

# BMO 34th Global Metals, Mining & Critical Minerals Conference

23-26 February 2025

# ioneer

## Critical Materials in the U.S. for a Sustainable Planet

# Disclaimer

This presentation has been prepared as a summary only and does not contain all information about Ioneer Ltds (Ioneer or the Company) assets and liabilities, financial position and performance, profits and losses, prospects, and the rights and liabilities attaching to Ioneer's securities. The securities issued by Ioneer are considered speculative and there is no guarantee that they will make a return on the capital invested, that dividends will be paid on the shares or that there will be an increase in the value of the shares in the future.

Ioneer does not purport to give financial or investment advice. No account has been taken of the objectives, financial situation or needs of any recipient of this presentation. Recipients of this presentation should carefully consider whether the securities issued by Ioneer are an appropriate investment for them in light of their personal circumstances, including their financial and taxation position. Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company's securities.

## Forward Looking Statements

Various statements in this presentation constitute statements relating to intentions, future acts and events which are generally classified as "forward looking statements". These forward-looking statements are not guarantees or predictions of future performance and involve known and unknown risks, uncertainties and other important factors (many of which are beyond the Company's control) that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed in this presentation.

For example, future reserves described in this presentation may be based, in part, on market prices that may vary significantly from current levels. These variations may materially affect the timing or feasibility of particular developments.

Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates", "potential" and similar expressions are intended to identify forward-looking statements.

Ioneer cautions security holders and prospective security holders to not place undue reliance on these forward-looking statements, which reflect the view of Ioneer only as of the date of this presentation.

The forward-looking statements made in this presentation relate only to events as of the date on which the statements are made. Except as required by applicable regulations or by law, Ioneer does not undertake any obligation to publicly update or review any forward-looking statements, whether as a result of new information or future events. Past performance cannot be relied on as a guide to future performance.

## Competent Persons Statement

In respect of Mineral Resources and Ore Reserves referred to in this presentation and previously reported by the Company in accordance with JORC Code 2012, the Company confirms that it is not aware of any new information or data that materially affects the information included in the public reports titled "Mineral Resource update delivers high-grade, shallow Shelf Zone, outside of critical habitat" dated 30 April 2024, released on ASX. Further information regarding the Mineral Resource estimate can be found in that report. All material assumptions and technical parameters underpinning the estimates in the report continue to apply and have not materially changed.

In respect of production targets referred to in this presentation, the Company confirms that it is not aware of any new information or data that materially affects the information included in the public report titled "Ioneer Delivers Definitive Feasibility that Confirms Rhyolite Ridge as a World-Class Lithium and Boron Project" dated 30 April 2020. Further information regarding the production estimates can be found in that report. All material assumptions and technical parameters underpinning the estimates in the report continue to apply and have not materially changed.

## No offer of securities

Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell Ioneer securities in any jurisdiction or be treated or relied upon as a recommendation or advice by Ioneer.

## Reliance on third party information

The views expressed in this presentation contain information that has been derived from publicly available sources that have not been independently verified. No representation or warranty is made as to the accuracy, completeness or reliability of the information. This presentation should not be relied upon as a recommendation or forecast by Ioneer.

## Lithium Carbonate Equivalent

The formula used for the Lithium Carbonate Equivalent (LCE) values quoted in this presentation is:  $LCE = (\text{lithium carbonate tonnes produced} + \text{lithium hydroxide tonnes produced} * 0.880)$

## Note

All \$'s in this presentation are US\$'s except where otherwise noted.

# What Differentiates Ioneer



Rhyolite Ridge is now:

## ✓ Permitted

Federal ROD received in October 2024

## ✓ Offtakes Completed

Binding agreements with Ford (SK), Toyota-Panasonic and EcoPro

## ✓ Engineered

State of the art facility with construction ready to commence in 2025  
Over 70% design complete

## ✓ Debt

US\$996 million loan from U.S. Dept of Energy Loan Programs Office executed January 2025<sup>1</sup>

