



OD6

METALS LTD

Australian Critical Rare Earth Minerals

Mineral Sands and Rare Earths Conference

19 and 20 March 2024

ASX | OD6

Important Information

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No New Information

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 17 July 2023. 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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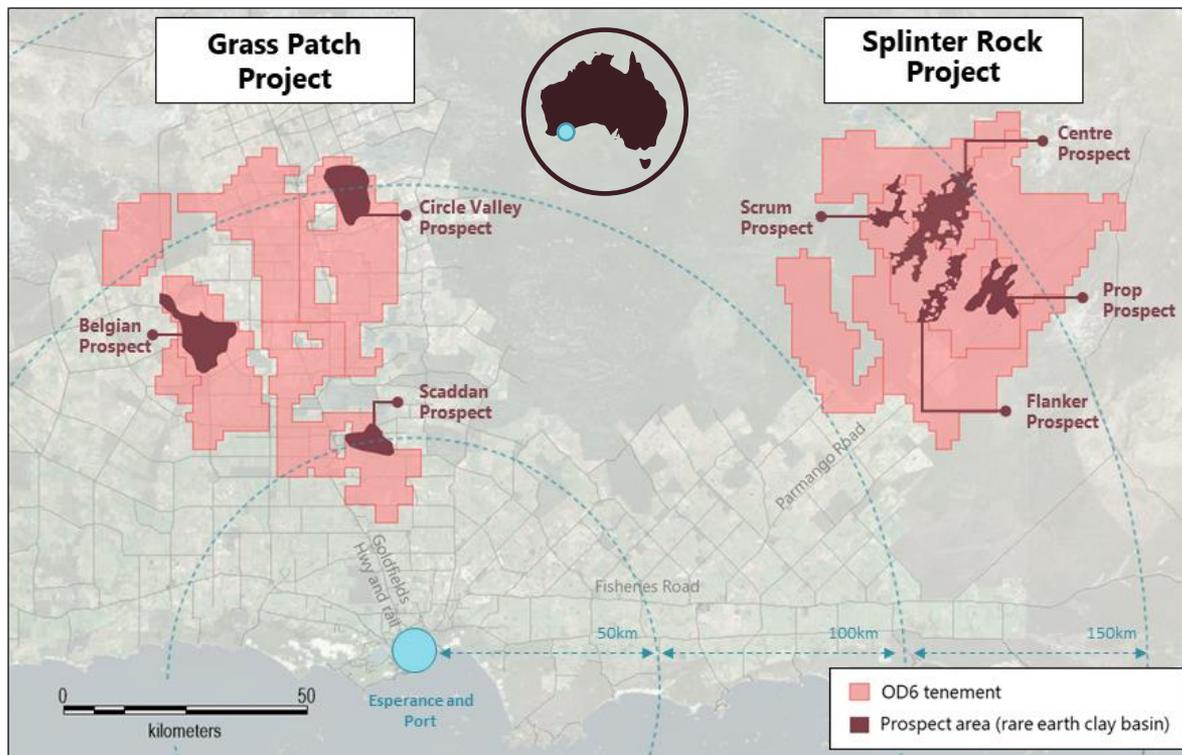
No representation is made that, in relation to the tenements the subject of this presentation, OD6 has now or will at any time in the future develop further resources or reserves within the meaning of the Australian Code for Reporting of Exploration Results, Mineral resources and Ore Reserves (**The JORC Code**).

Globally significant clay-hosted rare earth discovery

100%-owned project areas in one of the world's great mining jurisdictions

Splinter Rock Maiden Inferred Mineral Resource Estimate¹

- **344Mt at 1,308 ppm TREO**
(at a 1,000ppm cut-off grade)
for **~450 kt contained TREO**
- **MagREO** represents an average
of **~23% of TREO grade** for
~103 kt contained MagREO
- Project situated in a first-class
location, **close to port, roads
and essential infrastructure**



1. Refer to ASX announcement 18 July 2023, "Splinter Rock Maiden Mineral Resource", OD6 confirms that it is not aware of any new information or data that materially affects the information included in that release. All material assumptions and technical parameters underpinning the release continues to apply and has not materially changed.

TREO (Total Rare Earth Oxide) = $\text{La}_2\text{O}_3 + \text{CeO}_2 + \text{Pr}_6\text{O}_{11} + \text{Nd}_2\text{O}_3 + \text{Sm}_2\text{O}_3 + \text{Eu}_2\text{O}_3 + \text{Gd}_2\text{O}_3 + \text{Tb}_4\text{O}_7 + \text{Dy}_2\text{O}_3 + \text{Ho}_2\text{O}_3 + \text{Er}_2\text{O}_3 + \text{Tm}_2\text{O}_3 + \text{Yb}_2\text{O}_3 + \text{Lu}_2\text{O}_3 + \text{Y}_2\text{O}_3$

MagREO (Magnet Rare Earth Oxide) = $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11} + \text{Tb}_4\text{O}_7 + \text{Dy}_2\text{O}_3$

% Magnet REO = $(\text{MagREO} / \text{TREO}) * 100$

Investment highlights

1

Targeting critical, high-value magnet rare earth elements

Consumption expected to triple by 2035 with +10-20 new mines required to meet demand

2

Prime location for future development

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

3

The premier Australian clay-hosted rare earth deposit

Largest and highest grade in Australia at 344Mt @ 1,308 TREO, with substantial further upside

4

Strong metallurgical results

Simple leach process with high recoveries of valuable MagREE – comparable or better with industry leading peers

5

A disciplined strategic approach to maximising value

In pursuit of the “best of the best” as input to a future Scoping Study

6

Sustainably creating value

Acting with integrity to responsibly deliver rare earth resources for a low carbon future

Corporate snapshot

High calibre leadership team and tight capital structure

Capital Structure

ASX: OD6

Price per share ¹	A\$0.086
Total number of shares on issue ²	102.45M
Performance rights and options ²	37.55M
Market capitalisation (undiluted) ¹	A\$8.81M
Cash ²	A\$2.09M
Debt ²	Nil
Enterprise value ¹	A\$6.72M

Share Price History

A\$/share



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

1. As at 15 March 2024

2. As at 31 December 2023. Refer to ASX announcement "[Quarterly Activities and Cashflow Report](#)"

Rapid exploration and project advancement

Systematically adding value

1. Drilling commences at Splinter Rock

Initial 179-hole AC program for 5,862m of drilling

2. Immediate outstanding drilling success

Results from first 65-hole returns grades up to 6,729ppm TREO average 22.3% MagREO

