



# BLACK CANYON

## ASX Announcement



27 October 2021

ASX:BCA

## Corporate Presentation – V-Con conference

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Black Canyon (ASX: BCA) is pleased to release the following presentation that Executive Director, Mr Brendan Cummins, will be presenting to V-Con, Stockhead's investing focused video conference series. This version of the series is focused on critical minerals, which includes manganese as a key battery material.

The video of the presentation will be available from the company's website at [www.blackcanyon.com.au](http://www.blackcanyon.com.au) once received.

This announcement has been approved by the Board of Black Canyon Limited.

For further details:

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BLACK CANYON

# Pilbara Focused Manganese Explorer

OCTOBER 2021

# Disclaimer & Forward Looking Statements



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Some of the statements contained in this presentation are forward-looking statements. Forward looking statements include but are not limited to, statements concerning estimates of expected costs, statements relating to the advancement of the Company's investments and other statements which are not historical facts. Although the Company believes that its expectations reflected in the forward-looking statements are reasonable, such statements involve risk and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements. Various factors could cause actual results to differ from these forward-looking statements include the potential that the Company's projects may experience technical, geological, metallurgical and mechanical problems, changes in product prices and other risks not anticipated by the Company or disclosed in the Company's published material.

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## COMPETENT PERSONS STATEMENT

The information in this report that relates to exploration results and exploration targets and results is based upon information reviewed by Mr Brendan Cummins who is a member of the Australian Institute of Geoscientists (AIG). Mr Cummins is an Executive Director of Black Canyon Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Cummins consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

# Corporate Overview

**BCA**

ASX Code

**\$4.8M**

Cash (As of 30 June 2021)

**40.7m**

Shares on Issue

**\$11M**

Market Cap (As at 25/10/2021)

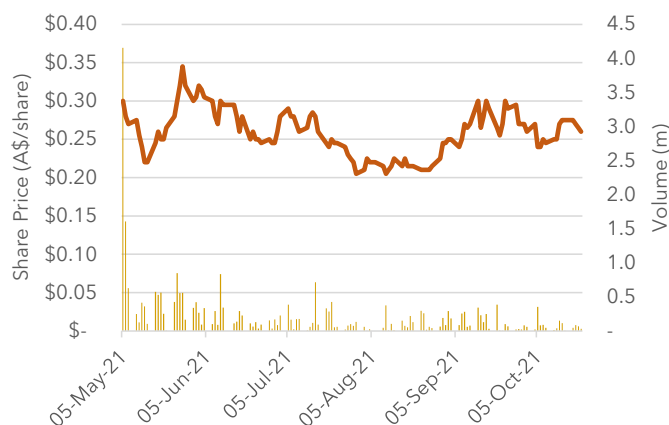
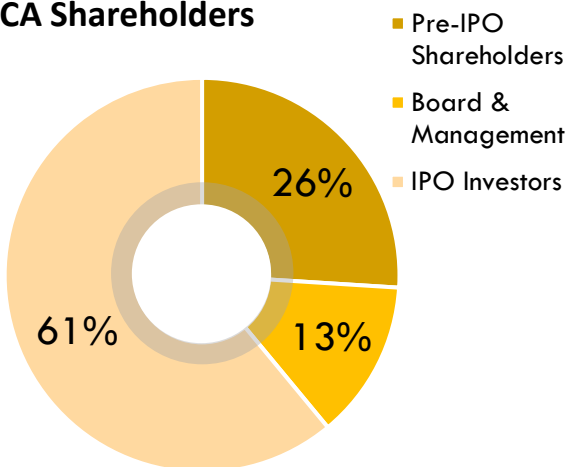
**3.15M**

Unlisted Options (\$0.25 exercise)

**\$6.2m**

Enterprise Value

## BCA Shareholders



# Experienced Board



**Graham Ascough**  
(Non-Executive Chairman)

### Geophysicist

Mr Ascough is a resources executive and geophysicist with more than 30 years' experience. He is presently Non-Executive Chairman of Musgrave Minerals Ltd, Sunstone Metals Ltd and PNX Metals Ltd.



**Brendan Cummins**  
(Executive Director)

### Geologist

Mr Cummins has over 25 years' across precious, base metals and bulk commodities. He is currently Non-Executive Director of Askari Metals and Consulting Geologist to recently construction funded Strandline Resources Ltd.



**Simon Taylor**  
(Non-Executive Director)

### Geologist

Mr Taylor is a geologist with over 25 years' experience in exploration, project assessment and development. He is Managing Director of Oklo Resources Ltd and a Non-Executive Director of Chesser Resources Ltd and Stellar Resources Ltd.



**Adrian Hill**  
(Non-Executive Director)

### Finance

Mr Hill is a senior executive with over 25 years' experience in strategic and finance roles in the resources, energy infrastructure and investment banking industries. He has an established record in strategy development, corporate structuring and capital raising.