## ✓ Funding

US\$490 million conditional equity from Sibanye-Stillwater

## ✓ Dual Revenue & Growth Potential

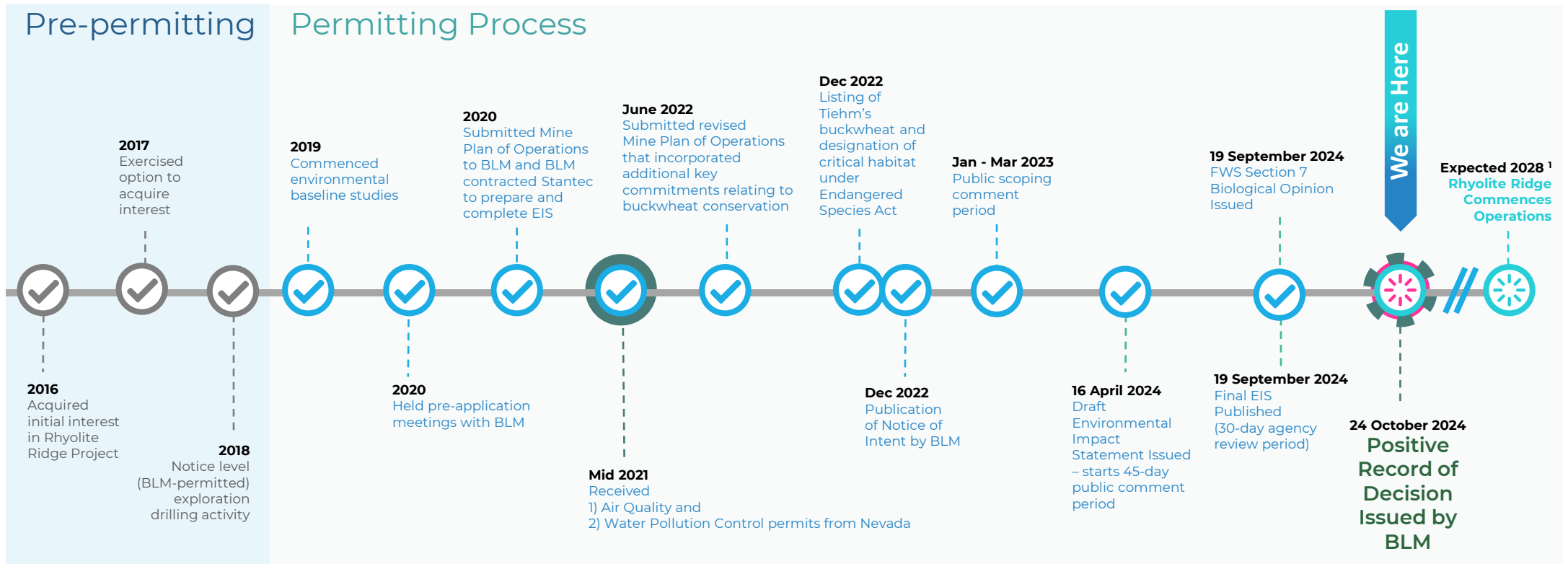
3.2Mt LCE and 12.8Mt Boric Acid Mineral Resource Estimate<sup>2</sup>  
Multi-generational asset

<sup>1</sup> See announcement dated 20 January 2025 entitled "Rhyolite Ridge Lithium-Boron Project closes upsized US\$996 million loan from U.S. Department of Energy to accelerate domestic critical mineral production"

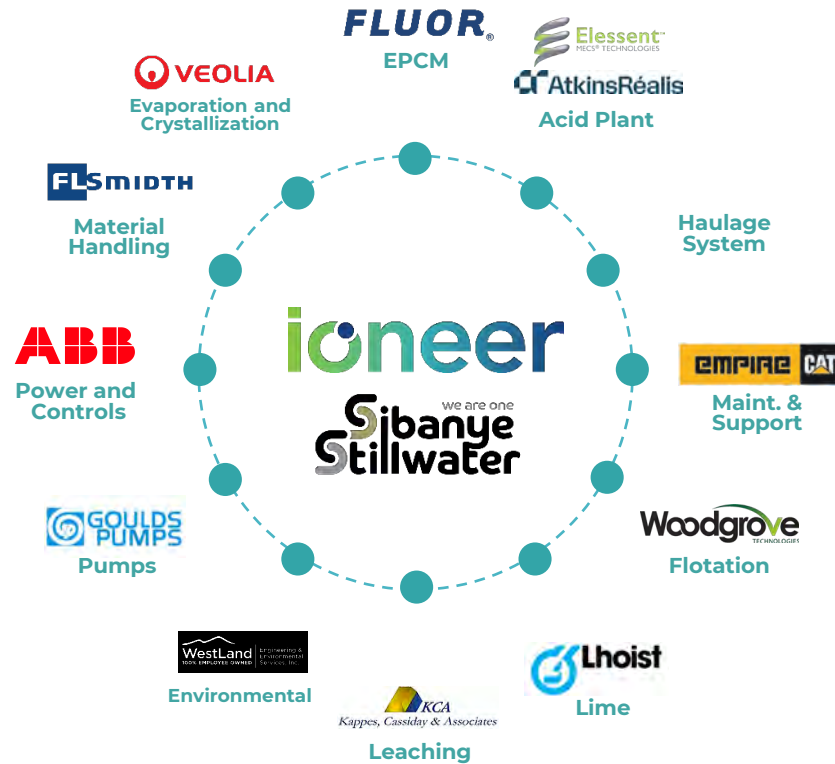
<sup>2</sup> See Company announcement titled "Mineral Resource update delivers high grade, shallow shelf zone, outside of critical habitat" dated 30 April 2024

# Rhyolite Ridge is Permitted

 Federal ROD received in October 2024



# Rhyolite Ridge has the Right Partners



## Technically led approach

>US\$198m  
invested to date

PFS, Pilot Plant, DFS completed,  
Engineering ready. Fluor is EPCM

## Signed binding lithium offtake agreements



EcoPro Innovation

dragonfly ENERGY

## Funding

Sibanye-Stillwater to be a 50% JV  
partner for US\$490m<sup>1</sup>

U.S. Dept of Energy Loan Programs Office  
Conditional Commitment offer for a loan of  
up to US\$996m<sup>2</sup>

<sup>1</sup>Subject to closing conditions as outlined in the 16 September 2021 announcement "Sibanye-Stillwater to Invest US\$490 Million to Advance Rhyolite Ridge to Production"  
<sup>2</sup>See announcement dated 20 January 2025 entitled "Rhyolite Ridge Lithium-Boron Project closes upsized US\$996 million loan from U.S. Department of Energy to accelerate domestic critical mineral production"