4. Phase 2 drilling completed at Splinter Rock

Total 83 holes drilled for 4,305m at average depth of 50m and max depth 100m

6. Very high metallurgical recoveries

Up to 96% of MagREO acid leach recoveries. Average 60 to 75%

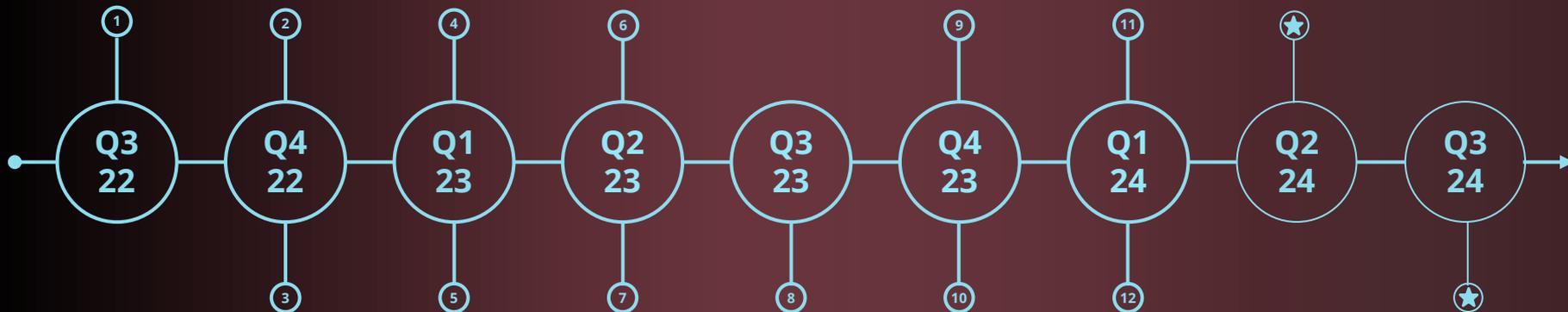
9. Low acid consumption confirmed

Average 16 kg HCl/t ore with multiple zones at 6-10 kg HCl/t ore

11. Screening further lowers acid consumption

ANSTO test results showed an average 35% reduction in HCl consumption

★ Targeting increase and upgrade to MRE Q2 2024



3. Airborne Electromagnetic Survey complete

Vast scale of target areas identified with over 250km² clay basins mapped

5. High-grade REEs identified at Grass Patch

Grades up to 3,340ppm TREO, with up to 38.5% MagREO

7. Bumper REE grades at Splinter Rock

74 out of 83 holes returned significant high grade TREO results

8. Maiden Mineral Resource Estimate

344Mt @ 1,308 ppm TREO Inferred Resource at a 1,000ppm cut off grade

10. Standout REE grades at Centre Prospect

Grades of up to 6,441 ppm TREO returned with 77 holes >1,000ppm TREO

12. Excellent bottle roll results achieved

Up to 90% with an average 62% MagREE returned at Splinter Rock

★ Centre and Prop drilling results expected Q3 2024

1. Critical magnet rare earth elements

Four critical, high value metals



Light rare earth elements

Heavy rare earth elements

59
Pr
Praseodymium

60
Nd
Neodymium

66
Dy
Dysprosium

65
Tb
Terbium

- 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 1 H																	helium 2 He
lithium 3 Li	beryllium 4 Be											boron 5 B	carbon 6 C	nitrogen 7 N	oxygen 8 O	fluorine 9 F	neon 10 Ne
naodium 11 Na	magnesium 12 Mg											aluminium 13 Al	silicon 14 Si	phosphorus 15 P	sulphur 16 S	chlorine 17 Cl	argon 18 Ar
potassium 19 K	calcium 20 Ca	scandium 21 Sc	titanium 22 Ti	vanadium 23 V	chromium 24 Cr	manganese 25 Mn	iron 26 Fe	cobalt 27 Co	nickel 28 Ni	copper 29 Cu	zinc 30 Zn	gallium 31 Ga	germanium 32 Ge	arsenic 33 As	selenium 34 Se	bromine 35 Br	krypton 36 Kr
rubidium 37 Rb	strontium 38 Sr	yttrium 39 Y	zirconium 40 Zr	niobium 41 Nb	molybdenum 42 Mo	technetium 43 Tc	ruthenium 44 Ru	rhodium 45 Rh	palladium 46 Pd	silver 47 Ag	cadmium 48 Cd	indium 49 In	tin 50 Sn	antimony 51 Sb	tellurium 52 Te	iodine 53 I	xenon 54 Xe
cesium 55 Cs	barium 56 Ba																
francium 87 Fr	radium 88 Ra	hafnium 72 Hf	tantalum 73 Ta	tungsten 74 W	rhenium 75 Re	osmium 76 Os	iridium 77 Ir	platinum 78 Pt	gold 79 Au	mercury 80 Hg	thallium 81 Tl	lead 82 Pb	bismuth 83 Bi	polonium 84 Po	astatine 85 At	radon 86 Rn	
		rutherfordium 104 Rf	dubnium 105 Db	seaborgium 106 Sg	bohrium 107 Bh	hassium 108 Hs	meitnerium 109 Mt	darmstadtium 110 Ds	roentgenium 111 Rg	copernicium 112 Cn	nihonium 113 Nh	flerovium 114 Fl	moscovium 115 Mc	livermorium 116 Lv	tennessine 117 Ts	oganeson 118 Og	

Light rare earth elements

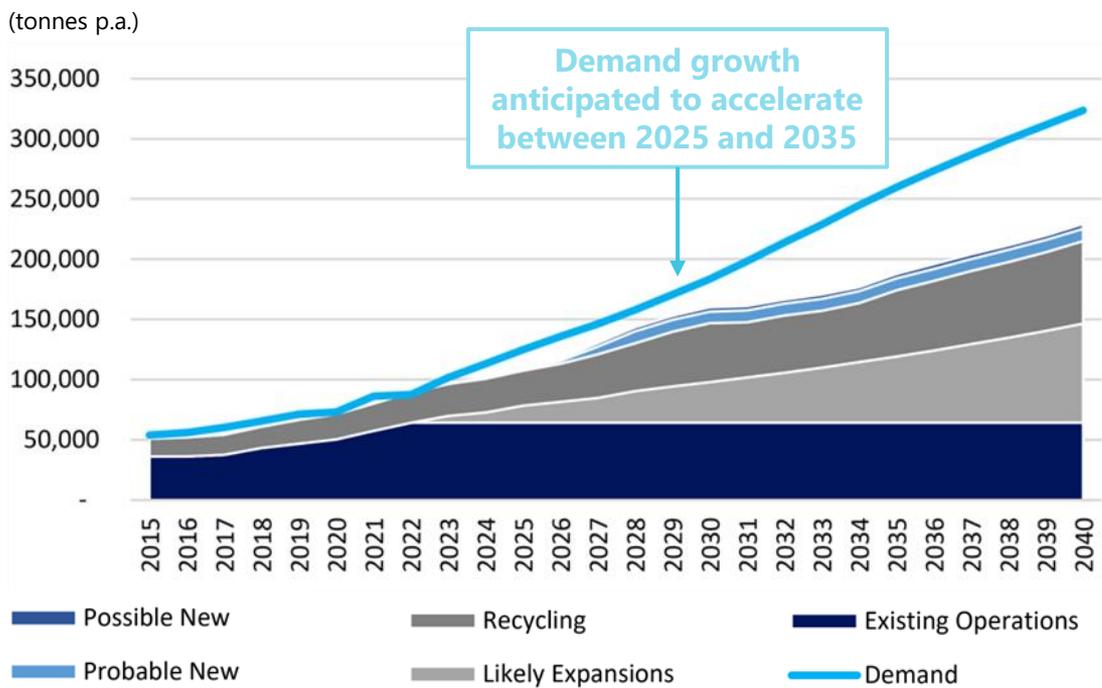
Heavy rare earth elements

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

1. Significant future global demand expected

Consumption expected to triple by 2035 with multiple new mines required to meet demand

NdPr Production and Demand (real)



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

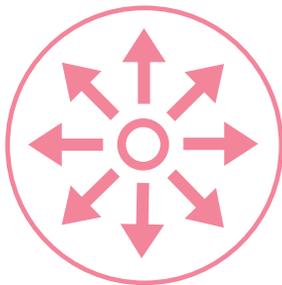
Demand underpinned by growth from **electric vehicles, wind power and consumer electronics**

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**
Eg ARU = ~3,700tpa NdPr

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

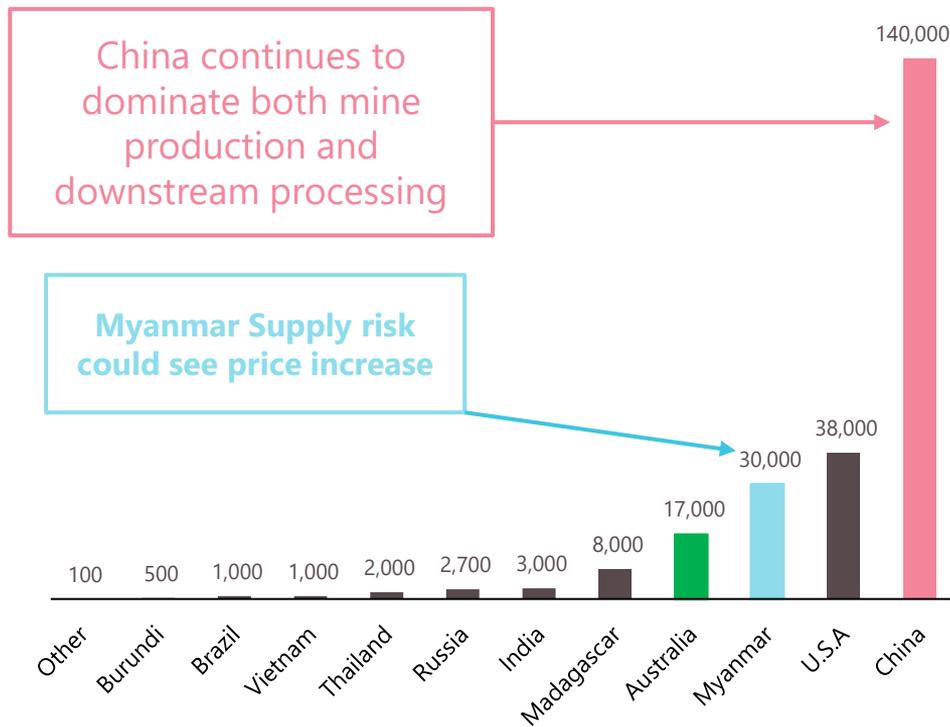
1. New Australian supply urgently needed

Mine concentration is a significant risk to the global supply chain



Diversity of supply is a priority for governments and corporations with Australia well placed to provide additional capacity

2022 Existing global mine production (t)



Source: USGS Mineral Commodity Summaries, Rare Earths pubs.usgs.gov/periodicals/mcs2023/mcs2023.pdf
Benchmark Minerals "Rare earth supply strong in 2024 but Myanmar risk remains"

2. 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 and Grass Patch to town and port

