

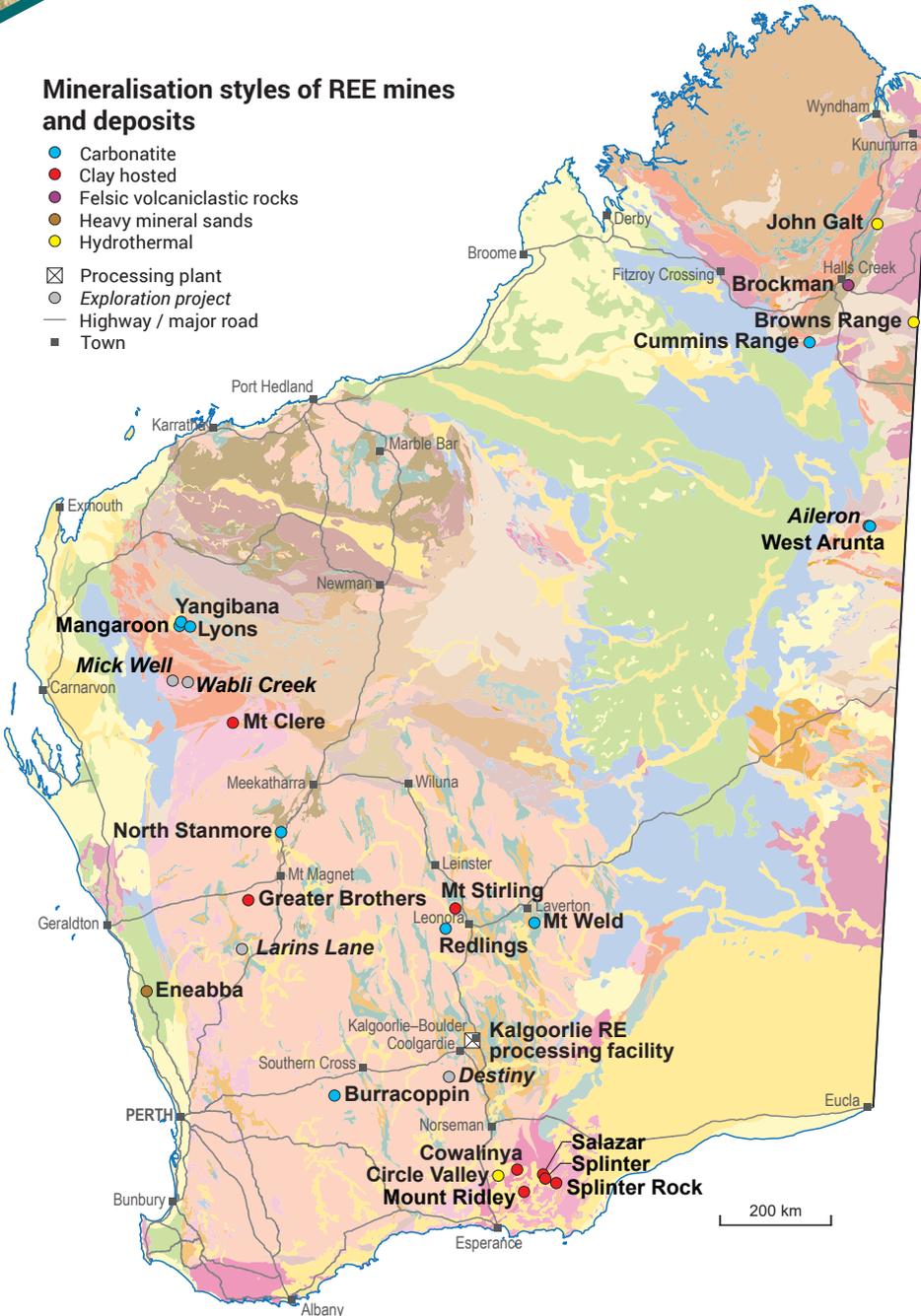
RARE EARTH ELEMENTS

INVESTMENT OPPORTUNITIES

WORLD-CLASS RESOURCE PROVINCE | SECURE INVESTMENT LOCATION
WORLD-LEADING GEOSCIENTIFIC DATA | GLOBAL MINING SERVICES INDUSTRY

Mineralisation styles of REE mines and deposits

- Carbonatite
- Clay hosted
- Felsic volcanoclastic rocks
- Heavy mineral sands
- Hydrothermal
- ⊠ Processing plant
- Exploration project
- Highway / major road
- Town



Western Australia is expanding its role in supplying rare earth oxides to the world

Mining and processing activities

- The Lynas Rare Earths processing facility in Kalgoorlie was officially opened by the Minister for Resources, Hon Madeleine King MP, in November 2024
- In December 2024, Iluka Resources received additional funding from the Federal Government to support the delivery of the Eneabba Rare Earths Refinery. Northern Minerals will supply xenotime concentrate from the Browns Range Project, containing dysprosium and terbium, to Iluka's refinery
- Northern Minerals are updating a Definitive Feasibility Study for Browns Range in line with first xenotime concentrate production in late 2027

Resources

- Updated Mineral Resource Estimates were released for Mt Weld (Lynas Rare Earths), Cummins Range (RareX), Splinter Rock (OD6 Metals), Salazar (West Cobar Metals) and North Stanmore (Victory Metals) Projects
- Maiden Resource Estimates were released for the Mount Ridley (Mount Ridley Mines) and Mt Stirling (Asra Minerals) Projects

