



MERYLLION  
RESOURCES CORPORATION

# Exploring REE Critical Metals in Tasmania for EV + Tech

JAN 2024 CORPORATE PRESENTATION

[WWW.MERYLLIONRESOURCES.COM](http://WWW.MERYLLIONRESOURCES.COM)

CSE: MYR

# FORWARD-LOOKING STATEMENTS

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The information in this presentation has been prepared as at Jan 16, 2024. This presentation may contain “forward looking statements” and “forward-looking information” within the meaning of applicable securities laws, including statements regarding the plans, intentions, beliefs and current expectations of Meryllion Resources. (the “Company”) with respect to future business activities and operating performance. Forward-looking information is often identified by the words “may”, “would”, “could”, “should”, “will”, “intend”, “plan”, “anticipate”, “believe”, “estimate”, “expect” or similar expressions and include information regarding: (i) the amount of future production over any period; (ii) assumptions relating to revenues, operating cash flow and other revenue metrics set out in the Company’s disclosure materials; and (iii) future exploration plans. Investors are cautioned that forward-looking information is not based on historical facts but instead reflect the Company’s management’s expectations, estimates or projections concerning future results or events based on the opinions, assumptions and estimates of management considered reasonable at the date the statements are made. Although the Company believes that the expectations reflected in such forward-looking information are reasonable, such information involves risks and uncertainties, and undue reliance should not be placed on such information, as unknown or unpredictable factors could have material adverse effects on future results, performance or achievements of the combined company. Among the key factors that could cause actual results to differ materially from those projected in the forward-looking information are the following: the future exploration activities planned at the Australian operations and anticipated effects thereof; changes in general economic, business and political conditions, including changes in the financial markets; changes in applicable laws; and compliance with extensive government regulation. Exploration results that include geophysics, sampling, and drill results on wide spacings may not be indicative of the occurrence of a mineral deposit. Such results do not provide assurance that further work will establish sufficient grade, continuity, metallurgical characteristics and economic potential to be classed as a category of mineral resource. A mineral resource that is classified as “inferred” or “indicated” has a great amount of uncertainty as to its existence and economic and legal feasibility. It cannot be assumed that any or part of an “indicated mineral resource” or “inferred mineral resource” will ever be upgraded to a higher category of resource. Investors are cautioned not to assume that all or any part of mineral deposits in these categories will ever be converted into proven and probable reserves. This forward-looking information may be affected by risks and uncertainties in the business of the Company and market conditions.

Details of the Company’s procedures and policies for data verification, the reader is referred to the Company’s website at [www.meryllionresources.com](http://www.meryllionresources.com).

## Competent Person’s Statement:

The information in this presentation that relates to Exploration Results is based on information compiled by Ian E Neilson MSc, a Competent Person who is a Registered Professional Geologist #10222 and member of the Australian Institute of Geoscientists and Society of Economic Geologists. Mr. Neilson is a consultant to Meryllion Resources Corporation (“MYR”). Mr. Neilson declares in accordance with the transparency principles of the JORC Code that he has a personal financial interest in the transaction referred to in this presentation in that he controls Mylonite Pty Ltd an entity which owns 50% of the issued shares of Westbury Resources Pty Ltd (“Westbury”) and 50% of the issued shares in Tasmanian Strategic Green Metals Pty Ltd (“TSGM”). Mr. Neilson has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Neilson has consented to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

# MERYLLION'S MISSION

Meryllion is a Canadian company with the mission to explore and develop critical mineral assets through progressive leadership, high standards, innovation, and collaborative partnerships for the benefit of present and future generations.

## Our Vision

Meryllion will sustainably explore and develop critical minerals assets to support the transition to a low-carbon economy. We will focus on leading with integrity, striving for consistency in words and actions, being honest, transparent, and accountable, mitigating health and safety risks, and being progressive and innovative while promoting environmental and social stewardship.

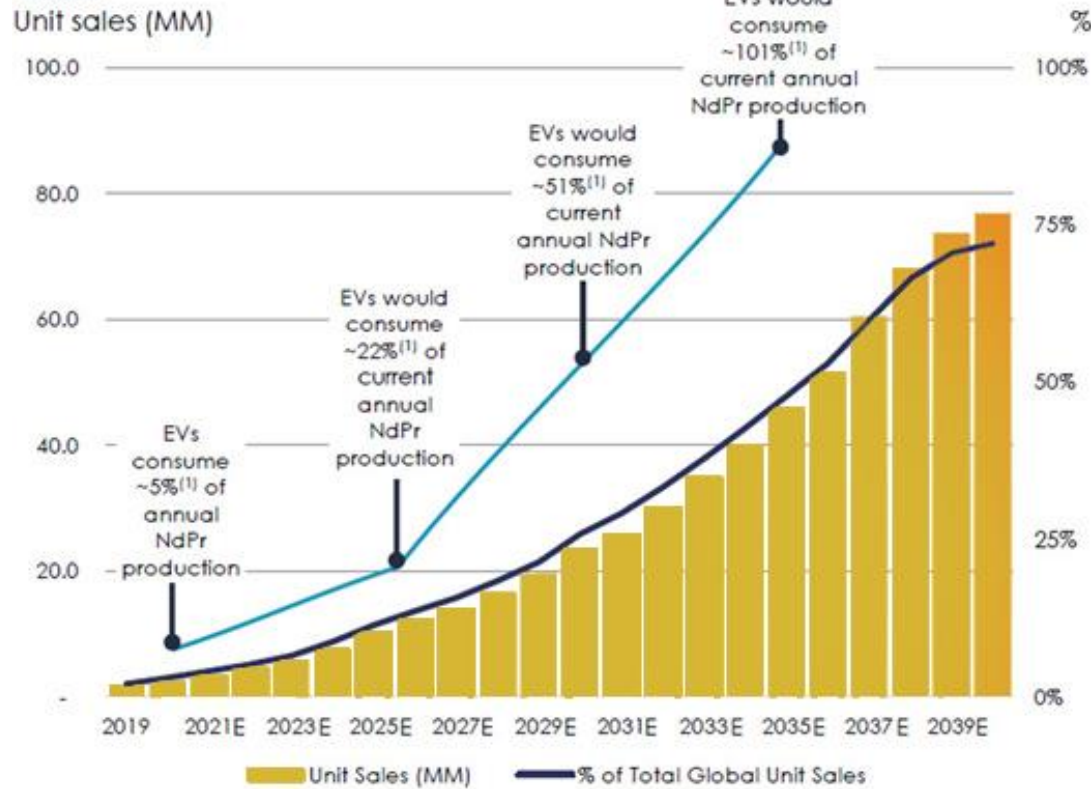
We will act in a way that reflects our core value of respect, for both the environment in which we work and the people we work with. Our approach will foster meaningful relationships with employees and local communities and will build trusted partnerships benefiting Indigenous peoples and shareholders.