# Primed for Growth



## Manganese focused

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Essential to the steel industry and growing EV battery component



## Premier location

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Projects located in East Pilbara, proximal to the mines of Woodie Woodie, Butcherbird and export infrastructure



## Walk-up targets

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Extensive drill ready Mn mineralisation at Flanagan Bore & Oakover East with the maiden Mineral Resource at LR1 open from surface



## Strategy

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Proven pathway - discover, define, evaluate, engage, marketing, permit and develop



## Experienced team

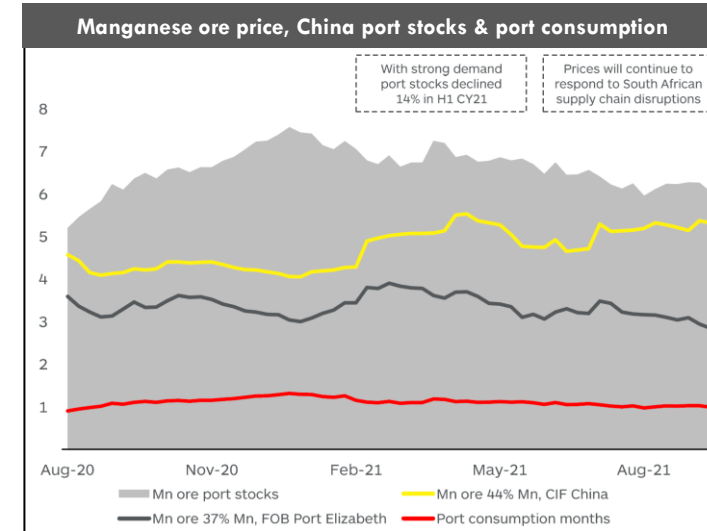
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Strong record of exploration success and project development

# Why Manganese?

## Essential for steel production

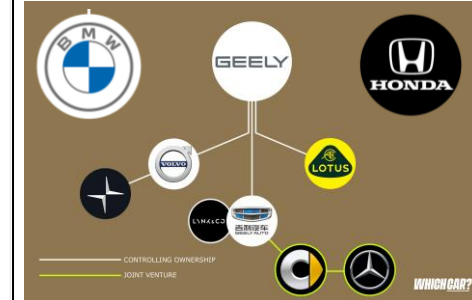
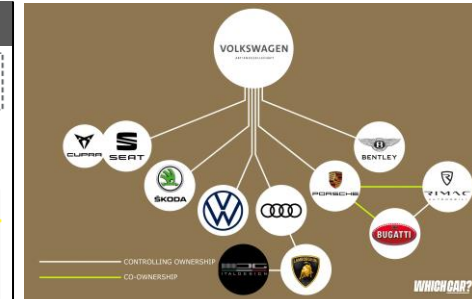
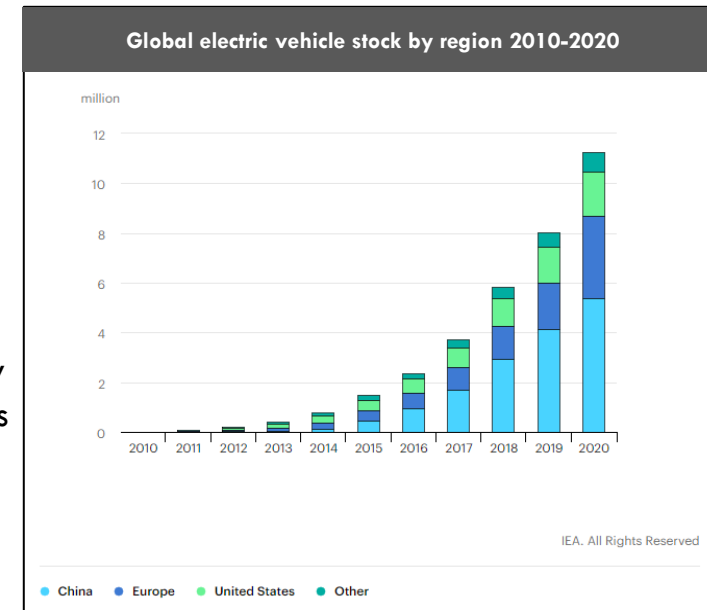
- ▶ Manganese (Mn) is the fourth most consumed metal in the world by tonnage
- ▶ Approximately 90% is used in steel with Mn alloys helping to prevent corrosion, resist abrasion, and increase hardenability
- ▶ There are no substitutes for Mn in steel and growing utilization
- ▶ Mn pricing remains steady >US\$4/DMTU
  - ▶ Roskill forecasted US\$4.79/DMTU for the Butcherbird project (LOM)
- ▶ But increasing demand for Mn in the growing EV battery market



Source: South32 2021 full year results presentation (Slide 27)

