgrades, done at site by Cheetah could potentially benefit the Avalon’s own development plans.

Expenditures during the Year totalled \$30,340 (2019 - \$201,097), which were incurred primarily on on-going site holding and sample storage costs in the Year. In Fiscal 2019, approximately \$138,000 were spent on the field sampling program conducted in September 2018 in the area of the T-Zone and Tardiff Zones, assay analysis on samples collected during the field program and resource modelling on the T-Zone and Tardiff Zones, with the balance being spent primarily on mining lease payments and preliminary ore-sorting process work.

Expenditures during the Quarter were \$1,654 (2019 - net recovery of \$30,434), which were incurred primarily on on-going site holding and sample storage costs, offset in Fiscal 2019 by a recovery of some of Avalon’s costs incurred in the prior quarter from Cheetah.

## ***East Kemptville Tin-Indium Project***

The 100% owned East Kemptville Tin-Indium Project is located 55 km northeast of Yarmouth, Nova Scotia, Canada. The property consists of an exploration licence covering 1,165 hectares (2,880 acres). East Kemptville was an operating tin mine from 1985-1992 and was North America’s only large primary tin producer, before closing prematurely in 1992 due to a collapse in tin prices.

Increasing global demand for tin and tightening supplies has resulted in improved tin prices, creating an opportunity for Avalon to consider redeveloping East Kemptville.

The Company completed a preliminary economic assessment during fiscal 2018 with a development model of utilizing the existing tailings management area (“TMA”) and had been in negotiation with the surface rights owner to secure full tenure to the project site. Agreement in principle was reached in Fiscal 2019, however, the surface rights owner subsequently refused to sign the agreement after putting on hold on any new work on TMAs on all of its closed minesites. Not having access to the existing unused tailings ponds severely limits the possibilities for economic re-development of the site. This realization coupled with the continuing difficulties in getting surface access to the project site, caused the Company to decide to withdraw its mineral lease application and has written off the costs incurred to-date of \$5,587,210 as an impairment loss during the Year.

The Company incurred \$83,633 (2019 - \$315,087) in expenditures during the Year on the East Kemptville Project. Approximately 24% of these expenditures were incurred on environmental studies and permitting, including the evaluation of various tailing management strategies, 26% spent on modelling of the stockpile tin resource and preparation on the mineral lease application, which was withdrawn subsequent to fiscal year-end, and 47% incurred on re-evaluating the project development model using ore sorting technology.

The Company incurred \$5,009 (2019 - \$32,064) in expenditures during the Quarter on the East Kemptville Project, which were mainly incurred on wrapping up the re-evaluation of the alternative project development model. It is unclear if the Company will be able to secure access to the site again to resume its site re-development plans.

### ***Lilypad Cesium-Tantalum Project***

The Lilypad Cesium-Tantalum Project consists of 14 claims, comprising 166 new claim units or cells, totaling slightly over 3,299 hectares (8,152 acres), covering a field of lithium, tantalum and cesium mineralized pegmatites, and located 150 kilometres northeast of Pickle Lake, Ontario. The claims were staked between January, 1999 and October, 2000 and are 100% owned by the Company with no underlying royalties. Previous owners of the property drilled some 50 shallow drill holes, and Avalon completed 32 drill holes totaling 4,781 metres in 2000 and 2001 in a program focused primarily on the tantalum potential. These produced encouraging initial results including the discovery of significant cesium mineralization as the cesium ore mineral pollucite ( $(\text{Cs,Na})_2\text{Al}_2\text{Si}_4\text{O}_{12}\cdot 2\text{H}_2\text{O}$ ) assaying up to 6.205%  $\text{Cs}_2\text{O}$  over 1.70 metres along with significant tantalum mineralization assaying over 0.10%  $\text{Ta}_2\text{O}_5$ . Lithium commonly occurs in these pegmatites both as spodumene and as lepidolite in association with the pollucite and tantalite mineralization.

The project has been inactive since 2002 awaiting a recovery in tantalum prices or new demand for cesium minerals. New demand for cesium emerged in 2018 with the cessation of pollucite production at the Tanco mine in Manitoba. Then in 2019, Cabot Corp. announced the sale of its Specialty Fluids division (owner of the Tanco Mine) to Sinomine, a large Chinese mining and chemical company with a division focused on critical minerals supply. This potentially creates new market opportunities for Avalon to serve with its cesium, tantalum and lithium products. There is now also renewed interest in tantalum due to limited supply sources and growing demand in new technology.

Some 75% of cesium production has been used to make cesium formate: a high density, low viscosity fluid used in deep offshore oil drilling. Cesium formate has a value of approximately US\$2,200/kg and is leased to oil well drilling companies and recycled after use. Other cesium products often sell at prices from US\$200-1,000/kg. Cesium has a variety of other high technology applications, including extremely accurate atomic clocks, and great potential in a range of applications in the production of electricity, in electronics, and in chemistry.

Subsequent to fiscal year-end, the Company carried out a brief field program to collect 200 kg of cesium mineralized pegmatite rock for study on how to efficiently concentrate the pollucite mineralization which, unlike most such occurrences, is found widely distributed throughout the many lithium-cesium-tantalum (“LCT”) pegmatite dykes on the property. Planned follow-up work will initially

involve mineralogical and analytical testwork to characterize in detail how the pollucite occurs, which will be followed by metallurgical process testwork to identify the most efficient methods for concentrating the pollucite and recovering by-product tantalum and lithium. This will include tests using the Selfrag AG EPD process.

Most of the 200 kg of sample material was collected from one occurrence known as the Pollucite Dyke. It was drilled by Avalon in 2001 and a preliminary resource was estimated in 2001 to contain roughly 340,000 tonnes grading 2.294% Cs<sub>2</sub>O and 0.037% Ta<sub>2</sub>O<sub>5</sub>\* based on 9 holes drilled to a maximum vertical depth of 250 metres. The resource is open to depth and along strike for expansion. Other similar pollucite-bearing LCT pegmatite dykes on the property remain untested.

Renewed exploration work is also planned, for summer 2021 and will include geological mapping and geochemical sampling to better understand cesium distribution and identify new tantalum and cesium drill targets. Preliminary environmental studies can also be initiated. Future development of the project would be positively impacted by new infrastructure development, including road access, to the Ring of Fire mineral projects located further to the north.

