

## ASX: ADC

ACN 654 049 699

### CAPITAL STRUCTURE

Share Price: A\$0.08\*  
Cash: A\$6 M\*  
Debt: Nil  
Ordinary Shares: 72.3M  
Market Cap: A\$5.8M\*  
Enterprise Value: A\$-0.2M\*  
Options: 47.7M  
\*as of 3 Aug 2023

### BOARD OF DIRECTORS & MANAGEMENT

**Andrew Shearer**  
Non-Executive Chair

**Mark Saxon**  
Executive Director

**Tom Davidson**  
Chief Executive Officer

**Richard Boyce**  
Non-Executive Director

**Ivan Fairhall**  
Non-Executive Director

**COMPANY SECRETARY**  
Tamara Barr

### CONTACT

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Melbourne VIC 3000

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## TechKnow Investor Presentation August 2023

ACDC Metals Limited (**ASX: ADC**) (“**ACDC Metals**” or the “**Company**”) is pleased to announce that CEO, Tom Davidson, will present at the TechKnow Invest Conference being held in Melbourne at 2.00pm AEST today, Thursday 3 August 2023.

ACDC Metals invites Shareholders and investors to attend.

Shareholders and investors can access the live stream of the CEO’s presentation using the following link:

[www.techknowinvestroadshow.com.au/livestreamingregistration](http://www.techknowinvestroadshow.com.au/livestreamingregistration)

The presentation will focus on the Medallion Monazite Process (**MMP**) which enables safe, scalable and sustainable extraction of rare earth elements (**REE**) from mineral sand monazite.

If you are attending the Conference in person, please visit ACDC’s booth and meet Tom and the Team.

### **About ACDC Metals**

*ACDC Metals is a heavy mineral sand and rare earth element explorer and developer focussed on projects in the Murray Basin of western Victoria, Australia. ACDC Metals also holds the exclusive licence for Eastern Australia for the ‘Medallion Monazite Process’, a well advanced process technology to efficiently extract rare earth elements from monazite, developed by TSX listed Medallion Resources (TSX:MDL). Goschen Central is the ACDC Metals’ flagship project, a maiden mineral resource is due for release in Q3 2023.*

*Announcement has been approved for release by the Board.*

### **For Further Information**

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ASX:ADC

# Powering the Future with Innovative Mine-to-Market Solutions

TechKnow Conference Presentation | August 2023



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**Competent Person Statement:** The information contained in this presentation that relates to exploration strategy or to exploration results is based on information generated by the company, and compiled by, or reviewed by, Mr Kent Balas who is a Member of the Australian Institute of Geoscientists. Mr Balas has sufficient experience which is relevant to the activities reported herein to qualify as a Competent Person as defined in the 2012 edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Balas consents to the inclusion in the presentation the matters based on his information in the form and context in which it appears

**No New Information:** This document contains information extracted from ASX market announcements reported in accordance with the 2012 edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves” (2012 JORC Code) and available for viewing at <https://acdcmetals.com.au/investors/asx-announcements/>. The company confirms that it is not aware of any new information or data that materially affects the information included in any original ASX market announcement.



**Building a mine-to-market critical metals company with heavy mineral sand (HMS) assets and proprietary rare earth element (REE) processing technology.**

**Secure supply of critical metals is essential for the energy transition. Through an innovative business model, ACDC can play a pivotal role.**

# Why ACDC Metals?



## Exposure to Energy transition and the demand for critical minerals

- ✓ Markets are demanding, and governments are supporting, rare earth supply chain development outside of China
- ✓ Rare earth market forecast for continual growth to 2030

## Hitting our milestones and objectives and delivering results

- ✓ **13,000 metres** of Air core drilling complete
- ✓ Exceptional Mineralogy and Grades at Goschen Central
- ✓ Maiden **JORC resource** targeted for Q3 2023

## Well Financed

- ✓ **Completed \$8M IPO** December 2022
- ✓ **Listed on ASX January 2023**
- ✓ **\$6M cash** reported Q2 2023

## Our differentiator, Rare Earth Element Extraction

- ✓ **ACDC Exclusive licence** for Medallion Monazite Process (MMP) eastern Australia
- ✓ Producing – **Rare Earth Element** carbonate & Phosphate
- ✓ Providing essential materials for magnet production
- ✓ Commencement of Studies for Rare Earth Processing Plant (REPP) Project



# Board & Management Team



**Tom Davidson**  
**Chief Executive Officer**  
Engineer & Development



**Andrew Shearer**  
**Non-Executive Director and Chair**  
Geologist & Corporate



**Mark Saxon**  
**Executive Director**  
Geologist & Corporate



**Ivan Fairhall**  
**Non-Executive Director**  
Engineer & Corporate



**Richard Boyce**  
**Non-Executive Director**  
Finance & Governance



**Tamara Barr**  
**Corporate Secretary**  
Governance

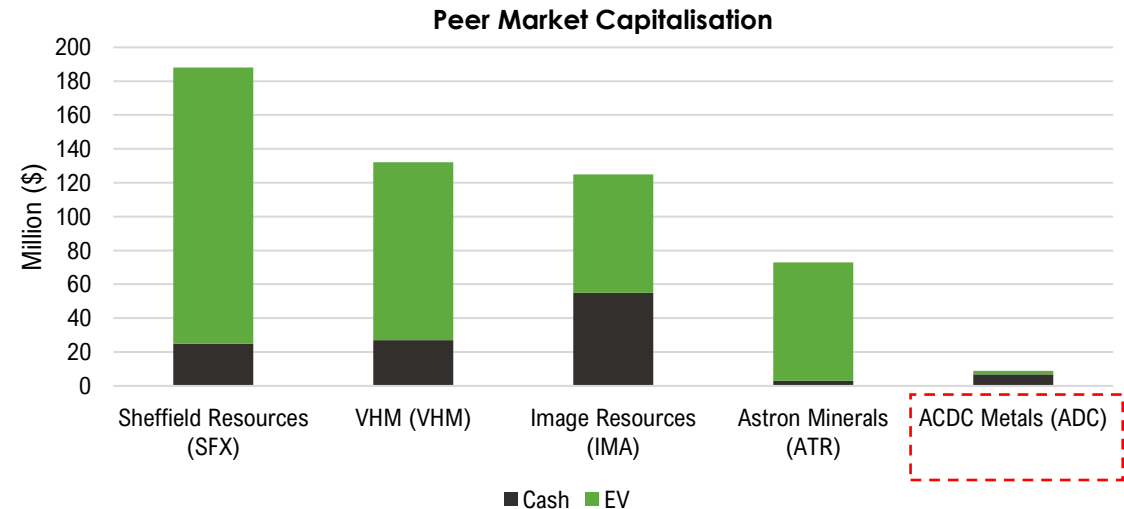
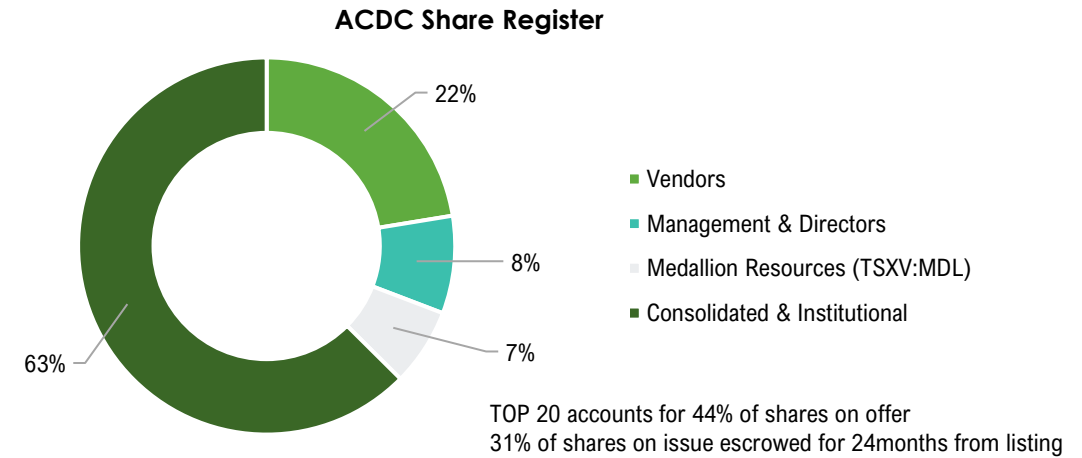


**Kent Balas**  
**Exploration Manager**  
Geologist

# Corporate Structure



Capital Structure	
Shares on issue	72,305,130
Share price (5 July 2023)	\$0.089
Market Capitalisation	\$6.4 M
Cash (5 July 2023)	\$6.2 M
Debt	Zero
EV	\$0.24 M
Options	
Listed ADCO, \$0.30 expiring April 25	38,152,565
Other, \$0.30 expiring Jan 26	9,550,000



