# ioneer

Investor Presentation

February 2022

Our mission is to provide the materials for a sustainable & thriving planet

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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 report titled "Rhyolite Ridge Ore Reserve Increased 280% to 60 million tonnes" dated 30 April 2020 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, 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.

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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.

ASX : INR

# Corporate Snapshot

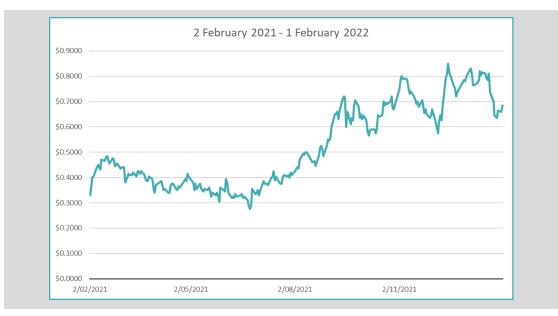


# Capital Structure

(As at 1 February 2022)

SHARES OUTSTANDING	2.05b
PERFORMANCE RIGHTS AND OPTIONS OUTSTANDING	76.9m
CASH BALANCE (31/12/2021)	<b>A</b> \$149.0m
SHARE PRICE ASX (1/02/2022)	A\$0.685
MARKET CAPITALISATION	A\$1.405b
52 WEEK SHARE PRICE RANGE (18/01/2022)	A\$0.27 - A\$0.855

### **Share Price**



### **Shareholders (31/12/2021)**

Insider Ownership 6.0%

Top 50 Ownership  $\sim 62.6\%$ 

**Substantial holders** 

Centaurus Sibanye-Stillwater

9.1% 7.1%

Institutional holders
37.5%
(Incl. Centaurus & SSW)



Source: Source: Company Data, FactSet, Nasdaq, Ipreo and CapIQ

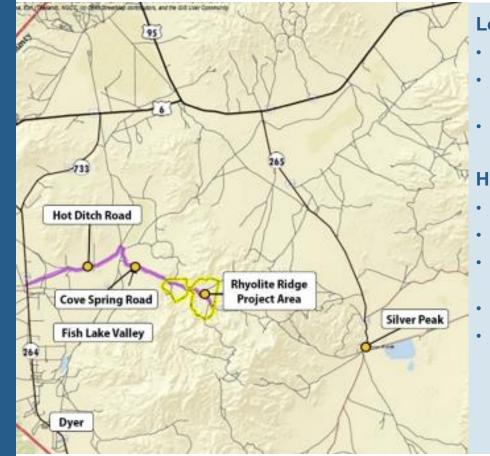
# Rhyolite Ridge Lithium-Boron Project



### INR

### Fact Sheet<sup>1</sup>

Location	Nevada, USA
Project Stage	Bankable Feasibility Study
Products	Li <sub>2</sub> CO <sub>3</sub> , LiOH, B
Resources <sup>2</sup>	146.5Mt
Production	Li 22,000 tpa B 174,400 tpa
Capex	US\$785M
All in sustaining cash cost	US\$2,510t of LCE
EBITDA	US\$288M (LOM)
After-tax NPV <sub>8</sub>	US\$1.265B
After-tax IRR	20.8%
Payback	5.2 years



### Location

- Esmeralda County, NV
- 25km west of Albemarle's Silver Peak lithium mine
- Tier-one mining jurisdiction

### **Highlights**

- Most advanced Li Project in the US
- World-Scale Resource
- 26+ year mine life with significant upside from Resource base
- Expected lowest cost lithium producer
- Fully funded to Final Investment Decision

<sup>1.</sup> See Company announcement titled "ioneer delivers DFS that confirms Rhyolite Ridge as a world-class lithium-boron Project dated 30 April 2020

<sup>2.</sup> See Company announcement titled "Rhyolite Ridge Ore Reserve Increased 280% to 60 million tonnes" dated 30 April 2020. Mineral Resource estimates include Ore Reserves.

