



# Front of the Line New Lithium Production

7 April 2020

Non-Deal Investor Presentation

[corelithium.com.au](http://corelithium.com.au) | ASX CXO

**APPROVED**



# Important and cautionary notes

The information in this release that relates to metallurgy and metallurgical test work has been reviewed by Mr Noel O'Brien, FAusIMM, MBA, B. Met Eng. Mr O'Brien is not an employee of the company, but is employed as a contract consultant. Mr O'Brien is a Fellow of the Australasian Institute of Mining and Metallurgy, he has sufficient experience with the style of processing response and type of deposit under consideration, and to the activities undertaken, to qualify as a competent person as defined in the 2012 edition of the "Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves" (The JORC Code). Mr O'Brien consents to the inclusion in this report of the contained technical information in the form and context as it appears.

The information in this report that relates to Ore Reserves underpinning the Production Target have been prepared by Mr Blair Duncan (BEng (Mining), MBA) as Chief Operating Officer of Core Lithium Ltd who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities 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". Mr. Blair Duncan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

This document has been prepared by Core Lithium Ltd ("Core", "Company") and provided as a basic overview of the tenements held or controlled by the Company. This presentation does not purport to be all-inclusive or to contain all the information that you or any other party may require to evaluate the prospects of the Company.

None of the Company, any of its related bodies corporate or any of their representatives assume any responsibility for, or makes any representation or warranty, express or implied, with respect to the accuracy, reliability or completeness of the information contained in this document and none of those parties have or assume any obligation to provide any additional information or to update this document.

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The mineral tenements of the Company as described in this presentation are at various stages of exploration, and potential investors should understand that mineral exploration and development are high-risk undertakings.

There can be no assurance that exploration of the Tenements, or any other tenements that may be acquired in the future, will result in the discovery of an economic ore deposit. Even if an apparently viable deposit is identified, there is no guarantee that it can be economically exploited.

This document contains statements which may be in the nature of forward-looking statements. No representation or warranty is given, and nothing in this presentation or any other information made available by the Company or any other party should be relied upon as a promise or representation, as to the future condition of the respective businesses and operations of the Company.

There is a low level of geological confidence associated with the inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

## Cautionary Statement:

The DFS results are based upon the updated Grants Mineral Resource of 22 October 2018 and the update BP33 Mineral Resource Estimate of 6 November 2018. The Mineral Resource contains Measured, Indicated and Inferred Mineral Resources. Whilst there is sufficient Measured & Indicated Mineral Resources to complete the production schedule during the 17-month payback period. There is a low level of geological confidence associated with the Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised. The Inferred Mineral Resource is not the determining factor in determining the viability of the Finnis Project as the Inferred Mineral Resource represents only 4.4% of the production during the 17 month pay-back period in the Reserve Case. The DFS Reserve Case contains 14% Inferred material. The DFS does not rely upon additional Mineral Resources from the company's other prospects. Further drilling in 2019 is expected to improve the classification of all of the company's Mineral Resources.

# Important and cautionary notes

## Competent Person Statements:

The Mineral Resources and Ore Reserves underpinning the Production Target have been prepared by competent persons in accordance with the requirements of the JORC code. The information in this release that relates to the Estimation and Reporting of Ore Reserves is based on, and fairly represents, information and supporting documents compiled by Mr Blair Duncan. Core confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the Mineral Resource and Ore Reserve estimates in the announcements “Grants Lithium Resource Increased by 42% ahead of DFS” dated 22 October 2018, “Over 50% Increase in BP33 Lithium Resource to Boost DFS” dated 6 November 2018, “Maiden Sandras Mineral Resource Grows Finnis to 6.3Mt” dated 29 November 2018, “Finniss Mineral Resource Grows to 8.6Mt with Hang Gong” dated 31 January 2019, “Upgrade of Mineral Resource at Carlton Grows Finnis Project” dated 12 March 2019, “Finniss Feasibility Study and Maiden Ore Reserve” dated 17 April 2019 and “Initial Resource for Lees Drives Finnis Mineral Resource” dated 6 May 2019 continue to apply and have not materially changed. Core confirms that it is not aware of any new information or data that materially affects the Exploration Results included in this announcement as cross referenced in the body of this announcement. The information included in this presentation has been obtained from the “Finniss definitive Feasibility Study and Maiden Ore Reserve” announcement dated 17 April 2019 and Core confirms that all material assumptions and technical parameters underpinning the forecast financial information derived from the Ore Reserve and Mineral Resource continue to apply and have not materially changed.