# ELECTRIC VEHICLES

## A Driver for Rare Earth Demand

Global Electric Vehicle Units Sales / % of Global Total Vehicle Unit Sales



Source: MP Materials, Morgan Stanley, CRU

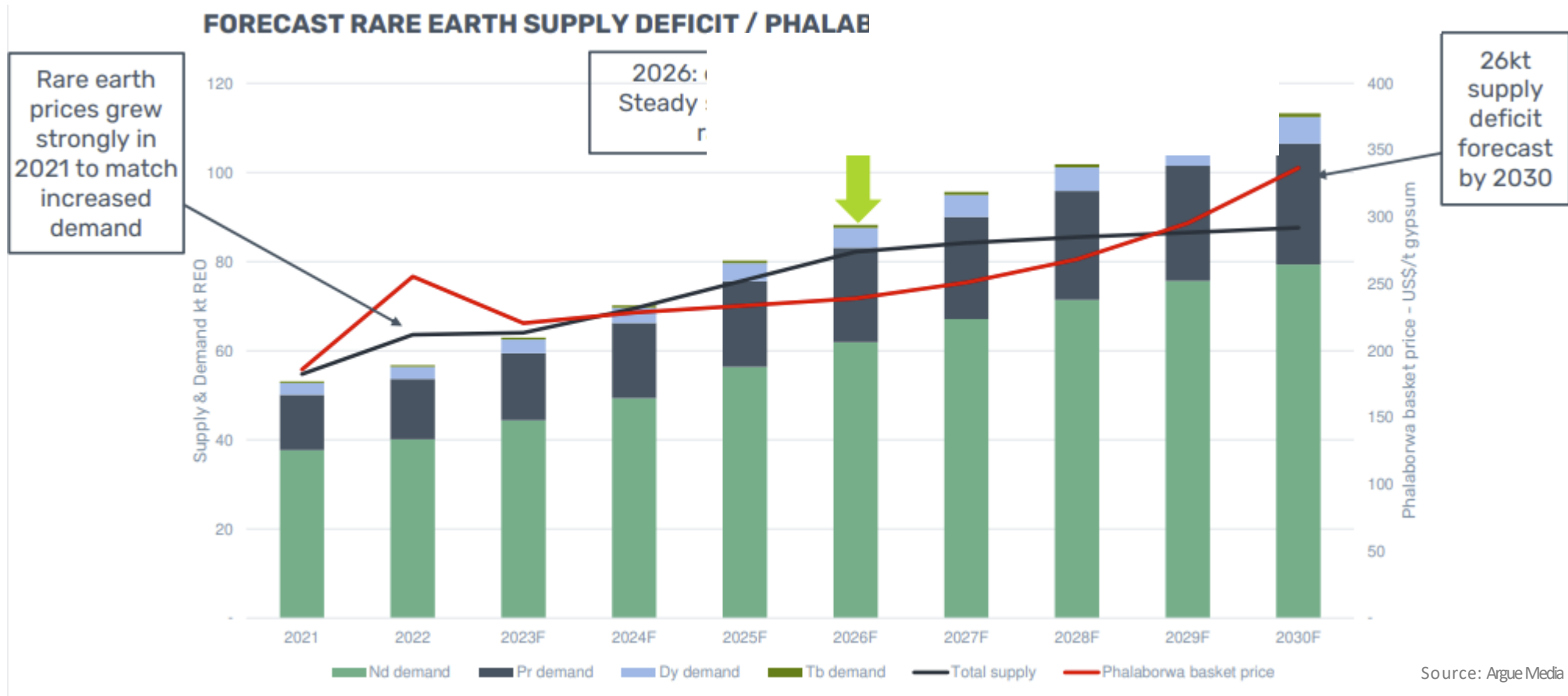
- An electric vehicle (EV) uses 1kg to 3kg of neodymium-iron-boron (NdFeB) magnets in standard drivetrain motors
- Nd FeB magnets are in 93% of all electric vehicles. Tesla, GM, Ford, VW, Hyundai, Toyota and others build vehicles using these magnets
- Every ten million new EVs require ~ 10,000 tonnes of additional neodymium or ~ 20% of current annual global supply. Over 70 million electric vehicles are expected to be sold when internal-combustion-engine vehicles are phased out



# IMMEDIATE REE SUPPLY CRUNCH

Magnet REE Supply Will Grow 8% Per Annum Minimal to match demand

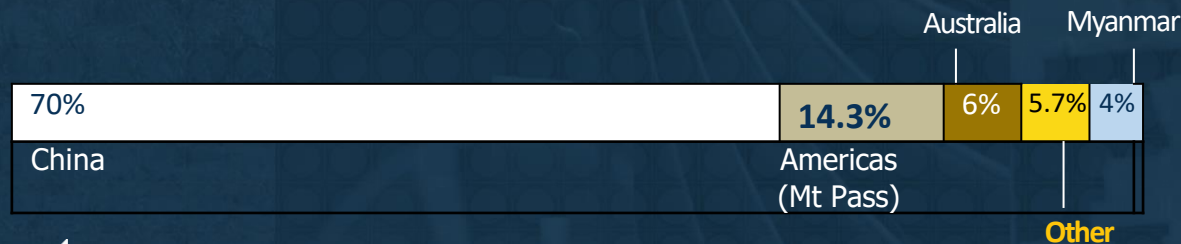
A strategic new source for rare earth is needed outside of China.



# THE CRITICAL ROLE OF RARE EARTH ELEMENTS - APPLICATIONS

AGRICULTURE	AUTOMOTIVE	AEROSPACE/ DEFENSE	CHEMICALS/ CATALYSTS	HEALTHCARE	ELECTRONICS	POWER GENERATION
<ul style="list-style-type: none"> <li>• Farm equipment motors</li> <li>• Fertilizers</li> </ul>	<ul style="list-style-type: none"> <li>• Electric Vehicle Motors</li> <li>• Catalytic converters</li> </ul>	<ul style="list-style-type: none"> <li>• Plane Motors</li> <li>• Submarines</li> <li>• Guidance equipment</li> <li>• Thermal barrier coatings</li> </ul>	<ul style="list-style-type: none"> <li>• Optical-quality glass</li> <li>• Air pollution control</li> </ul>	<ul style="list-style-type: none"> <li>• MRI scanners</li> <li>• CT scanners</li> </ul>	<ul style="list-style-type: none"> <li>• Computer screens</li> <li>• Smartphones</li> <li>• Batteries</li> <li>• Hard drives</li> </ul>	<ul style="list-style-type: none"> <li>• Wind turbines</li> <li>• Other power generators</li> </ul>

Rare Earth Elements 2022 Global Production



Rare Earth Elements 2022 Global Reserves (Estimate)



# TASMANIA MINING DISCOVERIES

- **ABx Resources, an adjacent ASX-listed peer, discovered Significant new REE resource – 2022.**
  - 100% owned Deep Leads
  - Rubble Mound and Windbreak rare-earth projects, with potential to be a globally significant assets.
- ABx recently announced new high-grade drilling results at Deep Leads
  - **RM 336-8m @ 6,406 ppm TREO including 1m @17,333 ppm TREO and 1m @ 12,894 ppm TREO**
- **Excellent Accessibility**

Project accessible by road, with proximity to rail and power infrastructure, and access to a major deep-sea port
- **Deep Leads**

One of four tenements, covering 372 square kilometres in a 50km-plus corridor Devonport area.



