



## **Avalon Advanced Materials Inc.**

### **Management's Discussion and Analysis of Financial Statements for the year ended August 31, 2023**

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, 2023 (the "Fiscal Year" or "Fiscal 2023"). 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 28, 2023.

#### **Land Acknowledgement**

Avalon Advanced Materials Inc. acknowledges that our work takes place within the ancestral and traditional territories of First Nations and Métis people. We respect Indigenous rights and are committed to deepening our existing relationships while forging new lasting ties which will ensure that we and future generations benefit from the positive social and economic opportunities related to our operations.

#### **Nature of Business and Overall Performance**

Avalon is a Canadian critical mineral development company that is seeking to vertically integrate Ontario's lithium supply chain in order to serve the growing regional electric vehicle ("EV") battery market and other vital industries dependent on critical minerals. Shares of Avalon trade on the Toronto Stock Exchange (TSX: AVL), the OTCQB® Venture Market (OTCQB: AVLNF) in the United States and the Frankfurt Stock Exchange in Germany.

Starting in May 2023, the Company commenced a fundamental transformation in its mission and corporate strategy, beginning with the appointment of three veteran executives to the leadership team: Scott Monteith as interim Chief Executive Officer, Jim Jaques as Chief Administrative Officer, and Jan Holland to the Board of Directors.

The current management team is deeply focused on commercializing the mining assets that Avalon has acquired during the past two decades. Over the previous months, Avalon forged a joint venture with Belgium-based SCR-Sibelco NV ("Sibelco"), a global leader in materials solutions, to develop the Company's flagship lithium deposit at Separation Rapids. A strategic partnership was also signed with Metso Corp. of Finland, a market leader in sustainable lithium processing. In addition, in June, 2023, the Company acquired a 383-acre industrial property on Strathcona Avenue in Thunder Bay that is supplied by municipal power, gas and water, and is accessible by road, rail and water via a deep-water port. As described below, Avalon intends to develop the Strathcona property into a full-service lithium conversion and processing facility.

The Company has also continued exploration drilling, and began geotechnical drilling at the Separation Rapids project site while discussions and ongoing work with Sibelco continue to progress further into advancing the project. Taken together, these developments are expected to be transformative to Avalon's corporate profile and demonstrate its continued evolution from largely a holding entity of undeveloped mineral deposits into a potential commercial producer and advanced manufacturer. These milestones mark a new chapter in the Company's evolution, referred to internally as Avalon 2.0.

The ultimate objective is for Avalon 2.0 to develop end-to-end supply chains for Canadian critical minerals, including lithium, zirconium and rare earth minerals. Avalon's immediate strategic focus is the development of the Ontario midstream lithium processing solution envisioned for Thunder Bay, Ontario, a strategy that will rely on lithium ore feedstocks from assets in which it holds stakes (Separation Rapids Ltd.), as well as third-party producers through off-take agreements. It is a strategy that is intended to create value for Avalon shareholders, while simultaneously creating a more favourable investment climate for commercializing other regional deposits, which in turn should generate ongoing, incremental processing revenues for Avalon via new off-take agreements. Generating positive cash flow is essential to Avalon's mid- and long-term vision. In order to achieve these targets, Avalon may engage in productive commercial activities to secure the resources necessary for vertical integration and deliver on the promise of its assets.

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 December, 2023 the Company will release its twelfth annual comprehensive Sustainability Report (the "2023 Sustainability Report") and in February 2021 secured a top 5% ESG Risk rating amongst our peer companies from Sustainalytics. The Company was also featured in the Benchmark Minerals' inaugural global lithium ESG rankings, scoring in the top 5% worldwide.

## 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,	2023	2022	2021
	\$	\$	\$
Revenue	124,258	21,766	11,249
Net loss	3,317,059	3,945,843	3,755,123
Net loss, per share basic and diluted	0.007	0.010	0.011
Total assets	131,053,334	120,446,917	118,469,108
Total long term liabilities	3,549,419	4,689,179	3,985,441
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 notes payable. 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.

## Strategic Partnership with SCR-Sibelco NV

During the quarter ended August 31, 2023 (the "Quarter"), the Company entered into a binding term sheet to create a new joint venture with SCR-Sibelco NV ("Sibelco"), a global leader in materials solutions. Avalon issued to Sibelco, on a non-brokered private placement basis, (i) 109,692,764 common shares of Avalon ("Common Shares") for aggregate proceeds of \$10,000,000, (ii) 1,793,722 Common Shares for aggregate proceeds of \$197,309.42 in a subsequent "top-up" financing which resulted in Sibelco owning 19.9% of the issued and outstanding Common Shares of Avalon after the top-up financing, and (iii) a secured convertible debenture in the principal amount of \$3,000,000 (the

"Debenture") (collectively, the "Private Placement"). Subsequent to the end of the Fiscal Year, Avalon and Sibelco closed the joint venture transaction by transferring its Separation Rapids Lithium Project and Lilypad Project into a new joint venture company, Separation Rapids Ltd. ("SRL")

## Overview of Transactions

### *Strategic Financing*

Pursuant to the terms of the Private Placement, Sibelco (i) purchased 109,692,764 Common Shares at a price of approximately \$0.091164 per Common Share (the "Per Share Price") for gross proceeds of \$10,000,000; (ii) purchased 1,793,722 Common Shares for aggregate proceeds of \$197,309.42 in a subsequent "top-up" financing which resulted in Sibelco owning approximately 19.9% of the issued and outstanding Common Shares of Avalon after the top-up financing; and (iii) advanced Avalon \$3,000,000 for the Debenture. The Debenture bears interest at 7.115% per annum and the principal and interest are payable on maturity, being June 14, 2025 (the "Maturity"). To the extent not repaid at Maturity by Avalon, Sibelco will have the right to convert the outstanding principal amount of the Debenture and all accrued and unpaid interest thereon into either additional Common Shares at a conversion price equal to the Per Share Price, or an additional 5% interest in the joint venture corporation (the "JV Election"), as more particularly described below. The Debenture is a secured obligation, secured by a pledge of Avalon's shares of SRL.

Avalon also granted to Sibelco, for so long as Sibelco holds not less than 10% of the issued and outstanding Common Shares on a non-diluted basis, the right to nominate one member to the board of directors of Avalon ("Board") (or up to two nominees if the size of the Board is increased to nine directors or more), and the right to participate in future equity offerings so that it can maintain its pro rata percentage ownership in Avalon. Sibelco also agreed to a 12-month standstill and certain resale restrictions placed on its holdings in Avalon.