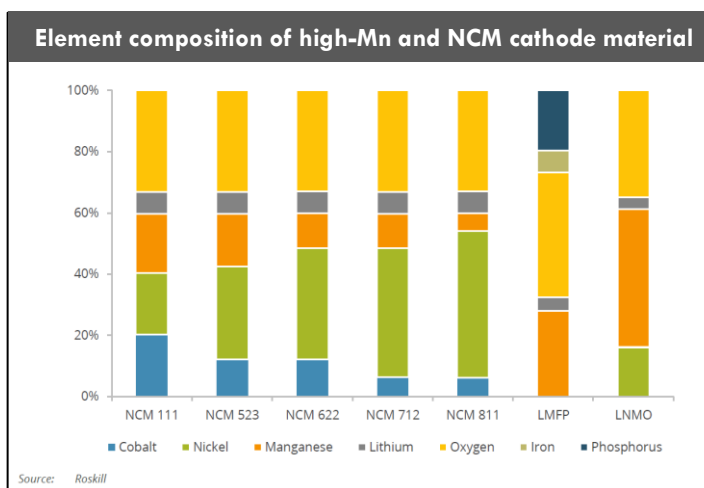
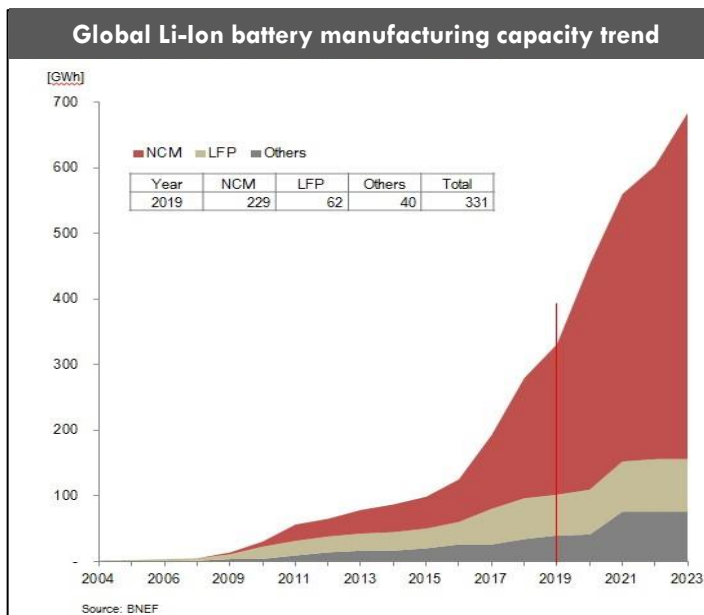
## Electrification of vehicles

- ▶ Global EV Outlook 2021 by the International Energy Agency (IEA) - has shown a strong decade of growth. Europe and China continue to dominate production and uptake of EV
- ▶ Major car manufacturers such as Ford, GM, VW/Audi, Volvo and Stellantis committing to EV's in addition to market leader Tesla and others
- ▶ Driven by strict emission requirements and bans on fuel powered engines imposed by Chinese and European Governments coming into effect with several car manufactures now intending to transition to EV over the next decade such as BMW and Honda



# Manganese in EV batteries

- ▶ Vast majority of lithium batteries use Mn in the cathode. Continued growth predicted using this widely accepted battery platform
- ▶ Nickel-Cobalt-Manganese (NCM) is the dominant chemistry for Li-ion batteries and accounts for 71% of sales
- ▶ Manganese continues to be a key component of high energy-density batteries (NCM, NCMA and NMX – cobalt free) that are capable of mass production, high energy density and safe in application – increasing the km range for EV's
- ▶ Australia is a major supplier of Mn ore and China is the dominant producer of high purity Mn
- ▶ Battery pack prices continue to decline from US\$1,100/kWh in 2010 to US\$137/kWh with lower prices anticipated with increase volume, evolving chemistry and design advances (source: BNEF) – EV's become more affordable and accepted
- ▶ Global battery manufacturers such as CATL, BASF, Panasonic, LG Chem increasing production capacity
- ▶ Expanding the charging network to support EV uptake



