BLACK CANYON

ASX: **BCA**

**14 November 2025**

# Corporate Presentation – Noosa Mining Conference

Black Canyon (ASX: BCA) is pleased to release the following presentation that Managing Director, Mr Brendan Cummins, will be providing at the Noosa Mining Conference today.

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


**Contact**

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**Capital Structure (ASX: BCA)**

| | |
|---|---|
| Shares on Issue | 161M |
| 14c Options (exp 14/10/2026) | 6.0M |
| Top 20 Shareholders | 45% |
| Board & Management | 8% |
| Funds & Institutions | 28% |

**Board of Directors**

**Graham Ascough**
Non-Executive Chairman

**Brendan Cummins**
Managing Director

**Simon Taylor**
Non-Executive Director

**Adrian Hill**
Non-Executive Director

**Wandanya Project**
High-grade Mn & Fe discovery

**Balfour Manganese Field**
Global MRE 315Mt @10.5% Mn*
Largest Resource in Western Australia

**BCA Announcement 22/10/25*

BLACK CANYON

An Emerging Developer of

# High-Grade Manganese

NOOSA MINING
INVESTOR CONFERENCE

November 2025

ASX: **BCA**
blackcanyon.com.au

# Disclaimer

The Company does not purport to give financial or investment advice. No account has been taken of the objectives, financial situation or needs of any recipient of this document. The opinions and recommendations in this presentation are not intended to represent recommendations of particular investments to particular persons. This presentation does not constitute financial product advice.

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This document has been prepared as a summary only and does not contain all information about the Company's assets and liabilities, financial position and prospects and the rights and liabilities attaching to the Company's securities. This document should be read in conjunction with any other reports and information provided or released by the Company.

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.

**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 the Managing 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.

The information in this presentation that relates to exploration results, Mineral Resource estimates and Scoping Study results is extracted from ASX Announcements on the following dates: 5 Oct 2021,13 Apr 2022, 18 Aug 2022, 24 Nov 2022, 14 Nov 2023, 27 Nov 2023, 12 Dec 2023, 16 Jan 2024, 26 Mar 2024, 1 May 2024, 2 Jul 2024, 21 Aug 2024, 25 Sep 2024, 27 Sep 2024, 8 Oct 2024, 14 Nov 2024, 27 Nov 2024, 4 Dec 2024, 4 Feb 2025, 11 Feb 2025.

**Scoping Study Cautionary Statement**

The Scoping Study referred to in this ASX release has been undertaken for the purpose of evaluating the potential development of the KR1 and KR2 deposits from the Balfour Manganese Field (BMF) Projects, Pilbara region, Western Australia. It is a preliminary technical and economic study of the potential viability of the KR1 and KR2 mineral resources. The Scoping Study outcomes include Production Targets and forecast financial information referred to in the release are based on low level technical and economic assessments that are insufficient to support estimation of Ore Reserves. The Scoping Study is presented to an accuracy level of +/- 35%. While each of the modifying factors was considered and applied, there is no certainty of eventual conversion to Ore Reserves or that the Production Target itself will be realised. Further exploration, evaluation and appropriate studies are required before Black Canyon will be able to estimate Ore Reserves or to provide any assurance of any economic development case. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.
The Mineral Resources scheduled for extraction as Production Targets over the 16-year mine life are classified as Indicated (72%) and Inferred (28%) with Inferred Mineral Resources considered from year 6 onwards. The first 5 years of mining are based entirely on Indicated Mineral Resources and from year 6 to 16 the forecast Production Targets are dominated by Indicated Mineral Resources with no year relying on greater than 50% of the Production Target generated from Inferred Mineral Resources. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the estimation of Indicated or Measured Mineral Resources or that the Production Target itself will be realised. Only 15% of the Global Mineral Resource discovered across the BMF have been scheduled for mining in this Scoping Study.

The Mineral Resources underpinning the Production Target in the Scoping Study have been prepared by a competent person in accordance with the requirements of the JORC Code (2012). For full details on the Mineral Resource Estimate, please refer to the ASX announcement of 12 December 2023. Black Canyon confirms that it is not aware of any new information or data that materially affects the information included in that release and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not been changed. This Scoping Study is based on the material assumptions outlined in the announcement. These include assumptions about the availability of funding. While Black Canyon considers that all the material assumptions are based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

To achieve the range of outcomes indicated in the Scoping Study, funding in the order of A$84 million will likely be required. Investors should note that that there is no certainty that Black Canyon will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Black Canyon's existing shares. It is also possible that Black Canyon could pursue other strategies such as project finance, strategic partners, a sale or partial sale of its interest in the KR1 and KR2 projects. Black Canyon has 100% ownership of tenement (E46/1383) that the KR1 and KR2 mineral resources are located within.

This announcement contains forward-looking statements. Black Canyon has concluded that it has a reasonable basis for providing these forward-looking statements and believes it has a "reasonable basis" to expect it will be able to fund development of the KR1 and KR2 Projects. However, a number of factors could cause actual results or expectations to differ materially from the results expressed or implied in the forward-looking statements. Given the uncertainties involved, investors should not make any investment decisions based solely of the results of this study.

# Investment Highlights

**Emerging WA manganese developer** discovery-led growth with largest contained manganese deposits in WA

**Well-funded with approx. $11.6 million cash** to advance Wandanya and other programs

**Active exploration approach with development activities** focused on unlocking full potential of Wandanya discovery

**Greenfield Wandanya high-grade Mn & Fe discovery** unique style of mineralisation and remains open in multiple directions

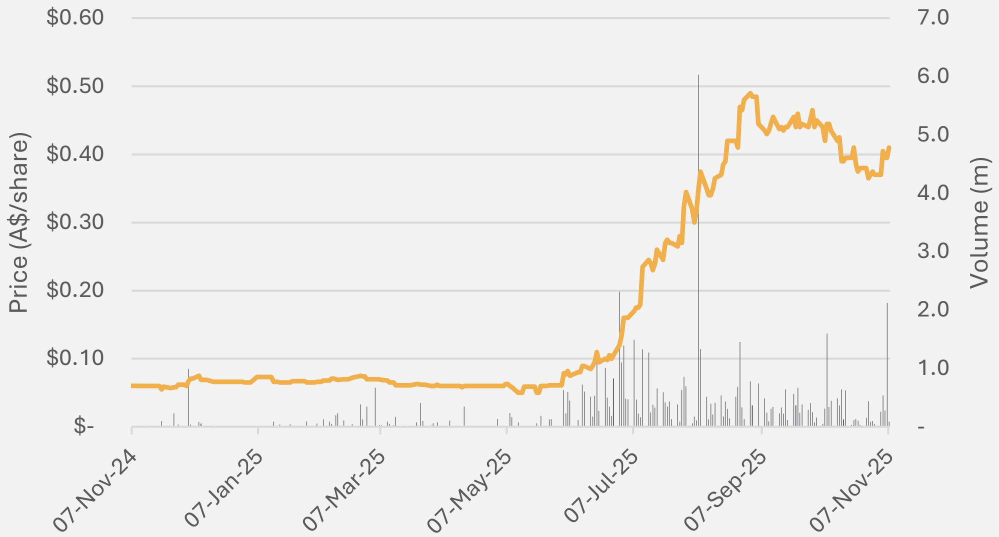
**Expanding team** supported by a strong Board with a track-record of discovery and value creation

**Highly supportive share register** underpinned by institutional funds

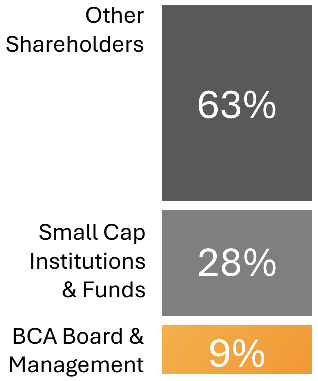
# Corporate Overview

- **$0.41** Share Price (as at 07/11/2025)
- **161m** Shares on Issue
- **12.3m** Unlisted Options ($0.105-$0.14 strike price)
- **$11.6m** Cash (September Qtr 2025)
- **$66.0m** Market Cap (as at 07/11/2025)
- **$54.4m** Enterprise Value

### Share Price Performance and Volume




### Shareholder Breakdown




### Institutional Shareholders

nero.

LOWELL RESOURCES FUNDS MANAGEMENT

Perennial Partners

CRANPORT

### Research Coverage

FOSTER STOCKBROKING

### Board and Management

**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 Geopacific Resources Ltd and Non-Executive Director of Patronus Resources Ltd.

**Brendan Cummins**
**Managing Director** *Geologist*

Mr Cummins has 30 years' experience across precious, base metals and bulk commodities. Extensive experience in exploration, resource development, feasibility, project development, environmental approvals and permitting.

**Rebecca Broughton**
**Company Secretary and CFO**
*Accounting and Governance*

Ms Broughton has over 20 years' experience in both public practice and commerce, with focus in the resources sector. Extensive experience focusing on the management, growth, financing and governance of emerging publicly listed exploration companies.

**Simon Taylor**
**Non-Executive Director** *Geologist*

Mr Taylor is a resources industry executive with over 30 years' experience in geology, finance and corporate management at CEO and Board levels. He is also Managing Director & CEO of Stellar Resources Ltd and Non-Executive Director of Petratherm Ltd.

**Adrian Hill**
**Non-Executive Director** *Finance*

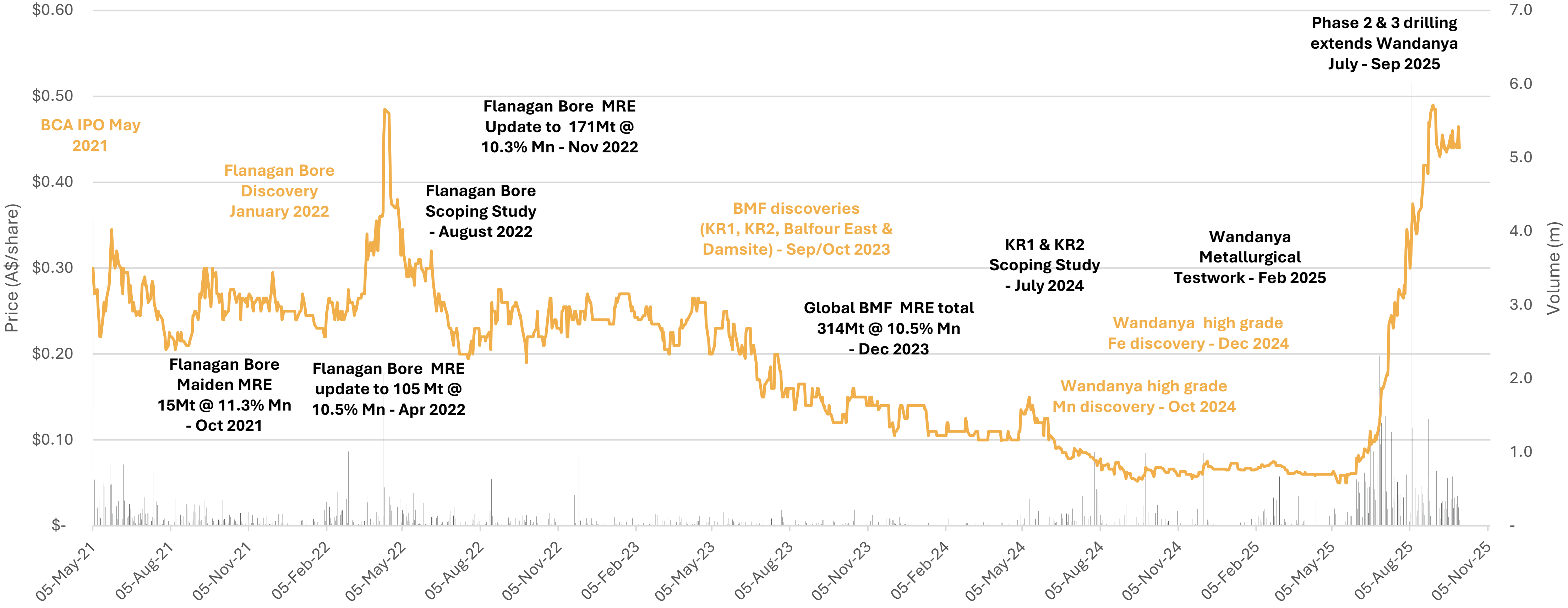
Mr Hill is a senior executive with over 25 years' experience in strategic and finance roles in the resources, energy infrastructure and investment banking industries. He has an established record in strategy development, corporate structuring and capital raising.

