



AVALON

ADVANCED MATERIALS

Advancing a Resilient North American Critical Minerals Supply Chain

Red Cloud 14th Annual Pre-PDAC
Mining Showcase

February 2026



Cautionary Statement

FORWARD-LOOKING STATEMENT

This presentation contains "forward-looking information" within the meaning of applicable Canadian securities legislation. Forward-looking information includes, but is not limited to, information with that are not based on historical fact contained in this presentation, including through documents incorporated by reference herein, are forward-looking statements that involve risks and uncertainties that could cause actual events or results to differ materially from 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 the Corporation, are inherently subject to risks and uncertainties, including significant business, economic, competitive, political and social uncertainties and contingencies. These estimates and/or assumptions include, but are not limited to: grade of ore; rare metal and by-product commodity prices; metallurgical recoveries; operating costs; achievement of current timetables for development; strength of the global economy; availability of additional capital; and availability of supplies, equipment and labour. Generally, forward-looking information can be identified by the use of forward-looking terminology such as "add" or "additional", "advancing", "anticipates" or "does not anticipate", "appears", "believes", "can be", "conceptual", "confidence", "continue", "convert" or "conversion", "deliver", "demonstrating", "estimates", "encouraging", "expand" or "expanding" or "expansion", "expect" or "expectations", "forecasts", "forward", "goal", "improves", "increase", "intends", "justification", "plans", "potential" or "potentially", "promise", "prospective", "prioritize", "reflects", "robust", "scheduled", "suggesting", "support", "top-tier", "updating", "upside", "will be" or "will consider", "work towards", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might", or "will be taken", "occur", or "be achieved".

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including risks associated with project development such as: environmental hazards and economic factors as they affect the cost and success of the Company's capital expenditures, the ability of the Company to obtain required permits and approvals, the ability of the Company to obtain financing, the ability to source feedstock for the Company's proposed lithium processing facility at reasonable prices or at all, the price of lithium hydroxide, no operating history, no operating revenue and negative cash flow, land title risk, the market price of the Company's securities, the Company's commercial viability, inflation and uncertain global economic conditions, uncertain geo-political shifts and risks, successful collaboration with indigenous communities, future pandemics and other health crises, dependence on management and other highly skilled personnel, extensive government and environmental regulation, reliance on artificial intelligence technology to influence mining operations, volatility in the financial markets, uninsured risks, climate change, threat of legal proceedings, as well as those risk factors discussed or referred to in the annual information form of the Company dated November 28, 2024 (the "AIF") under the heading "Description of the Business - Risk Factors". Forward-looking information is based on the reasonable assumptions, estimates, analysis and opinions of management made in light of its experience and perception of trends, current conditions and expected developments, as well as other factors that management believes to be relevant and reasonable in the circumstances at the date that such statements are made, but which may prove to be incorrect. Although the Company believes that the assumptions and expectations reflected in such forward-looking information are reasonable, undue reliance should not be placed on forward-looking information because the Company can give no assurance that such expectations will prove to be correct. In addition to other factors and assumptions identified in the AIF, assumptions have been made regarding, among other things: management of certain of the Company's assets by other companies or joint venture partners, the Company's ability to carry on its project activities without undue delays or unbudgeted costs, the ability of the Company to obtain sufficient qualified personnel, equipment and services in a timely and cost-effective manner, the ability of the Company to operate in a safe, efficient and effective manner, the ability of the Company to obtain all necessary financing on acceptable terms and when needed, the accuracy of the Company's operational and price assumptions on which these are based and the continuance of the regulatory framework regarding environmental matters. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions that may have been used. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. The Company does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

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The Company's financial projections are inherently speculative and may prove to be inaccurate. Any financial projections provided in this presentation have been prepared in good faith based upon the estimates and assumptions considered reasonable by management. However, projections are no more than estimates of possible events and should not be relied upon to predict the results that the Company may attain. Future oriented financial information in this presentation includes statements with respect to (i) capital expenditures; (ii) post-tax net present values; (iii) after-tax rate of returns; (iv) proposed revenues over the course of the project life; (v) operating and production costs; and (vi) projected EBITDA. The projections are based upon a number of estimates and assumptions and have not been examined, reviewed or compiled by independent accountants or other third-party experts, including assumptions with respect to the Company's anticipated future revenues; foreign exchange rates and price fluctuations; corporate income tax rates; working capital requirements; capital expenditures including construction costs and timing, and annual operating costs; type of facility feedstock including minimum requirements; sale price of lithium hydroxide; and purchase price of spodumene and petalite. These assumptions may vary from the actual results. Accordingly, there is no assurance that future events will correspond to management's assumptions or that actual results during the periods covered will approximate the financial projections. Any variations of actual results from projections may be material and adverse. Future-oriented financial information and financial outlooks, as with forward-looking information generally, are, without limitation, based on the reasonable assumptions of the Company and management as at the date hereof. The Company's actual financial position and results of operations may differ materially from management's current expectations and, as a result, revenue, profitability, and EBITDA may differ materially from any revenue, and profitability profiles provided in this presentation. Such information is presented for illustrative purposes only and may not be an indication of our actual financial position or results of operations.

Industry Data

This presentation also contains or references certain market, industry and peer group data which is based upon information from independent industry publications, market research, analyst reports and surveys and other publicly available sources. Although the Company believe these sources to be generally reliable, such information is subject to interpretation and cannot be verified with complete certainty due to limits on the availability and reliability of raw data, the voluntary nature of the data gathering process and other inherent limitations and uncertainties. The Company has not independently verified any of the data from third party sources referred to in this presentation and accordingly, the accuracy and completeness of such data is not guaranteed.

QUALIFIED PERSON

Andrew J. Ramcharan, P. Eng., a Qualified Person ("QP") as such term is defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects, has reviewed and approved the technical information included in this presentation.

Company Overview

Avalon Advanced Materials Inc. is a Canadian critical minerals company advancing the supply of materials essential for Canada's future.

The Company is focused on developing strategic assets that support secure, domestic supply chains and long-term economic growth.

By advancing its core rare earth resource in the Northwest Territories and lithium asset in Ontario, the Company is poised to play a role in strengthening the resilience of North America's critical minerals foundation.



Nechalacho REE & Zirconium Project

Aims to provide a stable supply of zirconium and rare-earth minerals, supporting advanced technological industries while securing North American energy security.