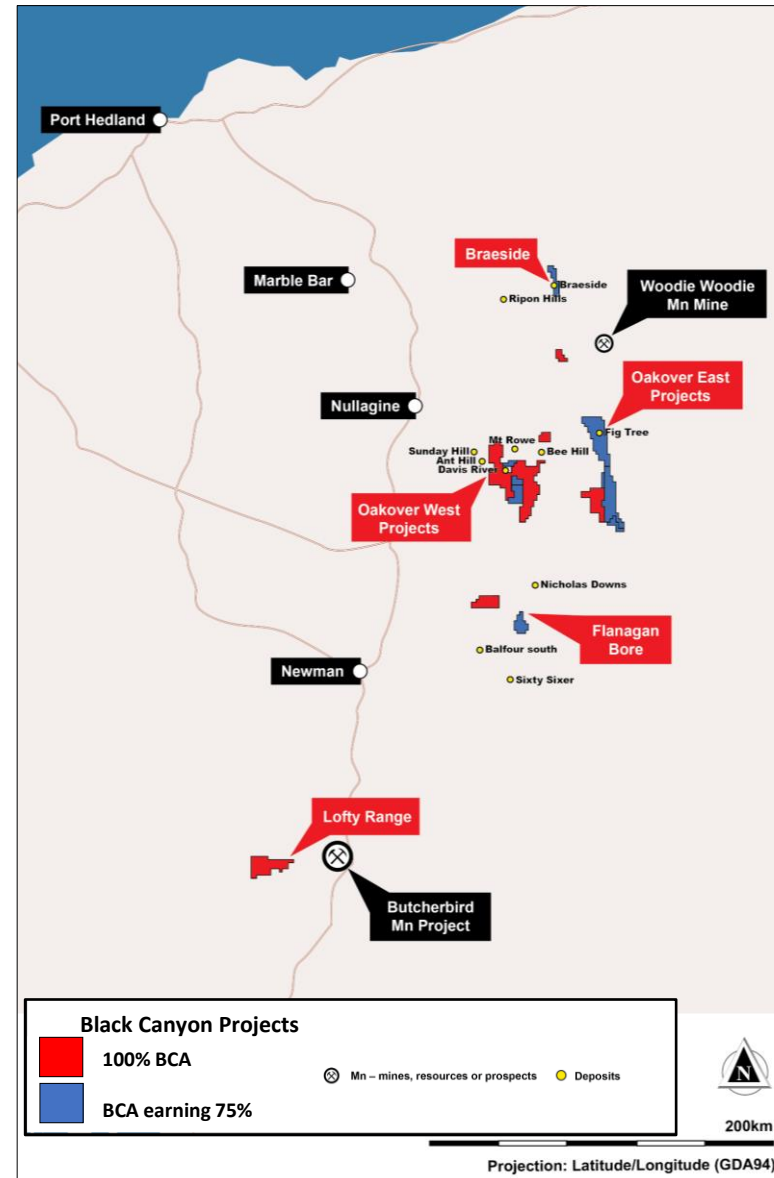
## Black Canyon 100%

- ▶ Exploring for “Woodie-Woodie” hydrothermal (high-grade Mn) and “Supergene Balfour” style manganese deposits (med-grade Mn/Fe)
- ▶ 6 tenements totalling 11 60km<sup>2</sup> (granted and under application) and we continue to evaluate other opportunities
- ▶ Target generation based on sound geological criteria and proximity to infrastructure
- ▶ Increasing the exploration footprint to become the dominant ASX listed manganese focused explorer/developer in the Pilbara

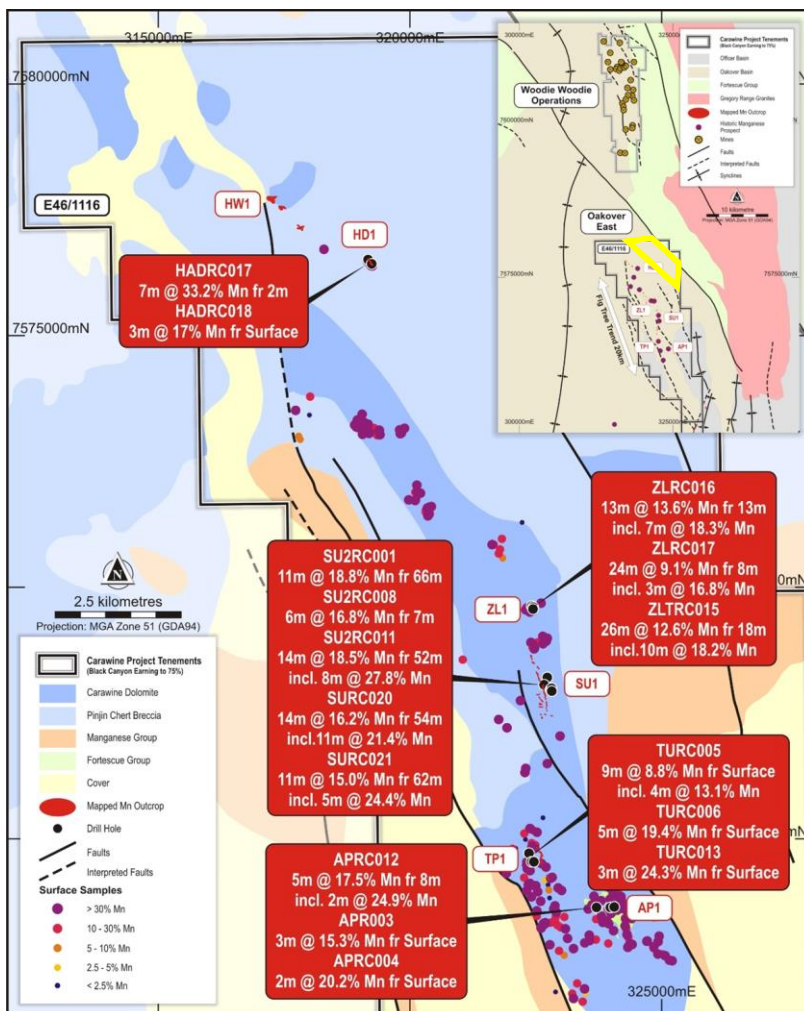
## Carawine JV (earning 75%)<sup>1</sup>

- ▶ 8 granted tenements in 4 project areas covering 793km<sup>2</sup> in the east Pilbara in JV with ASX listed Carawine Resources (ASX:CWX)
- ▶ Drill ready targets leveraging off existing drill data and geophysical surveys provided historic explorers
- ▶ Maiden Mineral Resource at **Flanagan Bore** with discovery and resource expansion drill programs (RC and DD) commencing in November