# Delivering Value Through Exploration: Strong Discovery Track Record

## Seven manganese discoveries since May 2021 IPO

In 24 months and 3 drill programs BCA discovered the largest Mn Resources in WA

October 2024 discovered high grade stratabound Mn & Fe at Wandanya



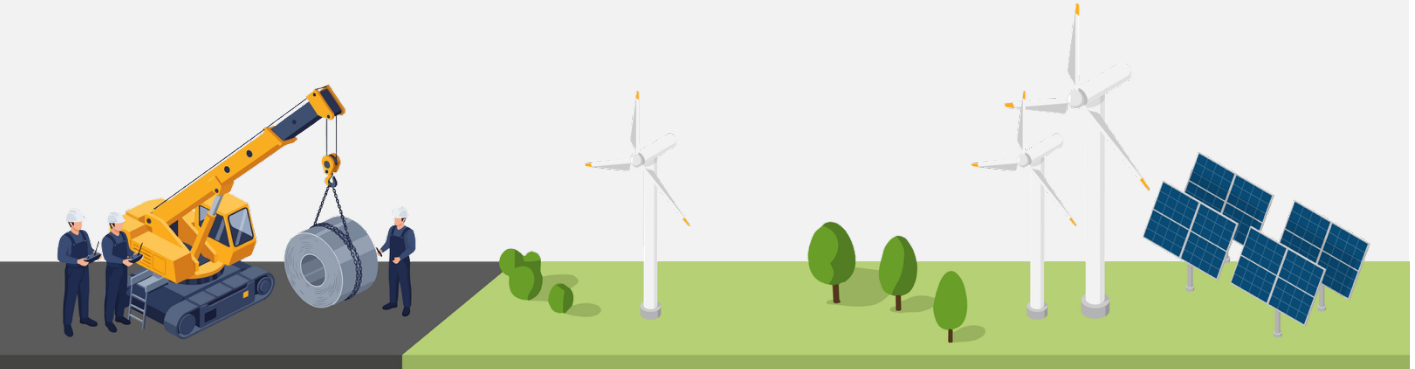
# Manganese Fundamentals: A Critical Mineral Under the Radar

## Steel Production

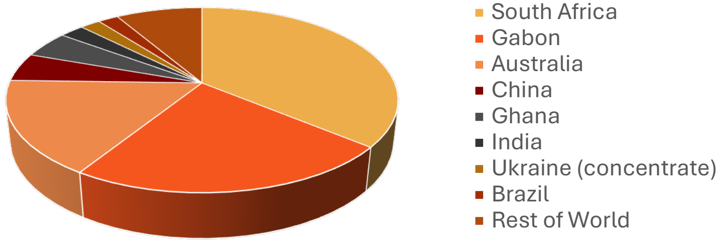
- **Essential** for steel to improve performance with approx. 90% used in the production of steel
- Every ton of steel produced contains between 6-15kg Mn
- Globally 55Mtpa of ore traded or 20Mt of contained Mn metal on an annual basis making it the 5$^{th}$ largest commodity consumed on the planet

## Critical for Clean Energy Transition

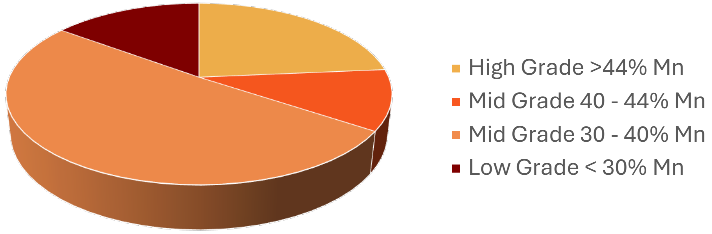
- **Critical** for manganese compounds used in EV batteries in the cathodes of NMC and next generation, LFMP, HLM and Na based chemistries



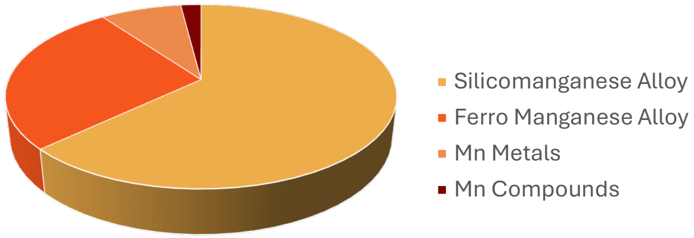
World Manganese Production (2022 USGS)




Global Mn production grades (2024 IMNI)




Mn Ore Utilisation (2024 IMNI)



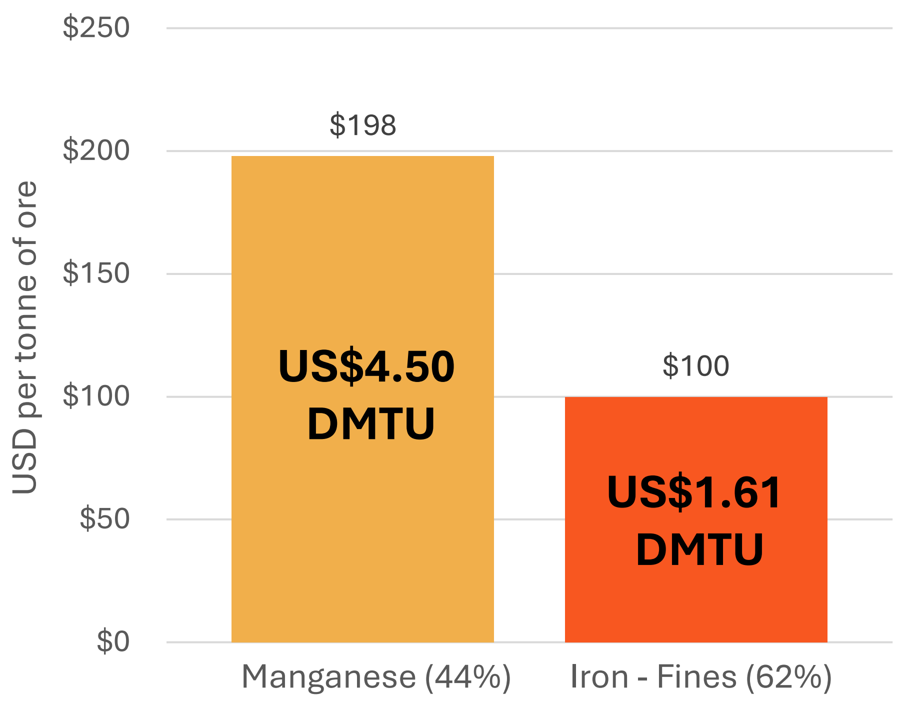
# How much is Manganese worth?

### *Manganese Vs Iron Ore*

- Current 44% manganese (Mn) price is: **~2.0x price of iron ore per metric tonne**
- Equivalent to **AU$297** per ton for 44% Mn
- 44% Mn currently trading at ~ US$4.50 DMTU a 20% discount to the long-term average Mn price of USD$5.50 DMTU
- Only 2 high-grade producing mines in Australia – Groote Eylandt (S32) and Woodie Woodie (ConsMins)

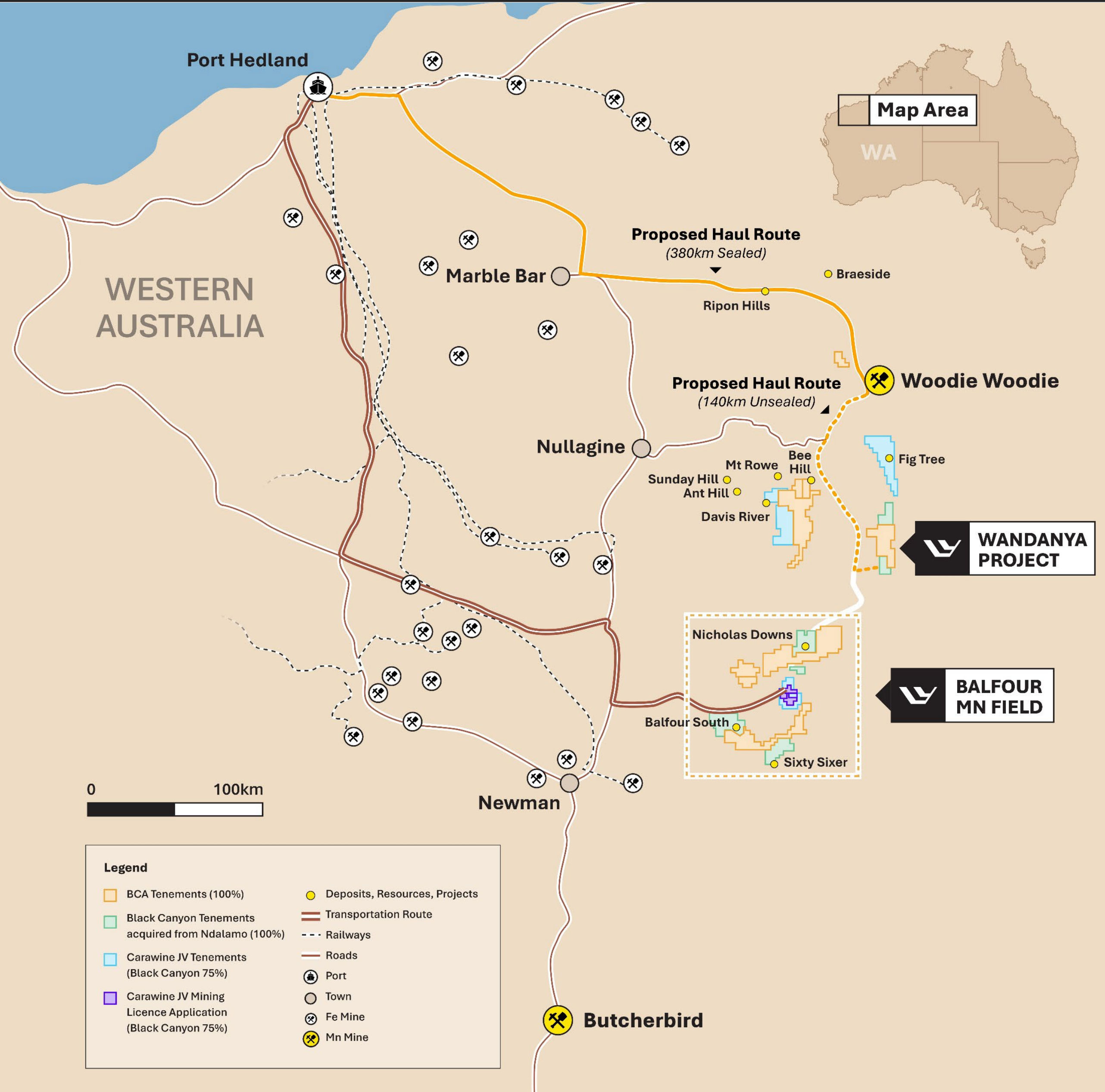
Manganese DMTU price conversion to AU$ per tonne at 44% Mn
US$4.5/dmtu x 44% Mn = US$198/t convert to AU$ x 1.5 = AU$297

## Value per tonne Comparison (USD/t)




Prices Source:
1. Manganese Ore – Shanghai Metal Market/McCloskey Ores and alloys.
2. Iron Ore – Singapore TSI Iron ore

# Emerging WA Manganese Developer




## Quality portfolio built through exploration success

### Wandanya Project

- **High-grade Mn and Fe, scale potential, shallow to outcropping with positive beneficiation upgrade**
- No previous exploration – greenfields discovery
- High-grade manganese mineralisation similar to nearby operating Woodie Woodie Mine (ConsMin)
- Over 3km strike defined to date, open in multiple directions and ongoing exploration to unlock full potential
- Located 520km from Port Hedland

### Balfour Manganese Field

- Six manganese discoveries since May 2021 IPO
- Largest contained Mn Mineral Resources in WA
- Global MRE totalling **315Mt @ 10.5% Mn for 33.1Mt (~87% Measured & Indicated),** 3x beneficiation upgrade and bulk tonnage potential
- Positive Scoping Studies completed on Flanagan Bore, KR1 and KR2 deposits
- Multiple development options

# Wandanya Project

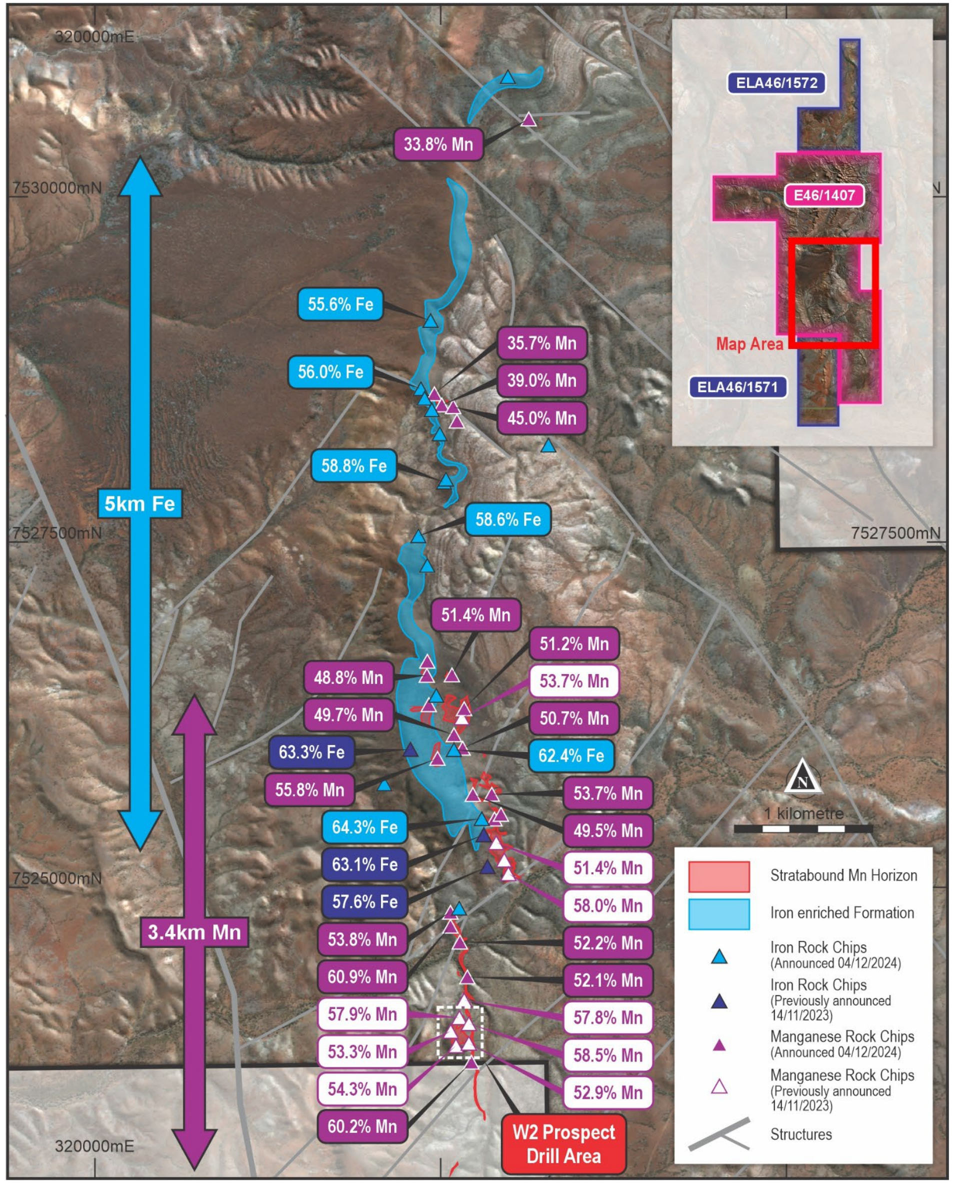
# Wandanya Project: Greenfield high-grade Mn and Fe discovery