Local renewable power connected



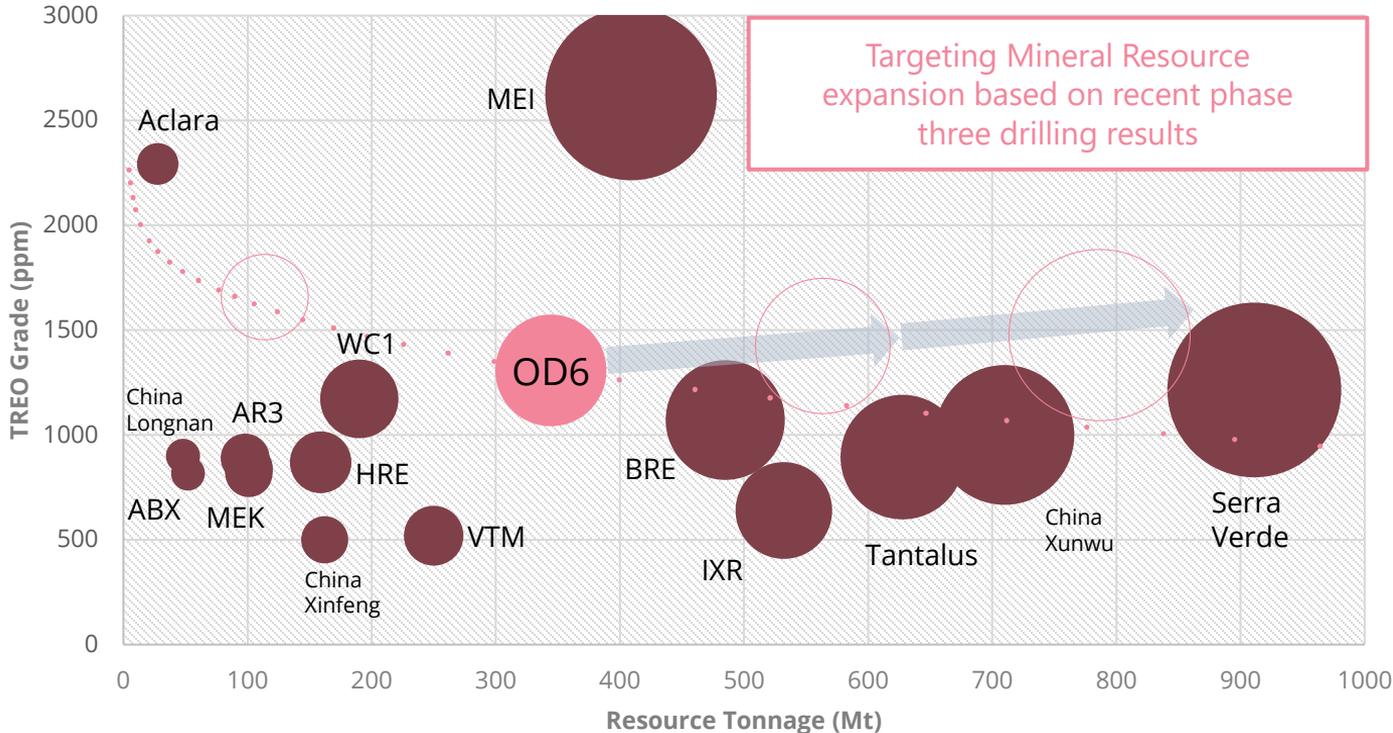
- Proven renewable cap
- Esperance has Dual 4.5 MW wind turbines plus 4 MW solar farm and gas turbines

3. The premier Australian clay-hosted REE project

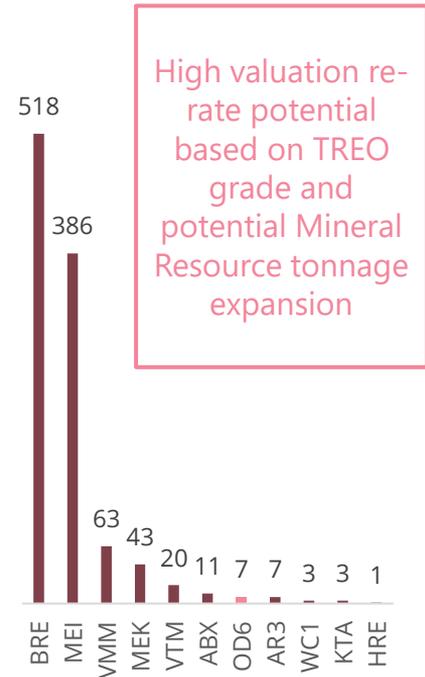
Inferred Resource of 344Mt @ 1,308ppm TREO with substantial upside from high-grade Inside Centre discovery

Rare earth element deposits

(bubble size reflects contained TREO)



Enterprise value (A\$M)



Refer to 'Peer calculation and reference details'

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

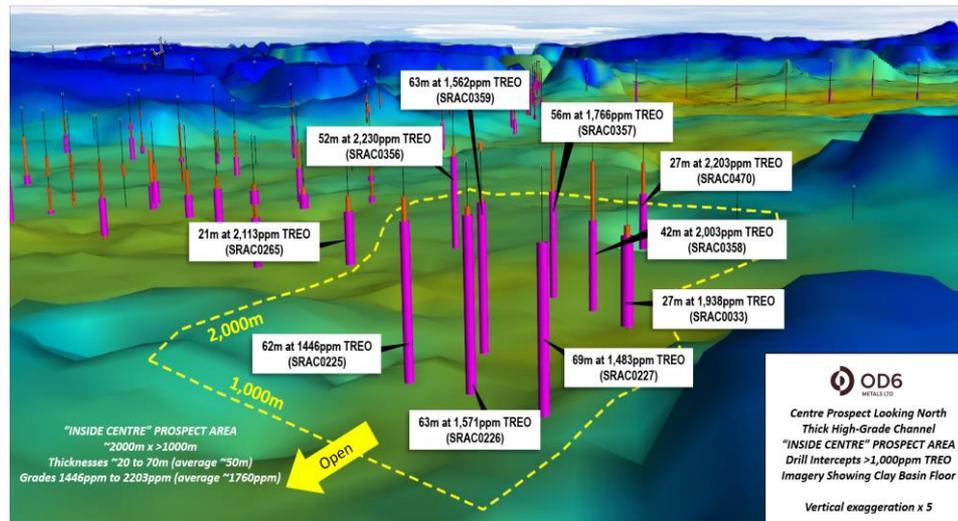
3. Exceptional Phase 3 drilling success

Real and substantial upside potential in updated Mineral Resource estimate due in Q2 2024

Significant results at Centre and Inside Centre prospects¹

- **58 metres** at 2,060ppm TREO (21.8% MREO) from 21 metres (SRAC0356)
- **77 metres** at 1,429ppm TREO (22.5% MREO) from 18 metres (SRAC0357)
- **69 metres** at 1,457ppm TREO (25.6% MREO) from 15 metres (SRAC0358)
- **66 metres** at 1,519ppm TREO (21.0% MREO) from 21 metres (SRAC0359)
- **52 metres** at 1,467ppm TREO (29.6% MREO) from 21 metres (SRAC0333)
- **42 metres** at 1,609ppm TREO (21.4% MREO) from 18 metres (SRAC0470)
- **41 metres** at 1,611ppm TREO (26.4% MREO) from 6 metres (SRAC0298)
- **43 metres** at 1,425ppm TREO (23.4% MREO) from 12 metres (SRAC0300)
- **24 metres** at 2,379ppm TREO (25.5% MREO) from 18 metres (SRAC0303)
- **30 metres** at 1,806ppm TREO (27.5% MREO) from 42 metres (SRAC0321)
- **34 meters** at 1,465ppm TREO (23.2% MREO) from 36 metres (SRAC0469)
- **43 meters** at 1,425ppm TREO (21.8% MREO) from 12 metres (SRAC0300)
- **31 meters** at 1,339ppm TREO (22.6% MREO) from 21 metres (SRAC0328)
- **30 meters** at 1,309ppm TREO (22.5% MREO) from 21 metres (SRAC0351)
- **24 meters** at 1,810ppm TREO (21.5% MREO) from 48 metres (SRAC0340)
- **21 meters** at 1,672ppm TREO (24.0% MREO) from 15 metres (SRAC0297)

Inside Centre – Thick, high-grade mineralisation



Inside Centre is a new 2km x 1km discovery that is up to 69m thick, with grades of 1,400ppm to 2,200ppm TREO and has the potential to be a standout first stage project

3. 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
 - ✓ MagREO content >20%
 - ✓ Treatment rate > 4 Mtpa
 - ✓ Mine life >20 years
 - ✓ Resource size >150 Mt
 - ✓ Recovery >50%
 - ✓ Low stripping ratio
 - ✓ Low reagent usage / cost
 - ✓ Low power costs

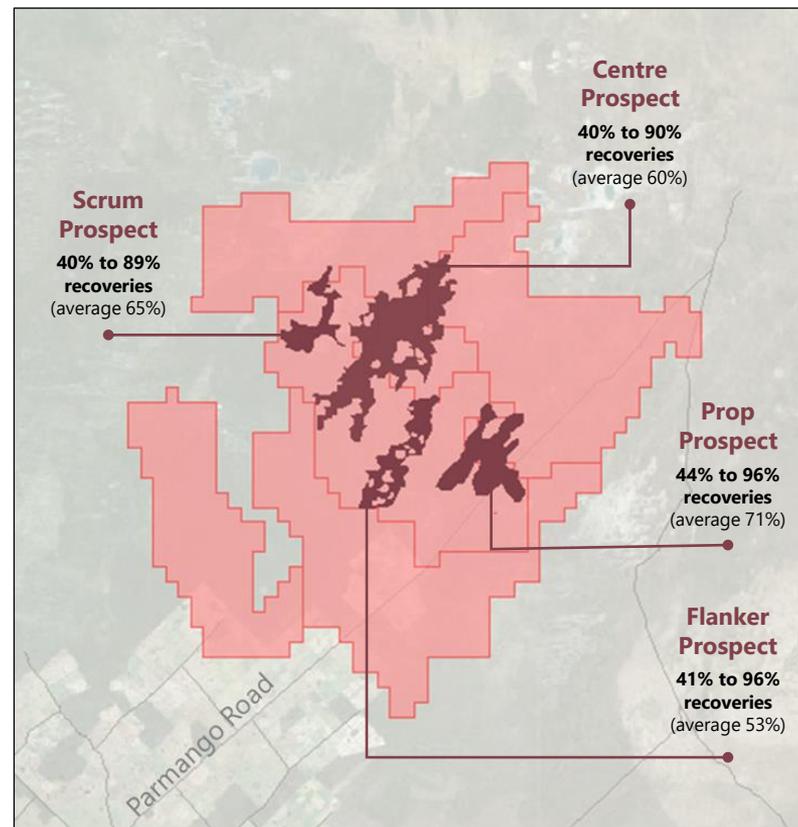
Clay volume treated (tpa)	TREO (ppm)	Metallurgical recovery	TREO produced (tpa)	MagREO produced @23% (tpa)	% payable	AUD:USD	Revenue p.a. @ US\$50/kg TREO
10,000,000	1,500	60%	9,000	2,070	70%	0.65	A\$484M
7,500,000	1,500	60%	6,750	1,553	70%	0.65	A\$363M
5,000,000	1,500	60%	4,500	1,035	70%	0.65	A\$242M
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