# Rhyolite Ridge a U.S. Construction Ready Project

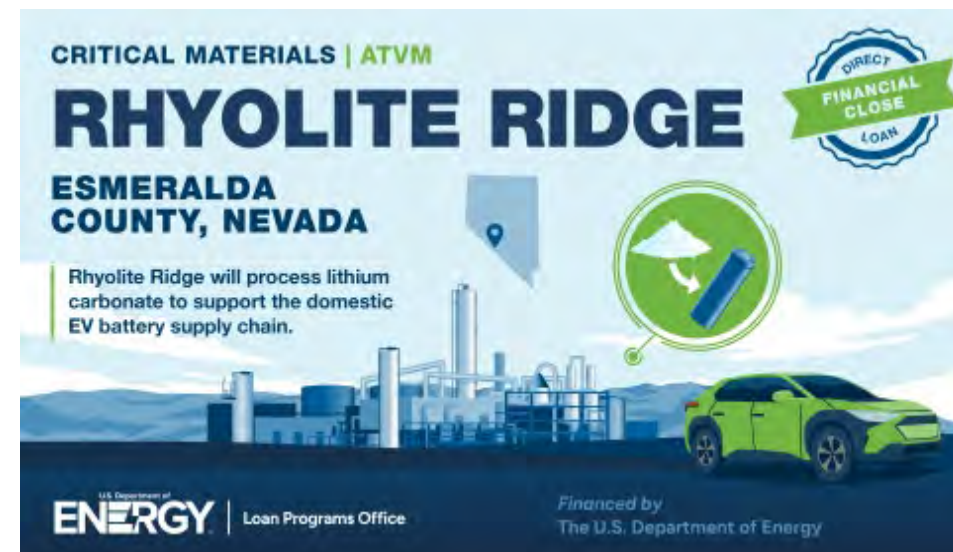




# U.S. DOE ATVM Loan: Favourable Project Financing

Advanced Technology Manufacturing Loan from U.S. Department of Energy to support domestic production and processing of critical materials<sup>1</sup>

Loan Amount	<ul style="list-style-type: none"> <li>US\$996 million             <ul style="list-style-type: none"> <li>Principal: \$968 million</li> <li>Capitalised interest during construction: \$28 million</li> </ul> </li> </ul>
Interest Rate	<ul style="list-style-type: none"> <li>U.S. Treasury Rate             <ul style="list-style-type: none"> <li>Interest rate is fixed from the date of each advance for the term of the loan at long-dated U.S. treasury rate</li> </ul> </li> </ul>
Tenor	<ul style="list-style-type: none"> <li>20 years</li> </ul>
Other Key Terms	<ul style="list-style-type: none"> <li>Customary covenants and events of default for a project finance loan facility</li> <li>Customary conditions precedent to advances for a project finance loan facility             <ul style="list-style-type: none"> <li>Include closing Joint Venture, securing necessary additional required funding and a project model bringdown</li> </ul> </li> </ul>



<sup>1</sup> See announcement dated 20 January 2025 entitled "Rhyolite Ridge Lithium-Boron Project closes upsized US\$996 million loan from U.S. Department of Energy to accelerate domestic critical mineral production"

# Once in Production (~2028) <sup>1</sup>

Rhyolite Ridge will ...

- ✓ Be the **first new lithium production** in the U.S. in over 60 years
- ✓ Be the **first new boron production** in the U.S. in over 100 years
- ✓ **Quadruple U.S. Lithium production** and account for about 5% of projected demand in 2030
- ✓ **Add 26% to U.S. boron production** and account for about 17% of projected U.S. demand in 2030

BEFORE LEACH








AFTER LEACH





# Rhyolite Ridge **Next steps**

-  Close conditional Sibanye-Stillwater agreement to fund \$490 million for a 50% share of the Rhyolite Ridge Project
-  Procure and close any additional required funding
-  Ioneer and Sibanye-Stillwater to make a “Final Investment Decision” on the Rhyolite Ridge Project
-  Construction to start 2025<sup>1</sup>. Expected to take approximately 36 months including procurement of long-lead items
-  First Production – Expected 2028<sup>1</sup>

# Why Ioneer - Why Rhyolite Ridge



Permitted



Binding  
offtakes are  
in place



Over 70%  
engineering  
complete



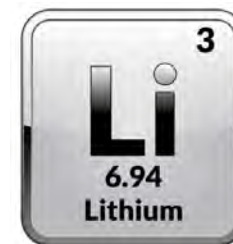
US\$996m in  
Debt from  
U.S. DOE  
ATVM<sup>1</sup>



US\$490m in  
conditional  
Project Equity



Expansion  
potential for  
future growth



**NEAR TERM FINAL INVESTMENT DECISION**

<sup>1</sup>See announcement dated 20 January 2025 entitled "Rhyolite Ridge Lithium-Boron Project closes upsized US\$996 million loan from U.S. Department of Energy to accelerate domestic critical mineral production"

# ioneer

The next U.S. Lithium Producer

[www.ioneer.com](http://www.ioneer.com).  
[ir@ioneer.com](mailto:ir@ioneer.com)



ioneer

Nasdaq : IONR

ASX : INR

[www.ioneer.com](http://www.ioneer.com)



# Corporate Snapshot

## Capital Structure

(As at 4 February 2025)