## Shallow, simple flat-dipping stratabound mineralisation

- **High-grade Manganese**
  - Similar Mn grade to the operating **Woodie Woodie Mine**
  - Mapped, sampled and drilled over **3km strike**
- **Iron enrichment** outcropping and **up-dip to Mn**
  - Mapped along a **5km corridor**
  - Higher grades associated with Mn now drilled 1km strike

## Key Development Features

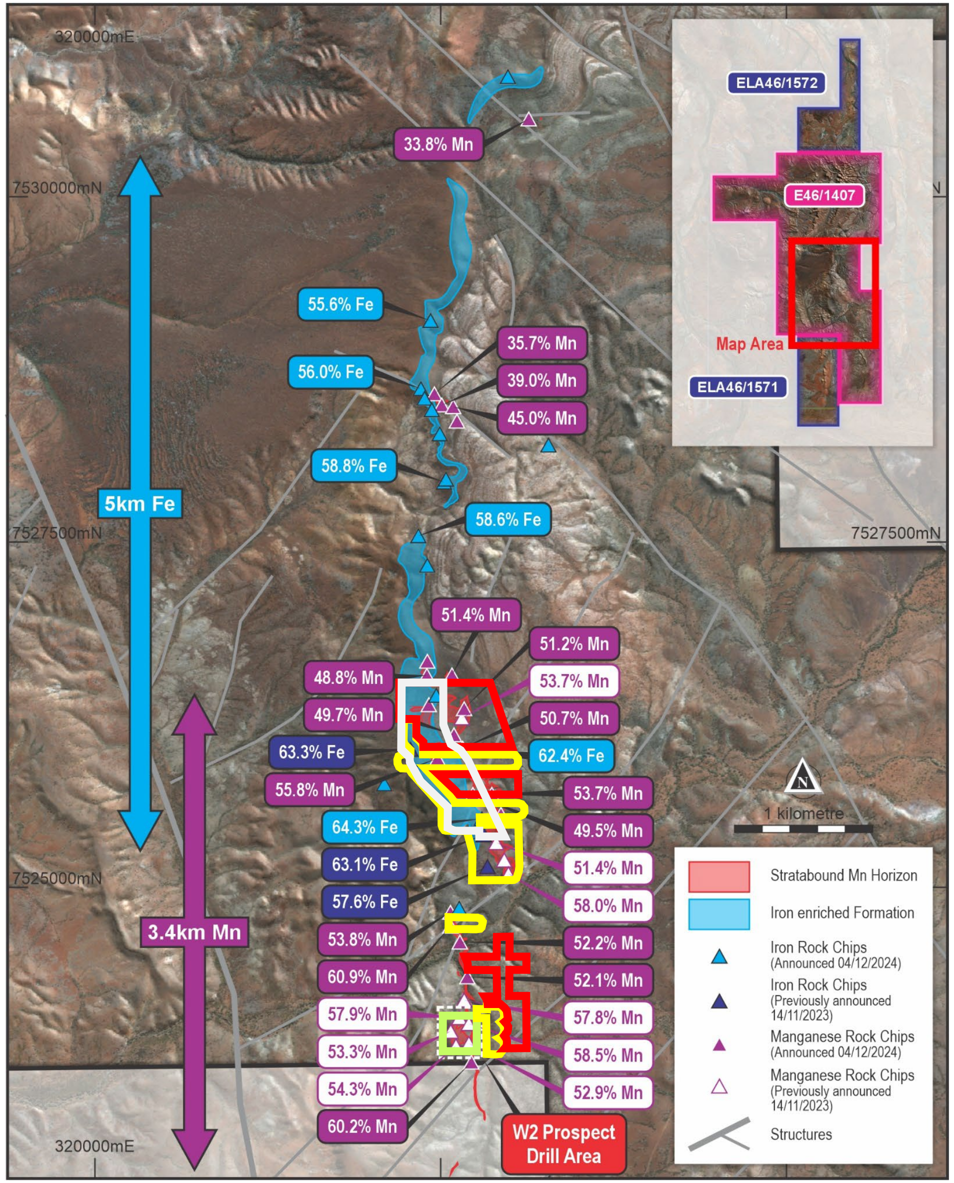
- **Predictable** continuous mineralised horizon/seam with scale potential
- **Consistent** grades and thickness
- **Shallow** depth amenable to low-cost open pit mining
- **Simple** processing DSO or beneficiation
- **Open** in multiple directions



# Wandanya Project: Discovery Drilling

## Three RC drilling programs confirmed shallow continuous mineralisation along 3km of strike that remains open

| | |
|---|---|
| PHASE 01 | **Sept 2024**<br>**Initial discovery** drilling at W2 |
| PHASE 02 | **June 2025**<br>Extension drilling **increased footprint** 900m to north and between 200-400m cross-strike |
| PHASE 03 | **August 2025**<br>Extension drilling confirming Mn horizon along **3km of strike and Fe mineralisation over 1km** |
| **TOTAL** | **6,777m of RC drilling for 284 holes with an average depth of 24m** |

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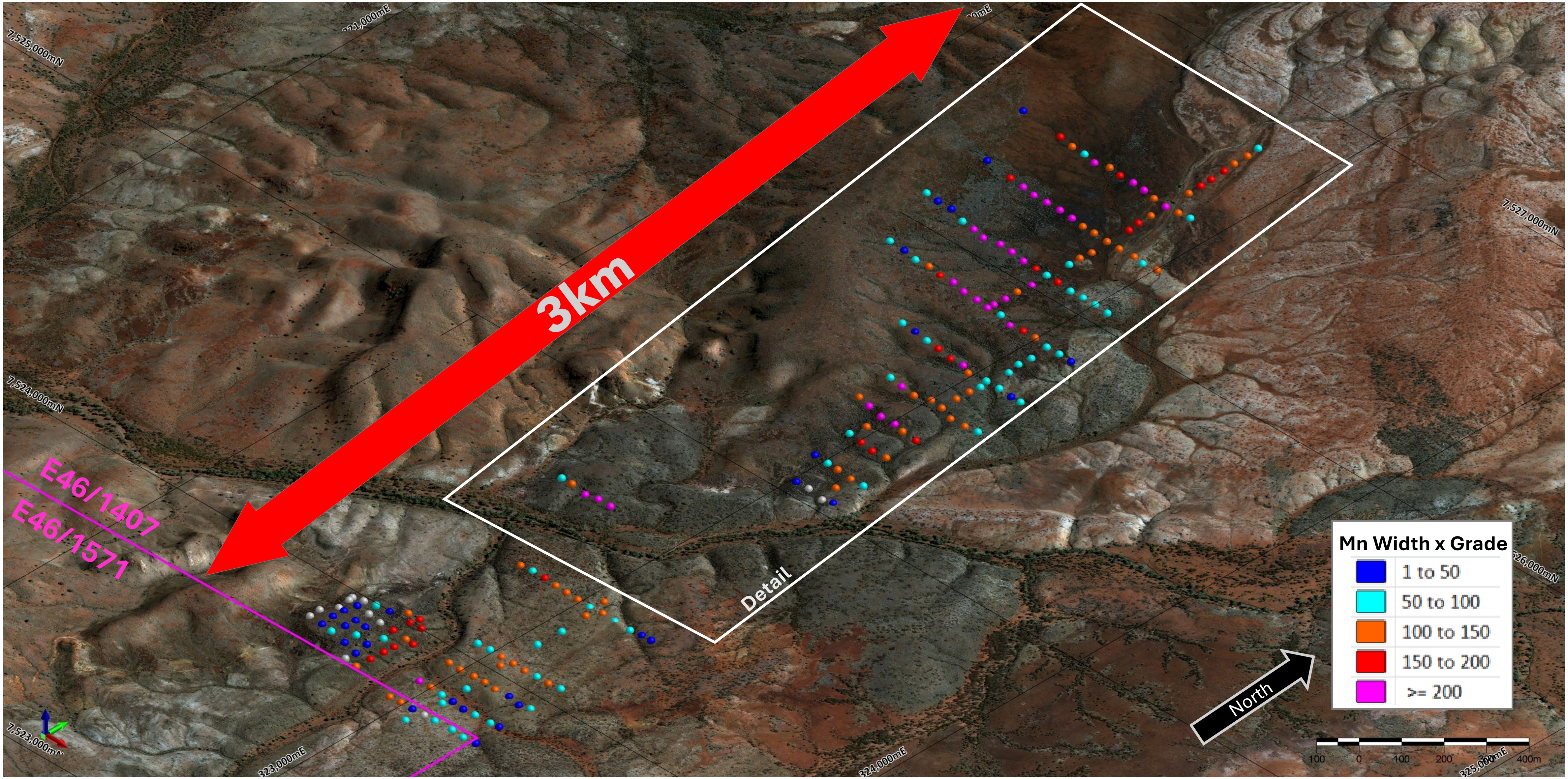
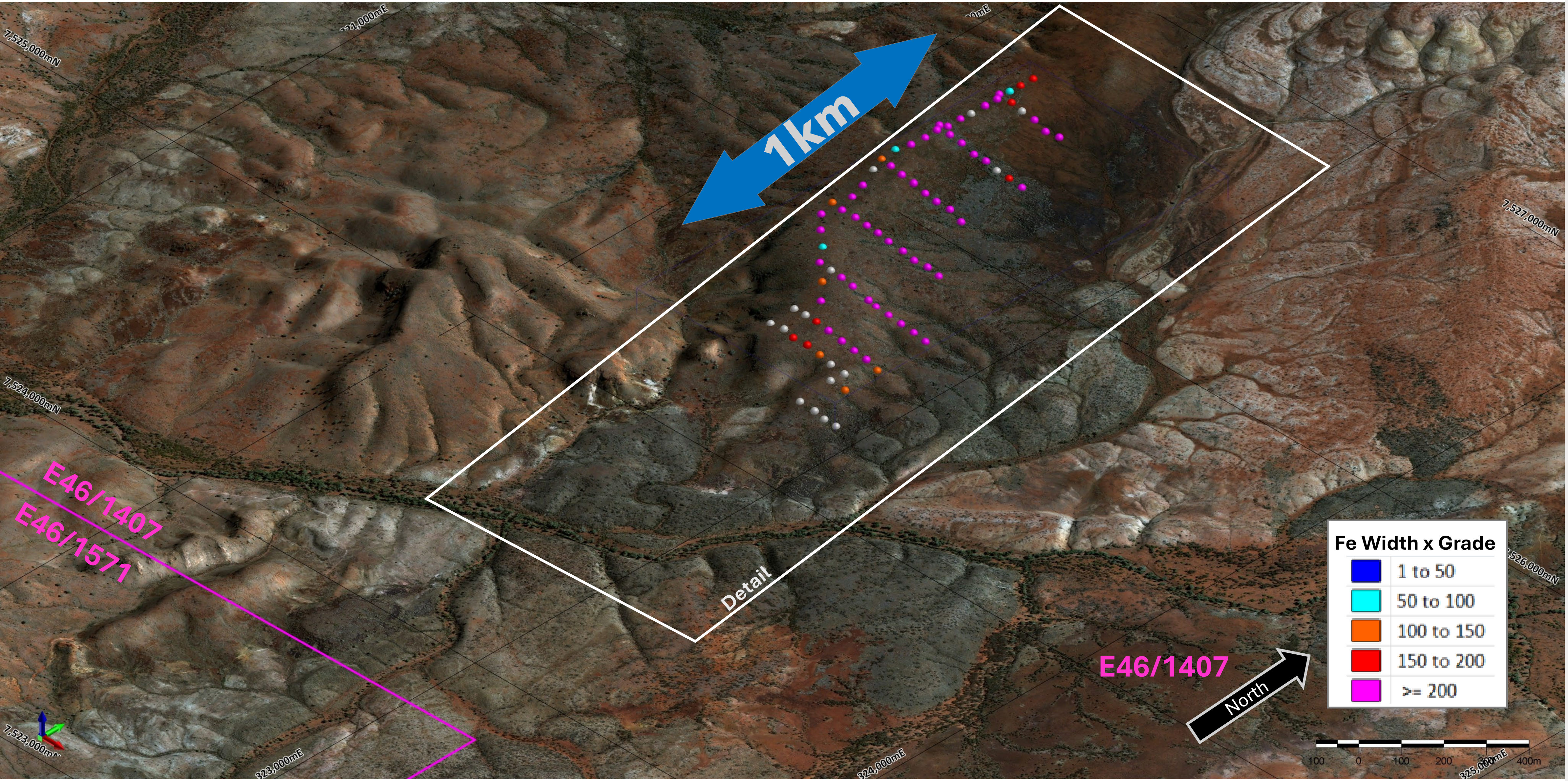
# Wandanya Project: Significant Phase 1,2 and 3 RC Mn Drill Results