The proceeds from the Private Placement were used by Avalon to fund the acquisition of industrial land for a lithium-hydroxide processing facility in Thunder Bay, Ontario, and repayment of up to C\$1.9 million of existing debt, and for working capital and general corporate purposes. As described below, Avalon subsequently completed the acquisition of the Thunder Bay property for cash consideration of \$8.3 million, and repaid the balance of its note payable, after the permitted conversions into common shares, at its face value of \$1,200,000 in cash.

### *Joint Venture*

Subsequent to the end of the Fiscal Year, Avalon and Sibelco completed the establishment of their joint venture with respect to Avalon's lithium projects, including Separation Rapids and Lilypad in northwestern Ontario, with the execution of a Tripartite Purchase and Sale Agreement (the "Purchase and Sale Agreement") and a Joint Venture Company Shareholders Agreement (the "JV Agreement") with Sibelco and the joint venture company, Separation Rapids Ltd. ("SRL"), SRL is jointly owned by Sibelco (60%) and Avalon (40%).

Sibelco, which will act as operator of SRL, has committed to invest €34.8 million (approximately C\$51.3 million) into the joint venture. Of this amount, €4.8 million was advanced concurrently with the contribution by Avalon of its interests in the Separation Rapids and Lilypad projects, with an additional €30 million to be advanced in tranches to fund the development of the joint venture mineral projects, including facilities and related infrastructure. After total cash contributions of €34.8 million by Sibelco, each of the parties will make any further cash contributions on a pro-rata basis (with dilution to a non-contributing party's interest).

While the initial participating interests to be held on the formation date of the joint venture by Sibelco and Avalon are 60% and 40%, respectively, such participating interests may change to 65% and 35%, respectively, if on the Maturity date of the Debenture Avalon fails to pay the full principal and accrued interest and Sibelco elects to exercise the JV Election.

Pursuant to the terms of the Purchase and Sale Agreement, Avalon agreed to transfer the Separation Rapids and Lilypad properties to SRL, including all personal property, assumed contracts, permits, books and records in consideration for approximately €23.2 million (approximately C\$34.1 million), representing a 40% interest in SRL together with reimbursements of approximately C\$903,000 plus HST in funds expended by Avalon on the joint venture properties since the signing of a binding joint venture term sheet in June 2023.

### ***Thunder Bay Lithium Industrial Campus***

With both the Ontario and Federal Governments confirming their interest in establishing new battery materials supply chains in the province, and potentially providing financial support, Avalon continues to work towards establishing its lithium conversion facility in Thunder Bay, Ontario. The planned facility would be adaptable and expandable to increase output and accept concentrates from other producers of lithium minerals, including petalite, lepidolite and spodumene, from the many pegmatite deposits that occur in northwestern Ontario and globally. It is the Company's intention to construct a regional processing hub with multiple off-take agreements with third-party producers, to meet the rising demand for EV battery-grade lithium in southern Ontario and more broadly, North America. During the Quarter, Avalon acquired an industrial site in Thunder Bay, Ontario (965 Strathcona Avenue) (the "Thunder Bay Property") for the purchase price of \$8,300,000. The Thunder Bay Property consists of approximately 380 acres of which approximately 126 acres are in Lake Superior, a 38,000 square foot office building and a 50,000 square foot warehouse. It has existing road, rail, and deep-water port access as well as utilities services adequate for supporting the Company's planned midstream lithium-hydroxide (LiOH) processing facility.

With its existing infrastructure, strategic geographic location and multi-channel accessibility, the Thunder Bay Property is uniquely suited to host a regional lithium hydroxide conversion facility and represents a material advantage for Avalon that the Company intends to aggressively widen through the adoption of market leading processing and recycling technologies, as well as the construction of an on-site Centre of Excellence research and development facility. Avalon has engaged Lakehead University as well as Confederation College, two regional educational institutions, to collaborate on the initiative.

In October 2023, the Company expanded a strategic partnership with Metso to advance the development of the Thunder Bay facility. Metso agreed to provide testing and engineering equipment procurement and related services, as well as co-develop a laboratory for research and development on lithium and clean technology solutions. Avalon and Metso also agreed to cooperate on the recycling of used batteries and the refining of battery chemicals for recycle use.

The expanded partnership agreement followed a memorandum of understanding entered into in July 2023 that enabled Metso and Avalon to develop an innovative, sustainable methodology to produce commercial lithium hydroxide from petalite mineral feeds with good economics.

Avalon's focus is also on building upon its relations with First Nations partners, the local community and local government. Deepening this collaboration is key to ensuring members of the regional ecosystem all benefit from the project and that all parties prioritize environmental stewardship. First Nations communities are valued partners and the Company looks forward to an ongoing dialogue of mutual respect and seeking innovative partnerships in the new green economy.

The Company also continues to advance discussions with a range of other parties interested in participating in the project and helping contribute to the province's industrial competitiveness.

When complete, the integrated project will:

- Create a significant number of jobs in the City of Thunder Bay as well as in Kenora, Ontario and their surrounding regions.
- Enable broader development of northwestern Ontario's lithium assets by producers seeking to utilize the proximity of Avalon's processing capacity.

- Create tangential benefits, including the intention to create a regional critical-minerals innovation and R&D hub in partnership with local university and college stakeholders.
- Create new economic development opportunities for local and regional First Nations communities.
- Demonstrate best-in-class environmental and sustainability process innovation and enable novel Canadian IP.
- Create supply chain efficiencies by connecting lithium assets in the north with regional processing capacity thus leading to a decreased life-cycle carbon footprint compared to producers who ship raw materials to processing facilities overseas.

Localizing the EV battery supply chain creates a multiplier effect of investment opportunities. In the United States, the passing of the Inflation Reduction Act (IRA) in August 2022 has spurred more than US\$70 billion worth of new investment announcements across the battery supply chain. These investments help spur local economic development by supporting surrounding industries, fostering spinoff entrepreneurship, and contributing to the development of industry clusters that improve productivity and growth.

Key next steps include site preparation and the preparation of a feasibility study for the Company's Thunder Bay facility, and the preparation of updated deposit feasibility studies, including for the Nechalacho rare earths and zirconium project. The Company will also seek to finalize initial commercial terms with additional potential investing partners, including LG Energy Solution with whom Avalon entered into a Memorandum of Understanding in September 2022.