## Forward-looking Statements:

This release contains “forward-looking information” that is based on the Company’s expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the pre-feasibility and feasibility studies, the Company’s business strategy, plan, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, Mineral Resources, results of exploration and relations expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as ‘outlook’, ‘anticipate’, ‘project’, ‘target’, ‘likely’, ‘believe’, ‘estimate’, ‘expect’, ‘intend’, ‘may’, ‘would’, ‘could’, ‘should’, ‘scheduled’, ‘will’, ‘plan’, ‘forecast’, ‘evolve’ and similar expressions. Persons reading this news release are cautioned that such statements are only predictions, and that the Company’s actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information. Forward-looking

information is developed based on assumptions about such risks, uncertainties and other factors set out herein, including but not limited to general business, economic, competitive, political and social uncertainties; the actual results of current exploration activities; conclusions of economic evaluations; changes in project parameters as plans continue to be refined; future prices of scandium and other metals; possible variations of ore grade or recovery rates; failure of plant, equipment or processes to operate as anticipated; accident, labour disputes and other risks of the mining industry; and delays in obtaining governmental approvals or financing or in the completion of development or construction activities. This list is not exhaustive of the factors that may affect our forward-looking information. These and other factors should be considered carefully, and readers should not place undue reliance on such forward-looking information. The Company disclaims any intent or obligations to or revise any forward-looking statements whether as a result of new information, estimates, or options, future events or results or otherwise, unless required to do so by law. Statements regarding plans with respect to the Company’s mineral properties may contain forward-looking statements in relation to future matters that can be only made where the Company has a reasonable basis for making those statements.

## Currency:

Unless otherwise stated, all cashflows are in Australian dollars, are undiscounted and are in real terms (not subject to inflation/escalation factors), and all years are calendar years.

## Accuracy:

The DFS has been prepared to an overall level of accuracy of approximately -15% to +15%. This judgement is made following consideration of the basis studies and the features outlined in the Cost Estimation Handbook Second Edition Monograph 27 AusIMM, The Minerals Institute.



# Australia's next lithium producer

Core at the front of the line of new global lithium production

Regulatory approvals now in place to commence construction and operation of the Finnis Lithium Project

Highlights:

- Strong update to Feasibility Study later this Quarter
- Advancing discussions with additional offtake and finance partners
- Well capitalised with \$4 million cash
- Can fund key milestones & deliver construction ready project in 2020

*\$25 million Enterprise Value (EV) offers huge upside for Approved, Construction-ready Project with Offtake and 175,000tpa Production*

# Finniss Lithium Project - Key Advantages

Core is developing one of Australia most capital-efficient and low-cost lithium projects

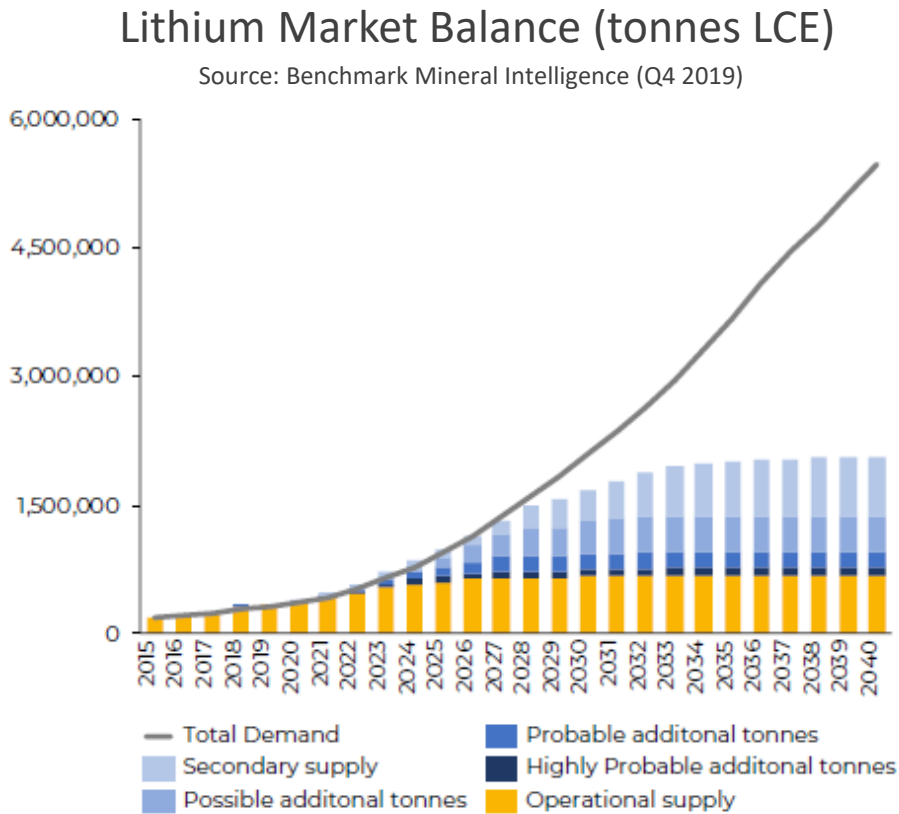
- High-grade lithium Resources
- High lithium recovery +70%
- Simple DMS processing (no flotation)
  - Significantly decreases capex, finance cost, risk and opex
- Low capex (A\$73M) producing high revenues (A\$160M-A\$170M/y)
- Production 175,000tpa high-quality lithium concentrate with low iron
- Mine Location 25km from Australia's closest port to Asia and nearby Darwin capital city infrastructure