BCA ASX Announcement 07/08/2025 Shallow, high-grade Manganese continues across Wandanya, ASX announcement 27/08/2025 Thick, high-grade manganese intersects from Wandanya, ASX announcement 08/10/2025 Wandanya Drilling confirms Manganese along 3km strike and ASX announcement 28/10/2025 Continued High-Grade Manganese and Iron Results From Wandanya

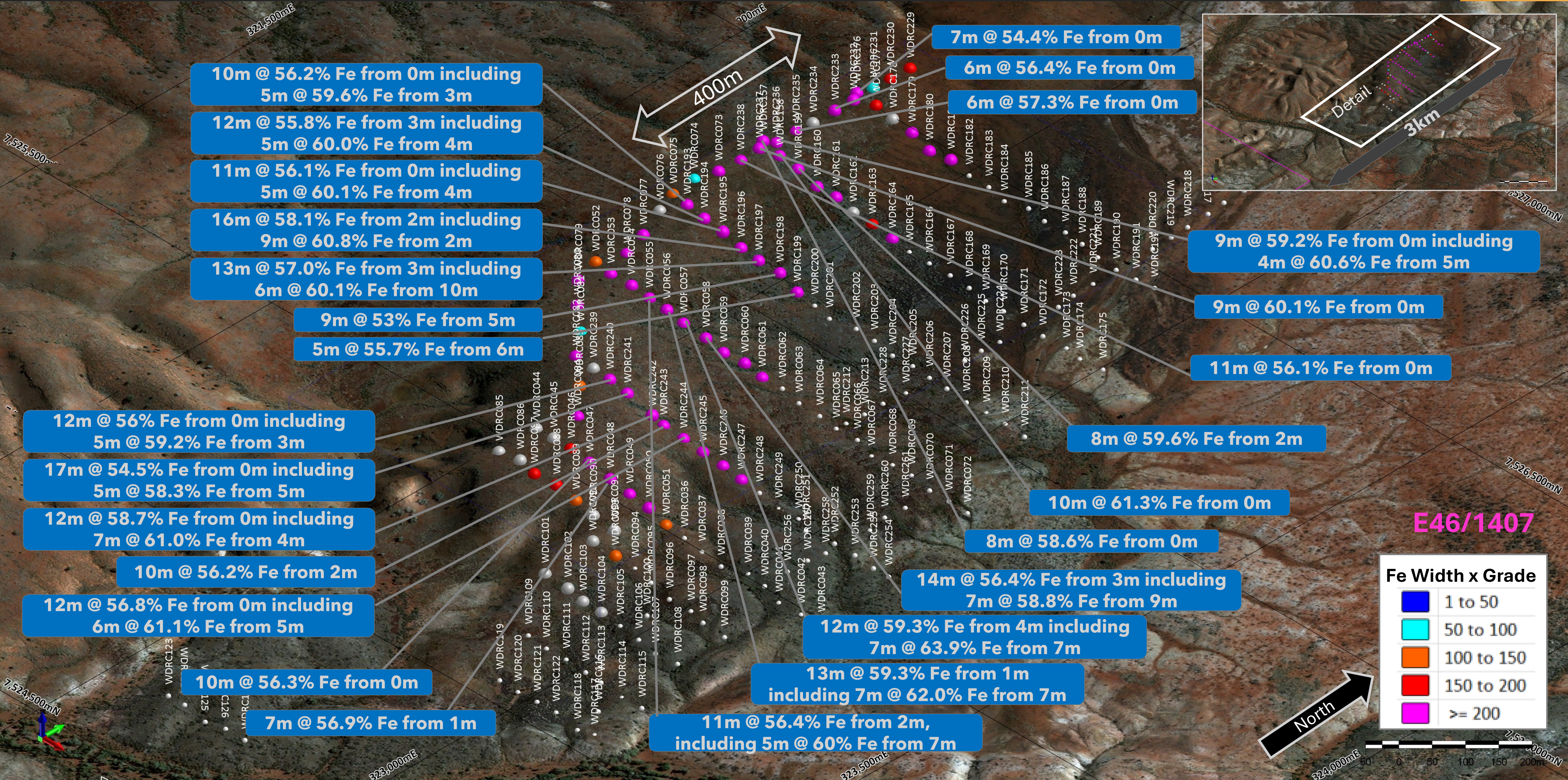
# Wandanya Project: Significant Phase 1,2 and 3 RC Mn Drill Results

# **Wandanya Project:** Significant Phase 1,2 and 3 RC Fe Drill Results

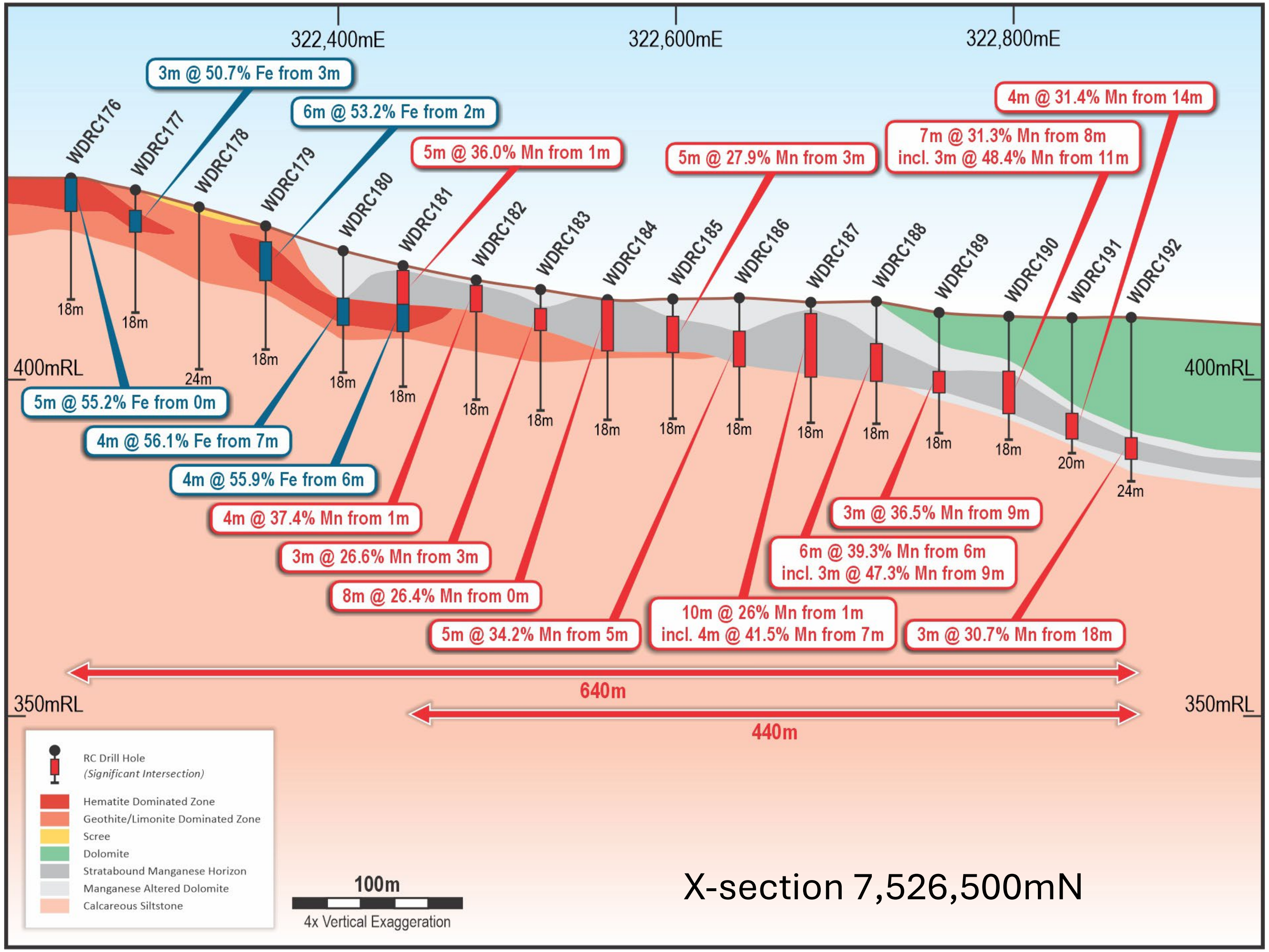


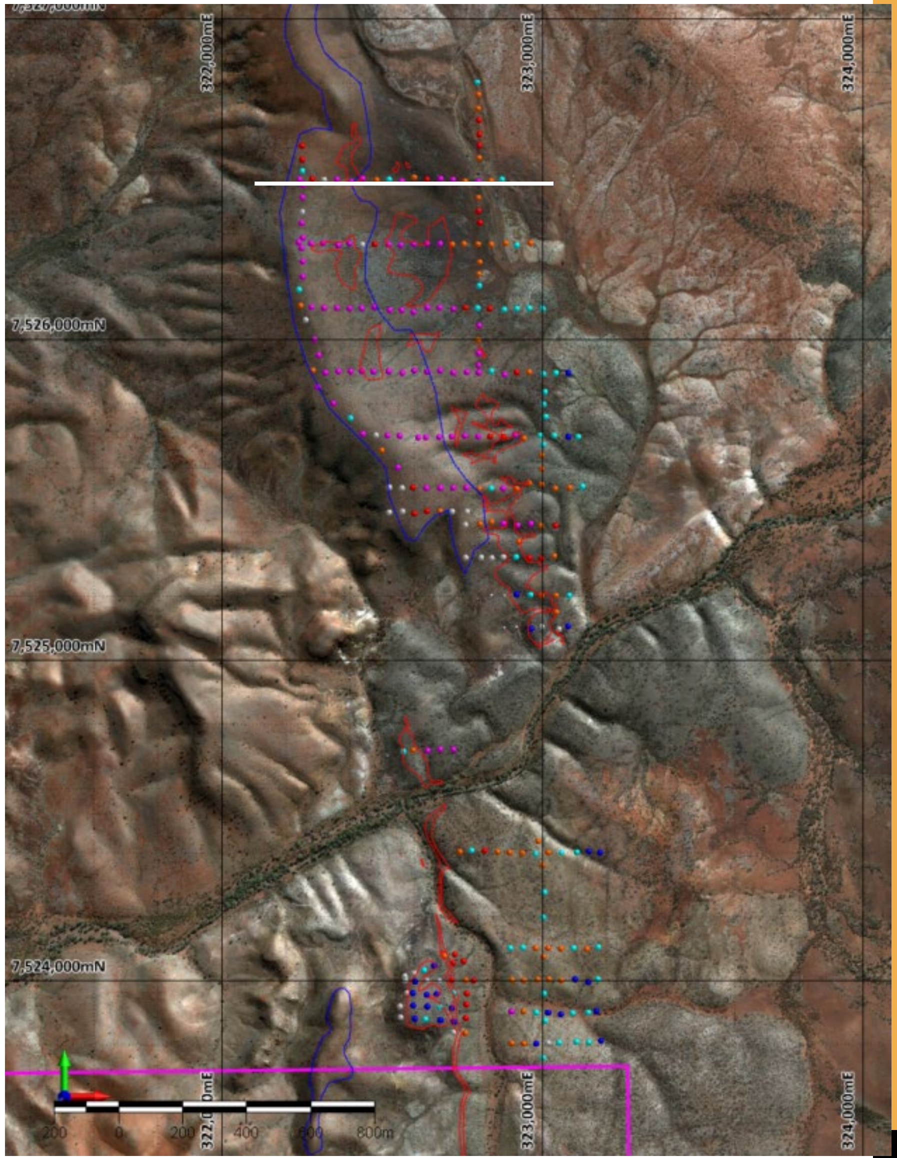

BCA ASX Announcement 07/08/2025 Shallow, high-grade Manganese continues across Wandanya, ASX announcement 27/08/2025 Thick, high-grade manganese intersects from Wandanya, ASX announcement 08/10/2025 Wandanya Drilling confirms Manganese along 3km strike and ASX announcement 28/10/2025 Continued High-Grade Manganese and Iron Results From Wandanya

# Wandanya Project: Significant Phase 1,2 and 3 RC Fe Drill Results



# Wandanya Significant Phase 3 RC Drill Results

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BCA ASX Announcement 07/08/2025 Shallow, high-grade Manganese continues across Wandanya and ASX announcement 27/08/2025 Thick, high-grade manganese intersects from Wandanya