Lake Superior Lithium Project

Aims to support the rapidly expanding electric vehicle and energy storage market by establishing a state-of-the-art lithium hydroxide processing facility in Thunder Bay, Ontario.









Separation Rapids Project

A joint venture between Avalon and SCR-Sibelco NV which aims to commercialize its petalite deposit. Lilypad project focuses on lithium (spod.), cesium, rubidium, and tantalum.

Asset Locations



-  Office Headquarters
Toronto, ON
-  Lake Superior Lithium Inc.
Thunder Bay, ON
-  Separation Rapids Ltd.
Kenora, ON
-  Nechalacho Project
Thor Lake, NWT
-  East Kempville
Yarmouth, NS
-  Warren Township Project
Timmins, ON



Asset Overview



Nechalacho Project

Location:

- Thor Lake, Northwest Territories

Stage:

- 2013 FS Completed
- DFS 2013 Completed
- After-Tax NPV (8%) C\$1.3B
- After-Tax IRR ~20%
- CAPEX C\$1.6B
- 2026 PEA underway, advancing cleaner processing with improved project economics

Mineralization:

- Light REEs excluding Promethium (Nd, Pr)
- Heavy rare earth elements
- Rare Earth Element Yttrium
- Zirconium, Tantalum, Niobium

Lake Superior Lithium Inc.

Location:

- Thunder Bay, Ontario

Stage:

- PEA September 2024
- After-Tax NPV (8%) C\$4.1B
- After-Tax IRR 48%
- CAPEX C\$1.3B
- 2026 FS underway, advancing toward construction readiness and partnership engagement

Commodity:

- Production of Lithium Hydroxide

Key Points:

- 100% owned land for proposed lithium processing facility
- Existing strategic infrastructure
- MOU with Metso Corp. and Qualcomm Technologies Inc.

Separation Rapids Ltd.

Location:

- Kenora & Fort Hope - Ontario

Stage:

- MRE 2023 - Separation Rapids
- Updated MRE Feb. 2025
- Lilypad: Early-stage exploration

Mineralization:

- Sep. Rapids Region: lithium as petalite/lepidolite/ spodumene
- Snowbank: Target
- Lilypad Target: Cesium, Tantalum, Rubidium, Spod.

Key Points:

- Resource Expansion
- JV with SCR-Sibelco NV: 60%, Avalon 40%
- Met. and Geotech Studies

East Kemptville Tin Warren Township Anorthosite

East Kemptville Tin

Location:

- Yarmouth, Nova Scotia

Mineralization:

- Tin, Mineral Resource Estimate

Stage:

- PEA 2018

Warren Township Anorthosite Project

Location:

- Timmins, Ontario

Mineralization:

- Calcium Feldspar

Stage:

- Early Exploration

Key Points:

- Divestment Opportunities

Investment Thesis

Multiple Value Creation Levers



- Management reset
- Board refresh: ~60% new directors
- Strengthening capital structure
- Further resource validation
- Securing strategic funding
- Additional strategic partnerships
- Non-core asset monetization
- Broadening of shareholder base

Unique Diverse Portfolio



- Nechalacho REE DFS (2013) - After-Tax NPV @ 8%: \$1.3B and 19.6% IRR
- Thunder Bay Facility PEA (2024) After-Tax \$4.1B NPV & 48% IRR
- Separation Rapids - JV Sibelco

High Demand Markets



- Strategically positioned in rapidly growing markets such as electric vehicles, renewable energy storage, and advanced technologies.

Strong Partnerships



Collaborations with leading industry players to enhance our capabilities, advance engineering, identify partners and raise strategic capital:

- JV with Sibelco
- Partnership with Metso Corp.
- Collaboration with Nordmin, Primero and Wood Canada
- SCP Resource Finance

Government Alignment



- Advancing rare earth and lithium assets central to national defense, technological advancement, energy and industrial policy (strengthening critical mineral supply chains).

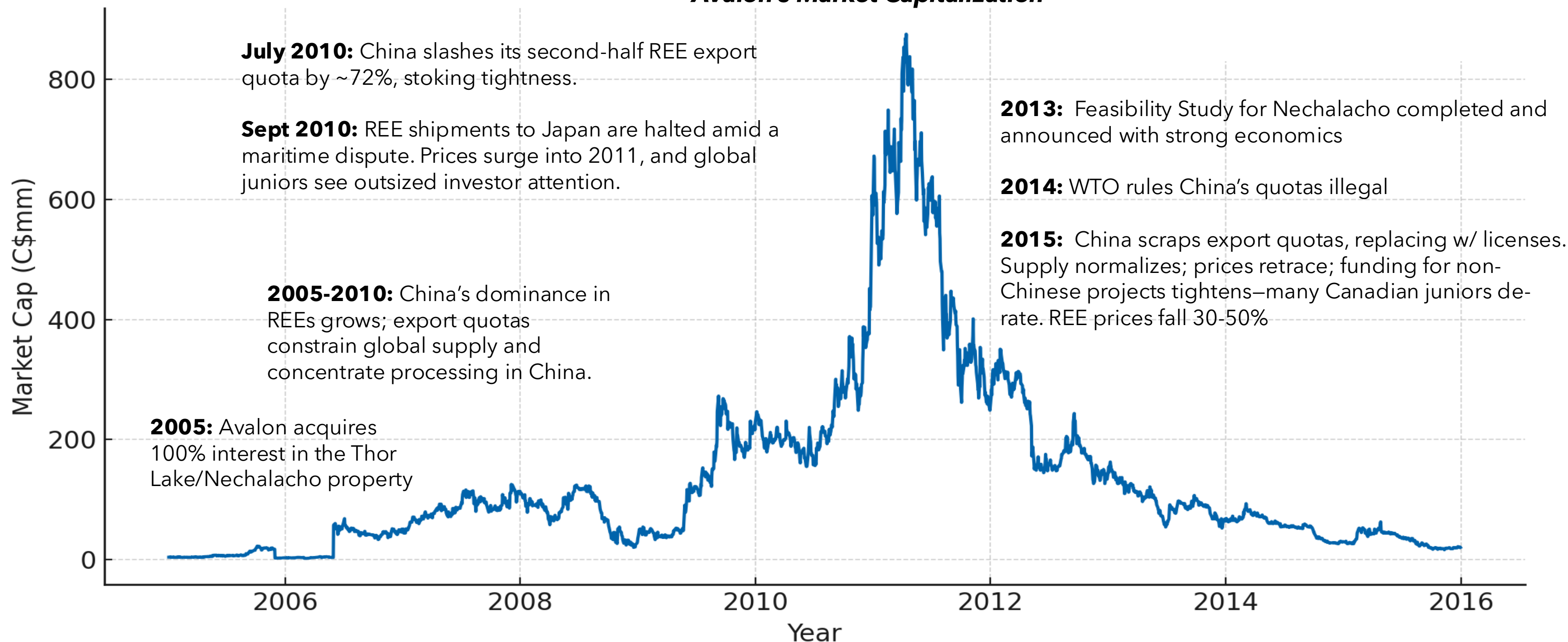
Valuation Disconnect



- Market cap materially below intrinsic asset values (REE \$1.2B NPV, Lithium \$4.1B NPV)
- Management committed to closing this gap through disciplined execution against multiple value creation levers