Exploration

- Cummins Range remains the largest undeveloped rare earths project and the second largest rare earths deposit in Australia. The project is on target to become a significant potential source for neodymium-praseodymium magnets and a potential supplier to the lithium iron phosphate (LFP) battery market
- Several discoveries include Jupiter Satellite at the Greater Brothers Project (Critica Minerals), and Mick Well Project (Kingfisher Mining). Drilling at Mick Well was co-funded by the Western Australian Government's Exploration Incentive Scheme drilling program
- High-grade results have been noted at the Greater Brothers, Aileron (Encounter Resources), Destiny (St George Mining), Redlings (Marquee Resources), Larins Lane (Terrain Minerals), Wabli Creek (Reach Resources), Salazar (West Cobar Metals), Yangibana (Hastings Technology Metals) and North Stanmore (Victory Metals) Projects

27 652 t
Tonnes sold



834
Full-time employees



\$4117 m[†]
Investment projects



4th
Production world ranking



2.5%
Royalty rate



(2023–24 financial year)

† Includes projects planned, possible, committed or under construction as of September 2024



Department of Energy, Mines,
Industry Regulation and Safety

demis.wa.gov.au

Geological Survey of
Western Australia



REE projects ranked by contained Total Rare Earth Oxides (TREO)

Mineral Resource Estimates reported in accordance with JORC (2012) unless otherwise stated

Project	Status	Owner	Resources (Mt)	Av. grade (% TREO)	Contained TREO (kt)	Resource date	Rare Earth Elements
Mt Weld	Operating	Lynas Rare Earths	109.60	4.28	4 525	30/06/2024	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Cummins Range	Scoping	RareX	524.30	0.31	1 638	25/01/2025	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Cowalinya	Exploration	Heavy Rare Earths	159.00	0.87	1 383	03/10/2023	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Mt Clere	Exploration	Krakatoa Resources	101.00	0.84	849	21/11/2022	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Splinter Rock	Exploration	OD6 Metals	681.00	0.13	911	19/04/2024	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Mangaroon	Exploration	Dreadnought Resources	40.82	1.03	421	30/11/2023	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Yangibana	Feasibility	Hastings Technology Metals	29.93	0.93	277	30/01/2023	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Salazar	Exploration	West Cobar Metals	230.00	0.12	271	08/10/2024	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Mount Ridley	Exploration	Mount Ridley Mines	168.00	0.12	202	22/05/2024	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
North Stanmore	Exploration	Victory Metals	235.15	0.05	122	16/07/2024	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Circle Valley	Exploration	Terrain Minerals / Meeka Metals	98.00	0.09	87	14/06/2023	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Brockman	Scoping	Hastings Technology Metals	41.60	0.20	83	30/09/2021	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Browns Range	Feasibility	Northern Minerals	10.84	0.75	82	01/06/2023	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Burracoppin^	Exploration	Ragusa Minerals	35.71	0.14	48	01/06/2023	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Splinter	Exploration	Splinter REE Resources	22.90	0.11	25	09/01/2015	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Redlings	Exploration	Marquee Resources	11.00	0.11	12	22/01/2025	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Mt Stirling	Exploration	Asra Minerals	15.00	0.05	7	16/04/2024	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y
Lyons	Exploration	Lanthanein Resources	0.99	0.33	3	25/10/2023	La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y

Resource estimates have been rounded

^ Contains a high-grade kaolin/hallysite resource also

Spatial and resource estimate data sourced from WA Mines and Mineral Deposit database (MINEDEX)

Regolith and/or carbonate host rock

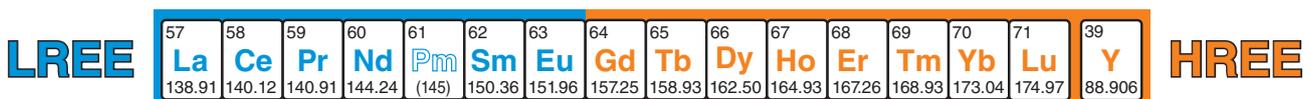
Trachytic tuff host rock

Ironstone host rock

Ion-adsorption clay (IAC) host rock

Hydrothermal host rock

Classification of REE



Note: all promethium (Pm) isotopes are radioactive. Therefore, promethium cannot be recovered from mineralised ore

La	Lanthanum	Ce	Cerium	Pr	Praseodymium	Nd	Neodymium
Pm	Promethium	Sm	Samarium	Eu	Europium	Gd	Gadolinium
Tb	Terbium	Dy	Dysprosium	Ho	Holmium	Er	Erbium
Tm	Thulium	Yb	Ytterbium	Lu	Lutetium	Y	Yttrium

REE prospectivity of Western Australia

Western Australia has great exploration potential for REE in:

- carbonatite and alkaline to peralkaline ring complexes
- felsic volcanoclastic rocks
- hydrothermal systems
- heavy mineral sands
- sandstone- and lignite-hosted uranium-REE

Currently REE are used across the technology, automobile and renewable sectors in:

- batteries in electric and hybrid cars
- smart phones and computers
- magnets
- pigments and chemical catalysts

For more information

MINEDEX is a spatial and textual database of mining and exploration activity

MINEDEX www.demirs.wa.gov.au/minedex

GeoVIEW.WA is a free GIS-based spatial viewer

GeoVIEW.WA www.demirs.wa.gov.au/geoview

Contact us

Mineral Investment Specialist
Geological Survey and Resource Strategy Division
Email: minerals.investors@demirs.wa.gov.au
Tel: +61 8 9222 3890

The DEMIRS MINEDEX, Statistics, and Titles and Geoscience Services teams have contributed to the production of this flyer



Department of Energy, Mines,
Industry Regulation and Safety

January 2025

Geological Survey of
Western Australia