# Most advanced lithium project in the US





ON TRACK TO BE CONSTRUCTION READY BY Q4 2022



~50% DETAILED ENGINEERING COMPLETED. KEY CONTRACTS ARE BEING AWARDED



FULL SIMULATION PILOT PLANT THROUGH TO LI CARBONATE AND HYDROXIDE



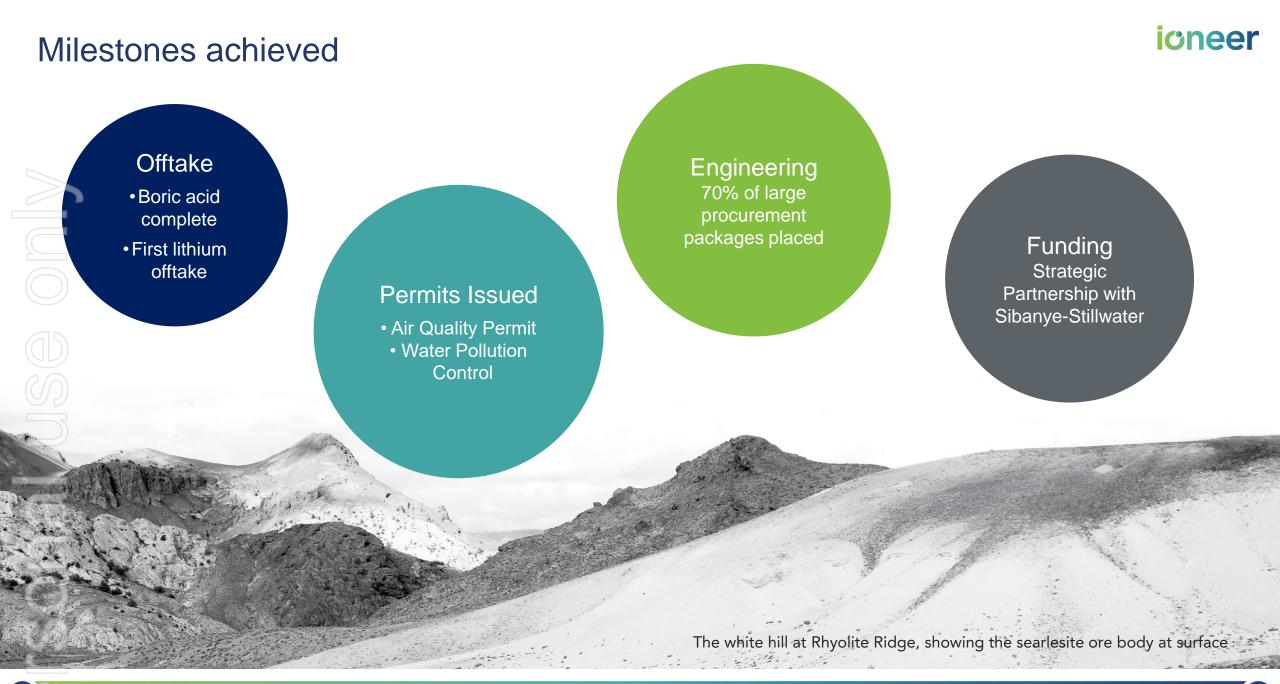
**ENVIRONMENTAL BASELINE STUDIES COMPLETED AND ACCEPTED BY BLM** 



BINDING OFFTAKE AGREEMENTS FOR BORON PRODUCTION AND FIRST LITHIUM CARBONATE



SIBANYE-STILLWATER ANNOUNCED AS 50% JV PARTNER, US\$490 MILLION INVESTMENT







# What next?





Additional lithium offtake
- US focused



US Listing on Nasdaq



### Project Debt

- Government loan support
- Project Finance



# **Detailed Engineering**

- Award of additional contracts
- Construction ready



# Fully Permitted

- Federal permit
- Final Investment Decision

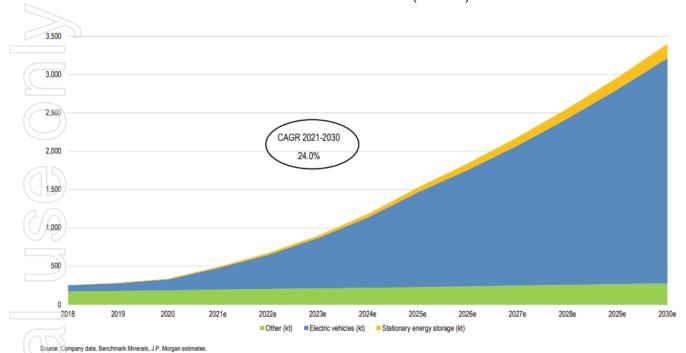


# Global lithium market trends



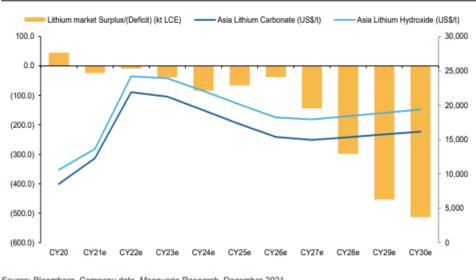
### **Increasing demand**

Global lithium demand (LCE kt)



### Short supply

Widening deficit in lithium market



