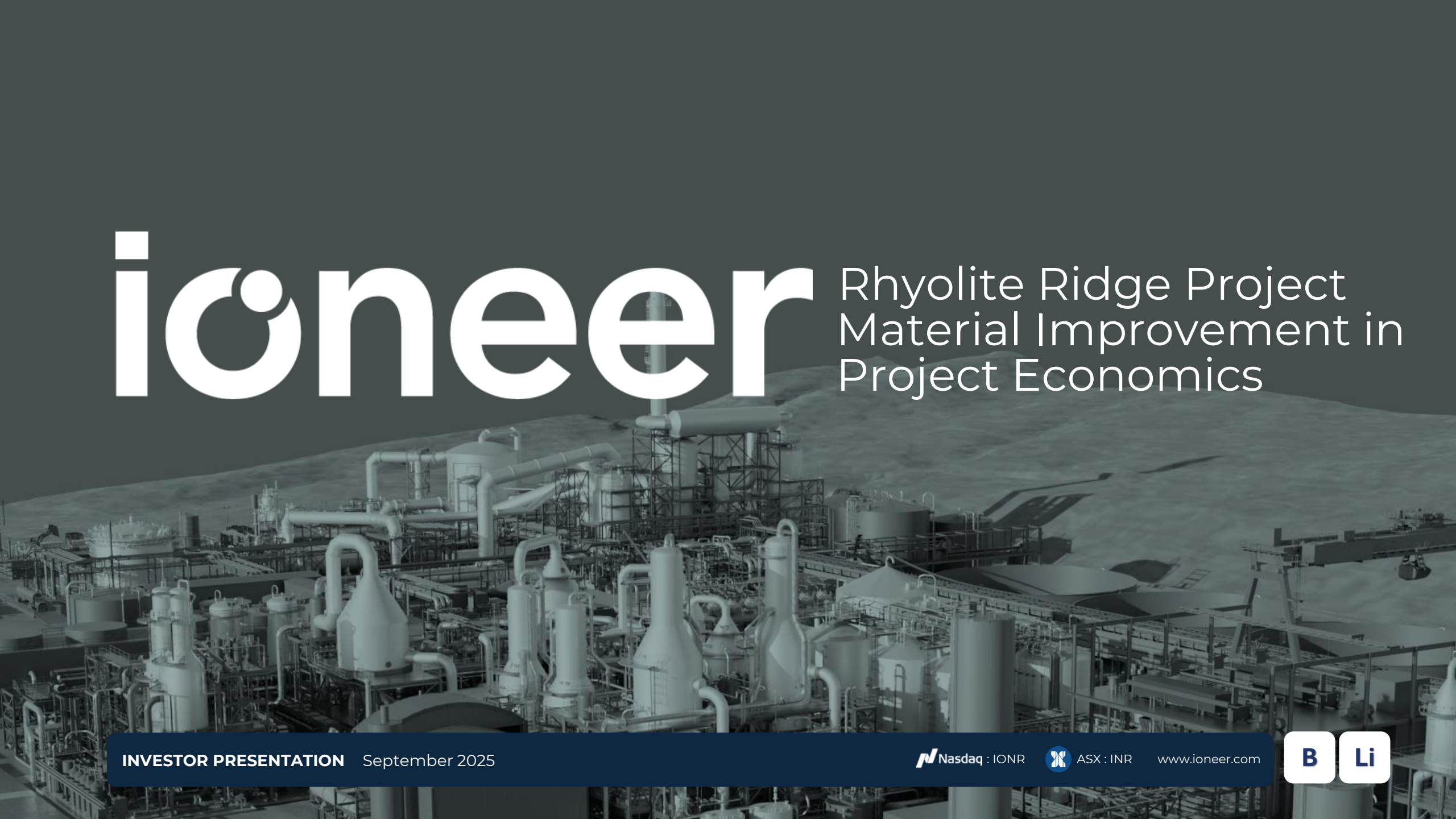
ioneer

Rhyolite Ridge Project Material Improvement in Project Economics



INVESTOR PRESENTATION September 2025

Nasdaq : IONR ASX : INR www.ioneer.com

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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 "Material Improvement to Project Economics" dated 3 September 2025, released on ASX. Further information regarding the Mineral Resource estimate and Ore Reserve can be found in those reports. All material assumptions and technical parameters underpinning the estimates in the reports 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 "Material Improvement to Project Economics" dated 3 September. 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.

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Lithium Carbonate Equivalent

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

Note

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

Rhyolite Ridge Project Snapshot

A unique lithium-boron deposit of strategic importance to the U.S.

