



# Australia's Next Lithium Producer

FINNISS LITHIUM PROJECT  
SITE VISIT  
22/23 June 2021

Darwin, Northern Territory

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



# Important and cautionary notes

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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.

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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 Finniss 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.

# 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, “Maiden Sandras Mineral Resource Grows Finnis to 6.3Mt” dated 29 November 2018, “Finniss Feasibility Study and Maiden Ore Reserve” dated 17 April 2019, “Initial Resource for Lees Drives Finnis Mineral Resource” dated 6 May 2019, “Finniss Lithium Resource increased by over 50%” dated 15 June 2020 and “Increased Ore Reserve Significantly Extends Finnis” dated 30 June 2020 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 and Mineral Resources included in 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 “Increased Ore Reserve Significantly Extends Finnis” dated 30 June 2020 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. Core confirms that it is not aware of any new information or data that materially affects the results included in this announcement as cross referenced in the body of this announcement and additionally as “Significant Lithium Exploration Target at Finnis” on 20 May 2021. The exploration target ranges 9.8Mt to 16.2Mt and 0.8 Li<sub>2</sub>O to 1.4 Li<sub>2</sub>O.

## 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.





Welcome to Darwin –  
capital of the Northern  
Territory

# Australia's next lithium producer

At the front of the line of new global lithium production

- ✓ Australia's most advanced new Lithium Project, only 25km from port
- ✓ Construction-ready with Government approvals in place
- ✓ Stage 1 FID Q3 2021, Construction start Q4 2021, Production start 2H 2022
- ✓ Binding offtake with Yahua to potentially be part of Tesla's Supply Chain
- ✓ Rapidly advancing additional Offtake and Project Finance
- ✓ A\$85-90M capex producing 180-190 ktpa (A\$180M/y @ current price)
- ✓ New acquisition with 10Mt-16Mt ETR to double Resource and LOM
- ✓ Stage 2 Resource expansion drilling and exploration underway
- ✓ Well-funded \$40M cash

# CXO is Australia's most advanced lithium developer

Core's Finniss Project is low-risk, capital efficient, near construction-ready and offers substantial value upside

## Stage 1 Project

### Metric

## Finniss

(Core Lithium ASX: CXO)

Approved

Yes

DFS

Yes

Binding offtake<sup>4</sup>

Yes

Reserves

Yes

Mining

Open Pit and U/G

Distance to port

88km<sup>3</sup>

C1 Site Opex (US\$/t)<sup>1</sup>

US\$/t 350 - 400

Start-up Capex

A\$85-90m

Production (tpa)