# MERYLLION INVESTMENT HIGHLIGHTS

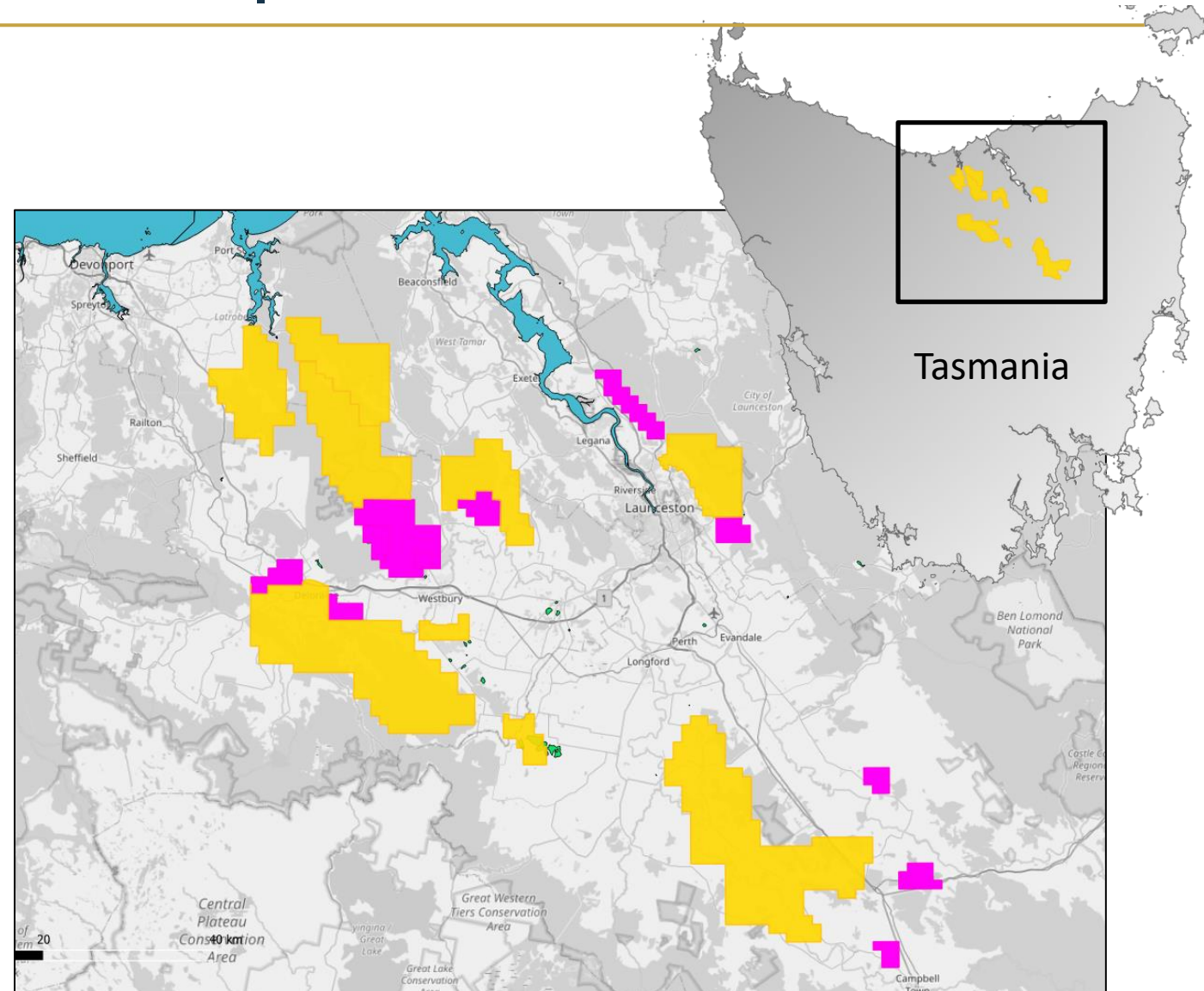
- **High-Quality tenement portfolio**
  - 100% owned by TSGM & WSR
  - Initial sampling grades up to 4,000 ppm TREO grades.
  - Meryllion has rights to earn a 100% interest.
- **Strong Insider ownership**
  - Insider own 85%
- **Excellent Accessibility**
  - Project accessible by road, with proximity to rail and power infrastructure, and access to a major deep-sea port
- **Technically Strong – top quartile REE Grades %**
  - Open pit project with favorable, conventional metallurgy
- **Experienced Technical Team**
  - Working with industry-leading partners including BHP, Newmont, Newcrest.





# SOLID EARLY REE GRADES | ON TREND TO ABx

- Field evidence from **2,800 ppm up to 4,000 ppm TREO** including high-grade Neodymium, Turbidium in Project Areas
- Grade (some samples above 1,000 ppm Nd/Pr/Dy/Tb oxides)
- Early metallurgical studies suggest sample recovery up to 70% using Ammonium Sulfate at pH 4
- Most clay hosted REE projects requires high-cost extraction with <PH 1
- Targets at shallow depth, typically surface down to 12 meters
- Very low levels of radioactive elements (thorium and uranium) (none detected)
- The consolidated projects are well positioned to make the next major iREE Discovery



# LARGE CLAIM BLOCK HOLDING NEAR ABx'S DISCOVERY

Targeting NEW Ionic Clay Rare Earth Resources in Northern Tasmania

**Prospective Geology**  
 Comprising  
**Alkali Basalts**

**Jurassic Dolerite**

**Alluvial Flats**

1. Shallow clay layer – Al-rich-laterite & clays with dolerite grains
2. River gravel layers in a few places
3. Weathered dolerite
4. Fresh dolerite – columnar jointed sills hundreds of meters thick

The projected areas are hosted to the interpreted source rocks (Alkali Basalts) and hosts environments Jurassic Dolerite and Alluvial Flats.