Source: Bloomberg, Company data, Macquarie Research, December 2021

 Speed at which new entrants can enter the market presents a key risk to supply

# Rhyolite Ridge is ideally positioned to serve the US supply chain



### Forecast & existing EV battery plant manufacturers to 2031

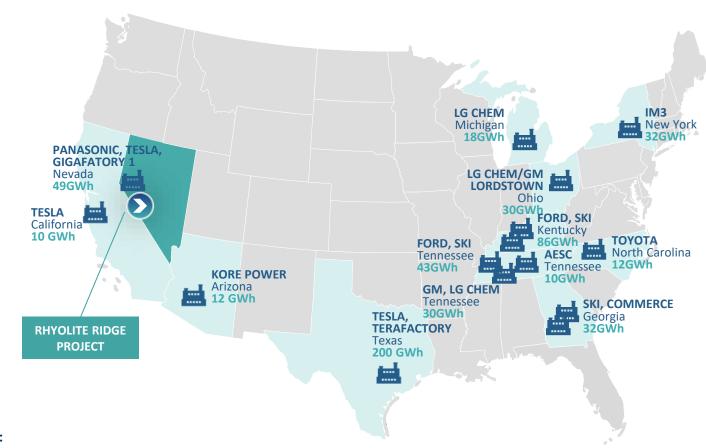


### **Demand**

- US gigafactory capacity in 2021 was 57 GWh from 4 gigafactories
- Forecast gigafactory capacity in 2026 is 393GWh from 21 gigafactories requiring ~337ktpa of LCE
- Forecast gigafactory capacity in 2031 is 703GWh from 21 gigafactories requiring ~602ktpa of LCE

### Supply

- Forecast total annual US production of LiOH by 2025 (inclusive of Rhyolite Ridge) is 122ktpa
- Current total annual US production of lithium is ~5ktpa



Some of the companies looking to build the US battery supply chain:





















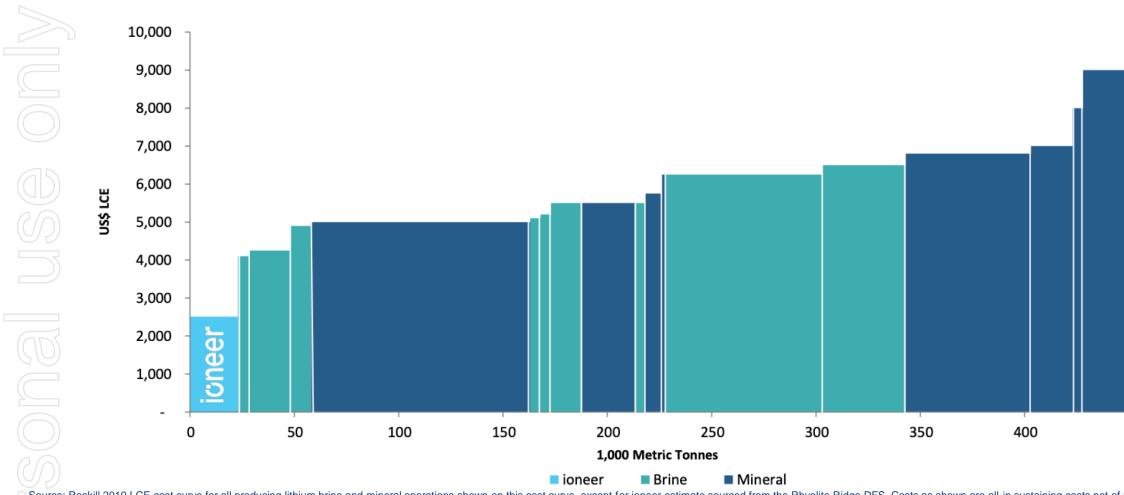
Source: Benchmark Mineral Intelligence Report - Gigafactory Assessment, January 2022