Lessons from China's Rare-Earth Playbook: 2005-2015

Avalon's Market Capitalization



Levers to Close Valuation Disconnect

Management Reset

Senior leaders
new since 2023

Governance Reset

4 of 7 directors joined since 2023,
bringing operational and capital
markets expertise.

Secure Tactical Funding

- Recent C\$18.7M capital raise
- Refresh 2013 Nechalacho DFS
- Advance September 2024 Lithium PEA to FS
- Strengthen balance sheet and reduce selling pressure by prepaying convertible note

Advance Technical Studies

- Initiated Nechalacho PEA; to be followed by Feasibility Study.
- Commenced Feasibility Study at Lake Superior Lithium Project

Secure Strategic Funding

- Private: Pursue strategic equity at the asset level (Nechalacho and Thunder Bay)
- Public: Pursue Canadian & U.S. government support programs

Lithium: Commercial Enablement

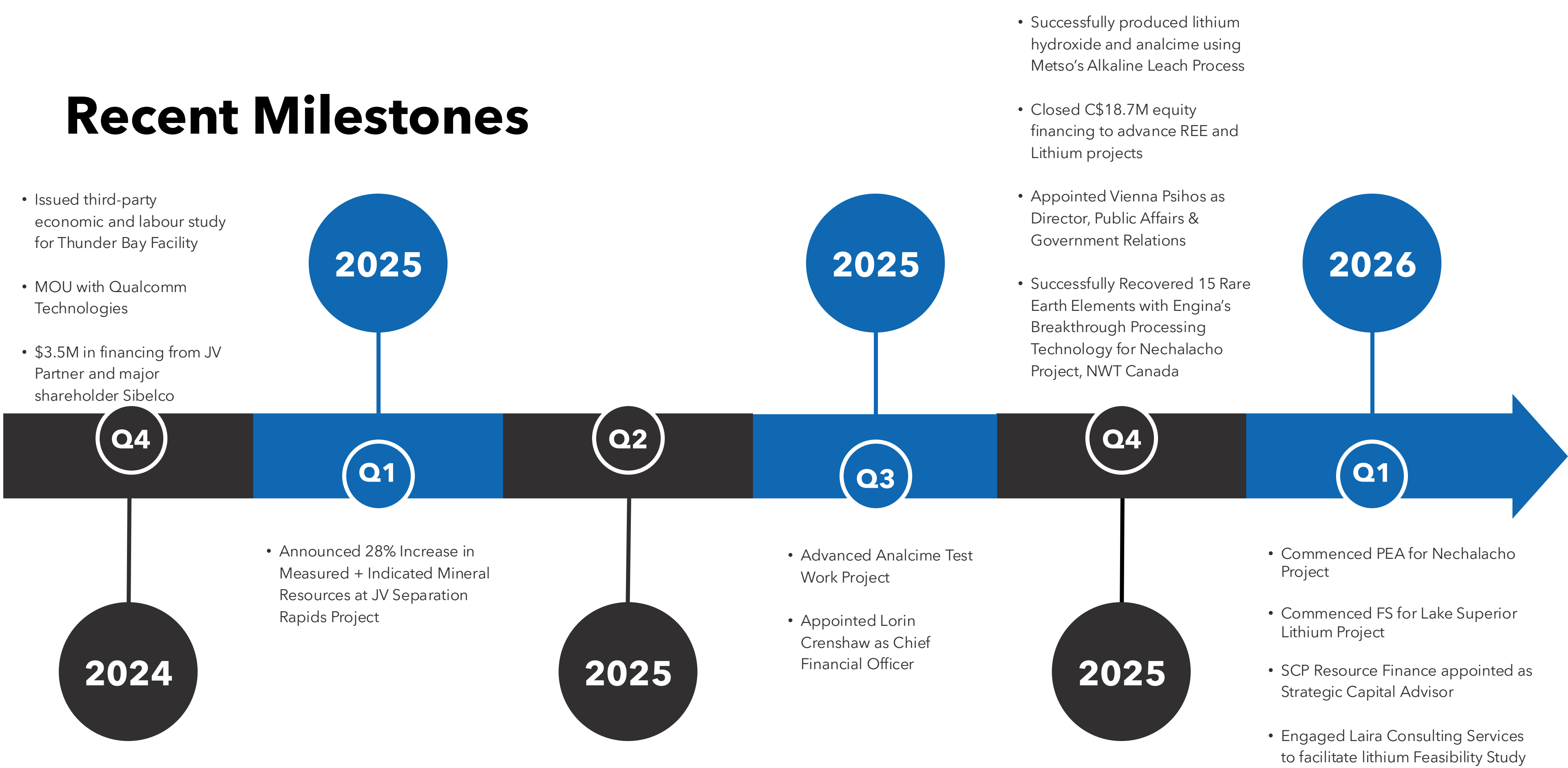
- Secure feedstock source
- Secure offtake agreement

Diversify Shareholder Base Through Expanded Institutional Outreach

Non-Core Asset Sales

- Monetize tin, cesium, and other valuable but non-core assets, providing non-dilutive funding

Recent Milestones



*All values are in Canadian dollars unless otherwise indicated⁹

Inflection Point: Structured Path to Revaluation

Capital Secured. Balance Sheet Strengthened.

October 2025 financing enabled acceleration of REE and lithium initiatives and materially improved balance sheet through termination of Lind funding agreement.

Defined Development Roadmaps.

- Nechalacho (REE): PEA targeted 2H26 - followed by refreshed FS
- Lake Superior Lithium: Advancing 2024 PEA toward FS

Aligned with North American Supply Chain Priorities.

Rare earths and lithium sit at the center of energy security, electrification, and defense-related supply chains – with active government engagement underway.

