



# Australian Critical Rare Earth Minerals

Mineral Resource Estimate Upgrade  
Investor Presentation

29 May 2024

ASX:OD6



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The information in this report relating to the Mineral Resource estimate for the Splinter Rock Project is extracted from the Company's ASX announcement dated 29 May 2024. OD6 confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply.

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://www.od6metals.com.au/investors/asx-announcements/>. OD6 confirms that it is not aware of any new information or data that materially affects the information included in any original ASX market announcement.

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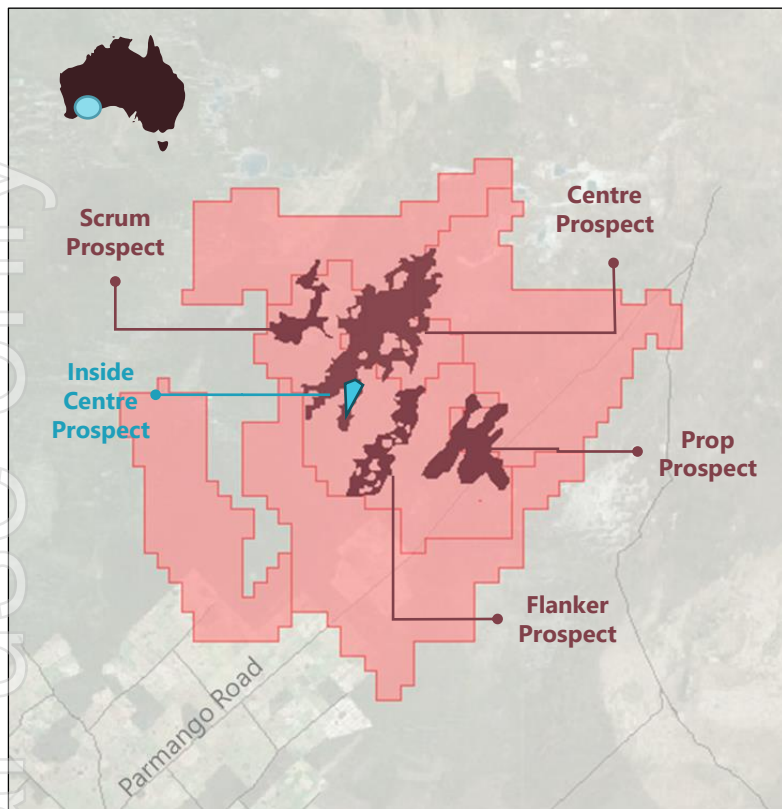
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# GLOBALLY SIGNIFICANT CLAY-HOSTED RARE EARTH DISCOVERY

SPLINTER ROCK ENJOYS A FAVOURABLE COMBINATION OF RESOURCE SIZE, GRADE AND METALLURGICAL RECOVERIES



## SPLINTER ROCK

- Located in one of the world's great mining jurisdictions proximal to key infrastructure
- Recent test work indicates that recoveries through simple acid leaching are as good or better than global clay-hosted plays
- **682Mt at 1,338ppm TREO** (at a 1,000ppm cut-off grade) for **910kt contained TREO**
- High-value MagREO represents an average of ~23% of TREO grade **for 205kt contained MagREO**
- **Inside Centre 119Mt at 1,632ppm TREO (Indicated)**
- The recent MRE upgrade positions Splinter Rock as the **largest & highest grade** Australian clay-hosted Rare Earth Deposit **by an order of magnitude**

# Mineral Resource Estimate

ASX:OD6

# SPLINTER ROCK MINERAL RESOURCE ESTIMATE

AT 1,000ppm CUTOFF GRADE



AUSTRALIA'S  
HIGHEST  
GRADE AND  
LARGEST CLAY  
HOSTED MRE

| Prospect      | Category   | Tonnes (Mt) | TREO (ppm)   | Pr <sub>6</sub> O <sub>11</sub> (ppm) | Nd <sub>2</sub> O <sub>3</sub> (ppm) | Tb <sub>4</sub> O <sub>7</sub> (ppm) | Dy <sub>2</sub> O <sub>3</sub> (ppm) | MagREO (ppm) | MagREO (% of TREO) |
|---------------|------------|-------------|--------------|---------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------|--------------------|
| Inside Centre | Indicated  | 119         | 1,632        | 79                                    | 271                                  | 2                                    | 12                                   | 366          | 22.4%              |
| Centre        | Inferred   | 276         | 1,342        | 65                                    | 228                                  | 3                                    | 15                                   | 310          | 23.1%              |
| Centre NW     | Inferred   | 21          | 1,255        | 65                                    | 227                                  | 3                                    | 14                                   | 309          | 24.6%              |
| Scrum         | Inferred   | 126         | 1,228        | 58                                    | 210                                  | 3                                    | 15                                   | 285          | 23.2%              |
| Prop          | Inferred   | 94          | 1,160        | 53                                    | 190                                  | 2                                    | 13                                   | 259          | 22.3%              |
| Flanker       | Inferred   | 45          | 1,250        | 59                                    | 212                                  | 3                                    | 16                                   | 290          | 23.2%              |
| <b>Total</b>  | <b>I+I</b> | <b>682</b>  | <b>1,338</b> | <b>64</b>                             | <b>226</b>                           | <b>3</b>                             | <b>14</b>                            | <b>307</b>   | <b>22.9%</b>       |

TREO (Total Rare Earth Oxide) = La<sub>2</sub>O<sub>3</sub> + CeO<sub>2</sub> + Pr<sub>6</sub>O<sub>11</sub> + Nd<sub>2</sub>O<sub>3</sub> + Sm<sub>2</sub>O<sub>3</sub> + Eu<sub>2</sub>O<sub>3</sub> + Gd<sub>2</sub>O<sub>3</sub> + Tb<sub>4</sub>O<sub>7</sub> + Dy<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Er<sub>2</sub>O<sub>3</sub> + Tm<sub>2</sub>O<sub>3</sub> + Yb<sub>2</sub>O<sub>3</sub> + Lu<sub>2</sub>O<sub>3</sub> + Y<sub>2</sub>O<sub>3</sub>

MagREO (Magnet Rare Earth Oxide) = Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> + Tb<sub>4</sub>O<sub>7</sub> + Dy<sub>2</sub>O<sub>3</sub>

% Magnet REO = (MagREO / TREO)\*100

For full Mineral Resource estimate details refer to OD6 ASX announcement 29 May 2024, "Mineral Resource Estimate Doubles". OD6 is not aware of any new information or data that materially affects the Mineral Resource estimate included in that release. All material assumptions and technical parameters underpinning the Mineral Resource estimate in that release continue to apply and have not materially changed.

# SPLINTER ROCK MINERAL RESOURCE ESTIMATE

Focused on quality over quantity of resource



A QUALITY MRE  
TARGETING THE  
BEST OF THE BEST  
GRADE, RECOVERY,  
STRIP RATIO AND  
REAGENT  
CONSUMPTION

| Cut-off grade<br>(ppm TREO) | Tonnes<br>(Mt) | TREO<br>(ppm) | Contained TREO<br>(k tonne) | MagREO<br>(ppm) | MagREO<br>(% of TREO) | Contained MagREO<br>(k tonnes) |
|-----------------------------|----------------|---------------|-----------------------------|-----------------|-----------------------|--------------------------------|
| 400                         | 2,226          | 884           | 1,968                       | 201             | 22.7%                 | 447                            |
| 600                         | 1,654          | 1014          | 1,677                       | 232             | 22.9%                 | 384                            |
| 800                         | 1,125          | 1164          | 1,310                       | 267             | 22.9%                 | 300                            |
| <b>1,000</b>                | <b>682</b>     | <b>1338</b>   | <b>913</b>                  | <b>307</b>      | <b>22.9%</b>          | <b>209</b>                     |
| 1,200                       | 394            | 1518          | 598                         | 348             | 22.9%                 | 137                            |
| 1,400                       | 226            | 1686          | 381                         | 386             | 22.9%                 | 87                             |