**ABx DEEP LEADS iREE**

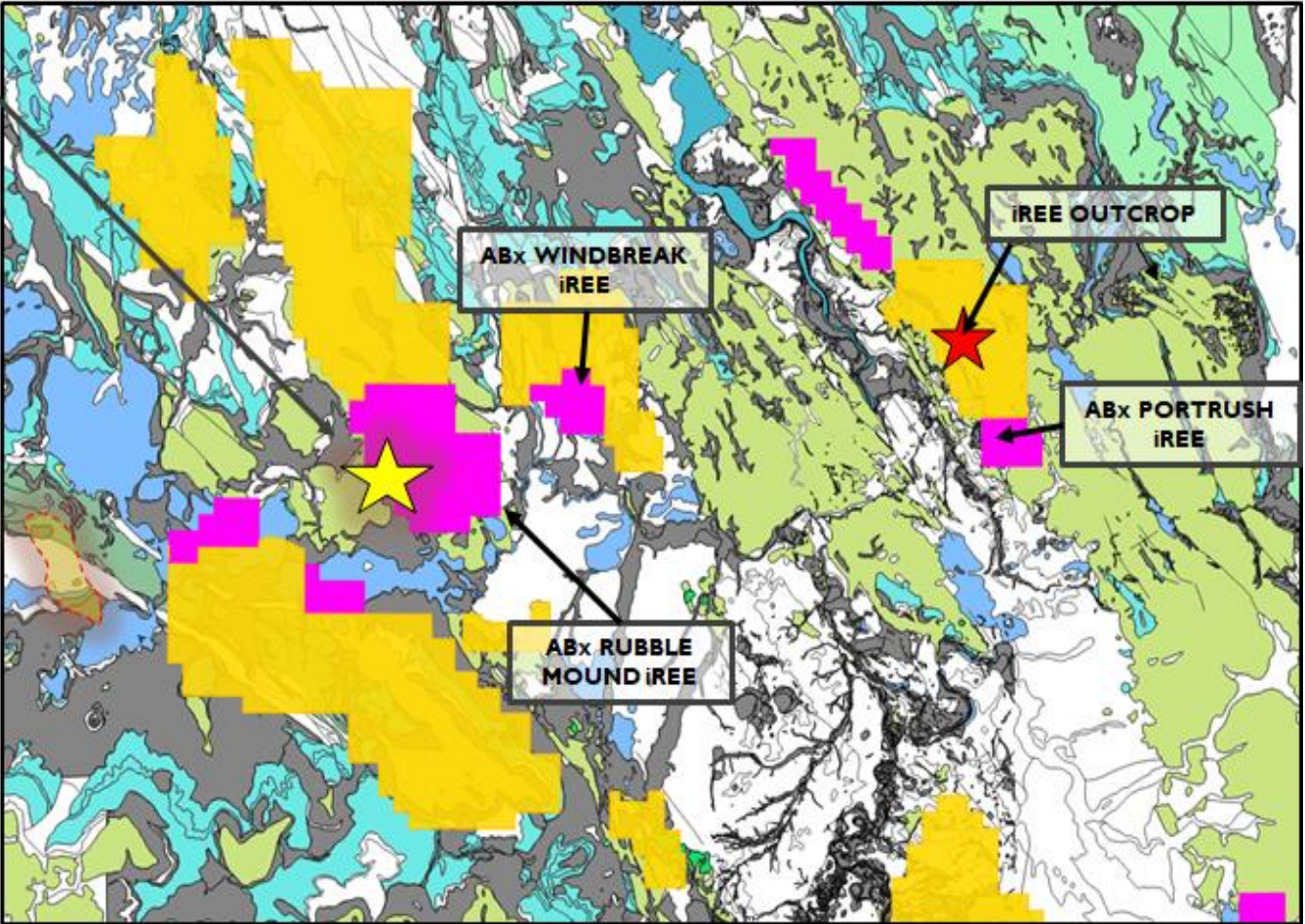
**GREEN METALS EXPLORATION TENEMENTS**

MYR 100%  
 ABx Ground

**Alkali Basalts**

**Jurassic Dolerites**

**Alluvial Flats**



# EXPERIENCED MANAGEMENT + BOARD



**Richard Revelins**  
CEO + Director

Richard has over 35 years' experience in international investment banking specializing in corporate finance and corporate advice, predominantly in the mining and natural resources industry. He was formerly the chairman of Atlas Iron Limited and Gold Road Resources Limited.



**David Steinpreis**  
Non-Exec Chairman

David has had a long and distinguished career as a partner of an international accounting firm where he specialized in strategic corporate advice and taxation.



**Chuck John Forrest**,  
CPA, CA CFO

Chuck is a CPA CA who qualified with PWC in Canada. With 25 years' experience in the minerals sector,



**Guy Charette**  
Non-Exec Director

Guy is a transaction-oriented corporate finance lawyer in Rimon Law's Montreal office. He has over thirty years of experience advising on securities, corporate finance, and mergers and acquisitions.



**Ian E Neilson (BSc MSc R.P. Geo MSEG MAIG MGSA)** Chief Geologist

Ian E Neilson is a Registered Professional Economic Structural Geologist with a proven track record in project generation resulting in discovery with significant global exploration and mining experience in orogenic gold, porphyry copper, economic mineralization systems and base-metal deposits, >20-years as a consultant for Jigsaw Geoscience & Model Earth working on numerous projects for clients that include Newmont, First Quantum Minerals, BHP, Newcrest Mining, Placer Dome, KCGM and many others.



**Michael Kozub**  
Corp Secretary

Michael is a lawyer with a practice focused on securities, corporate finance, mergers and acquisitions, and corporate and commercial law. He also provides advice and assistance to reporting issuers on their ongoing corporate governance.



HANCOCK  
PROSPECTING



RIMON



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**JUNIOR MINER WITH TEAM THAT'S  
CREATED \$5 BILLION IN VALUE.**

# FINANCIAL SNAPSHOT

## CAPITAL STRUCTURE as of January 17, 2024

Shares Outstanding. 42 M

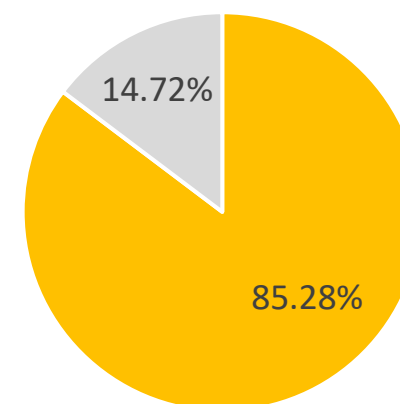
Warrants 8 M

Options 2 M

**Fully Diluted 52 Million**

Capital Structure (CND in millions)	
Shares	42.1 m
Share Price (Oct 7, 2023)	\$0.05
Market Cap (at \$0.04)	\$2.10 M
Cash (at October 7, 2023)	\$0.30 M
Enterprise Value (EV)	\$1.8 M

Shareholder Breakdown (Post Jan PP)



■ Top 20 ■ All other Shareholders

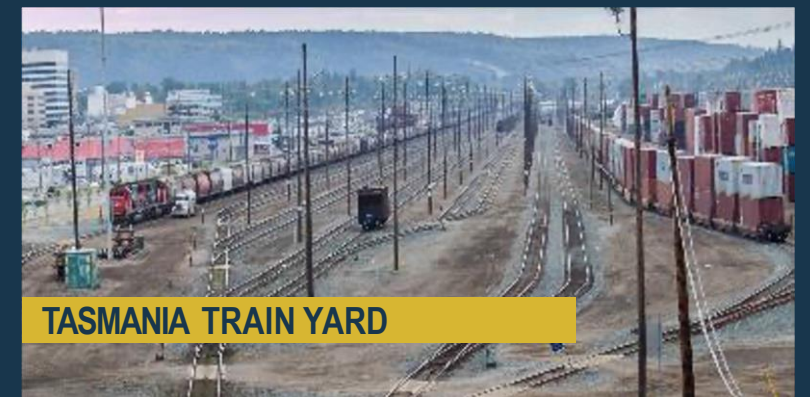


# STRATEGIC LOCATION - TOWN, POWER, RAIL

- The 100% owned **500(sq miles)** Westbury + TSGM project
- Power lines right at property – accessible power.
- Tasmania is punctuated with small towns Burnie and Devonport being the major mining centres, with a skilled workforce.
- **Port of Devonport is 100 km to the north with rail infrastructure.**



TasPort expansion at Port of Burnie.