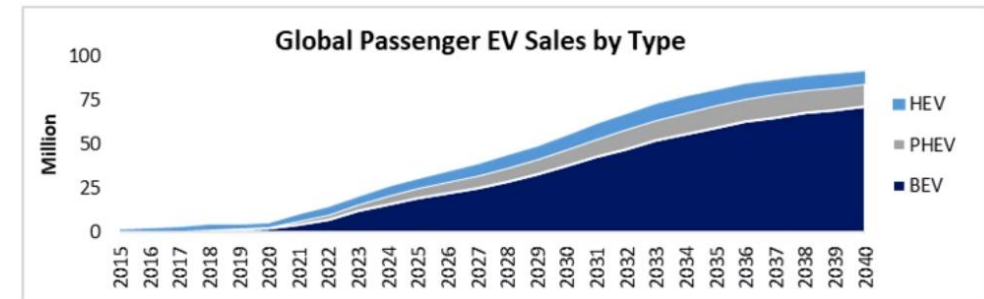
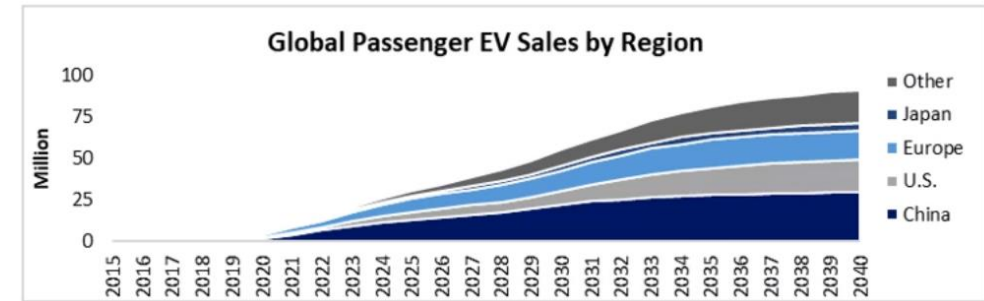
1. Data taken from last reported quarterly updates, 30<sup>th</sup> April 2023



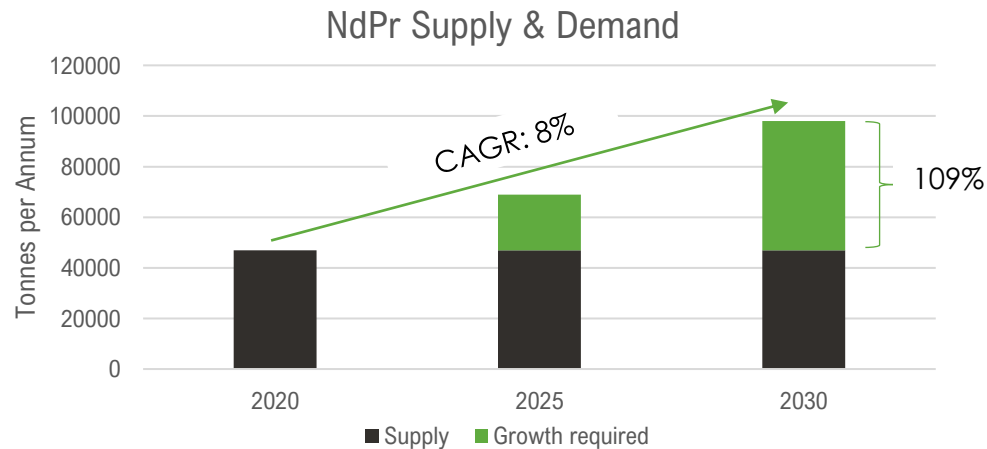
# Rare Earths needed to support the Energy Transition



- Decarbonisation of industry, transport and power generation
- The demand for electric vehicles is increasing
- The demand for green energy generation by governments all over the world is increasing
- To support this transition Magnets and permanent magnet motors play a large part: **Neodymium**-iron-boron in particular



Source: Adamas' "Rare Earth Magnet Market Outlook to 2040"



1. Source Arafura website <https://www.arulfd.com/products/supply-and-demand/>

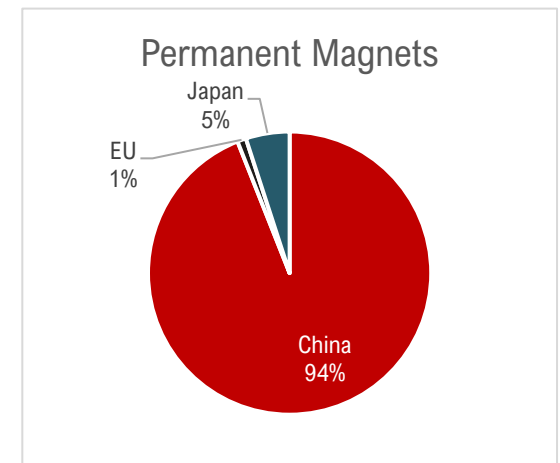
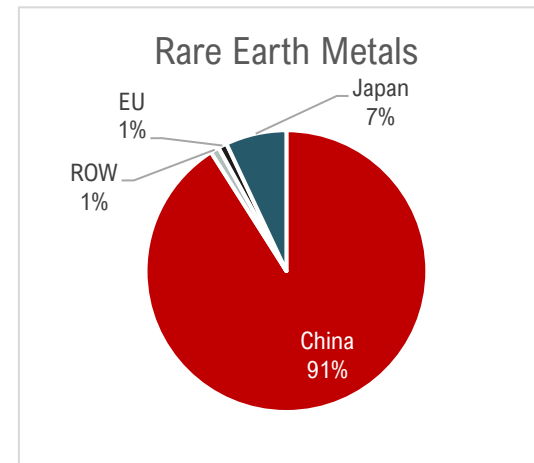
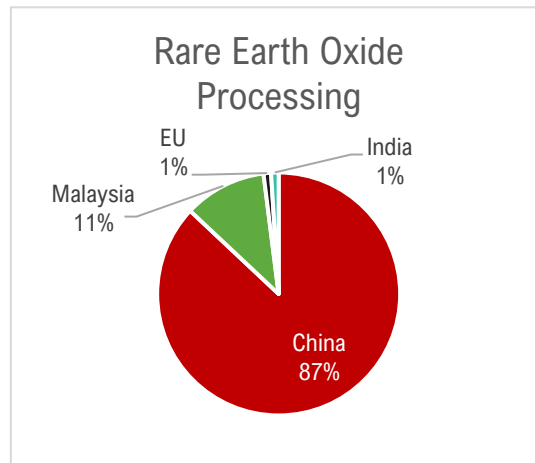
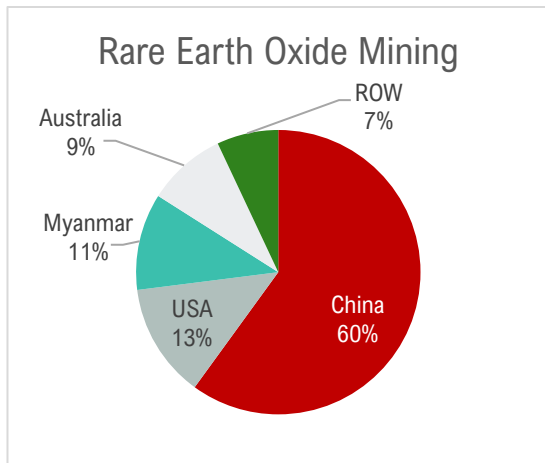
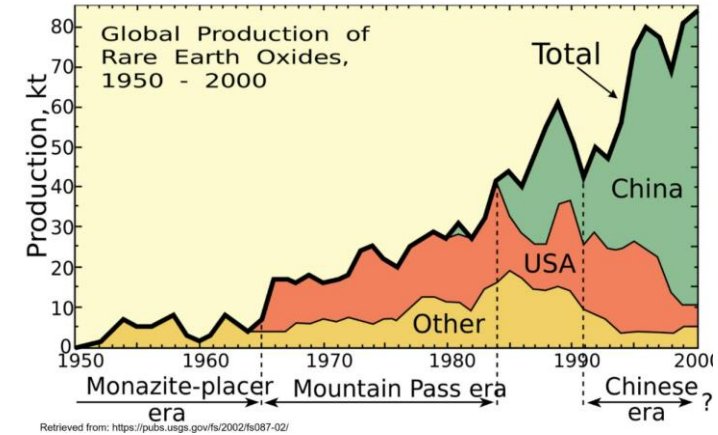




# Supply Chain



- The oxide processing market has been dominated by China since the 1990's.
- China dominates the REE sector, over 85% of downstream processing<sup>1</sup>
- Technology advancements have remained in China in recent times.
- For western countries to become producers, existing technology needs enhancement, to meet environmental and ESG commitments.