TREO (Total Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3 + Y2O3

MagREO (Magnet Rare Earth Oxide) = Nd2O3 + Pr6O11 + Tb4O7 + Dy2O3

% Magnet REO = (MagREO / TREO)\*100

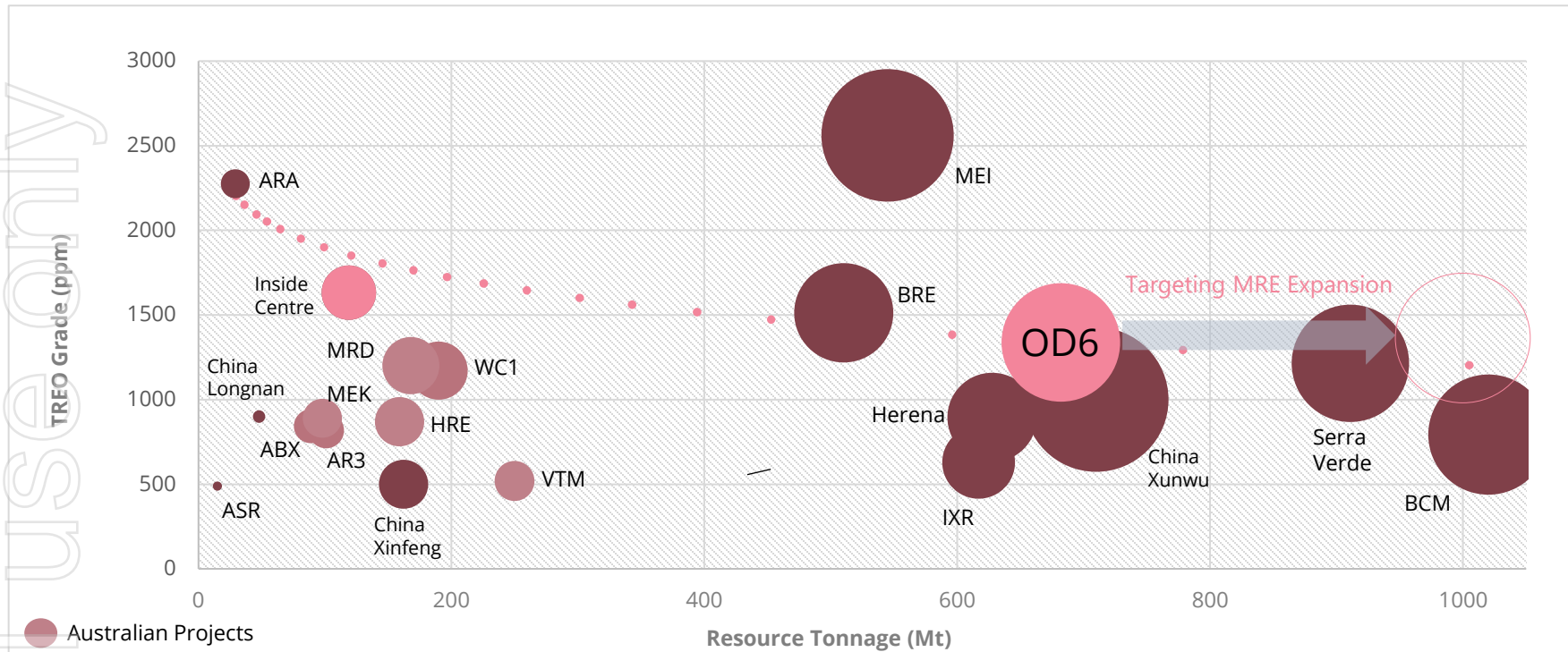
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# THE PREMIER AUSTRALIAN CLAY-HOSTED REE PROJECT

UPGRADED RESOURCE OF 682MT @ 1,338PPM TREO (at 1,000ppm TREO cutoff grade)

## Rare earth element deposits

(bubble size reflects contained TREO)



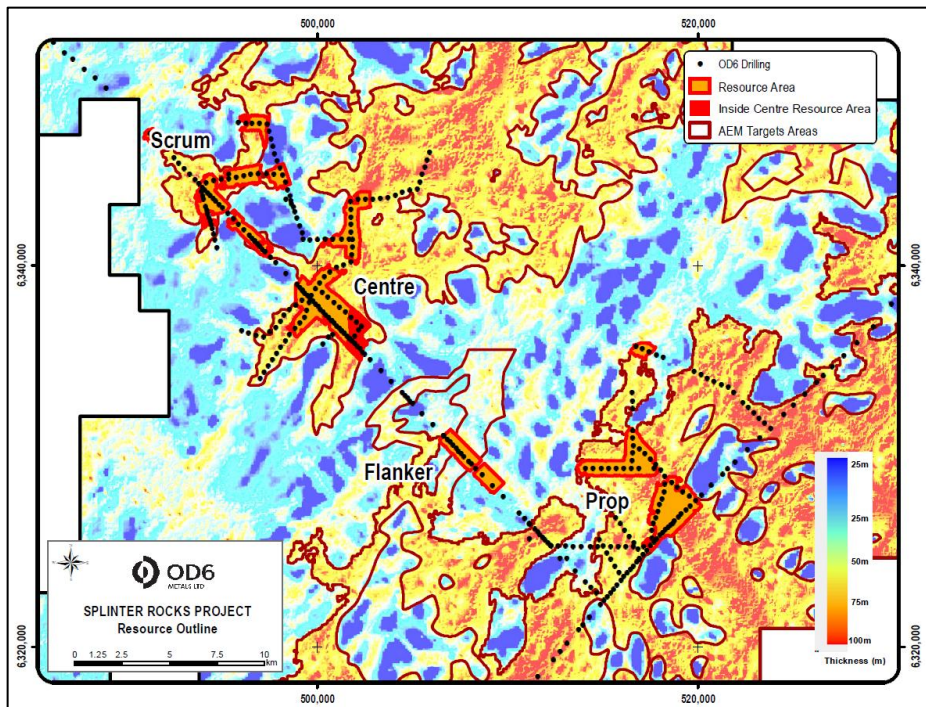
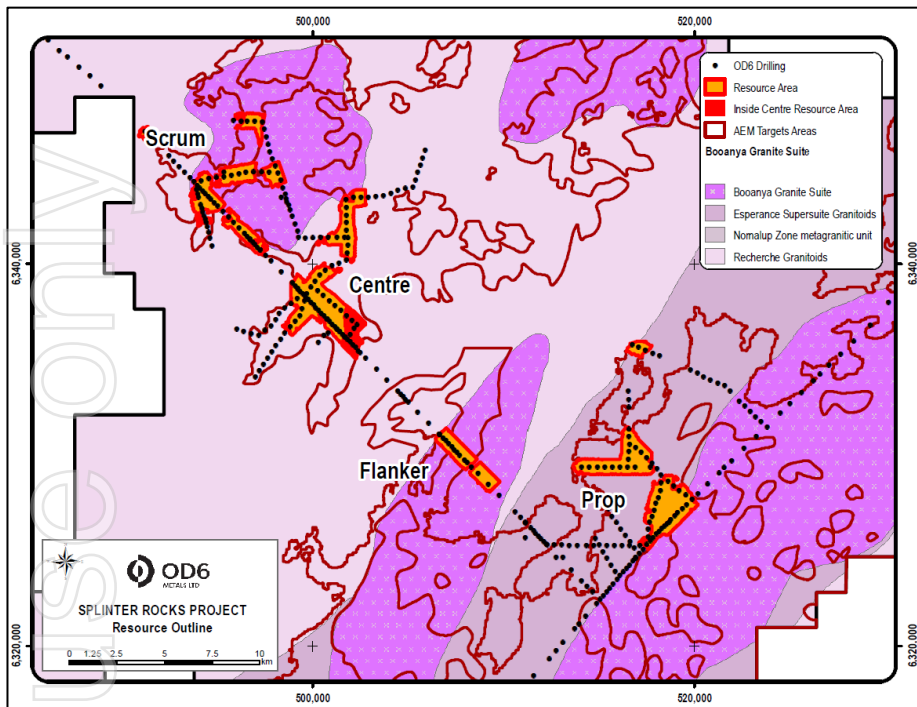
Refer to 'Peer calculation and reference details'

Source: Adapted from Euroz Hartleys Research Report, Company Reports, Phillip Hellman, Sharemarket Market Capitalisation



