

The Ioneer logo features the word "ioneer" in a white, lowercase, sans-serif font. The letter "o" is replaced by a stylized white circle with a small gap at the top, resembling a lithium ion. The background of the slide is a gradient from light green on the left to dark blue on the right, with several overlapping, semi-transparent circles in various shades of green and blue.

Rhyolite Ridge

American Source of Lithium & Boron
for an Energy Efficient Future

ASX: INR

Citi Basic Materials Conference
New York, 28 November 2018

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Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Bernard Rowe, a Competent Person who is a Member of the Australian Institute of Geoscientists. Bernard Rowe is a shareholder, employee and Managing Director of Ioneer Ltd. Mr Rowe has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Bernard Rowe consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

In respect of Mineral Resources 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 report titled "Updated Rhyolite Ridge Mineral Resource Statement" dated 23 October 2018 and 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 and previously disclosed, 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 "Outstanding Results from Rhyolite Ridge Pre-Feasibility" dated 23 October 2018. 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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Note: All \$'s in this presentation are US\$'s except where otherwise noted.



Capital Structure

Poised to become a responsible and profitable producer of the materials necessary for a sustainable future, ioneer Ltd (ASX:INR) is focussed on developing one of only two major lithium-boron deposits in the world.

Shares

1.47B

Share Price (27 Nov 2018)

A\$0.24

Options (Unlisted)

58.1M

Cash (30 Sep 2018)

A\$75M

Performance Rights (Unlisted)