1. BCA earning 75% by spending \$4m over 5 years

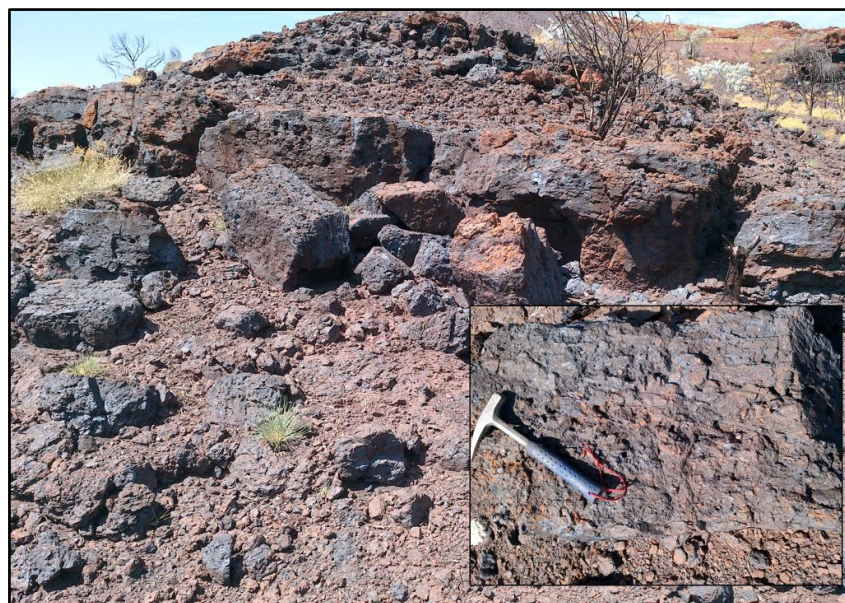


## Oakover East



## Oakover West

- 6m @ 21.4% Mn from 5m (BLVR006)
- 9m @ 14.3% Mn from 26m (BLVR022)
- 11m @ 9.7% Mn from 22m (BLVR024)
- 6m @ 17.8% Mn from 24m (BLVR028)
- 8m @ 57.6% Fe from 27m (BLVR004)
- 9m @ 52.4% Fe from 52m (BLVR012)



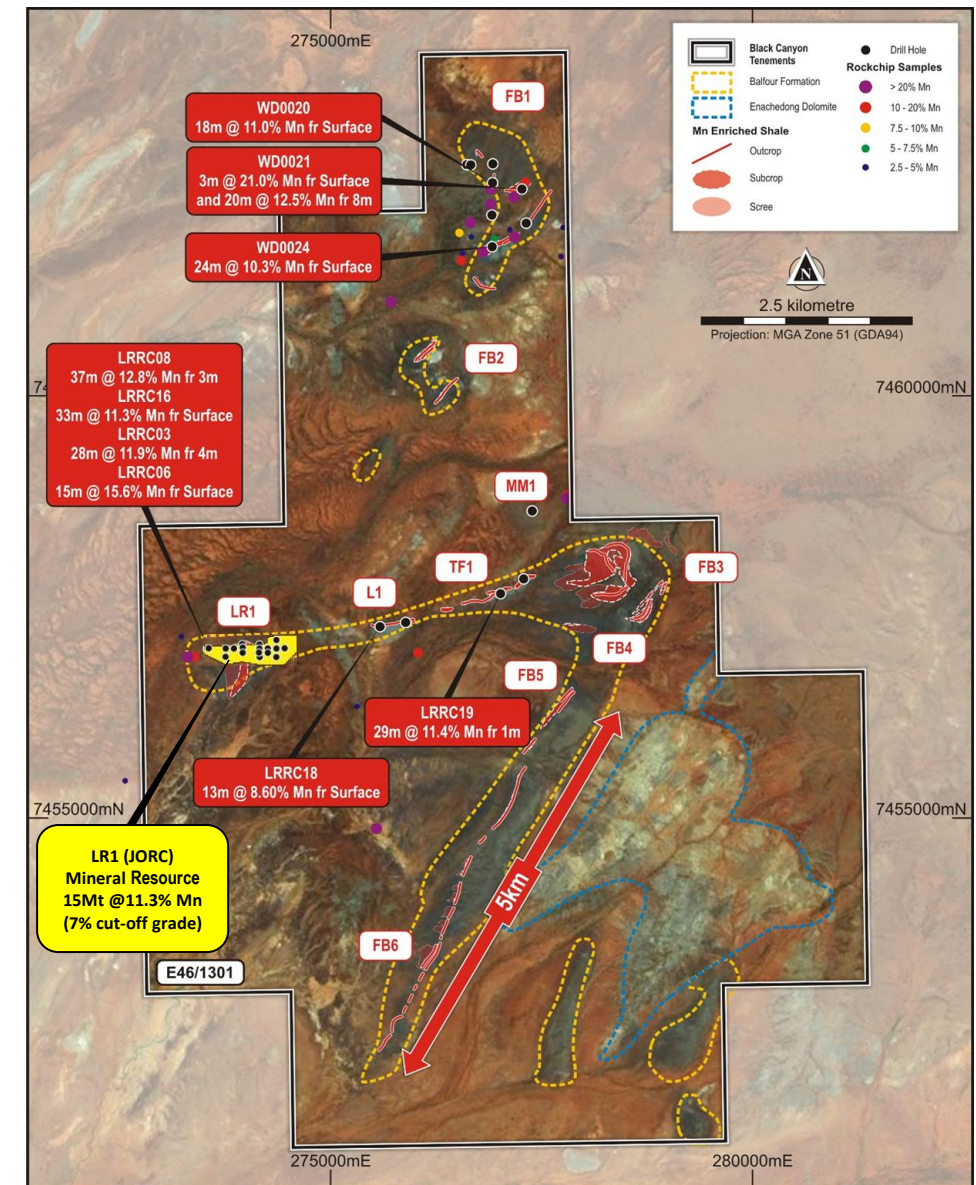
## Braeside

- 4m @ 30.9% Mn from 1m (BX1)
- 5m @ 41.6% Mn from 5m (BX10)
- 5m @ 20.9% Mn from 4m (BX15)
- 8m @ 23.6% Mn from 8m (BX17)
- 4m @ 31.2% Mn from 1m (BX44)