1. From rare earths mining to wind turbine manufacturing: estimated market shares in 2019. Sources: Team analysis and Roskill 2018; Adamas Intelligence 2019; Peteves 2017; Carrara et al. 2020; IEA 2021; USGS 2021

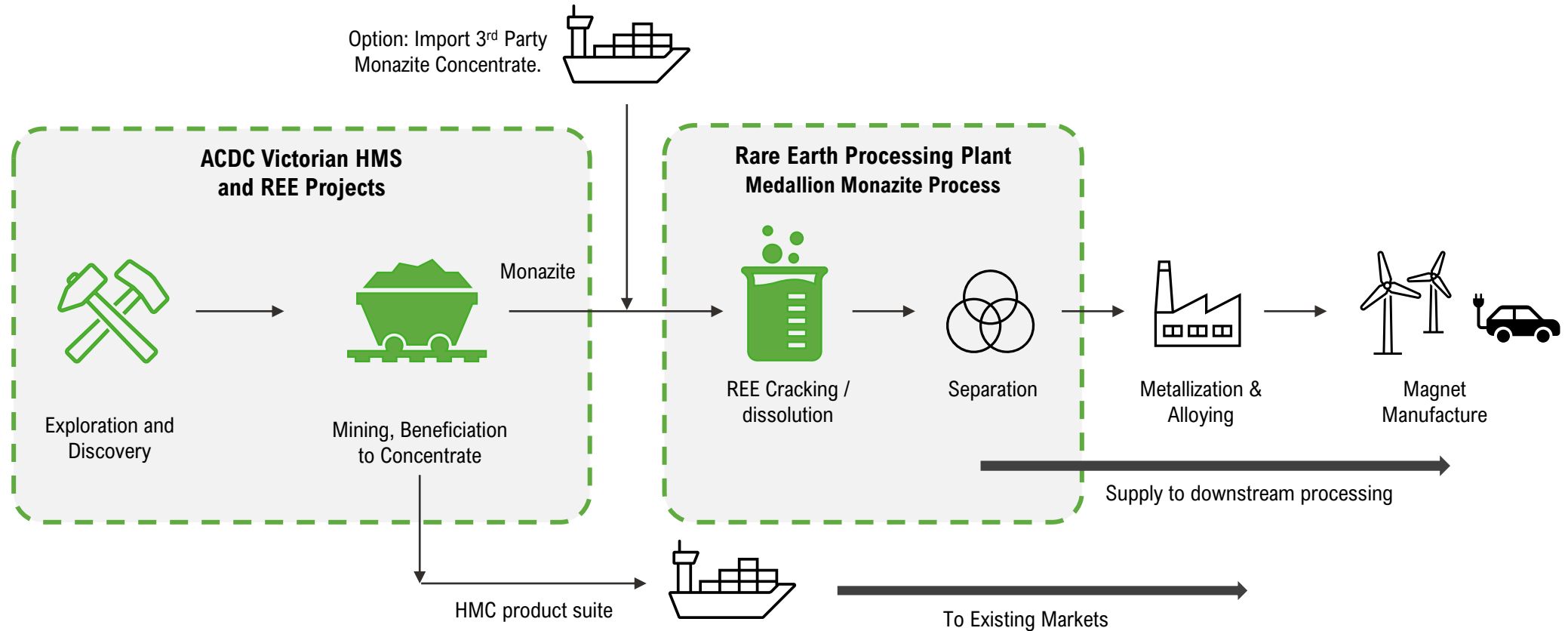
# The REE Opportunity



- Desire by government reduce the reliance on Chinese supply chain and encourage downstream processing development
  - Australia
    - \$1.25B loan to Iluka Resources (ASX:ILU) <sup>1</sup>
    - \$50M Critical minerals grant 2023
  - USA
    - Infrastructure and Jobs act: \$407M USD, Oct 2022
    - Inflation reduction act: \$500B USD, Aug 2022
- Downstream processing represents large value capture opportunities
- OEM's need reliable and sustainable supply

1. <https://www.exportfinance.gov.au/newsroom/transforming-australia-s-critical-minerals-sector/>

# ACDC Metals Strategy: Mine to Magnet



- ACDC controls 3 prospective HMS and REE projects with extensive historic drilling in an established district
- Traditionally monazite concentrates are exported from the mining operation to Asia for extraction of rare earths.
- The MMP process enables this value-add to happen in Australia.
- The ACDC Metals business strategy will provide downstream opportunities for Australia



**Mineral Sands are naturally formed deposits, that are rich in heavy minerals and rare earth metals**

# Murray Basin



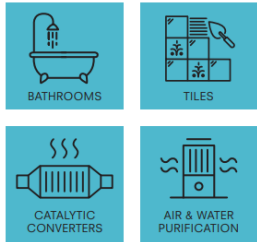
- The Murray Basin formed by the inland sea 50 – 60 Million years ago
- Active area of operations and exploration and development
- Some selected projects shown

# What are Mineral Sands



Zircon (ZrSiO<sub>4</sub>)

## Zircon



Rutile (TiO<sub>2</sub>)



Ilmenite (FeTiO<sub>3</sub>)

## Titanium Minerals



Monazite  
(Ce, La)PO<sub>4</sub>

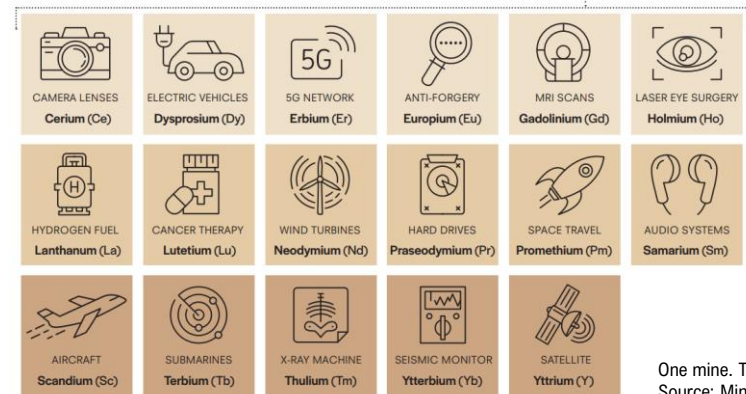
## Monazite



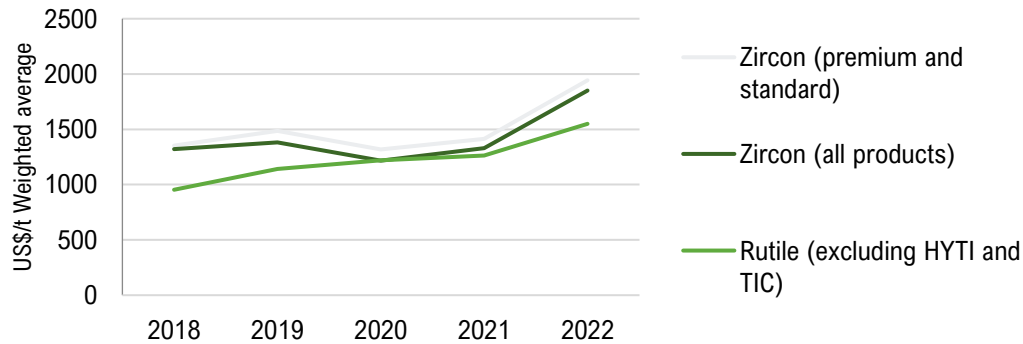
Xenotime  
(Y)PO<sub>4</sub>

## Xenotime

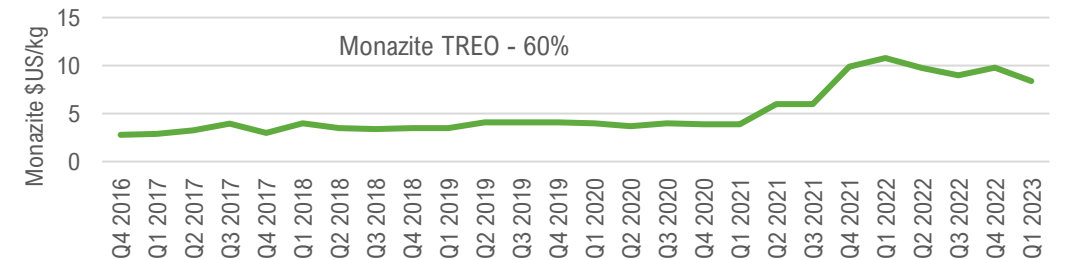
Rare earth elements Most of the 17 rare earth elements can be extracted from mineral sands.



One mine. Thousands of products  
Source: Minerals Council of Australia



Source: Iluka Resources FY22 Annual Report



Monazite typically contains 50-60% REE by weight and is consistently enriched in the most critical REEs that are essential for high strength permanent magnets

Source: <https://giti.sg/products/rare-earths/Mzn/>



# Key Rare Earths

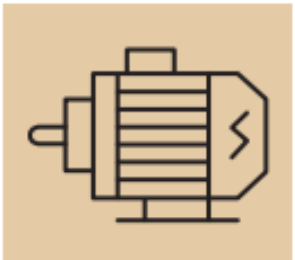


60	65	66	59
Nd	Tb	Dy	Pr
Neodymium	Terbium	Dysprosium	Praseodymium

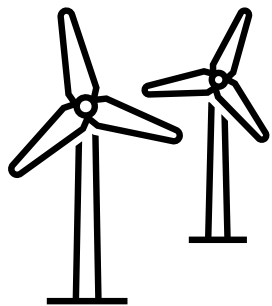
**magnetic rare earth elements**



**Hybrid and electric cars...** will increasingly drive demand for rare earths metals. Bloomberg New Energy Finance estimates EVs will account for 2 per cent of the market by 2020, 8 per cent by 2025 and 20 per cent by 2030.