# HIGHLY TARGETED EXPLORATION PROGRAM

AEM SURVEY & COLABORATION WITH CSIRO HAS IDENTIFIED THE MAIN CLAY BASINS

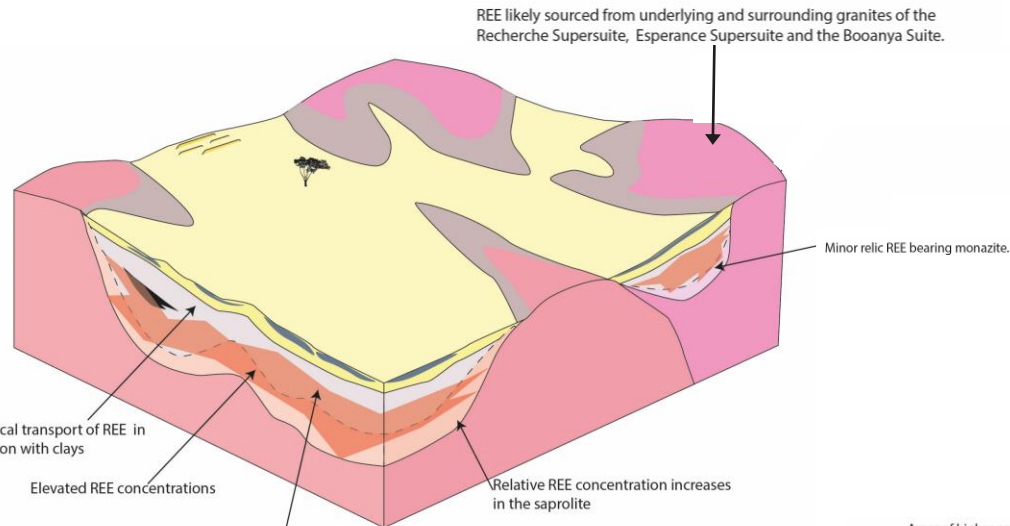


The MRE has significant further upside based on the identified clay basins that remain open in multiple directions or have yet to be drill tested

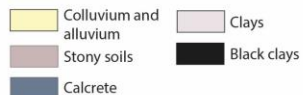


# CONCEPTUAL GEOLOGICAL FORMATION

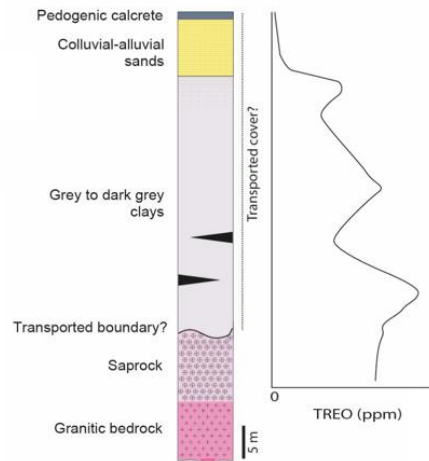
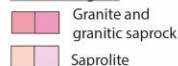
COLLABORATING WITH CSIRO TO MODEL THE CLAY BASINS



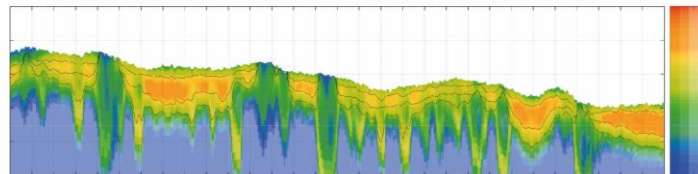
## Depositional regime



## Erosional regime



Areas of higher conductivity represent clay zones with the potential to host elevated concentrations of REE.

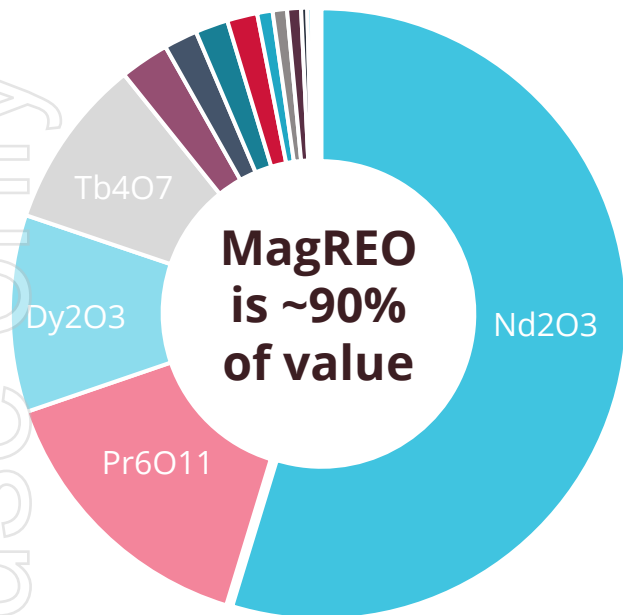




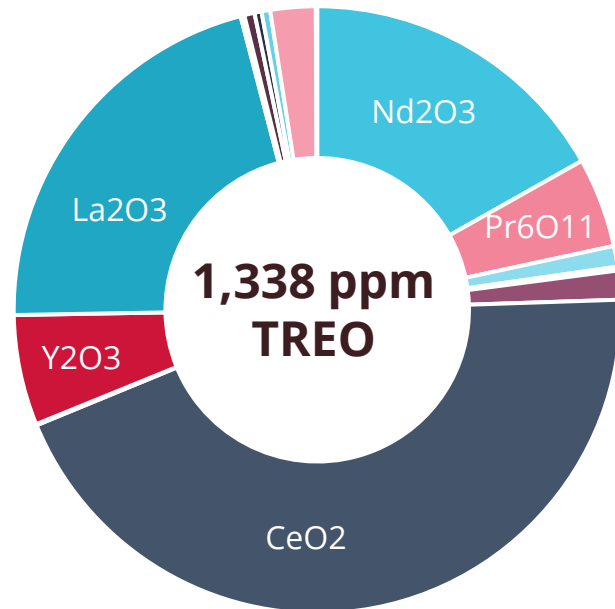
# MRE TREO VALUE AND DISTRIBUTION

Nd, Pr, Dy, Tb REPRESENT ~90% OF POTENTIAL CONTAINED VALUE

**TREO REE value**



**TREO % distribution**



**Value Distribution**

|       |        |       |        |
|-------|--------|-------|--------|
| 49.9% | Nd2O3  | 16.9% | MagREO |
| 13.7% | Pr6O11 | 4.8%  |        |
| 16.1% | Dy2O3  | 1.1%  |        |
| 9.4%  | Tb4O7  | 0.2%  |        |
| 2.2%  | Gd2O3  | 1.5%  |        |
| 2.1%  | CeO2   | 44.4% |        |
| 1.9%  | Lu2O3  | 0.1%  |        |
| 1.6%  | Y2O3   | 5.6%  |        |
| 0.8%  | La2O3  | 21.6% |        |
| 0.6%  | Ho2O3  | 0.2%  |        |
| 0.9%  | Er2O3  | 0.5%  |        |
| 0.4%  | Eu2O3  | 0.4%  |        |
| 0.3%  | Yb2O3  | 0.4%  |        |
| 0.2%  | Sm2O3  | 2.4%  |        |
| 0.1%  | Tm2O3  | 0.1%  |        |

TREO (Total Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3 + Y2O3

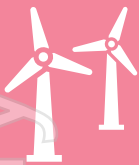
MagREO (Magnet Rare Earth Oxide) = Nd2O3 + Pr6O11 + Tb4O7 + Dy2O3

Note: Contained value is based on 2024 forecast pricing sourced from Adamas Intelligence "Rare Earth Pricing Quarterly Outlook" Q2 2024. The chart is illustrative only of where rare earth economic value will be primarily derived

# Project and Market Detail

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# INVESTMENT HIGHLIGHTS



## TARGETING CRITICAL, HIGH- VALUE MAGNET RARE EARTH ELEMENTS

Demand expected to triple by 2035 with current supply dominated by China, Australian production is highly sought after



## PRIME LOCATION FOR FUTURE DEVELOPMENT

Tier 1 jurisdiction with access to significant infrastructure and known tenure pathway



## THE PREMIER AUSTRALIAN CLAY- HOSTED RARE EARTH DEPOSIT

Largest and highest grade in Australia at 682Mt @ 1,338ppm TREO, with substantial further upside



## STRONG METALLURGICAL RESULTS

Simple leach process with high recoveries of valuable MagREE – comparable or better than Brazilian peers



## A STRONG PIPELINE OF NEWS IN COMING MONTHS

Detailed Scoping Study incorporating updated MRE & successful metallurgical test work is due in 2H CY 2024