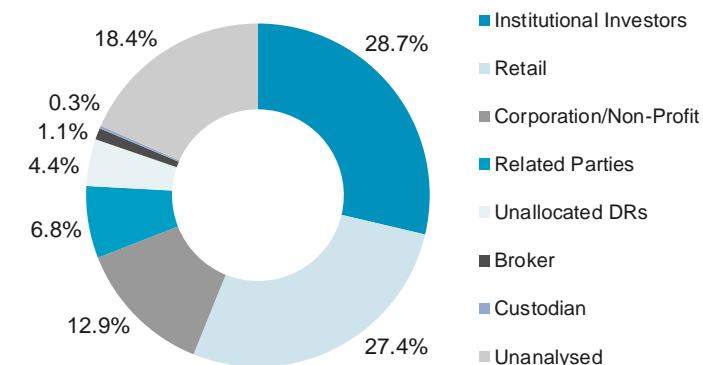
Shares Outstanding	<b>2.4b</b>
Performance Rights And Options Outstanding	<b>58.5m</b>
Cash Balance – 31 December 2024 <sup>1</sup>	<b>US\$21.6m</b>
Share Price ASX – 4 February 2025	<b>A\$0.17</b>
ADR Price NASDAQ (1 ADR = 40 ASX Shares)	<b>US\$4.37</b>
Market Capitalisation – 4 February 2025	<b>A\$406m</b>

## Research Coverage



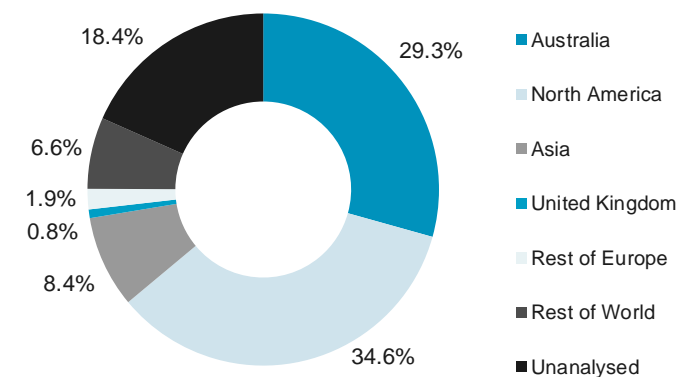
## Total Shareholder Composition

at 31 December 2024



## Total Shares by Geography

at 31 December 2024



# Proven & Experienced Team

## BOARD OF DIRECTORS



**JAMES D. CALAWAY**  
Executive Chair  
Former Non-executive  
chair of Orocobre Ltd



**BERNARD ROWE**  
Managing Director  
CEO & Founder



**ALAN DAVIES**  
Non-executive Director  
Former Chief Executive,  
Energy & Minerals of Rio Tinto



**ROSE MCKINNEY-JAMES**  
Non-executive Director  
Former President and CEO  
of Corporation for Solar Tech  
& Renewable Resources