1. Material improvement in economics confirm **strength and resilience of Project - NPV up 38% to $1.89B**
2. Ore Reserve of **260 million tonnes** comprising 3 ore streams - 82 year mine life at 3.0-3.2Mtpa
3. All-in sustaining cash cost of **US$5,626 firmly in bottom quartile of the global lithium cost curve**
4. Fully permitted, shovel ready, with Off-takes, and **US$996 million in low-cost debt from US government**
5. Large, Long-life Resource with **verified expansion potential, optionality**
6. **Construction ready to commence on close of Partnering Process and Final Investment Decision**

1 Material Improvement in Project Economics

Driven by leach optimisation, new mine plan and increased production

	Years 1-25 Estimate			LOM Estimate		
	Current[1]	June 2025[2]	Change	**Current[1]**	June 2025[2]	Change
Unlevered NPV_8				$1,888 m	$1,367 m	**+38%**
Levered NPV_8				$1,998 m	$1,499 m	**+33%**
Avg. Annual Revenue	$725 m	$619 m	**+17%**	$575 m	$497 m	**+16%**
Avg. Annual Lithium Production (LCE)	22,400 tpa	19,200 tpa	**+17%**	19,300 tpa	17,200 tpa	**+12%**
Avg. Annual Lithium Hydroxide (LiOH)	25,500 tpa	21,300 tpa	**+20%**	21,900 tpa	18,800 tpa	**+16%**
Avg. Annual Boric Acid Production	126,700 tpa	116,400 tpa	**+9%**	68,000 tpa	60,400 tpa	**+13%**
Ore Reserves				260 Mt	247 Mt	**+5%**
Life of Mine				82 years	95 years	**-13 years**
Average Annual EBITDA	$497 m	$406 m	**+22%**	$384 m	$319 m	**+20%**
Initial Capital Costs (AACE Class 2 estimate)				$1,668 m	$1,668 m	**-**
Unlevered IRR				16.8%	14.5%	**+16%**
Levered IRR				20.9%	18.3%	**+14%**
Payback Period (from operations)				7 years	8 years	**-1 year**

[1] See Company announcement titled "Leach Optimisation and New Mine Plan Yields Material Improvement in Project Economics" dated 3 September 2025.
[2] See Company announcement titled "Ore Reserve Quadruples; Reaffirms Robust Project Economics" dated 2 June 2025

2 Ore Reserve August 2025

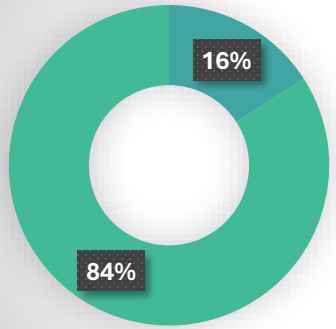
Reserves					Contained Equivalent Grade (%)		Contained Equivalent Tons (kst)	
		Tonnage (kst)	Li Grade (ppm)	B Grade (ppm)	Li_2Co_3	H_3BO_3	Li_2Co_3	H_3BO_3
Hi-B	Stream 1	91,241	1,715	12,329	0.91	7.05	833	6,432
Lo-B	Stream 2	145,301	1,177	1,368	0.63	0.78	911	1,136
	Stream 3	23,799	2,110	1,277	1.12	0.73	267	174
Total Proved & Probable Ore Reserve		260,341	1,451	5,201	0.77	2.97	2,010	7,742

- Note the difference in the lithium and boron grades between the three streams
- Blending of ore streams provides optionality – all three are mined simultaneously, some material goes to stockpile
- Grade not always king – Acid Yield is a key economic driver (lithium produced per tonne acid consumed)
- Stream 2 whilst lower in grade has very favourable leach kinetics and high Acid Yield

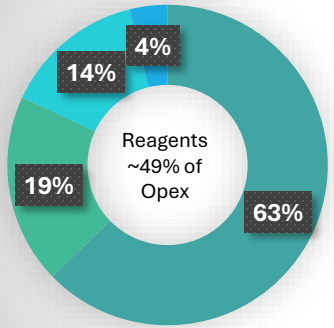
[1] See Company announcement titled "Material improvement in project economics" dated 3 September 2025.