# CRITICAL MAGNET RARE EARTH ELEMENTS

FOUR CRITICAL, HIGH VALUE METALS WHICH CAPTURE 90% OF ALL THE VALUE IN THE RARE EARTHS COMPLEX



Light rare earth elements

Heavy rare earth elements



- Electric vehicles
- Wind turbines

- Electric vehicles
- Wind turbines
- Semiconductors

- Electric vehicles
- Wind turbines
- Nuclear reactors
- Semiconductors

- Xray's
- High temp fuel cells
- Electric vehicles
- Wind turbines
- Semiconductors

|                      |  |                       |  |                                       |  |                                       |  |                      |  |                         |  |                        |  |                       |  |                         |  |                           |  |                          |  |                          |  |                       |  |                        |  |                        |  |                          |  |                         |  |                       |  |
|----------------------|--|-----------------------|--|---------------------------------------|--|---------------------------------------|--|----------------------|--|-------------------------|--|------------------------|--|-----------------------|--|-------------------------|--|---------------------------|--|--------------------------|--|--------------------------|--|-----------------------|--|------------------------|--|------------------------|--|--------------------------|--|-------------------------|--|-----------------------|--|
| hydrogen<br>1<br>H   |  |                       |  |                                       |  |                                       |  |                      |  |                         |  |                        |  |                       |  |                         |  | helium<br>2<br>He         |  |                          |  |                          |  |                       |  |                        |  |                        |  |                          |  |                         |  |                       |  |
| lithium<br>3<br>Li   |  | beryllium<br>4<br>Be  |  | <div></div> Light rare earth elements |  |                                       |  |                      |  |                         |  |                        |  |                       |  |                         |  |                           |  |                          |  | boron<br>5<br>B          |  | carbon<br>6<br>C      |  | nitrogen<br>7<br>N     |  | oxygen<br>8<br>O       |  | fluorine<br>9<br>F       |  | neon<br>10<br>Ne        |  |                       |  |
| sodium<br>11<br>Na   |  | magnesium<br>12<br>Mg |  |                                       |  | <div></div> Heavy rare earth elements |  | aluminum<br>13<br>Al |  | silicon<br>14<br>Si     |  | phosphorus<br>15<br>P  |  | sulfur<br>16<br>S     |  | chlorine<br>17<br>Cl    |  | argon<br>18<br>Ar         |  |                          |  |                          |  |                       |  |                        |  |                        |  |                          |  |                         |  |                       |  |
| potassium<br>19<br>K |  | calcium<br>20<br>Ca   |  | scandium<br>21<br>Sc                  |  |                                       |  | titanium<br>22<br>Ti |  | vanadium<br>23<br>V     |  | chromium<br>24<br>Cr   |  | manganese<br>25<br>Mn |  | iron<br>26<br>Fe        |  | cobalt<br>27<br>Co        |  | nickel<br>28<br>Ni       |  | copper<br>29<br>Cu       |  | zinc<br>30<br>Zn      |  | gallium<br>31<br>Ga    |  | germanium<br>32<br>Ge  |  | arsenic<br>33<br>As      |  | selenium<br>34<br>Se    |  | bromine<br>35<br>Br   |  |
| rubidium<br>37<br>Rb |  | strontium<br>38<br>Sr |  | yttrium<br>39<br>Y                    |  | zirconium<br>40<br>Zr                 |  | niobium<br>41<br>Nb  |  | molybdenum<br>42<br>Mo  |  | technetium<br>43<br>Tc |  | ruthenium<br>44<br>Ru |  | rhodium<br>45<br>Rh     |  | palladium<br>46<br>Pd     |  | silver<br>47<br>Ag       |  | cadmium<br>48<br>Cd      |  | indium<br>49<br>In    |  | tin<br>50<br>Sn        |  | antimony<br>51<br>Sb   |  | tellurium<br>52<br>Te    |  | iodine<br>53<br>I       |  | xenon<br>54<br>Xe     |  |
| cesium<br>55<br>Cs   |  | barium<br>56<br>Ba    |  |                                       |  | hafnium<br>72<br>Hf                   |  | tantalum<br>73<br>Ta |  | tungsten<br>74<br>W     |  | rhenium<br>75<br>Re    |  | osmium<br>76<br>Os    |  | iridium<br>77<br>Ir     |  | platinum<br>78<br>Pt      |  | gold<br>79<br>Au         |  | mercury<br>80<br>Hg      |  | thallium<br>81<br>Tl  |  | lead<br>82<br>Pb       |  | bismuth<br>83<br>Bi    |  | polonium<br>84<br>Po     |  | astatine<br>85<br>At    |  | radon<br>86<br>Rn     |  |
| francium<br>87<br>Fr |  | radium<br>88<br>Ra    |  |                                       |  | rutherfordium<br>104<br>Rf            |  | dubnium<br>105<br>Db |  | seaborgium<br>106<br>Sg |  | bohrium<br>107<br>Bh   |  | hassium<br>108<br>Hs  |  | meitnerium<br>109<br>Mt |  | darmstadtium<br>110<br>Ds |  | roentgenium<br>111<br>Rg |  | copernicium<br>112<br>Cn |  | nihonium<br>113<br>Nh |  | flerovium<br>114<br>Fl |  | moscovium<br>115<br>Mc |  | livermorium<br>116<br>Lv |  | tennessine<br>117<br>Ts |  | oganeson<br>118<br>Og |  |

|                              |                            |                                 |                              |                               |                              |                              |                               |                              |                                |                                   |                             |                                 |                              |                                |
|------------------------------|----------------------------|---------------------------------|------------------------------|-------------------------------|------------------------------|------------------------------|-------------------------------|------------------------------|--------------------------------|-----------------------------------|-----------------------------|---------------------------------|------------------------------|--------------------------------|
| lanthanum<br>57<br><b>La</b> | cerium<br>58<br><b>Ce</b>  | praseodymium<br>59<br><b>Pr</b> | neodymium<br>60<br><b>Nd</b> | promethium<br>61<br><b>Pm</b> | samarium<br>62<br><b>Sm</b>  | europtium<br>63<br><b>Eu</b> | gadolinium<br>64<br><b>Gd</b> | terbium<br>65<br><b>Tb</b>   | dysprosium<br>66<br><b>Dy</b>  | holmium<br>67<br><b>Ho</b>        | erbium<br>68<br><b>Er</b>   | thulium<br>69<br><b>Tm</b>      | ytterbium<br>70<br><b>Yb</b> | lutetium<br>71<br><b>Lu</b>    |
| actinium<br>89<br><b>Ac</b>  | thorium<br>90<br><b>Th</b> | protactinium<br>91<br><b>Pa</b> | uranium<br>92<br><b>U</b>    | neptunium<br>93<br><b>Np</b>  | plutonium<br>94<br><b>Pu</b> | americium<br>95<br><b>Am</b> | curium<br>96<br><b>Cm</b>     | berkelium<br>97<br><b>Bk</b> | californium<br>98<br><b>Cf</b> | eskeinsteinium<br>99<br><b>Es</b> | fermium<br>100<br><b>Fm</b> | mendelevium<br>101<br><b>Md</b> | nobelium<br>102<br><b>No</b> | lawrencium<br>103<br><b>Lr</b> |

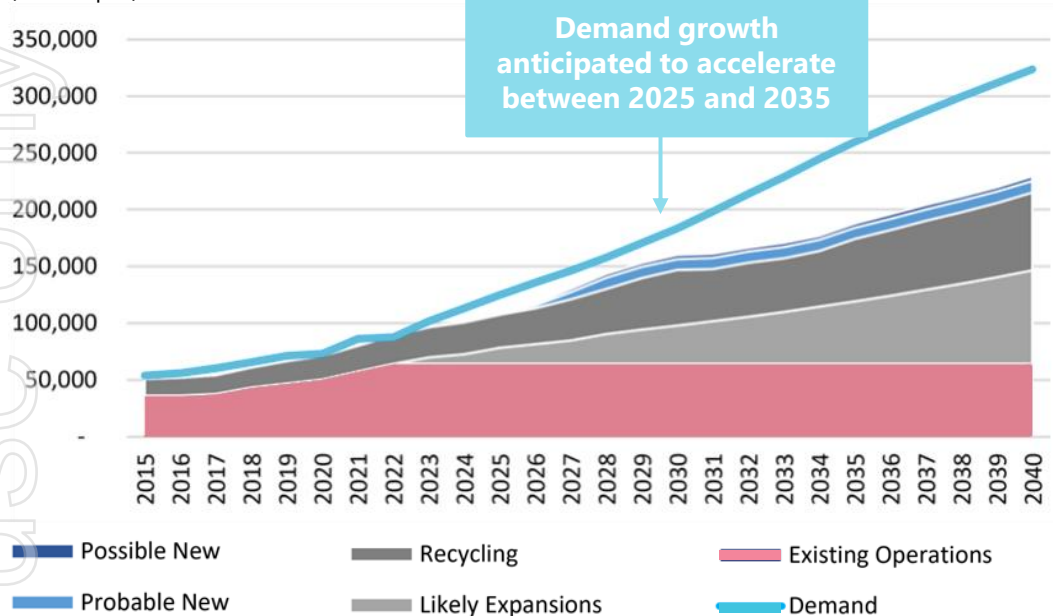


# SIGNIFICANT FUTURE GLOBAL DEMAND EXPECTED

CONSUMPTION EXPECTED TO TRIPLE BY 2035 WITH MULTIPLE NEW MINES REQUIRED TO MEET DEMAND

## NdPr Production and Demand (real)

(tonnes p.a.)