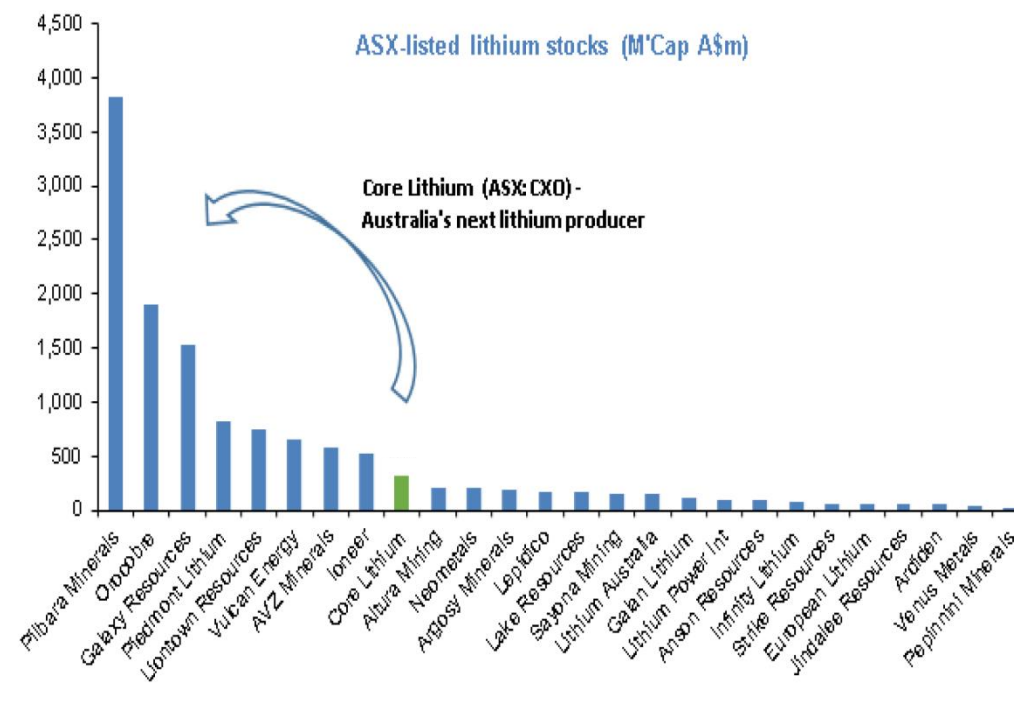
190,000

Cash

A\$40 million

Enterprise Value (\$m)<sup>2</sup>

~\$200-250 million



Source: Iress, Petra Capital

Information sourced from ASX announcements

1 C1 Site Opex (US\$/t) excludes by-product credits

2 As at June 2021

3 By NT government maintained sealed road

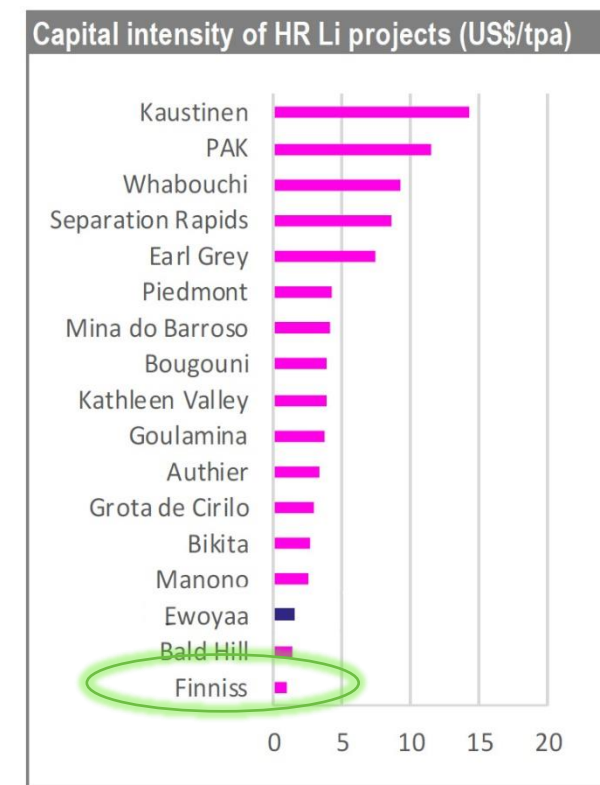
4. 40% with Yahua



# Finniss Lithium Project - key advantages

Core is developing one of Australia's most capital-efficient and cost-competitive lithium projects

- **Location adjacent to world class infrastructure**
  - High-grade lithium resources 25km from Australia's closest port<sup>2</sup> to Asia and nearby Darwin capital city infrastructure
- **No flotation (avoids 2/3 capex, opex cost and opex risk)**
  - Simple DMS produced SC6 at high lithium recovery ~70%
  - Significantly decreases capex, finance cost, opex/risk and emissions
  - Producing 190,000tpa<sup>1</sup> high-quality, low-iron lithium concentrate
  - = Low start-up capex (~A\$90M<sup>1</sup>) producing high revenues (~A\$180M/y<sup>1</sup>)

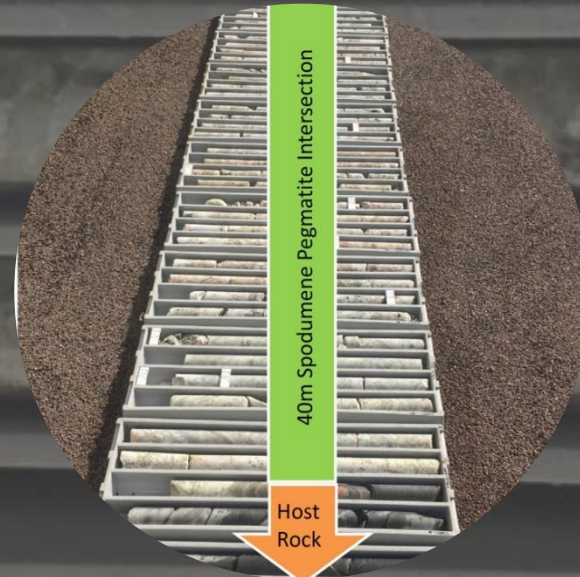


Source: Company data, BM Review estimates

<sup>1</sup> 2020 PFS, current and forecast estimates for Stage 1

<sup>2</sup> Direct distance

# Spodumene Pegmatite Core



Spodumene intersection grading 2.03%  $\text{Li}_2\text{O}$  (106m-111m)  
Hosted by lighter coloured (white) feldspar  
Grants Prospect, Finniss Lithium





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

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

- ✓ Simple DMS (gravity) separation produces high quality lithium product
- ✓ Why does DMS work so well?
  - ✓ >99% of lithium is spodumene
  - ✓ Large crystals of spodumene liberate at 6mm coarse crush
  - ✓ Simple mineralogy – dense spodumene separates well from lighter quartz/feldspar crystals using gravity
- ✓ 6.0%  $\text{Li}_2\text{O}$  (SC6) concentrate produced at high 70% recovery
  - ✓ Low <0.7% Fe & low-moisture content
  - ✓ Coarse product with good handling properties for customers



# Battery-grade lithium hydroxide produced from Finniss concentrate

Scoping level test work on Finniss Project spodumene mineral concentrate sample has produced 'battery grade' lithium hydroxide monohydrate (LH)

- Core's LH satisfied all impurity specifications of the commonly referenced battery grade specification from Livent
- Conversion to battery grade LH used the conventional 'direct' flowsheet
- Excellent extraction and recovery of lithium to LH crystallisation steps (>95%)
- Core believes Finniss lithium concentrate quality suitable for the high-end lithium battery, renewable energy and EV industries