**EV MOTOR**  
Neodymium  
Praseodymium  
Dysprosium



**Wind turbines ...** can use up to 2 tonnes of rare earth permanent magnets. Around 30 per cent of global growth in the use of rare earth magnets from 2015 to 2025 is expected to come from the wind energy industry.

Source: Lynas Corporation

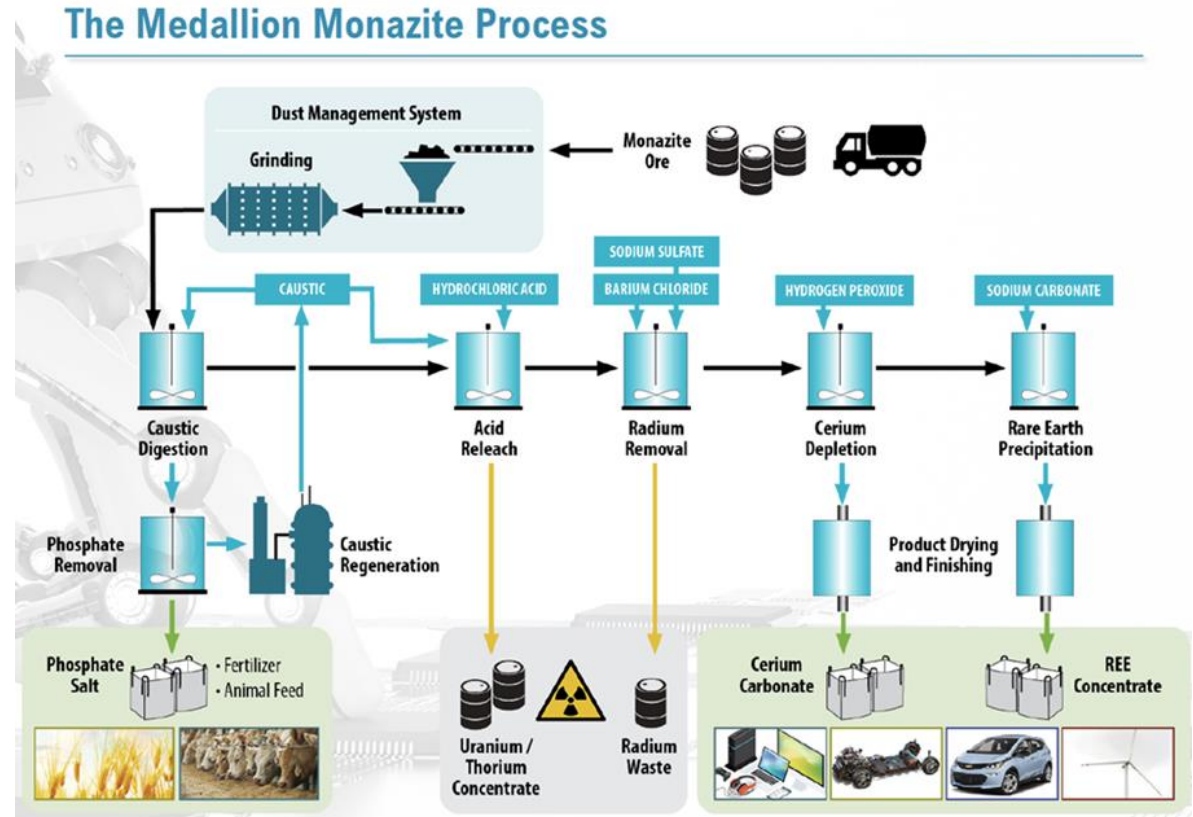


**WIND TURBINE GENERATOR**  
Neodymium  
Dysprosium  
Praseodymium

# Our Technology



- ✓ ACDC is developing the Rare Earth Processing Plant (REPP) Project, that utilises the 'Medallion Monazite Process (MMP)'.
  - ✓ The MMP Process is based on the well understood caustic crack process
  - ✓ Technically robust flowsheet on the back of 6 years of development.
  - ✓ Key advancements:
    - ✓ Continuous process
    - ✓ Reduced energy consumption
    - ✓ Waste efficiency





# Benefits of our Technology

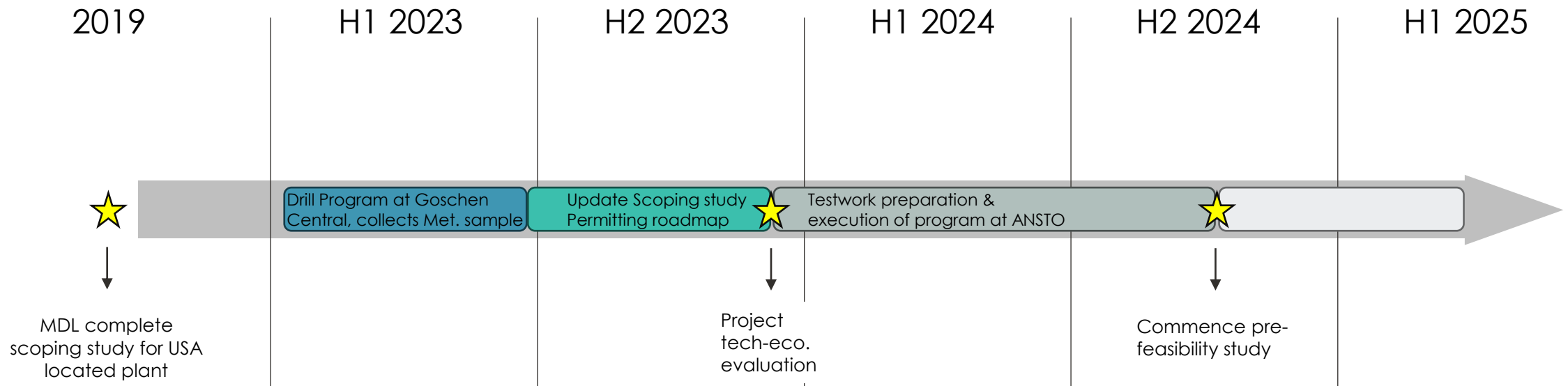


- ✓ Continuous operation, provides:
  - ✓ Automation of process (reduced operators, and exposure to harsh industrial environment)
  - ✓ Efficiency of reagent consumption
  - ✓ High level of heat recovery, reducing energy input and reducing carbon footprint
- ✓ Positive ESG supply to end users
- ✓ Reduce carbon footprint
- ✓ The ability to accept 3<sup>rd</sup> party feedstock safeguards supply and delinks from heavy mineral sand project

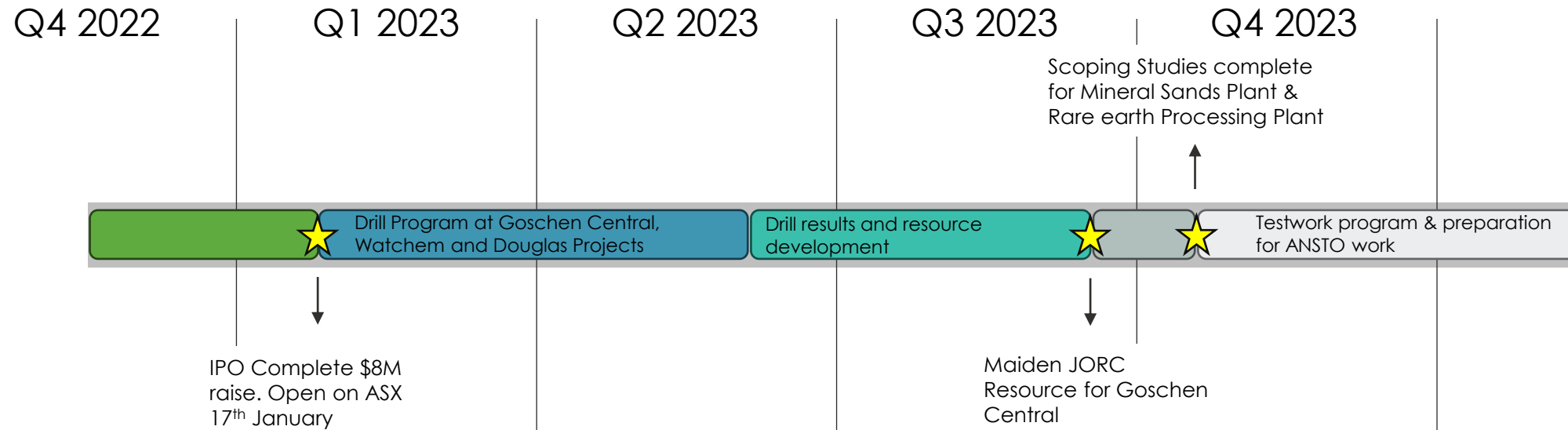
# Rare Earth Processing Plant (REPP) Project



- ✓ ACDC recent drill program collected 2.5 tonnes of material to support next stage testing
- ✓ Environmental consultant engaged, commencing localisation studies
- ✓ Lead consultant to deliver scoping study pending engagement
- ✓ Scoping study to be delivered in Q4 2023



# Work Plan for 2023



## Upcoming news

- Assay results from Watchem drilling – August 2023
- Mineralogy (TREO assemblage) from Goschen Central – August 2023
- Further assays from Goschen Central infill drilling – August 2023
- Assays from Douglas drilling – September 2023