Transition from carbon to renewable economy driving demand for critical magnet rare earth elements, with **7.1% CAGR expected**

Demand underpinned by growth from **electric vehicles, wind power and consumer electronics**

NdPr market growth projections require supply levels to **grow by approximately 80% by 2035** to meet forecast demand – **this is equivalent to +10-20 new mines**

Source: Project Blue Energy transition outlook to 2050, November 2023, Lynas (ASX: LYC), Adamas and Company Presentations

# PRIME LOCATION FOR FUTURE DEVELOPMENT

EXISTING INFRASTRUCTURE A KEY DIFFERENTIATING FACTOR



## ESTABLISHED ESPERANCE TOWNSHIP

- Proximate to large coastal town Esperance.
- Local workforce potential for any future development



## READY ACCESS TO ESPERANCE BULK PORT

- Esperance Port handles over 200 ships p.a.
- Cape size vessel capacity
- Regular container ships link to the export market



## SERVICED BY EXISTING ROAD NETWORK

- Established, well maintained road network connecting Splinter Rock to town and port



## LOCAL RENEWABLE POWER CONNECTED

- Proven renewable energy production
- Esperance has Dual 4.5 MW wind turbines plus 4 MW solar farm and gas turbines

# WHAT DOES AN ECONOMIC PROJECT LOOK LIKE?

SPLINTER ROCKS MEETS ALL THE 'KEY VALUE DRIVERS' AND HAS THE HALLMARKS OF A HIGHLY ECONOMIC PROJECT

## KEY VALUE DRIVERS

- ✓ Grade >1,000 ppm TREO
- ✓ Recovery >60%
- ✓ MagREO content 23%
- ✓ Treatment rate > 4 Mtpa
- ✓ Mine life >20 years
- ✓ Resource size >150 Mt
- ✓ Low stripping ratio
- ✓ Low reagent usage / cost
- ✓ Low power costs

| Clay volume treated (tpa) | TREO (ppm) | Metallurgical recovery | TREO produced (tpa) | MagREO produced @23% (tpa) | % payable | AUD:USD | Revenue p.a. @ US\$50/kg TREO |
|---------------------------|------------|------------------------|---------------------|----------------------------|-----------|---------|-------------------------------|
| 10,000,000                | 1,500      | 60%                    | 9,000               | 2,070                      | 70%       | 0.65    | A\$484M                       |
| 7,500,000                 | 1,500      | 60%                    | 6,750               | 1,553                      | 70%       | 0.65    | A\$363M                       |
| 5,000,000                 | 1,500      | 60%                    | 4,500               | 1,035                      | 70%       | 0.65    | A\$242M                       |
| 5,000,000                 | 1,000      | 60%                    | 3,000               | 690                        | 70%       | 0.65    | A\$161M                       |
| 5,000,000                 | 800        | 60%                    | 2,400               | 552                        | 70%       | 0.65    | A\$129M                       |
| 4,000,000                 | 800        | 60%                    | 1,920               | 442                        | 70%       | 0.65    | A\$103M                       |
| 3,000,000                 | 800        | 60%                    | 1,440               | 331                        | 70%       | 0.65    | A\$ 77M                       |
| 2,000,000                 | 800        | 60%                    | 960                 | 221                        | 70%       | 0.65    | A\$ 51M                       |
| 1,000,000                 | 800        | 60%                    | 480                 | 110                        | 70%       | 0.65    | A\$ 25M                       |

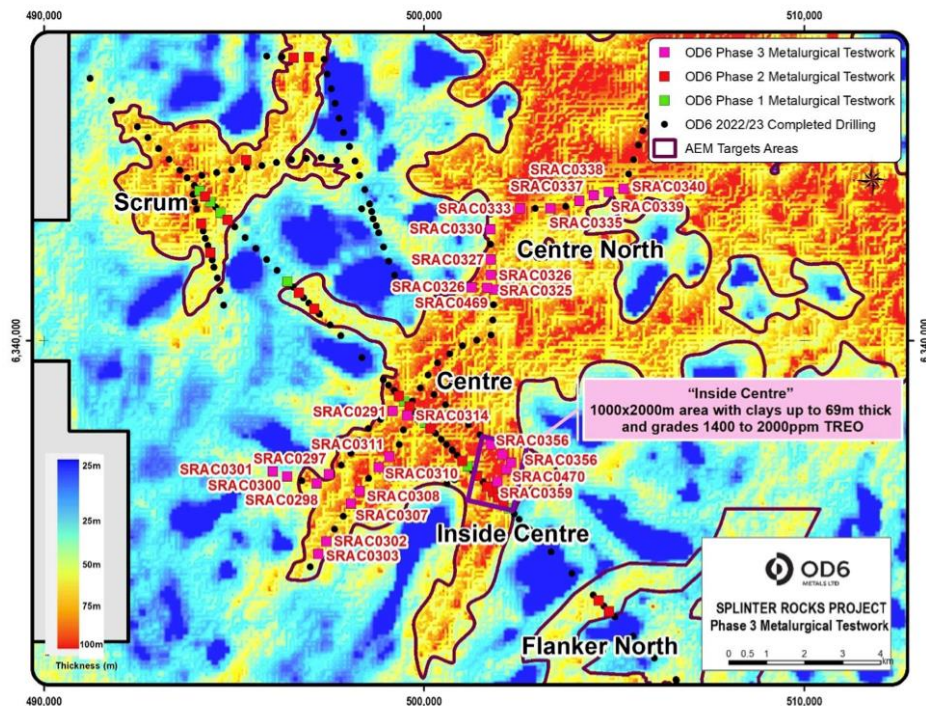
This is conceptual in nature, but is used as a basis for the 1,000ppm resource cut-off and the “reasonable prospects of eventual economic extraction” under JORC

# OUTSTANDING METALLURGICAL RESULTS

## RARE EARTHS RECOVERED WITH SIMPLE LEACHING

- Very high metallurgical recoveries achieved using **simple acid leach**
- **Average 60% MagREO recovery** (range 40% to 90%) at 20g/l HCl
- **Average 16 kg HCl/t ore consumption**
- Extractions at **15g/L to 20 g/L HCl** appear to be a balance point on recovery, acid strength and acid consumption.
- Neodymium (**Nd**), Praseodymium (**Pr**), Terbium (**Tb**) and Dysprosium (**Dy**) have very similar recoveries
- Removal of coarse-grained material **increases head grade by 157%** and **decreases acid consumption by an average of 35%** to approximately **10kg HCl/t ore**
- Recent recovery trials to identify "best of the best" areas
- Phase 4 test work with ANSTO already underway

Recoveries only reflect initial rare earth leaching, with further losses expected in precipitation, impurity removal, purification and drying.  
See OD6 ASX announcements dated 13 May 2024, 16 April 2024, 27 February 2024, 7 November 2023, 3 April 2023)



Splinter Rock Scrum and Centre metallurgical sample drill hole locations on AEM model clay thickness