3 Rhyolite Ridge Operating Costs – In the Bottom Quartile

LOM Production OPEX



- Mine Operating Costs
- Processing Facility Operating Costs

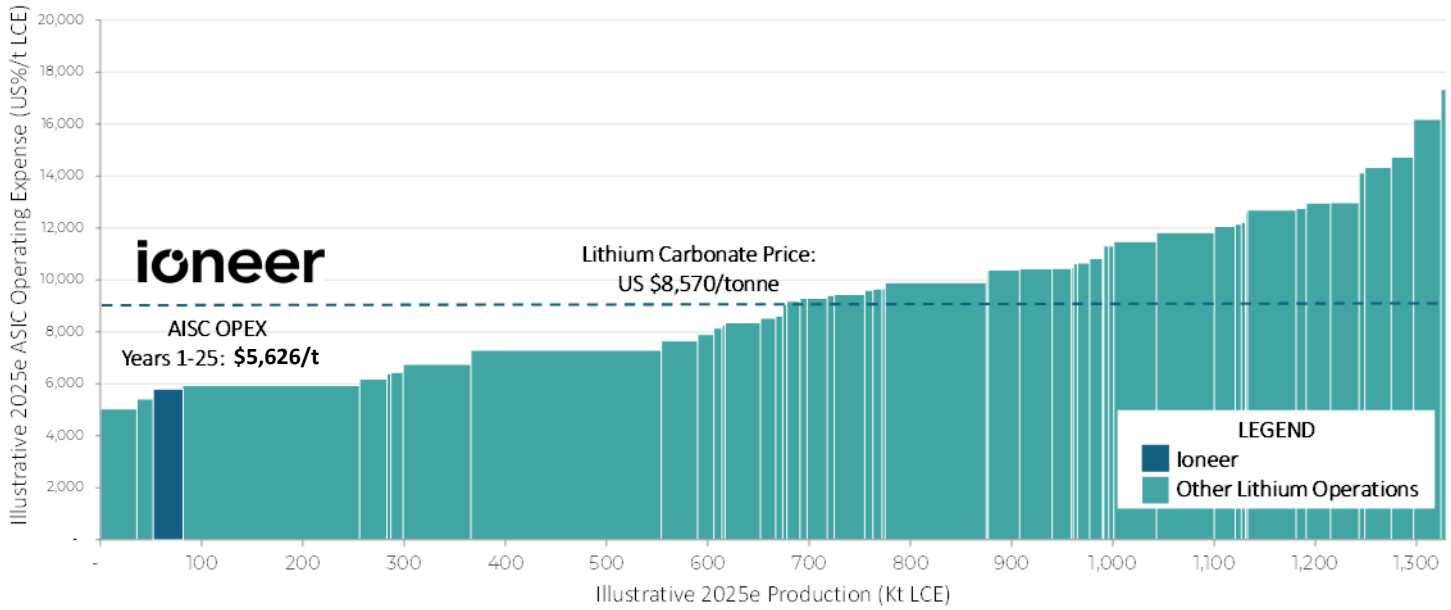


- Sulphur Supplies & Transport
- Hydrated Lime Supplies & Transport
- Soda Ash Supplies & Transport
- Other Reagent Costs

Co-production of boric acid and lithium using one mining and processing flowsheet, provides a boric acid revenue credit to LCE/t C1 and ASIC OPEX

Rhyolite Ridge AISC OPEX[2]

Provides resilience through lithium commodity downturns



C1[1] OPEX
$3,554 / LCE tonne (Years 1-25)
$5,636 / LCE tonne (LOM)

[1] C1 OPEX cost is defined as the net direct cash cost, or simply the cost of production including the costs of mining, processing, transportation, marketing, and onsite administration. [2] ASIC OPEX includes C1 OPEX, sustaining capital expense and interest expense. Source: Ioneer internal analysis and Benchmark Mineral Intelligence with lithium carbonate price from Benchmark Mineral Intelligence Lithium Price Assessment 30 April 2025 CIF Asia Spot price.

4 Substantially De-Risked Project

Permitted

Final Federal permit received in October 2024[1]

- The BLM issued a positive Record of Decision (ROD) concluding the NEPA process

Shovel Ready

70% Engineering design complete

- Industry leading partners
- Proven technology & equipment
- Technically led approach - + $200 m invested

Offtakes In Place

Lithium & Boron offtake Placed

- Signed lithium offtakes with Ford, EcoPro, PPES and Dragonfly
- Signed boron offtake and sales agreements

Low-Cost Debt

U.S DOE loan for $996 million[2]

- Low interest
- Long tenor
- Government loan

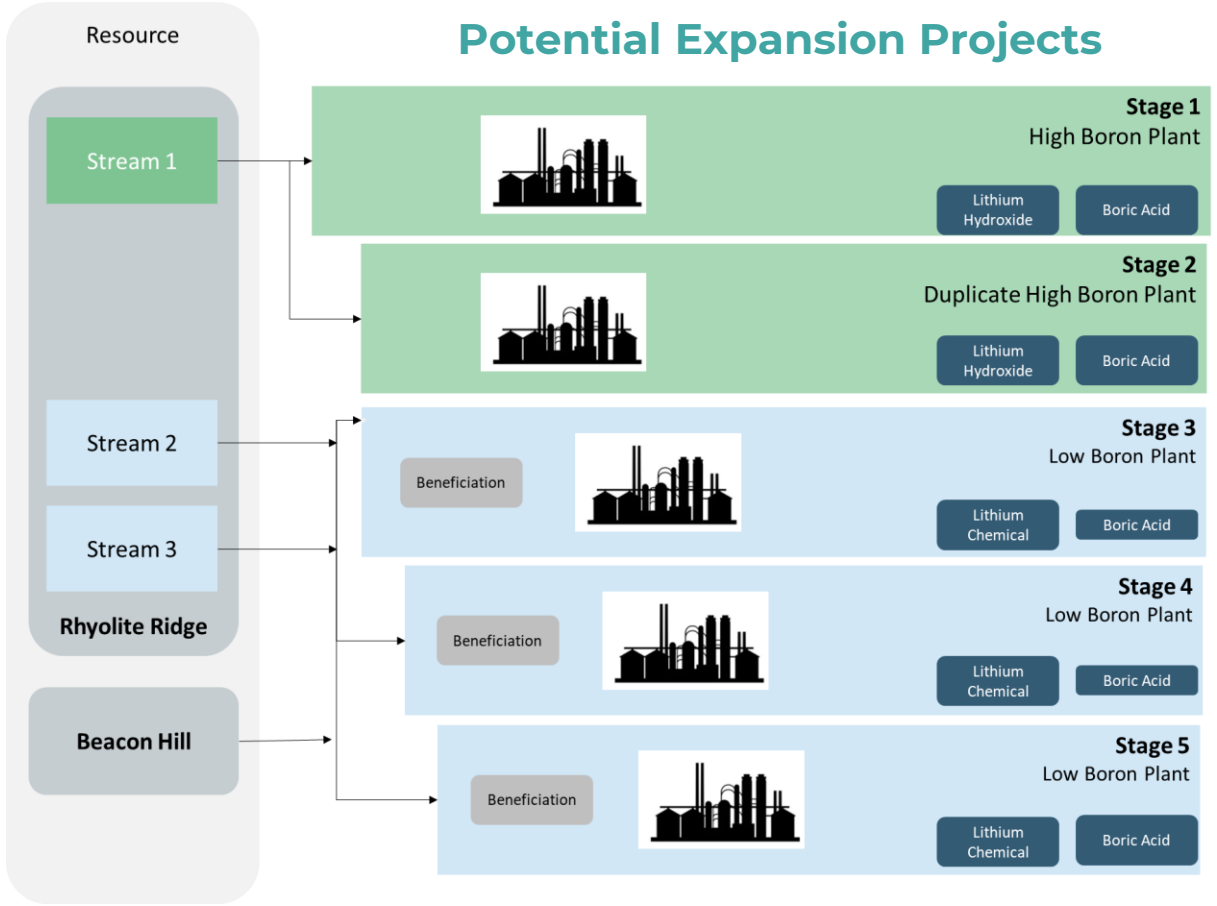
[1] See announcement dated 24 October 2024 entitled "Rhyolite Ridge Receives Final Permit Approval".
[2] See announcement dated 20 January 2025 entitled "Rhyolite Ridge Lithium-Boron Project closes upsized US$996 million loan from U.S. Department of Energy to accelerate domestic critical mineral production".