1.9M

Market Cap

A\$350M

Ownership

Top 20

60%

Directors / Management

10%

Rhyolite Ridge Lithium-Boron Project



USA supplier of critical minerals



Integral to energy efficient future

Nevada location



Mining friendly & close to markets

Large deposit



Long mine life, expandable

Shallow, thick & flat lying



Open pit mining, low strip ratio

Soft ore & waste rock



Low-cost mining & crushing

Amenable to heap/vat leaching



No roasting or new technology

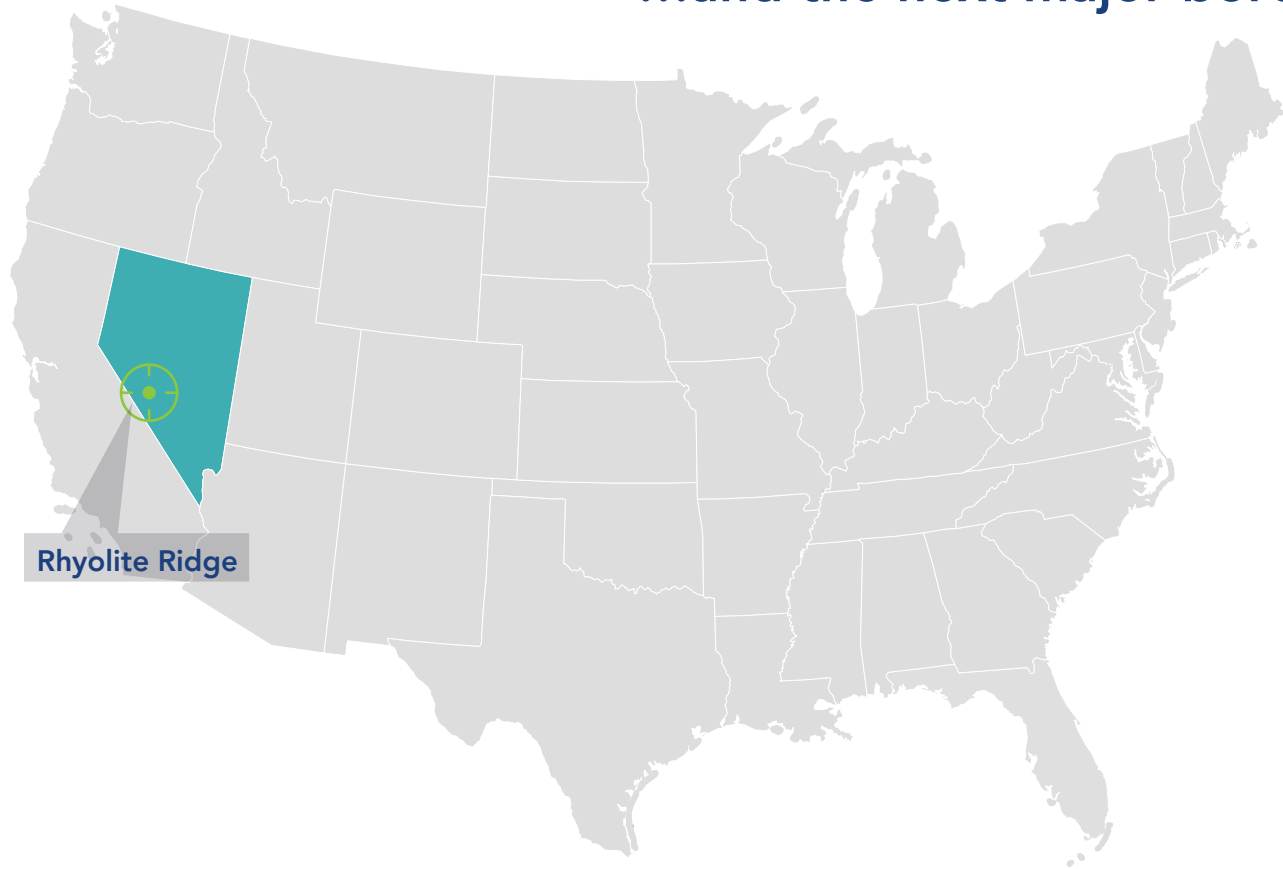
Lithium & boron end products



Two revenue streams

Delivering first major lithium mine in the USA

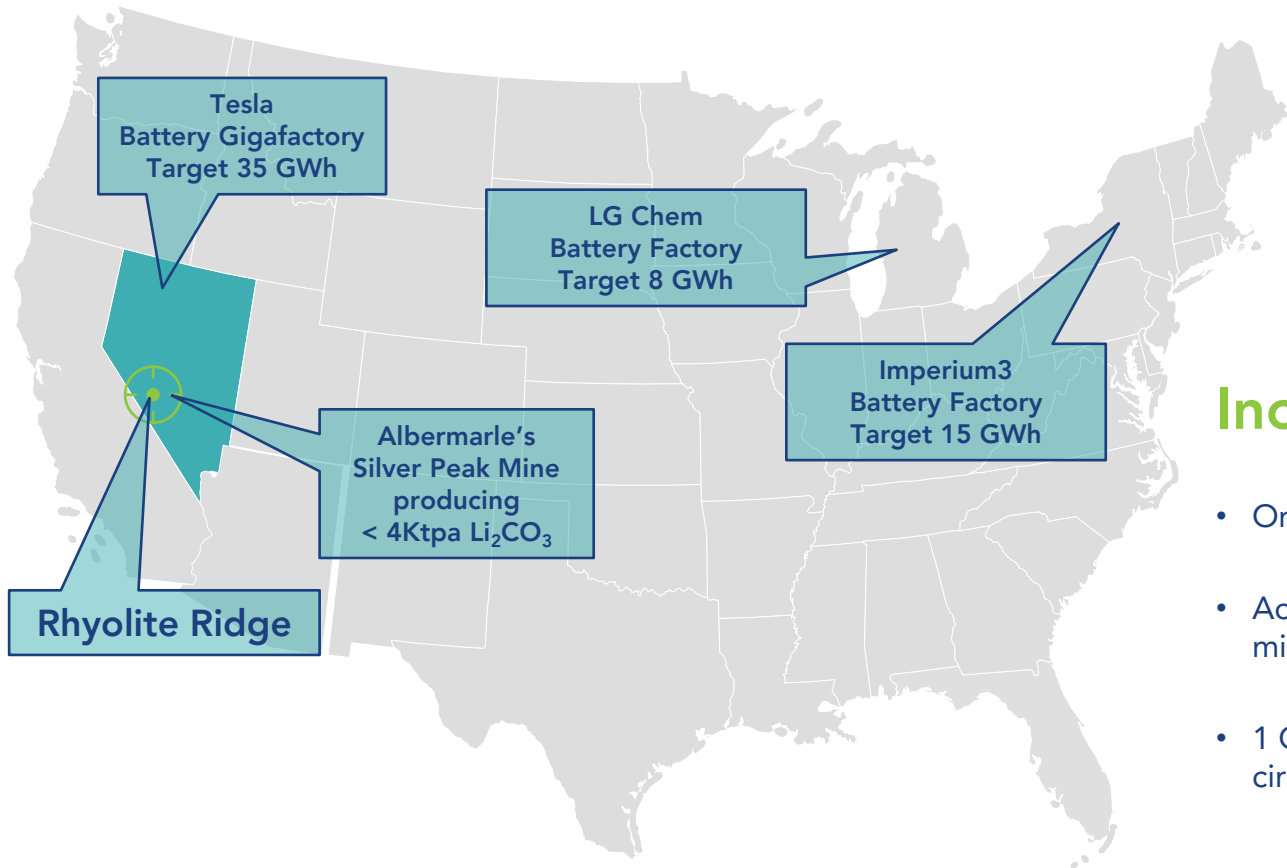
...and the next major boron mine globally.



In a tier 1 jurisdiction:

- Excellent infrastructure with direct access to rapidly expanding American and Asian markets
- Located on Federal (BLM) land
- No competing land uses or nearby residents
- Permitting via EA or EIS as determined by Federal BLM
- Net proceeds minerals tax not exceeding 5%