4. Already strong metallurgical results

Identifying the best metallurgical areas to further refine potential processing route

- Very high metallurgical recoveries achieved using **simple acid leach**
- **Average 62% MagREO** recovery (range 43% to 87%) at 20g/l HCl
- **Average 16 kg HCl/t ore** with multiple zones at **6kg to 10kg HCl/t ore**
- 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
- Screening of coarse-grained material expected to reduce leach material by 30-50% without appreciable loss of MagREO
- Recent recovery trials to identify “best of the best” areas



Recoveries only reflect initial rare earth leaching, with further losses expected in precipitation, impurity removal, purification and drying.

4. Magnet rare earth recovery

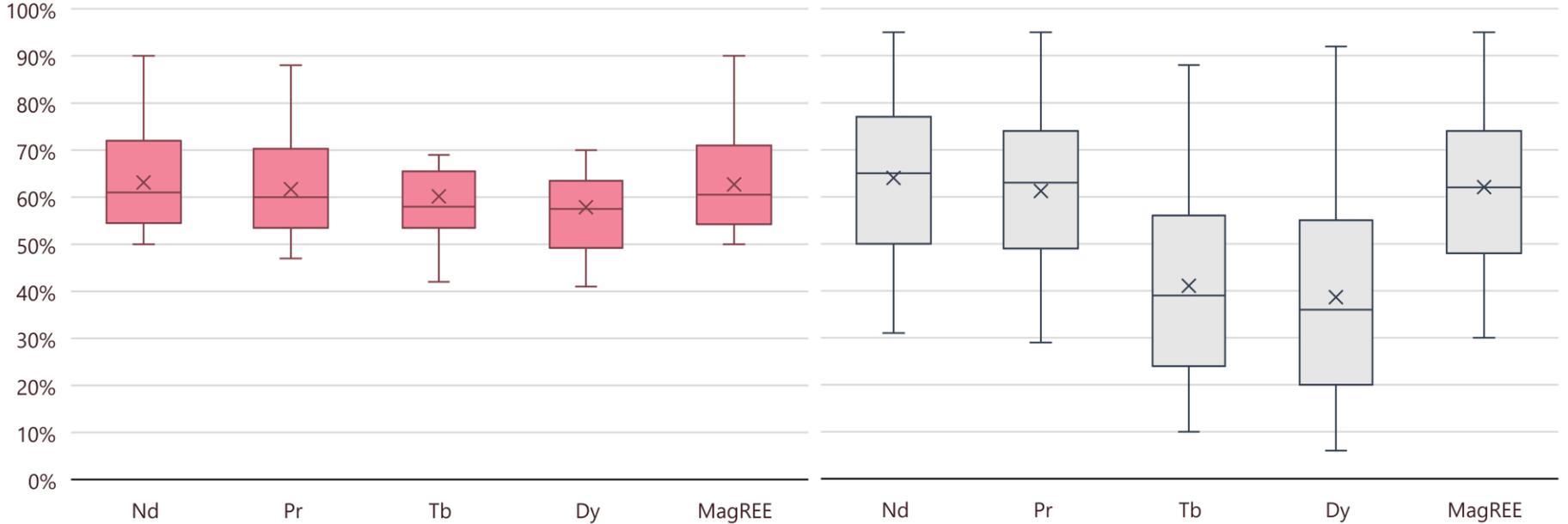
OD6 has closed the gap to its industry leading peers on MagREE recoveries



OD6 Metals (~A\$7M EV)



Meteoric Resources (~A\$392M EV)



Refer to 'Peer calculation and reference details' , and OD6 ASX Announcement 27-2-2024

Note: OD6 recoveries represent results from the Centre prospect

4. Clay-hosted rare earths

Similar to IAC, clay-hosted REEs present a highly attractive processing option in a tier-1 jurisdiction

	Clay-hosted REE	Ionic Clay-hosted (IAC) REE
Locations	<ul style="list-style-type: none"> ✓ Esperance, Western Australia – Tier-1 mining jurisdiction with access to significant infrastructure 	<ul style="list-style-type: none"> ✓ South America, Brazil
Exploration	<ul style="list-style-type: none"> ✓ Quick and low-cost exploration: shallow air core drilling 	<ul style="list-style-type: none"> ✓ Quick and low-cost exploration: shallow air core drilling
Mining	<ul style="list-style-type: none"> ✓ Surface mining, within minimal strip ratio ✓ Pits backfilled and rehabilitated 	<ul style="list-style-type: none"> ✓ Surface mining, within minimal strip ratio ✓ Pits backfilled and rehabilitated
Processing	<ul style="list-style-type: none"> ✓ Chloro-Alakli plant makes both acid and base onsite ✓ Simple 6 hour leach in hydrochloric acid (\$250/t)¹ ✓ Requires more tanks for leaching process ✓ Sodium hydroxide to neutralise solution (\$250/t) 	<ul style="list-style-type: none"> ✓ Ionic process needs multiple offsite produced reagents ✓ Simple 0.5 hour leach in ammonium sulphate (\$350/t)¹ and sulphuric acid (\$300/t)¹ ✓ Ammonium bicarbonate to neutralise solution (\$350/t)¹
Recoveries	<ul style="list-style-type: none"> ✓ Up to 90% (62% average) 	<ul style="list-style-type: none"> ✓ Up to 95%² (46.2% average)³
Payability	<ul style="list-style-type: none"> ✓ High recoveries containing valuable light and heavy rare earths (Nd, Pr, Dy, Tb) 	<ul style="list-style-type: none"> ✓ High recoveries containing valuable light and heavy rare earths (Nd, Pr, Dy, Tb)

Refer to 'Peer metallurgy results reference details

Note: (1) All figures are estimated/verbal current supplier pricing, (2) MEI MagREE recoveries at Calderia, (3) Average MagREE recoveires across MEI, VMM and Alcara

5. A disciplined strategic approach

In pursuit of the “best of the best” for maximum value creation



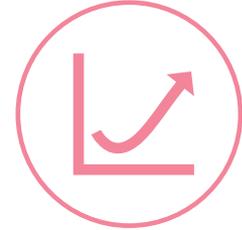
Explore

- 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

5. Growth and infill drilling scheduled through 2024

Targeted drilling focused on building and refining sizeable Mineral Resource base

Centre and Prop Prospects

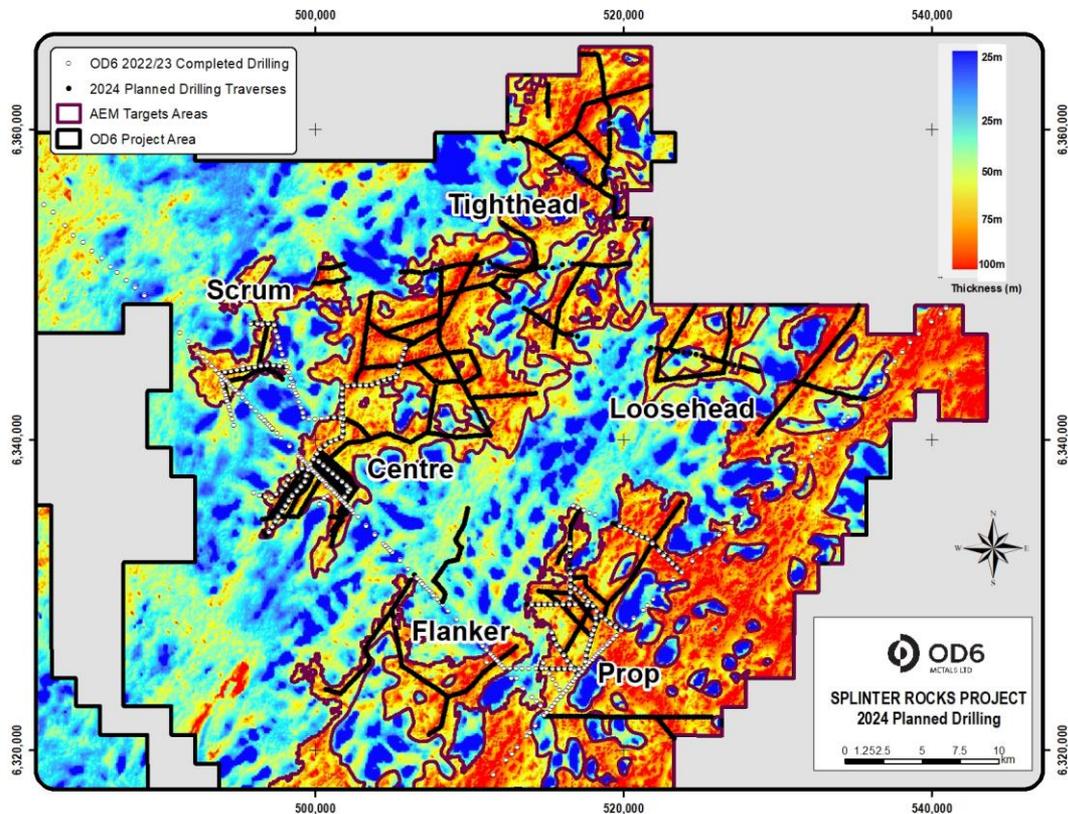
Infill drilling at Centre and Prop for potential Mineral Resource estimate upgrade