TASMANIA TRAIN YARD



# STRONG IREE LANDSCAPE SETTING

**Positioning for Success  
iREE Landscape Settings**

The diagram illustrates the geological and landscape components of a strong iREE setting. It is divided into three main zones:

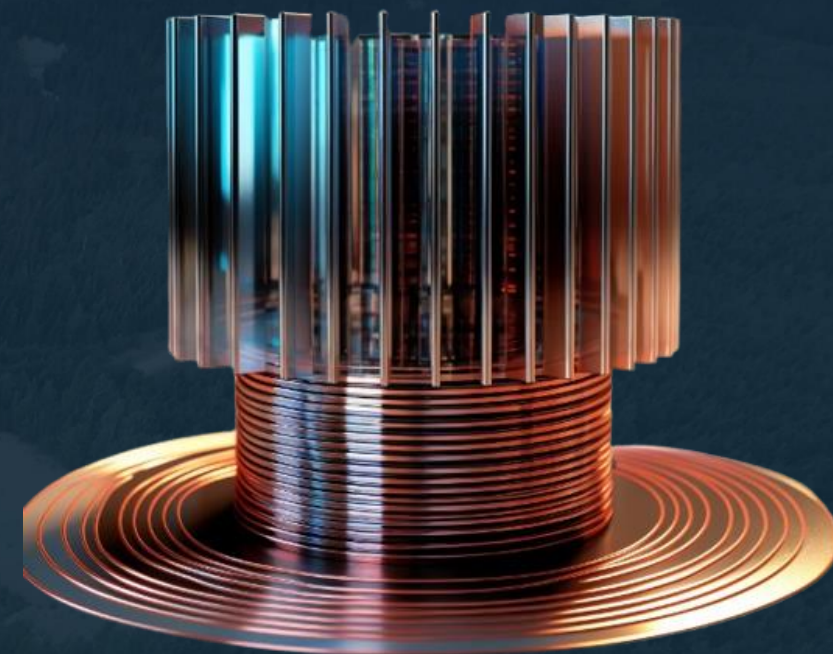
- Exposed bedrock areas:** Includes the mountain top, mountain shoulder, and hillsides. The underlying bedrock is Dolerite.
- Residual weathering area:** Located on the hillsides, it shows the transition from the full-weathered Dolerite Horizon to the semi-weathered Dolerite Horizon. The iREE ore body is situated within the full-weathered horizon.
- Alluvial area:** Includes the river floodplains and the river valley. It features alluvial deposits and a river channel.

Soil horizons shown in the diagram include the surficial humic horizon, the pedolith horizon, the full-weathered Dolerite Horizon (containing the iREE ore body), and the semi-weathered Dolerite Horizon. The base of the diagram shows the Dolerite Bedrock.



# DEAL TERMS FOR REE PROJECT

- DD completed and option exercised January 24, 2023.
- **Earn 50%**
  - i) spending AUD \$300,000 (CAD \$267,480) on exploration w/n 180 days of exercise
  - ii) Commit to spend further AUD \$200,000 (CAD \$178,320) w/n further 90 days
  - iii) Paying W/T seed investors AUD \$100,000 (CAD \$89,160)
  - iv) Allotting W/T seed investors \$100,000 (CAD \$89,160) in shares
- Earn on a staged basis **additional 30%** by
  - i) Spending AUD \$1,200,000 (CAD \$1,044,000)
  - ii) Paying W/T AUD \$600,000 (CAD \$522,000) cash
  - iii) Allot W/T AUD \$480,000 (CAD \$348,000) in shares
- Right to acquire remaining 20% (100% in total) at Decision To Mine (DTM) stage at independent valuation

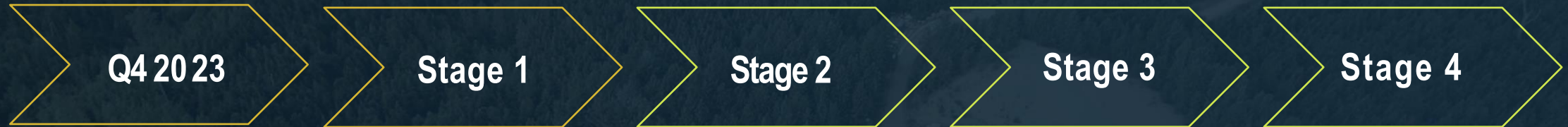


- Neodymium magnet – one of the main REE metals used in tech



# PROJECT TIMELINE

- Acquisition of Tasmania REE project
- Corporate management change
- Market maker + IR
- Soils Geochemistry Program
- Ground Mapping
- Target Generation
- Financing \$600,000 CAD
- Exploration start
- Exploration Drilling
- AEM Program
- Additional Surface Geochemistry Traverses
- Assay results from drilling and sampling
- Decision Point
- Resource Drilling
- Metallurgical recovery testing
- Finance larger program





# FUNDING PROCEEDS FROM FINANCING

## STAGE 1: TARGET DEFINITION AND INITIAL DRILLING

	\$
NI 43-101 technical report	30,000
Data Compilation + Target definition + permitting	20,000
Initial Drilling (500m)	<u>\$130,000</u>
	<u>\$180,000</u>

## STAGE 2: DRILLING

Reporting	50,000
Further Drilling - AC (110 p/meter)	550,000
Geochemical Assay	250,000
Logistics + Field Work	<u>250,000</u>
	<u>1,100,000</u>
	<b>\$1,280,000</b>