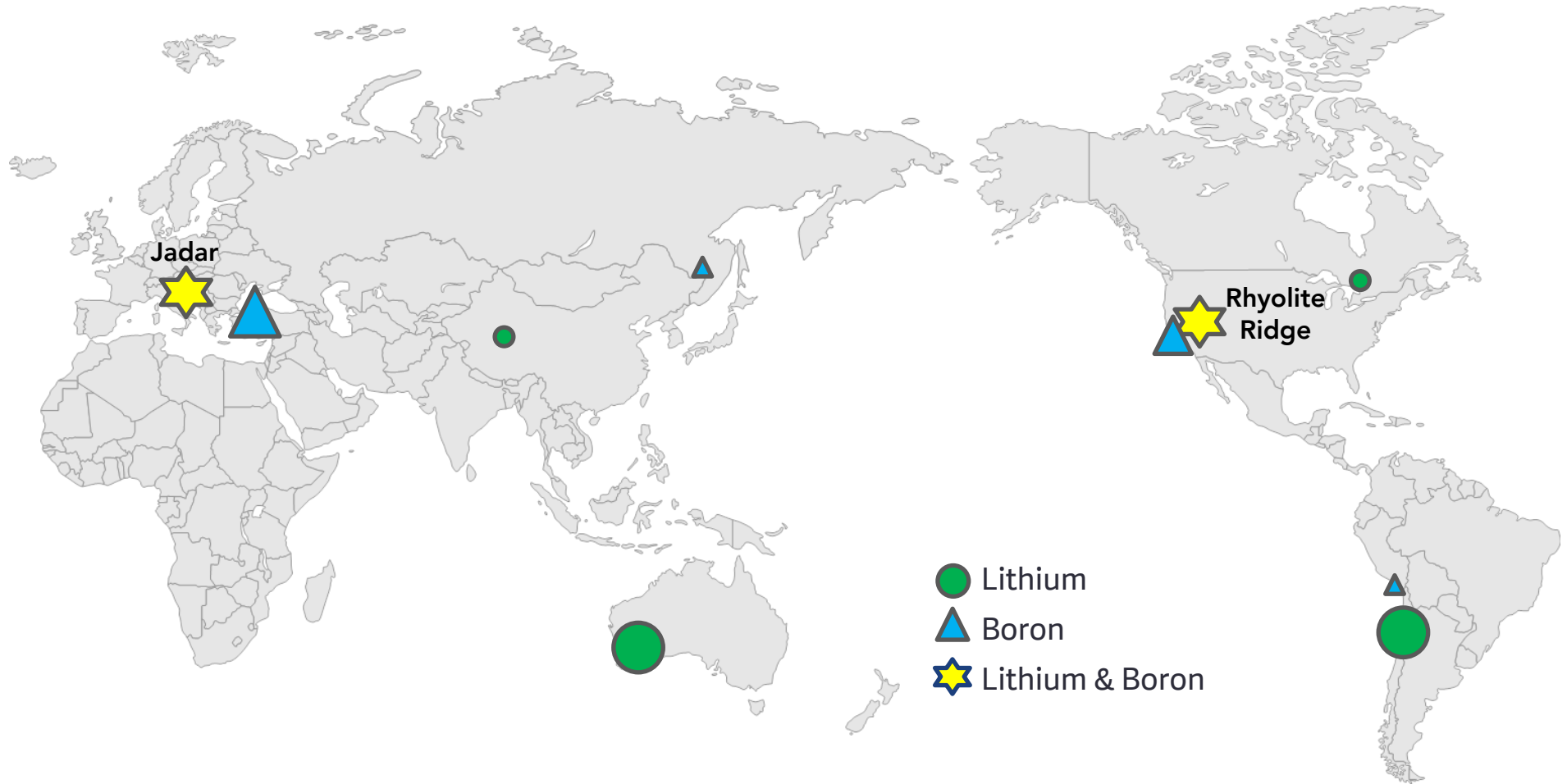
Limited Lithium-Ion Battery Supply Chain in USA



Increasingly reliant on Asia:

- Only minor domestic lithium production
- Action being taken to ensure supplies of critical minerals such as lithium
- 1 GWh of lithium-ion battery capacity requires circa 800 tonnes of lithium carbonate equivalent

Major Deposits/Districts



Lithium-Boron deposits are rare – only Rhyolite Ridge and Rio's Jadar

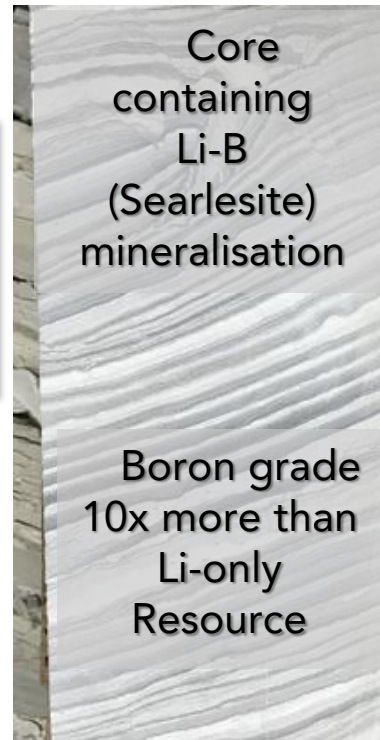
Two Distinct Types of Mineralisation at Rhyolite Ridge