## **Resource Development Activities**

Resource property expenditures for the Quarter totalled \$449,653, a 143% increase from the level of expenditures in the comparative quarter in 2022 (\$184,990). This increase was primarily related to the expenditures incurred for the geological resource update and metallurgical testwork on the Separation Rapids project. Of these expenditures, 99% were incurred on the Separation Rapids Lithium Project ("Separation Rapids"), and 1% were incurred on the Nechalacho Project ("Nechalacho").

No properties were abandoned or impairment losses recorded during the Quarter.

Expenditures on resource properties for Fiscal 2023 totalled \$3,035,056, a 350% increase from the level of expenditures for the year ended August 31, 2022 ("Fiscal 2022") which totalled \$667,937. Of these expenditures, 99% were incurred on Separation Rapids, and 1% were incurred on Nechalacho. Expenditures on Separation Rapids increased to \$3,002,904 from \$541,169 in Fiscal 2022, primarily due to the increased level of exploration and development activities on Separation Rapids during the Fiscal Year, which included a drilling program that was completed in the winter of 2023, the related resource update that was completed in the summer of 2023, as well as ongoing metallurgical testwork being conducted by Metso to convert petalite concentrate to lithium hydroxide. Expenditures on the Nechalacho Project were at a similar level, totalling \$26,974 in Fiscal 2023 compared to \$43,543 in Fiscal 2022. Expenditures on Lilypad decreased to \$5,178 from \$83,225 in Fiscal 2022, primarily due to the vegetation sample assay analysis conducted in Fiscal 2022, which did not recur in the Fiscal Year.

During the Fiscal Year the Company recognized an impairment loss of \$15,000 related to its net smelter returns ("NSR") interest in the Wolf Mountain Platinum-Palladium Project, and an impairment loss of \$3,050 related to certain insignificant mineral claims that had expired.

### **Separation Rapids Lithium Project**

The Separation Rapids property 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. The lease covers an area of approximately 421 hectares over the area of the main lithium pegmatite deposit (the "Big Whopper") and adjacent lands that may be used for mine

development infrastructure. Avalon also owned 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 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 of Ontario. As described above, subsequent to the end of the Fiscal Year the Separation Rapids Lithium Project was transferred into the Avalon-Sibelco Joint Venture company.

During the Quarter, the Company incurred \$444,175 (2022 - \$131,456) in exploration and development expenditures on the Separation Rapids Lithium Project. Approximately 32% of these expenditures were incurred on the resource update that was completed during the Quarter and preparation for the planned drilling program which commenced subsequent to the end of the Quarter, 28% were spent on phase 2 of the baseline environmental study and permitting for future drilling on the Snowbank petalite pegmatite discovery, and approximately 40% were incurred on ongoing metallurgical testwork to convert petalite concentrate to lithium hydroxide.

During the Fiscal Year, the Company incurred \$3,002,904 (2022 - \$541,169) in exploration and development expenditures on the Separation Rapids property. Approximately 64% of these expenditures were incurred primarily on the winter drilling program, related resource update and drone-borne magnetic geophysical survey, 11% were spent on permitting and baseline environmental studies, and 25% were incurred on metallurgical testwork to convert petalite and lepidolite concentrates into lithium chemicals that are suitable for lithium battery production and preparation of the bulk sample for future testwork.

During the Quarter, the Company incorporated the drilling results of the 2023 winter drilling program and completed an updated Mineral Resource Estimate (“MRE”) for the Separation Rapids Project. This updated MRE, compliant with NI 43-101, reports 10.08 million tonnes (Mt) averaging 1.35% of Measured and Indicated Lithium Oxide (“Li<sub>2</sub>O”), a 20% increase compared to previous results.

Separation Rapids MRE Highlights:

- Open Pit with a Measured and Indicated category of 9.39 Mt averaging 1.34% Li<sub>2</sub>O with the start of an underground resource of 0.68 Mt averaging 1.43% Li<sub>2</sub>O
- 10.08 Mt averaging 1.35% Li<sub>2</sub>O in Measured and Indicated, a 20% increase in size as compared to 2018 results
- 2.81 Mt averaging 1.38% Li<sub>2</sub>O in the Inferred category, a 57% increase in size as compared to 2018 results
- 136,000 tonnes of Li<sub>2</sub>O in Measured and Indicated, a 15% increase in size as compared to 2018 results
- 39,000 tonnes Li<sub>2</sub>O in the Inferred category, a 60% increase in size as compared to 2018 results

The MRE (Table 1 below) was conducted by SLR Consulting (Canada) Ltd. (“SLR”), an independent global mining advisory and consulting firm, using available drill hole data as of June 16, 2023.

The MRE was prepared in accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”). This updated MRE replaces the Company’s previous MRE dated May 23, 2018. The updated MRE is based on 98 surface diamond drill holes for a total of 17,444 m of drilling. This includes 13 new surface diamond drill holes totalling 4,128.3 m drilled since the 2018 resource estimate.

*Table 1: Mineral Resource Estimate - Separation Rapids, August 7, 2023*

Description	Classification	Tonnage (Mt)	Li <sub>2</sub> O (%)
Open Pit	Measured	4.28	1.33
	Indicated	5.12	1.35
	<b>Measured + Indicated</b>	<b>9.39</b>	<b>1.34</b>

	Inferred	1.60	1.34
Underground	Measured	-	-
	Indicated	0.68	1.43
	<b>Measured + Indicated</b>	<b>0.68</b>	<b>1.43</b>
	Inferred	1.21	1.42
Total	Measured	4.28	1.33
	Indicated	5.80	1.36
	<b>Measured + Indicated</b>	<b>10.08</b>	<b>1.35</b>
	Inferred	2.81	1.38

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are reported using a petalite concentrate price assumption of US \$1,300/t with an exchange rate of US\$1 = C\$1.30.
3. Open pit Mineral Resources are reported at a 0.29% Li<sub>2</sub>O cut-off grade (COG) in a Whittle resource shell. The Whittle resource shell and open pit COG grade are based on a mining cost of C\$5.50/t, general and administration cost of C\$3.50/t, a processing cost of C\$55.00/t, and a recovery of 50%.
4. Underground Mineral Resources are reported within Deswik resource panels which were generated using a breakeven 0.9% Li<sub>2</sub>O COG. The underground breakeven COG grade is based on a mining cost of C\$120/t, general and administration cost of C\$3.50/t, a processing cost of C\$55.00/t, a recovery of 50%, and an exchange rate of US\$1 = C\$1.30. The Deswik resource panels are 5 m by 5 m by 3 m wide.
5. Mineral resources are reported based on a minimum thickness of approximately 3 m.
6. Average bulk densities were assigned to the blocks and range between 2.61t/m<sup>3</sup> and 2.66t/m<sup>3</sup> for the lithium pegmatite.
7. Numbers may not add due to rounding.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