*The Finniss Project ticks all the boxes*

# Medium and long-term lithium demand increasing

Lithium converters and battery and car manufacturers positioning for significant EV sales growth



**Tesla secures land for European factory**

Jan. 19, 2020 3:26 PM ET | About: Tesla, Inc. (TSLA) | By: Clark Schultz, SA News Editor

**Northvolt-VW announces German gigafactory plan as battery maker signs first ESS contract**

Published: 3 Dec 2019,

**SK Innovation announces new electric vehicle battery gigafactory in the US**

Fred Lambert - Dec. 4th 2018 9:18 am ET @FredLambert

**BMW Group signs €540M supply contract with Ganfeng for lithium from mines in Australia**

11 December 2019

**WoodMac: Volkswagen Will Be World's Biggest Electric Car Maker by 2030**

Tesla will need to launch an entry-level vehicle if it's going to achieve its own market-share ambitions, according to new WoodMac research.

JOHN PARNELL | JANUARY 14, 2020

**Umicore announces strategic supply agreement with Samsung SDI for NMC cathode materials**

Press Release 24 October 2019 – 06:00pm CEST

**Toyota, Panasonic announce battery venture to expand EV push**

TECHNOLOGY NEWS JANUARY 22, 2019 / 4:18 PM / A YEAR AGO

**Tesla's China Gigafactory will be the game-changer of 2020, predicts analyst**

By Joey Klender

**Chinese Government Extends EV Subsidies by 2 Years**

Subsidies Provided to Some EVs with Non-Chinese Batteries

By Jung Min-hee | April 2, 2020, 09:26

Medium- and long-term demand fundamentals outweigh short-term oversupply

# Core Lithium and the Finniss Lithium Project

ASX Listed developer with advanced lithium assets 25km from Darwin Port in Northern Australia

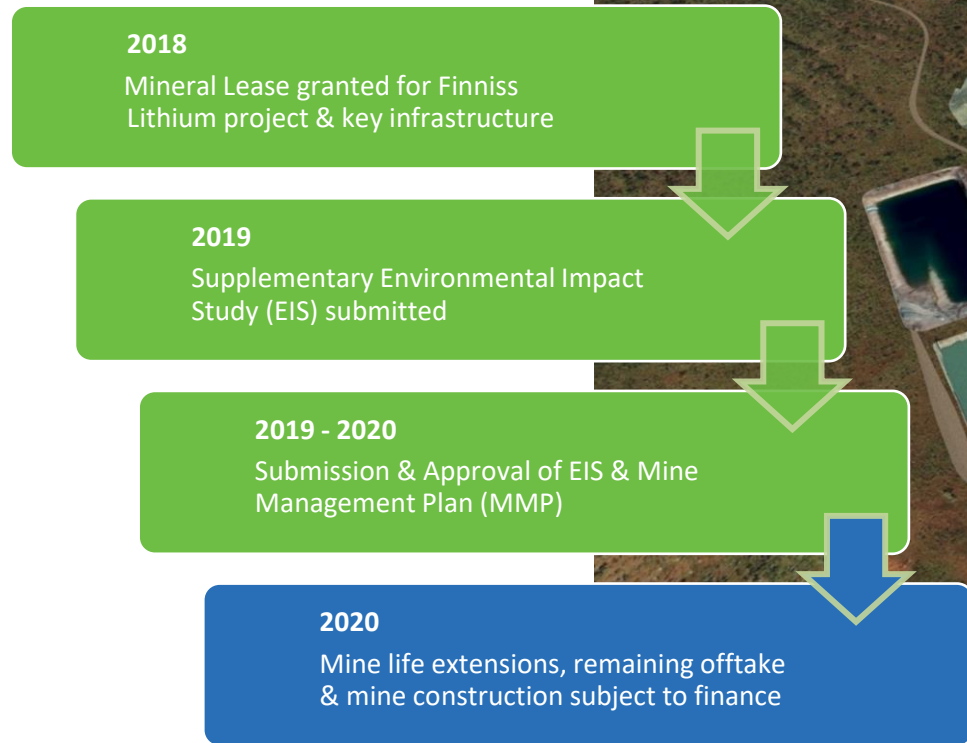


- World demand for lithium batteries and EV's continues to grow YoY
  - 300% lithium demand increase 2020 to 2025
- The Finniss Lithium Project meets the lithium and EV markets needs due to:
  - Low Capex **US\$45M**
  - Low Transport and Operating Cost C1 Cash Opex **US\$300/t**
  - High Revenue approx. **(US\$110 million per annum)**
  - Producing 175,000tpa of High Quality / Low Iron Lithium Concentrate
  - Low Technical Risk
  - Sustainable and Responsible Sourcing
  - Higher Margin and Quicker Payback
- Lithium supply deficit is coming.....and Core is at the front of the line



# NT Government approvals received for Finniss Lithium Project

## Approval milestones





# Definitive Feasibility Study (DFS) - April 2019

DFS was a snapshot in time - Finniss Lithium Project continues to evolve and grow