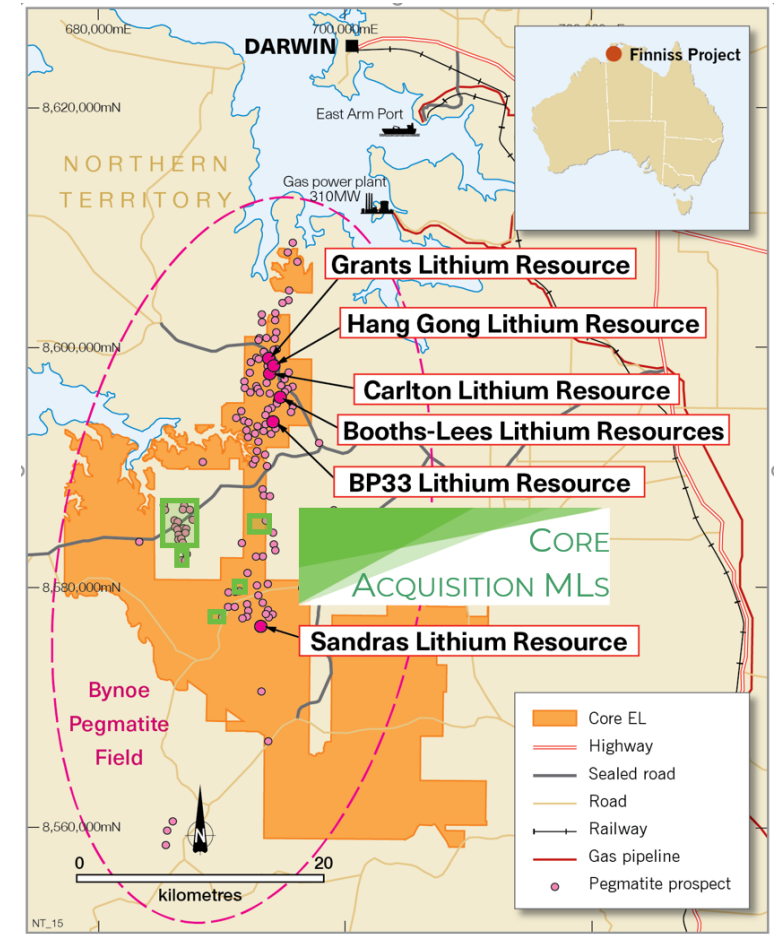
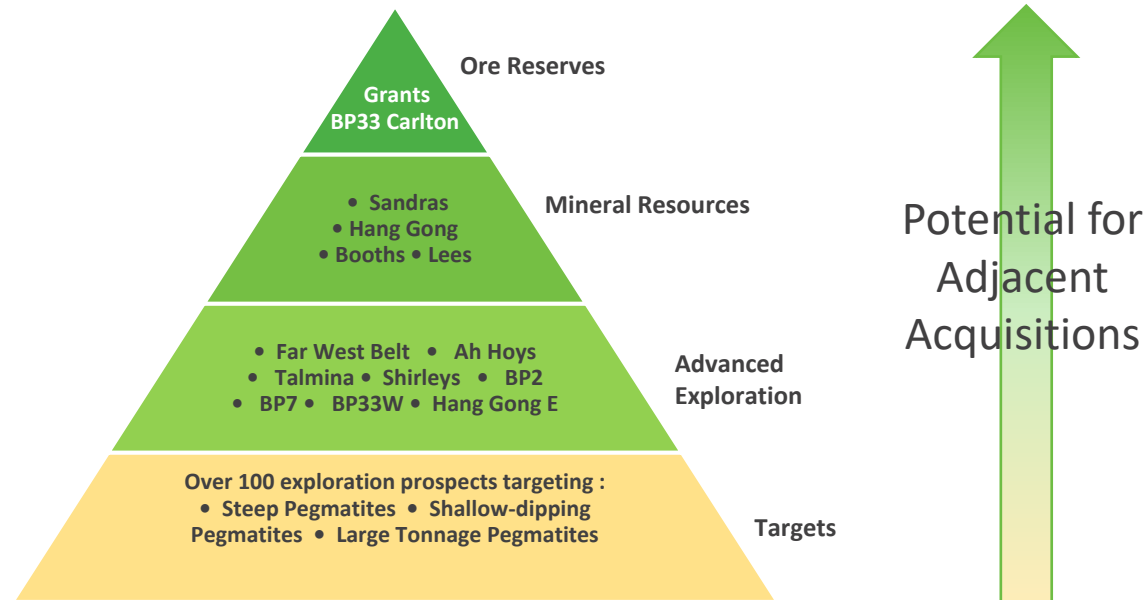


CXO announcement "Battery Grade Lithium Hydroxide from Finniss Project" on 6 April 2021.

# CXO now well-funded, recent acquisition deal to increase LOM and production capacity

CXO 2018-2020 – Capital restrained – but still 150% increase to the Measured/Indicated Resource and Reserves

CXO 2021/22 – Well Funded and recent acquisition deal to accelerate LOM growth and capacity increases