Centre, Flanker and Scrum Prospects

Extensional drilling at Centre, Flanker and Scrum for Mineral Resource estimate growth

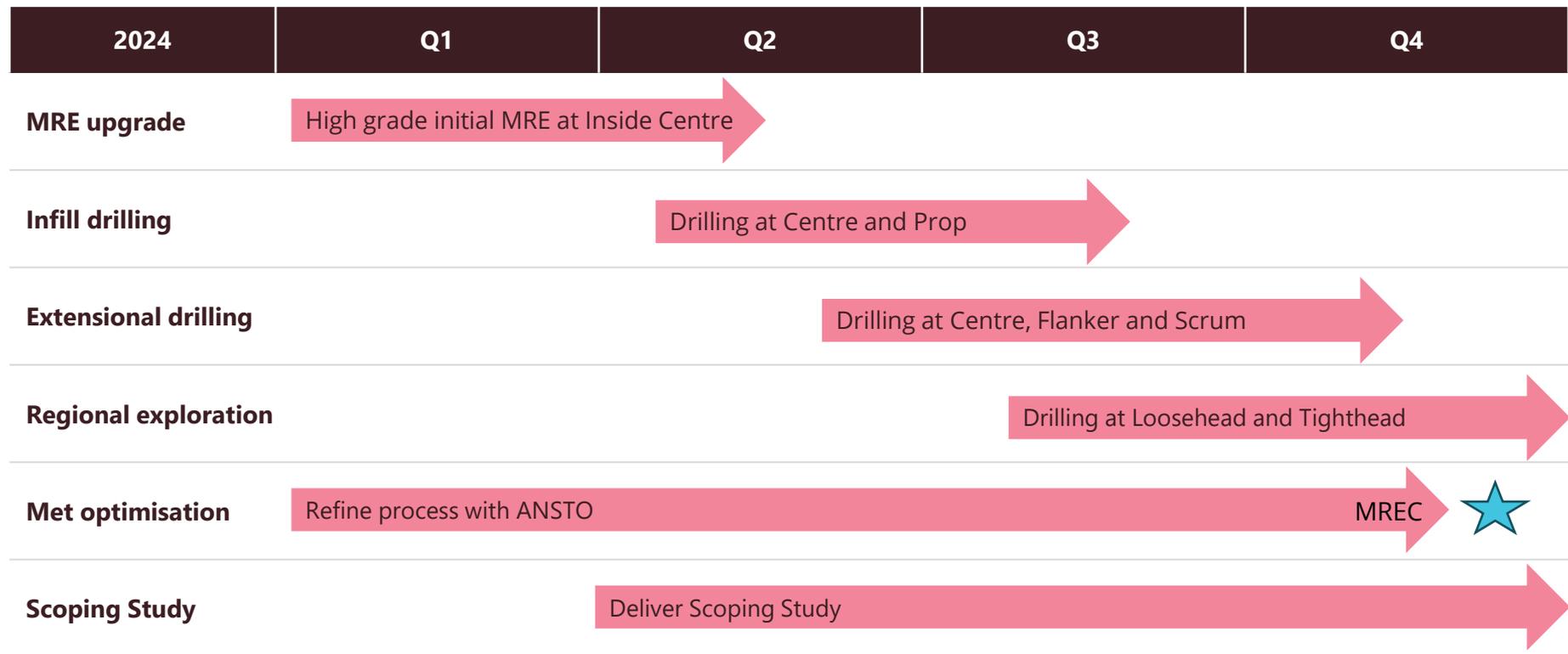
Loosehead and Tighthead Prospects

Regional drilling at Loosehead and Tighthead for new discovery potential



5. Scheduled program of activities

Rapidly advancing and de-risking



6. Sustainably creating value

Acting with integrity to responsibly deliver rare earth resources for a low carbon future



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

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

6. The Splinter Rock Project

A world-class clay-hosted REE asset progressively being de-risked



Located in Western Australia, a tier 1 jurisdiction



Clean, simple capital structure



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



First pass environmental reconnaissance surveys complete



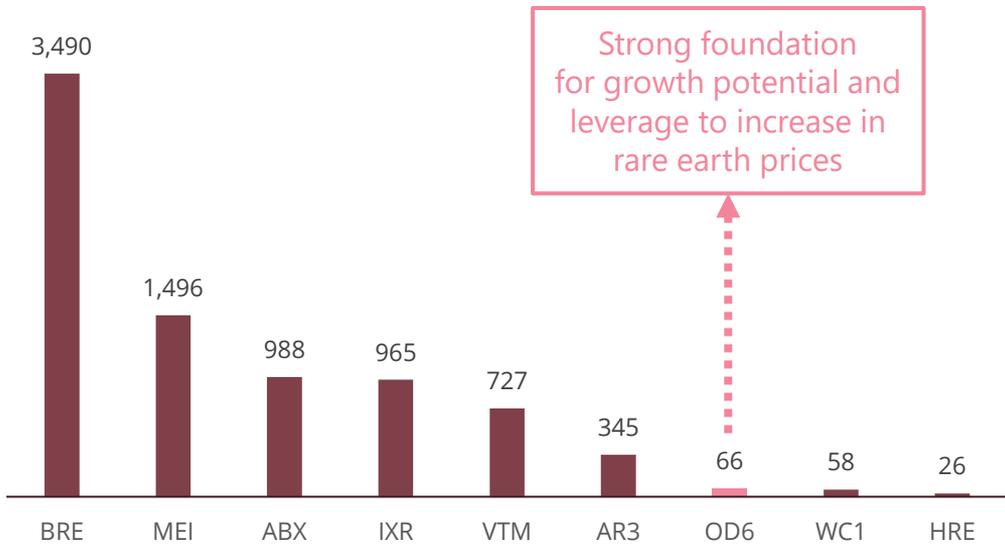
No commodity restrictions on tenement areas

Significant relative value upside potential

Significant upside potential compared to peers

Comparison of enterprise value per MagREO tonne

(A\$/tonne MagREO)



Key catalysts for relative value uplift relative to peers on per tonne MagREO basis

- Targeting Mineral Resource Estimate upgrade and expansion in Q2 2024
- **Inside Centre Prospect** has potential to be a standout first stage project
- Further regional exploration scheduled with success to expand resource base
- Metallurgical optimisation ongoing with high recoveries and low acid consumption de-risking project flow-sheet and future economics
- Scoping Study targeted by end of 2024

Appendix

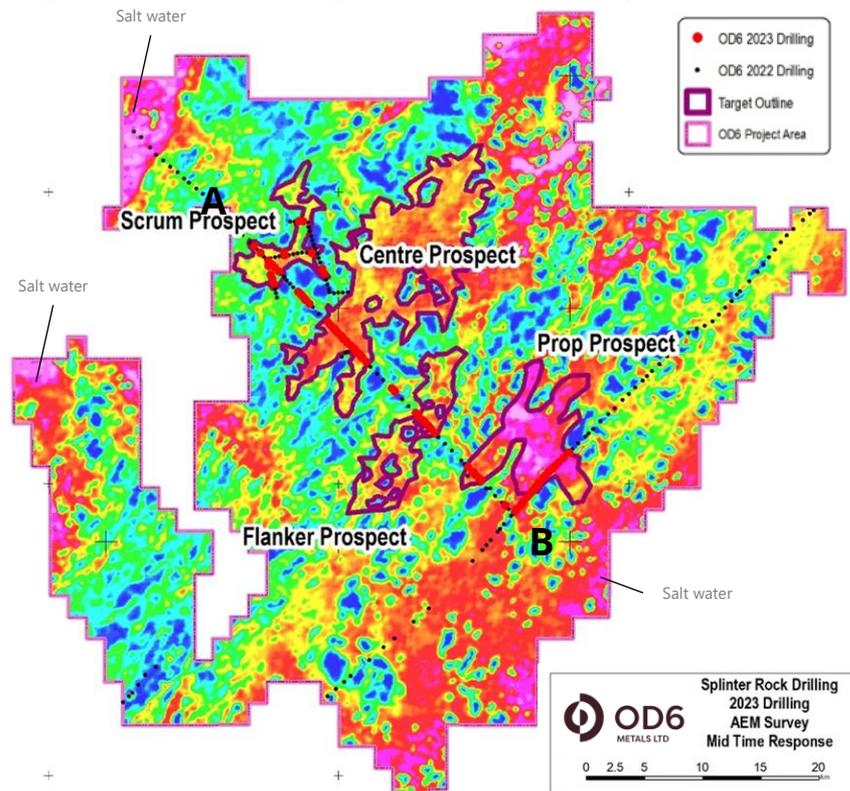
The background features a wavy, grid-like pattern of dots in shades of purple and blue, creating a sense of depth and movement. The dots are arranged in a grid that undulates across the frame, with some dots appearing brighter than others. The overall color palette is dark, with the grid pattern providing a focal point.