The project is located in the traditional territory of the Eabametoong First Nation (EFN), approximately 25 km west of the community of Fort Hope. The Company has been in communication with EFN Chief Harvey Yesno toward re-starting consultation with the EFN community leadership and discussions on exploration support services that community members can provide for the 2021 summer field program.

The Company incurred \$18,382 (2019 - \$3,728) in expenditures during the Year on the Lilypad Cesium-Tantalum Project, which were mainly spent on digitizing historical resource data and planning for the short sampling program that was completed subsequent to fiscal year-end.

*\*Cautionary note: the Lilypad resources described above are considered historic under NI 43-101 guidelines and have not been verified by an independent QP and therefore should not be relied upon. The Company is not treating the historic estimate as a current resource.*

## **Other Projects**

### **Clean Technology Business Opportunities**

Avalon is also continuing to evaluate the opportunity to apply an innovative new extraction technology called NanoBeads® developed by Precision Periodics to recover rare earths and other metals from historic mine wastes including acid mine drainage. There are many such sites in North America where the waste may contain critical minerals that had no value when the mine was in operation but do today. This technology could have broad application at many of these sites. Avalon plans to collaborate with the innovators of the Precision Periodics technology to implement it on a trial basis at other closed base and precious metals mine sites in Canada or in the US. Several producing mining companies are also now looking at recovering additional metallic elements from current tailings streams.

Management sees enormous growth potential in this sector and good opportunities for accessing capital from the many government programs oriented towards cleantech development and from the growing international Impact/ESG investment community.

Government remains committed to supporting the establishment of new critical minerals supply chains in Canada. Avalon is continuing to support the efforts of policymakers to implement the needed regulatory changes to recognize critical minerals as a unique sub-sector of the mineral industry. The COVID-19 pandemic and the resulting shortages of medical supplies and pharmaceutical products has served as a reminder to Canada of the risks associated with relying on international sole supply sources of critical materials.

## Warren Township Anorthosite

Avalon is considering reactivating its wholly-owned Warren Township Anorthosite Project in view of growing demand for the calcium feldspar product, which is being driven by innovation in glass technology and space exploration technology. The property is covered by a lease of 688 hectares (1,699 acres). The high-quality calcium feldspar product is used in the manufacture of reinforcing glass fibre and other industrial products, such as mineral fillers. The market has continued to grow with new emerging cleantech applications, such as composites for wind turbine blades.

Recently, there has been demand for small quantities of the crushed anorthosite rock for use as a “lunar simulant” due to its mineralogical similarity with dust on the surface of the moon. There is considerable research into developing lunar vehicles where lunar simulant is needed to replicate conditions on the moon. The Shawmere anorthosite at Warren Township is ideally suited for this purpose.

The Company is now in the process of compiling all the historic drilling and analytical data and bringing them into up-to-date digital file formats. This was supported by a recently completed drone topographic and photographic digital survey. Samples of crushed anorthosite have recently been supplied to interested lunar simulant customers outside Canada.

## Corporate Social Responsibility

In November 2020, the Company will release its 2020 Sustainability Report, which will be available for download on the Company’s website at: <http://www.AvalonAM.com>. Subsequent to fiscal year-end the Company announced that it has engaged Sustainalytics, a Morningstar company, to conduct an independent audit of the Company’s business practices and policies toward obtaining an Environmental, Social and Corporate Governance (“ESG”) Risk Rating License. Sustainalytics’ ESG Risk Ratings provide investors with third-party validation of the Company’s sustainability performance along with insights into why certain ESG issues are considered material for a company and how well a company is managing those risks. The benefits of obtaining an ESG Risk Rating include the ability to provide better access to ESG investment capital, and the ability to gain commercial benefit from the rating externally with creditors, suppliers and other stakeholders. The six-week audit and review process is expected to be completed by mid-December, 2020.

The 2020 Sustainability Report is being prepared in accordance with the Global Reporting Initiative’s Global Reporting Standards. The 2020 Sustainability Report will incorporate a self-assessment of Fiscal 2020 performance and sets targets for 2021 against the applicable and updated Mining Association of Canada “Toward Sustainable Mining” indicators. It also integrates the applicable United Nations’ 17 Sustainable Development Goals into our sustainability performance for the second year. Notably, Avalon completed risk assessments and updated all Emergency Response Plans for the sites where work was completed during the fiscal year. All work programs at project sites were completed without environmental or health and safety incidents. A risk assessment was completed related to the COVID 19 pandemic and detailed office re-opening procedure were developed and training completed for all employees. The office is largely closed in the short term and employees are largely working from home. No COVID 19 related illnesses have been reported.

In addition to the Company’s safety and environmental performance in the field, the report includes many other accomplishments such as community outreach, and metallurgical process improvements that contribute to improved environmental performance. Avalon is committed to working closely with its Indigenous partners to create lasting economic and social benefits in the communities. Dialogue is ongoing with Wabaseemoong Independent Nations (“WIN”) and Métis Nation of Ontario with respect to the Separation Rapids Lithium Project, and was re-started with new Eabametoong First Nation Chief, Chief Harvey Yesno for the Lilypad Cesium-Tantalum Project. During the Quarter the Company made a donation to secure a supply of hand sanitizer for Eabametoong First Nation to assist the community in managing the risk of spreading the COVID-19 virus to its members. Avalon has an MOU with the Chapeau Cree First Nation regarding work at the Warren Township Anorthosite project, and with the Wabaseemoong Independent Nation at Separation Rapids and agreements with the Deninu K’ue First Nation (“DKFN”) and the Northwest Territory Métis Nation (“NWTMN”) at the

Nechalacho Project. Avalon continued discussions with the Acadia First Nation for the East Kemptville project and with the Metis Nation of Ontario for Separation Rapids.

Avalon's leading sustainability efforts are also benefitting the exploration industry. During Fiscal 2019, the Prospectors and Developers Association of Canada ("PDAC") adopted Avalon's energy monitoring system and published it for its members, as well as working with regulators to develop balanced regulations with applicability to Avalon projects. Avalon participated in a multi-stakeholder development of a climate change risk assessment and is utilizing it to augment existing risk assessments and project design to ensure resiliency to potential climate change impacts. Avalon also supported PDAC in the development of training materials for the Mining Association of Canada's Toward Sustainable Mining's Community of Interest Panel regarding the exploration industry. PDAC may further adapt them for a broad range of educational applications. Avalon is also supporting the PDAC and Mining Association of Canada in its efforts to educate regulators and policymakers regarding the need to update regulations in order to encourage more exploration and development of critical minerals resources in Canada that are vital for establishing the new clean economy in Canada and to ensure access to land for exploration purposes.