# Investment Summary



## Corporate

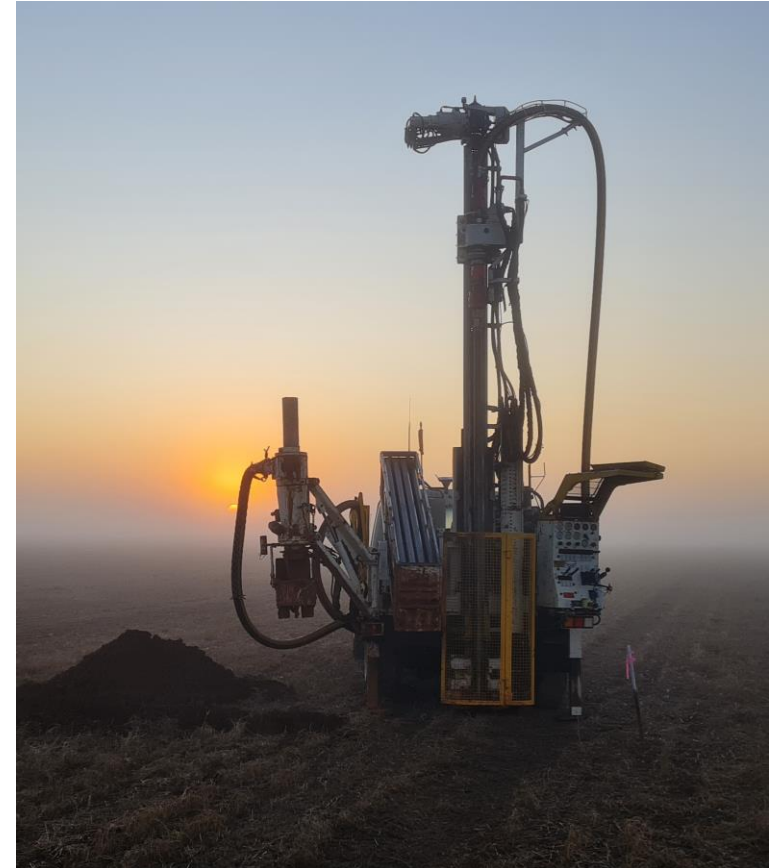
- ✓ **Strong team** and history of project development
- ✓ Strong **cash balance** to execute plan

## Execution

- ✓ **13,000 metres** of Air core drilling complete
- ✓ **Exceptional Mineralogy and Grades** at Goschen Central
- ✓ **Maiden JORC resource** targeted for Q3 2023
- ✓ **Concept studies** scheduled 2023

## Business Model

- ✓ Exposure to **Energy transition** and the demand for **critical minerals**
- ✓ **Mine to Magnet Strategy**
- ✓ **Downstream value add** opportunity for Australia





## Contact

### Tom Davidson

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Chief Executive Officer

### Mark Saxon

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Executive Director

### Andrew Shearer

Andrew.Shearer@acdcmetals.com.au

Non Executive Director & Chair

### ACDC Metals Ltd

ACN 654 049 699

Level 6, 111 Collins Street  
Melbourne VIC 3000

**W** [www.acdcmetals.com.au](http://www.acdcmetals.com.au)

### Share Registry\*

Automic Pty Ltd

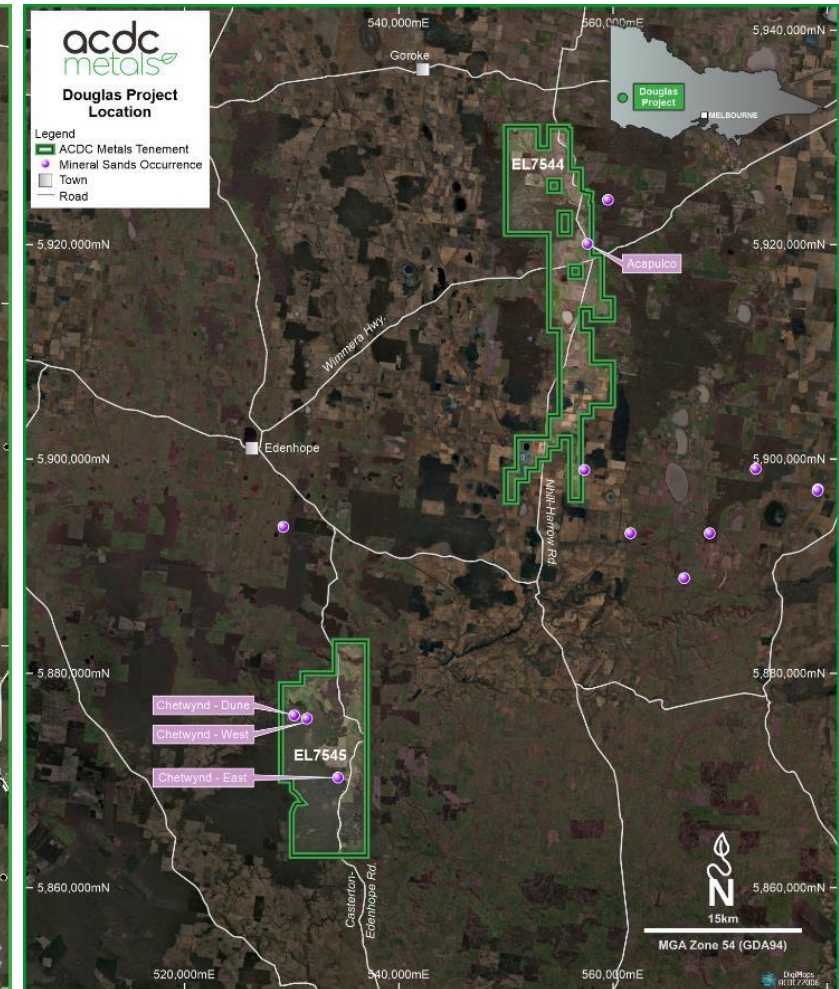
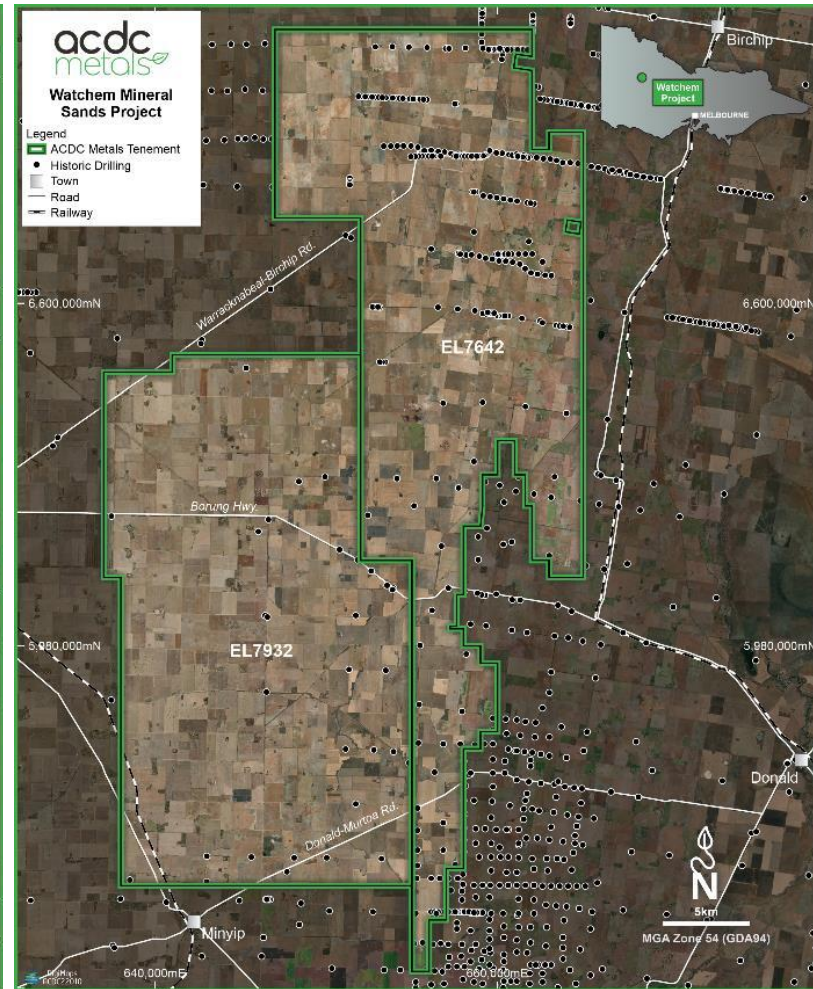
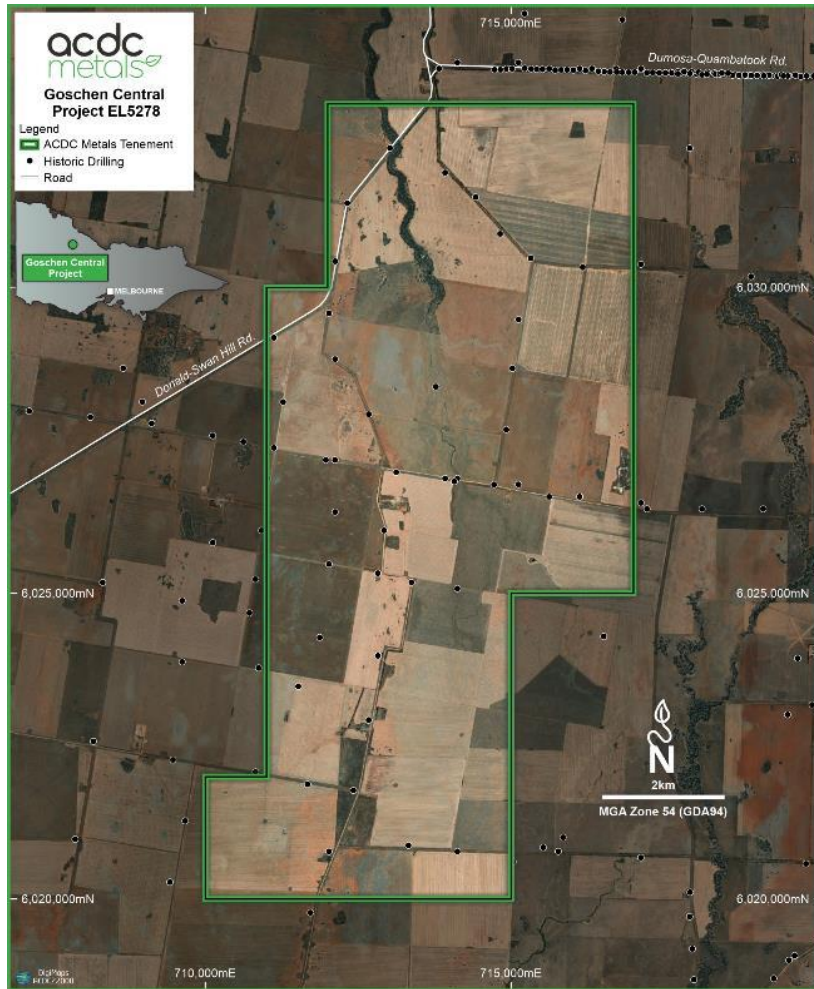
Suite 501, 477 Collins Street  
Melbourne VIC 3000