ASX | OD6

Airborne Electromagnetic (AEM) Success

State of the art AEM Modelling by CSIRO

- AEM has facilitated mapping of clay locations, expanse and potential thickness
- **400km² of clay basins mapped**
- Clays are conductive, and are readily mapped with AEM (yellow to red colours).
- Granites are not conductive (blues to green)
- 210 out of 228 holes (~92%) returned significant high grade TREO results from last two drill programs
- **Sydney Harbour is 55 km² (1)**

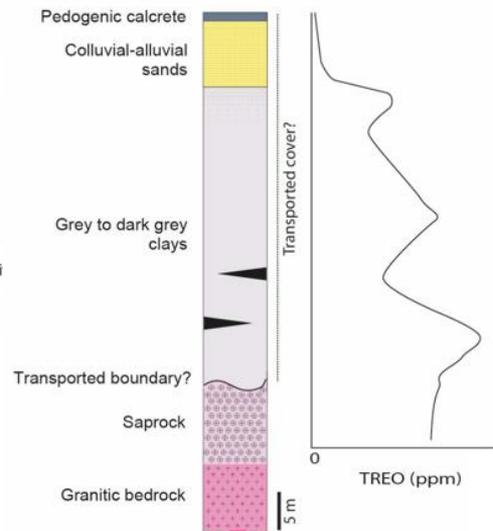
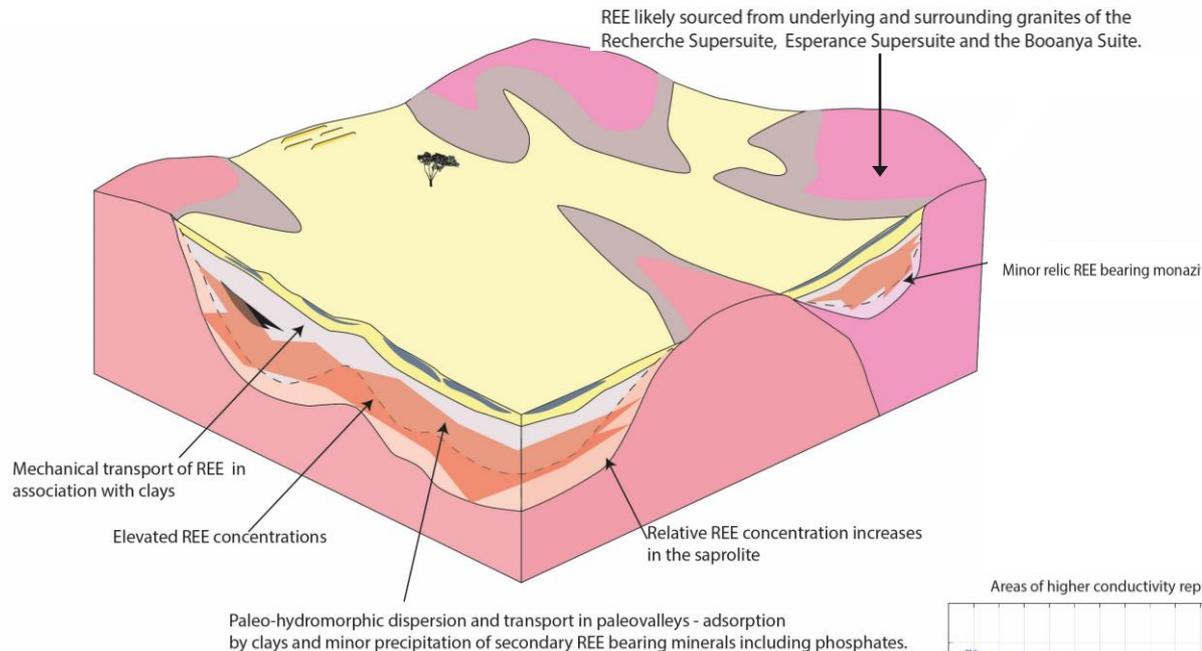


(1) Source: [Sydney Harbour Our greatest Asset August 2019](#)

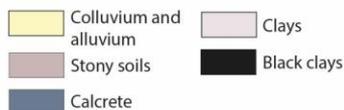
Refer to ASX announcement 15 December 2022, "AEM shows Vast Scale of Target Areas"

Conceptual Geological Formation

Collaborating with CSIRO to model the clay basins



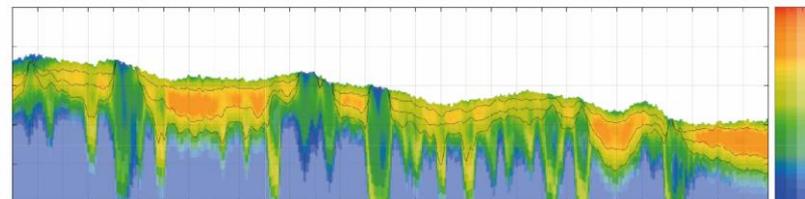
Depositional regime



Erosional regime

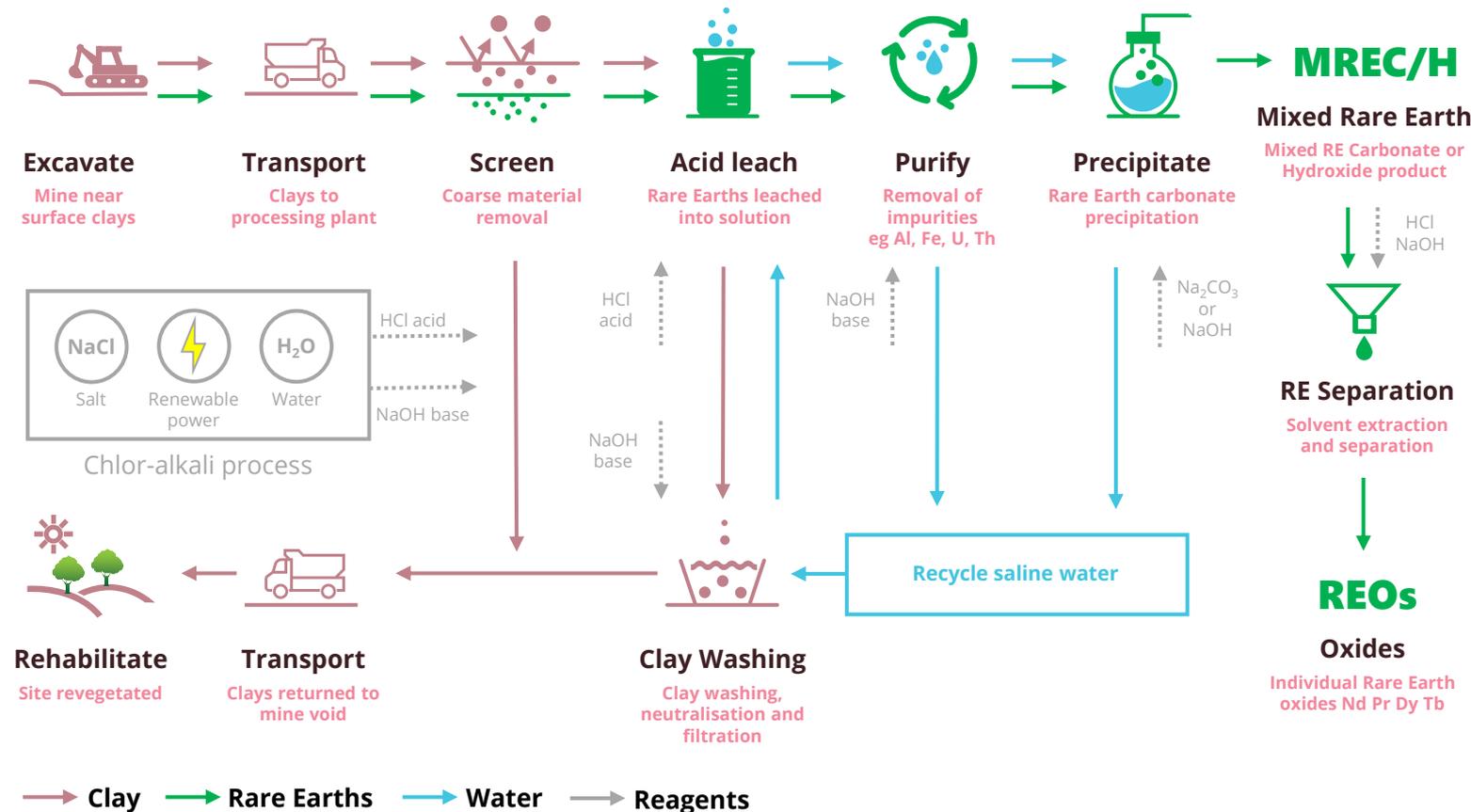


Areas of higher conductivity represent clay zones with the potential to host elevated concentrations of REE.