The Company's focus is on materials that enable clean technology, including electric vehicles, power storage, solar and wind power. In order to do this sustainably, Avalon designs its operations to minimize environmental impacts and greenhouse gas emissions, while planning for rehabilitation and productive use of the land post closure. The Company also now incorporates a staged-development approach to its cleantech materials projects, which involves starting production at a modest scale, to minimize project footprint and potential risks to environment, while also reducing investment risk and creating opportunities for its Indigenous business partners. Further, Avalon is a leader in looking at closed mine sites as opportunities to remediate long term environmental liabilities through economic extraction of valuable minerals from waste materials using new technologies such as sensor-based ore-sorting or the Precision Periodic extraction technology.

In response to the increasing concern expressed by regulators, insurers, investors, customers and other communities of interest, and building on its historic success in reducing greenhouse gas emissions, Avalon has recently begun investigating the potential to become carbon neutral by no later than 2050. In conjunction with climate change risk assessment, Avalon is investigating a wide range of opportunities and potential barriers to cost effectively achieving this, and is cautiously optimistic that a serious and realistic commitment to achieving this goal can be made.

Being a recognized sustainability leader reduces costs and facilitates good relationships with communities, which helps reduce risk of experiencing lengthy delays in receiving operating permits and approvals. This also helps facilitate the acquisition of our social license to operate. Avalon believes that responsible users of our cleantech materials will require increasingly sustainable sources for their materials which we believe will provide Avalon with a competitive advantage in securing market access for its products.

## **Administration and Other**

Interest income in the Year decreased to \$24,787 compared to \$42,819 in Fiscal 2019. During the Year the Company's interest-bearing cash balances as well as interest rates were lower than in Fiscal 2019, and an interest-bearing loan owed to the Company from an NWT-based business was repaid in early fiscal 2020.

Management fees of \$109,351 were earned in the Year (2019 - \$10,204) related to the management of Cheetah's work programs at Nechalacho, which commenced towards the end of fiscal 2019.

Corporate and Administrative expenses totalled \$1,828,971 during Fiscal 2020, an 24% decrease from the amount incurred in Fiscal 2019 (\$2,415,003). The main areas of decreased operating expenses for the Year were expenses on salaries and benefits and occupancy expenses, which were partly offset by higher public and investor relations costs and marketing and sales expense.

Salaries and benefits for the Year decreased by approximately 30% to \$1,007,016 compared to \$1,433,624 in Fiscal 2019 reflecting a reduced level of staffing and salary levels, and the Company's senior management agreeing to a 50% reduction in their salaries from April to August, 2020, as well as the Canada Emergency Wage Subsidy ("CEWS").

No occupancy expenses were recognized during the Year compared to \$343,673 in Fiscal 2019. The decrease is primarily related to the adoption of IFRS 16, and is partly offset by the increase in depreciation expense for the leased office premise of \$121,093 (net of \$74,997 in rent forgiveness receivable under the Canada Emergency Commercial Rent Assistance program) and the increase of \$43,530 in interest expense on lease obligation. The balance of the decrease is mostly due to the reduced size of the Company's office premises.

Directors' fees decreased by \$51,740 (81%) to \$12,060 compared to \$63,800 for Fiscal 2019. Effective September 1, 2019, the base yearly Director's fee was reduced to \$5,000 (from \$10,000) and the meeting fees (\$400 per meeting) and the Board and Committee Chair fees (\$3,000) were eliminated.

Expenses on public and investor relations for the Year increased by \$69,077 (38%) to \$249,761 compared to \$180,684 in Fiscal 2019. The increase is primarily related to the increased level of investor relations activities during the first six months of the Year that subsequently decreased substantially after the COVID-19 pandemic lockdown began in March, 2020. Activities since then have mostly involved participation in virtual investment conferences.

Marketing and sales related expenses for the Year increased by \$120,429 (592%) to \$140,774 compared to Fiscal 2019, with most of the increase being due to significantly increased government relations activities and increased level of market development activities performed by consultants after the departure of the Company's former Vice-President, Market Development and Sales at the end of Fiscal 2019. This is a result of new interest from both the Federal and Provincial governments on creating policy to enable new critical minerals supply chains to be established in Canada. With Avalon being one of the few Canadian companies with significant experience in this area, the Company has been frequently asked to support these efforts.

The Company recognized a financing transaction cost expense of \$177,503 in Fiscal 2019 relating to the issuance of the convertible note payable issued on November 30, 2018.

Share based compensation decreased to \$99,033 for the Year compared to \$78,844 for Fiscal 2019. This increase is primarily related the increased number of options earned during the Year.

On August 31, 2020, the fair values of the Company's outstanding derivative liabilities (which included the warrants denominated in US\$ and warrants with exercise prices that are subject to adjustment from time to time in the event of certain common share rights offerings) were re-measured using the Black-Scholes pricing model, which resulted in a loss of \$32,758 for the Year (being the increase in the estimated value of these warrants between August 31, 2020 and August 31, 2019) and a gain of \$8,857 for the Quarter (being the decrease in the estimated value of these warrants between May 31, 2020 and August 31, 2020). The changes in the estimated value of these warrants are mainly caused by the fluctuation in the trading price of the Company's common shares on August 31, 2020 compared to August 31, 2019 and May 31, 2020.

The fair values of the Company's outstanding convertible redeemable preferred shares (issued in March 2017, January 2018 and June 2018) were also re-measured, which resulted in losses of \$39,375 and \$nil for the Year and the Quarter, respectively. All of the remaining outstanding preferred shares were converted into common shares prior to the beginning of the Quarter.

Interest income decreased to \$1,054 compared to \$3,097 in the same quarter in fiscal 2019. During the Quarter interest-bearing cash balances as well as interest rates were lower than the comparative quarter in 2019.

Management fees of \$3,759 were earned in the Quarter (2019 - \$10,204) related to the management of Cheetah's work programs at Nechalacho, which have substantially wound up towards the end of the Quarter.

Corporate and Administrative expenses totalled \$291,397 during the Quarter, a 49% decrease from the amount incurred during the comparative quarter in Fiscal 2019 (\$569,167). The main areas of decreased operating expenses for the Quarter were expenses on salaries and benefits and occupancy, which were partly offset by higher marketing and sales expenses.