# Expected lowest cost producer



### All-in sustaining cash cost at the bottom of the cost curve



Source: Roskill 2019 LCE cost curve for all producing lithium brine and mineral operations shown on this cost curve, except for ioneer estimate sourced from the Rhyolite Ridge DFS. Costs as shown are all-in sustaining costs net of the boric acid credit. The Rhyolite Ridge all-in sustaining costs were based on the same methodology as the Roskill cost estimates. (Cost includes Conversion Cost to Li2CO3, Royalties, Freight CFR China, Assumes spot FX for RMB, AUD, ARS, CLP)



# Commitment to sustainability



Low emissions Low water usage **Small mine footprint** Efficient equipment Commitment to sustainability











- Majority of on-site power will be met with CO2-free energy production, low greenhouse gas emissions.
- Mobile equipment meets Tier 4 EPA standards
- 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
- No evaporation ponds or tailings dam.
- Initial mine footprint approximately 3.25 km<sup>2</sup>
- Generating all power on-site.
- Automation of mine haulage equipment
- All baseline studies for EIS completed over 2 years.
- Ongoing commitment to the environment and the protection and conservation of Tiehm's buckwheat

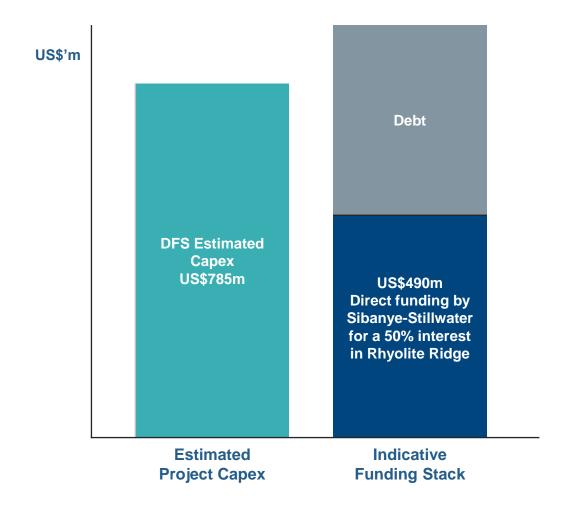
# Fully funded to final investment decision



### **Project financing and sources of capital**

### **Project Debt Financing**

- Sibanye-Stillwater is direct funding ~60% of the DFSestimated capital
- Capex spend to FID is funded from existing cash
  - ioneer and Sibanye-Stillwater (JV) to jointly secure full debt financing for the Project via:
    - U.S. Department of Energy ("DOE") Loan Programs
       Office ("LPO") commenced detailed due diligence
       process
    - Other Project Finance discussions progressing
- JV to agree a debt solution in 2022
- Supported by Goldman Sachs



Note: The size of the boxes and timescale are illustrative only and should not be relied upon as an indicator of the final composition of the capital stack.

# The right board and management team



### **Board of Directors**



**JAMES D. CALAWAY Executive Chairman FORMER:** Non-exec chairman of Orocobre Ltd



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





JAMES D. **CALAWAY Executive Chairman** 



**BERNARD ROWE Managing Director** 



**BERNARD ROWE Managing Director IONEER: Managing Director** since August 2007



**ROSE McKINNEY-JAMES** Non-executive Director **FORMER:** President and CEO of Corporation for Solar Tech & Renewable Resources



**MATT WEAVER** Snr VP Engineering & Operations



IAN BUCKNELL **CFO & Company** Secretary



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



JULIAN BABARCZY Non-executive Director **FORMER:** Head of Australian Equities, **Regal Funds Management** 



**KEN COON VP Human** Resources



**YOSHIO NAGAI VP Commercial Sales** & Marketing

# Surrounded by world-class partners





Ioneer Limited has invested ~US\$100m to date appraising and developing the Project