Indicative processing steps

Simplified process map to deliver rare earth products

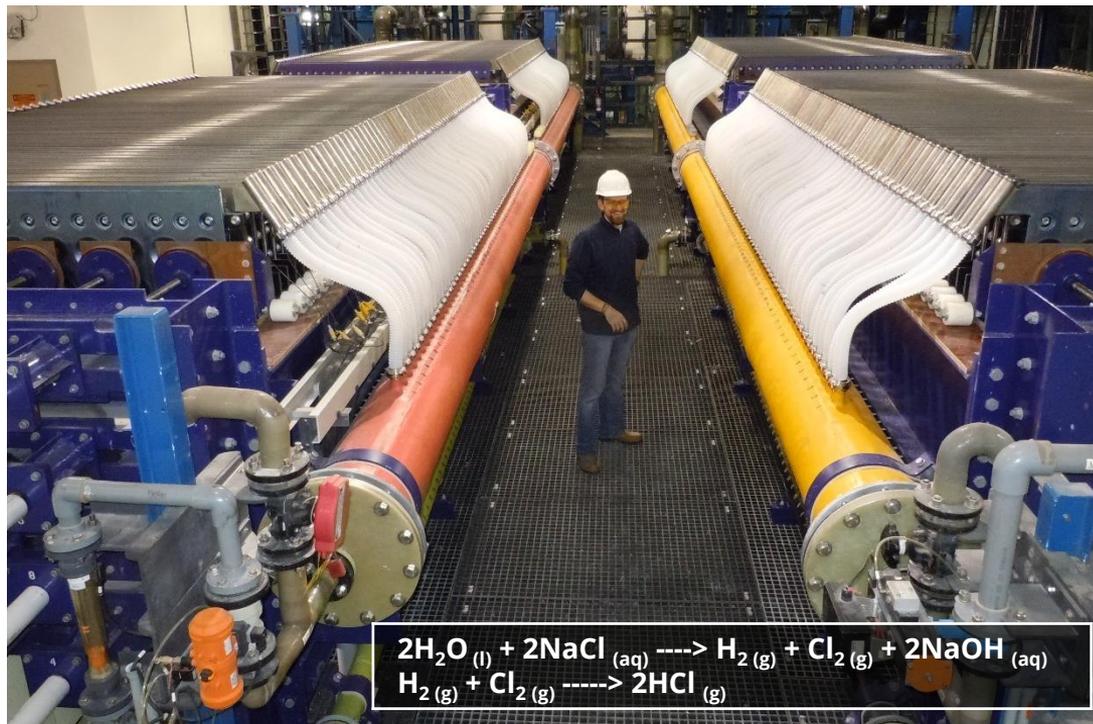


- 
 - No drill and blast**
 - No crushing**
 - No milling**
 - No flotation**
 - No high temperature cracking**
 - No high pressure leach**
 - No high temperature leach**

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?

Processing steps are similar, mainly using different reagents and time

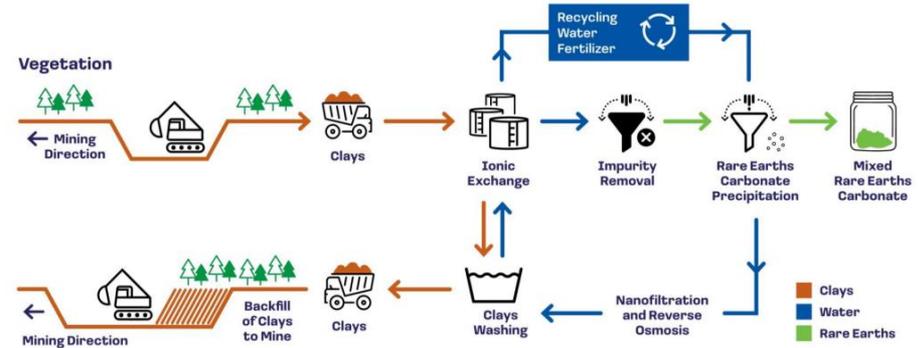
OD6 Proposed Flowsheet



Key points to note

- OD6 Longer leach times = more tanks
- Both process use acid to lower the pH to 1 and 3 to 4
- Both process need to neutralise the acid to remove impurities and produce a MREC/H
- Lower pHs have more impurities to remove
- Chloro-Alkali plant makes both acid and base onsite
- Ionic process needs multiple offsite produced reagents

Aclara and Meteoric Proposed Flowsheet



Reagents and estimated costs

- Hydrochloric Acid + Sodium Hydroxide
\$250/t HCl¹ + \$250/t NaOH (Chlor-alkali onsite)
- Ammonium Sulphate + Sulphuric Acid + Ammonium Bicarbonate: \$350/t (NH₄)₂SO₄ + \$300/t H₂SO₄ + \$350/t (NH₄)HCO₃²
- Consumption Rates are Key to Total Reagent Cost
- All projects will need Flocculants, Potable Water, other chemicals

Metallurgical test program moving forward

Working with ANSTO to methodically optimise the process

- Review leach performance of upgraded fines fractions following screening @75 μm
- Undertake sighter bottle roll tests of selected Phase 3 and 2 drill samples
- 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

Splinter Rock Mineral Resource estimate

At 1,000 ppm cutoff grade



**Australia's
highest grade
and largest clay
hosted MRE**

**Delineated from
less than 5% of
identified target
area**

Prospect	Category	Tonnes (Mt)	TREO (ppm)	Pr ₆ O ₁₁ (ppm)	Nd ₂ O ₃ (ppm)	Tb ₄ O ₇ (ppm)	Dy ₂ O ₃ (ppm)	MagREO (ppm)	MagREO (% of TREO)
Centre	Inferred	149	1,423	71.2	244.6	2.6	14.1	329	23.1
Scrum	Inferred	120	1,222	57.7	208.1	2.7	14.7	283	23.2
Flanker	Inferred	42	1,246	58.9	210.9	2.9	16.0	288	23.2
Prop	Inferred	33	1,180	49.9	179.4	2.3	12.9	244	20.7
Total	Inferred	344	1,308	62.5	220.2	2.6	14.5	300	22.9

The Mineral Resource estimate has been reported by an independent Competent Person in accordance with the provisions of the JORC Code

TREO (Total Rare Earth Oxide) = La₂O₃ + Ce₂O₃ + 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

For full Mineral Resource estimate details refer to OD6 ASX announcement 18 July 2023, "Maiden Mineral Resource Estimate". 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 acid consumption

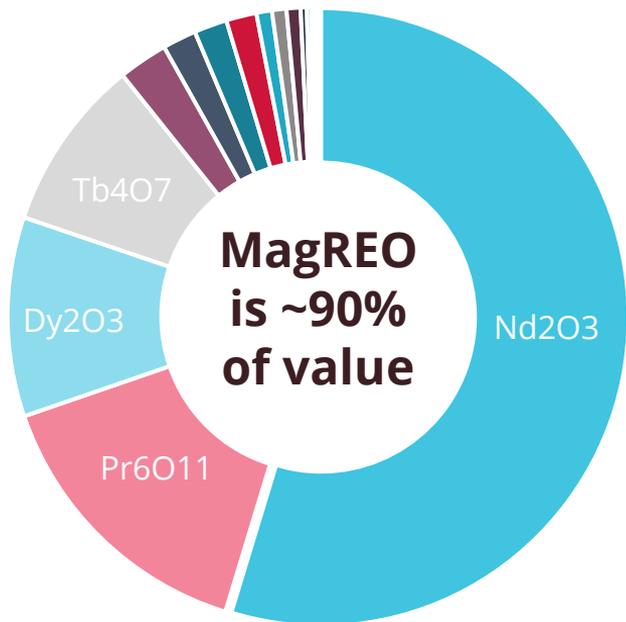
Cut-off grade (ppm TREO)	Tonnes (Mt)	TREO (ppm)	Contained TREO (k tonne)	MagREO (ppm)	MagREO (% of TREO)	Contained MagREO (k tonnes)
400	1,141	869	992	198	22.7	225
600	838	1,006	842	230	22.9	192
800	583	1,140	664	262	30.0	152
1,000	344	1,308	450	300	22.9	103
1,200	196	1,471	288	338	22.9	66
1,400	105	1,625	171	372	22.9	39

For full Mineral Resource estimate details refer to OD6 ASX announcement 18 July 2023, "Maiden Mineral Resource Estimate". 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. Final recovered tonnes will be significantly less than the contained tonnes stated and subject to ongoing metallurgical testwork.