**MERYLLION**  
RESOURCES CORPORATION

## CONTACT

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## EXCHANGE LISTINGS

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TSX-V: **MYR**

OTCQB: **MYRLF**





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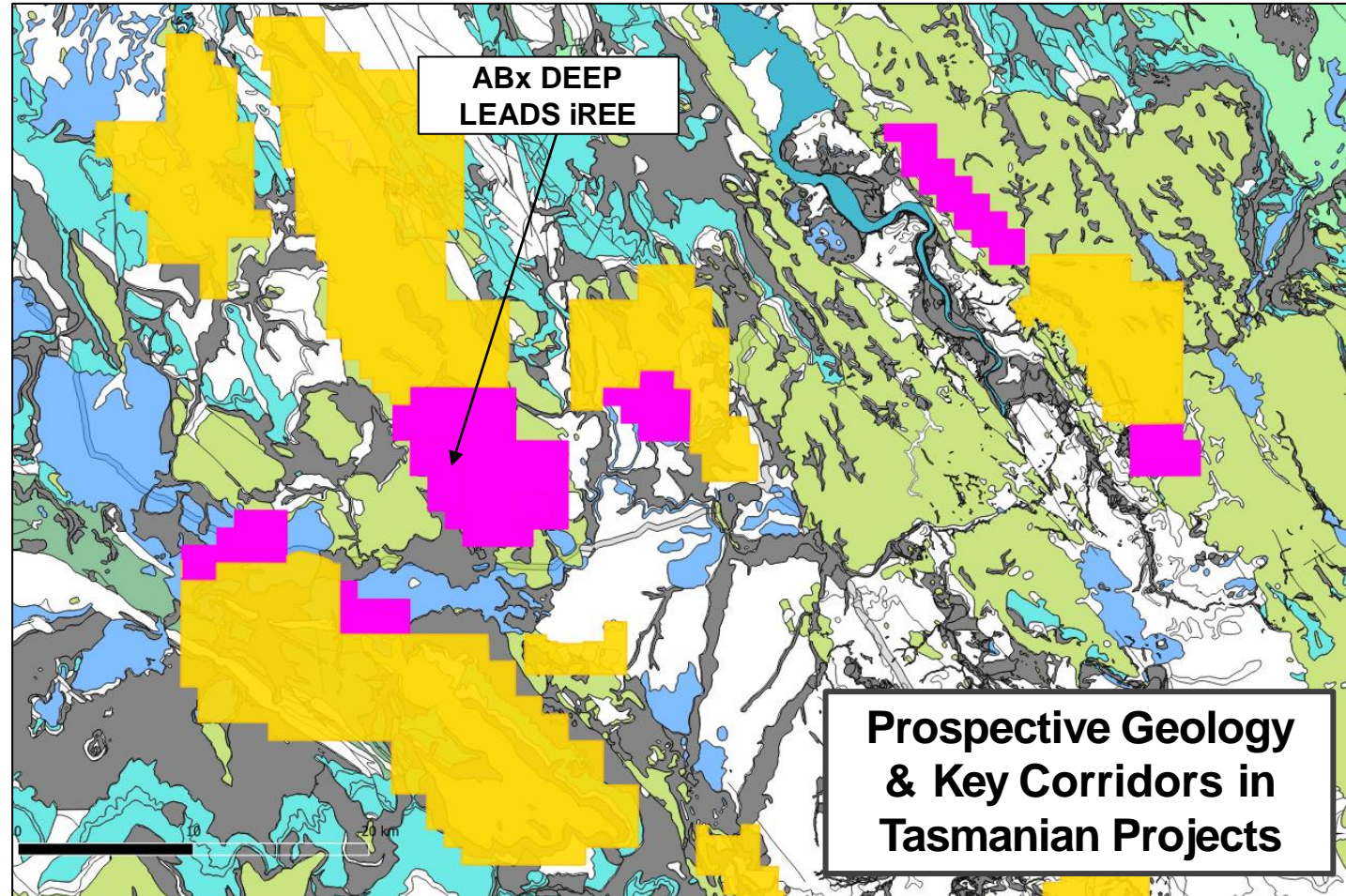
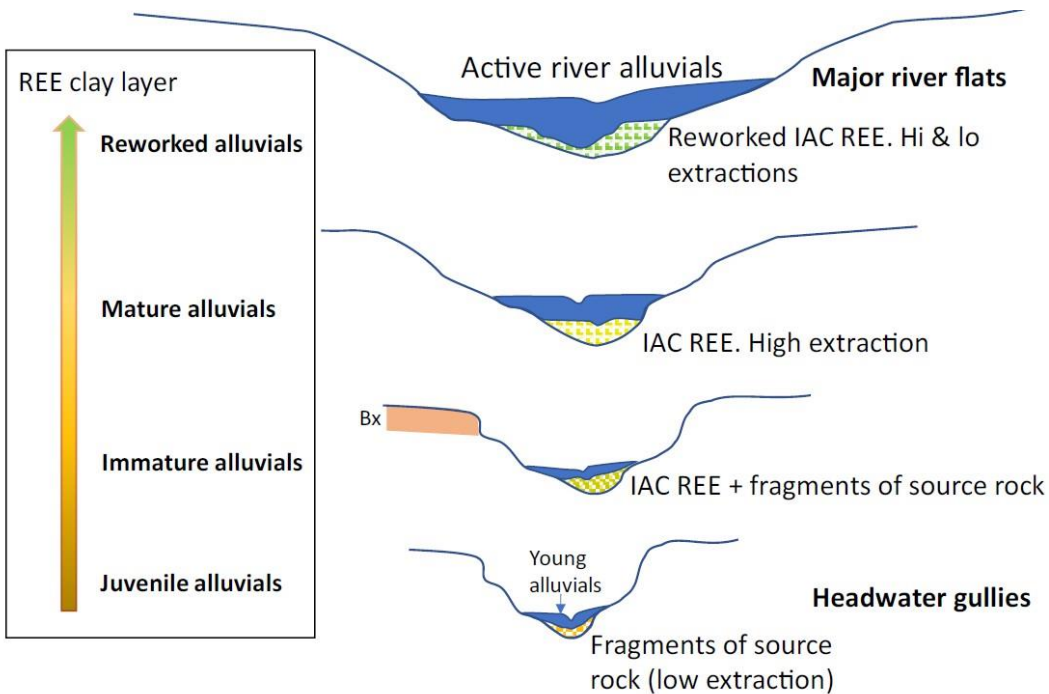
## APPENDIX