5 Large and Expandable Resource

Rhyolite Ridge has a large, long-life Resource with substantial expansion potential

Summary of August 2025 Mineral Resource Estimate						Contained	
Type	Stream	Classification	Tonnage (ktonnes)	Li (ppm)	B (ppm)	Li2CO3 (ktonnes)	H3BO3 (ktonnes)
High B	1	Total	178,634	1,624	11,754	1,544	12,006
Low B	2	Total	300,378	1,167	1,350	1,866	2,319
	3	Total	60,446	2,041	1,181	657	408
	ALL	Grand Total	539,458	1,417	4,776	4,067	14,733

Large and expandable Resource is driving **Expansion Potential**



[1] See Company announcement titled "Leach Optimisation and New Mine Plan Yields Material Improvement in Project Economics" dated 3 September 2025.

6 Status of Partnering Process

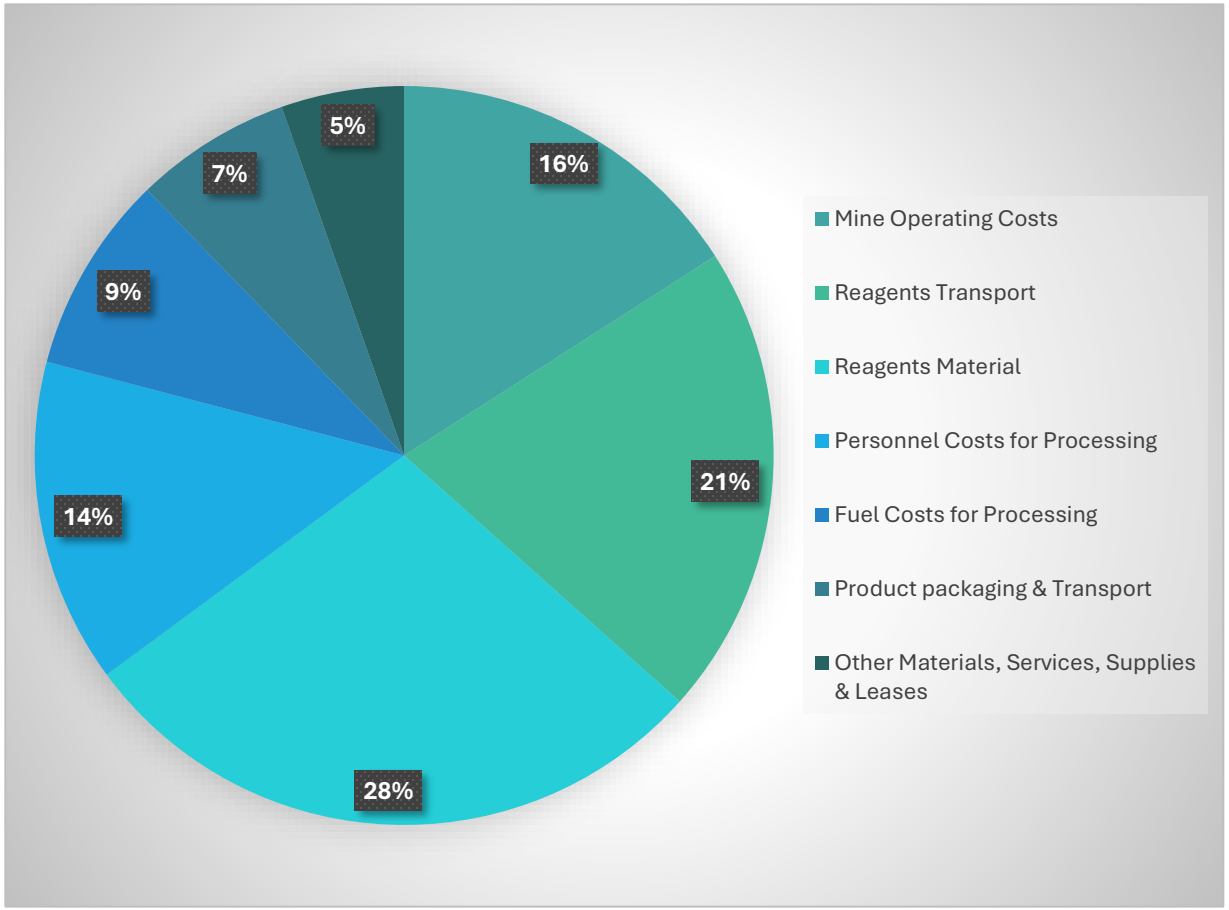
Planning for a Strategic Partnering Process has begun

