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# Gascoyne Rare Earths Project Airborne Magnetic-Radiometric Survey Data Processing and Review Underway

# Highlights:

- 5,189 line-kilometre airborne magnetic—radiometric survey was completed in late 2021 at the Gascoyne REE Project covering 230km²
- The survey was flown over the recently discovered outcropping REE ironstone and seeks to identify further prospective ironstones outcropping or under shallow cover
- Southern Geoscience Consultants (SGC) currently processing and reviewing the geophysical data to assist with planning of exploration programs for 2022
- Final report by SGC expected to be completed late January with a focus on priority anomalies and drill target ranking
- Tenements granted December 2021 clearing the way for Program of Works (PoW) to be submitted for maiden drill program Q2, 2022

**Frontier Resources Ltd** (ASX: FNT) (**Frontier** or the **Company**) is pleased to announce the data processing and review of a significant airborne magnetic-radiometric survey over two granted exploration licences in the Gascoyne Region of Western Australia that are considered to be prospective for REE's (**Gascoyne Project**) is expected to be completed by end of January.

The detailed survey was flown with 50m line spacing at a low altitude with sensor height of 30m, a significant improvement on the existing public data flown at 500m line spacing in the 1990's. The survey data is expected to highlight additional REE anomalies and to allow for mapping under shallow cover to trace any ironstones that may be present. This survey data will assist in designing drill programs to commence in the March 2022 quarter.

Mr Brian Thomas, Non-Executive Director commented "We are excited to be receiving the final data review from SGC in the next few weeks to see what targets may show up from the recently flown magnetic-radiometric survey. The same geophysical survey method proved highly successful for our neighbouring tenement holder Dreadnought, who were able to identify multiple potential REE bearing carbonatite intrusives as a result, and given our tenure shares the same geology as

both Dreadnought and Hastings world class Yangibana mine next door, I'm hopeful we will identify multiple targets as well. I look forward to progressing the Company's exciting rare earth projects in the Gascoyne and South Australia, exploring for critical metals that can help the world reach targets of being net zero carbon by 2050."

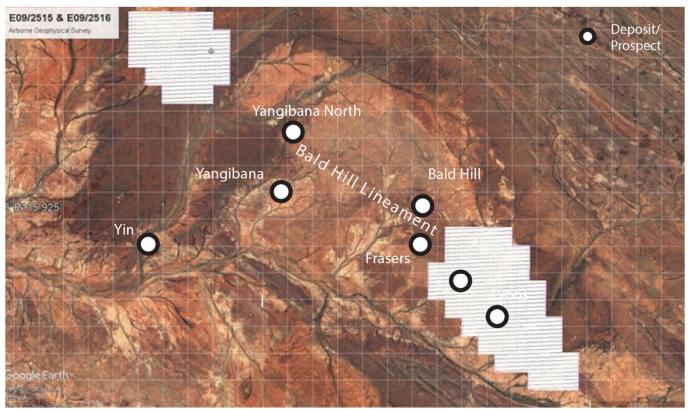


Figure 1. Magnetic-Radiometric Geophysical survey area, with planned 50m flight line spacing with a sensor height of 30m.



Figure 2. MAGSPEC survey airplane Cessna 206.

# Gascoyne Rare Earth Element Project – Background

The Gascoyne REE Project adjoins the world-class Yangibana Deposit (ASX.HAS ~A\$460 million market capitalisation) in the Gascoyne Region of Western Australia, set to be the next REE producer outside of China by 2023. The project area is also proximal to recent discoveries made by Dreadnought Resources at their Mangaroon Project located ~15kms southwest of the Yangibana REE Resource¹ (ASX.DRE ~A\$110 million market capitalisation).