# Geology of a new REE Play

Targeting NEW Ionic Clay Rare Earth Resources in Northern Tasmania

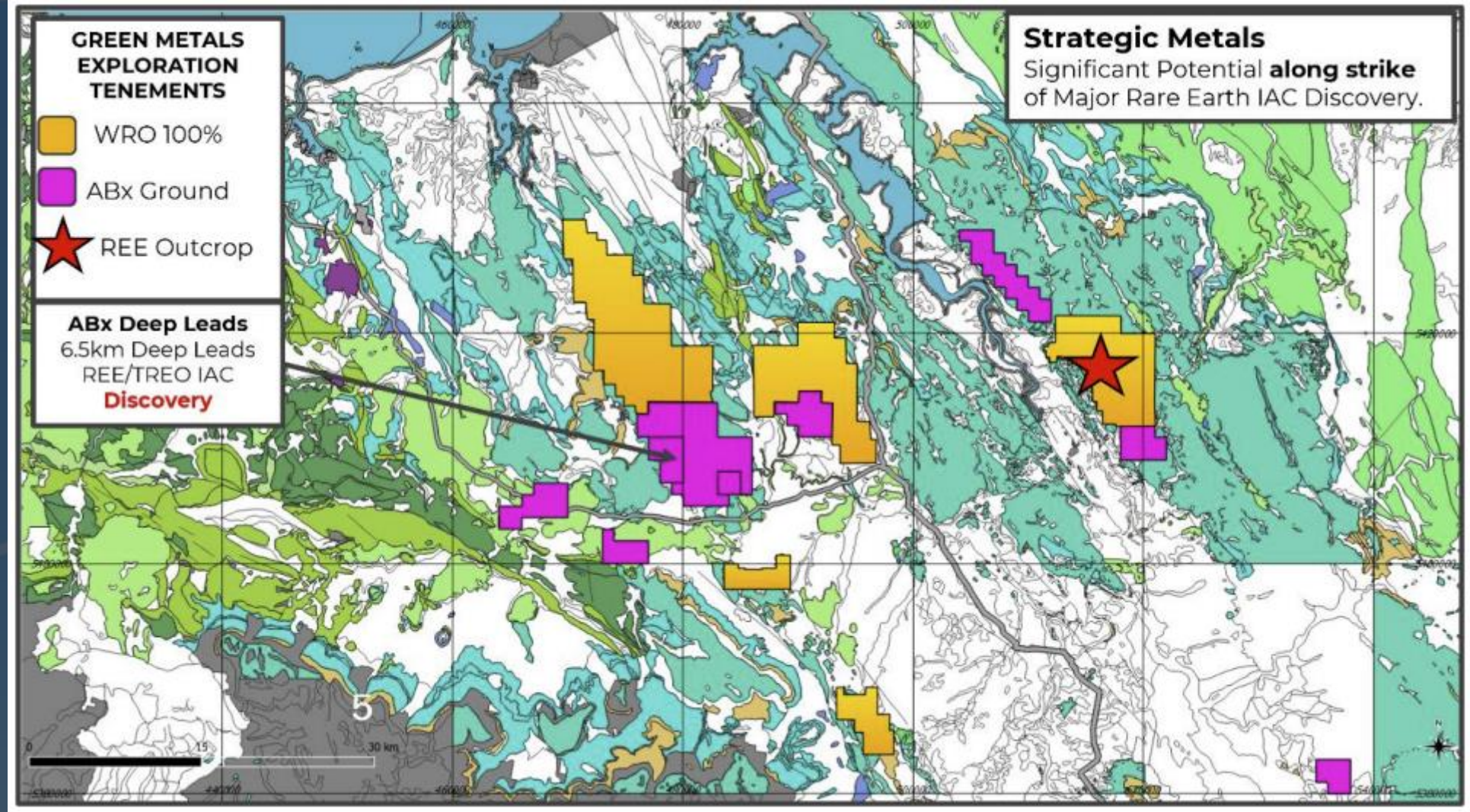
Along strike of a tremendous 6.5km size size new ionic/iREE discovery

## Targeting Key Geological Environments



Prospective Geology & Key Corridors in Tasmanian Projects





# MINERALOGY AND HIGH- GRADE SAMPLE COMPARED TO GLOBAL REE DEPOSITS

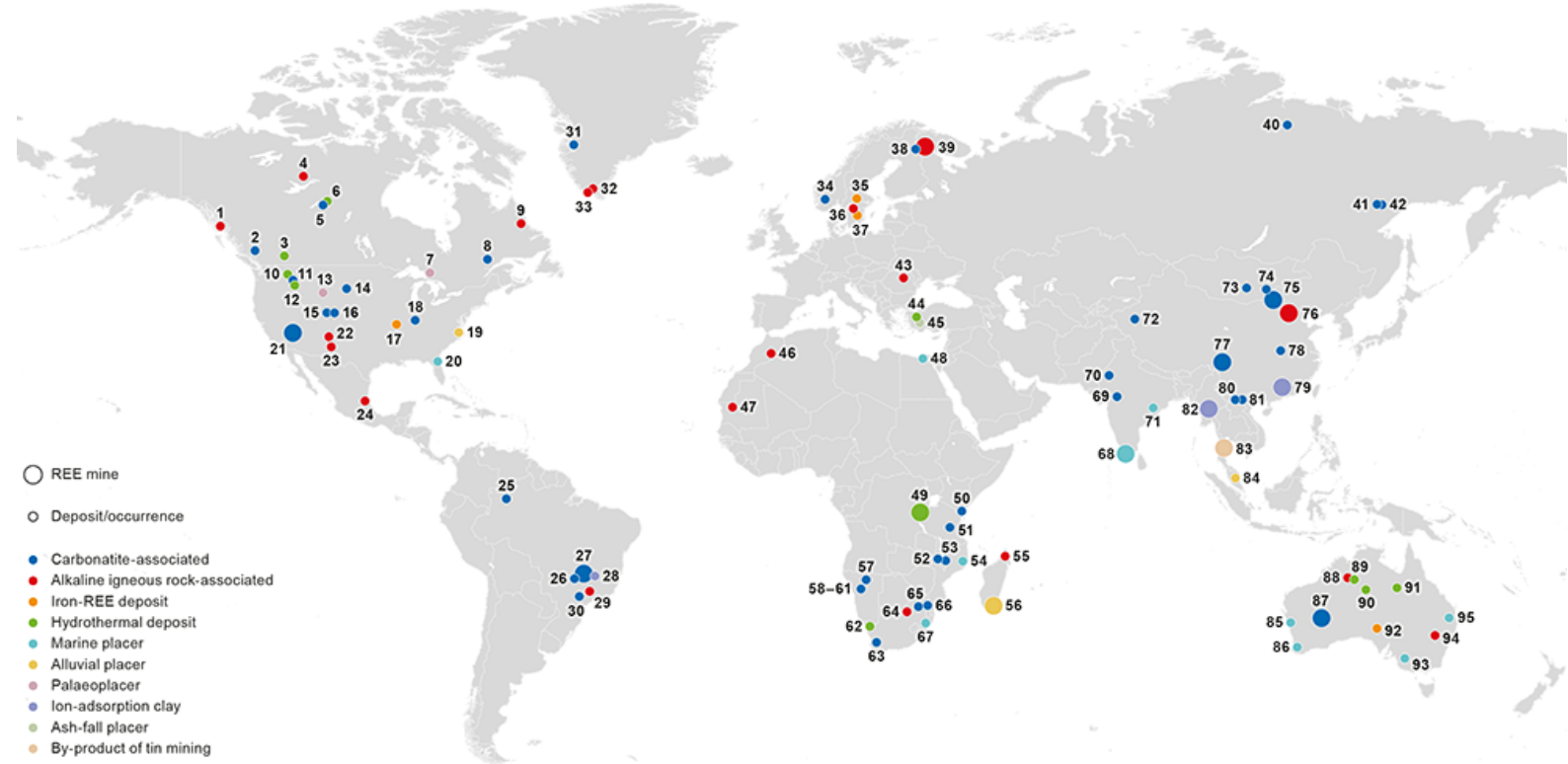
Project	Stage	Grade (% TREO)	Flotation Concentration Grade and Recovery	Minerology	Annual Production
<b>WESTBURY + TSGM</b>	Exploration	0.4% Samples <b>ABx (adjacent) recent results 6.4% TREO</b>	N/A	Unknown	N/A
Mt. Pass (MP Materials, MP- NYSE) USA	Producer	8%	60% TREO, 67% recovery	Bastnaesite	~40,000 tpy TREO
Mt. Weld (Lynas Corp., LYC- ASX) Australia	Producer	7%	40% TREO, 70% recovery	Monazite	~20,000 tpy TREO
Bayan Obo China	Producer	6%	50% TREO, 60% recovery	Bastnaesite, Monazite	~50,000 tpy TREO
Sichuan China	Producer	3.7%	50% - 60% TREO	Bastnaesite	~ 30,000 TREO



## REE Ionic Clay Projects are rare but high grade

- 2 out of 75 on British Geological Survey was ionic clay adsorption
  - With grade and lower cost potential recovery to quick production, it's a solid reason why ABx's discovery resulted in the excitement it did.