- DFS confirmed Finniss Lithium Project as robust, high-margin low-capex, lithium project
- 175,000tpa production capacity of high-quality lithium concentrate
  - Low Fe
  - Ideal coarse, low-moisture product
- DFS confirms low processing, mine, haulage and port costs
- EPC design, mining, haulage and crushing pricing tenders designed are being rolled into binding service contracts
- Targeting material extension from initial mine life in coming months through current resource drilling and mining studies

## Management Case Highlights



### Strong cashflow

High cashflow generated over initial project life



### Rapid payback

Payback <1.5 years from 1<sup>st</sup> conc.<sup>2</sup>



### Excellent Revenue

A\$160M Revenue per annum from 175,000tpa capacity



### Start-up capital cost

\$73m for process plant and infrastructure including A\$30m pre-strip development at Grants



### High rate of return

80% pre-tax IRR shows high profitability for shareholders<sup>2</sup>



### Low operating cost

US\$300/t<sup>1</sup> conc. delivers high margin

1. C1 Operating Costs are defined as direct cash operating costs of production FOB, net of by product credits, divided by the amount of payable spodumene concentrate. Direct cash operating costs include mining, processing, transport, treatment and refining costs. C1 Operating Costs exclude royalties and pre-strip mine development costs.

2. NPV has been discounted using a discount rate of 10% and NPV, IRR and Free Cash Flow are pre-tax nominal calculations. Payback is calculated from sale of first concentrate. Where nominal values are noted, costs and revenues are escalated at 2% CPI

# Mid-2020 Feasibility Update Objectives

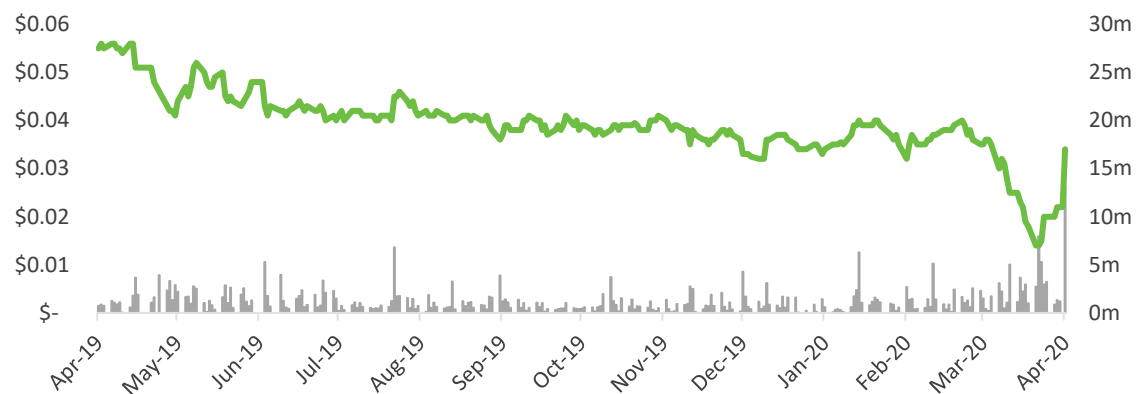
## Feasibility Update Objectives

Key Feasibility Metric	Apr-19 DFS	DFS Update Objectives
Ore Reserves	2.2Mt	Significant Increase
Project Mine Life	3.5 years	7 to 10 year target
Mining Method	Open Pit	Open Pit & Underground
Concentrate Product Quality	5.5%	5.8% - 6.0%
Product Recovery	+ 70%	+/- 5%
Start-Up Capital (CAPEX)	A\$73 million	+/- 5%
C1 Operating Cost (OPEX)	US\$300/t	1 <sup>st</sup> /2 <sup>nd</sup> Quartile

*Result = Financeable project with strong shareholder returns*

# Corporate information

Share Price Performance Last Twelve Months



Board of Directors

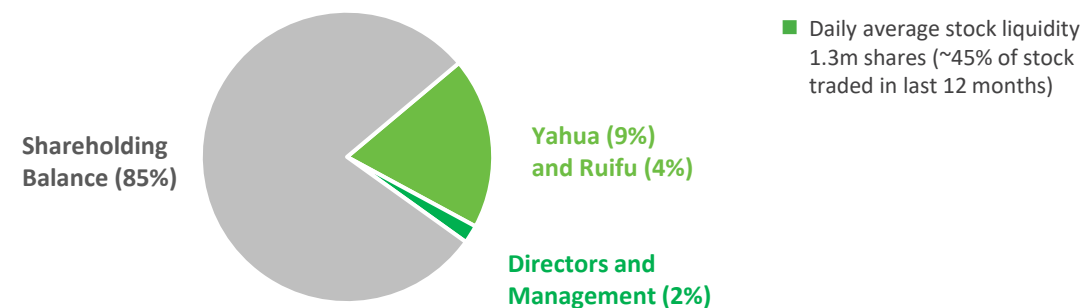
<b>Managing Director</b>	Stephen Biggins	<b>Chief Operating Officer</b>	Blair Duncan
<b>Non-Executive Chairman</b>	Greg English	<b>Chief Financial Officer</b>	Simon Iacopetta
<b>Non-Executive Director</b>	Heath Hellewell	<b>Metallurgical Advisor</b>	Noel O'Brien
<b>Non-Executive Director</b>	Malcolm McComas	<b>Commercial Marketing Manager</b>	Robert Sills
<b>Company Secretary</b>	Jarek Kopias	<b>Exploration Manager</b>	David Rawlings
		<b>Project Manager</b>	Sean Buxton