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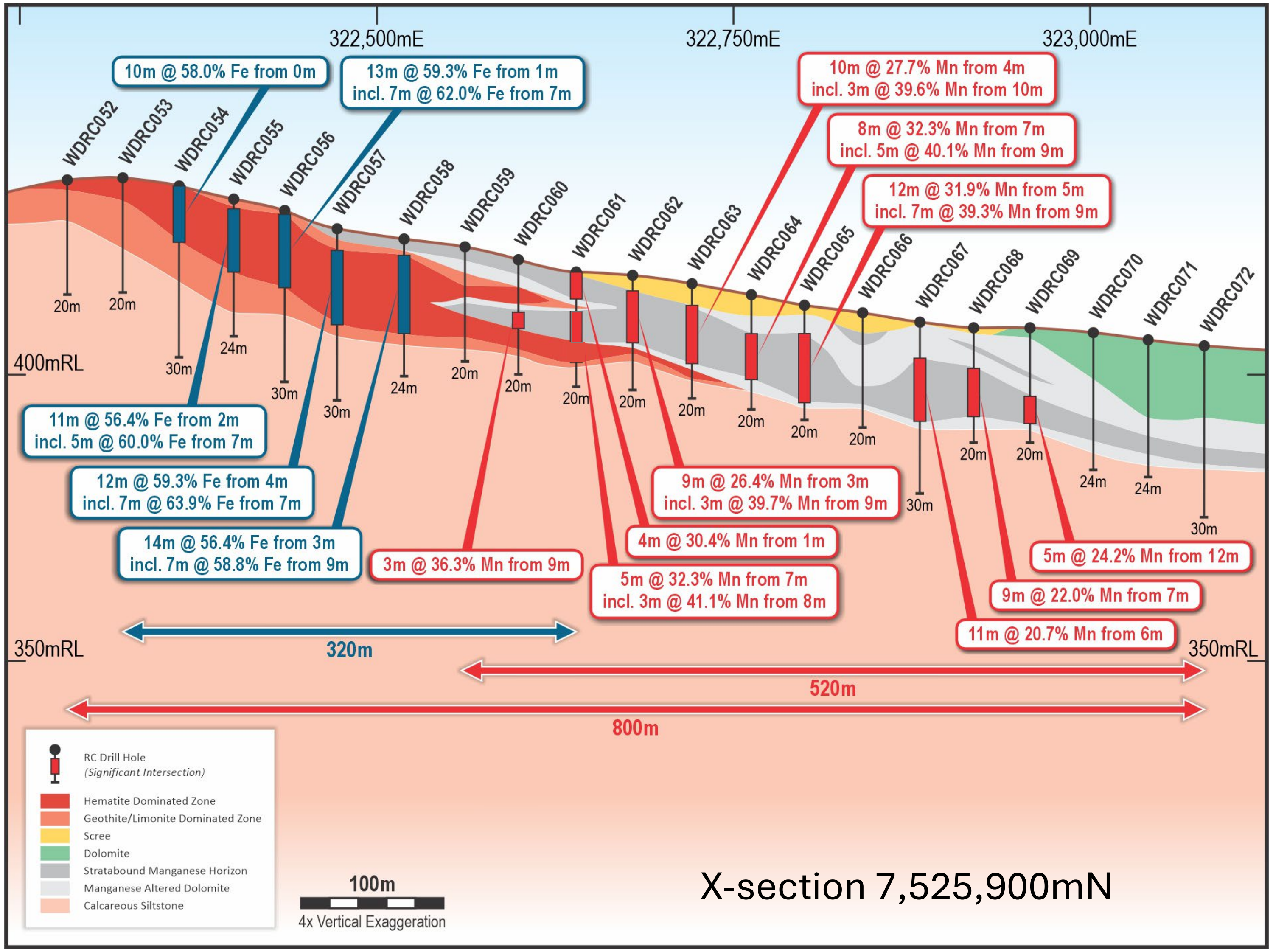
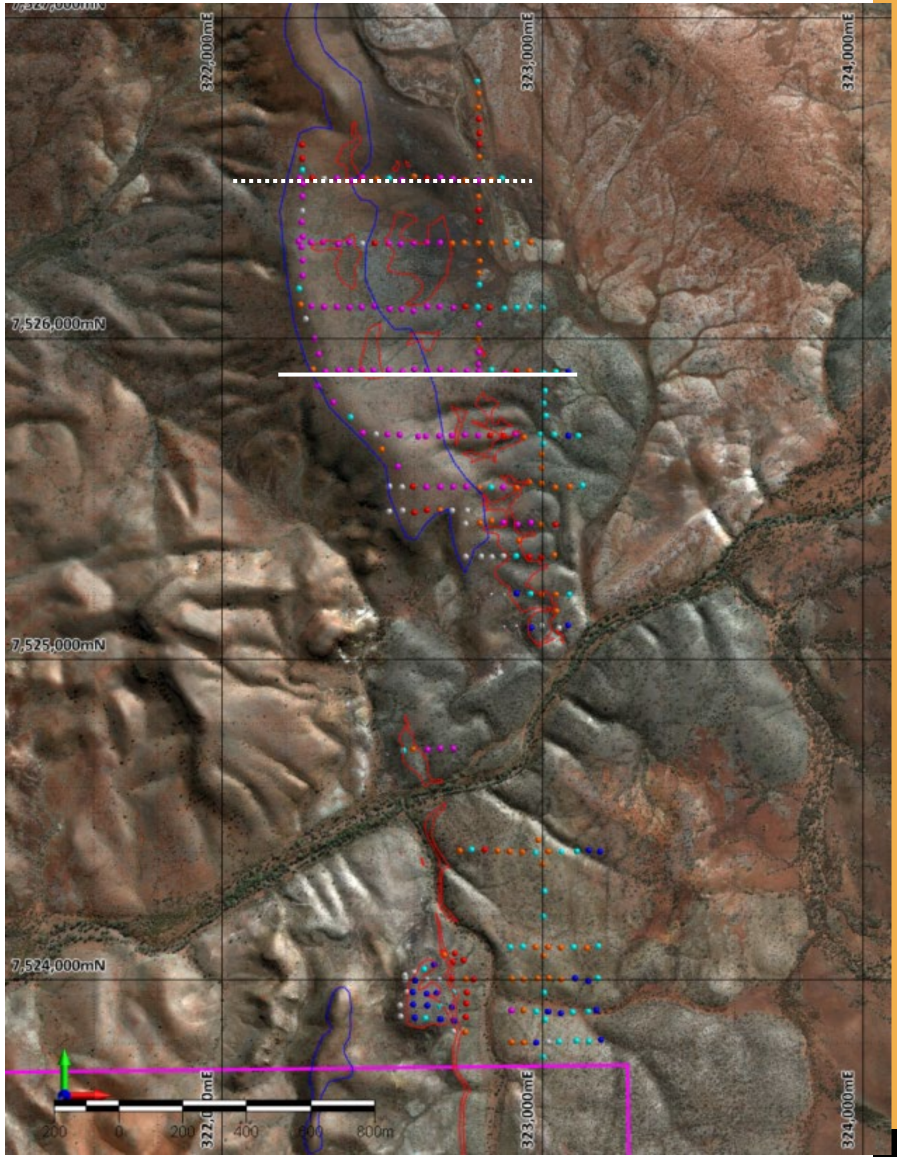
# Wandanya Significant Phase 2 RC Drill Results






BCA ASX Announcement 07/08/2025 Shallow, high-grade Manganese continues across Wandanya and ASX announcement 27/08/2025 Thick, high-grade manganese intersects from Wandanya

# Wandanya Significant Phase 2 RC Results

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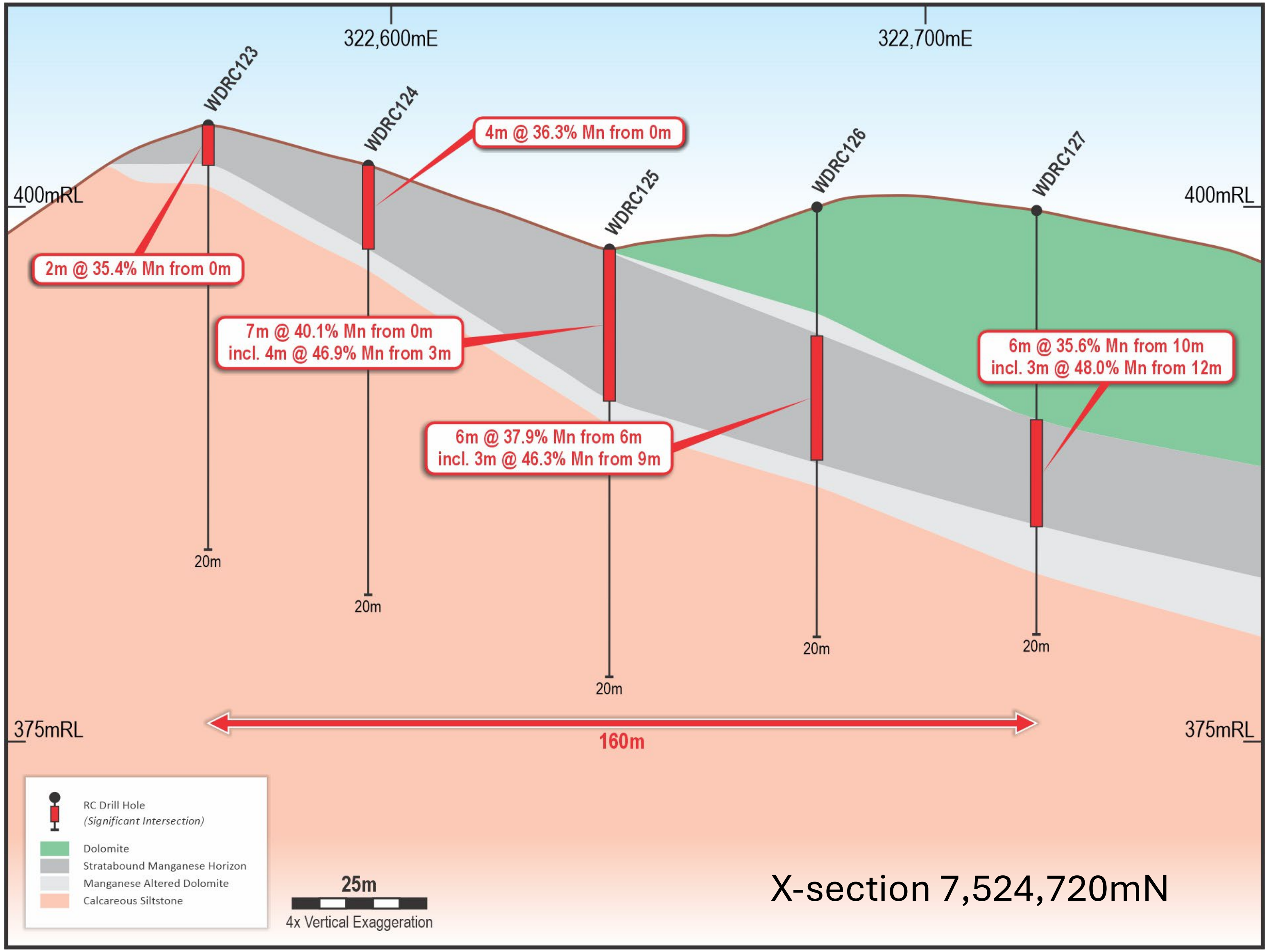


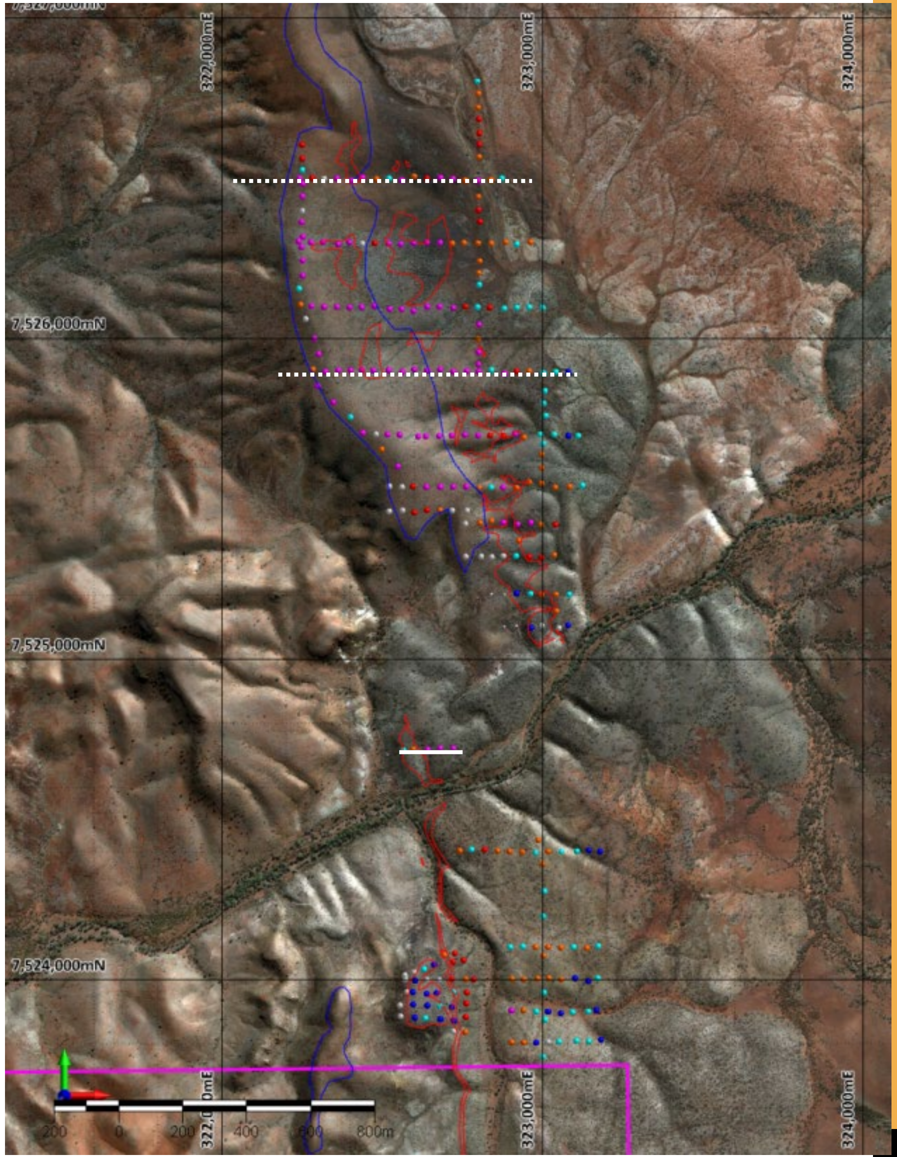


BCA ASX Announcement 07/08/2025 Shallow, high-grade Manganese continues across Wandanya and ASX announcement 27/08/2025 Thick, high-grade manganese intersects from Wandanya