TELEPHONE: 1300 288 664

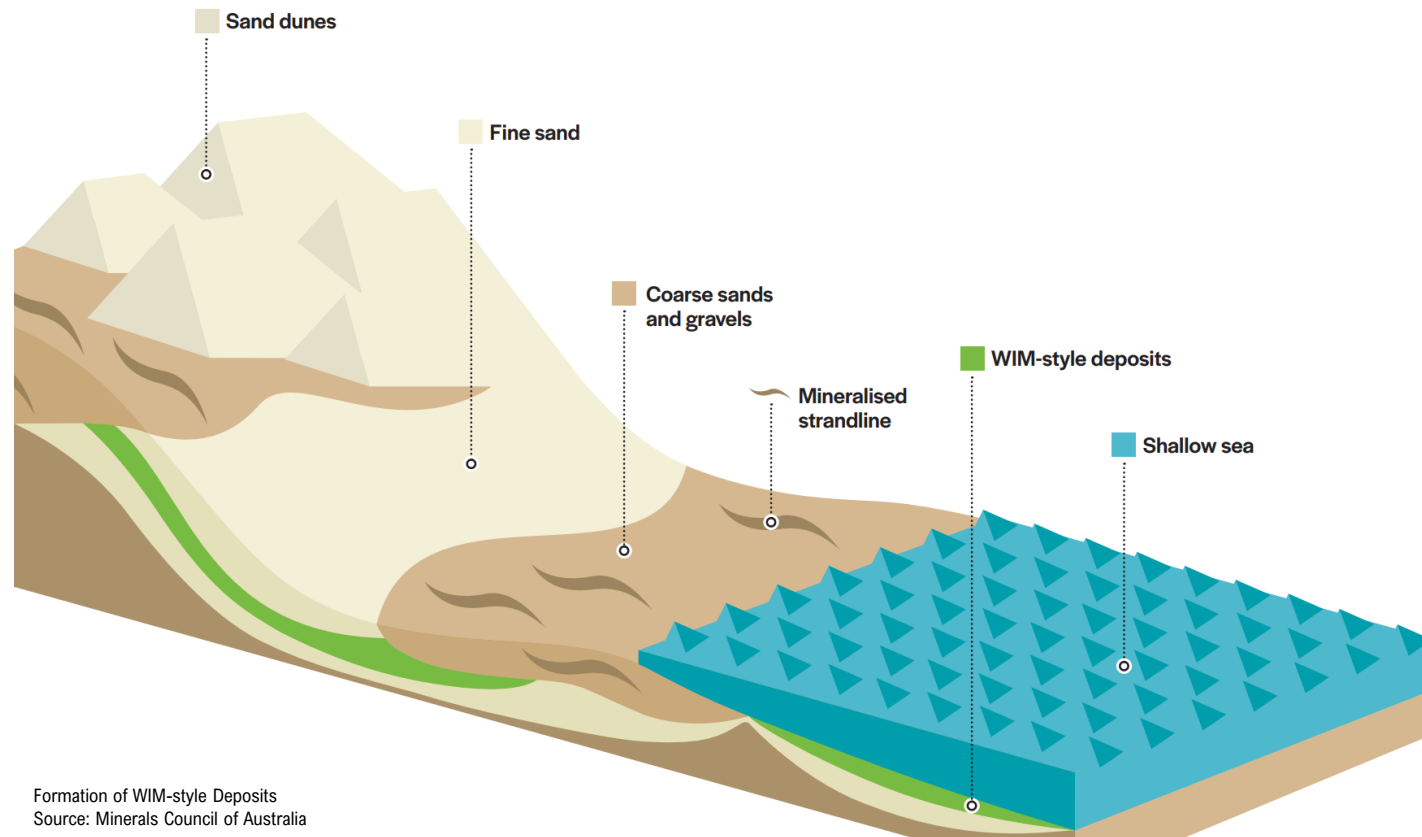
Email: [hello@automic.com.au](mailto:hello@automic.com.au)



# Appendices - Tenements



# Appendices – Mineral Sands



- Heavy Mineral Sands (HMS) in the Murray Basin have been discovered across two styles:
  - **Strandline or “Strand-style”**: these are narrow, long and high grade deposits containing zircon and titanium. Prior and currently mined in Victoria, NSW and South Australia
  - **WIM style**: sitting as planar and extensive, with significant monazite (REE) content.
- ACDC holds both styles of mineralisation models that have been historically drilled, potentially providing reduced project risk and accelerated timeline

# Mineral Sands Projects



- Mineral sands assets all located in western Victoria on the edge of the Murray Basin mineral sands district
- Projects all close to current or historic mineral sands operations
- Clear access and wide roadside verges for low impact exploration
- **Over 12,500 metres drilled since ACDC inception**

Project	Tenement Number	Holes completed	Metres completed
Goschen Central	EL5278	141	6,965
Watchem	EL7642	78	3,530
Douglas	EL7544	43	2,116
<b>TOTAL</b>		<b>262</b>	<b>12,611</b>