- **Goldman Sachs** is assisting with the formal Strategic Partnering process
- **Strategic partnering process** in search of a partner who can help accelerate the development of Rhyolite Ridge
- **Process commenced early in Q3 2025**
- The process will be thorough and is **expected to take a minimum of 4 months**.

Overall Cost of Reagents Driving Optimisation

- 49% of Operating Costs in reagent materials and transport
- Area where Ioneer has focussed on optimisation
- Reduced leach time improves acid yield, allowing for higher throughput
- Results in 20% higher lithium hydroxide and 9% higher boric acid output[1]
- Further optimisation potential

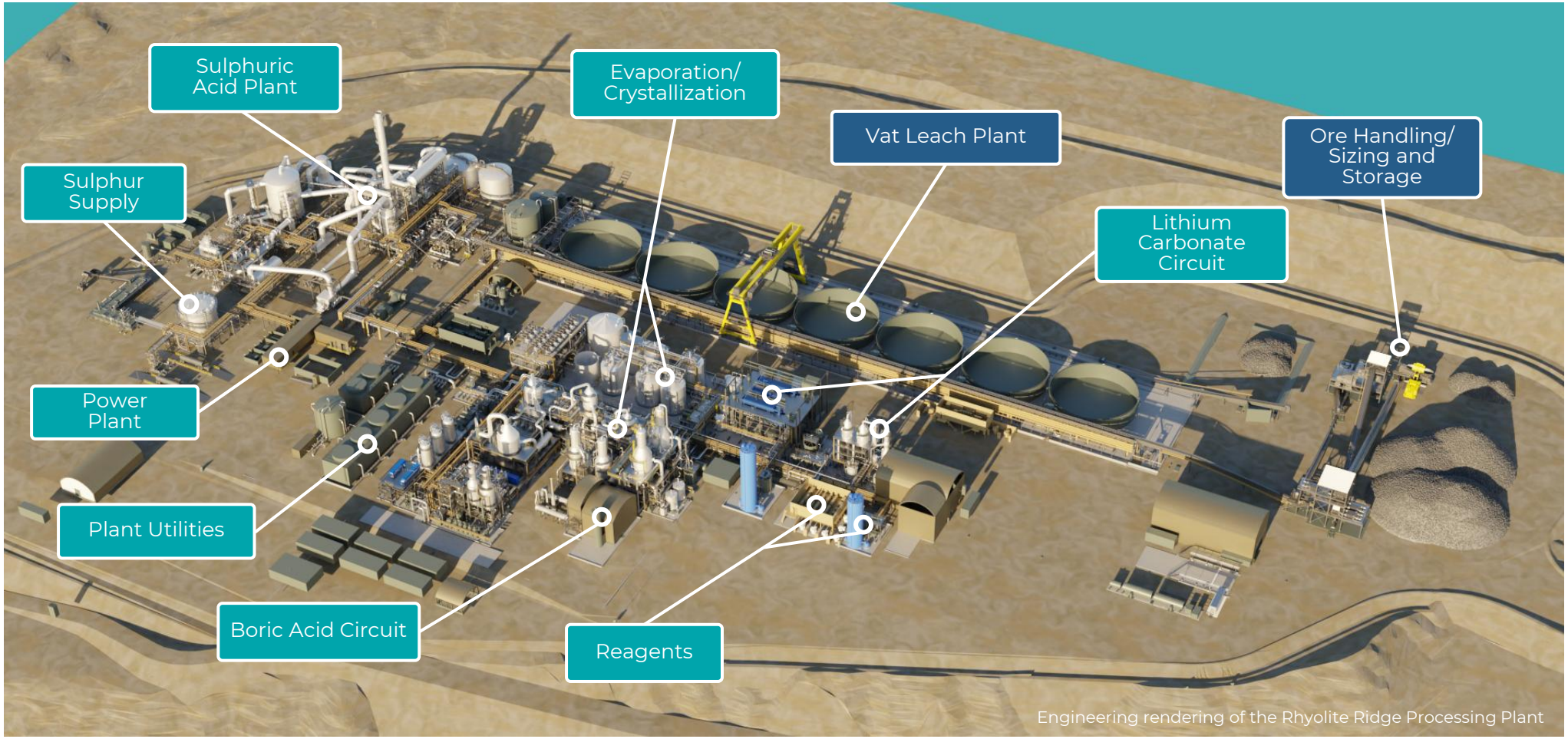
LOM Operating Costs by Area



[1] During Production Years 1-25

Proposed Rhyolite Ridge Process Plant – Stage 1

Reduction in leach retention time allows for reduction reduce in vat cycle time from 24hrs to 17hrs
The spare vat capacity and spare acid is used to increase daily tonnages from 7000tpd to 8800tpd