### Mineral Resource Estimation Methodology

An updated MRE was created by SLR using Seequent's Leapfrog Geo and Edge software. Wireframes were created using logged lithology. Initially the pegmatite outlines were modelled, followed by the creation of sub-domains between the Petalite and Lepidolite-Petalite mineralogical types. Internal waste horizons of amphibolite have been modelled where continuity exists. Raw assays were capped and then composited to two metre lengths, broken at domain boundaries. Li<sub>2</sub>O, Cs<sub>2</sub>O, Rb<sub>2</sub>O and Ta<sub>2</sub>O<sub>5</sub> were interpolated using Ordinary Kriging (OK) into a block model comprising of 5 x 3 x 5 (x, y, z) metre blocks, with sub-blocking down to one metre. Search ellipses were oriented using dynamic anisotropy. Nearest Neighbour (NN) estimates were run for validation purposes. Density was assigned using mean values for each lithological domain. Blocks were classified following CIM (2014) definitions using a combination of drillhole spacing and grade continuity. Drill hole spacings of up to approximately 25 m for Measured, 50 m for Indicated, and 100 m for Inferred have been used to support the classification. Mineral Resources have been constrained with an optimized pit shell, using a cut-off grade of 0.29% Li<sub>2</sub>O, for the open pit material and resource panels, that were generated at a cut-off grade of 0.9% Li<sub>2</sub>O, for the underground material.

### Qualified Person

The MRE for Separation Rapids was prepared by Volker Moeller, Ph.D., P.Geo., SLR Senior Resource Geologist, under the supervision of Luke Evans, M.Sc., P.Eng., SLR Principal Resource Geologist. Mr. Evans is an "Independent Qualified Person" as defined by NI 43-101. The Qualified Person was not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the MRE.

In October 2023, Avalon, with Sibelco's approval, and for the benefit and cost of SRL, commenced a new comprehensive \$3.6 million drilling program at Separation Rapids. Highlights include an 8,000 m drilling program intended to upgrade the inferred resources to indicated status, a potential increase of the total lithium resource available in the open pit and underground portions of the project, with an estimated program duration of four months, and the first major capital initiative funded by the new Avalon-Sibelco joint venture.

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

The Lilypad Cesium-Tantalum Project consists of 14 claims, comprising 166 new claim units or cells, totalling approximately 3,300 hectares (8,152 acres), covering a field of lithium, cesium, tantalum ("LCT") mineralized pegmatites, and located 150 kilometres northeast of Pickle Lake, Ontario. The project is located in the traditional territory of the Eabametoong First Nation ("EFN"), approximately 25 km west of the community of Fort Hope. As discussed earlier under "Strategic Partnership", subsequent to the end of the Fiscal Year the Lilypad Project was transferred to the Avalon-Sibelco Joint Venture company.

The Company incurred \$978 (2022 - \$45,669) in expenditures during the Quarter on the Lilypad Cesium-Tantalum Project, which were mainly spent on sample storage.

The Company incurred \$5,178 (2022 - \$83,225) in expenditures during the Fiscal Year on the Lilypad Cesium-Tantalum Project, which were mainly spent on organizing and storing samples from the 2021 summer work program. The costs incurred in Fiscal 2022 were mainly spent on biogeochemical analyses on samples collected during the 2021 summer work program and preparation and filing of the assessment work report with the MNDMNF.

### ***Nechalacho Rare Earth Elements and Zirconium Project***

The Nechalacho Rare Earth Elements 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 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 \$1.8 million, and which will increase at a rate equal to the Canadian prime rate until the royalty is bought out.

During Fiscal 2020, Avalon sold the rights to the near-surface dominantly light rare earth mineral resources above a depth of 150 metres ("Upper Zone Resources") to Cheetah Resources Pty Ltd. ("Cheetah"). Avalon retained a 3.0% NSR royalty (the "3.0% NSR Royalty") and will continue to have access to the property for development and mining of its 100% owned Basal Zone heavy rare earth resource. Avalon has also agreed to waive the 3.0% NSR Royalty for the first five years of Cheetah's 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. Cheetah also has the option to purchase the Company's option in the 2.5% NSR Royalty, 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.

Avalon and Cheetah have formed a jointly-owned corporation ("NWT Rare Earths Ltd.") to hold the exploration permits and related authorizations related to Nechalacho and have also entered into a co-ownership agreement governing each party's activities and management at site. On November 30, 2020, a new Land Use Permit, expiring November 29, 2025, and Water License, expiring November 29, 2027, were approved for both the Cheetah Demonstration Project and the previously approved Basal Zone early works construction activities.



Expenditures during the Quarter were \$4,500 (2022 - \$7,865), which were incurred primarily on ongoing site holding and sample storage costs.

Expenditures during the Fiscal Year were \$26,974 (2022 - \$43,543), which were incurred primarily on ongoing site holding and sample storage costs.

The Basal Zone heavy rare earth elements (“HREE”) resource also contains abundant zirconium mineralization averaging over 3% ZrO<sub>2</sub>. Zirconium is now in very short supply in North America and has significant growth potential as a critical material needed in small modular nuclear reactors (“SMR”). Demand is growing now for SMRs as a clean energy alternative that can be used to serve the electricity needs of small remote communities to replace diesel generators.

### ***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 significantly improved tin prices, creating an opportunity for Avalon to reactivate the site initially by processing a large historical stockpile of tin ore using low-impact sensor-based ore-sorting technology.

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 and denied Avalon access to the site after putting a hold on any new work on all of its closed mine sites.

The Company did not incur any significant expenditures during the Quarter or Fiscal Year on the East Kemptville Tin-Indium Project. The Company continues to retain the mineral rights through its exploration licence, and management remains optimistic that the Company will eventually be able to secure access to the site again to resume its site reactivation plans.

### ***Warren Township Anorthosite Project***

Avalon has been 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) that includes an aggregate permit over the historical quarry site. 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. There has also 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.

No significant expenditures were incurred on the property during the Quarter or the Fiscal Year.

## **Corporate Social Responsibility**

In December, 2023 the Company will release its 2023 Sustainability Report, which will be available for download at: <https://www.avalonadvancedmaterials.com>. In February 2021 the Company announced receiving an Environmental, Social and Corporate Governance (“ESG”) Risk Rating, following an independent audit of the Company's business practices and policies, performed by Sustainalytics, a Morningstar company. Avalon received an ESG Risk Rating of 28.9 in its industry, Diversified Metals, and ranked among the top 5% of 150 industry companies analyzed globally. 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.