MRE TREO value and distribution

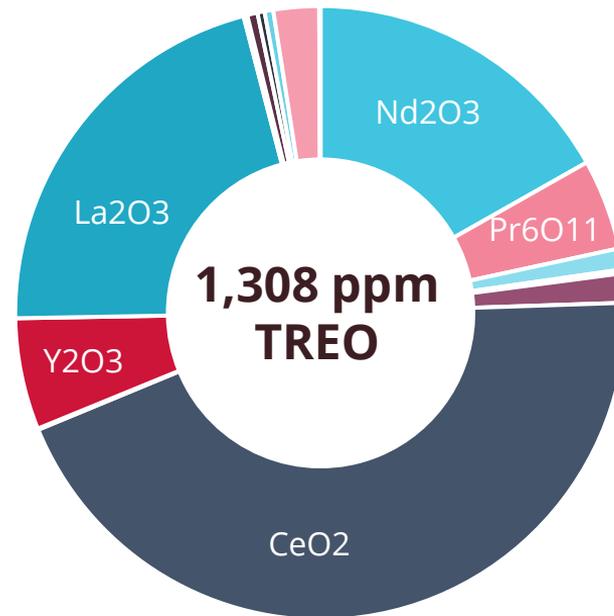
Nd, Pr, Dy, Tb represent ~90% of potential contained value

TREO REE value



Value	Distribution	
54.7%	Nd2O3	16.8%
15.0%	Pr6O11	4.8%
10.4%	Dy2O3	1.1%
9.0%	Tb4O7	0.2%
2.6%	Gd2O3	1.5%
1.8%	CeO2	44.3%
1.7%	Lu2O3	0.1%
1.6%	Y2O3	5.9%
0.8%	La2O3	21.2%
0.8%	Ho2O3	0.2%
0.7%	Er2O3	0.5%
0.3%	Eu2O3	0.4%
0.2%	Yb2O3	0.5%
0.2%	Sm2O3	2.4%
0.1%	Tm2O3	0.1%

TREO % distribution



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 spot pricing sourced from Adamas Intelligence "Rare Earth Pricing Quarterly Outlook" Q2 2023. The chart is illustrative only of where rare earth economic value will be primarily derived from.

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



Source: <https://pacificenergy.com.au/project/esperance-power-station/>

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

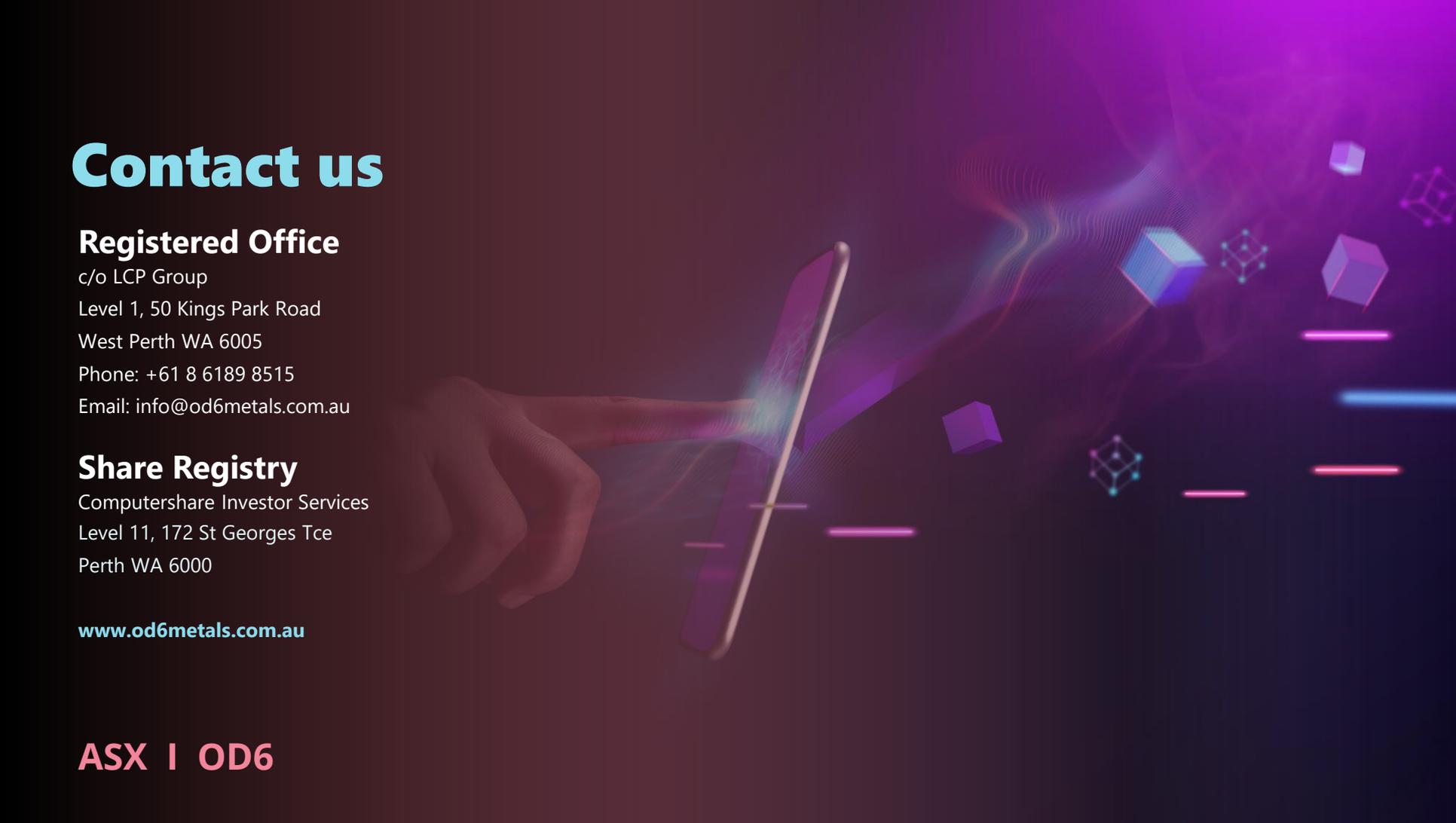
Peer calculations and reference details

Company	ASX code	Measured: Indicated: Inferred Ratio (Mt)	Market capitalisation (A\$)	Net cash (A\$)	Enterprise value (A\$)	Reference
OD6 Metals	OD6	0 : 0 : 344	A\$ 9M	A\$ 2M	A\$ 7M	<i>Splinter Rock Maiden Mineral Resource, 18 July 2023 Quarterly Activities Report December 2023, 23 January 2024 Investor Presentation, 23 November 2023</i>
Meteoric Resources	MEI	0 : 0 : 409	A\$ 418M	A\$ 32M	A\$ 386M	<i>Quarterly Activities Report December 2023, 31 January 2024 Caldeira REE Project Maiden Mineral Resource, 1 May 2023</i>
Victory Metals	VTM	0 : 0 : 250	A\$ 23M	A\$ 2M	A\$ 20M	<i>North Stanmore Initial Mineral Resource Estimate, 2 August 2023 Quarterly Activities Report December 2023, 22 January 2024</i>
West Cobar Metals	WC1	0 : 39 : 151	A\$ 5M	A\$ 2M	A\$ 3M	<i>Salazar Clay-REE Resource Quadruples, 9 August 2023 Quarterly Activities Report December 2023, 31 January 2024</i>
Krakatoa Resources	KTA	0 : 40 : 61	A\$ 5M	A\$ 2M	A\$ 3M	<i>KTA Delivers Maiden Rare Earth Mineral Resource, 21 November 2022 Quarterly Activities Report December 2023, 30 January 2024</i>
Australian Rare Earths	AR3	1 : 98 : 88	A\$ 17M	A\$ 10M	A\$ 7M	<i>84% increase in Resource confirms Koppamurra as a world-scale ionic clay-hosted rare earths province, 19 September 2023 Quarterly Activities Report December 2023, 24 January 2024</i>
Meeka Metals	MEK	0 : 0 : 98	A\$ 48M	A\$ 5M	A\$ 43M	<i>High-Grade Rare Earth MRE at Circle Valley, 14 June 2023 Quarterly Activities Report December 2023, 31 January 2024</i>
ABX Group	ABX	0 : 45 : 7	A\$ 17M	A\$ 6M	A\$ 11M	<i>ABx Rare Earth Resources Exceed 50 Million Tonnes, 20 November 2023 Quarterly Activities Report December 2023, 31 January 2024</i>
Heavy Rare Earths	HRE	0 : 0 : 159	A\$ 3M	A\$ 2M	A\$ 1M	<i>Five fold increase in Mineral Resources to 159Mt @ 870ppm TREO at Cowalinya project in WA, 3 October 2023 Quarterly Activities Report December 2023, 25 January 2024</i>
Viridis Mining and Metals	VMM	N/A	A\$ 65M	A\$ 2M	A\$ 63M	<i>Quarterly Activities Report December 2023, 31 January 2024</i>
Brazilian Rare Earths	N/A	0 : 0 : 485	A\$ 567M	A\$ 49M	A\$ 518M	<i>AFR Reports and IPO presentation: expected to list late December 2023 Quarterly Activities Report December 2023, 29 January 2024. Corporate Presentation December 2024.</i>

Peer metallurgy results reference details

Company	ASX code	Time	Recovery (high)	Recovery (Average)	Reference
OD6 Metals	OD6	6 hours	90%	62%	<i>Excellent Metallurgical Recoveries Continue at Splinter Rocks, 27 February 2024</i>
Meteoritic Resources	MEI	0.5 hours	95%	62%	<i>First Mixed Rare Earth Carbonate (MREC) Produced for Caldeira REE Project, 29 February 2024</i>
Viridis Mining and Metals	VMM	N/A	46%	40%	<i>Initial Metallurgical work confirms Colossus as a true Iconic Adsorption Clay Project, 29 August 2023</i>
Aclara	N/A	0.5 hours	N/A	24%	<i>Amended and Restated NI 43-101 Technical Report, 15 September 2021</i>
Heavy Rare Earths	HRE		88%	71%	<i>Metallurgical Work Expands Area for Potential Development, 12 March 2024</i>

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