Salaries and benefits decreased by \$211,768 (60%) to \$139,385 compared to \$351,153 for the same quarter in Fiscal 2019. This decrease is primarily related to a reduced level of staffing, and the Company's senior management agreeing to a 50% reduction in their salaries from April to August, and the CEWS that the Company expects to receive.

No occupancy expenses were recognized during the Quarter compared to \$102,793 for the same quarter in Fiscal 2019. The decrease is primarily related to the adoption of IFRS 16, and is partly offset by the increase of \$11,193 in interest expense on lease obligation. The balance of the decrease is mostly due to the reduced size of the Company's office premises. Depreciation expense would have been increased by \$49,023 due to the adoption of IFRS 16 during the Quarter, this amount was offset by the recognition of \$74,997 in rent forgiveness receivable under the Canada Emergency Commercial Rent Assistance program during the Quarter.

Expenses on public and investor relations increased by \$9,276 (42%) compared to the same quarter in Fiscal 2019. The increase is primarily related to the increased amount of work provided by consultants with respect to investor relations activities.

Share based compensation expense totalled \$30,031 for the Quarter compared to \$16,760 for the same quarter in Fiscal 2019. This increase is primarily related to the increased number of options earned during the Quarter compared to the same quarter in Fiscal 2019.

During the Year, the Company completed the sale of the Upper Zone Resources of its Nechalacho REE Project for a total cash consideration of \$5 million, resulting in a net gain on sale of \$2,373,261.

Expenses on general exploration increased by \$115,492 to \$127,353 during the Year compared to \$11,861 in Fiscal 2019. This increase is primarily due to the increased level of activities undertaken to evaluate new opportunities with near term development potential such as extracting valuable products from mine wastes using new technologies.

## Summary of Quarterly Results

The following selected financial data is derived from the unaudited condensed consolidated interim financial statements and financial information of the Company.

Fiscal Year For the Quarters Ended	2020				2019			
	Aug. 31	May 31	Feb. 29	Nov. 30	Aug. 31	May 31	Feb. 28	Nov. 30
	\$	\$	\$	\$	\$	\$	\$	\$
Revenue	4,813	8,280	21,068	99,977	13,301	10,655	15,126	13,941
Net Income (Loss) before discontinued operations	(5,913,590)	(578,071)	1,700,782	(576,385)	(50,259)	(1,127,319)	(638,820)	(1,569,937)
Net Income (Loss)	(5,913,590)	(578,071)	1,700,782	(576,385)	(50,259)	(1,127,319)	(638,820)	(1,569,937)
Income (Loss), per share, basic	(0.017)	(0.002)	0.005	(0.002)	(0.000)	(0.004)	(0.002)	(0.006)
Income (Loss), per share, diluted	(0.017)	(0.002)	0.005	(0.002)	(0.000)	(0.004)	(0.002)	(0.006)

The fluctuation in quarterly net loss is primarily due to share-based compensation expenses recognized as stock options granted to directors, officers, employees and consultants of the Company are earned, the gain on sale of property, plant and equipment, the impairment losses recognized on resource properties, changes in the fair value of derivative liabilities and convertible redeemable

preference shares, and expensed financing transaction costs. The costs of resource properties are written down at the time the properties are abandoned or considered to be impaired in value.

## Liquidity and Capital Resources

In management's view, given the nature of the Company's operations, which consists mainly of the exploration and development of mineral properties, the most relevant financial information relates primarily to current liquidity, solvency, and planned property expenditures. The Company's financial success will be dependent on the economic viability of its resource properties and the extent to which it can develop its mineral resources. Such development may take several years to complete and the amount of resulting income, if any, is difficult to determine. The sales value of any mineralization discovered by the Company is largely dependent on factors beyond the Company's control, including the market value of the metals and minerals to be produced.

The Company manages its capital structure and makes adjustments to it based on the funds available to the Company in light of changes in general economic conditions, the Company's short term working capital requirements, and its planned exploration and development program expenditure requirements.

As the Company is in the development stage, its principal source of capital is from the issuance of equity securities. In order to achieve its objectives, the Company expects to spend its existing working capital and raise additional funds as required.

The outbreak of the novel strain of coronavirus, specifically identified as "COVID-19", has resulted in governments worldwide enacting emergency measures to combat the spread of the virus. These measures, which include the implementation of travel bans, self-imposed quarantine periods and social distancing, have caused material disruption to businesses globally resulting in an economic slowdown. Global equity markets have experienced significant volatility and weakness. Governments and central banks have reacted with significant monetary and fiscal interventions designed to stabilize economic conditions. The duration and impact of the COVID-19 outbreak is unknown at this time, as is the efficacy of the government and central bank interventions. It is not possible to reliably estimate the length and severity of these developments and the impact on the Company's ability to raise capital, its financial results or its financial condition. The Company is implementing measures to reduce costs and preserve working capital during this period of reduced business activity. While the Company has closed its office temporarily due to the COVID-19 pandemic, staff continue to work from home on a reduced work schedule in anticipation of resuming project field work when it is safe to do so. Very minor field work, such as sample collection, has continued where possible under acceptable conditions. Among other measures, the Company's senior management has agreed to a 50% reduction in their salaries from April to August, 2020.

As at August 31, 2020, the Company has current assets of \$1,677,400 and current liabilities of \$1,043,819, and its working capital is \$633,581. Excluding the deferred flow-through share premium of \$136,800, the Company's adjusted working capital as at August 31, 2020 was \$770,381, (calculated by adding back the deferred flow-through share premium of \$136,800 to the working capital of \$633,581). As the de-recognition of the deferred flow-through share premium will not require the future out flow of resources by the Company, it is management's belief that the adjusted working capital figure provides useful information in assessing the Company's liquidity risk.

The Company's monthly operating expenditures, excluding expenditures on resource property work programs, average \$250,000 during periods of moderate project activity. The Company's contemplated resource property expenditures for Fiscal 2021, assuming the requisite financing is in place, are budgeted at approximately \$600,000 (excluding capitalized salaries and benefits).