# MagREO RECOVERY ARE INDUSTRY EQUIVALENT

OD6 ENJOYS SIMILAR MagREO RECOVERIES TO BRAZILIAN PEERS WHILST TRADING AT HUGE EV DISCOUNT

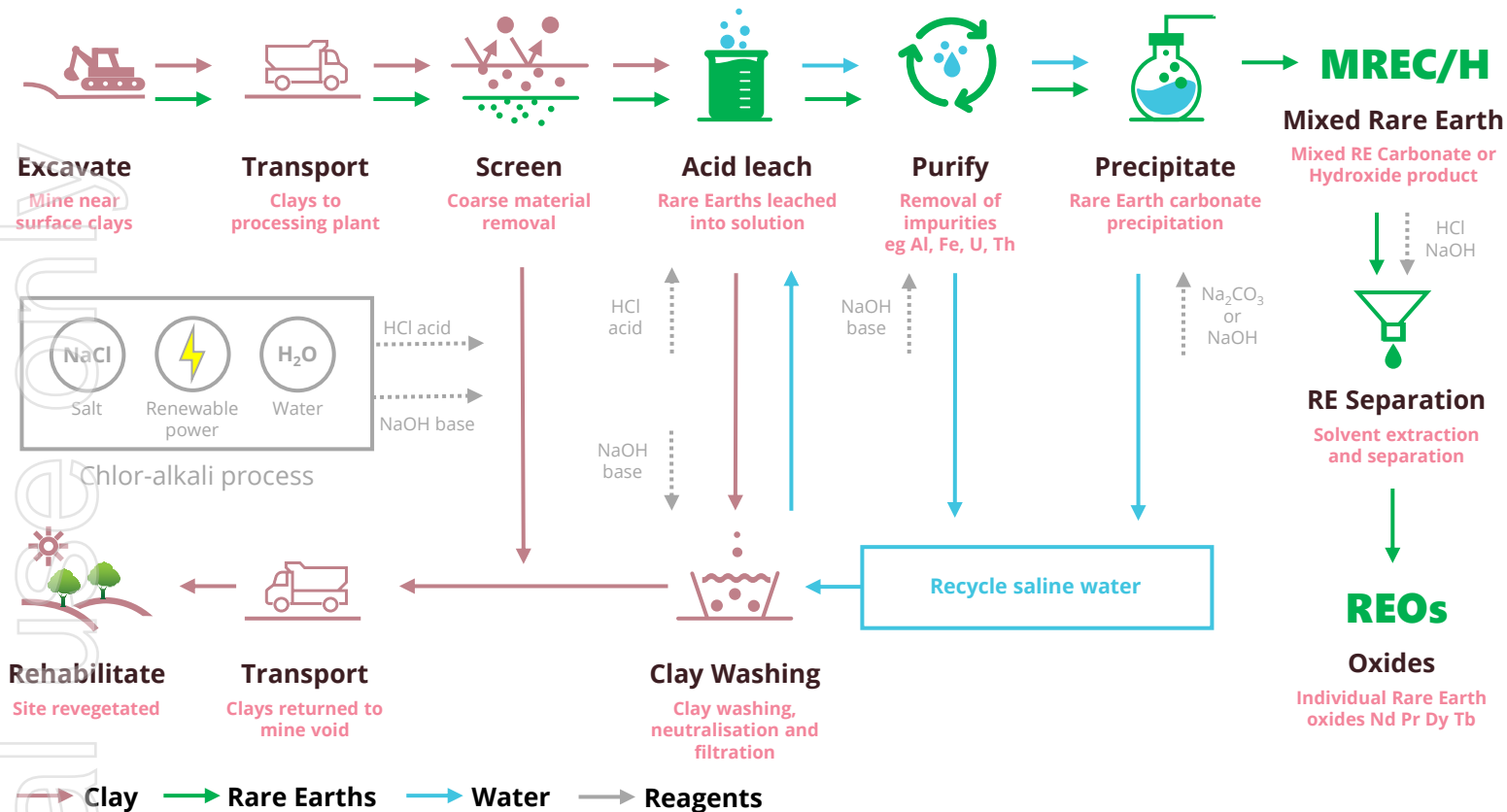


Similar Operational Steps, Different Reagents, Same Recoveries

Source: BCE ASX Announcement 7 May 2024, Company Information

# INDICATIVE PROCESSING STEPS

SIMPLIFIED PROCESS MAP TO DELIVER RARE EARTH PRODUCTS



- No drill and blast
- No crushing
- No milling
- No flotation
- No high temperature cracking
- No high pressure leach
- No high temperature leach



# A DISCIPLINED STRATEGIC APPROACH

IN PURSUIT OF THE “BEST OF THE BEST” FOR MAXIMUM VALUE CREATION



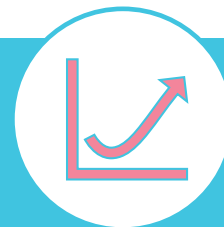
## EXPLORE

- Identify high-grade, ‘sweet-spot’ REE zones
- Aggressively grow Mineral Resources via latent scale potential
- Target thick areas with low strip ratio potential
- Low-cost exploration, high value for money
- CSIRO collaboration



## DESIGN

- Optimise leach recovery and impurity removal
- Remove coarse grain material to reduce acid consumption
- Produce a MREC with potential conversion to REO
- Refine process with ANSTO



## ADVANCE

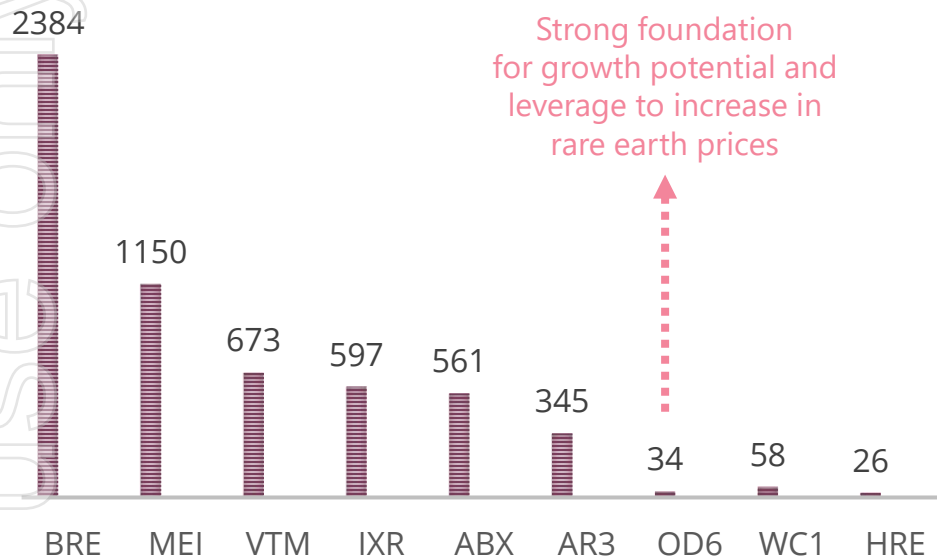
- Pursue “Best of the Best” grade, recovery, stripping ratio and acid consumption
- Integrate ChlorAlkali Benefits
- Renewable energy sourcing – solar / wind
- Existing Infrastructure – port, road
- Deliver Scoping Study

# SIGNIFICANT RELATIVE VALUE UPSIDE POTENTIAL

SIGNIFICANT UPSIDE POTENTIAL COMPARED TO PEERS

## COMPARISON OF ENTERPRISE VALUE PER MagREO TONNE

(A\$/tonne MagREO)



Refer to 'Peer calculation and reference details'

## KEY CATALYSTS FOR RELATIVE VALUE UPLIFT

- MRE of 682Mt @ 1,338ppm TREO to inform a Scoping Study
- Geo-Metallurgical optimisation ongoing with ANSTO & CSIRO with aim to continue to generate high recoveries and low acid consumption to de-risk project flow-sheet and future economics
- **Inside Centre Prospect** has potential to be a standout first stage project
- Further exploration to expand resource base
- Leveraged to an improvement in Rare Earth Prices

# THE SPLINTER ROCK PROJECT

A WORLD-CLASS CLAY-HOSTED REE ASSET PROGRESSIVELY BEING DE-RISKED

**W.A.**

**Located in Western  
Australia, a tier 1  
jurisdiction**



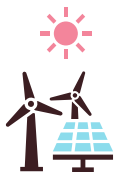
**Metallurgical  
recoveries underpin  
development  
potential**



**No private  
royalties payable**



**No farming  
activities on  
MRE area**



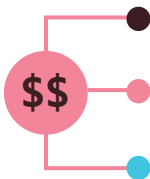
**Regional  
renewable energy  
integrated into grid**



**Heritage  
surveys clear  
to date**



**Strong  
community  
engagement and  
support for mining**



**Clean, simple  
capital structure**



**No commodity  
restrictions on  
tenement areas**

# APPENDIX

ASX:OD6

# CORPORATE SNAPSHOT

## HIGH CALIBRE LEADERSHIP TEAM AND TIGHT CAPITAL STRUCTURE

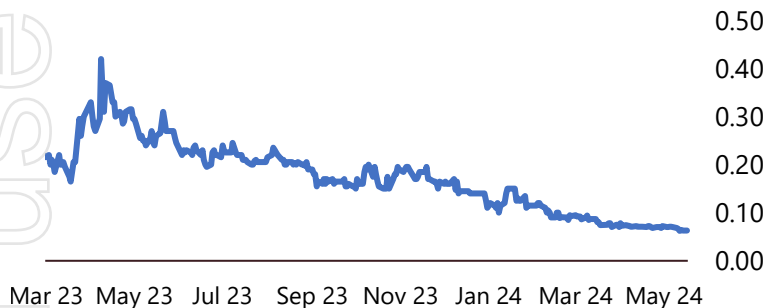
### Capital Structure

ASX: OD6

|  |          |
|--|----------|
| Price per share <sup>1</sup>                   | A\$0.063 |
| Total number of shares on issue <sup>2</sup>   | 127.69M  |
| Performance rights and options <sup>2</sup>    | 42.55M   |
| Market capitalisation (undiluted) <sup>1</sup> | A\$8M    |
| Cash <sup>2</sup>                              | A\$3M    |
| Debt <sup>2</sup>                              | Nil      |
| Enterprise value <sup>1</sup>                  | A\$5M    |