Li-B (Searlesite) Resource*

121Mt at:
1,740ppm Li
12,600 ppm B

Contains
1.1Mt Li Carbonate
8.6Mt Boric Acid

To be processed



Li-only (Clay) Resource*

354Mt at:
1,565ppm Li
1,185 ppm B

Contains
2.9Mt Li Carbonate
2.3Mt Boric Acid

To be stockpiled



* Indicated and Inferred Resource

Project Design Layout per PFS



PFS Highlights

Annual Revenue
\$450M

Annual EBITDA
\$297M

After-tax
Cashflow
\$6.6B

After-tax NPV
(7% real):
\$1.8B

IRR
28%

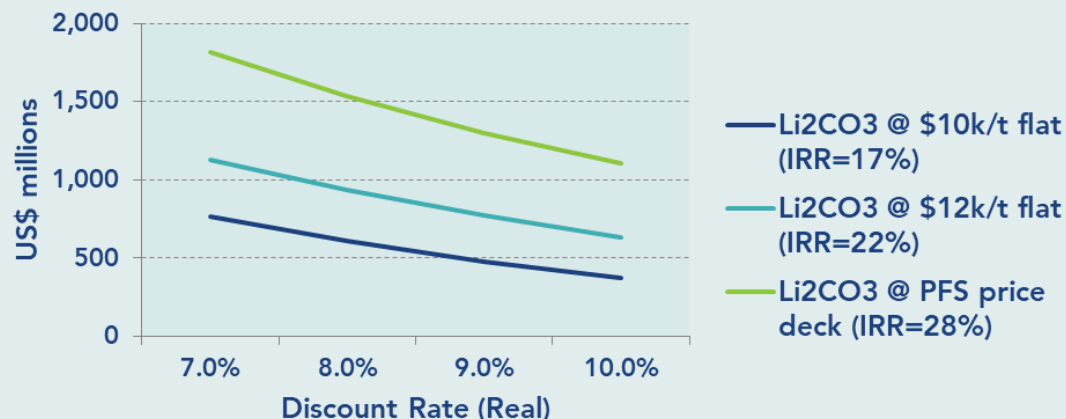
Bottom of the Cost Curve

- \$1,796 per tonne of lithium carbonate (with boric acid credit)

Long Life Project

- >30 years & expandable
- Initial production Q3 2021

NPV of Project CF After Tax (Ung geared)



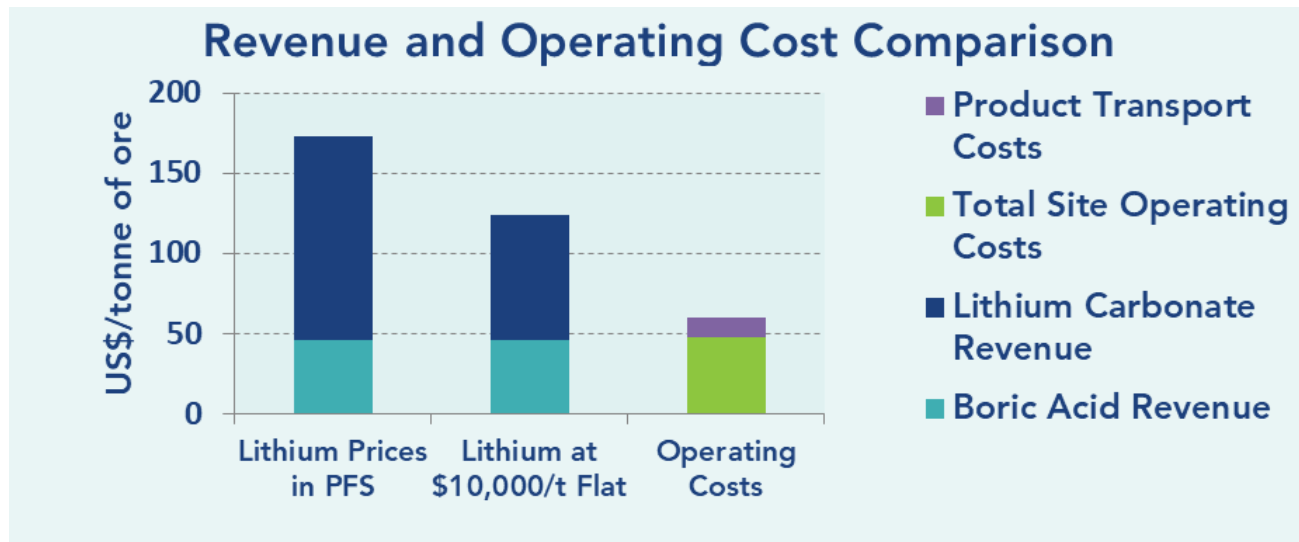
Lithium carbonate = 20ktpa, Boric acid = 173ktpa

Very Competitive Costs

Rhyolite Ridge to be at bottom of the lithium cost curve

PFS Base Case:

- Operating costs < \$2,000/t lithium carbonate (with boric acid credit)
- Boric acid revenue at conservative \$700/t pays for most of site operating costs