Management Team

Capital Structure (as at 3 April 2020)

Share Price	~A\$0.034
Shares on Issue	792.52M
<b>Market Capitalisation</b>	<b>~A\$27M</b>
Options and Rights Unlisted	72.82M
Cash (31 Dec 2019)	A\$4.0M
Debt Facilities	Nil
<b>Enterprise Value</b>	<b>~A\$23M</b>

Key Shareholder Composition (31 December 2019)





Prime location and  
valuable infrastructure  
available



*Excellent location & infrastructure advantages*

# Darwin Port

## Heads of Agreement

### **Core has agreement with Darwin Port to ship 250,000tpa of spodumene concentrate**

Darwin Port is Australia's nearest port to China

East Arm Wharf facilities at Darwin Port are well suited to handle potential future production from Core's lithium projects

Heads of Agreement signed with Darwin Port in respect of potential export of lithium products from Grants

Agreement provides Core with capacity to export up to either:

- 250ktpa of spodumene concentrate; or
- 1Mtpa of spodumene Direct Shipping Ore (DSO)





# Dense Media Separation (DMS) - no flotation circuit required

DMS avoids problems of other new lithium Australian flotation projects burdened by high capex, large debt and high finance cost and high operating cost (refer appendix)

- ✓ Simple DMS (Gravity) separation produces high quality lithium product
- ✓ 6.0%  $\text{Li}_2\text{O}$  Concentrate produced at high 70% Recovery
- ✓ DMS Produces high-quality lithium concentrate low in iron <0.7% & other contaminants
- ✓ Coarse product with low-moisture content and good handling properties another advantage for customers





# High quality spodumene lithium concentrate

## Concentrate Quality

**Li<sub>2</sub>O concentrate** 5.5-6.0%

**Net Recoveries** +70%

Finniss Lithium Project - Fully Permitted DMS Plant



## Finniss Lithium Product Specifications

Finniss Lithium Product

<u>Specification</u>	<u>Target</u>	<u>Min.</u>	<u>Max.</u>	<u>Typical</u>
Percentage < 0.1mm sizing	< 0.5%	-	1.0%	< 0.2%
Percentage < 0.5mm sizing	< 1.0%	-	3.0%	< 1.0%
Percentage > 1.0mm sizing	> 80%	75%	-	> 78%
P50 sizing	2.5mm	2.0mm	3.5mm	2.5mm
Max sizing	P <sub>100</sub> < 10mm	-	10mm	-
Moisture (H <sub>2</sub> O)	2.0%	-	3.0%	< 2.0%
Lithia (Li <sub>2</sub> O)	5.7%	5.0%	6.0%	> 5.5%
Fe <sub>2</sub> O <sub>3</sub>	<0.7%	-	1.0%	0.70%
Mica	<0.8%	-	3.0%	< 1.0%
Na <sub>2</sub> O	<1.0%	-	2.0%	1.3%
K <sub>2</sub> O	<1.0%	-	0.9%	< 0.7%
CaO + MgO + MnO (total)	<1.0%	-	2.0%	0.4%
P <sub>2</sub> O <sub>5</sub>	<0.5%	-	1.0%	0.30%
S	<0.05%	-	0.05%	< 0.02%

# Binding offtake agreement

## Offtake and investment with some of China's Largest Lithium Converters

Binding offtake for 75,000tpa of spodumene representing approx. 40% of Core's 175,000tpa production capacity

Core is also in the process of negotiating further offtake and finance agreements with some of Asia's largest lithium consumers and producers.

### **Sichuan Yahua Industrial Group Co.,LTD**

- One of China's largest lithium producers and has significant expansion plans. 12,000tpa lithium hydroxide refinery and a 6,000tpa lithium carbonate refinery, plans to expand its production to 50,000tpa of lithium salt production.
- The company is an A-share listed company on the Shenzhen-stock exchange in China, with a market capitalisation of CNY 7.92 billion (~A\$1.65 billion).
- Yahua is a major supplier of lithium salts in China. Yahua Group has long term stable relationships with a number of the large downstream customers of lithium batteries and has broad marketing and distribution channels including BYD, Zhenghua Materials, Dangsheng Tech, etc., and has cooperation relationship with LG Korea, GSEM, Panasonic.
- Yahua Group already has significant business interests in Australia, including operations in Darwin, where it manufactures explosives.