In the past Avalon's annual Sustainability Reports have been prepared in accordance with the Global Reporting Initiative's Global Reporting Standards. New for 2023 Avalon's annual Sustainability Report will be based on International Sustainability Standard Board (ISSB) reporting structure, which is aligned with the International Accounting Standard Board. The ISSB is also the most popular reporting structure in Canada. Avalon's annual Sustainability Reports would still incorporate a self-assessment of Fiscal year performance and also set targets for the next fiscal year against the applicable Mining Association of Canada "Toward Sustainable Mining" indicators. A review and update of the Sustainability Policy has been initiated to formalize the significant progress the Company has made in sustainability and to ensure its industry leadership is maintained.

Avalon continues its commitment to working closely with its Indigenous partners to create lasting economic and social benefits in the communities. The Company seeks to be a proactive partner with the Indigenous communities within its operating footprint. Further, Avalon has developed and published its first Land Acknowledgement that reads as follows:

"Avalon Advanced Materials Inc. acknowledges that our work takes place within the ancestral and traditional territories of First Nations and Métis people. We respect Indigenous rights and are committed to deepening our existing relationships while forging new lasting ties which will ensure that we and future generations benefit from the positive social and economic opportunities related to our operations."

The Company's main 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.

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 remains committed to becoming carbon neutral by 2050. Avalon believes this will give the project a competitive advantage in the ongoing efforts to obtain ESG investors and government research funding.

Being a recognized sustainability leader reduces costs and facilitates good relationships with all stakeholders, including Indigenous communities, which can help 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.

Avalon's leadership in applying the principles of sustainability in all of the Company's work is also benefitting the mineral exploration industry generally. Avalon supports the PDAC, the Ontario Mining Association and the Mining Association of Canada in their efforts to educate regulators and policymakers regarding the need to update regulations in order to encourage more and sustainable 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.

## **Administration and Other**

Interest income for the Quarter totalled \$27,238 compared to \$15,546 in the same quarter in Fiscal 2022, due to higher cash balances and interest rates. A portion of the land from the Company's Thunder Bay Property was rented out to a third party during the Quarter and generated rental revenue of \$45,000 for the Quarter.

Corporate and Administrative expenses totalled \$827,193 during the Quarter, a 19% increase from the amount incurred during the comparative quarter in Fiscal 2022 (2022 - \$692,348). The main areas of increased expenses for the Quarter were expenses on salaries and benefits, legal fees and property holding costs, which were partly offset by a decrease in community, public and investor relations expenses.

Salaries and benefits increased by \$202,548 (77%) to \$466,947 during the Quarter compared to \$264,399 for the same quarter in Fiscal 2022. The increase is primarily related to the increased number of senior management employees in the Quarter compared to the same quarter in Fiscal 2022.

Legal fees increased by \$43,988 to \$44,779 during the Quarter compared to the same quarter in Fiscal 2022. The increase is primarily related to the increased level of business activities during the Quarter.

The Company incurred property holding costs of \$47,232 relating to its Thunder Bay Property, which was purchased during the Quarter.

Expenses on community, public and investor relations decreased by \$202,889 (63%) to \$117,606 compared to the same quarter in Fiscal 2022. The decrease is primarily related to the decrease in online and TV advertising and promotional activities during the Quarter compared to the same quarter in Fiscal 2022. The Company also participated in fewer investor conferences in the Quarter.

Share based compensation increased by \$181,539 to \$327,307 for the Quarter compared to \$145,768 for the same quarter in Fiscal 2022. The increase is primarily related to the 1,020,000 Deferred Share Units ("DSUs") granted to certain directors during the Quarter. These DSUs were fully vested at the time of grant.

Financing costs increased to \$51,890 for the Quarter compared to \$6,612 for the same quarter in Fiscal 2022. The increase is mainly related to the interest expense recognized during the Quarter on the Debenture payable which was issued during the Quarter.

At each reporting period date, the fair values of the Company's outstanding derivative liabilities (which included the warrants with exercise prices that are subject to adjustment from time to time in the event of certain common share rights offerings) were remeasured using the Black-Scholes pricing model, which resulted in a loss of \$133,562 for the Quarter and a gain of \$325,444 for the Fiscal Year, respectively, compared to a loss of \$136,922 and a loss of \$100,920 in the comparable quarter and year in Fiscal 2022, respectively. 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 between the beginning and end of the reporting periods.

The Company recognized an expense of \$917,200 during Fiscal 2022 relating to the issuance of the convertible note payable issued in May 2022 (the "2022 Note"), which consisted of the excess of the estimated fair values of the 2022 Note and the warrants (\$3,801,893) over the net cash proceeds of \$2,884,693. This amount had been included in the increase in fair values of convertible notes payable and derivative liabilities in the Statement of Comprehensive Loss.

Interest income for the Fiscal Year totalled \$79,258 compared to \$21,766 for Fiscal 2022.

For the Fiscal Year, corporate and administrative expenses totalled \$3,137,287 compared to \$2,260,303 for Fiscal 2022. The main areas of increased expenses for the Fiscal Year were community, public and investor relations expenses, salaries and benefits, legal, financial advisory and recruitment fees.

Expenses on community, public and investor relations increased by \$333,353 (39%) during the Fiscal Year to \$1,050,821 compared to \$717,468 for Fiscal 2022. The increase is primarily related to the increase in TV and internet base advertising and marketing campaigns, aimed at increasing the Company's profile to attract potential strategic and/or off-take partners.

Salaries and benefits for the Fiscal Year increased by \$199,457 to \$1,285,780, compared to Fiscal 2022. The increase is primarily related to the increased number of senior management employees in the Fiscal Year compared to Fiscal 2022.

Legal fees increased by \$103,374 (552%) to \$122,099 during the Fiscal Year compared to Fiscal 2022. The increase is primarily related to the increased level of business activities during the Fiscal Year, including the negotiation and reviewing of various potential financing and strategic and off-take agreements.

During the Fiscal Year, the Company incurred \$55,000 in financing advisory fees to source financing for the purchase of the Thunder Bay Property.

During the Fiscal Year, the Company incurred a recruitment fee of \$58,125 related to the addition of the Company's new COO.