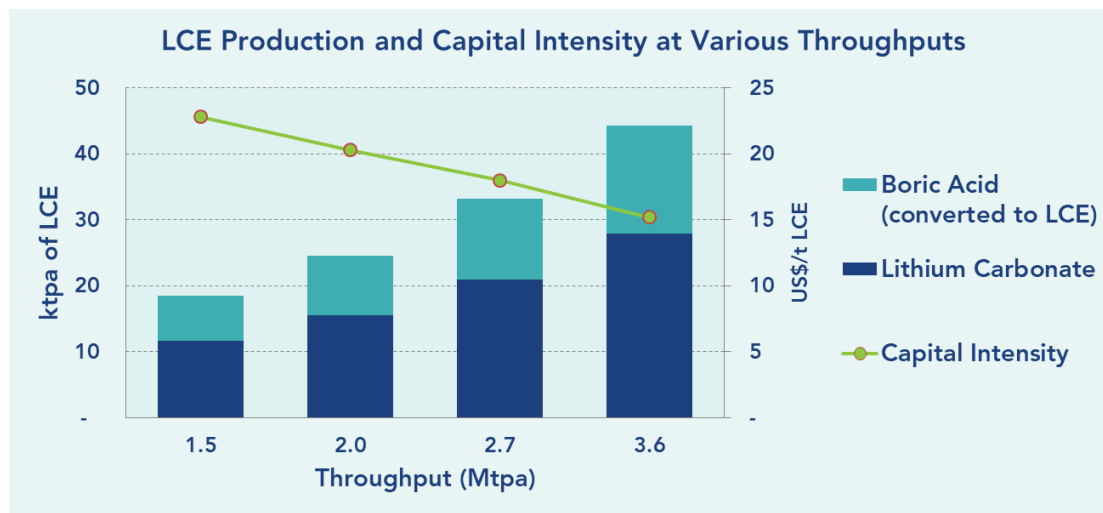


Capex Flexibility

Project sizing provides flexibility:

- Acid plant key capex driver
- Larger acid plant provides economies of scale
- Base case capital intensity of \$18k/t LCE compares favourably with industry range of \$15-25k/t LCE
- Capital intensity reduces to \$15k/t LCE at 3.6Mtpa
- Rapid payback of capital: 4 years
- Total capex reduces to \$421M for 1.5Mtpa

Base Case (2.7Mtpa) CapEx	US\$M	% of Direct
Acid Plant	173	41%
Processing Plant	190	45%
Other Direct	57	14%
Total Direct Cost	420	
Indirect + Owners Costs	111	
Contingency	68	
Total Project Costs	599	





Mining

Conventional truck and shovel quarry operation

Lithium-boron ore:

- Outcrops over 3 km and dips gently to west
- 20m to 40m thick and laterally consistent
- Resource open to south, north and east

Near-surface southern extensions currently being drilled:

- Aim to extend highest lithium grades to south
- Likely to upgrade boron grades in early mine plan
- Potential to reduce PFS strip ratio in early years of mining

Processing

Using processing technologies proven at commercial scale

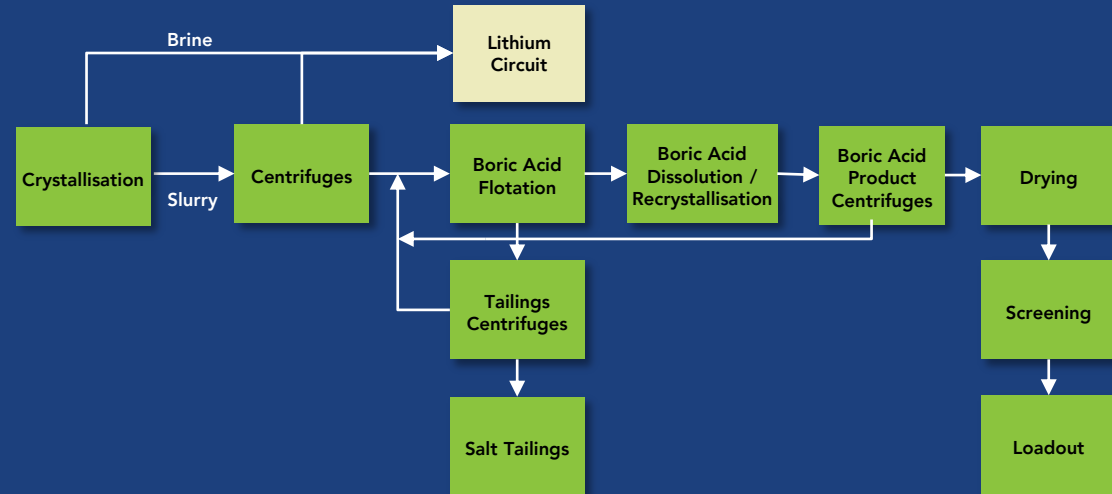
- On-site acid plant provides all of the steam and power required (+ circa 38MW surplus)
- Ore crushed to 25mm
- Ore vat leached at 50-60° C and at ambient pressure (similar to oxide copper)
- Boric acid crystallised from solution (similar to Rio's Boron Mine)
- Lithium carbonate crystallised from solution (similar to lithium brines)
- Overall lithium and boron recoveries of >80%
- **Very low cash costs due to:**
 - Simple process and high recoveries
 - Exothermic nature of producing acid
 - Boron revenue offsetting most of site costs