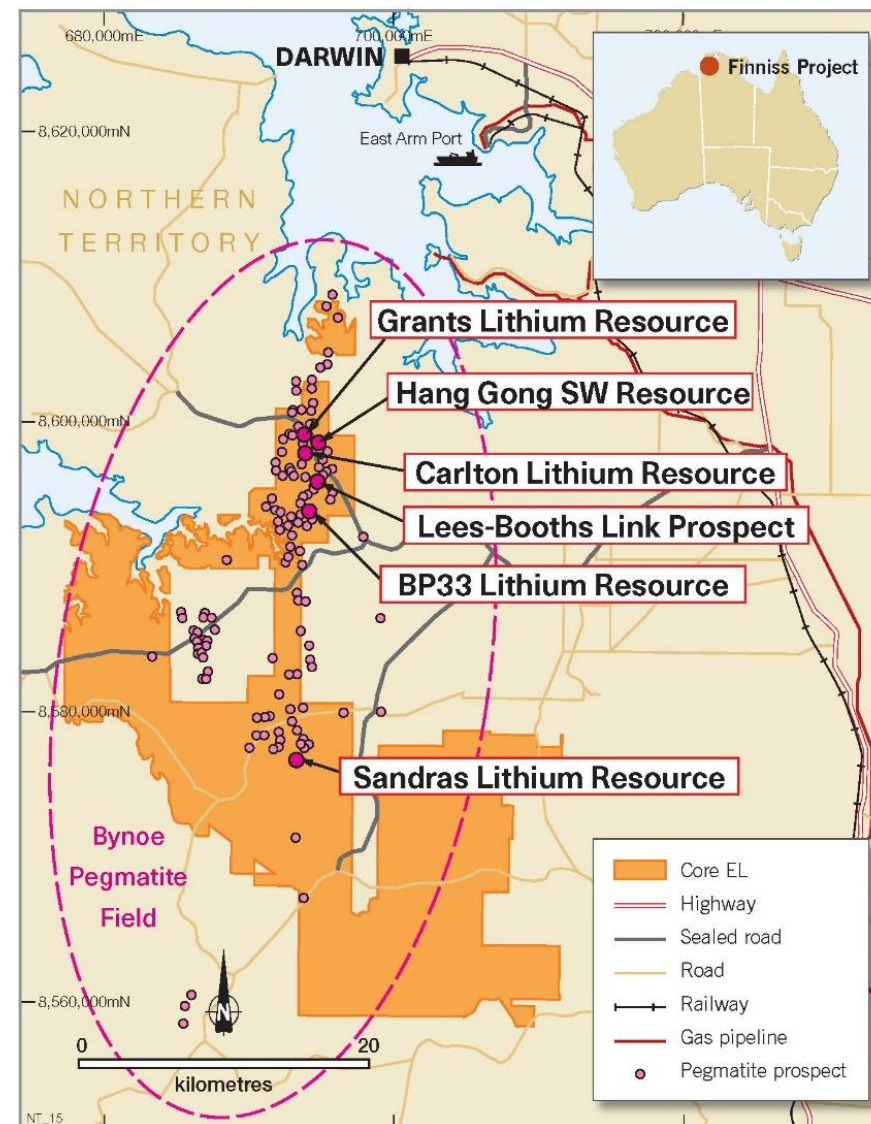
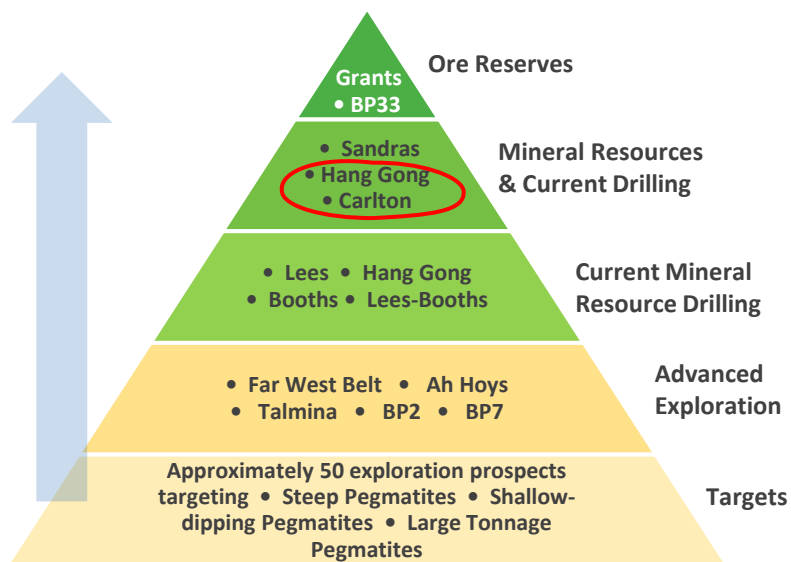


# Mineral Resources & Ore Reserves expansion Significant Upside

## Current Project Pipeline

**Pipeline** of high-grade lithium targets that formed the basis of recent resource drilling

**Current and Future Drilling Programs** leading to multiple Mineral Resource and Ore Reserve increases in 2020 and beyond