Sibanye-Stillwater 50% JV partner in Rhyolite Ridge having committed US\$490m

Fluor led the DFS work and is EPCM on the Project

DOE loan Programs Office Application deemed complete

Ioneer has sought best in class advisors to partner with

# Planned Rhyolite Ridge development schedule



### Timing of permitting key driver to development time line

2016	2017	2018	2019	2020	2021	2022	2023
	ed initial t in Project  Maiden Resource  Start drilling campaign	Boric Re	roduction of Acid lease of PFS Complete exploration drilling Maiden Reserve	<ul> <li>Reserves &amp;         Resources         upgrade</li> <li>Complete DFS</li> <li>Complete BA         Sales &amp;         Distribution</li> </ul>	<ul> <li>Production of battery grade LiOH</li> <li>Air Permit is</li> <li>First Li offta signed with EcoPro</li> </ul>	financing o	decision struction
	rights	uble Mineral source	Start Pilot Plant	<ul><li>Final Pla</li><li>Operation</li></ul>	Innovation an of on  Water Co complete Permit is	ontrol	Anticipated Record of Decision (ROD)
GO .		Discovery of heap leach Li-B extraction	<ul><li>LiCO pro Pilot Plar</li></ul>	duced at	JV wit Stillwa		Final Investment Decision
		Completion of mining study		A – Binding fftake	•	DOE Loan submission accepted as complete	Early-works construction

Note: All future dates and times are indicative and subject to change.

# Why ioneer?





FULLY FUNDED TO FINAL INVESTMENT DECISION



EXPECTED LOWEST COST LITHIUM PRODUCER



MOST ADVANCED
LITHIUM PROJECT IN US
Mining-friendly Nevada



COMMITMENT TO SUSTAINABILITY

Low emissions, energy & water efficient



SIGNIFICANT UPSIDE FROM LARGE RESOURCE BASE



THE RIGHT TEAM TO DELIVER THE PROJECT



# Contact information





# icneer Thank you

Our mission is to provide the materials for a sustainable & thriving planet

# Resources & Reserves



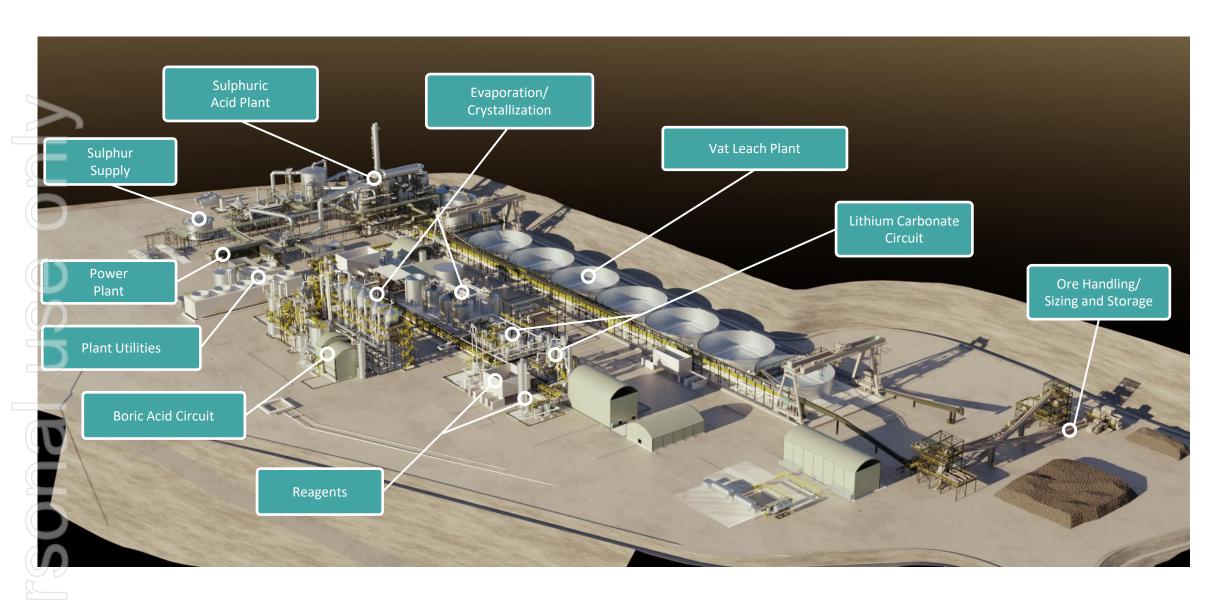
	Metric Tonnes (mt)	Li Grade (ppm)	B Grade (ppm)	Equivalent Grade		Equivalent Contained Tonnes	
				Li <sub>2</sub> CO <sub>3</sub> (%)	H <sub>3</sub> BO <sub>3</sub> (%)	Li <sub>2</sub> CO <sub>3</sub> (kt)	H <sub>3</sub> BO <sub>3</sub> (kt)
Mineral Resource							
Measured Resource	39.0	1,700	14,550	0.9	8.3	360	3,240
Indicated Resource	88.0	1,550	14,150	0.8	8.1	730	7,110
Measured and Indicated Resource	127.0	1,600	14,270	0.8	8.2	1,090	10,350
Inferred Resource	19.5	1,600	13,800	0.9	7.9	170	1,530
Total Mineral Resource	146.5	1,600	14,200	0.9	8.1	1,250	11,890
Ore Reserve							
Proved Reserve	29.0	1,900	16,250	1.0	9.3	290	2,700
Probable Reserve	31.5	1,700	14,650	0.9	8.4	280	2,620
Total Proved and Probable Ore Reserve	60.0	1,800	15,400	1.0	8.8	580	5,310