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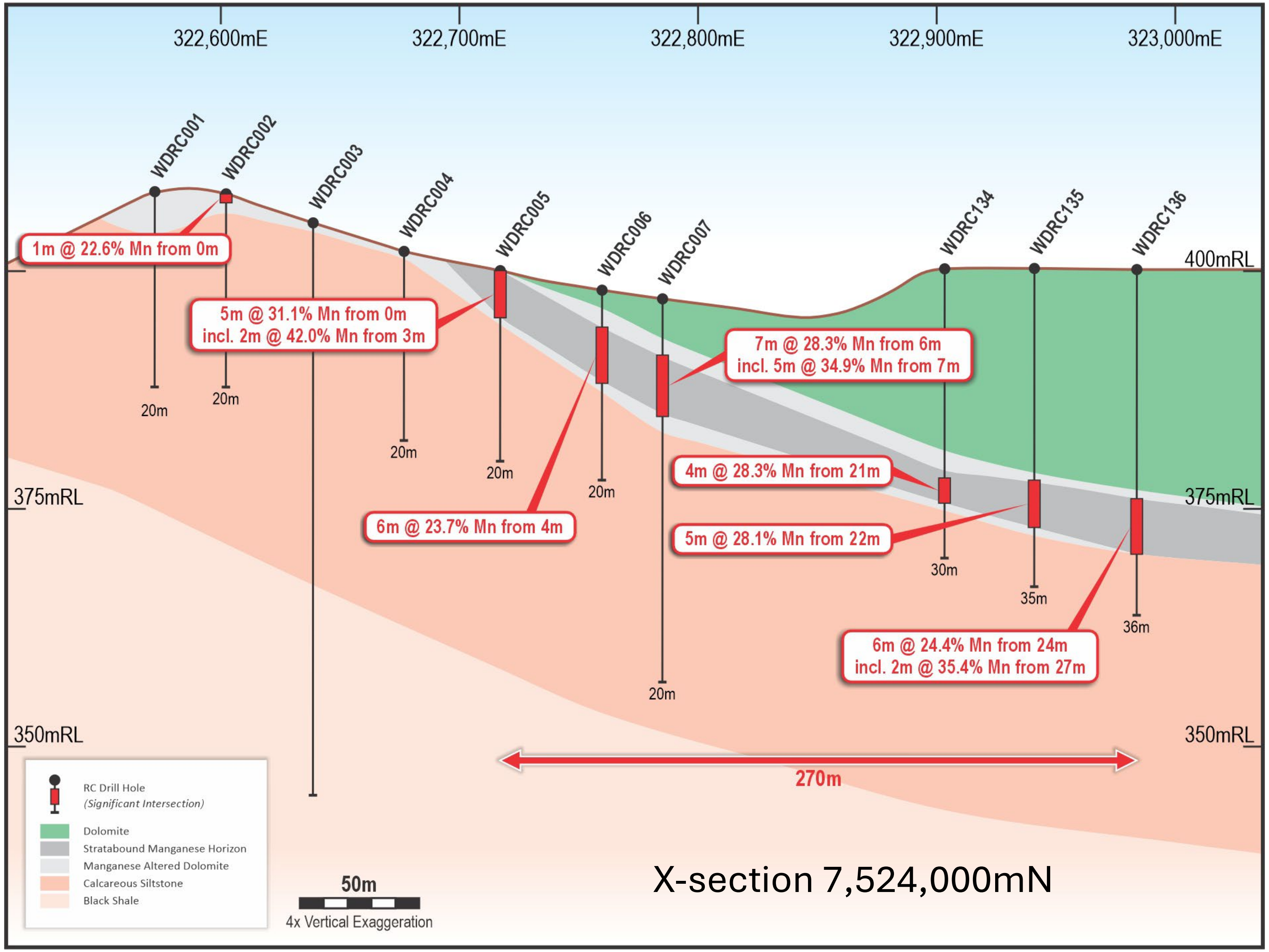
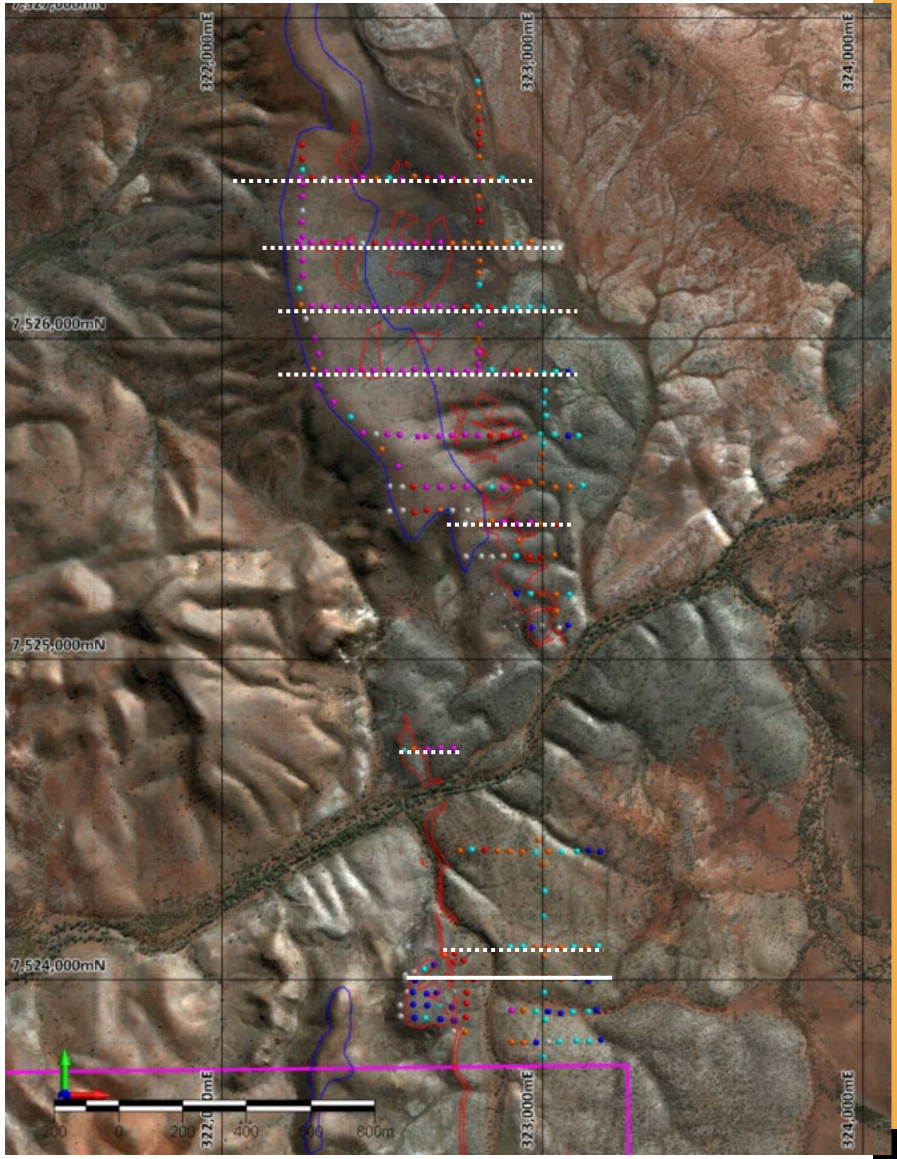
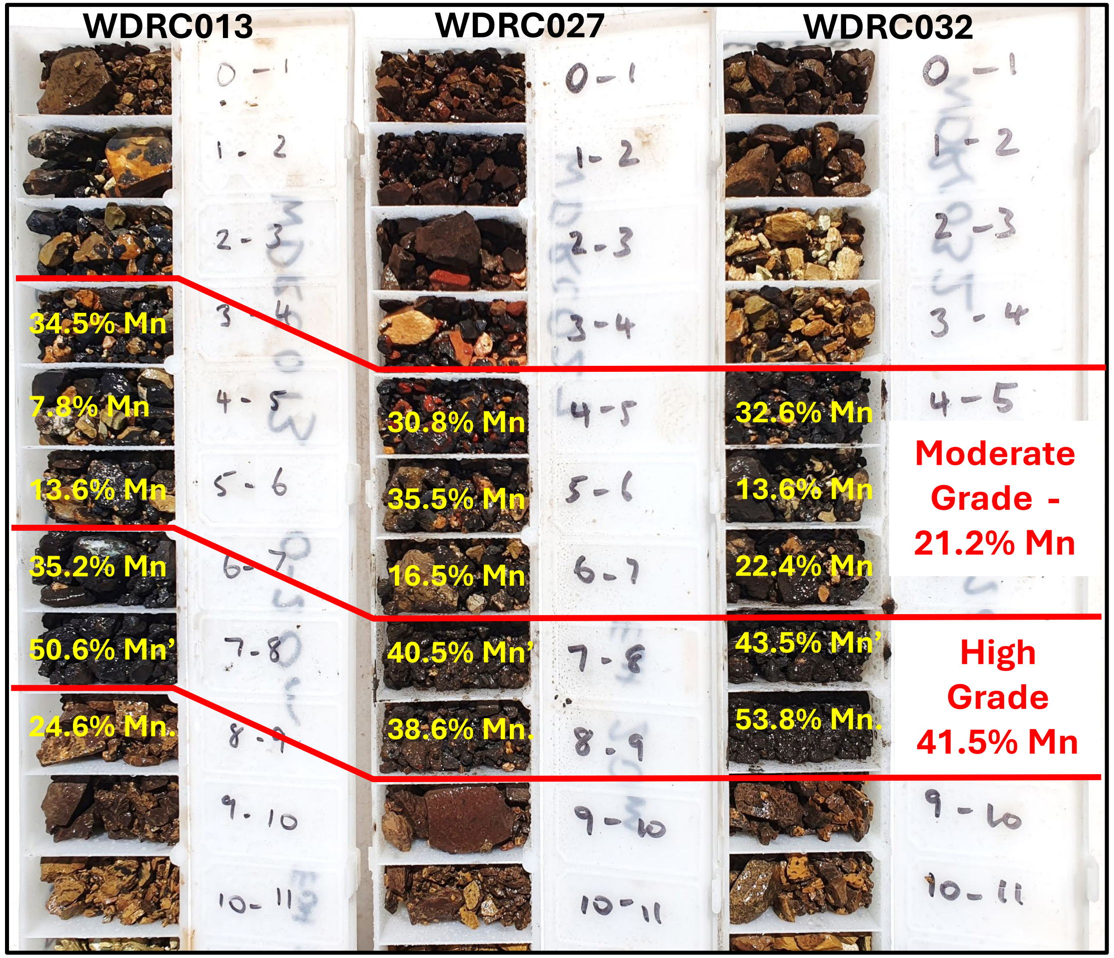
# Wandanya Significant Phase 1 and 2 RC Results




BCA ASX Announcement 07/08/2025 Shallow, high-grade Manganese continues across Wandanya and ASX announcement 27/08/2025 Thick, high-grade manganese intersects from Wandanya

# Wandanya Project: Preliminary Metallurgy




**Chip tray photos from 0-11m from selected holes drilled into the W2 Prospect showing grade zones defined within the manganese horizon**

BCA Announcement 8 October 2024 - Assays Confirm High-Grade Manganese Discovery at Wandanya.
BCA Announcement 16 April 2025 - Higher Manganese Recovery Achieved