# Global rare earth element (REE) mines, deposits and occurrences (May 2021)



- REE mine
- Deposit/occurrence
- Carbonatite-associated
- Alkaline igneous rock-associated
- Iron-REE deposit
- Hydrothermal deposit
- Marine placer
- Alluvial placer
- Palaeoplacer
- Ion-adsorption clay
- Ash-fall placer
- By-product of tin mining

1 Bokan Mountain, USA	20 Green Cove Springs, USA	39 Lovozero and Khibina complexes, Russia	58 Okorusu, Namibia	77 Maoniuping/Dalucao, China
2 Alay, Canada	21 Mountain Pass, USA	40 Tomtor, Russia	59 Eureka, Namibia	78 Miaoya, China
3 Rock Canyon Creek, Canada	22 Gallinas Mountains, USA	41 Gornoe Ozero, Russia	60 Kalkfeld, Namibia	79 Xunwu/Longnan, China
4 Thor Lake, Canada	23 Pajarito Mountain, USA	42 Khamna, Russia	61 Ondurakorume, Namibia	80 Nam Xe, Vietnam
5 Nisikkatch, Canada	24 Sierra de Tamaulipas, Mexico	43 Ditrău, Romania	62 Steenkampsdraai, South Africa	81 Dong Pao, Vietnam
6 Hoidas Lake, Canada	25 Morro dos Seis Lagos, Brazil	44 Kizilcaören, Turkey	63 Zandkopsdrift, South Africa	82 Northern Myanmar
7 Elliot Lake, Canada	26 Catalão I, Brazil	45 Aksu Dıamas, Turkey	64 Pilanesberg Alkaline Complex, South Africa	83 Thai Peninsula, Thailand
8 Saint-Honoré, Canada	27 Araxá, Brazil	46 Tamazeght complex, Morocco	65 Naboomspruit, South Africa	84 Perak, Malaysia
9 Strange Lake, Canada	28 Serra Verde, Brazil	47 Bou Naga, Mauritania	66 Phalabowra (Palabora), South Africa	85 Eneabba, Australia
10 Snowbird, USA	29 Pocos de Caldas, Brazil	48 Nile Delta and Rosetta, Egypt	67 Richards Bay, South Africa	86 Jangardup, Australia
11 North Fork, USA	30 Barra do Itapirapuá, Brazil	49 Karonge (Gakara), Burundi	68 Chavara, India	87 Mount Weld, Australia
12 Lemhi Pass, USA	31 Sarfartóq, Greenland	50 Mrima, Kenya	69 Amba Dongar, India	88 Brockman, Australia
13 Bald Mountain, USA	32 Motzfeldt, Greenland	51 Wigu Hill, Tanzania	70 Sarnu, India	89 Browns Range, Australia
14 Bear Lodge, USA	33 Ilimaussa, Greenland	52 Kangankunde, Malawi	71 Orissa, India	90 Nolans Bore, Australia
15 Iron Hill, USA	34 Fen, Norway	53 Songwe Hill, Malawi	72 Wajiertage, China	91 Mary Kathleen, Australia
16 Wet Mountains, USA	35 Bastnäs, Sweden	54 Congolone, Mozambique	73 Mushgai Khudag, Mongolia	92 Olympic Dam, Australia
17 Pea Ridge, USA	36 Norra Kärr, Sweden	55 Ambohimirahavy, Madagascar	74 Lugin Gol, Mongolia	93 WIM 150, Australia
18 Hicks Dome, USA	37 Olsesrum, Sweden	56 Mandena, Madagascar	75 Bayan Obo, China	94 Dubbo Zirconia, Australia
19 Carolina placers, USA	38 Sokli, Finland	57 Etanero, Namibia	76 Weishan, China	95 Fraser Island, Australia

## RARE EARTH DEPOSITS TYPES

Type	Where	Notes
Carbonatite Deposits	China, Mongolia (Bayan Obo 83%)	Carbonatite rocks are one of the most important sources of rare earth elements. These rocks are composed mainly of carbonate minerals (such as calcite and dolomite) and often contain significant concentrations of REEs. The Bayan Obo deposit in China, one of the largest rare earth mines in the world, is associated with carbonatite intrusions.
Alkaline Igneous Rocks		Alkaline igneous rocks, including syenites and nepheline syenites, can host REE deposits. These rocks are enriched in alkaline minerals like feldspars and nepheline and can contain elevated concentrations of rare earth elements.
Hydrothermal Veins and Deposits	USA	Hydrothermal ore deposits can also host rare earth elements. These deposits form when hot fluids rich in REEs migrate through fractures and cavities in rocks. Vein-type deposits, such as those found in the Bear Lodge Mountains in the United States, are an example of this type of REE occurrence.
Ionic Adsorption Clay Deposits	Tasmania (ABx)	In some tropical and subtropical weathering environments, ion adsorption clay deposits can accumulate significant concentrations of rare earth elements. These deposits are formed as weathering processes cause leaching of REEs from parent rocks, which are then adsorbed onto clay minerals in the soil.
Phosphate Deposits	Florida, USA	Phosphate rocks, used primarily for fertilizer production, can contain elevated concentrations of rare earth elements. Some phosphate deposits, such as those in Florida, USA, have been found to have significant REE content.
Sedimentary Deposits:		Certain sedimentary environments can accumulate rare earth elements. Sedimentary deposits can form in marine or lacustrine settings when dissolved REEs precipitate out of solution due to changes in water chemistry.
Iron-Oxide-Copper-Gold (IOCG) Deposits	North America	In some IOCG deposits, rare earth elements can be present as accessory minerals associated with copper and gold mineralization.



Exciting discoveries in Tasmania could represent **SIGNIFICANT** production supplying Australia, Europe, Asia.

Production (Tonnes REO)	Country	Ore Conc	Mixed Chem Conc	Separation Oxides
140,000	China	China	China	China
38,000	United States	United States	China	China
30,000	Myanmar	Myanmar	Myanmar, China	China
25,000	Canada	Canada	Canada	North America TBA
17,000	Australia	Australia	Malaysia	Malaysia, China
?	Tasmania	Australia	Malaysia	Malaysia, China
4,000	Madagascar	Madagascar	China	China
3,000	India	India	India	India
2,700	Russia	Russia	Estonia	Estonia
1,000	Brazil	Brazil	Brazil	Brazil
1,000	Vietnam	Vietnam	Vietnam	Vietnam
500	Barundi	Barundi	China	China