- Rhyolite Ridge total Ore Reserve almost quadrupled to 60 million tonnes (mt)
- Approximately half of the Ore Reserve is classified as Proved
- Boron grades increased by 26% in the total Ore Reserve, significantly lifting boric acid production
- Ore Reserve provides 94% of tonnes in current 26-year mine plan
- Total Mineral Resource of 146.5 mt containing a total of 1.2 mt of lithium carbonate and 11.9 mt of boric acid

Source: For further information on Resources and Reserves see ASX release titled Rhyolite Ridge Ore Reserve Increased 280% to 60 million tonnes dated 30 April 2020. Note, totals may differ due to rounding. Mineral Resources include Ore Reserves.

# Rhyolite Ridge process plant

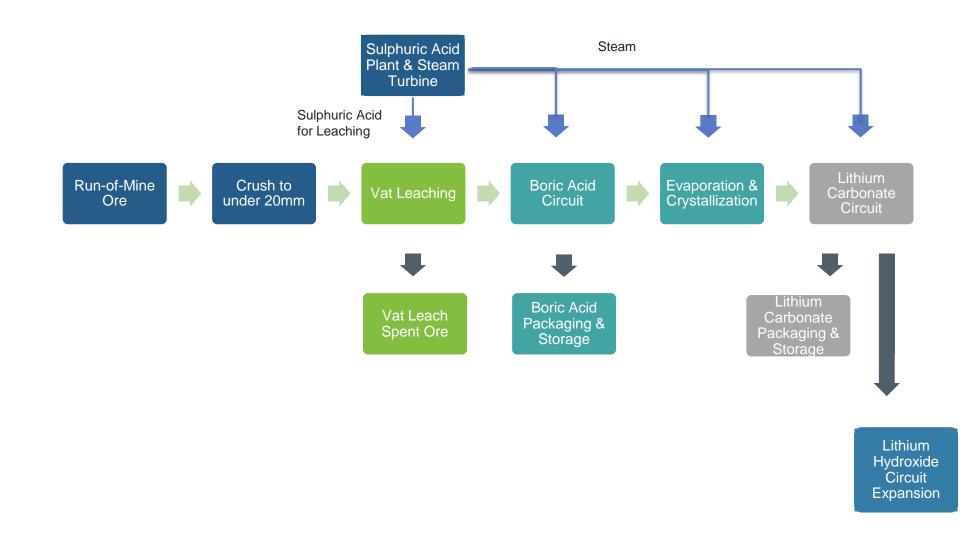




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# Rhyolite Ridge high level process flow diagram





# Rhyolite Ridge block flow diagram