The Company will need to raise additional capital to fund significant new work programs on the Separation Rapids Lithium and Lilypad Cesium-Tantalum Projects. Initiatives to raise additional capital are in progress. There continues to be some uncertainty as to the Company's ability to raise sufficient additional funds on favourable terms for all of its planned program expenditures. Discussions with potential joint venture partners to provide project financing are ongoing. These

conditions create some uncertainty about the Company's ability to continue as a going concern. The Company's expenditures on other discretionary exploration and development activities have some scope for flexibility in terms of amount and timing, which can be adjusted accordingly.

The Company does not have any externally imposed capital requirements other than those certain Redemption Events contained in the preferred share terms. The Company continues to work on attracting more substantial project financing through the participation of one or more strategic partners, a long term construction debt financing facility, and/or through the equity markets. If the Company is not able to secure financing on satisfactory terms, expenditures on the development of its projects will need to be delayed.

All of the Company's resource properties are owned, leased or licenced with minimal holding costs. The most significant holding costs being annual lease rental fees on Nechalacho of \$24,841 (which will now be shared 50/50 with Cheetah) and the annual expenditures related to the mining leases at Separation Rapids and Warren Township totalling \$3,327. As at August 31, 2020, the Company is required to incur additional Canadian Exploration Expenditures of \$539,400 by December 31, 2021. This amount represents the required expenditures resulting from the private placement completed in August 2020.

A joint venture with an industry partner or end-user may represent an attractive alternative for financing the further stages in the development of any of the Company's projects once the capital requirements become relatively large.

The Company has a lease for its premises. As at the date of this MDA, the minimum lease commitments under this lease are as follows:

Fiscal year ended August 31,	2021	\$	165,158
	2022	\$	222,556
	2023	\$	229,181
	2024	\$	233,563
	2025	\$	63,280

## Off Balance Sheet Arrangements

As at August 31, 2020, the Company had no material off balance sheet arrangements such as guaranteed contracts, contingent interests in assets transferred to an entity, derivative instrument obligations or any instruments that could trigger financing, market or credit risk to the Company.

## Transactions with Related Parties

Balances and transactions between the Company and its subsidiaries have been eliminated on consolidation and are not disclosed here. Details of the transactions between the Company and other related parties are disclosed below:

### a) Trading transactions

There have been no material trading transactions with related parties during the years ended August 31, 2020 and 2019, other than the participation by Mr. Donald Bubar, Director, President and CEO in the November 2018 private placement, whereby Mr. Bubar subscribed for 1,000,000 Units at \$0.07 per Unit. Each unit was comprised of one common share and one half of one common share purchase warrant. Each whole warrant entitled the holder to acquire one common share at a price of \$0.12 until November 1, 2020.

## b) Compensation of key management personnel

The remuneration of directors and other members of the Company's senior management team during each of the three and twelve months ended August 31, 2020 and August 31, 2019 are as follows:

	Three Months Ended		Twelve Months Ended	
	August 31, 2020	August 31, 2019	August 31, 2020	August 31, 2019
Salaries, benefits and directors' fees <sup>(1)</sup>	\$ 184,178	\$ 357,744	\$ 1,114,485	\$ 1,551,593
Share based compensation <sup>(2)</sup>	18,039	13,699	75,252	70,992
	<u>\$ 202,217</u>	<u>\$ 371,443</u>	<u>\$ 1,189,737</u>	<u>\$ 1,622,585</u>

<sup>(1)</sup> Salaries and benefits of key management personnel capitalized to exploration and evaluation assets and PPE for the three and twelve months ended August 31, 2020 totaled \$11,150 (2019 - \$57,029) and \$199,915 (2019 - \$343,246), respectively.

<sup>(2)</sup> Fair value of stock options earned and recognized as share based compensation during the respective reporting period.

Unpaid directors' fees and salaries included in accrued liabilities and owing to the directors and members of the Company's senior management team totaled \$188,800 as at August 31, 2020 (August 31, 2019 - \$566,685).

## Subsequent Events

Subsequent to the end of the Period, the Company:

- granted an aggregate of 350,000 stock options with a weighted average exercise price of \$0.08 per share to certain employees and consultants of the Company. The weighted average contract life of these options at issuance was 4.1 years;
- extended the expiry dates for the remaining outstanding 2,187,500 warrants (each of which with an exercise price of \$0.12 per share) that were issued in the November 2018 Private Placement. The expiry date has been extended from November 1, 2020 to November 1, 2021 for 1,900,000 warrants, and the expiry date for the remaining 287,500 warrants has been extended from November 23, 2020 to November 23, 2021. All other terms and conditions of these warrants remain unchanged; and
- cancelled 200,000 stock options with a weighted average exercise price of \$0.08 per share.

## Financial Instruments

The Company's financial instruments consist of cash and cash equivalents, receivables, accounts payable and accrued liabilities, warrants denominated in foreign currency, and warrants with exercise prices that are subject to adjustment from time to time.

Management does not believe these financial instruments expose the Company to any significant interest, currency or credit risks arising from these financial instruments. The fair market values of cash and cash equivalents, receivables, and accounts payable and accrued liabilities approximate their carrying values.

The Company has 6,466,513 warrants outstanding as at August 31, 2020, with an original exercise price of US\$0.56 per share ("US\$ Warrants"). These warrants are subject to certain anti-dilution provisions, which may reduce the exercise price, with a floor of US\$0.5095 per share. The adjusted

exercise price as calculated by the anti-dilution provisions as at August 31, 2020 and as at the date of this MDA is US\$0.5223. These warrants are exercisable until June 13, 2021. These warrants were recorded at fair value at the time of issuance, and are re-measured at fair value using the Black-Scholes pricing model at each financial statement reporting date, with the resulting change in fair value being recorded in the statement of comprehensive loss.

Interest income from cash and cash equivalents are recorded in the statement of comprehensive loss.

## Outstanding Share Data

### a) *Common and Preferred Shares*

The Company is presently authorized to issue an unlimited number of common shares without par value. The Company is also authorized to issue up to 25,000,000 preferred shares without par value, of which 950 have been issued and none is outstanding as at August 31, 2020.

As at August 31, 2020, and as of the date of this MDA, the Company had 348,413,157 common shares issued and outstanding.

### b) *Options*

As at August 31, 2020, the Company had an aggregate of 13,545,000 incentive stock options outstanding with a weighted average exercise price of \$0.10 (of which 5,416,250 were vested and 8,128,750 were unvested). Subsequent to the end of the Period, 350,000 options were granted and 200,000 options were cancelled (as described earlier under "Subsequent Events"). As at the date of this MDA, the Company has 13,695,000 incentive stock options with a weighted average exercise price of \$0.10 outstanding.