The Company also incurred property holding costs of \$47,232 relating to its Thunder Bay Property, which were mostly offset with rental revenue of \$45,000 for the Fiscal Year. The Thunder Bay Property was purchased during the Quarter.

Consistent with the Quarter and for similar reason, the Company's financing costs increased by \$37,889 to \$67,958 for the Fiscal Year compared to \$30,069 for Fiscal 2022.

Share based compensation increased to \$633,719 from \$565,163 during the Fiscal Year compared to Fiscal 2022. This increase is primarily related to the increased number of DSUs earned and the associated fair value recognized during the Fiscal Year compared to Fiscal 2022.

## 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	2023				2022			
	Aug. 31	May 31	Feb. 28	Nov. 30	Aug. 31	May 31	Feb. 28	Nov. 30
	\$	\$	\$	\$	\$	\$	\$	\$
Revenue	72,238	11,394	24,724	15,902	15,546	3,918	1,237	1,065
Net Loss	1,222,736	963,124	776,075	355,124	991,515	1,706,906	567,035	680,387
Loss per share, basic and diluted	0.002	0.002	0.002	0.001	0.002	0.004	0.001	0.002

The fluctuation in quarterly net loss is primarily due to the recognition of share based compensation expenses as stock options, DSUs and RSUs granted to directors, officers, employees and consultants of the Company are earned, the impairment losses recognized on resource properties, changes in the fair value of derivative liabilities, write-off of business acquisition costs 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 consist mainly of the exploration and development of mineral properties, the most relevant financial information relates primarily to current liquidity, solvency, and planned project expenditures. The Company's financial success will be dependent on the economic viability of its resource projects, the development of its lithium-hydroxide processing facility 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 until firm offtake commitments have been secured. The sales value of any

mineralization discovered by the Company is largely dependent on factors beyond the Company's control, including the negotiated value of the critical minerals products 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 although it is now trying to access debt financing to fund the refinery site acquisition and reduce share dilution. With the likelihood of securing investing partners in the refinery and with access to government grant funding, the debt incurred to acquire the property can probably be paid back in the first year. In order to achieve its objectives, the Company expects to spend its existing working capital and raise additional funds as required including flow-through equity financing to fund exploration drilling work and some debt financing.

During the Quarter, the Company completed the Private Placement and issued to Sibelco, 109,692,764 common shares for aggregate proceeds of \$10,000,000, 1,793,722 common shares for aggregate proceeds of \$197,309.42 in a subsequent "top-up" financing, and the Debenture in the principal amount of \$3,000,000 for cash proceeds of \$3,000,000, and entered into a binding term sheet with Sibelco to establish a Joint Venture with respect to certain of the Company's lithium mining projects located in northwestern Ontario, with Sibelco as the operator.

Subsequent to the end of the Fiscal Year, the Company contributed its Separation Rapids and Lilypad projects to SRL at a deemed value of €23,243,873 and received 40% of the common shares of SRL. Sibelco contributed €4,865,810 in cash and has committed to advance a further €30,000,000 in tranches to fund the development of SRL's mineral projects, including facilities and related infrastructure. The initial participating interests of Sibelco and Avalon in the Joint Venture Company is 60% and 40%, respectively.

The Debenture bears interest at 7.115% per annum and the principal and interest are payable on maturity, being June 14, 2025. To the extent not repaid at Maturity by the Company, Sibelco will have the right to convert the Convertible Debenture into either an aggregate of 37,590,496 Common Shares, or an additional 5% interest in the Joint Venture Company, in which case the participating interests of Sibelco and Avalon will change to 65% and 35%, respectively. The Convertible Debenture is secured by a pledge of Avalon's shares of SRL.

On May 9, 2022, the Company issued a convertible note payable in the amount of \$3,000,000 to an entity managed by the Lind Partners ("Lind") (the "2022 Note"). The 2022 Note has a term of two years with a maturity date of May 9, 2024 and accrued an interest amount of \$600,000 on the date of issuance, resulting in the 2022 Note to bear a face value of \$3,600,000 at issuance. Lind is entitled to convert any outstanding amount of the face value of the 2022 Note into common shares commencing on September 10, 2022 at a conversion price equal to 85% of the five day trailing value weighted average price ("VWAP") of the common shares prior to the date of conversion. The Company has the right to repurchase the 2022 Note at the outstanding face value at any time after September 10, 2022, subject to the holder's option to convert up to one third of the original value into common shares prior to the Company's repurchase. During the Quarter the Company bought back the remaining balance of the 2022 Note at its face value of \$1,200,000 in cash and extinguished the 2022 Note.

On January 29, 2021, the Company issued a convertible note payable in the amount of \$3,000,000 to an entity managed by Lind (the "2021 Note"). The 2021 Note has a term of two years with a maturity date of January 29, 2023 and accrued an interest amount of \$600,000 on the date of issuance, resulting in the 2021 Note to bear a face value of \$3,600,000 at issuance. Lind is entitled to convert any outstanding amount of the face value of the 2021 Note into common shares commencing on May 30, 2021 at a conversion price equal to 85% of the five day trailing VWAP of the common shares prior to the date of conversion. The Company has the right to repurchase the 2021 Note at the outstanding face value at any time, subject to the holder's option to convert up to one third of the original value

into common shares prior to the Company's repurchase. The 2021 Note was fully repaid during the Fiscal Year.

As at August 31 31, 2023, the Company has current assets of \$19,991,488 and current liabilities of \$1,360,945. The Company's working capital (current assets of \$19,991,488 less assets held for sale of \$16,902,462 less current liabilities of \$1,360,945) as at August 31, 2023 was \$1,728,081 (August 31, 2022 - working capital of \$2,612,423).

The Company's operating expenditures, excluding expenditures on property work programs, currently average approximately \$400,000 per month. The Company's contemplated capital, resource property and other project expenditures for Fiscal 2024, assuming the requisite financing is in place, and excluding capitalized salaries and benefits, are budgeted at approximately \$13,000,000.

The Company will need to raise additional capital to fund the development of its planned midstream lithium-hydroxide processing facility. Any significant new work programs for fiscal year ending August 31, 2024 on the Separation Rapids Lithium and Lilypad Cesium-Tantalum Projects are expected to be funded by Sibelco's cash contribution to the joint venture. Initiatives to raise additional capital are ongoing and include financing from investing partners for developing the lithium-hydroxide processing facility. There continues to be increasing investor interest in critical minerals for clean technology creating many new opportunities to access capital including from the growing ESG investment community. Having the new ESG risk rating will improve access to ESG oriented risk capital including Green Bonds. Discussions with potential joint venture partners to provide project financing are also ongoing and the Company is continuing to prioritize financing opportunities that will minimize the potential for excessive shareholder dilution. The Company's expenditures on 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 Events of Default contained in the Convertible Debenture 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. However, given the extensive governmental and market interest in establishing new lithium battery materials supply chains, management is of the view that it is a matter of when adequate financing is secured, not if.