The REE-bearing Yangibana ironstones within the Durlacher Supersuite lithology were first targeted

by prospectors in 1972 as base metal bearing gossans however, the REE potential of the ironstones wasn't assessed until 1985 and remained underexplored until Hastings Technology Metals (ASX.HAS) acquired the project in 2011. Hastings has since delineated a world-class JORC 2012 Mineral Resource<sup>1</sup> of 27.42Mt @ 0.97% TREO with 0.33%  $Nd_2O_3+Pr_6O_{11}$  and a ratio of 52% Nd Pr:TREO making it one of the highest value REE projects for ore value per kg (HAS Resource estimate comprises 4.9Mt @1.01% TREO in the Measured category, 16.24Mt @0.95% TREO Indicated and 6.27Mt @0.99% TREO Inferred).

Despite the region's prospectivity for REE's, very limited exploration has been undertaken at the Gascoyne Project, in part due to shallow alluvial cover which has led to the area being overlooked. The southeastern Lyons tenement E09/2515 does have some areas of outcrop at the historic Tabletop Well<sup>2</sup> copper prospect and where the recent ironstone outcrop was discovered.

With the use of modern exploration techniques and a renewed focus on REE's there is an exciting opportunity for the discovery of economic REE mineralisation. A detailed airborne magnetic-radiometric survey consisting of 5,189 line kilometres over the entire tenement area is now completed. The data gathered from this survey will assist with target definition within the prospective Durlacher Supersuite across the entire project area.

Access into the project area is good with a combination of well-maintained gazetted and station roads located on Edmund, Gifford Creek and Wanna Pastoral Leases which will greatly assist exploration work programs.

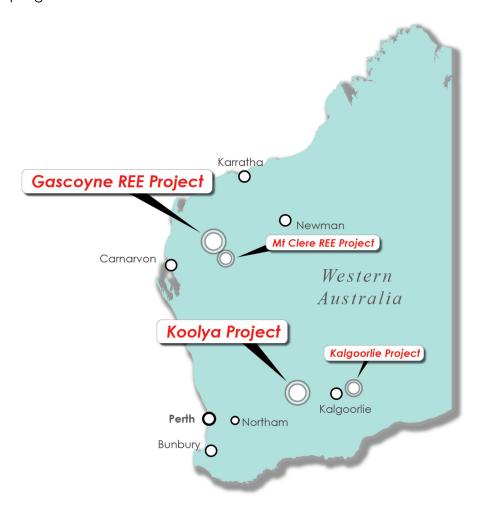


Figure 3. Location Map of the Gascoyne REE and Koolya Projects in Western Australia.

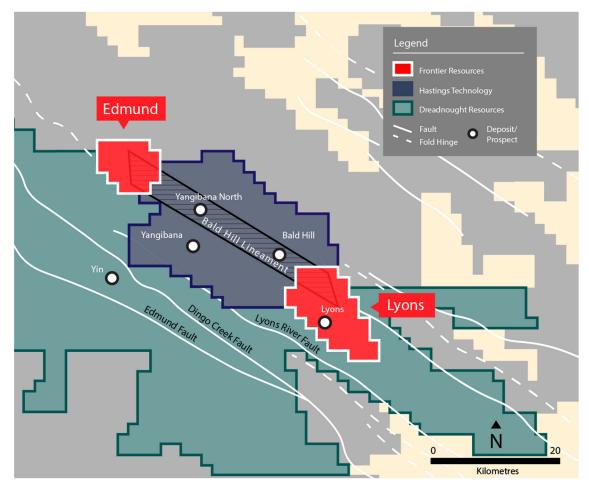


Figure 4. Location Map of the Edmund and Lyons tenements which make up the Gascoyne Project in Western Australia.