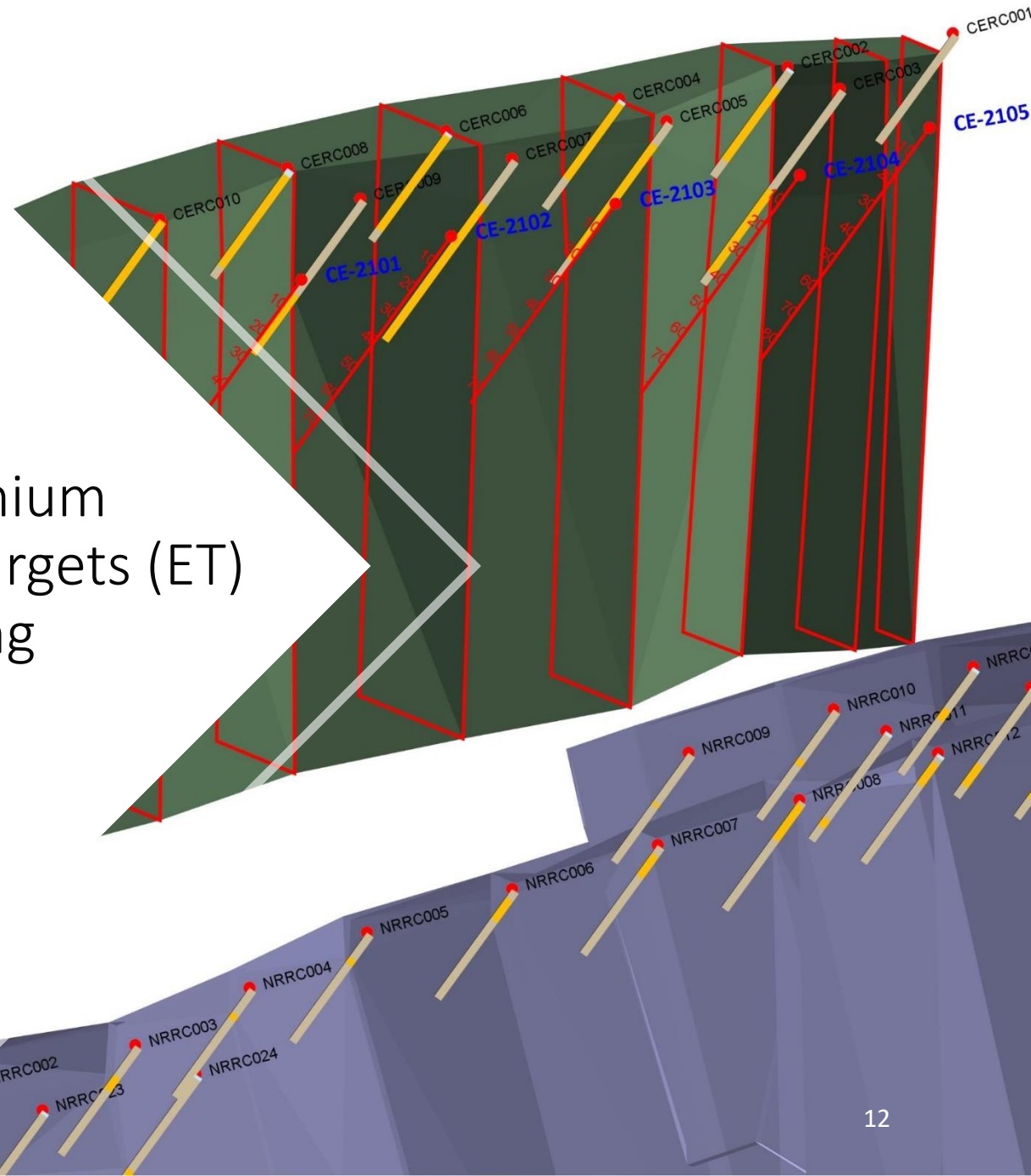


2021 Resource expansion drilling and exploration has recommenced





## New Lithium Exploration Targets (ET) Drilling



# New 10Mt-16Mt ET adds to 15Mt