## Key parameters – scale, geology, grade & thickness

- ▶ Proven potential with previous drill intersects ranging from 18 to 37m with an average Mn grade of 11.3% and 9.6% Fe at the LR1 prospect
- ▶ Significant intersects from limited drill testing include:
  - ▶ **LRRC08 - 37m @ 12.8% Mn from 3m**
  - ▶ **LRRC16 - 33m @ 11.3% Mn from surface**
  - ▶ **LRRC03 - 28m @ 11.9% Mn from 4m**
  - ▶ **LRRC06 – 15m @ 15.6% Mn from surface**
- ▶ Multiple zones of outcropping mineralisation with favorable structures associated with a regional scale, shallow dipping and open folded sequence of manganese enriched Balfour shales
- ▶ Initial focus by Black Canyon has been on the outcropping LR1 deposit, where the Company has completed an Inferred Mineral Resource Estimate comprising 15Mt @ 11.3% Mn.



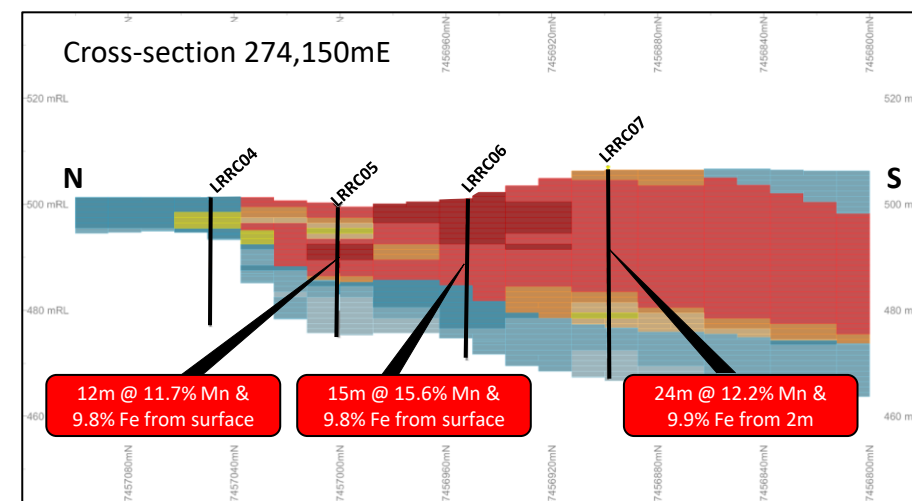
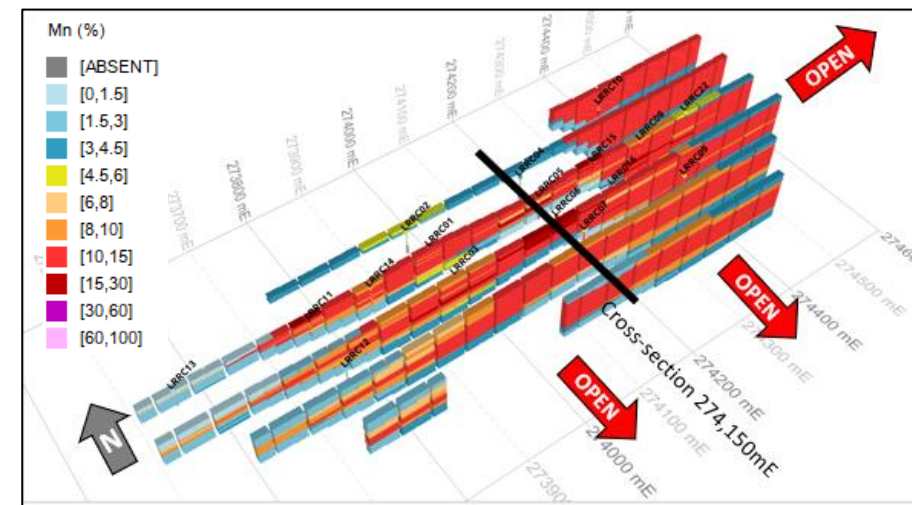
## LR1 Deposit – only the start

- ▶ MRE at LR1 represents about 1km of the 10km potential strike length around the large-scale fold structure
- ▶ Supergene mineralisation associated with thick, continuous shallowly dipping manganese-enriched shale units
- ▶ Discovery and Mineral Resource drilling commencing in November.