# Goschen Central Project

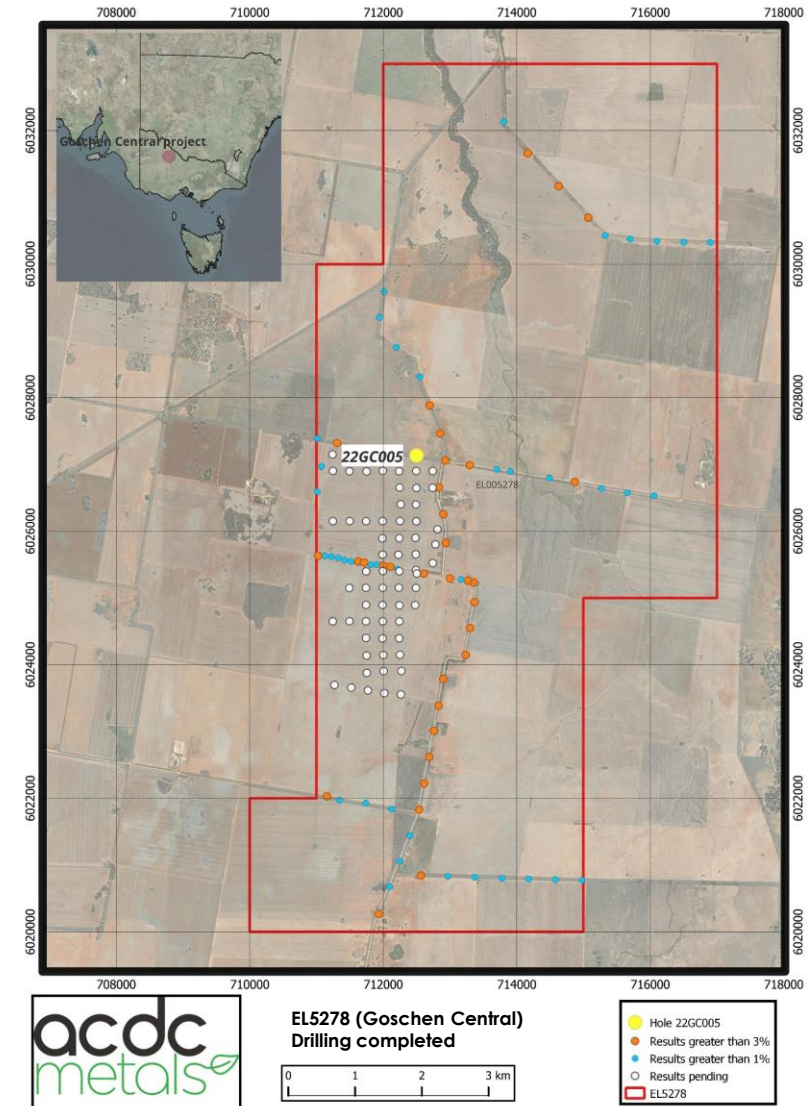


ACDC Metals' most advanced project

Extensive historical drilling by CRAE in 1980's & 1990's

7,000 metres drilled by ACDC Metals since acquisition

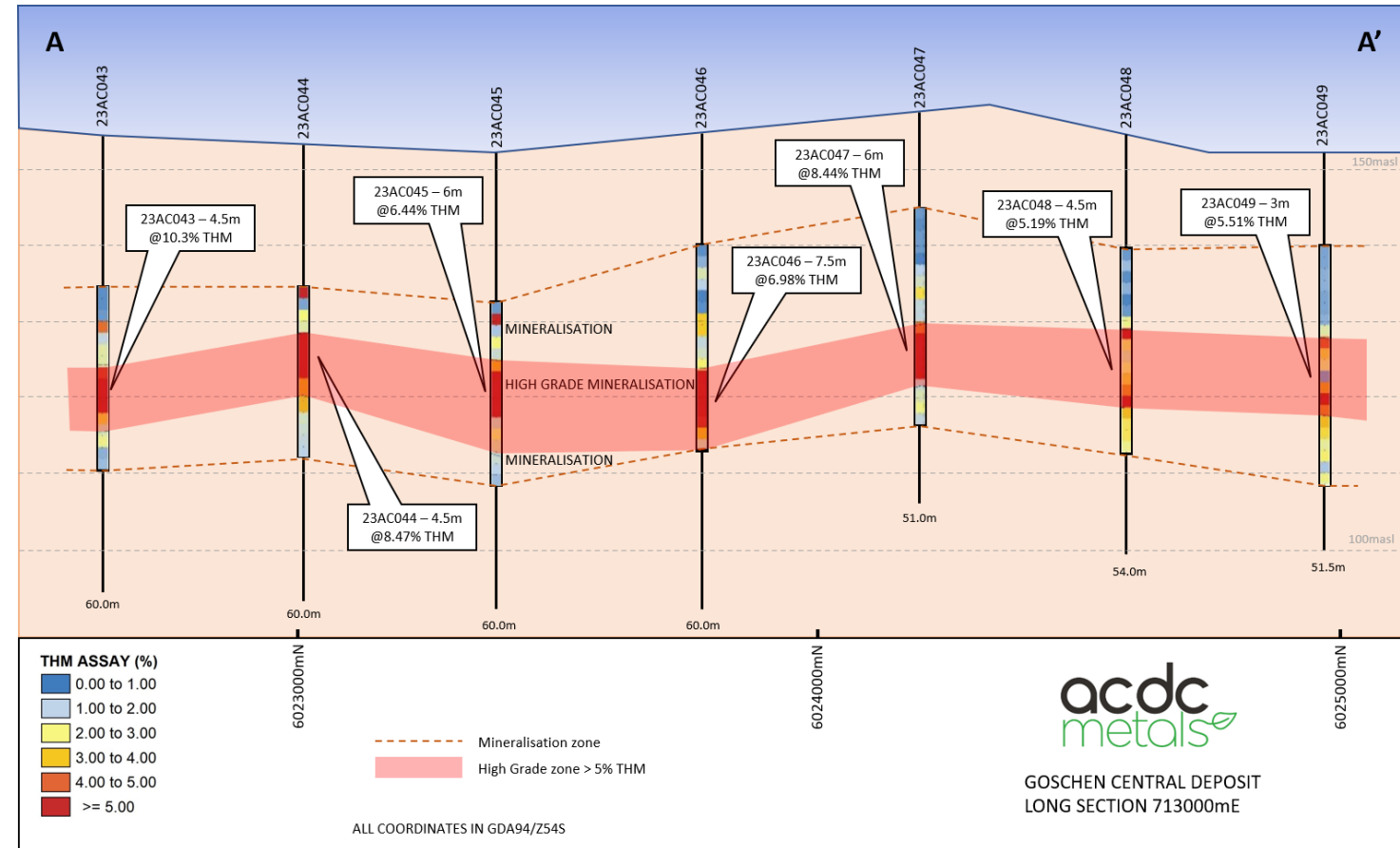
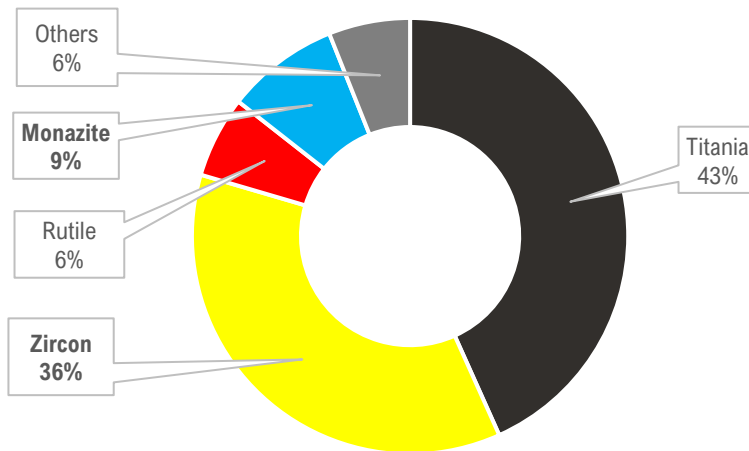
- ✓ Over 140 holes covering project area
- ✓ Discovery drilling Assays & mineralogy received
- ✓ In-fill drilling Assays & mineralogy expect Q2 2023
- ✓ Maiden resource expected H2 2023
- ✓ Metallurgical characterisation under way.
- ✓ PFS level testwork in H2 2023



# Goschen Central Project – Maiden Drilling Highlights



- Multiple high grade intersections 5-10% THM
- Large mineralised footprint delineated
- Initial mineralogy reports exceptional grades:
  - >93% HMS assemblage considered ‘valuable’
  - High value Zircon and Monazite grades well above average for Murray Basin
  - Expanded sampling process currently in progress