**MARGARET WALKER**  
Non-executive Director  
Former VP Engineering and  
Technology Centers, Dow  
Chemical



**STEPHEN GARDINER**  
Non-executive Director  
Former CFO Oil Search

## EXECUTIVE TEAM



**IAN BUCKNELL**  
CFO & Company Secretary



**MATT WEAVER**  
Snr VP Engineering &  
Operations



**CHAD YEFTICH**  
VP Corporate Development  
& External Affairs



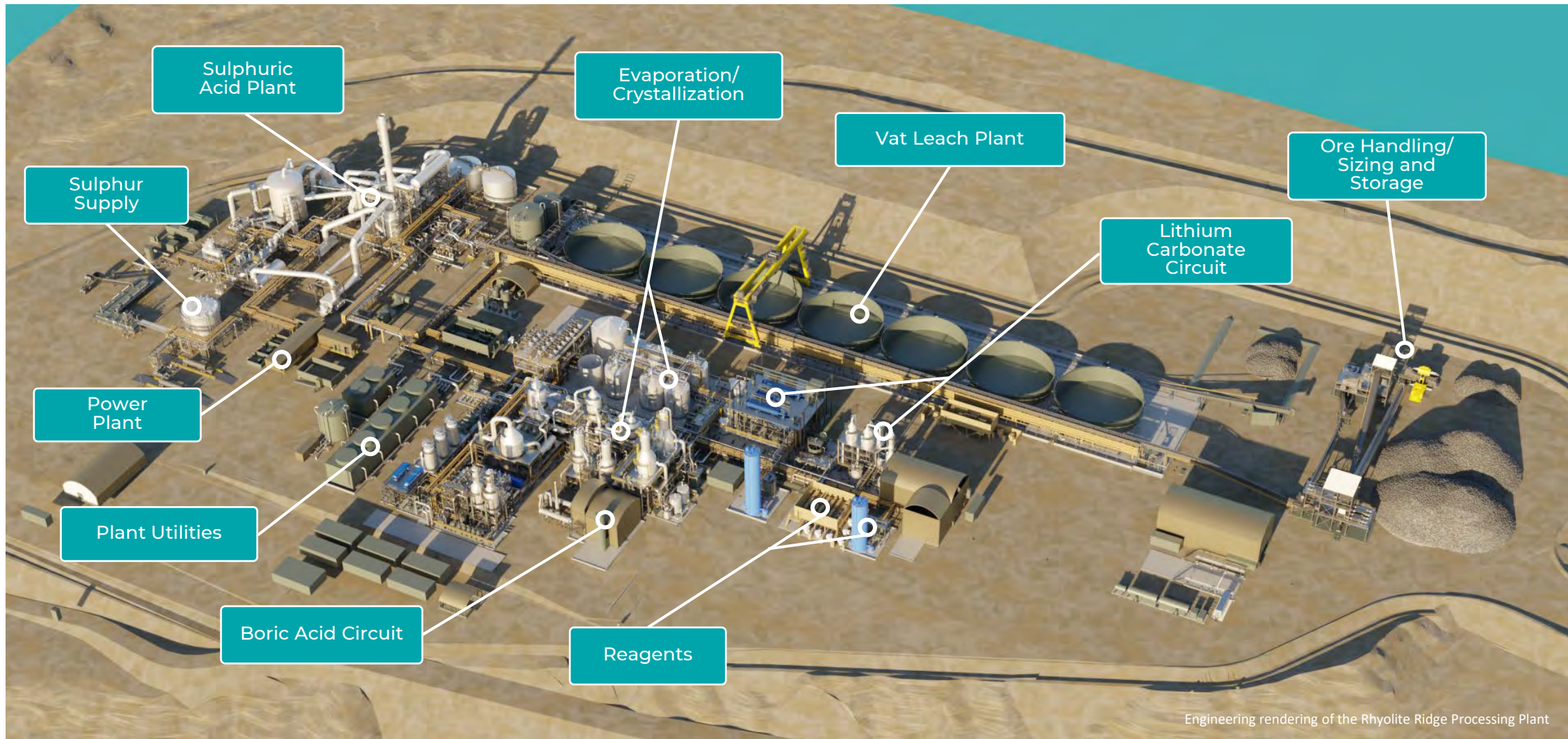
**KEN COON**  
VP Human Resources



**YOSHIO NAGAI**  
VP Commercial Sales  
& Marketing



# Proposed Rhyolite Ridge Process Plant



Engineering rendering of the Rhyolite Ridge Processing Plant



# Commitment to Sustainability

**DESIGNED TO MINIMISE IMPACT ON THE ENVIRONMENT**

## Low Emissions



- Majority of on-site power from CO<sup>2</sup>-free energy production, low greenhouse gas emissions.
- Mobile equipment meets Tier 4 EPA standards

## Low Water Usage



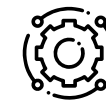
- Project design implements best-in-class water utilization while recycling the majority of water usage.
- Expected to use 30x less water per tonne than existing U.S. production

## Small Mine Footprint



- No evaporation ponds or tailings dam

## Efficient Equipment



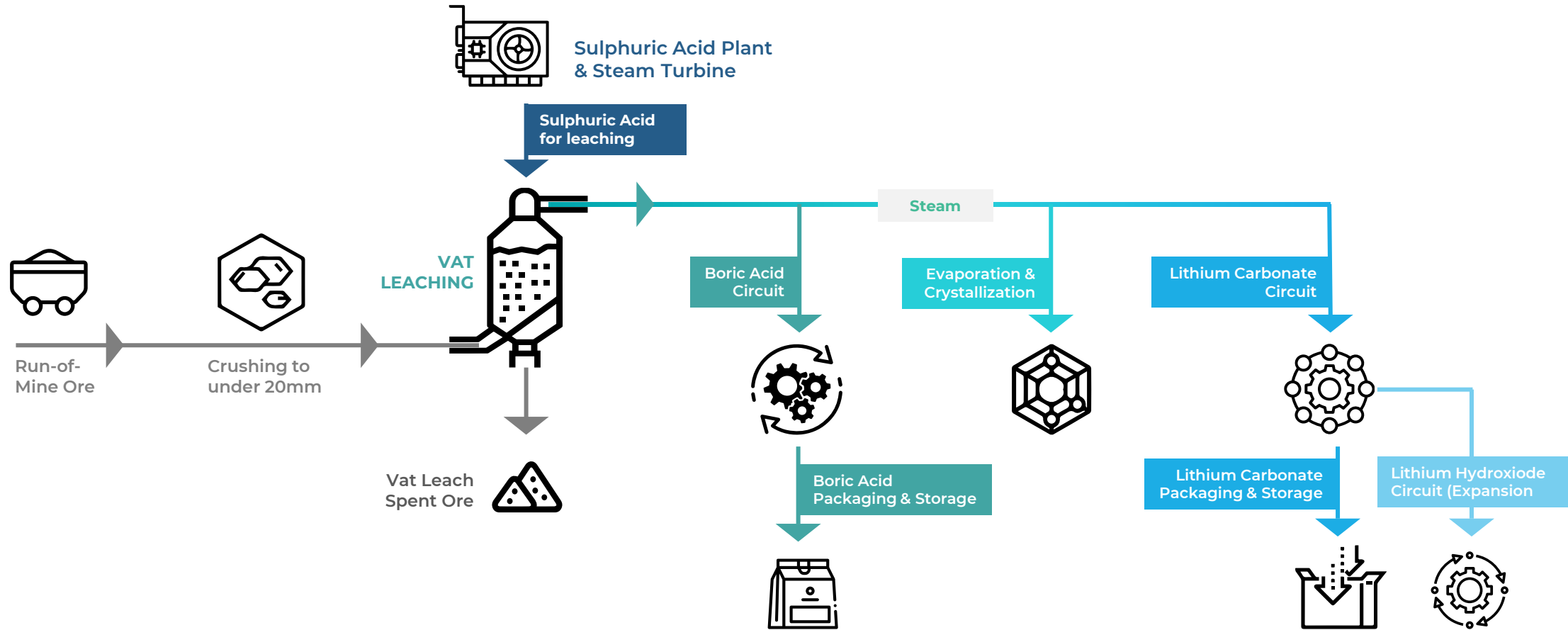
- Generating all power on-site.
- Automation of mine haulage equipment

## Commitment to Sustainability



- All baseline studies for EIS completed over 2 years.
- Ongoing commitment to the environment and the protection and conservation of Tiehm's buckwheat
- Implementation of TSM<sup>1</sup> ESG program