HLS testwork results summary from moderate and high-grade composites

| Composite | Sample type | Head grade feed Mn (%) | Size fraction | Density | HLS Results: Mn (%) Conc | HLS Results: Mn Stage Rec (%) | HLS Results: Mn (%) ave Conc | HLS Results: Mn overall Conc rec (%) | Combined Mn (%) Conc | Combined overall Conc rec (%) |
|---|---|---|---|---|---|---|---|---|---|---|
| WD01LG | RC chip composite | 21.2 | +1.0mm -10mm | SG 2.85 | 39.6 | 88.6 | 39.5 | 77.9 | 44.8 | 79.5 |
| | | | -1.0mm +0.045mm | | 39.3 | 93.6 | | | | |
| WD02HG | RC chip composite | 41.5 | +1.0mm -10mm | SG 2.85 | 49.4 | 99.0 | 50.1 | 81 | | |
| | | | -1.0mm +0.045mm | | 50.8 | 99.0 | | | | |
| WD01LG | RC chip composite | 21.2 | +1.0mm -10mm | SG 3.0 | 43.9 | 78.0 | 45.1 | 67.3 | 48.1 | 75.8 |
| | | | -1.0mm +0.045mm | | 46.6 | 65.6 | | | | |
| WD02HG | RC chip composite | 41.5 | +1.0mm -10mm | SG 3.0 | 50.8 | 96.3 | 51.2 | 84.4 | | |
| | | | -1.0mm +0.045mm | | 51.7 | 90.7 | | | | |
| WD01LG | RC chip composite | 21.2 | +1.0mm -10mm | SG 3.3 | 46.6 | 58.0 | 47.9 | 53.1 | 49.9 | 67.6 |
| | | | -1.0mm +0.045mm | | 49.2 | 57.0 | | | | |
| WD02HG | RC chip composite | 41.5 | +1.0mm -10mm | SG 3.3 | 51.6 | 92.4 | 52.2 | 82 | | |
| | | | -1.0mm +0.045mm | | 52.9 | 89.4 | | | | |

HLS Concentrate Grades

| Composite | Size fraction | Density Parameter | Mn (%) | Fe (%) | Al (%) | Si (%) | P (%) |
|---|---|---|---|---|---|---|---|
| WD01MG | +1.0mm -10mm | SG 2.85 | **39.6** | 3.5 | 1.7 | 4.7 | 0.02 |
| | -1.0mm +0.045mm | | **39.3** | 3.7 | 1.5 | 4.2 | 0.005 |
| WD02HG | +1.0mm -10mm | SG 2.85 | **49.4** | 2.1 | 1.0 | 2.5 | 0.01 |
| | -1.0mm +0.045mm | | **50.8** | 1.8 | 0.7 | 1.7 | 0.005 |

# Wandanya Project: Core samples for Metallurgical Testwork

Drill hole WDDD063 twinning hole WDRC063 that intersected **10m @ 27.7% Mn from 4m including 3m @ 39.6%Mnfrom 10m.**

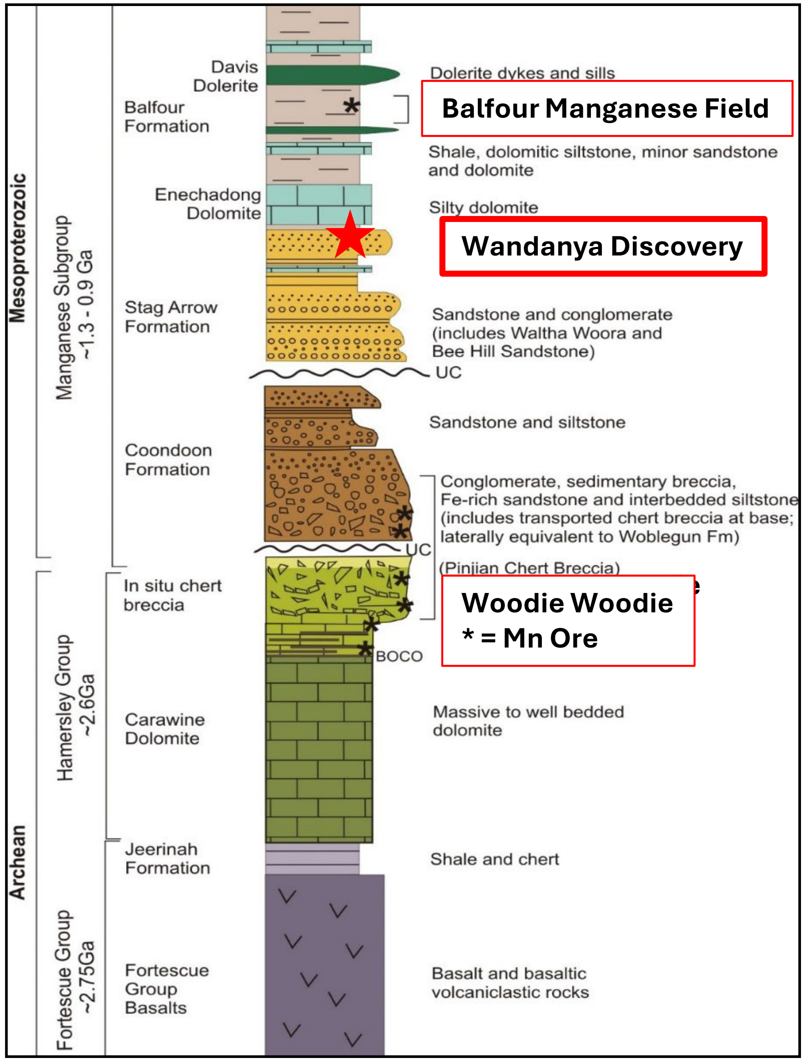
Drill hole WDDD056 twinning hole WDRC056 that intersected **13m @ 59.3% Fe from 1m including 7m @ 62.0% Fe from 7m.**



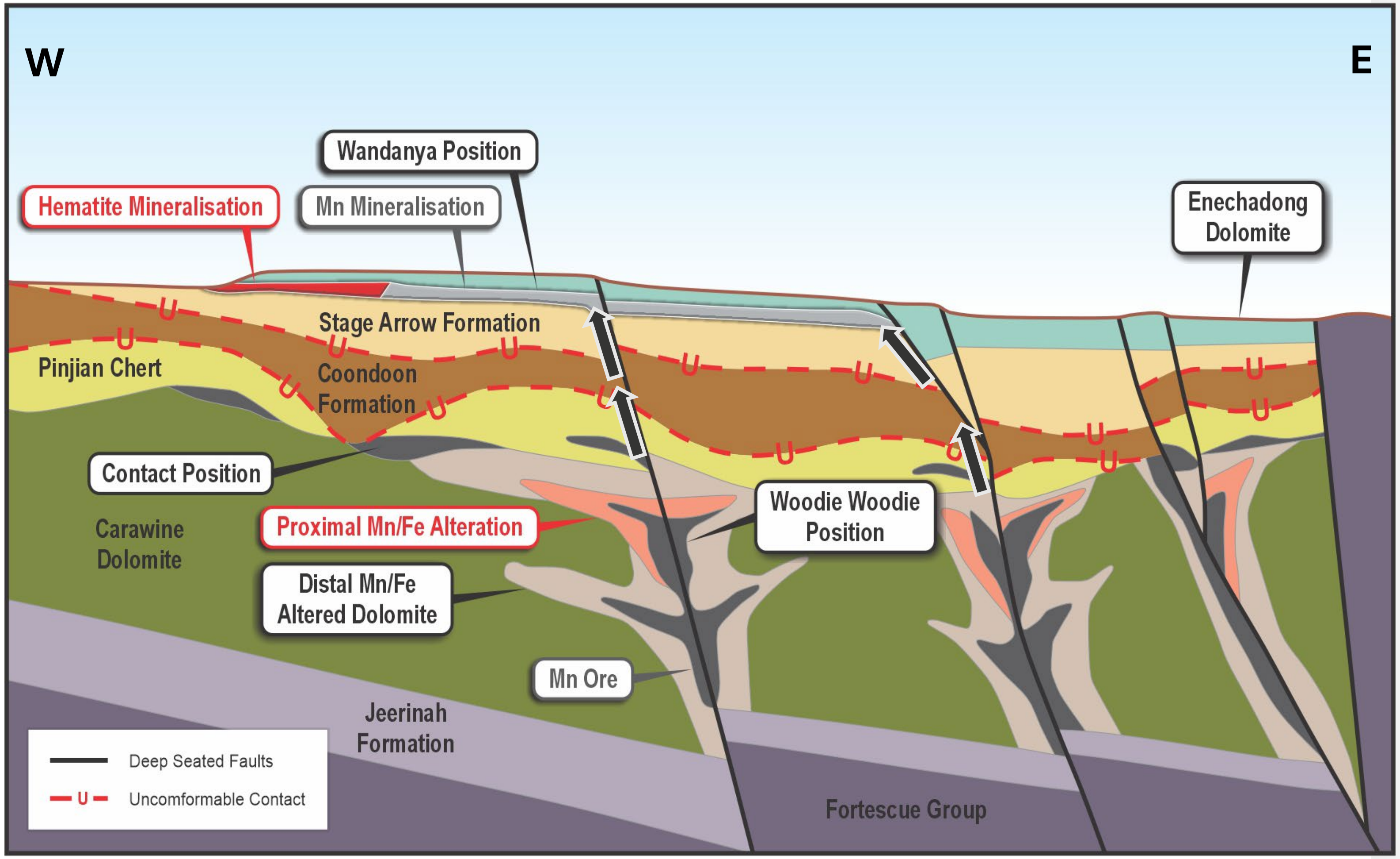
BCA Announcement 10 October 2025 – Diamond Drilling underway at Wandanya.

# Wandanya Project: Manganese and iron discovery geology

## East Pilbara Stratigraphic Column




## Schematic Wandanya Mineralisation Model




**Age of the Mn mineralisation at Woodie Woodie between 955-1100 Ma**

# Wandanya Project: Next Steps

**Sep 2025**
Heritage survey for areas north and east of current drilling for RC discovery drilling in 2026

**Nov 2025**
PQ3 diamond drilling for metallurgical testwork

**Nov 2025**
Settlement of Ndalamo acquisition

**Nov 2025**
Heritage Surveys for 2026 infill and discovery drilling

**Dec 2025**
Commence Metallurgical testwork

**Dec-Feb 2026**
Metallurgical results

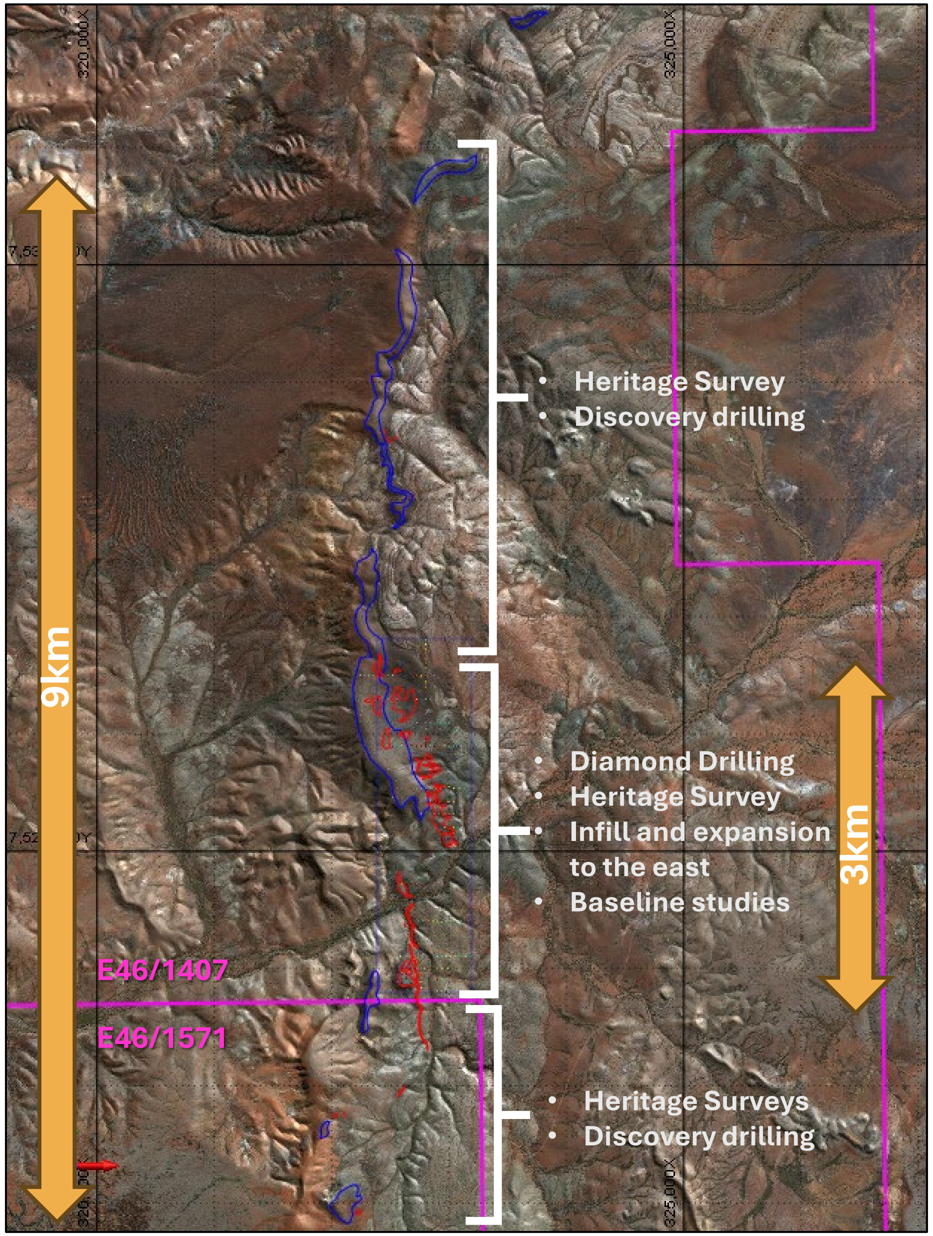
**Mar-Apr 2026**
Heritage surveys on (Wandanya South (E46/1571)

**Apr-Jun 2026**
Infill RC drilling Wandanya

**Jun 2026**
RC discovery drilling north and south of Wandanya

**2026 Pre-Development Studies**
Mineral Resource Estimate, logistics, infrastructure, baseline environmental studies, processing, water search and marketing