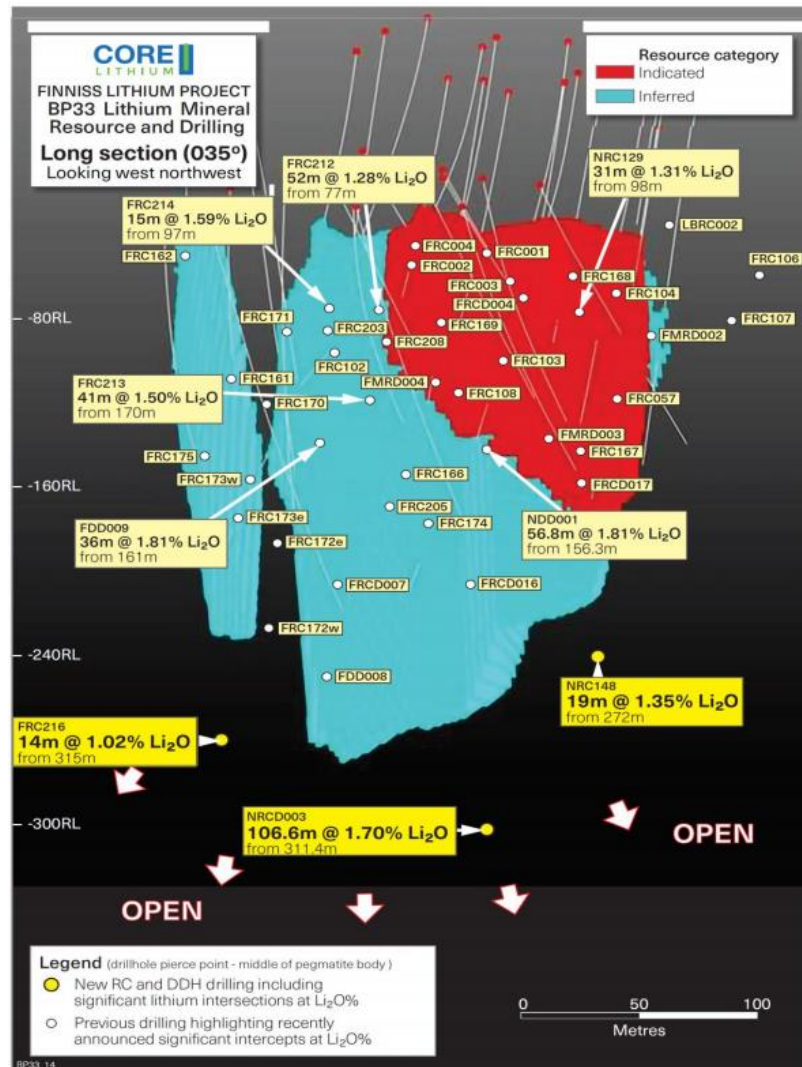


*500km<sup>2</sup> of tenure covering hundreds of pegmatites close to Darwin Port*



# Mineral Resources & Ore Reserves expansion BP33

Drilling programs leading to Mineral Resource and Ore Reserve increases in 2020



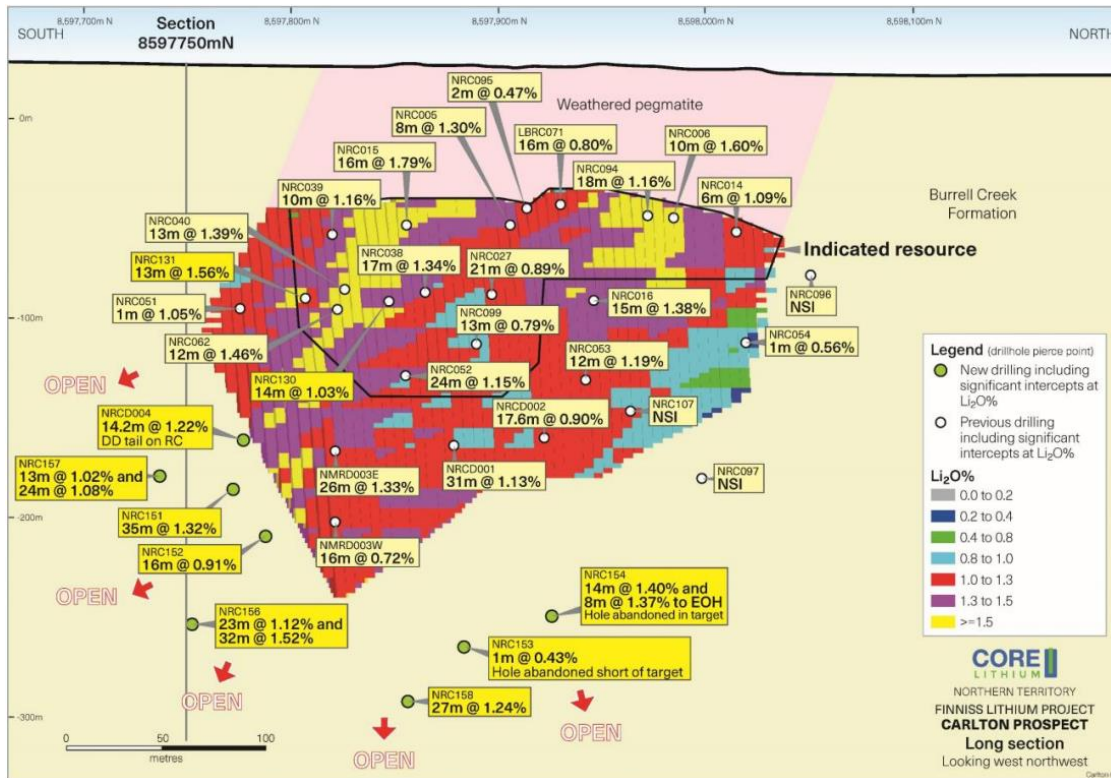
Thick intersections of high-grade spodumene pegmatite highlight consistent orebody quality