# Rhyolite Ridge – High Level Chemical Process Flow Diagram



# South Basin Resource Estimate April 2024

Stream	Classification	Tonnage Ktonnes	Li ppm	B ppm	Li <sub>2</sub> CO <sub>3</sub> Wt. %	H <sub>3</sub> BO <sub>3</sub> Wt. %	Contained	
							Li <sub>2</sub> CO <sub>3</sub> (kt)	H <sub>3</sub> BO <sub>3</sub> (kt)
<b>1</b> <b>Searlesite: High-boron lithium mineralisation (low clay content)</b>	Measured	43,178	1,755	14,657	0.93	8.38	403	3,619
	Indicated	74,235	1,599	12,183	0.85	6.97	632	5,171
	Inferred	35,608	1,581	12,144	0.84	6.94	300	2,473
	<b>Total S1</b>	<b>153,021</b>	<b>1,639</b>	<b>12,872</b>	<b>0.87</b>	<b>7.36</b>	<b>1,335</b>	<b>11,262</b>
<b>2</b> <b>Low –boron lithium mineralisation (low clay content)</b>	Measured	17,160	1,509	1,566	0.80	0.90	138	154
	Indicated	79,264	1,500	1,560	0.80	0.89	633	707
	Inferred	46,096	1,737	1,139	0.92	0.65	426	300
	<b>Total S2</b>	<b>142,520</b>	<b>1,578</b>	<b>1,425</b>	<b>0.84</b>	<b>0.81</b>	<b>1,197</b>	<b>1,161</b>
<b>3</b> <b>Low-boron lithium mineralisation (high clay content)</b>	Measured	14,768	2,454	1,733	1.31	0.99	193	146
	Indicated	29,475	2,420	1,228	1.29	0.70	380	207
	Inferred	11,619	2,388	605	1.27	0.35	148	40
	<b>Total S3</b>	<b>55,862</b>	<b>2,422</b>	<b>1,232</b>	<b>1.29</b>	<b>0.70</b>	<b>720</b>	<b>394</b>
<b>ALL</b>	<b>Grand Total</b>	<b>351,403</b>	<b>1,739</b>	<b>6,379</b>	<b>0.93</b>	<b>3.65</b>	<b>3,251</b>	<b>12,817</b>



# Key Growth Opportunities

Four areas aimed at increasing lithium production:

## WITHIN INITIAL MINE PLAN FOOTPRINT

### 1 High boron-lithium

- Current 26-year mine plan based on only 41% of High boron - lithium Resource

### 2 Low boron-lithium

- Already in mine plan for stockpiling
- Evaluation of processing options underway

### 3 North Basin

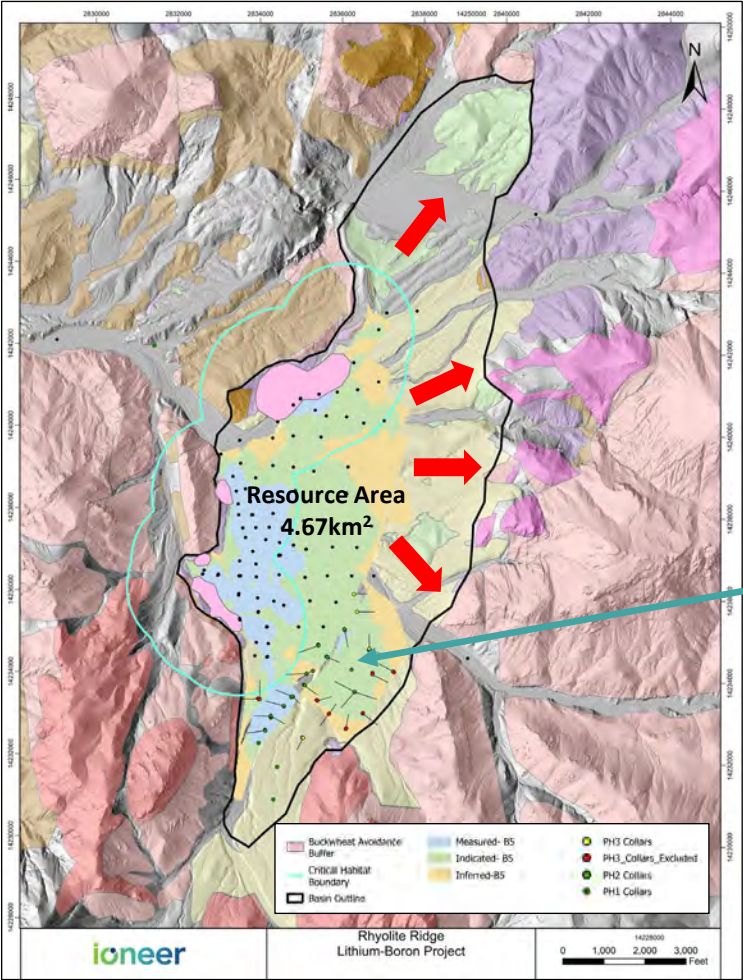
- 4x larger than South Basin footprint
- Leach tests in progress
- Well defined by gravity and historic drilling

### 4 Other Projects

- Non-Rhyolite Ridge
- Existing tenements
- Lithium and Boron

# Significant Growth Opportunities

## South Basin



● South Basin

1.5X larger than footprint of current **351Mt Mineral Resource** containing **3.25Mt LCE**