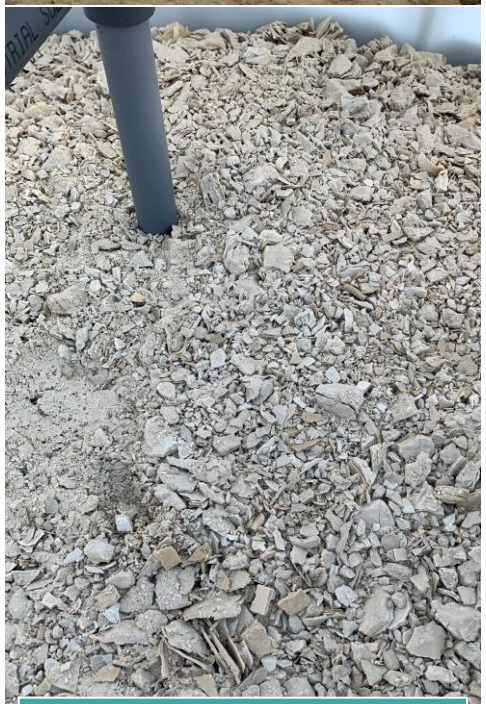


Engineering rendering of the Rhyolite Ridge Processing Plant

Comprehensive Testwork – Over 400 Leach Tests

Column testing of ore at KCA, Reno

Collection of bulk samples from site



Ore post leach in vat at pilot plant, Kemetco Vancouver

Crystallisers and evaporators, Kemetco pilot plant Vancouver

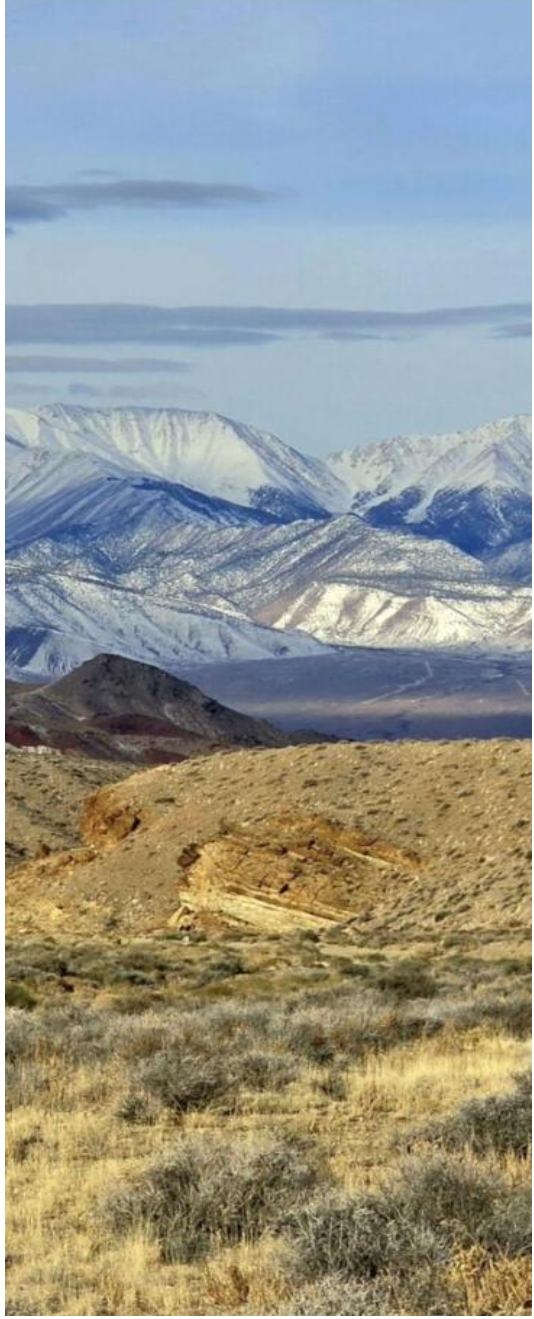
Searlesite ore, pre leach

Column test at KCA, Reno

Searlesite ore, post leach

Rhyolite Ridge Next Steps

- **Secure equity financing** to sit alongside U.S. Government debt ($996 M)
- **Final Investment Decision** once equity and debt are in place
- **Construction Phase**. Expected to take approximately 36 months (including long lead items)
- **First Production** – 36 months from FID[1]
- **Pathway to future growth**



[1] All future dates subject to change without notice

Key Takeaways

A rare, long-life, permitted, shovel ready project in the U.S. with strong government support

A stable, secure, long-term supply of 2 products necessary for batteries, magnets, and military applications

Unique Deposit

Sedimentary lithium & boron

High & low boron

Integrated mine and chemical plant

High recoveries, low energy input, small footprint

Dual Revenue

75% from Li and 25% from B

Uncorrelated commodity pricing

Low cost after boron credit

Synergy benefits for expansion

Shovel Ready

Permitted

Engineered

Offtakes in place

US government debt

Water

Robust Economics

August 2025 Update

REVENUE US$575M/YR

EBITDA US$384M/YR

NPV US$1,888M

IRR 16.8%

Expandable

540 Mt Resource

260 Mt Ore Reserve

Stage 1 = 3.2 Mtpa

Multiple future stages possible

High and low boron streams

Questions

ioneer

Future U.S. Lithium & Boron Producer

www.ioneer.com.