### Share Price History

A\$/share



1. As at 27 May 2024

2. As at 31 March 2023 plus subsequent placement and SPP. Refer to ASX announcement "[Quarterly Activities and Cashflow Report](#)"



**Dr Darren Holden**

NON-EXECUTIVE  
CHAIR



**Mr Brett Hazelden**

MANAGING  
DIRECTOR



**Mr Piers Lewis**

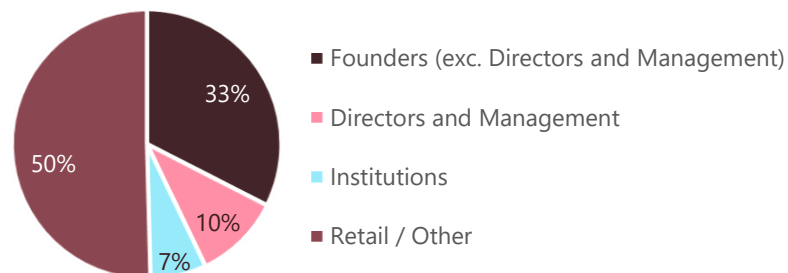
NON-EXECUTIVE  
DIRECTOR



**Dr Mitch Loan**

NON-EXECUTIVE  
DIRECTOR

### Register Detail



**Note:** 47,435,249 shares (46%) escrowed until 22 June 2024

# SUSTAINABLY CREATING VALUE

ACTING WITH INTEGRITY TO RESPONSIBLY DELIVER RARE EARTH RESOURCES FOR A LOW CARBON FUTURE



**Our aim is to minimize our environmental impact, look after our people and grow with our communities to create value for our investors**

## OUR SUSTAINABILITY PRIORITIES:



**Workplace health and safety and mental health**



**Aboriginal and Traditional Owner engagement**



**Integrity and ethical business practices**



**Regulatory compliance and change**



**Focused on protecting local flora and fauna**

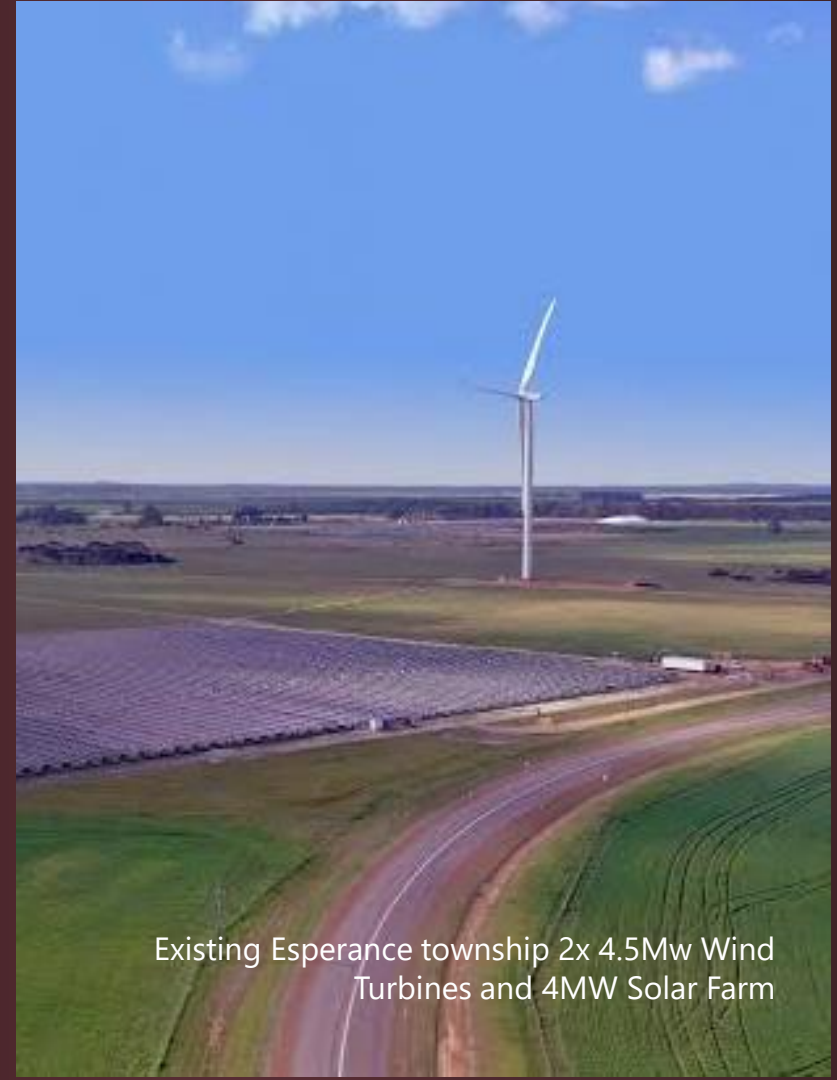


**Corporate governance and risk management**



# USING GREEN POWER TO LOWER OPERATING COSTS

- Rare Earths are key to decarbonisation
- Our goal is to build a mine that minimises greenhouse gas emissions and long term power costs
- Ultimately Net Zero is the goal for what could be a multi-generational production facility

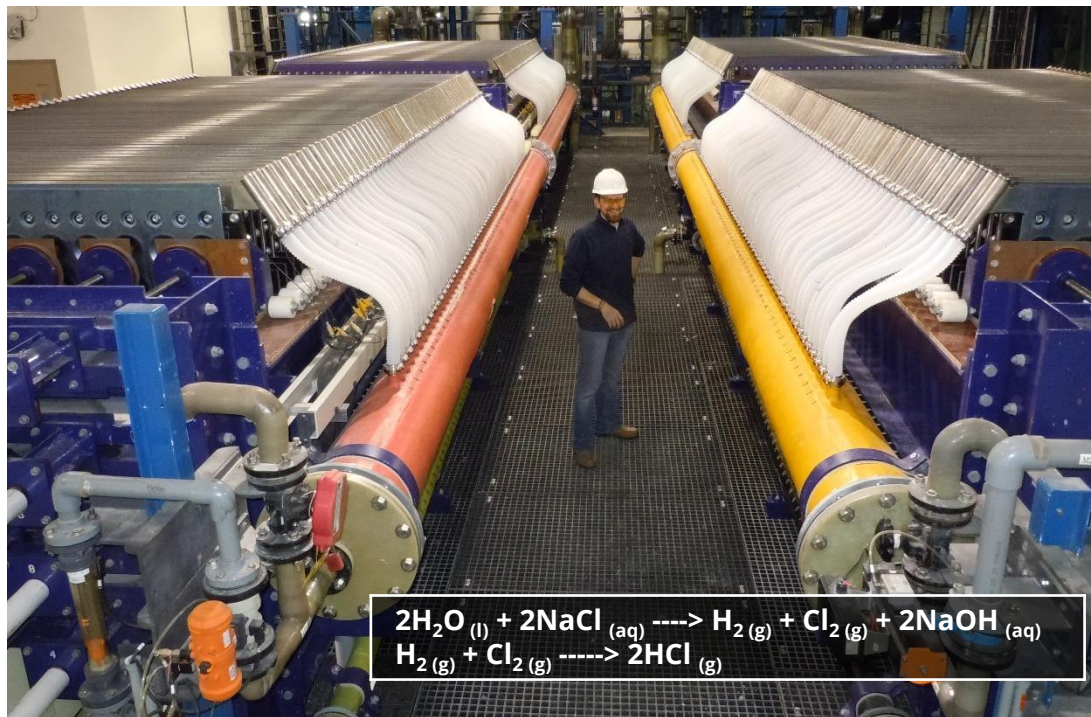


Existing Esperance township 2x 4.5Mw Wind Turbines and 4MW Solar Farm

# ACID CONSUMPTION AND REAGENT COSTS

IMPORTANT TO CONSIDER TOTAL REAGENT REQUIREMENTS, NOT JUST ONE STEP IN THE PROCESS

- Vendor discussions confirm viability of potential site-based chlor-alkali facility
- Indicative pricing for a chlor-alkali electrolyser is approximately £3M each (A\$5.7M)
- Chlor-alkali plant also provides a sodium hydroxide (NaOH) co-product which is utilised in impurity removal and precipitation of a final Mixed Rare Earth Product (MREC/H)
- A single chlor-alkali electrolyser has the potential to produce 62ktpa HCl and 69ktpa of NaOH which, at an average consumption of 16 kg HCl / tonne of ore, is sufficient to treat ~4Mtpa of REE bearing clay



Refer to publicly available information associated with a [BICHLOR™ Electrolyser](#),