### c) *Warrants*

As at August 31, 2020 the Company has the following common share purchase warrants outstanding:

- i. 6,466,513 US\$ Warrants, with an original exercise price of US\$0.56 per share and are exercisable until June 13, 2021. These warrants are also subject to certain anti-dilution provisions, which may reduce the exercise price, with a floor of US\$0.5095 per share. The adjusted exercise price as calculated by the anti-dilution provisions as at August 31, 2020 and as at the date of this MDA is US\$0.5223;
- ii. 10,000 warrants, issued pursuant to the Accommodation Agreement, with an exercise price of \$0.23 per share and will on August 2, 2021;
- iii. 1,900,000 warrants with an exercise price of \$0.12 per share expiring on November 1, 2020, or if the closing price of the common shares on the TSX is \$0.16 or higher for a period of twenty consecutive trading days after November 1, 2018, the Company may, by notice to the holder reduce the expiry date of the warrants to not less than 30 days from the date of such notice. Subsequent to the end of the year the expiry date of these warrants was extended to November 1, 2021;
- iv. 287,500 warrants with an exercise price of \$0.12 per share expiring on November 23, 2020, or if the closing price of the common shares on the TSX is \$0.16 or higher for a period of twenty consecutive trading days after November 23, 2018, the Company may, by notice to the holder reduce the expiry date of the warrants to not less than 30 days from the date of such notice. Subsequent to the end of the year the expiry date of these warrants was extended to November 23, 2021;

- v. 4,575,000 warrants with an exercise price of \$0.07 per share expiring on November 30, 2021; and
- vi. 6,900,000 A1 Warrants with an exercise price of \$0.23 per common share which are exercisable until March 10, 2022;
- vii. 3,000,000 warrants with an exercise price of \$0.12 per share expiring on August 25, 2022.
- viii. 6,250,000 B1 Warrants with an exercise price of \$0.15 per common share which are exercisable until January 15, 2023; and
- ix. 3,750,000 C1 Warrants with an exercise price of \$0.125 per common share which are exercisable until June 29, 2023;

The Company is also committed to issue 20,000 warrants to the NWTMN in two equal installments of 10,000 warrants upon the Nechalacho Project meeting certain milestones. These warrants will have a contractual term of five years and will have an exercise price based on the then current market price of the Company's common shares at the date of issue of the warrants.

#### ***d) Brokers' Compensation Warrants***

As at August 31, 2020, the Company had no compensation warrants outstanding.

### **Disclosure Controls and Procedures**

Disclosure controls and procedures are designed to provide reasonable assurance that material information is gathered and reported to senior management, including the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), as appropriate, to permit timely decisions regarding public disclosure.

Management, including the CEO and CFO, has evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures as of August 31, 2020. Based on this evaluation, the CEO and CFO have concluded that the Company's disclosure controls and procedures are designed effectively to provide reasonable assurance that the information required to be disclosed in annual filings, interim filings, or other reports filed or submitted under Canadian securities legislation, or reports filed or submitted under the U.S. Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time period specified in those rules.

During the process of review and evaluation, it was determined that the Company's disclosure controls and procedures are operating effectively as at August 31, 2020.

### **Internal Control over Financial Reporting**

The CEO and CFO are also responsible for the design of the Company's internal controls over financial reporting ("ICFR") to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. Because of its inherent limitation, internal control over financial reporting may not prevent or detect misstatements.

Under the supervision, and with the participation, of the CEO and CFO, management conducted an evaluation of the effectiveness of the Company's ICFR based on the framework Internal Control - Integrated Framework (COSO 2013 framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that evaluation, the CEO and CFO have concluded that the design and operation of the Company's ICFR were effective as at August 31, 2020. No material weaknesses were identified by management during this evaluation.

There have been no changes to the Company's design of internal controls over financial reporting that occurred during the Quarter that materially affected, or are reasonably likely to affect, the Company's ICFR.

## **Critical Accounting Judgments and Estimation Uncertainties**

The preparation of the consolidated financial statements in conformity with IFRS requires that the Company's management make critical judgments, estimates and assumptions about future events that affect the amounts reported in the consolidated financial statements and the related notes thereto. Actual results may differ from those estimates. Estimates and assumptions are reviewed on an on-going basis based on historical experience and other factors that are considered to be relevant under the circumstances. Revisions to estimates are accounted for prospectively.

The Company has identified the following significant areas where critical accounting judgments, estimates and assumptions are made and where actual results may differ from these estimates under different assumptions and conditions and may materially affect financial results or the financial position reported in future periods.

Further details of the nature of these assumptions and conditions may be found in the relevant notes to the consolidated financial statements.

### ***Key Sources of Estimation Uncertainty***

Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment to the financial results or the financial positions reported in future periods are included in the following notes:

#### ***Recoverability of Exploration and Evaluation Assets, Development Assets and Property, Plant and Equipment***

The Company assesses its long-lived assets, specifically all exploration and evaluation assets, development assets and property, plant and equipment ("PPE") at each reporting date to determine whether any indication of impairment exists. Where an indicator of impairment exists, a formal estimate of the recoverable amount is made, which is the higher of the fair value less costs of disposal and value in use. These assessments require the use of estimates and assumptions such as long-term commodity prices, discount rates, foreign exchange rates, years to commencement of production, future capital requirements, exploration potential and operating performance.

#### ***Determination of Reserve and Resource Estimates***

Mineral reserves and resources are estimates of the amount of ore that can be economically and legally extracted from the Company's exploration and development properties. The estimation of recoverable reserves is based upon factors such as estimates of commodity prices, production costs, production techniques, future capital requirements and foreign exchange rates, along with geological assumptions and judgments made in estimating the size and grade of the ore body. Changes in the reserve or resource estimates may impact the carrying value of exploration and evaluation assets, development assets, PPE, site closure and reclamation provision and amortization expense.

#### ***Fair Value of Share Based Payments and Warrants***

The Company follows IFRS 2, Share-based Payment, in determining the fair value of share based payments. This calculated amount is not based on historical cost, but is derived based on assumptions (such as the expected volatility of the price of the underlying security, expected hold period before exercise, dividend yield and the risk-free rate of return) input into a pricing model. The model requires that management make forecasts as to future events, including estimates of: the average future hold period of issued stock options and compensation warrants before exercise, expiry or cancellation; future volatility of the Company's share price in the expected hold period; dividend

yield; and the appropriate risk-free rate of interest. The resulting value calculated is not necessarily the value that the holder of the option or warrant could receive in an arm's length transaction, given that there is no market for the options or compensation warrants and they are not transferable. Similar calculations are made in estimating the fair value of the warrant component of an equity unit. The assumptions used in these calculations are inherently uncertain. Changes in these assumptions could materially affect the related fair value estimates.