ir@ioneer.com

Corporate Snapshot

Capital Structure

(As at 3 Sept 2025)

Shares Outstanding	**2.6b**
Performance Rights And Options Outstanding	**64.9m**
Cash Balance– 30 June 2025[1]	**US$25.1m**
Share Price ASX – 3 September 2025	**A$0.12**
ADR Price NASDAQ (1 ADR = 40 ASX Shares)	**US$3.19**
Market Capitalisation – 3 September 2025	**A$293m**

Research Coverage

STIFEL GMP

BRIDGE STREET CAPITAL PARTNERS

cg/ Canaccord Genuity

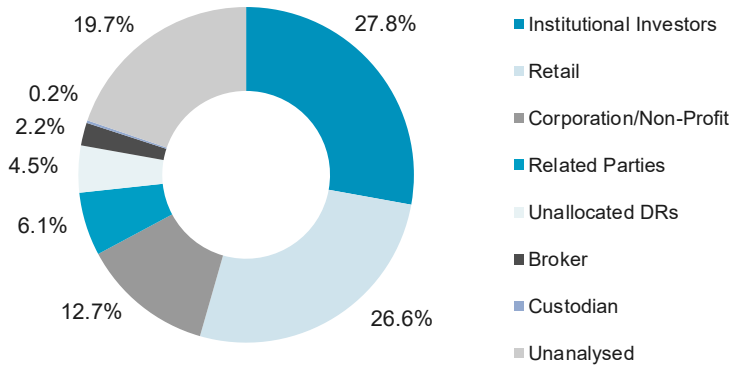
ORD MINNETT

WILSONS

Loop Capital Markets

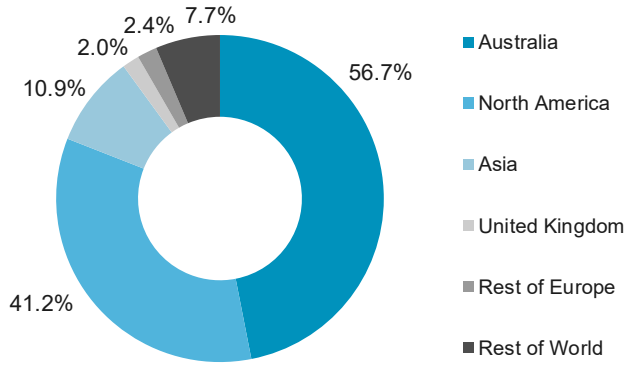
Total Shareholder Composition

As at 30 June 2025



Total Shares by Geography

As at 30 June 2025



[1]Cash balance is based off the latest quarterly information and is unaudited and unreviewed. See Company announcement titled "June 2025 – Quarterly Activities Report" dated 27 July 2025.

Proven & Experienced Team

Experienced 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

TIM WOODALL
Non-executive Director
30 years' experience in M&A and finance, with expertise in the energy sector

Best-in-class Management Team with Industry Experience

IAN BUCKNELL
CFO & Company Secretary

MATT WEAVER
Snr VP Engineering & Operations

CHAD YEFTICH
VP Corporate Development & External Affairs

KEN COON
VP Human Resources

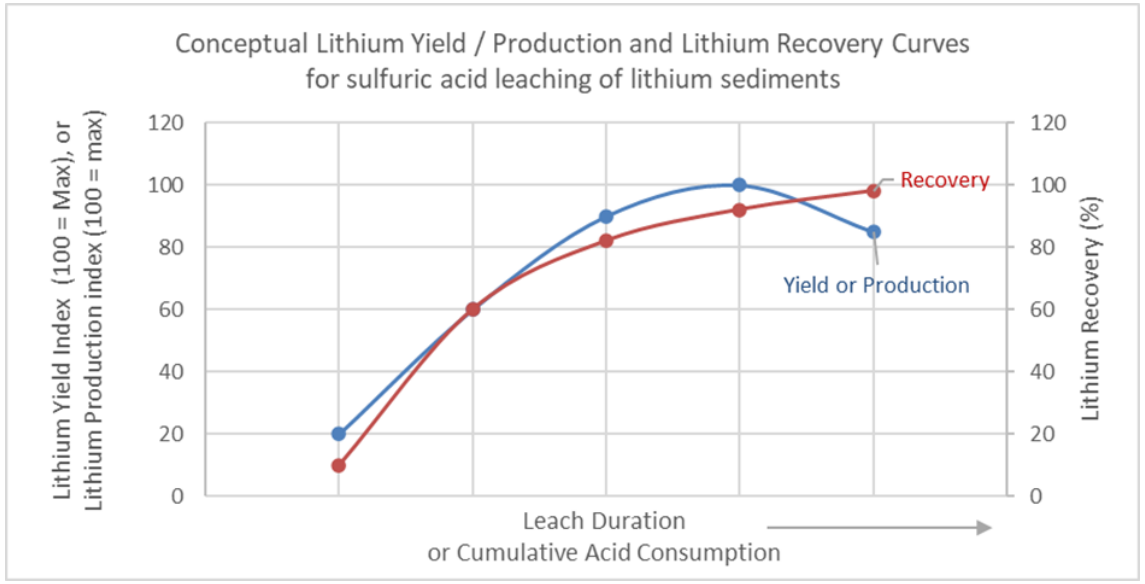
YOSHIO NAGAI
VP Commercial Sales & Marketing