Mineralisation is open to north and east

Mineral Resource updated April 2024

**Highly promising Shelf Zone identified**

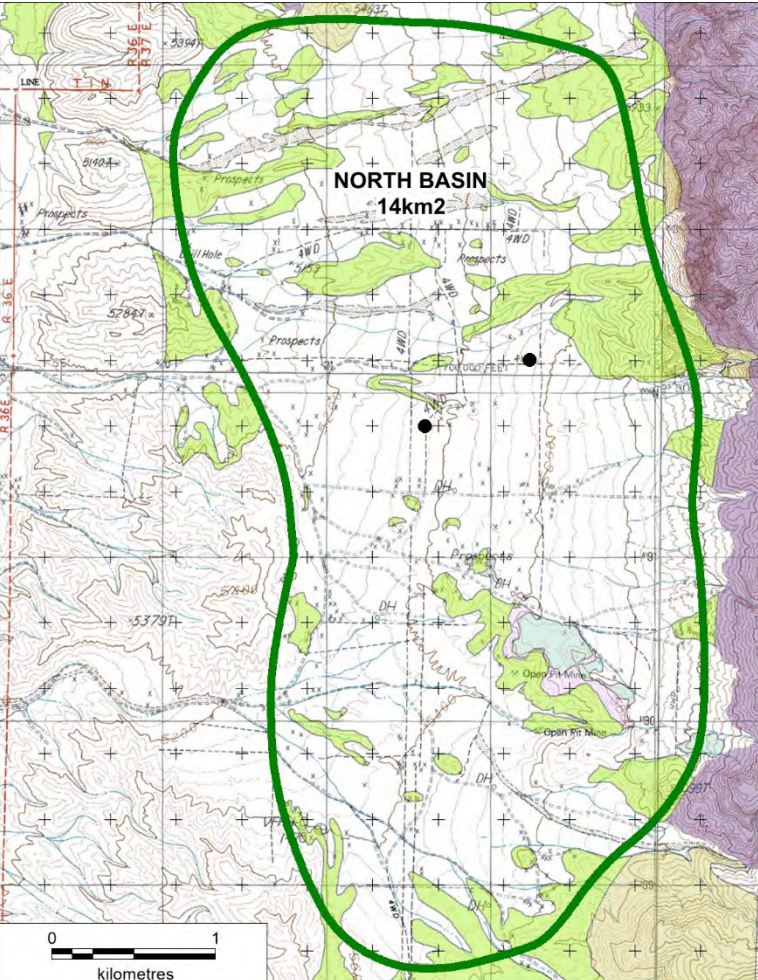
● North Basin

Over 4x larger footprint than South Basin Resource

US Borax (Rio) drilled >50 holes 1980-90s

2 holes drilled by INR in 2016

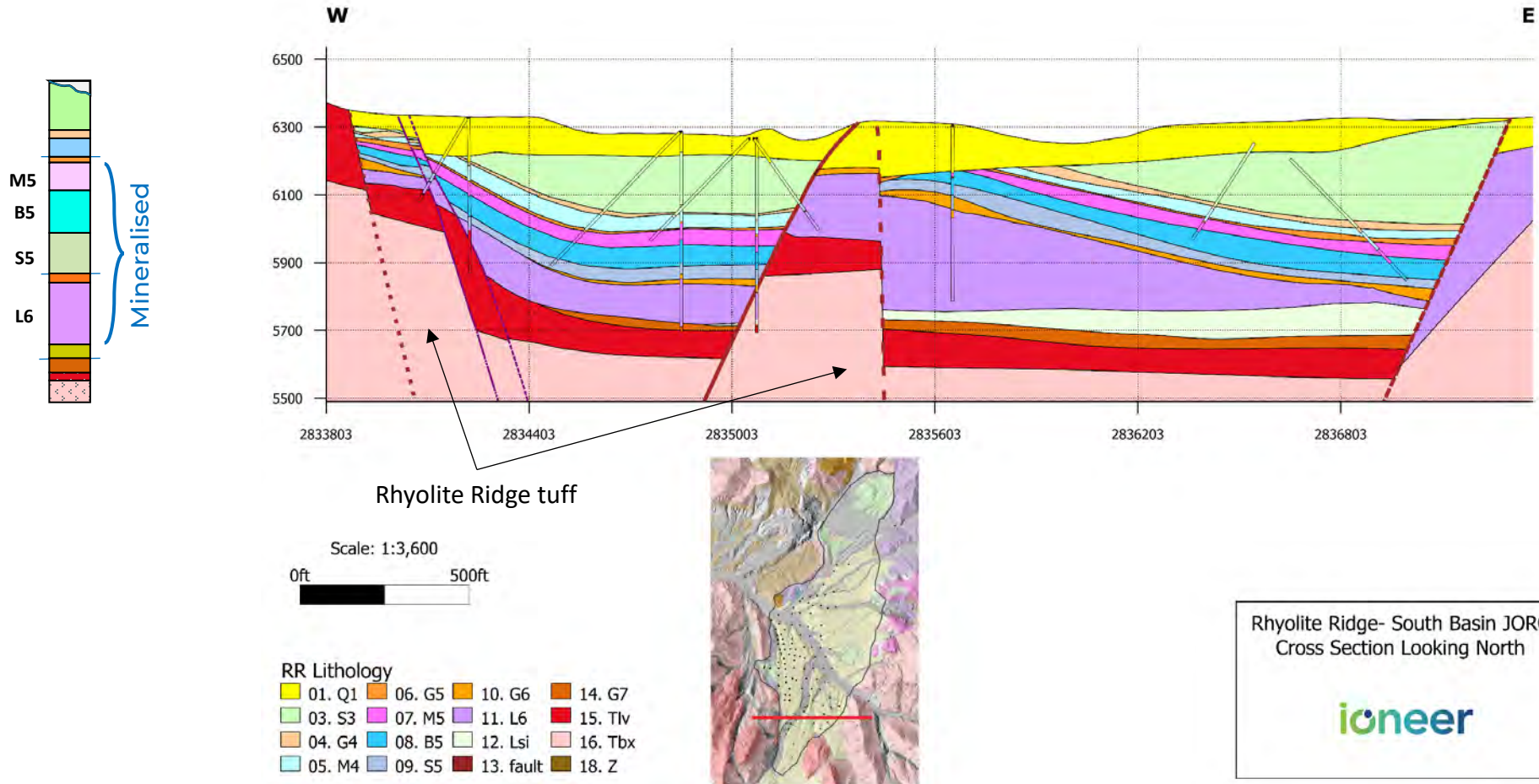
## North Basin





# Growth Opportunity in Proposed Permitting Footprint

ALL MINERALISED LAYERS PROVIDE UPSIDE AND OPTIONALITY



# South Basin Mineralisation Types

## Type 1

### High-Boron Lithium (NON-CLAY)

153Mt Resource  
60Mt Ore Reserve

Acid Leachable  
Metallurgical tests and Pilot Plant

Supports DFS and phase one  
processing facility design

26 years initial mine life  
22Kt Li Carb, 174Kt boric acid p.a.

Binding Offtakes - Ford,  
Toyota/Panasonic (PPES), EcoPro

## Type 2

### Low-Boron Lithium (NON-CLAY)

142Mt Resource

Acid Leachable  
Metallurgical tests

Stockpiled in phase one mine plan  
Treated as waste in DFS

Potential lithium output increase  
with low capex via phase one  
process plant

Flow sheet similar to Type 1

## Type 3

### Lithium Clay (CLAY)

56Mt Resource

Acid Leachable  
Metallurgical tests

Stockpiled in phase one mine plan  
Treated as waste in DFS









Potential lithium output increase  
Existing offtake partner demand