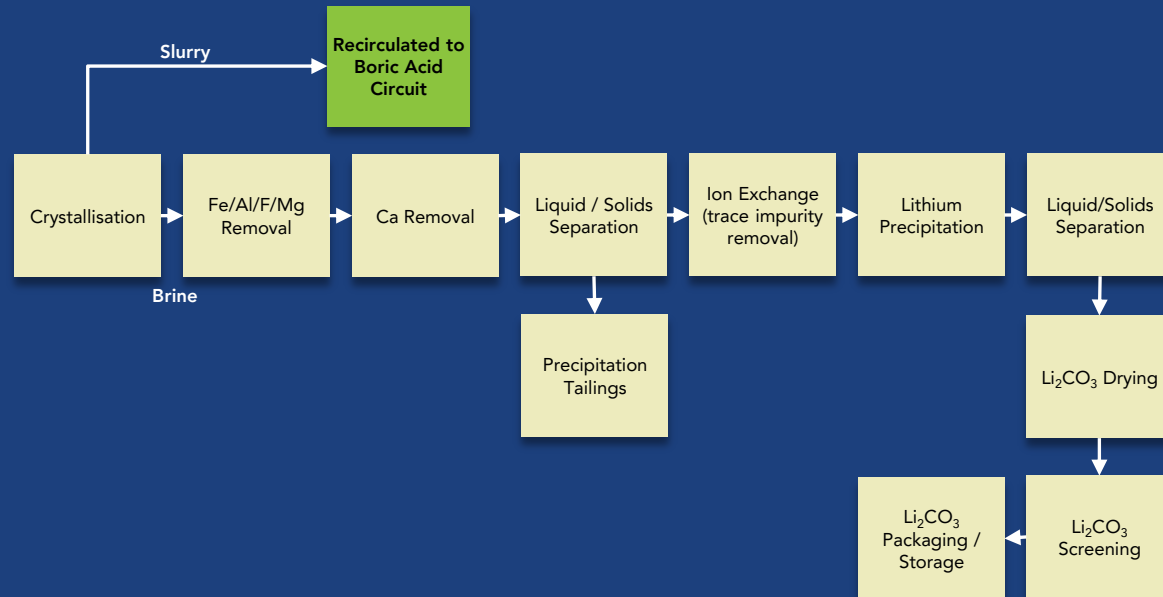
Material Circuits

- PLS into boric acid circuit to be circa:
 - 50-60° C
 - 0.05-0.10% Li / 5.0-5.5% boric acid
- Boric acid separated from the PLS first, primarily by cooling and then evaporation/concentration
- Heating and evaporation will be used to concentrate the PLS
- Concentrated solution sent to crystallisers
- Brine entering the Li_2CO_3 circuit to contain $\approx 1.0-1.4\%$ lithium
- Li_2CO_3 circuit similar to Li brine operations
- Impurities to be removed via precipitation are primarily Na, Mg, Ca, Fe
- Technical grade Li_2CO_3 initially
- Install purification circuit to produce battery grade Li_2CO_3
- Testwork underway on producing LiOH