## CLAY-HOSTED REE PROJECTS – WHAT’S THE DIFFERENCE?

## OD6 PROPOSED FLOWSHEET

# METALLURGICAL TEST PROGRAM MOVING FORWARD

WORKING WITH ANSTO TO METHODICALLY OPTIMISE THE PROCESS

- Review leach performance of upgraded fines fractions following screening @75  $\mu\text{m}$
- Bench scale tests to assess and determine preferred slurry densities and further optimise leach conditions
- Slurry leach tests to assess slurry handling, filtration and washing
- Impurity removal trials at various pH conditions, temperatures and reagents
  - Assess potential use of Resins in pulp and liquid to assist in impurity removal
  - Assess Ion Exchange on "leach" liquor and selective elution of REE versus impurities eg Al,Fe
  - Assess Nanofiltration to produce a retentate with increased REE concentration, and a permeate consisting of "clean" acid for recycle
- Mixed rare earth precipitation of carbonates and hydroxides
- Process modelling and techno-economic comparison of overall flowsheet options
- Mini pilot scale testing of composited bulk samples
- Apply process model to assess various options to convert the mixed rare earth carbonate/hydroxide in a downstream refinery to multiple potential rare earth oxides

# PEER CALCULATIONS AND REFERENCE DETAILS

| Company                     | ASX code | Measured:<br>Indicated: Inferred<br>Ratio (Mt) | Market<br>capitalisation<br>(A\$) | Net cash<br>(A\$) | Enterprise value<br>(A\$) | Reference   |
|-----------------------------|----------|--|-----------------------------------|-------------------|---------------------------|---|
| OD6 Metals                  | OD6      | 0 : 119 : 563                                  | A\$ 8M                            | A\$ 1M            | A\$ 7M                    | Massive Mineral Resource Estimate Increase at Splinter Rock Rare Earth Project, 29 May 2024<br>Quarterly Activities Report March 2024, 29 April 2024                                    |
| Meteoric Resources          | MEI      | 0 : 86 : 459                                   | A\$ 368M                          | A\$ 27M           | A\$ 341M                  | Quarterly Activities Report March 2024, 30 April 2024<br>Mineral Resources increase 150% with first Indicated Resource at the Soberbo Mining Licence, 14 May 2024                       |
| Victory Metals              | VTM      | 0 : 0 : 250                                    | A\$ 22M                           | A\$ 1M            | A\$ 21M                   | North Stanmore Initial Mineral Resource Estimate, 2 August 2023<br>Quarterly Activities Report March 2024, 30 April 2024  |
| Mount Ridley Mines          | MRD      | 0 : 0 : 168                                    | A\$ 8M                            | A \$2M            | A\$ 6M                    | Maiden Inferred Mineral Resource Estimate for the Mia Prospect of 168Mt at 1,201ppm TREO, 22 May 2024<br>Quarterly Activities Report March 2024, 29 April 2024                          |
| West Cobar Metals           | WC1      | 0 : 39 : 151                                   | A\$ 7M                            | A\$ 1M            | A\$ 6M                    | Salazar Clay-REE Resource Quadruples, 9 August 2023<br>Quarterly Activities Report March 2024, 26 April 2024  |
| Krakatoa Resources          | KTA      | 0 : 40 : 61                                    | A\$ 8M                            | A\$ 2M            | A\$ 6M                    | KTA Delivers Maiden Rare Earth Mineral Resource, 21 November 2022<br>Quarterly Activities Report March 2024, 26 April 2024  |
| Australian Rare Earths      | AR3      | 1 : 63 : 38                                    | A\$ 18M                           | A\$ 9M            | A\$ 9M                    | Koppamurra Mineral Resource Up 25%, Indicated Resource up 40%, drilling points to a rare earth mineral province, 03 April 2024<br>Quarterly Activities Report March 2024, 17 April 2024 |
| Meeka Metals                | MEK      | 0 : 0 : 98                                     | A\$ 47M                           | A\$ 4M            | A\$ 43M                   | High-Grade Rare Earth MRE at Circle Valley, 14 June 2023<br>Quarterly Cashflow Report March 2024, 24 April 2024   |
| ABX Group                   | ABX      | 6 : 42 : 41                                    | A\$ 13M                           | A\$ 0M            | A\$ 13M                   | ABx Rare Earth Resources Increase 70% to 89 Mt, 02 May 2024<br>Quarterly Activities Report March 2024, 30 April 2024  |
| Heavy Rare Earths           | HRE      | 0 : 0 : 159                                    | A\$ 2M                            | A\$ 1M            | A\$ 1M                    | Five fold increase in Mineral Resources to 159Mt @ 870ppm TREO at Cowalinya project in WA, 3 October 2023<br>Quarterly Activities Report March 2024, 29 April 2024                      |
| Viridis Mining and Metals   | VMM      | N/A  | A\$ 106M                          | A\$ 1M            | A\$ 105M                  | Quarterly Activities Report March 2024, 30 April 2024   |
| Asra Minerals               | ASR      | 0 : 8 : 7                                      | A\$ 12M                           | A\$ 1M            | A\$ 11M                   | ASRA DECLARES MAIDEN MRE FOR YTTRIA REE DEPOSIT, 16 April 2024.<br>Quarterly Report Asra Minerals For Quarter Ending 31 March 2024.   |
| Brazilian Rare Earths       | BRE      | 0 : 0 : 510                                    | A\$ 605M                          | A\$ 27M           | A\$ 578M                  | Annual Report to Shareholders, 27 March 2024<br>Quarterly Activities Report March 2024, 29 March 2024.  |
| Brazilian Critical Minerals | BCM      | 0 : 0 : 1,017                                  | A\$ 14M                           | A \$1M            | A\$ 13M                   | MASSIVE MAIDEN MINERAL RESOURCE ESTIMATE > 1B TONNES FOR EMA RARE EARTH PROJECT, 22 April 2024<br>Quarterly Cashflow Report March 2024. 30 April 2024.                                  |

Data retrieved 24 May 2024

# PEER METALLURGY RESULTS REFERENCE DETAILS

| Company                     | ASX code | Time       | Recovery (high) | Recovery (Average) | Reference   |
|-----------------------------|----------|------------|-----------------|--------------------|---|
| OD6 Metals                  | OD6      | 6 hours    | 90%             | 60%                | High Metallurgical Recoveries Continue at Splinter Rock Project, 13 May 2024                          |
| Meteoric Resources          | MEI      | 0.5 hours  | 95%             | 74%                | First Mixed Rare Earth Carbonate (MREC) Produced for Caldeira REE Project, 29 February 2024           |
| Viridis Mining and Metals   | VMM      | N/A        | 46%             | 40%                | Initial Metallurgical work confirms Colossus as a true Iconic Adsorption Clay Project, 29 August 2023 |
| Acilara                     | N/A      | 0.5 hours  | N/A             | 18%                | Amended and Restated NI 43-101 Technical Report, 15 September 2021                                    |
| Heavy Rare Earths           | HRE      | Not Stated | 92%             | 85%                | Metallurgical Work Expands Area for Potential Development, 12 March 2024                              |
| Ionic Rare Earths           | IXR      | Not Stated | Not Stated      | 33%                | Makuutu Project Stage 1 DFS Clarification, 24 March 2023  |
| Australian Rare Earths      | AR3      | 31 days    | 72%             | 53%                | Amended – Flowsheet Update for Koppamurra, 02 April 2024  |
| Abx Group                   | ABX      | Not Stated | 83%             | 39%                | Widespread High Extractions of Ionic Adsorption Clay Rare Earths, 02 February 2023.                   |
| West Cobar Metals           | WC1      | 8 hours    | 94%             | 68%                | Excellent Rare Earth Metallurgical Recoveries Achieved at Salazar, 24 July 2023                       |
| Meeka Metals                | MEK      | 6 hours    | 86%             | 82%                | Positive Rare Earth Metallurgical Testwork Provides Pathway to Commercial Product, 25 July 2022       |
| Victory Metals              | VTM      | 4 hours    | 93%             | 93%                | NORTH STANMORE SETS BENCHMARK OF 93% MAGNET METAL METALLURGICAL RECOVERIES, 14 May 2024.              |
| Asra Minerals               | ASR      | 16 hours   | 91%             | 78%                | METALLURGICAL TEST RESULTS CONFIRM ABILITY FOR HIGH RARE EARTH EXTRACTION, 02 April 2024              |
| Brazilian Critical Minerals | BCM      | 2 hours    | 68%             | 68%                | WORLD LEADING RARE EARTH RECOVERIES CONFIRMED IN TESTWORK FOR EMA PROJECT, 07 May 2024                |



# CONTACT US

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