Institutionalized Capital & Partnership Strategy.

Structured global engagement with strategic and financial counterparties as projects mature – aligning funding sources with stage, risk profile, and long-term value creation.

Multiple Identifiable Catalysts Over the Next 12-24 Months.

- Technical study releases
- Strategic partnership developments
- Government funding pathways
- Non-core asset sales
- Increased shareholder engagement

Two Strategic Platforms. One Integrated Critical Minerals Thesis.

Management Team



Scott Monteith, President & CEO

Scott Monteith, CEO of Avalon since May 2023, is an experienced entrepreneur and founder of Monteco Ltd.



Lorin Crenshaw, CFO

Mr. Crenshaw brings nearly 30 years of financial leadership, including as CFO of Compass Minerals, Orion S.A., and Albemarle's global lithium business.



Vienna Psihos, Director, Public Affairs & Government Relations

Ms. Psihos is an experienced government relations professional with a strong track record in Ontario's policy and funding landscape, including her recent leadership role at the Treasury Board Secretariat.



Andrew J. Ramcharan, VP, Corporate Development

Dr. Ramcharan has extensive experience in Corporate Development, with senior roles at IAMGOLD, SRK Consulting, Sprott Lending, and RCF.



Bliss Baker, Director, Strategic Advisor

Mr. Baker brings over 30 years of public affairs experience, advising senior government leaders, including two Prime Ministers and Cabinet Ministers, with senior executive roles across renewables, and energy.

Board of Directors



Alan Ferry, Chair

Mr. Ferry, with 28 years in mining finance, is Avalon's director since 2000, and chairs the Audit Committee.



Scott Monteith, CEO, Director

Scott Monteith, CEO of Avalon since May 2023, is an experienced entrepreneur and founder of Monteco Ltd.



Timothy Haig, Director

A successful entrepreneur in renewable fuels and cleantech, known for transforming lab ideas into public companies, leading motivated teams, and upholding integrity and ethics.



Flavio Hees, Director

VP of Geology and Mining at Sibelco, oversees over 130 mines, focuses on optimizing assets and compliance. He holds a master's in Geotechnical Engineering.



Alec Kodatsky, Director

Alec Kodatsky, with over 20 years in finance, is Co-President of Forthlane Partners and a former top mining sector analyst. He holds a B.Sc. in Mining Engineering and an MBA.



Naomi Johnson, Director

Ms. Johnson, Titan Mining VP since 2018, joined Avalon's Board in 2019 and chairs the Compensation Committee.



Harvey Yesno, Director

Harvey Yesno, former Chief of Eabametoong First Nation and Grand Chief of Nishnawbe Aski Nation, led NADF and worked with Ontario's Ring of Fire Secretariat.

NECHALACHO PROJECT

Project Overview

- Located at Thor Lake, Northwest Territories
- Avalon retains 100% ownership of resources below 150 metres (Basal Zone)
- An unrelated third party owns resources above 150 metres (Upper Zone)
- Supports industries including nuclear, defense, and communications sector
- Early works permits in place



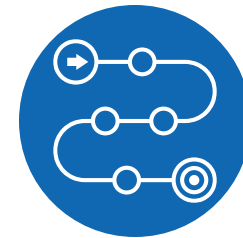
Objective

- Update DFS based on new economic considerations.
- Secure funding and strategic partner(s) to advance project



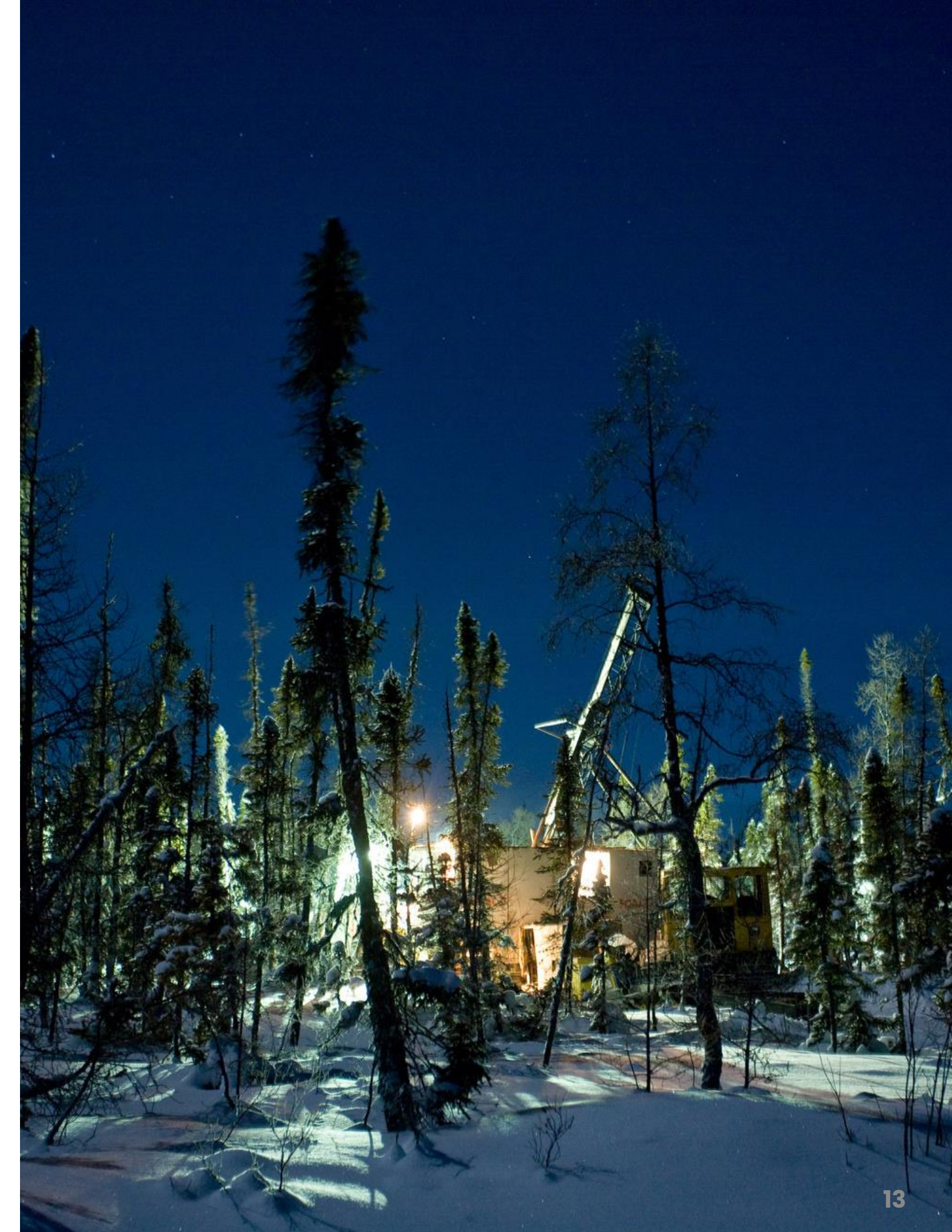
Funding

Exploring funding options.
Submitted application for U.S.
Government Funding: D.O.D.