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 are 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, 2023, the Company is required to incur additional CEE of \$36,140 by December 31, 2023.

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 ending August 31,	2024	\$180,563
	2025	\$199,712
	2026	\$248,474
	2027	\$252,532
	2028	\$256,638
	2029	\$ 86,004

## Off Balance Sheet Arrangements

As at August 31, 2023, 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 each of the years ended August 31, 2023 and 2022, other than the participation by certain related parties in the December 2021 private placement whereby Donald Bubar, former CEO, and Mr. Alan Ferry, lead director subscribed for 250,000 and 300,000 FT Units at \$0.12 per unit, respectively. Each flow-through unit consists of one flow-through common share and one half non-transferable common share purchase warrant, with each whole warrant being exercisable to acquire one non-flow-through common share of the Company at a price of \$0.18 until December 21, 2023.

### b) Compensation of key management personnel

The remuneration of directors and other key members of the Company's senior management team during the years ended August 31, 2023 and August 31, 2022 are as follows:

	<u>August 31,</u> <u>2023</u>	<u>August 31,</u> <u>2022</u>
Salaries, benefits and directors' fees <sup>(1)</sup>	\$ 1,308,320	\$ 1,053,829
Share based compensation <sup>(2)</sup>	530,299	422,101
	<u>\$ 1,838,619</u>	<u>\$ 1,475,930</u>

<sup>(1)</sup> Salaries and benefits of key management personnel capitalized to exploration and evaluation assets and PPE totaled \$116,030 (2022 - \$102,109).

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

## Subsequent Events

Subsequent to the end of the Fiscal Year, the Company:

- a) completed the sale of its Separation Rapids and Lilypad Projects to SRL at a deemed value of €23,243,873 and received 40% of the common shares of SRL. Sibelco contributed €4,865,810 in cash and committed to provide €30,000,000 funding to SRL and received 60% of the common shares of SRL. Sibelco is the operator of SRL.

The Company now owns 40% equity interest in SRL, which is recognized as an investment and accounted for using the equity method.

- b) granted an aggregate of 1,250,000 stock options with a weighted average exercise price of \$0.13 per share to certain employees, directors and consultants of the Company. The weighted average contract life of these options at issuance was 2.8 years;
- c) had 250,000 options with an exercise price of \$0.11 per share expire;
- d) cancelled 500,000 options with an exercise price of \$0.13 per share;

- e) awarded bonuses for the Fiscal Year totaling \$440,875 to the Company's senior management employees related to their services for the Fiscal Year. These bonuses will be settled in RSUs after the release of the MDA; and
- f) amended the lease agreement of its office premises, as at the date of this MDA, the minimum lease commitments under the amended lease are listed earlier under "Liquidity and Capital Resources".

## Financial Instruments

The Company's financial instruments consist of cash and cash equivalents, receivables, accounts payable and accrued liabilities, convertible note payable 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, accounts payable and accrued liabilities and convertible notes payable approximate their carrying values.

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

## Outstanding Share Data

The Company's share capital structure including its common shares and any potentially dilutive instruments outstanding as at the date of this MDA are as follows:

Common shares	560,373,603
Warrants	30,420,312
Stock options	24,163,750
DSUs	1,535,000
RSUs	525,000
Broker Compensation Warrants	<u>788,900</u>
Total	<u>617,806,565</u>

As described earlier under "Subsequent Events", the Company will settle the total bonus amount of \$440,875 to its senior management employees in RSUs after the release of this MDA.

The Company is required to issue 37,590,496 common shares to Sibelco if the Company fails to repay the principal and accrued interest of \$3,426,900 of the Debenture at Maturity and Sibelco chooses to convert the Debenture into common shares of the Company. The Company is also committed to issue 20,000 warrants to the Northwest Territory Métis Nation in two equal installments of 10,000 warrants upon the Nechalacho REE Project meeting certain milestones.

### 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, 2023.

As at August 31, 2023 and the date of this MDA, the Company has 560,373,603 common shares issued and outstanding.



**b) Options**

As at August 31, 2023, the Company had an aggregate of 23,663,750 incentive stock options outstanding with a weighted average exercise price of \$0.14 (of which 10,768,750 were vested and 12,895,000 were unvested). Subsequent to the end of the Fiscal Year, 1,250,000 stock options were granted, 500,000 stock options were cancelled and 250,000 stock options expired (as described earlier under "Subsequent Events"). As at the date of this MDA, the Company has 24,163,750 incentive stock options with a weighted average exercise price of \$0.14 outstanding.

**c) Deferred and Restricted Share Units**

As at August 31, 2023, and the date of this MDA, the Company has 1,535,000 fully vested DSUs and 525,000 RSUs (of which 300,001 were vested) outstanding.

As described earlier under "Subsequent Events", the Company will settle the total bonus amount of \$440,875 to its senior management employees in RSUs after the release of this MDA.

**d) Warrants**

As at August 31, 2023 the Company has the following common share purchase warrants outstanding:

- i. 9,800,000 warrants with an exercise price of \$0.18 per common share which are exercisable until January 29, 2025;
- ii. 4,425,000 warrants with an exercise price of \$0.18 per common share which are exercisable until December 21, 2023;
- iii. 1,460,000 warrants with an exercise price of \$0.15 per common share which are exercisable until December 21, 2023;
- iv. 3,529,412 warrants with an exercise price of \$0.25 per common share which are exercisable until December 2, 2024;
- v. 2,205,900 warrants with an exercise price of \$0.25 per common share which are exercisable until December 14, 2024; and
- vi. 9,000,000 warrants with an exercise price of \$0.26 per common share and are exercisable until May 9, 2026.

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.

**e) Brokers' Compensation Warrants**

As at August 31, 2023 the Company has the following compensation warrants outstanding:

- i. 788,900 warrants with an exercise price of \$0.18 per common share, which are exercisable until December 21, 2023.

## **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, 2023. 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, 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, 2023.