#### *Site Closure and Reclamation Provision*

The Company's accounting policy for the recognition of a site closure and reclamation obligation requires significant estimates and assumptions such as: requirements of the relevant legal and regulatory framework, the magnitude of possible disturbance and the timing thereof, extent and costs of required closure and rehabilitation activity, and discount rate. These uncertainties may result in future actual expenditures differing from the amounts currently provided. Site closure and reclamation provision recognized is periodically reviewed and updated based on the facts and circumstances available at the time. Changes to the estimated future costs are recognized in the Statement of Financial Position by adjusting both the site closure and reclamation asset and provision.

#### *Property, Plant and Equipment - Estimated Useful Lives*

Management estimates the useful lives of PPE based on the period during which the assets are expected to be available for use. The amounts and timing of recorded expenses for depreciation of PPE for any period are affected by these estimated useful lives. The estimates are reviewed at least annually and are updated if expectations change as a result of physical wear and tear, technical or commercial obsolescence and legal or other limits to use. It is possible that changes in these factors may cause significant changes in the estimated useful lives of the Company's PPE in the future.

### **Critical Judgments**

Information about critical judgments in applying accounting policies that have most significant effect on the consolidated financial statements are as follows:

#### *Capitalization of Exploration and Evaluation Costs*

Exploration and evaluation costs incurred during the year are recorded at cost. Capitalized costs include costs directly attributable to exploration and evaluation activities, including salaries and benefits of employees who are directly engaged in the exploration and evaluation activities. Administrative and other overhead costs are expensed. Exploration and evaluation costs incurred that have been determined to have future economic benefits and can be economically recoverable are capitalized. In making this judgment, management assesses various sources of information including but not limited to the geologic and metallurgic information, history of conversion of mineral deposits to proven and probable mineral reserves, scoping and feasibility studies, proximity of operating facilities, operating management expertise and existing permits.

### **Changes in Accounting Policies Including Initial Adoption**

The Company adopted the following new accounting standards during the Period:

#### *a) IFRS 16, Leases*

IFRS 16, Leases ("IFRS 16") was issued by the IASB in January 2016 and replaces IAS 17 Leases ("IAS 17"). IFRS 16 specifies the methodology to recognize, measure, present and disclose leases. The standard provides a single lessee accounting model, requiring lessees to recognize assets and liabilities for all leases except for short-term leases and leases with low value assets. At the commencement date of a lease, a lessee will recognize a liability to make lease payments (i.e., the lease obligation) and an asset representing the right to use the underlying asset during the lease term (i.e., the right-of-use ("ROU") asset). Lessees will be required to separately recognize the interest

expense on the lease obligation and the depreciation expense on the ROU asset. IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17.

IFRS 16 is effective for annual periods beginning on or after January 1, 2019, with early adoption permitted. A lessee will apply IFRS 16 to its leases either retrospectively to each prior reporting period presented; or retrospectively with the cumulative effect of initially applying IFRS 16 being recognized at the date of initial application.

The lease obligation is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate. The lease obligation is measured at amortized cost using the effective interest method. Depreciation is recognized on the ROU asset on a straight line basis over the shorter of the lease term and the useful life.

Effective September 1, 2019, the Company adopted IFRS 16 using the modified retrospective approach and accordingly the information presented for fiscal 2019 has not been restated.

On initial application, the Company recognized a ROU asset (included in property, plant and equipment) and a corresponding lease obligation relating to a lease for its office premises in Toronto, which had previously been classified as an operating lease under IAS 17. The Company has elected to record the ROU asset based on the corresponding lease obligation. The ROU asset and lease obligation of \$1,045,810 were recorded as of September 1, 2019, with no net impact on the opening retained earnings. When measuring the lease obligation, the Company discounted the remaining lease payments under the lease contract using its estimated weighted-average incremental borrowing rate of 5.0%.

The adoption of IFRS 16 had the following impact on the Company's consolidated statement of comprehensive loss for the Year:

Increase in depreciation expense	\$	196,090
Increase in interest on lease obligation		43,530
Decrease in corporate and administrative expenses		<u>(207,063)</u>
Total increase in expenses, decrease in net income and comprehensive income	\$	<u>32,557</u>

The adoption of IFRS 16 had no net impact on the Company's condensed consolidated interim statement of cash flows for the Year, but had increased the cash used by financing activities by \$207,063, which was offset by the same amount of decrease for the cash used by operating activities.

## Recent Accounting Pronouncements

As at August 31, 2020 and the date of this MDA, there are no significant newly issued pronouncements that are applicable to the Company.

## Forward-Looking Statements, Risk Factors and Qualified Persons

Certain of the statements that are not historical facts contained in this MDA are forward-looking statements that involve risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in the forward-looking statements. Such forward-looking statements reflect the Company's current views with respect to future events and include, 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 management, 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;
- mineral product and 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, the factors described or referred to under "Description of the Business - Risk Factors" in the Company's Annual Information Form for the year ended August 31, 2020, and:

- risks related to the Company's history of losses, lack of operating history, ability to generate material revenues and continue as a going concern;
- risks related to establishing new mining operations in the event that the Company elects to proceed with the development of one of its mineral projects;
- risks related to the Company's need for additional financing;
- risks related to any joint venture or strategic alliances that may be entered into by the Company;
- risks related to the impact of the novel coronavirus ("COVID-19") pandemic, or other global pandemics;
- risks related to either Avalon's or Cheetah's development plans of the Nechalacho Project negatively impacting the other's development plans;
- risks related to the progression of the Separation Rapids Lithium Project to a positive feasibility stage;
- risks related to securing product off-take agreements on a timely basis;
- risks related to the unique ore type at the Nechalacho Rare Earth Elements Project ("Nechalacho" or the "Nechalacho Project") and the Separation Rapids Lithium Project for which known metallurgical processes have not previously been applied;
- uncertainty related to title to the Company's properties as well as the risk of delays in obtaining licenses and permits as a result of local opposition, including uncertainty related to any challenges in connection with Indigenous land title claims and Indigenous rights;
- risks related to the possible existence of rights and interests of Indigenous groups, which may limit the Company's ability to develop its properties;
- risks related to the need to acquire properties for the hydrometallurgical plant and potentially a rare earth refinery for the Nechalacho Project;
- risks that actual capital costs, production schedules and economic returns for the Nechalacho Project may differ significantly from those anticipated by the Company;
- risks related to the demand for technology metals and minerals and fluctuations in their pricing;
- risks related to the demand for lithium and fluctuations in its pricing;
- risks related to competition and the actions of competitors;
- risks related to costs or delays in the commercialization of rare earth products;
- uncertainties related to the fact that the Company's mineral resources and mineral reserves are only estimates;
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- risks related to obtaining, maintaining and renewing licenses and permits, and the material costs, liabilities and obligations in connection therewith;
- risks that the Company will be subject to material costs, liabilities and obligations in connection with environmental laws, regulations and approvals and that approvals will not be available;
- uncertainties involving uninsured risks;
- risks related to possible shortages of supplies, equipment and labour;
- risks related to the Company's ability to attract and retain qualified management and technical personnel;

- uncertainty whether the Company will acquire commercially mineable ore deposits or whether the current mineral deposits identified by the Company can be developed as commercially viable ore bodies;
- risks inherent to the competitive nature of the mineral industry;
- risks related to the extensive federal, state, provincial, territorial and local laws and regulations to which the Company's activities are subject;
- risks related to the availability and reliability of adequate infrastructure;
- risks and hazards inherent to the mining industry;
- risks related to any changes in critical accounting estimates that adversely affect the Company's financial results;
- risks related to potential conflicts of interest of the Company's directors and officers who may have involvement with other resource companies;
- risks related to cybersecurity;
- risks due to being a "passive foreign investment company" for U.S. purposes;
- risks related to fluctuations of currency exchange rates;
- risks related to share price volatility;
- risks related to dilution of existing shareholders;
- risks related to not paying cash dividends;
- risks related to being a non-US corporation; and
- risks related to there being no market for the Company's warrants.

Most of the foregoing factors are beyond the Company's ability to control or predict. Although the Company has attempted to identify important factors that could cause actual results, performance, achievements, developments or events to differ materially from those described in forward-looking statements, there may be other factors that cause actual results, performance, achievements, developments or events not to be as anticipated, estimated or intended. There can be no assurance that the estimates and/or assumptions upon which these forward-looking statements are based will occur.

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. 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 made as of the date of this MDA and are expressly qualified in their entirety by this cautionary statement. Readers should not place undue reliance on the forward-looking statements, which reflect management's plans, estimates, projections and views only as of the date hereof. The Company undertakes no obligation to publicly revise these forward-looking statements to reflect subsequent events or circumstances, except as required by applicable law.

The technical information included in this MDA, unless otherwise stated, has been reviewed and approved by Donald S. Bubar, P. Geo., President and Chief Executive Officer of the Company and Dr. William Mercer, P. Geo., Vice-President, Exploration of the Company. Mr. Bubar and Dr. Mercer are both Qualified Persons under National Instrument 43-101 ("NI 43-101").

## **Notice Regarding Presentation of our Mineral Reserve and Resource Estimates**

This MDA has been prepared in accordance with the requirements of Canadian securities laws, which differ from the requirements of United States securities laws. Unless otherwise indicated, all reserve and resource estimates included in this MDA have been prepared in accordance with NI 43-101. NI 43-101 is a rule developed by the Canadian Securities Administrators which establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects.

Canadian standards, including NI 43-101, differ significantly from the requirements of the United States Securities and Exchange Commission (the "SEC"), and reserve and resource information

contained in this MDA may not be comparable to similar information disclosed by United States companies. In particular, and without limiting the generality of the foregoing, the term “resource” does not equate to the term “reserve”. Under SEC’s Industry Guide 7 standards, mineralization may not be classified as a “reserve” unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. The SEC’s Industry Guide 7 disclosure standards do not define the terms “measured mineral resources”, “indicated mineral resources” or “inferred mineral resources” or other similar descriptions of the amount of mineralization in mineral deposits and United States companies have historically not been permitted to disclose mineral resources of any category in documents they file with the SEC. United States investors should also understand that “inferred mineral resources” have a great amount of uncertainty as to their existence and as to their economic and legal feasibility. It cannot be assumed that all or any part of an “inferred mineral resource” exists, is economically or legally mineable, or will ever be upgraded to a higher category. Under Canadian rules, estimated “inferred mineral resources” may not form the basis of feasibility or pre-feasibility studies except in rare cases. Disclosure of “contained ounces” in a resource estimate is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute “reserves” by SEC standards as in-place tonnage and grade without reference to unit measures. The requirements of NI 43-101 for identification of “reserves” are also not the same as those of the SEC, and reserves reported by Avalon in compliance with NI 43-101 may not qualify as “reserves” under SEC standards. Accordingly, information concerning mineral deposits set forth herein may not be comparable with information made public by companies that report in accordance with SEC’s Industry Guide 7 standards.

The SEC has adopted amendments to its disclosure rules to modernize the mineral property disclosure requirements for issuers whose securities are registered with the SEC. These amendments became effective February 25, 2019 (the “SEC Modernization Rules”) and, following a two-year transition period, the SEC Modernization Rules will replace the historical property disclosure requirements for mining registrants that are included in SEC Industry Guide 7. Following the transition period, the Company may be subject to the SEC Modernization Rules which differ from the requirements of NI 43-101. Under the SEC Modernization Rules, the definitions of “proven mineral reserves” and “probable mineral reserves” have been amended to be substantially similar to the corresponding Canadian standards and the SEC has added definitions to recognize “measured mineral resources”, “indicated mineral resources” and “inferred mineral resources” which are also substantially similar to the corresponding Canadian standards; however, there are differences in the definitions under the SEC Modernization Rules and the Canadian standards and therefore once the Company begins reporting under the SEC Modernization Rules there is no assurance that the Company’s reserve and resource estimates will be the same as those reported under Canadian standards as contained in this Annual Report.

## Other Information

Additional information on the Company is available on SEDAR at [www.sedar.com](http://www.sedar.com) and on the Company’s website at [www.avalonadvancedmaterials.com](http://www.avalonadvancedmaterials.com).