Mineralogy from 22GC005 34m, refer announcement 13 June, 2023

For full drill details refer announcement 6 June, 2023



# Watchem Projects

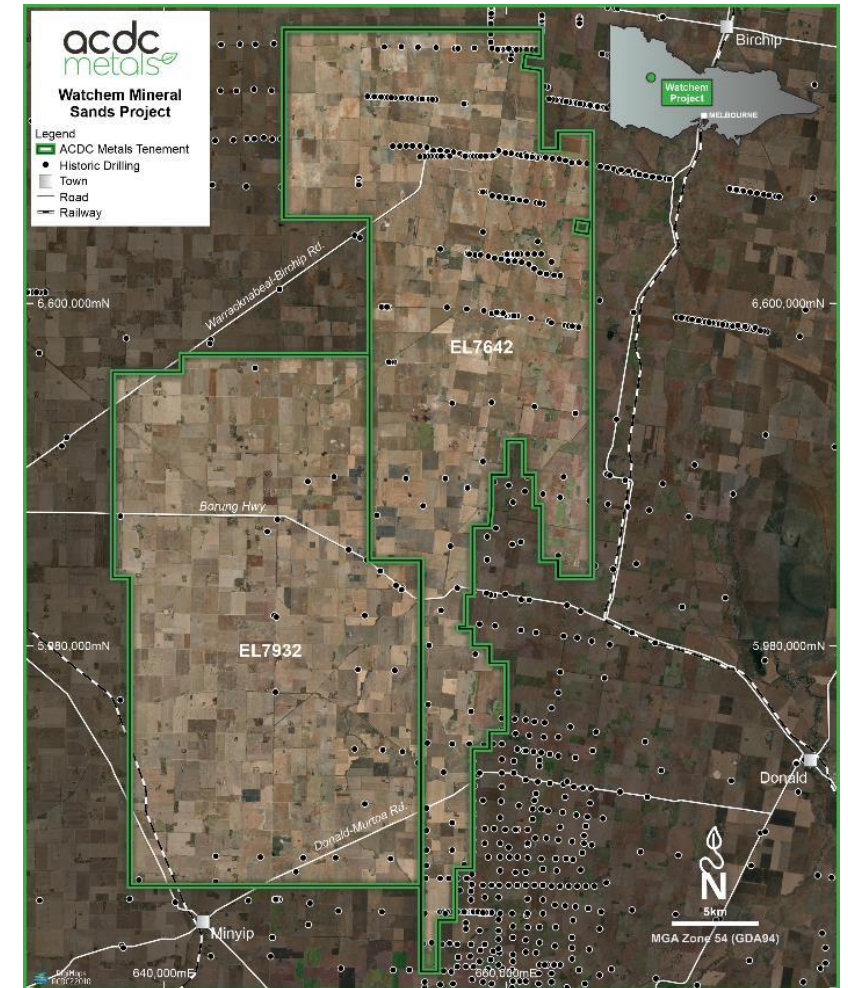
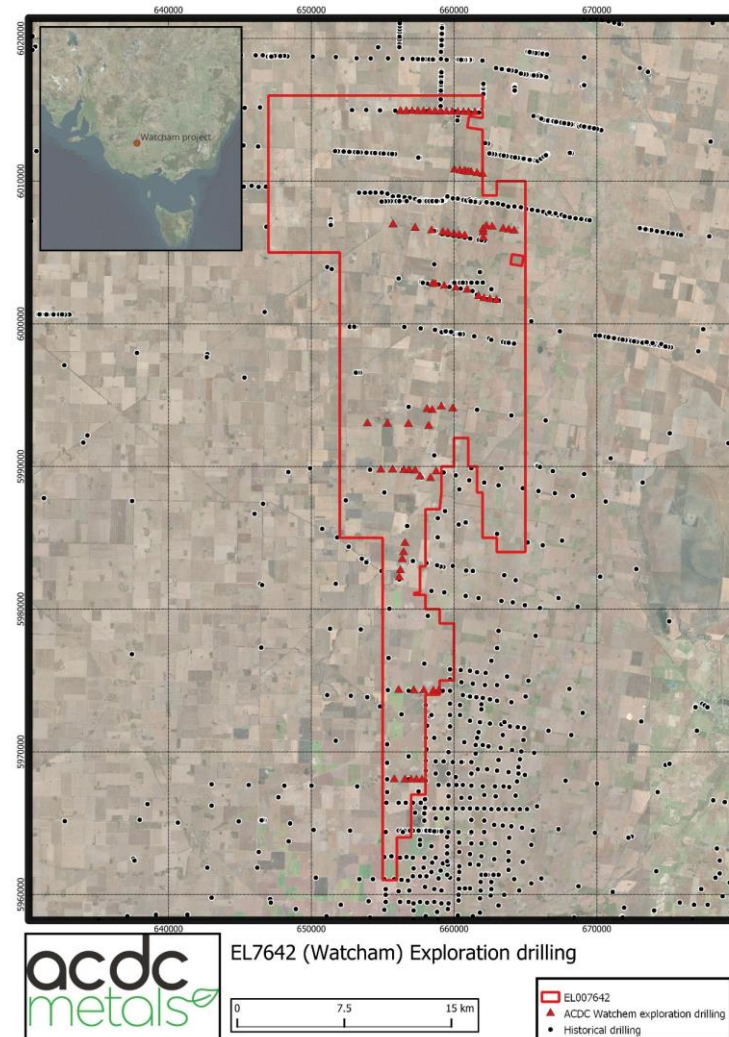


Extensive historical drilling by CRAE

Strandline Style Mineralisation

3,500 metres drilled at EL7642 since ACDC acquisition

- ✓ Over 75 holes covering project area
- ✓ Assays expected in Q2 2023



# Douglas Projects

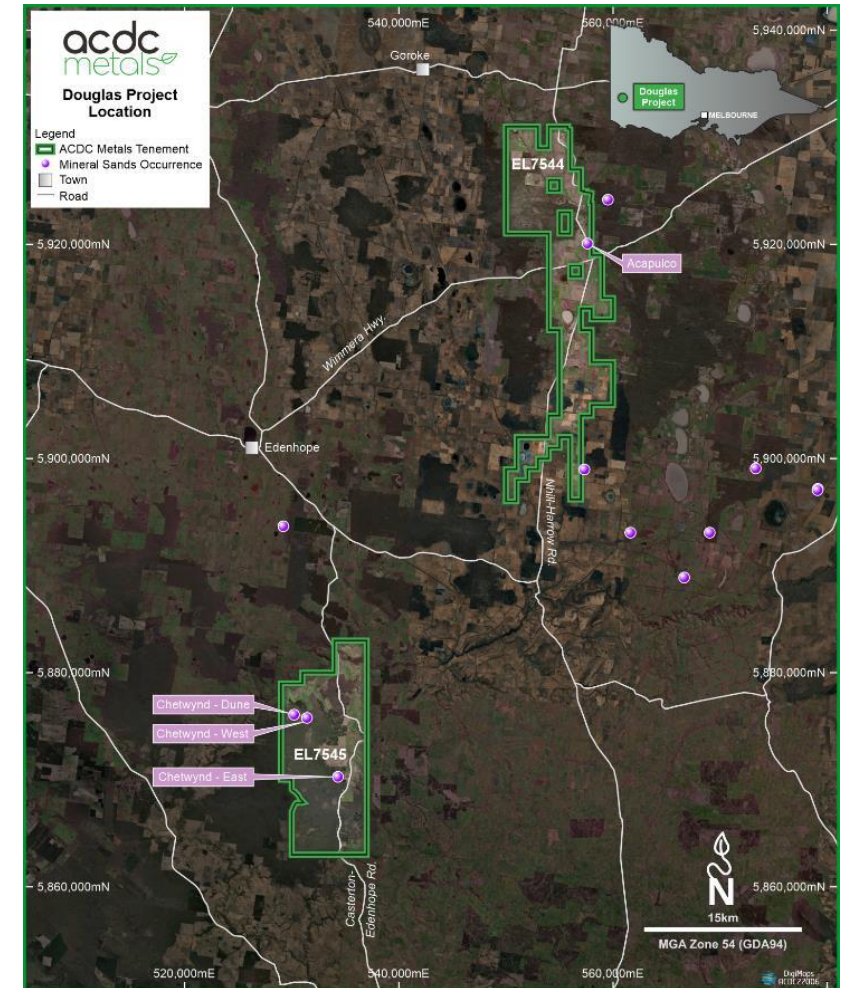
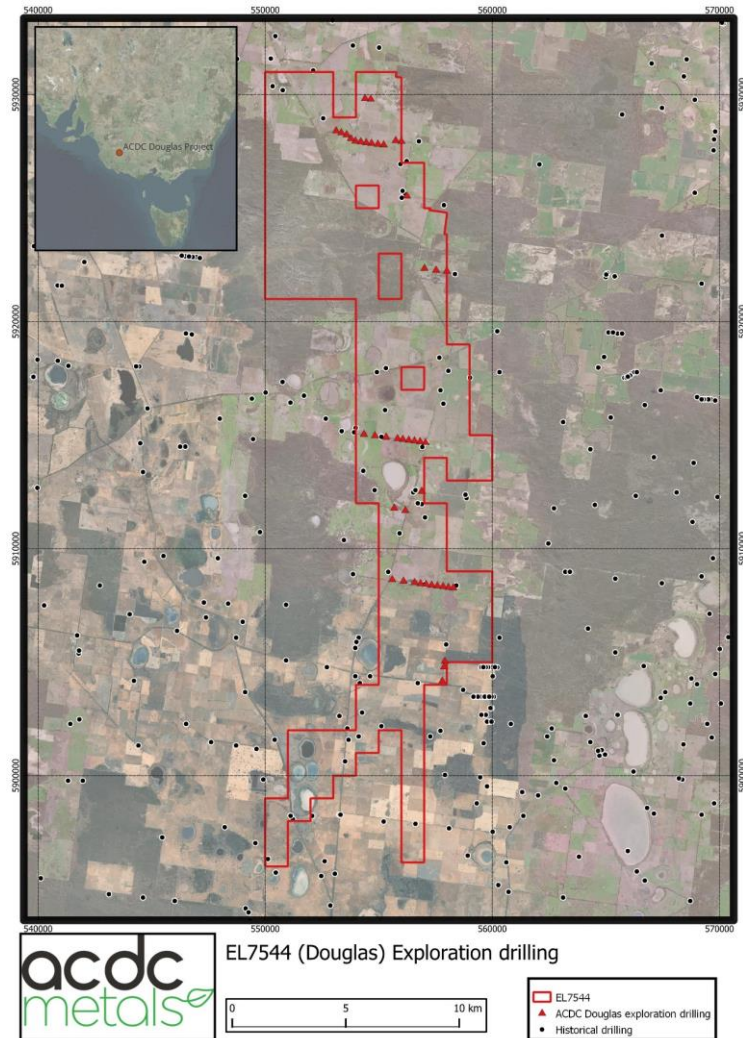


Extensive historical drilling by CRAE

Strandline Style Mineralisation

2,000 metres drilled at EL7544 since ACDC acquisition

- ✓ Over 40 holes covering project area
- ✓ Assays expected in Q3 2023



# Medallion Monazite Process (MMP)



## The Right Technology at the Right Time

- The MMP enables ACDC to gain down stream value, rather than exporting overseas.
- It will enable further opportunity for Australia to
- Medallion spent considerable time and funds to advance the MMP, providing a strategic advantage for ACDC
- ACDC to access technical expertise and experience.
- ACDC has exclusive sublicense in VIC, SA, NT, NSW
- Provides ability to source monazite from other parties