**2026 Regional exploration**
Existing and new applications in the region (geophysics, heritage and RC drilling)



# Why Invest?

**Emerging WA manganese developer** with an advanced Global MRE base and discovery-led growth trajectory in a tier-1 jurisdiction

**Greenfield Wandanya high-grade Mn & Fe discovery a game changer;** World-class potential and remains open in multiple directions

**Ongoing exploration and development activities** focused on unlocking full potential of Wandanya discovery

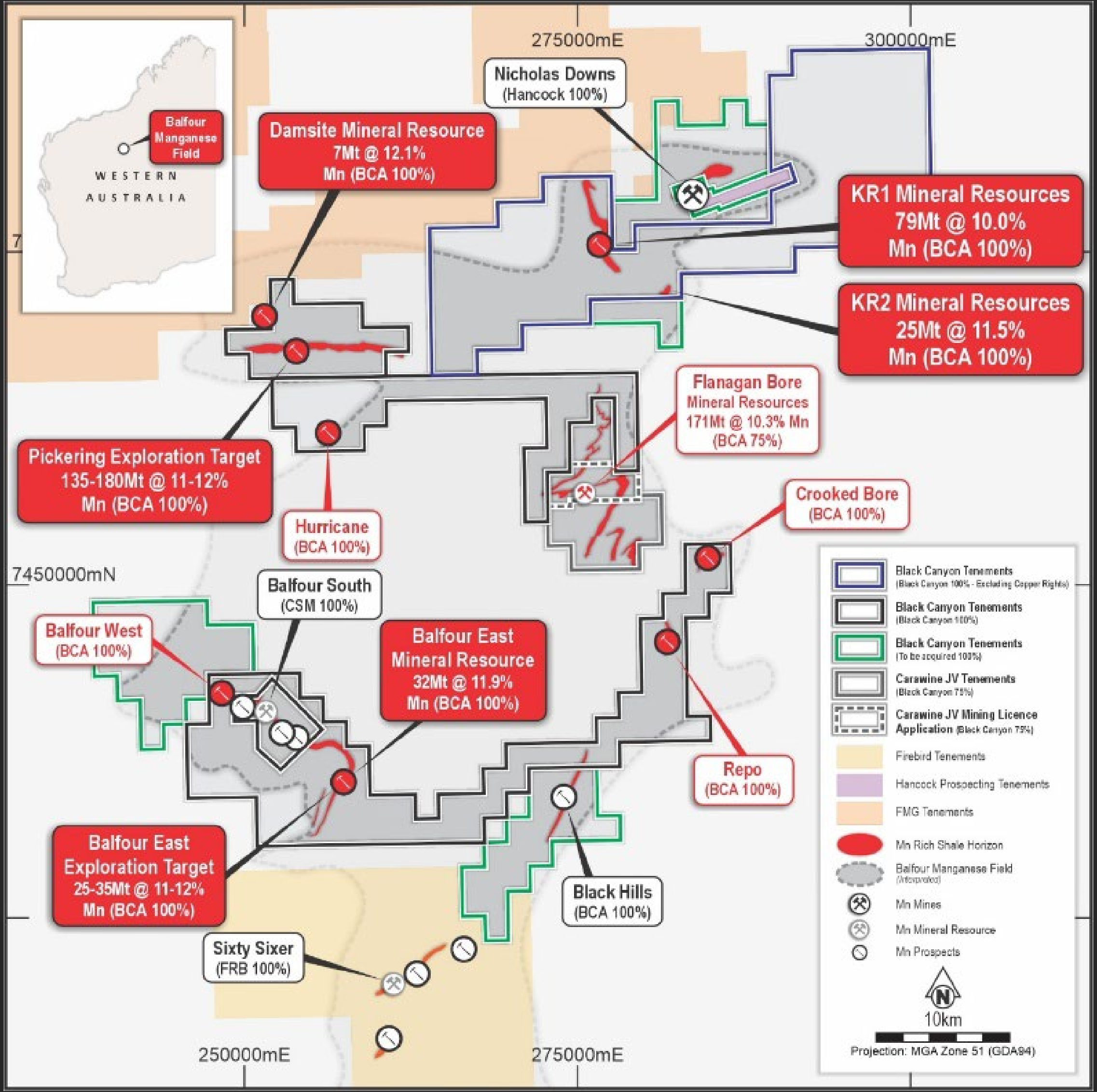
**Expanding team** supported by a strong Board with a track-record of discovery and value creation

**Highly supportive share register** underpinned by strong long-term fund representation (Nero, Lowell, Perennial, Cranport)

**Well-funded with approx. $11.6 million** to advance Wandanya and other programs

# Balfour Manganese Field (BMF)

# Balfour Manganese Field (BMF): The largest manganese Resource in WA




- Six manganese discoveries in 2 years across ~2,200km$^2$ area
- Largest contained manganese deposits in Western Australia and the second largest in Australia
- Global MRE totalling **315Mt @ 10.5% Mn for 33.1Mt**
  - 87% in Measured & Indicated Categories
  - Beneficiation testwork can produce a 30 – 33% Mn product
- Additional Exploration Targets provide further upside potential

**Summary of Mineral Resources (1-3)**

| Deposit | Mineral Resource Category | Material (Mt) | In Situ Mn (Mt) | Mn (%) | Fe (%) | Si (%) | Al (%) |
|---|---|---|---|---|---|---|---|
| FB3[4] | Measured | 52 | 5.5 | 10.5 | 10.4 | 16.9 | 4.3 |
| LR1[4] | Measured | 47 | 4.9 | 10.3 | 8.4 | 16.7 | 4.6 |
| **Total** | **Measured** | **100** | **10.4** | **10.4** | **9.4** | **16.8** | **4.4** |
| KR1[5] | Indicated | 79 | 7.8 | 10.0 | 7.9 | 18.0 | 5.4 |
| KR2[5] | Indicated | 23 | 2.6 | 11.5 | 10.7 | 19.2 | 5.1 |
| FB3[4] | Indicated | 63 | 6.3 | 10.0 | 9.6 | 16.8 | 4.4 |
| LR1[4] | Indicated | 8 | 0.9 | 11.3 | 9.4 | 6.9 | 1.8 |
| **Total** | **Indicated** | **173** | **17.7** | **10.2** | **9.0** | **17.2** | **4.8** |
| KR2[5] | Inferred | 2 | 0.3 | 11.1 | 11.0 | 19.4 | 6.0 |
| Balfour East[5] | Inferred | 32 | 3.9 | 11.9 | 8.5 | 18.6 | 4.9 |
| Damsite[5] | Inferred | 7 | 0.9 | 12.1 | 9.6 | 17.2 | 4.2 |
| **Total** | **Inferred** | **42** | **5.0** | **11.9** | **8.9** | **18.4** | **4.9** |
| **Grand Total** | | **315** | **33.1** | **10.5** | **9.1** | **17.2** | **4.7** |

**Notes**
(1) Mineral resources reported at a cut-off grade of 7% Mn.
(2) Appropriate rounding has been applied.
(3) Refer to JORC Table 1, Sections 1 to 3 and Appendix 2 for further details in ASX release 27/11/2023.
(4) Deposit under which BCA owns 75%
(5) Deposit under which BCA owns 100%

Refer to BCA ASX Announcement 22 October 2025 - KR2 Mineral Resource Classification Update

# Balfour Manganese Field (BMF): Attractive long-life scoping-level economics

**KR1 / KR2 and Flanagan Bore underpin BMF Project value, potential for strong LOM financial returns over a long mine life**

- Low CAPEX and short payback period
- 100% unencumbered offtake for long-term Mn supply
- Multiple development options incl. hub and spoke processing
- Conventional free dig, truck and shovel mining
- Simple Processing method – crush, wash, screen and Dense Media Separation (DMS)
- Opportunities for further project enhancements

| Financial Performance Summary | Unit | KR1 & KR2 (July 2024) | Flanagan Bore (Aug 2022) |
|---|---|---|---|
| | | LOM | LOM |
| Initial LOM | (years) | 16 | 20 |
| Total LOM Revenue | (A$ M, real) | 2,781 | 2,282 |
| Total LOM EBITDA | (A$ M, real) | 654 | 420 |
| **NPV @ 8% - before tax** | (A$ M, real) | **340** | **134** |
| **IRR - before tax** | (%, real) | **70** | **67** |
| **Project Capital Expenditure** | (A$ M, real) | **84** | **44** |
| Payback Period - before tax | (years) | <2 | <2 |
| Average Sales Price (LOM) | Product (A$/t) | 227 | 231 |
| | $US/dmtu | **4.60** | **4.62** |
| EX rate AUD:USD | A$ | 0.67 | 0.7 |
| CI Cash Costs (CIF) | (A$/t, real) | 149 | 175 |
| | $US/dmtu | 3.02 | 3.50 |
| AISC (CIF) | (A$/t, real) | 166 | 192 |
| | $US/dmtu | **3.38** | **3.84** |

BCA ASX Announcement 18 August 2022 - Flanagan Bore Scoping Study Results
BCA ASX Announcement 2 July 2024 - Positive Results Confirmed From The KR1 & KR2 Scoping Study

# Balfour Manganese Field (BMF): KR1 and KR2 Scoping CAPEX/OPEX

## CAPEX

| Item | Description | Cost (A$M) |
|---|---|---|
| **Process Plant** | | |
| | Crushing | 5.9 |
| | Processing | 34.4 |
| | Tailings systems | 2.3 |
| | Services | 0.6 |
| | Plant bulk earthworks | 2.1 |
| | Process infrastructure | 0.5 |
| | **Total Process Plant** | **45.7** |
| **Infrastructure** | | |
| | Tails Storage Facility | 2.3 |
| | Water supply | 1.8 |
| | Roads | 1.3 |
| | Accommodation Camp | 5.5 |
| | Light vehicles & mobile equipment | 1.2 |
| | Other | 1.6 |
| | **Total Infrastructure** | **13.6** |
| **Indirect Costs** | | |
| | Owners and other costs | 5.9 |
| | EPCM | 7.1 |
| | Contingency | 11.9 |
| | **Total Indirect cost** | **24.9** |
| | **TOTAL CAPEX** | **84.1** |

BCA ASX Announcement 18 August 2022 - Flanagan Bore Scoping Study Results
BCA ASX Announcement 2 July 2024 - Positive Results Confirmed From The KR1 & KR2 Scoping Study

## LOM OPEX/t (CIF)

| CA Operating Cost C1 | A$/t LOM | A$/t Mn CONC | $US/DMTU |
|---|---|---|---|
| Mine to ROM Haulage | 5.21 | 20.45 | 0.42 |
| Milling Costs | 5.82 | 22.87 | 0.46 |
| Grade Control and rehandle | 1.5 | 5.89 | 0.12 |
| G & A | 1.51 | 5.93 | 0.12 |
| Product haulage | 17.46 | 68.61 | 1.39 |
| Port and shipping charges | 6.36 | 25 | 0.51 |
| Total C1 Operating cost | 37.9 | 148.8 | 3.02 |

| AISC | A$/t LOM | A$/t Mn CONC | US/DMTU |
|---|---|---|---|
| C1 Operating cost | 37.9 | 148.8 | 3.02 |
| Sustaining Cost | 0.8 | 2.9 | 0.06 |
| Royalty (State & Traditional Owners) | 3.7 | 14.7 | 0.3 |
| Total AISC | 42.4 | 166.4 | 3.38 |

## Key Assumptions

- Mining Rate – 3.0Mtpa
- Life of Mine – 16 years
- Annual Concentrate Production – 760,000tpa (LOM 12Mt)
- LOM Production Targets of 48.2Mt @ 10.9% Mn
- Mining Method – truck and shovel
- Simple Processing method – crush, wash, screen and DMS
- Reagents – water and dense media
- Transport – 115t and 155t trucks 550km to Port Hedland

# Balfour Manganese Field (BMF): Downstream HPMSM value-add potential

STAGE 01

## Evaluate Ore Suitability

- ☑ Initial leach tests yielded a 93% extraction rate.
- ☑ Crystallised Manganese Sulphate crystals containing >32% Mn which >99% Mn Sulphate purity. Comparable to the typical 32% Mn content of battery grade HPMSM but further purification required to reduce elemental impurities.

STAGE 02

## Battery Grade HPMSM Experimental Flowsheet

- ☑ Expanded HPMSM Strategy across the Balfour Mn Field.
- ☑ Leach tests yielded up to 99% extraction rate.
- ☑ Completed multistage stage purification to remove Na, Al, and K, then Fe and Al and base metals. Single stage solvent extraction (SX) to selectively target manganese extraction, followed by crystallisation.
- ☑ **Achieved battery grade - 32% Mn, >99% Mn Sulphate purity from KR1 feedstock.**

STAGE 03

## Upscale Battery Grade HPMSM Flowsheet testwork

- ☑ Sample selection (400kg), processed to feedstock
- ☐ Larger scale samples to refine flowsheet and pilot plant design

BCA ASX Announcement 11/10/2022 Successful manganese extraction from initial leaching tests
BCA ASX Announcement 05/12/2022 Greater than 99% Purity Manganese Sulphate Achieved

BCA ASX Announcement 05/09/2023 Advancing Battery Grade HPMSM Development and
BCA ASX Announcement 23/10/2023 Battery Grade Manganese Sulphate Milestone Achieved

BLACK CANYON

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