Phase

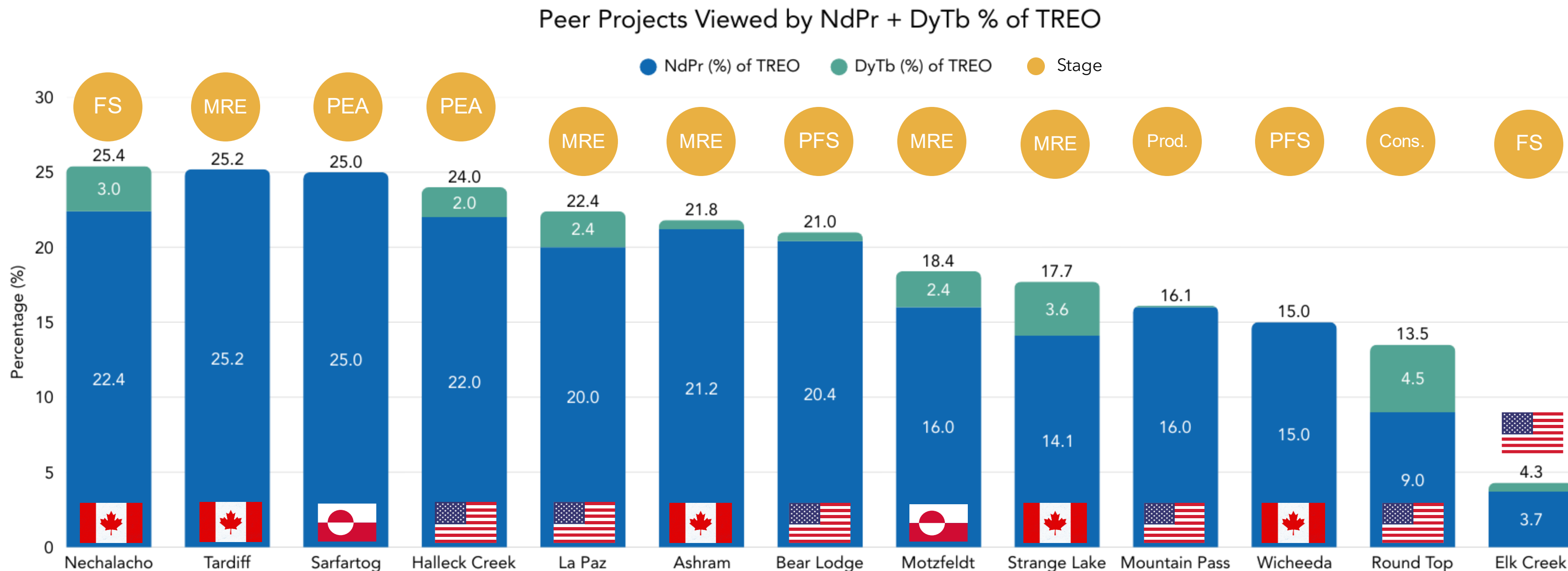
- Targeting refresh of 2013 DFS to update and revalidate key economic and process assumptions
- Actively seeking funding sources and strategic partner(s)



NECHALACHO PROJECT

Highest Grade & Among Most Advanced Development Paths in Peer Group

One of few projects to have achieved DFS-level – with unmatched quality (NdPr /DyTb intensity)



Source: Company public filings, equity research

As of December 2025

NECHALACHO PROJECT

Critical Rare Earths in Technology

- A single US F-35 Lightning II fighter jet contains approximately 920lbs of rare earth elements
- Electric vehicles (EVs) contain as much as 1kg of rare earth elements
- A single 3MW wind turbine can contain up to 2 tons of rare earth permanent magnets
- Each SSN-774 Virginia-class submarine requires approximately 9,200 pounds of rare earth materials

Source: The Oregon Group.
<https://theoregongroup.com/investment-insights/the-west-pursuit-of-rare-earths-hits-resistance-from-china/>

Classifications

														39 Y Yttrium
57 La Lanthanum	58 Ce Cerium	59 Pr Praseodymium	60 Nd Neodymium	61 Pm Promethium	62 Sm Samarium	63 Eu Europium	64 Gd Gadolinium	65 Tb Terbium	66 Dy Dysprosium	67 Ho Holmium	68 Er Erbium	69 Tm Thulium	70 Yb Ytterbium	71 Lu Lutetium
Light Rare Earths								Heavy Rare Earths						

Applications

Nd, Pr, Tb, Dy are critical elements of the global energy transition



Electric Cars

59 Pr Praseodymium	60 Nd Neodymium
65 Tb Terbium	66 Dy Dysprosium



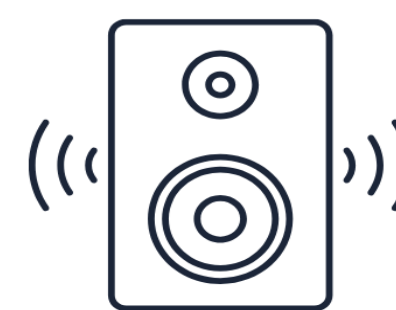
Wind Turbine

59 Pr Praseodymium	60 Nd Neodymium
65 Tb Terbium	66 Dy Dysprosium



Smart Phones

59 Pr Praseodymium	60 Nd Neodymium
65 Tb Terbium	



Speakers

59 Pr Praseodymium	60 Nd Neodymium



Computer Drives

59 Pr Praseodymium	60 Nd Neodymium
	66 Dy Dysprosium



Defense

59 Pr Praseodymium	60 Nd Neodymium
65 Tb Terbium	66 Dy Dysprosium

NECHALACHO PROJECT

2013 Feasibility Study: Basal Zone

Project Overview: 20-Year Mine Life

Mining Operations:

- Method: Underground drift and fill/long-hole stoping
- Capacity: 2,000 tons per day (tpd), equivalent to 730,000 tons per year (tpy)

Processing Details:

- Flotation: Produces 130,000 tpy of mineral concentrate
- Hydrometallurgy: Treatment with sulfuric acid bake at Pine Point, yielding:
 - 55,000 tpy of REE concentrate & 112,000 tpy of Enriched Zirconium Concentrate (EZC)

Transportation:

- Rail Shipment: REE concentrate shipped to refinery in Geismar, Louisiana - Southern U.S

Production Targets:

- Initial Production: 7,000 tpy of separated REE oxides and EZC (including Nb, Ta, HREE)

Financial Overview:

- Total Capital Expenditure: CAD\$1.58 billion
- Operating Costs: CAD\$265 million/year or \$362/mined tonne of ore (all in)
- Revenue: CAD\$646 million/year or \$885/mined tonne of ore
- After-tax Internal Rate of Return: 19.6%
- After-tax Net Present Value @ 8%: CAD\$1.26 billion

Optimization test work from 2013 to 2015:

- SGS Canada conducted continuous piloting and supportive bench testing of Nechalacho rare earth material on the Alkali Cracking Flow Sheet
- Hatch supporting work

Optimization test work from 2013 to 2015 confirms a technically viable hydrometallurgical process:

- Rare earth flotation concentrate to produce a purified mixed rare earth carbonate concentrate and a zirconium basic sulphate (ZBS) based on mixed alkali cracking, dual-stage hydrochloric acid leaching, use of a multi-stage precipitation/dissolution and solvent extraction for purification
- Purified mixed rare earth carbonate concentrate would be further processed into individual rare earth oxides by a third-party refinery
- Niobium and Tantalum are not recoverable in the current Alkali Cracking Flowsheet
- Cerium removed as impurity

LAKE SUPERIOR LITHIUM PROJECT

Project Overview

- 100% wholly owned subsidiary
- Strategically located in proximity of feed sources
- Site is perfectly positioned to optimize supply chain efficiency
- Close to all main infrastructure
- Partnership with Metso Corp. to leverage sustainable processing technologies
- Collaboration with Qualcomm Technologies Inc.



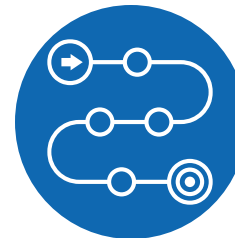
Objective

Aims to support the rapidly expanding electric vehicle market by establishing a state-of-the-art lithium hydroxide facility in Thunder Bay, Ontario.



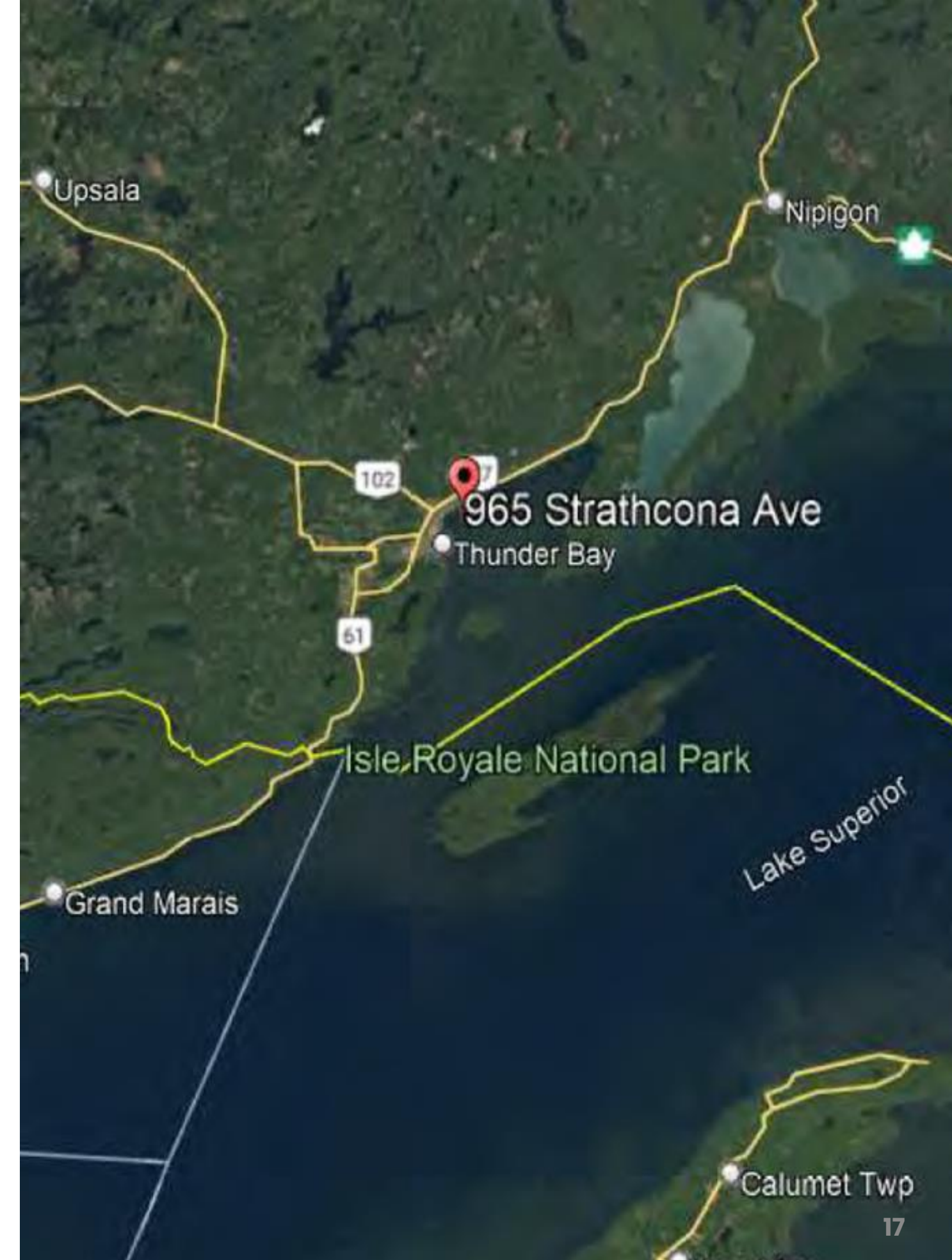
Funding

Exploring funding options, including non-core asset divestments, government loans, grants, and strategic partnerships related to offtake and supply agreements.