Resource

Clear pathway for Core to more than double resources and LOM

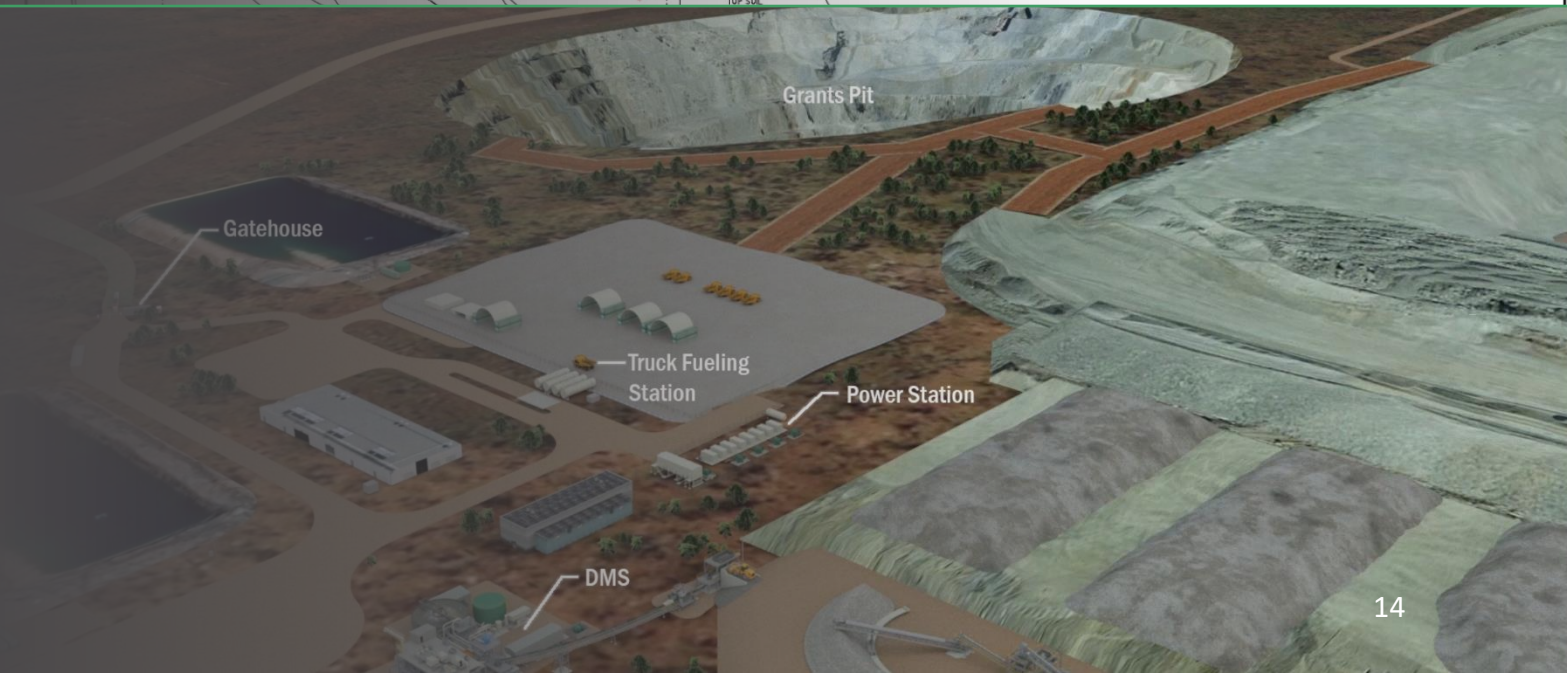
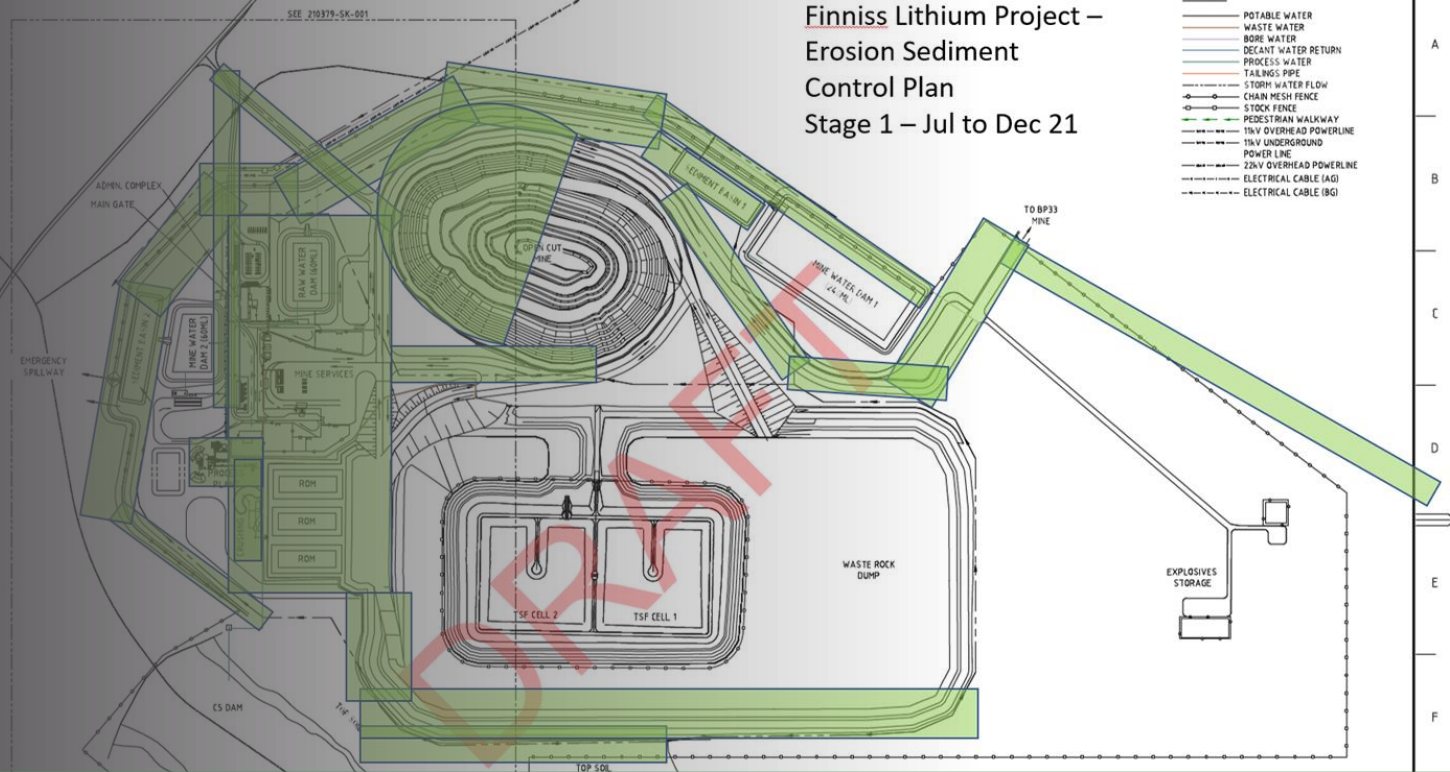
Organic and Strategic Resources Growth