Boric Acid Circuit

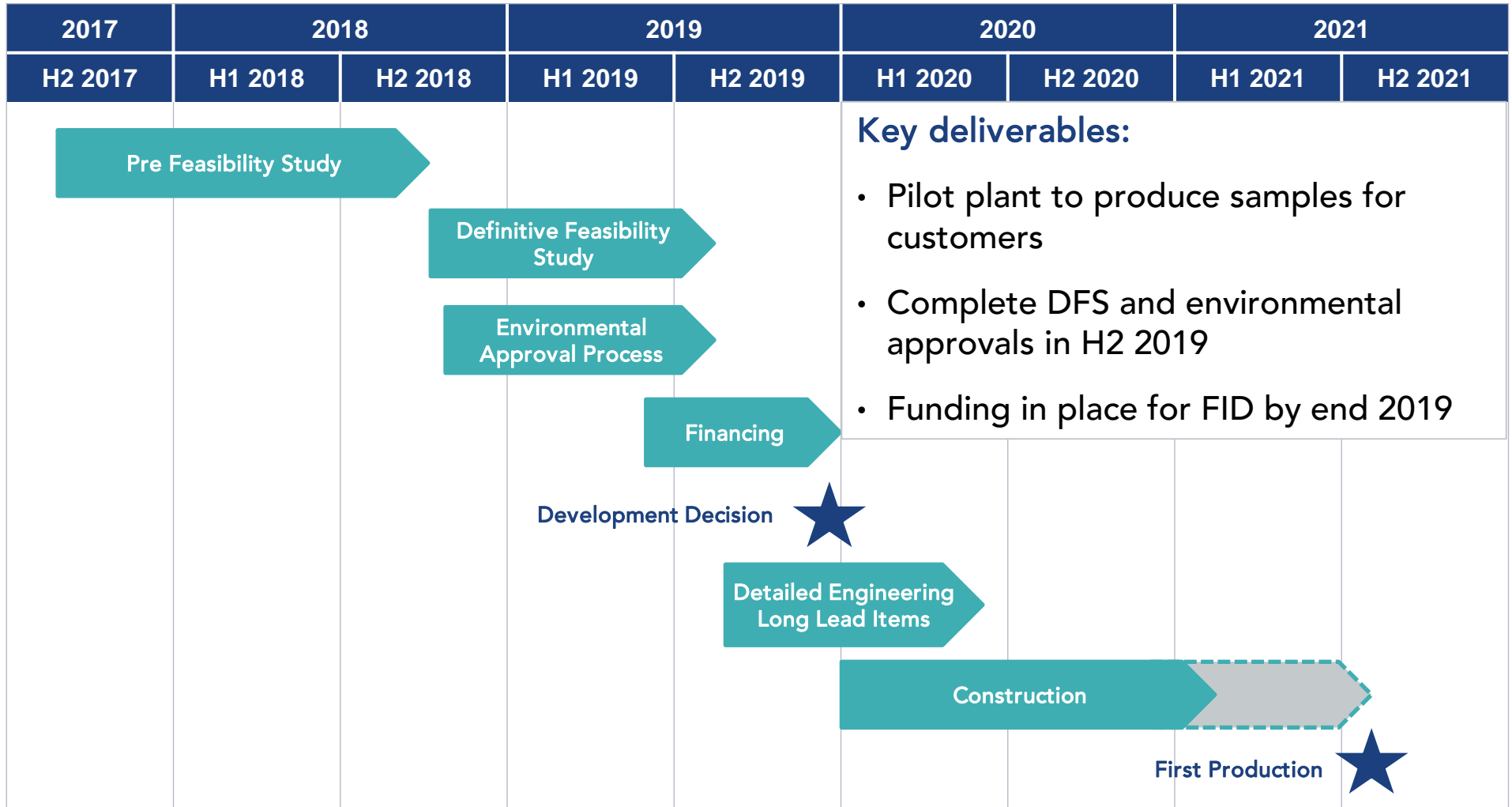


Lithium Carbonate Circuit



Key steps to production

Indicative Timeline for Rhyolite Ridge*



Funding Flexibility

Well positioned to assess and negotiate funding:



Recent Achievements

Providing the materials
for a sustainable & thriving planet.

PFS demonstrated the Project's scale, long life and potential to become the lowest cost lithium producer in the world as well as the largest lithium producer in the United States.

With forecast annual production of 20 Ktpa lithium carbonate and 173 Ktpa boric acid, Rhyolite Ridge will be a globally significant producer of both lithium and boron.



PFS Completed

Confirmed very low
operating costs



DFS Commenced

Fluor
appointed



Pilot Plant

Now increasing
scale of testwork



CFO Appointed

Qualified to build
organisation and
secure funding



Boric Acid

Premium quality
demonstrated by
testwork.



Drilling

Aimed at extensions
and improving
early cash flow

The image features a background with a green-to-blue gradient. On the left, there are several overlapping circles in various shades of green. The word "ioneer" is written in a white, lowercase, sans-serif font, with the letter 'i' having a small white circle above it. The background also has a subtle pattern of faint, larger circles.

ioneer

Providing the
materials for a
sustainable &
thriving planet.

ASX: INR

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Appendix

Board with experience in Li-B development:

James D. Calaway

Non-executive
Chairman

Former:

Non-exec Chairman
of Orocobre Ltd

Key experience:

Building &
transitioning junior
lithium, oil and gas,
solar and software
companies into
successful
commercial
enterprises

Alan Davies

Non-executive
Director

Former:

CEO, Energy &
Industrial Minerals, Rio
Tinto

Key Experience:

20-year career with
Rio Tinto; Led Rio's
division containing the
Boron Mine in
California and the
Jadar lithium-boron
deposit in Serbia

Patrick Elliott

Non-executive
Director

Former:

Head of corporate
finance for Morgan
Grenfell Australia
Limited

Key Experience:

30 years experience in
investment and
corporate
management,
specialising in the
resources sector

John Hofmeister

Non-executive
Director

Former:

President, Shell Oil,
US-based subsidiary of
Royal Dutch Shell

Key Experience:

Extensive energy
industry experience
and long-term
advocate for better
energy policies in the
United States

Bernard Rowe

Managing Director

Former:

Managing Director of
INR since IPO in 2007

Key Experience:

Qualified geologist
with over 25 years
international
experience in mineral
exploration and
management, including
over 15 years in
Nevada

Commercial & Technical Team:

Ian Bucknell

Chief Financial Officer

Key experience:

Ian has worked in several high-growth organisations and financed projects from discovery to production. 20+ years of international resource experience including being CFO of AWE and Drillsearch Energy.

Matthew Weaver

Sr. VP Engineering & Operations

Key experience:

30+ years working on both small and large-scale operations and development projects at BHP, Rio Tinto, Newmont and several smaller mining companies

Michael Le Page

Commercial Director, Sales & Marketing

Key experience:

40 years industry experience including various Chief Commercial, VP and GM roles with Rio Tinto. Recently in global sales, marketing and supply chain in salt, gypsum, talc and borates plus project work in lithium and potash

Yoshio Nagai

Sales & Business Development Director

Key experience:

25+ years international experience including 10 years with Rio Tinto primarily in Asia and the USA as Sales Vice President for borates, salt and talc products

Peter Ehren

Lead Process Engineer

Key experience:

Extensive experience in process development and optimisation for lithium, boron and potassium including with SQM and Orocobre

FLUOR[®]

is the engineering and design firm for the Rhyolite Ridge DFS

End uses

Li



Electric Vehicles



Energy Storage

B



Borosilicate
Glass



LCD /
TFT Glass



Industrial /
Chemicals



Agriculture



Textile Fiber
Glass



Frits /
Ceramics



Insulation



Other

1. Strong demand growth
2. Limited supply in North America
3. Essential for modern life
4. Broad range of uses mitigates reliance on single sector
5. Major Boron users also use Lithium
6. Small fraction of overall product cost