Flow sheet to be finalised – MOU  
with EcoPro

TOTAL MINERAL RESOURCE – 351MT CONTAINING 3.25MT OF LITHIUM CARBONATE AND 12.8MT OF BORIC ACID



# Acid Leach Results – Average recoveries >89%

	SOUTH BASIN			NORTH BASIN
	Type 1 High Boron	Type 2 Low Boron	Type 3 Clay	Type 2 Low Boron
Li	1,335 kMT LCE	1,197 kMT LCE	720 kMT LCE	1000 – 3000 kMT LCE
Gr	1,639 ppm	1,578 ppm	2,422 ppm	1000 – 1700 ppm
R	94% Li	89% Li	89% Li	91% Li
#TEST	300 +	65	45	35
BEFORE LEACH				
AFTER LEACH				

# Sedimentary deposit examples



- **Ioneer Rhyolite Ridge Li-B (Searlesite) Resource\***

Rhyolite Ridge is **only known occurrence** of a Searlesite hosted lithium deposit

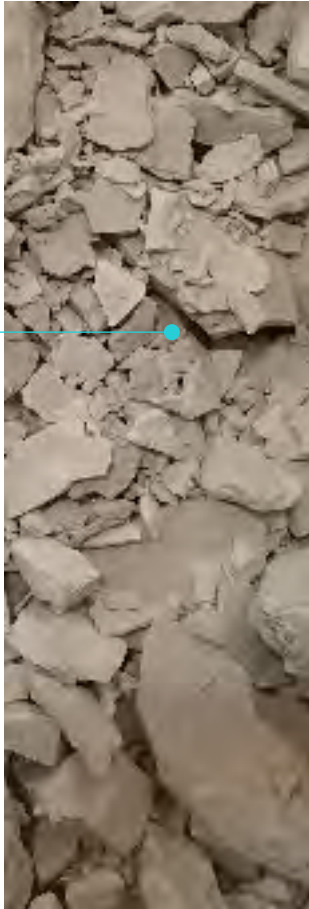
- **Li-only (clay)**

Most common type of sedimentary deposit in North America

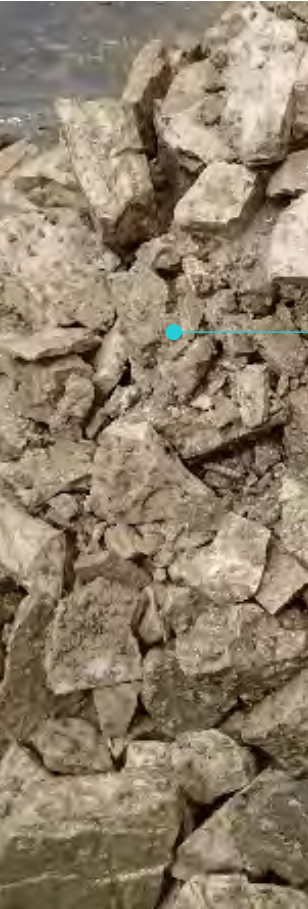
# Li-B (Searlesite) Before and After Acid Leaching

SEARLESITE ORE EASY AND LESS EXPENSIVE TO WASH, DE-WATER AND DISPOSE OF LEACH RESIDUE

Li-B (Searlesite) mineralisation before acid leach



Li-B (Searlesite) mineralisation after acid leach





# Li-only (Clay) Mineralisation Before and After Acid Leaching

CLAY ORE IS DIFFICULT AND MORE EXPENSIVE TO WASH, DE-WATER AND DISPOSE OF LEACH RESIDUE

Li-only (Clay) mineralisation before acid leach



Li-only (Clay) mineralisation after acid leach