The ET is supported by historical drilling, trenching and exploration results. The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

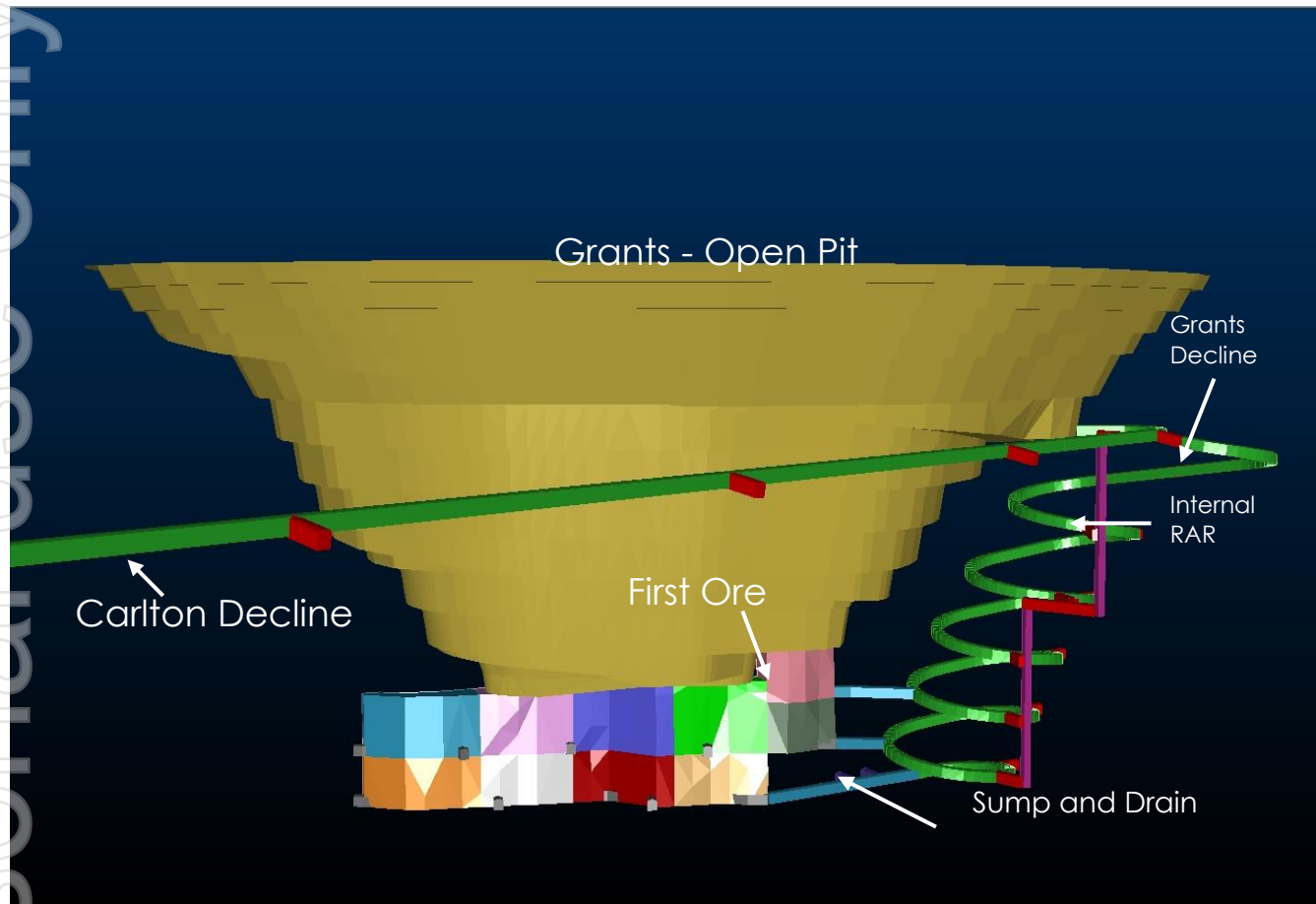


# Mine Design and Construction

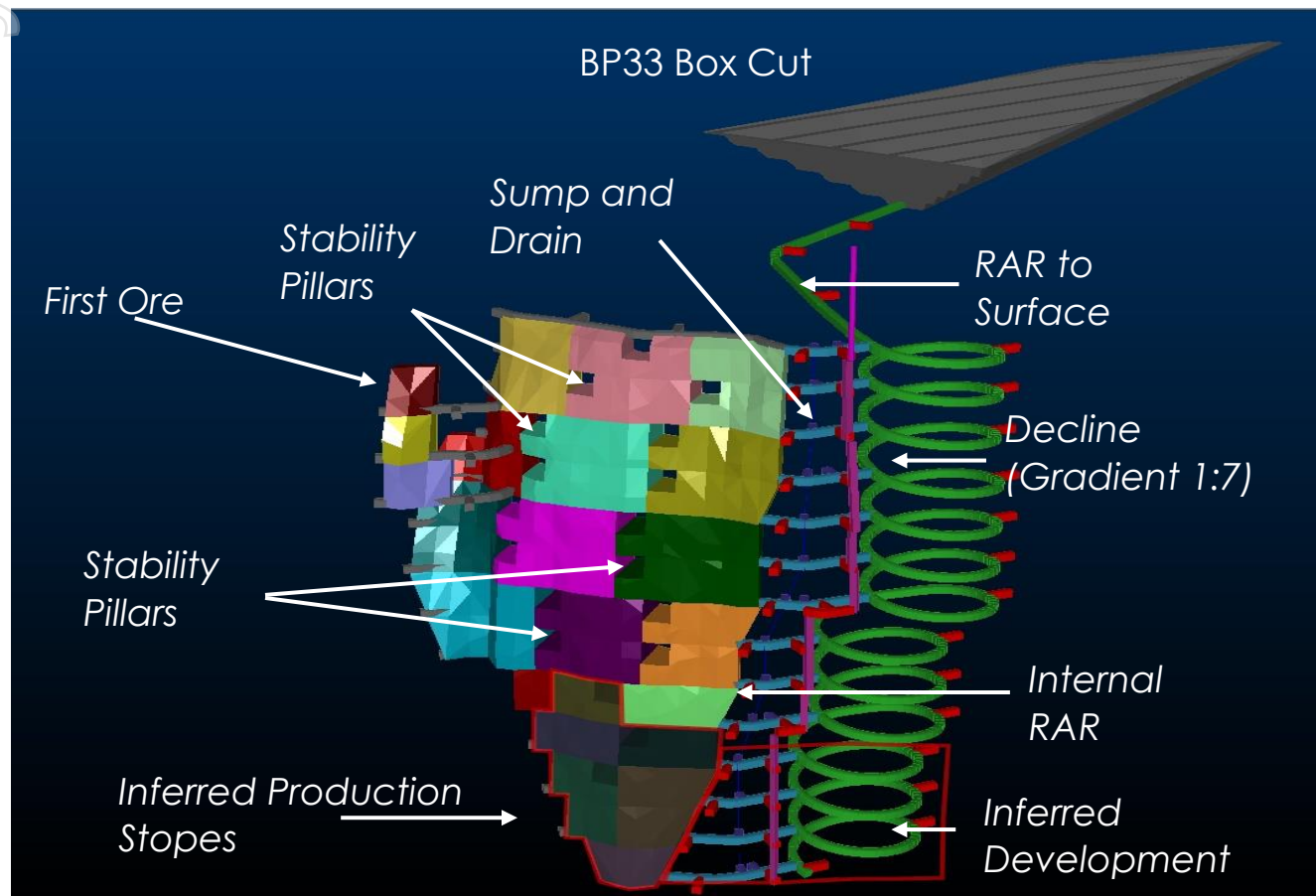




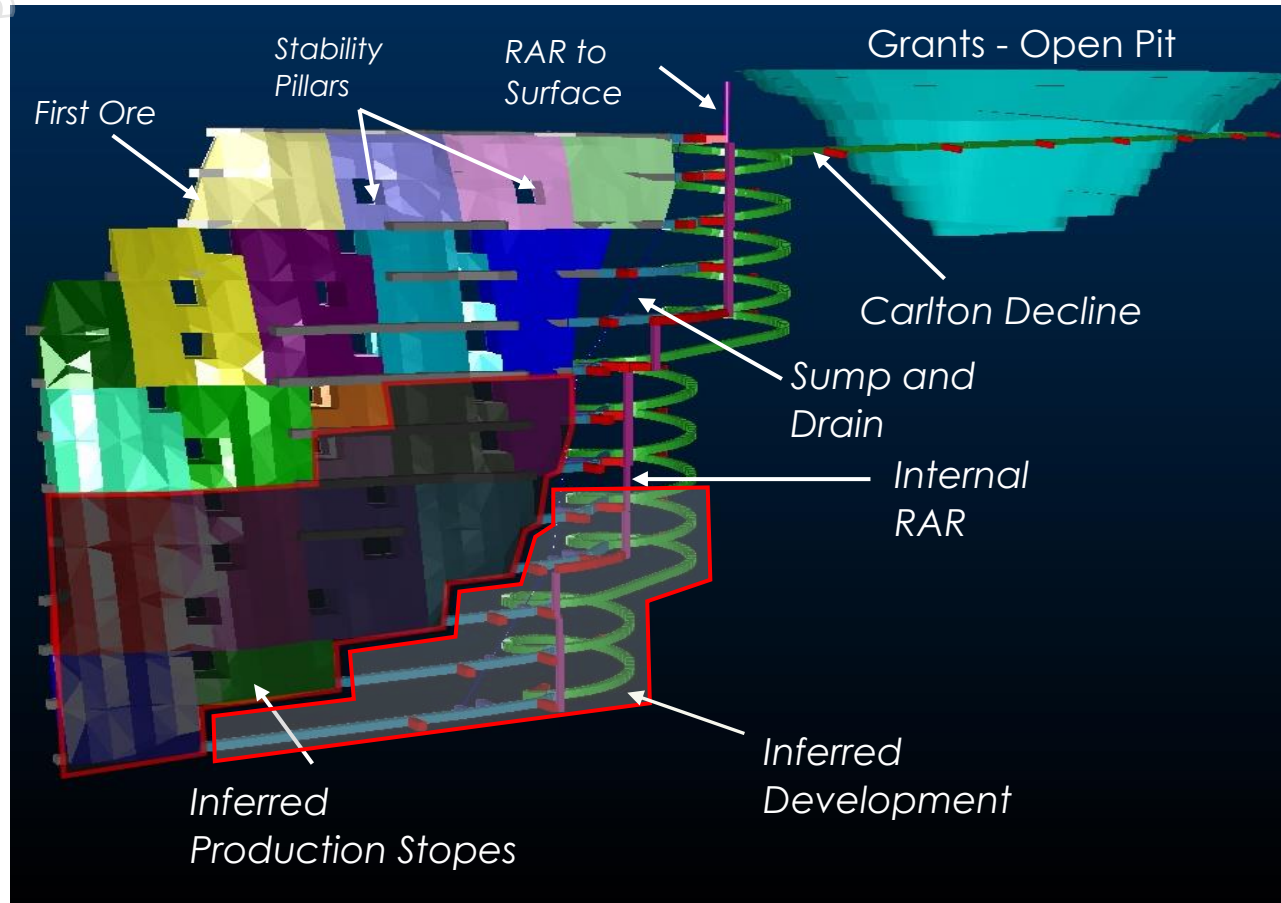
# Grants Mine Design



# BP33 Mine Design

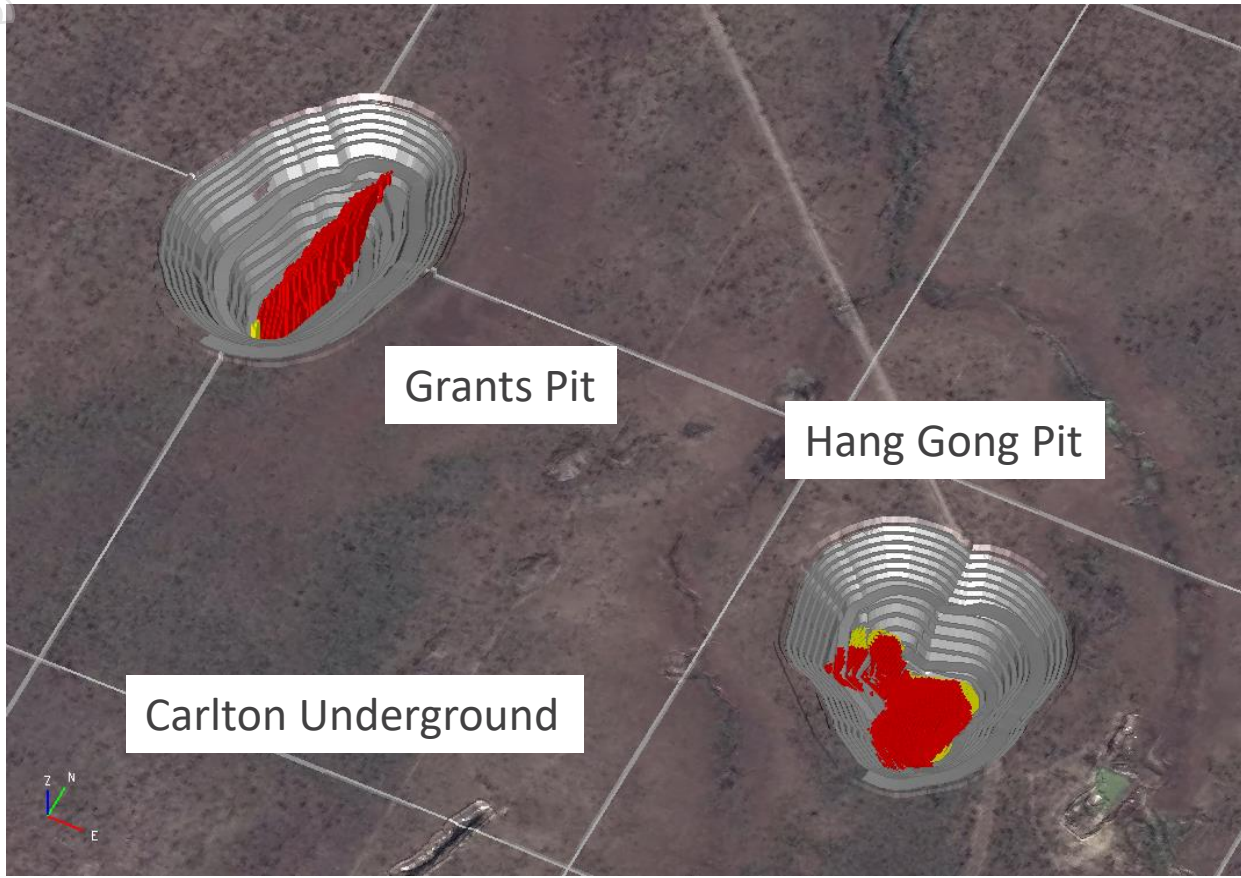


# Carlton and Grants Mine Design



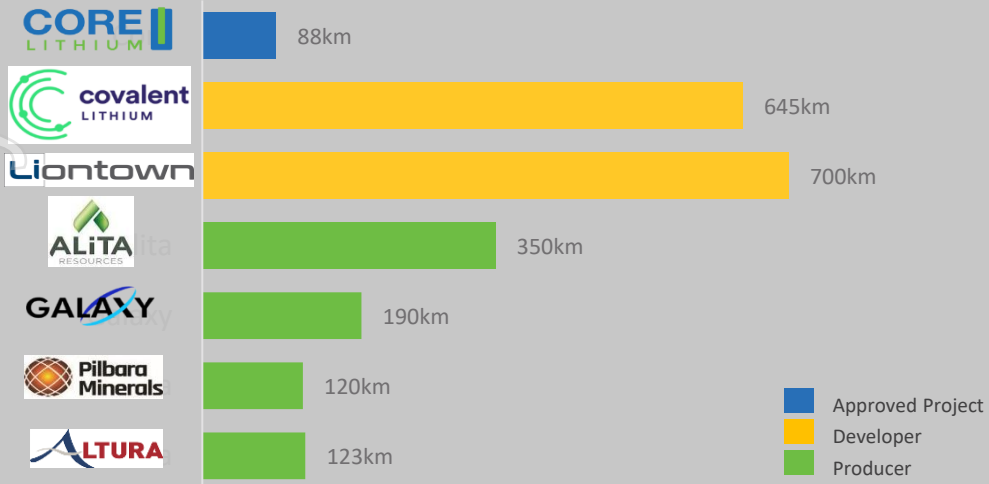


# Grants and Hang Gong (Preliminary) Mine Design



# Finniss Lithium Project - Best Location and Infrastructure

Flagship Lithium Project Distance to Ports