Recent high-grade drill intersections beneath current Mineral Resource envelope include:

- **107m @1.7% Li<sub>2</sub>O (NRC003)**
- 19m @1.35% Li<sub>2</sub>O (NRC148)
- 14m @1.02% Li<sub>2</sub>O (NRC216)

New drill results expected to substantially increase Ore Reserves and Mineral Resources at BP33, which still remains open at depth

## Drilling programs leading to Mineral Resource and Ore Reserve increases in 2020



## Wide intersections of spodumene pegmatite from recent drillholes at the Carlton Prospect

**Recent high-grade drill intersections beneath current Mineral Resource envelope include:**

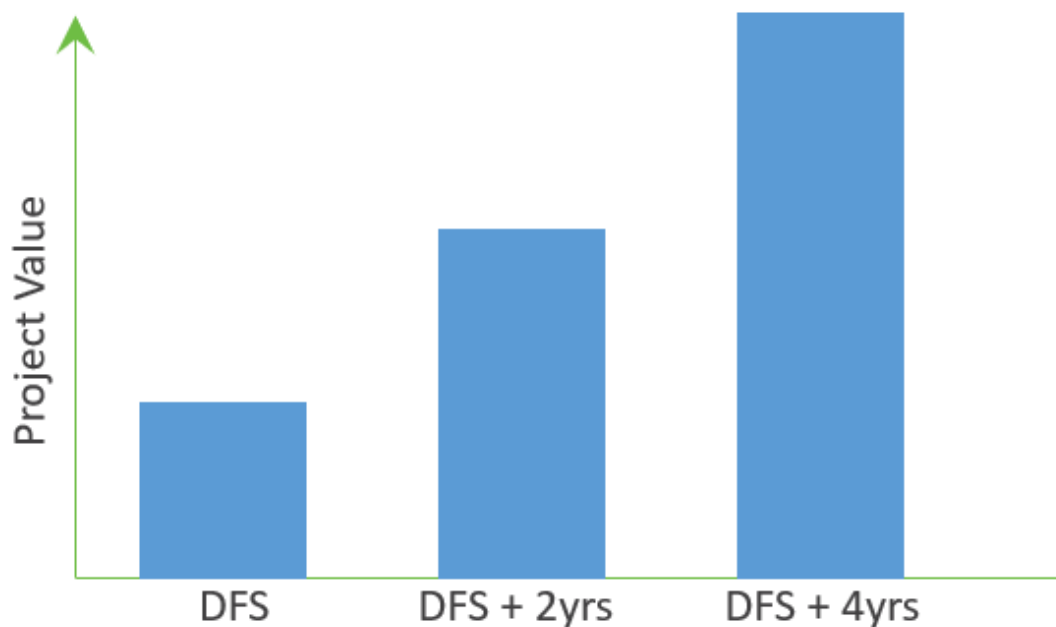
- 35m @1.32% Li<sub>2</sub>O (NRC151)
- 32m @1.52%Li<sub>2</sub>O & 23m @1.12% Li<sub>2</sub>O (NRC156)
- 27m @1.24% Li<sub>2</sub>O including 4m @ 2.28% (NRC158)
- 24m @ 1.08% & 13m @ 1.02% Li<sub>2</sub>O (NRC 157)

## New body spodumene pegmatite found to the east of Carlton which remains open at depth.

# Mineral Resources & Ore Reserves expansion Mine Life

Mine studies and Mineral Resource / Ore Reserve upgrades underway toward increasing mine life

- DFS clearly showed that additional mine life has a significant upside economics
- Core recently completed Mineral Resource and Ore Reserve expansion drilling
- Mining studies in progress toward significantly increasing mine life



*DFS showed that even modest mine life extensions have a significant positive impact on project economics*



# Positioned at front of the line to be Australia's next lithium producer



- ✓ Regulatory approvals in place to commence construction & operation of the Finnis Lithium Project
- ✓ Strong Update to Feasibility Study later this Quarter
- ✓ Advancing discussions with additional offtake and finance partners
- ✓ Well capitalised and able to fund key milestones and deliver a construction ready project in 2020



# Thank you

## For more information:

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## Authorised for release by the Board of Core Lithium Ltd.

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# Appendix

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# Spodumene Concentrate Processing

For personal use only