Lithium and Boron Conversion Factors

- Lithium and boron grades are fundamentally presented in parts per million (“ppm”) or percentages of each element in a given sample or estimate.
- Lithium and boron grades are also expressed as various compounds in percentages in order to facilitate comparisons between different types of deposits and/or various products.
- The lithium carbonate grades reported in the Company’s Mineral Resource estimates are calculated using the conversion factors in the table to the right and assume 100% of the contained lithium is converted to lithium carbonate
- The use of Lithium Carbonate Equivalent (“LCE”) is to provide data comparable with various lithium industry reports. LCE is often used to present the amount of contained lithium in a standard manner, i.e. – to convert lithium oxide into lithium carbonate. LCE is also used to convert revenue from other products (e.g. boric acid) produced at lithium operations into the amount of lithium carbonate that would provide revenue equivalent to a tonne of lithium carbonate.
- The formula used for the LCE values quoted in this report is:

$$\text{LCE} = (\text{lithium carbonate tonnes produced} + [(\text{boric acid tonnes produced} * \text{US\$700/tonne})/\text{US\$10,000/tonne}])$$

The conversion factors presented below are calculated on the atomic weights and number of atoms of each element in the various compounds.

Convert from		Convert to Li	Convert to Li ₂ O	Convert to Li ₂ CO ₃
Lithium	Li	1.000	2.152	5.322
Lithium Oxide	Li ₂ O	0.465	1.000	2.473
Lithium Carbonate	Li ₂ O ₃	0.188	0.404	1.000

Convert from		Convert to B	Convert to B ₂ O ₃	Convert to H ₃ BO ₃
Boron	B	1.000	3.219	5.718
Boric Oxide	B ₂ O ₃	0.311	1.000	1.776
Boric Acid	H ₃ BO ₃	0.175	0.563	1.000

October 2018 Mineral Resource Estimate (1,050ppm Li Cut-off)

Total Resource including Lithium-Only Mineralisation and Lithium-Boron (Searlesite) Mineralisation

Group	Classification	Tonnage Mt	Li ppm	B ppm	Li ₂ CO ₃ %	H ₃ BO ₃ %	K ₂ SO ₄ %	Contained		
								Li ₂ CO ₃ kt	Boric Acid kt	Potassium kt
Upper Zone	Indicated	149.6	1,890	7,250	1.0	4.1	1.6	1,510	6,180	2,430
	Inferred	<u>49.4</u>	<u>1,860</u>	<u>4,300</u>	<u>1.0</u>	<u>2.4</u>	<u>1.6</u>	<u>490</u>	<u>1,200</u>	<u>770</u>
	Total	199.1	1,880	6,520	1.0	3.7	1.6	2,000	7,380	3,210
Lower Zone	Indicated	192.4	1,370	2,880	0.7	1.6	1.6	1,410	3,060	3,020
	Inferred	<u>83.9</u>	<u>1,480</u>	<u>1,080</u>	<u>0.8</u>	<u>0.6</u>	<u>1.5</u>	<u>660</u>	<u>490</u>	<u>1,230</u>
	Total	276.3	1,410	2,340	0.7	1.3	1.5	2070	3,550	4,250
Upper & Lower Zone	Indicated	342.0	1,600	4,800	0.9	2.7	1.6	2,910	9,240	5,450
	Inferred	<u>133.4</u>	<u>1,600</u>	<u>2,300</u>	<u>0.9</u>	<u>1.3</u>	<u>1.5</u>	<u>1,150</u>	<u>1,690</u>	<u>2,000</u>
	Grand Total	475.4	1,610	4,100	0.9	2.3	1.6	4,060	10,930	7,460

October 2018 Mineral Resource Estimate (1,050ppm Li & 0.5% B Cut-off Cut-off)

Lithium-Boron (Searlesite) Mineralisation

Group	Classification	Tonnage Mt	Li ppm	B ppm	Li ₂ CO ₃ %	H ₃ BO ₃ %	K ₂ SO ₄ %	Contained		
								Li ₂ CO ₃ kt	Boric Acid kt	Potassium kt
Upper Zone	Indicated	71.9	1,840	14,110	1.0	8.1	2.0	700	5,800	1,420
	Inferred	<u>14.7</u>	<u>1,970</u>	<u>12,150</u>	<u>1.0</u>	<u>6.9</u>	<u>2.0</u>	<u>150</u>	<u>1,020</u>	<u>300</u>
	Total	86.6	1,860	13,780	1.0	7.9	2.0	860	6,830	1,720
Lower Zone	Indicated	32.2	1,430	9,750	0.8	5.4	1.7	240	1,730	530
	Inferred	<u>2.6</u>	<u>1,620</u>	<u>6,690</u>	<u>0.9</u>	<u>3.3</u>	<u>1.8</u>	<u>20</u>	<u>90</u>	<u>50</u>
	Total	34.8	1,440	9,520	0.8	5.2	1.7	270	1,820	580
Upper & Lower Zone	Indicated	104.1	1,700	12,800	0.9	7.2	1.9	950	7,540	1,950
	Inferred	<u>17.3</u>	<u>1,900</u>	<u>11,300</u>	<u>1.0</u>	<u>6.4</u>	<u>2.0</u>	<u>180</u>	<u>1,110</u>	<u>340</u>
	Grand Total	121.4	1,740	12,600	0.9	7.1	1.9	1,130	8,650	2,300

For further information on this Mineral Resource estimate, see Company announcement titled "Updated Rhyolite Ridge Mineral Resource Statement" dated 23 October 2018.