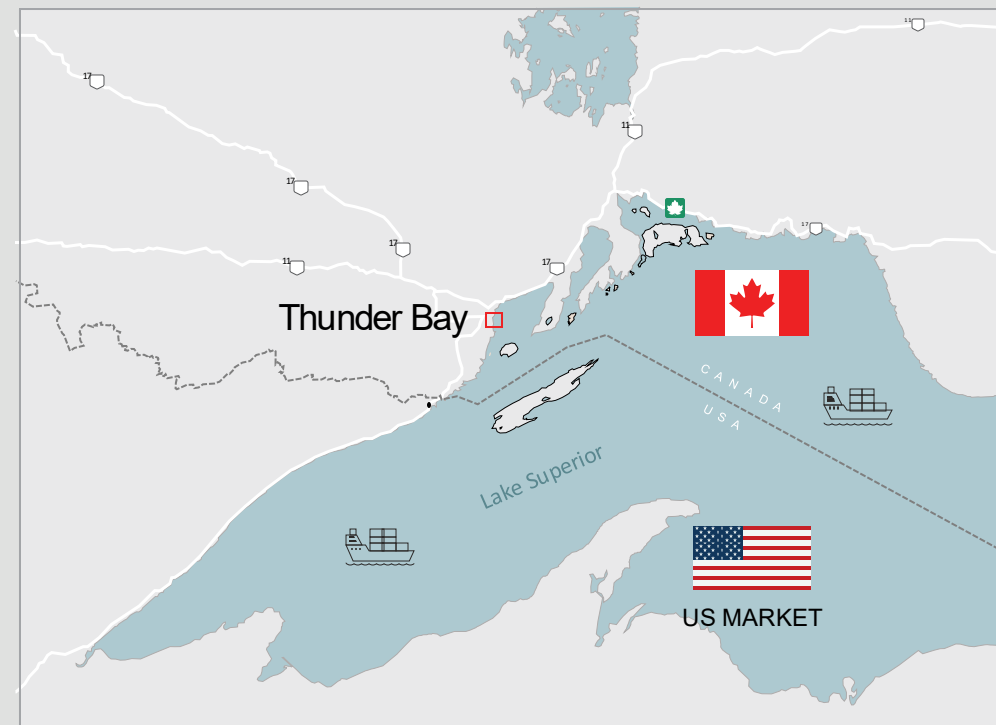
Phase

The first phase of the Project is a 30,000 tpy lithium hydroxide processing facility for which Avalon has recently completed a positive PEA.



LAKE SUPERIOR LITHIUM PROJECT

The Phased Approach



LEGEND

PHASE 1

- 30k LiOH 2028
- Technology & Innovation Centre

PHASE 2

- 60k LiOH 2030

PHASE 3

- 60k LiOH 2033



TSX:AVL

OTCQB:AVLNF

FRA:OU5A



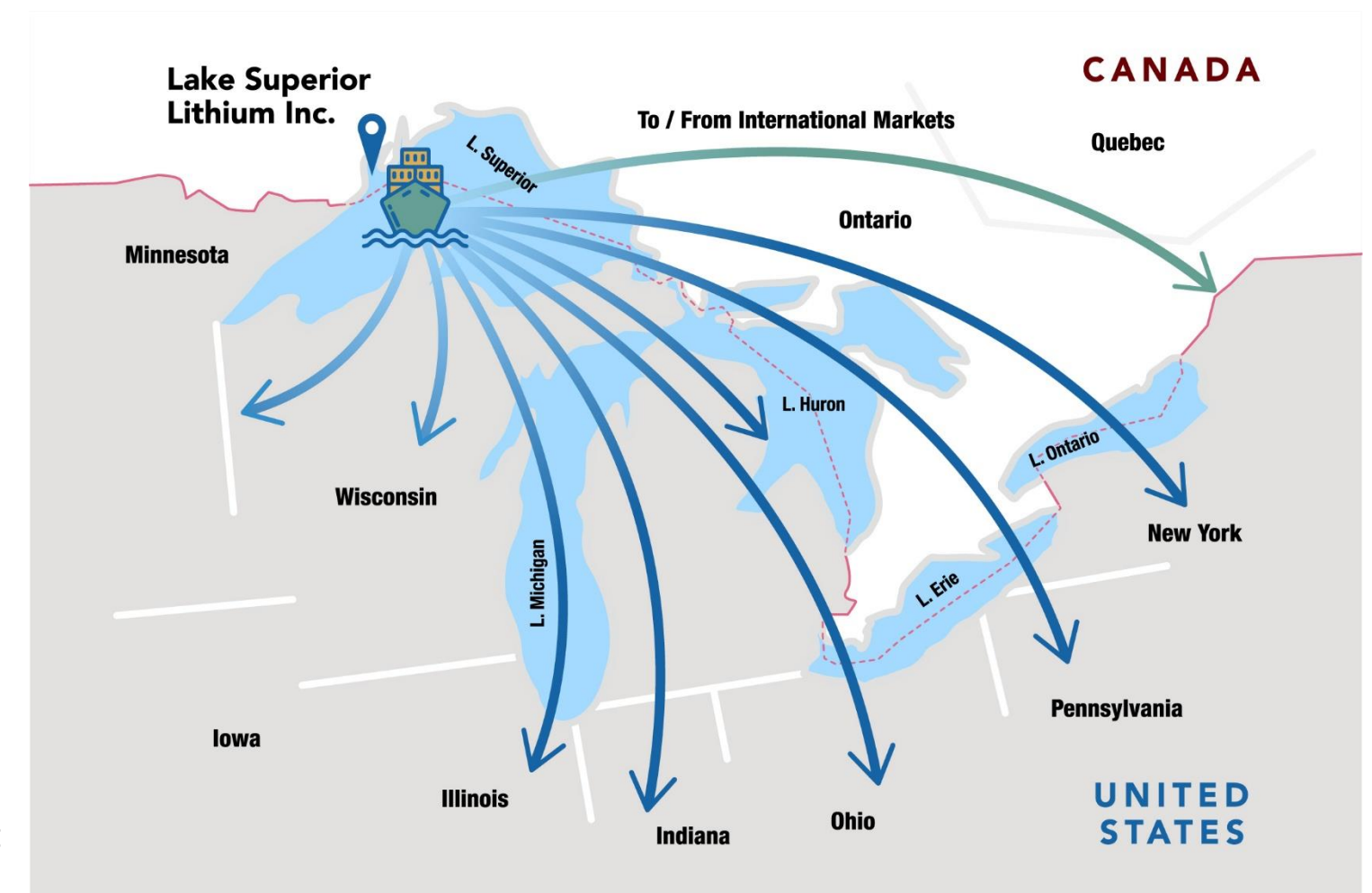
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LAKE SUPERIOR LITHIUM PROJECT