## Mineral Resource Summary<sup>1,2</sup>

| Category | Tonnes (Mt) | Mn (%) | Fe (%) | Si (%) | Al (%) | Contained Mn (Mt) |
|----------|-------------|--------|--------|--------|--------|-------------------|
| Inferred | 15          | 11.3   | 9.6    | 19.3   | 5.2    | 2                 |

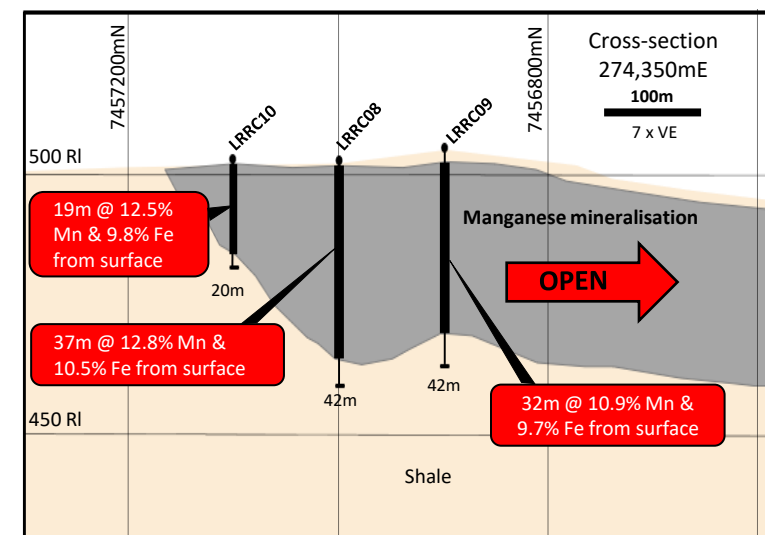
1. Mineral Resource reported at a cut-off grade of 7% Mn
2. BCA ASX Announcement 5 October 2021 - Maiden Manganese Mineral Resource for the LR1 Prospect at Flanagan Bore



## Butcherbird<sup>1</sup> Mn Deposit analogue

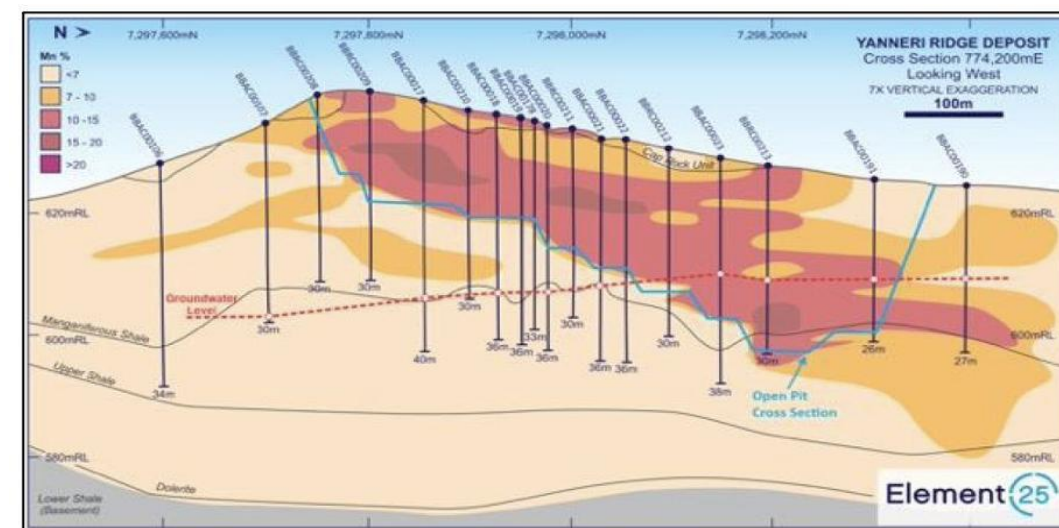
- ▶ Supergene enriched manganese mineralisation from surface or close to surface
- ▶ Similar grade ranges across broad intervals.
  - ▶ Flanagan Bore has intersected 10 to 15% Mn and 9 to 12% Fe from 17 of the 22 holes drilled along a single stratigraphic horizon
  - ▶ Similar average levels of contaminants in the Measured portion of Butcherbird Mineral Resource and comprises 16Mt @ 11.6% Mn, 11.7% Fe, 20.6% Si, and 5.7% Al
- ▶ Thickness of mineralization 20 to 40m from surface
- ▶ Both hosted in shale that are considered stratigraphic equivalents:
  - ▶ Balfour Formation within the Oakover Basin (Flanagan Bore)
  - ▶ Ilgarari Formation within the Collier Subgroup (Butcherbird)
- ▶ Size potential indicated at an early stage with only 1,000m of strike evaluated at Flanagan Bore but remain open to the east and south for potentially another 400 - 500m with
- ▶ Multiple targets to drill test at Flanagan Bore