## **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, 2023. 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 ongoing 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 and Property, Plant and Equipment*

The Company assesses its long-lived assets, specifically all exploration and evaluation 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 for non-traditional mineral commodities, like lithium and rare earths, is based primarily upon demand for the product as well 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 quality of the resource. Changes in the resource estimates may impact the carrying value of exploration and evaluation assets, development assets, PPE, site closure plans as well as the scale of the operations.

### *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.

## **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 new accounting standard during the Fiscal Year:

### *Amendments to IAS 16 - Property, Plant and Equipment - Proceeds before Intended Use*

On September 1, 2022, the Company adopted amendments to IAS 16, Property, Plant and Equipment ('IAS 16'). The amendments prohibit a company from deducting from the cost of property, plant and equipment amounts received from selling items produced while the company is preparing the asset for its intended use. A company will be required to recognize these sales proceeds and related costs in earnings. The retrospective adoption of these amendments had no impact to the Company's condensed consolidated interim financial statements and there were no adjustments to the carrying amounts of the Company's property, plant and equipment on the date of transition as a result of the application of these amendments.

## **Recent Accounting Pronouncements**

The following pronouncements are issued but not yet and have not been applied in preparing the Company's consolidated financial statements. Management believes that other new IFRS accounting pronouncements not yet effective do not have a significant impact on the Company's present or near future consolidated financial statements.

### *Amendments to IAS 1 - Presentation of Financial Statements - Classification of Liabilities as Current or Non-current*

In January 2020, the IASB issued amendments to IAS 1, Presentation of Financial Statements to clarify the requirements for classifying liabilities as current or non-current.

The amendments specify that the conditions which exist at the end of the reporting period are those which will be used to determine if a right to defer settlement of a liability exists and clarify the situations that are considered settlement of a liability, which include settlement by transferring a company's own equity instruments to the counterparty. The amendments further clarify how an entity classifies a liability that includes a counterparty conversion option, and that when classifying liabilities as current or non-current - an entity can ignore only those conversion options that are recognized as equity.

The amendments will become effective for annual reporting periods beginning on or after January 1, 2024 (which will become effective on September 1, 2024 for the Company), and will apply retrospectively. With application of these amendments, the Company's derivative liabilities currently classified as non-current liability will be classified as current liability.

## **Forward-Looking Information, Risk Factors and Qualified Persons**

Certain of the statements that are not historical facts contained in this MDA are forward-looking information and 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;
- availability of supplies, equipment and labour; and
- market and sector trends.

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, 2023, 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 the Company's joint venture with Sibelco, including dilution and control risks;
- risks related to establishing new operations in the event that the Company elects to proceed with the development of one of its 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 either Avalon's or Cheetah's development plans of the Nechalacho Project negatively impacting the other's development plans;
- risks related to securing product off-take agreements on a timely basis;
- risks related to the unique ore type at the Nechalacho Project and 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;
- 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 international conflicts;
- risks related to global financial conditions; 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 Rickardo Welyhorsky, P. Eng., Vice-President, Operations and Chief Operating Officer of the Company. Mr. Welyhorsky is a qualified person under National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101").

## **Cautionary Note to U.S. Persons**

This MDA was prepared in accordance with Canadian standards for reporting of mineral resource estimates, which differ in some respects from United States standards. In particular, and without limiting the generality of the foregoing, the terms "mineral resources," "inferred mineral resources," "indicated mineral resources," "measured mineral resources," "mineral reserves," "proven mineral reserves," and "probable mineral reserves" used or referenced in this MDA are Canadian mineral disclosure terms as defined in accordance with NI 43-101 under the guidelines set out in the CIM Standards. These definitions differ from the definitions in Subpart 1300 of Regulation S-K ("Subpart 1300"), based on the Committee for Mineral Reserves International Reporting Standards ("CRIRSCO"), which replaced the United States Securities and Exchange Commission's (the "SEC") Industry Guide 7 as part of the SEC's amendments to its disclosure rules to modernize the mineral property disclosure requirements. These amendments became effective February 25, 2019 and registrants were required to comply with the Subpart 1300 provisions by their first fiscal year beginning on or after January 1, 2021. Readers are cautioned not to assume that all or any part of mineral

reserves and mineral resources determined in accordance with NI 43-101 and CIM Standards will qualify as, or be identical to, mineral reserves and mineral resources estimated under the standards of the SEC applicable to U.S. companies under Subpart 1300. While the definitions in Subpart 1300 are more similar to the definitions in NI 43-101 and the definitions in the CIM Standards than were the Industry Guide 7 provisions due to the adoption in Subpart 1300 of terms describing mineral reserves and mineral resources that are “substantially similar” to the corresponding terms under the definitions in the CIM Standards, including the SEC now recognizing estimates of “measured mineral resources”, “indicated mineral resources” and “inferred mineral resources” and amending its definitions of “proven mineral reserves” and “probable mineral reserves” to be “substantially similar” to the corresponding definitions under the CIM Standards that are required under NI 43-101, the definitions in Subpart 1300 still differ from the requirements of, and the definitions in, NI 43-101 and the CIM Standards. Investors are cautioned that while the above terms are “substantially similar” to the corresponding definitions in the CIM Standards, there are differences in the definitions in Subpart 1300 and the CIM Standards. Accordingly, there is no assurance any mineral resources or mineral reserves that the Company may report as “inferred mineral resources,” “indicated mineral resources,” “measured mineral resources,” “proven mineral reserves,” and “probable mineral reserves” under NI 43-101 would be the same had the Company prepared the mineral resource or mineral reserve estimates under the standards adopted under the standards of the SEC applicable to U.S. domestic companies under Subpart 1300. Investors are also cautioned that while the SEC recognizes “inferred mineral resources,” “indicated mineral resources,” and “measured mineral resources” under Subpart 1300, investors should not assume that any part or all of the mineralization in these categories will ever be converted into a higher category of mineral resources or into mineral reserves. Mineralization described using these terms has a great amount of uncertainty as to its existence, and great uncertainty as to its economic feasibility than mineralization that has been characterized as reserves. Accordingly, investors are cautioned not to assume that any measured mineral resources, indicated mineral resources, or inferred mineral resources that the Company reports are or will be economically or legally mineable. Under Canadian rules, estimates of “inferred mineral resources” may not form the basis of feasibility or other economic studies, except in limited circumstances. Readers are also cautioned not to assume that all or any part of an inferred mineral resource exists. The term “resource” does not equate to the term “reserves”. Accordingly, information contained herein containing descriptions of the Company’s mineral deposits may not be comparable to similar information made public by United States companies subject to the reporting and disclosure requirements under the United States federal securities laws and the rules and regulations thereunder.

## **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).