# Process Water Dam

Utilise Existing Process Water Dam

## **+400 Megalitre Water Storage Facility**

Observation Hill Dam

Built by Greenbushes in 1980's for processing tin and tantalum

Core has access to existing high quality process water infrastructure





# Grid Power

Core to connect to grid power

## Emission and Power Cost Savings

Less than 10km from Grid Power

Enables Core to access to NT  
Renewable Energy and Gas  
Generated Power



# Darwin Port

Operating agreement secured



## **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

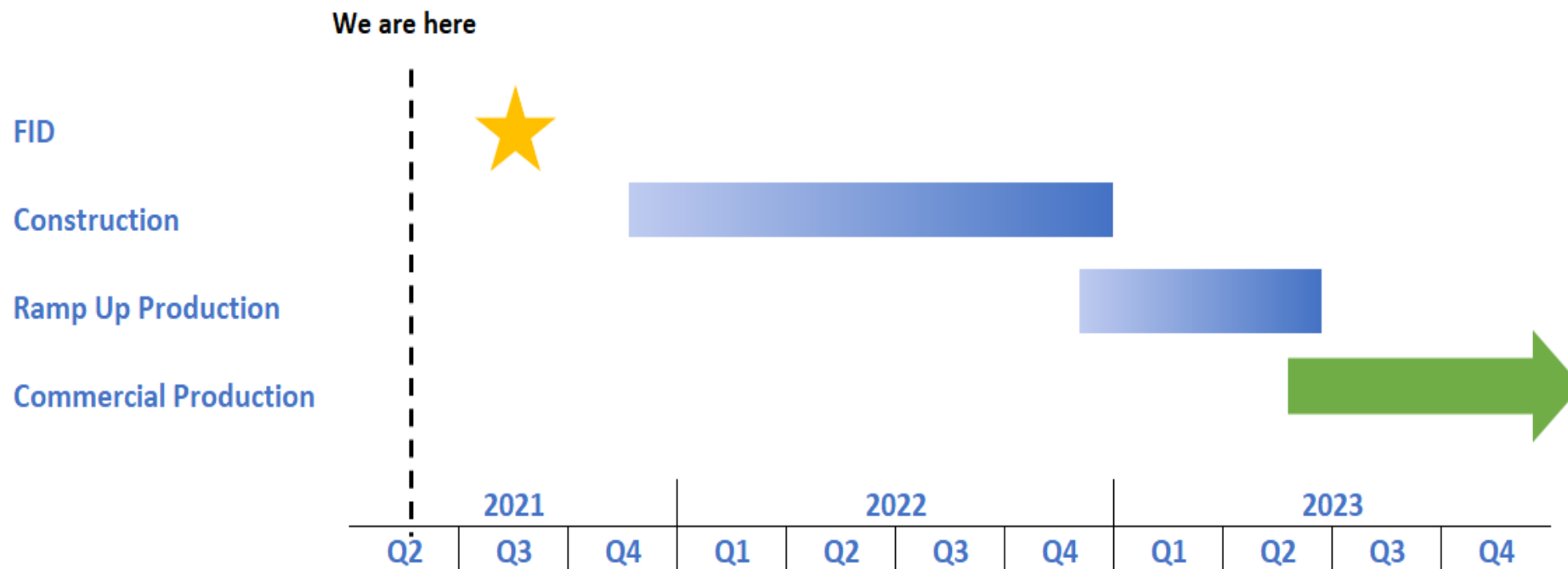
Operating agreement signed with Darwin Port in respect of export of lithium products from Grants

Agreement provides Core with capacity to export up to either:

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

# Project Timeline

## Targeted Pathway to Production





Thank you

For more information:

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Authorised for release by the Board of Core Lithium Ltd

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