Strategic Investment Overview

- Strategic Location:** Proximity to key markets and resources, supporting efficient supply chains
- Infrastructure Advantage:** Robust infrastructure, including existing buildings, extensive rail connectivity, and a deep-water port
- Supporting Government Incentives:** Leverage Canadian, and U.S. government incentives for green energy and technology projects
- Meeting High Demand:** The facility will help meet the escalating demand for lithium in EVs and renewable energy storage
- Scalable Growth Potential:** Capable of processing Spodumene and Petalite concentrate, Facility designed with scalability in mind, capable of expanding to meet future market demands
- Sustainability Commitment:** Implement environmentally friendly processes to minimize ecological impact and support sustainability goals
- Integrated Lithium Platform:** Host processing, recycling, chemical, and cell manufacturing capabilities at the Thunder Bay site
- Community Partnerships:** We prioritize partnerships with First Nations communities, ensuring that benefits are extended to all regional communities



PEA Financials (CAD \$)

<p>\$35,360 Base Case LiOH \$/t LiOH (USD \$26,000/t LiOH)</p>	<p>\$4.1B After-Tax NPV @ 8% Discount</p>	<p>30 Year Operating Life</p>
<p>\$1,360 Spodumene conc. \$/t (USD \$1,000/t Spodumene @ 6%)</p>		<p>2.5 Year Payback Period</p>
<p>30,000 tpa Annual LiOH production</p>	<p>48% After-Tax IRR</p>	<p>\$1.3B CAPEX</p>

Inflection Point: Structured Path to Revaluation

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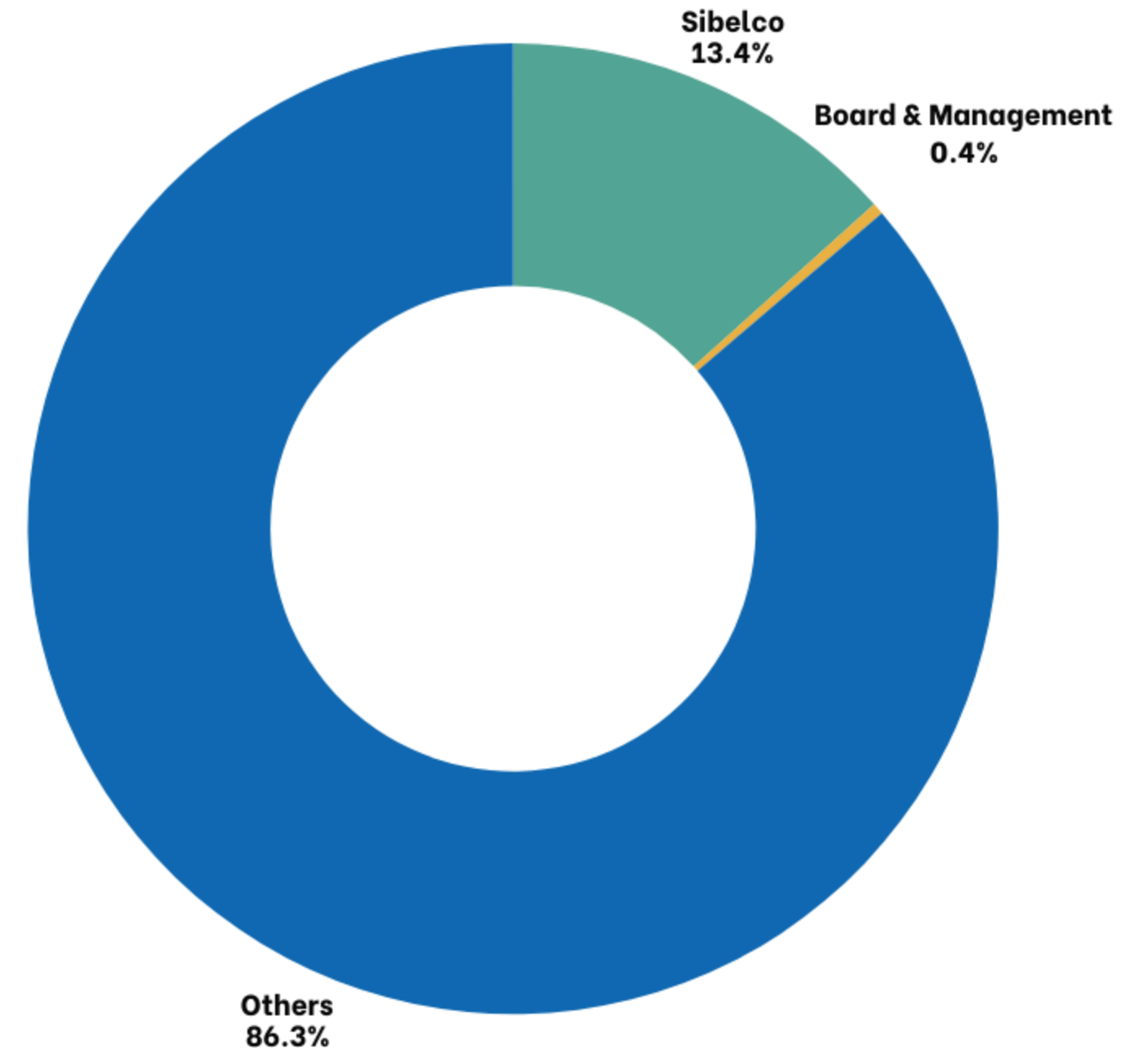
Capital Structure

Description	Value (CAD)
Ticker Symbol	TSX: AVL
52 Week High/Low	\$0.135/0.02
Common Shares Outstanding	834.9M
RSU & DSU	5.2M
Stock options (additional shares if converted)	25.1M
Warrants (additional shares if converted)	221.3M
Fully Diluted Shares	1,086.4M
Market Capitalization	62.6M

As of January 14, 2026

OWNERSHIP STRUCTURE

● Sibelco ● Board & Management ● Others





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THANK YOU

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