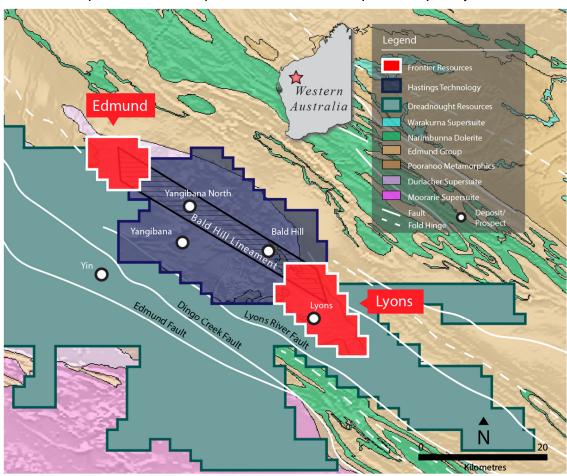


Figure 5. Geology and Tenement Map of the Gascoyne and Koolya Projects in Western Australia.

## **Future Work**

Frontier will undertake further sampling at the mineralised ironstone with the aim of finding higher grade along the strike of the outcrop. Further heli-supported field reconnaissance and sampling programs across the areas not yet covered as soon as possible to validate the potential of rare earth elements mineralisation within the Gascoyne and Mt Clere project areas. Follow up exploration will depend on the results of these initial work programs and interpretation of the recently flown magnetic-radiometric data, prior to drilling programs being undertaken in Q2, 2022.

This announcement has been authorised for release by the Directors of the Company.

For additional information please visit our website at <u>www.frontierresources.net.au</u>

# Alec Pismiris Non-Executive Chairman

# FRONTIER RESOURCES LTD

The information referred to in this announcement relates to the following sources:

<sup>1</sup> ASX.HAS: 5 May 2021 "Yangibana Project updated Measured and Indicated Resource tonnes up by 54%" b07ebf9d-03c.pdf (investi.com.au)

### Frontier Resources Ltd Exploration Licence Information (Papua New Guinea)

<b>Exploration Licence</b>			Area		
Number and Name	Ownership	Sub-blocks	(sq.km)*	<b>Grant Date</b>	Expiry Date
EL2531 - Tolukuma	100% Frontier Copper PNG Ltd	65	223.00	25-Feb-19	24-Feb-21
ELA2529 - Gazelle	100% Frontier Copper PNG Ltd	211	719.51	N/A	N/A
	Total of Granted EL's	65	223.00		_

<sup>\*1</sup> sub-block approximately 3.41 sq.km

Notes: The PNG Mining Act-1992 stipulates that EL's are granted for a renewable 2 year term (subject to satisfying work and expenditure commitments) and the PNG Government maintains the right to purchase up to 30% project equity at "Sunk Cost" if/when a Mining Lease is granted.

Licence EL2531 is currently subject to an extension renewal process.

# Frontier Resources Ltd Tenement Information (Australia)

Tenement			Area	Application	
<b>Number and Name</b>	Ownership	Sub-blocks	(sq.km)	/Grant Date	<b>Expiry Date</b>
E 09/2515 - Gascoyne (WA)	100% Dalkeith Capital Pty Ltd	47	147.02	17-Dec-21	16-Dec-26
E 09/2516 - Gascoyne (WA)	100% Dalkeith Capital Pty Ltd	25	78.35	17-Dec-21	16-Dec-26
E 77/2796 - Koolya (WA)	100% Dalkeith Capital Pty Ltd	47	138.78	05-Nov-21	04-Nov-26
E 77/2797 - Koolya (WA)	100% Dalkeith Capital Pty Ltd	28	82.68	05-Nov-21	04-Nov-26
E 27/648 - Kalgoorlie (WA)	100% Dalkeith Capital Pty Ltd	5	14.76	10-Jun-21	
E 52/4012 - Mt Clere (WA)	100% Dalkeith Capital Pty Ltd	191	591.63	09-Nov-21	
ELA2021/00058 -	100% Southern Rare Earths Pty Ltd	78	876.00	14-May-21	
Murraydium (SA)					
	Total of Granted Tenements	421	1929.22		

<sup>&</sup>lt;sup>2</sup> Minedex Site; Tabletop Well (S0023828), 16km ENE of Gifford Creek Hmsd