South Basin Resource Estimate August 2025

							Contained	
Stream	**Classification**	**Tonnage** Ktonnes	**Li** ppm	**B** ppm	**Li2CO3** Wt. %	**H3BO3** Wt. %	**Li2CO3** (kt)	**H3BO3** (kt)
1 **Searlesite: High-boron lithium mineralisation (low clay content)**	Measured	64,385	1,752	12,669	0.93	7.24	600	4,664
	Indicated	87,372	1,551	11,280	0.83	6.45	721	5,636
	Inferred	26,877	1,554	11,101	0.83	6.35	222	1,706
	Total S1	**178,634**	**1,624**	**11,754**	**0.86**	**6.72**	**1,544**	**12,006**
2 **Low–boron lithium mineralisation (low clay content)**	Measured	73,350	1,214	1,486	0.65	0.85	474	623
	Indicated	160,367	1,138	1,477	0.61	0.84	972	1,354
	Inferred	66,662	1,186	897	0.63	0.51	421	342
	Total S2	**300,378**	**1,167**	**1,350**	**0.62**	**0.77**	**1,866**	**2,319**
3 **Low-boron lithium mineralisation (high clay content)**	Measured	19,223	2,201	1,550	1.17	0.89	225	170
	Indicated	29,615	2,089	1,168	1.11	0.67	329	198
	Inferred	11,608	1,654	601	0.88	0.34	102	40
	Total S3	**60,446**	**2,041**	**1,181**	**1.09**	**0.68**	**657**	**408**
ALL	**Grand Total**	**539,458**	**1,417**	**4,776**	**0.75**	**2.73**	**4,067**	**14,733**

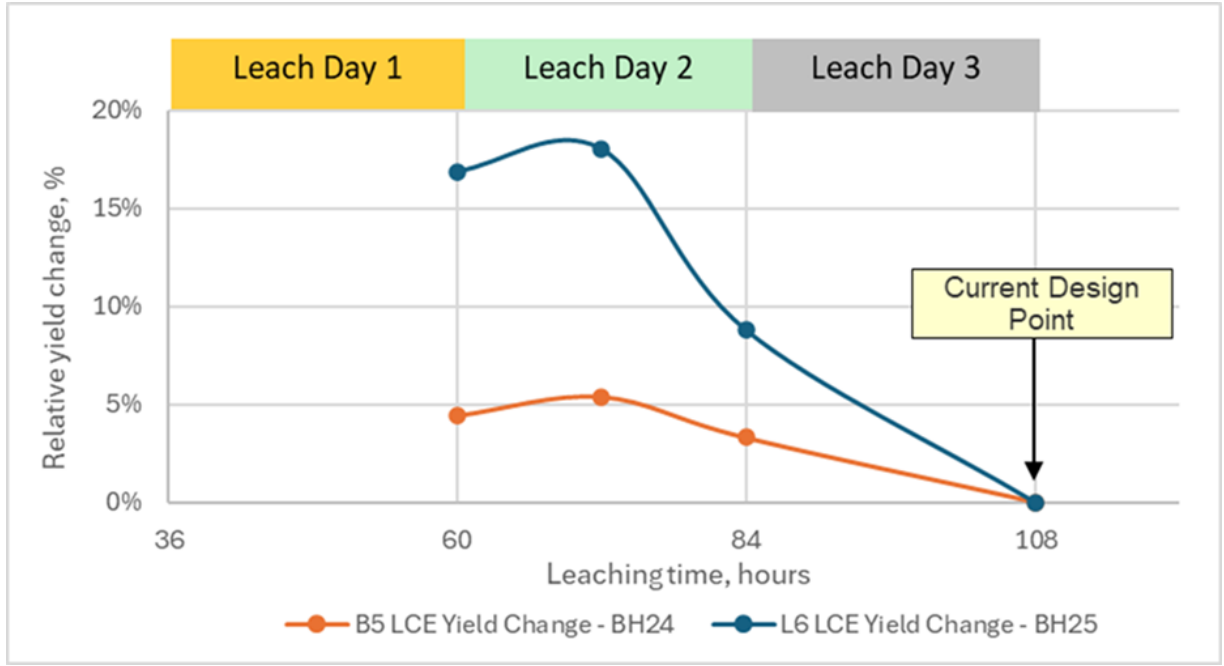
[1] See Company announcement titled "Leach Optimisation and New Mine Plan Yields Material Improvement in Project Economics" dated 3 September 2025.

Acid Leach Kinetics



- Recovery continues to increase even after Acid Yield has peaked
- The increase in recovery slows with time
- An increasing amount of acid is consumed by the gangue (non-ore) minerals

- Acid Yield is a measure of the amount of lithium produced per tonne of acid consumed
- Acid Yield peaks during day 2 of the leach
- Stream 2 (L6) exhibits a much greater change in Acid Yield compared to Stream 1 (B5)



Comparison of 3-day to 2-day Leach Recoveries