1. Refer to E25 ASX announcement 16 April 2019 – Substantial Resource Upgrade Butcherbird High Purity Manganese Project



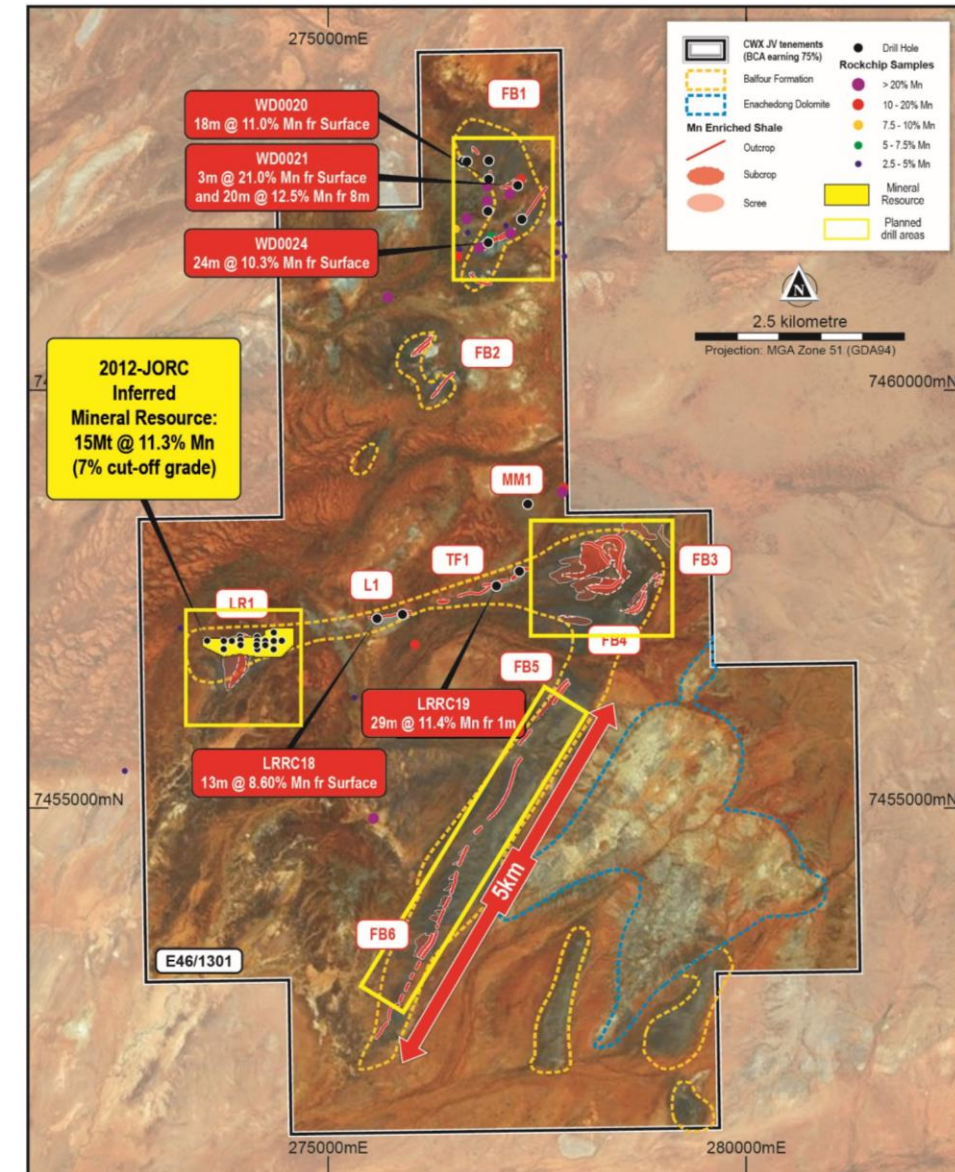
LR1 Resource

Butcherbird Deposit



## Existing mineral resource with strong potential upside

- ▶ Hinge Zone
  - ▶ Expected thickening of mineralisation at FB3 – 450m cross strike of outcropping manganese enriched shale
- ▶ Limb Zones
  - ▶ Extensions to mineralisation on northern limb at L1 and TF1
  - ▶ Testing of 5km southern limb, including FB4, FB5 and FB6
- ▶ Other Prospects
  - ▶ High grade mineralisation identified to the north at FB1 and FB2
  - ▶ Other outcrops and blind mineralization of the Balfour Formation yet to be drill tested
- ▶ Major exploration program being planned for the next 3 - 6 months including RC (7500m), DD (500m) drilling and ground geophysics (IP)



# Why invest in Black Canyon?



Manganese is essential to the steel industry and a key battery mineral, with strong growth forecast



Well-funded with a Strategy to add value and grow the Company

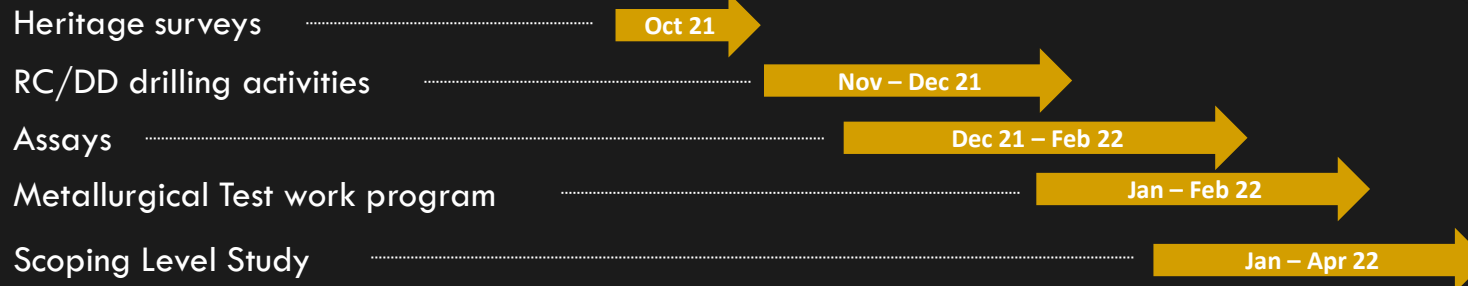


Significant work programs planned across the projects that includes heritage surveys, drilling, metallurgical testwork to support scoping level studies in early 2022



Management and technical experience in delivering shareholder value

## Flanagan Bore Newsflow





**BLACK CANYON**

## Contact Us

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