



QUARTERLY REPORT

Quarter ending 31 December 2021

ISSUED CAPITAL

56,310,100 shares on issue

52WK SHARE PRICE RANGE

\$0.17 – \$0.56

MARKET CAPITALISATION

\$11.3 million (@ \$0.20)

BOARD

Allan Kelly

Executive Chairman

Marion Bush

Technical Director

Terry Gadenne

Non-Executive Director

PROJECTS

Eastern Goldfields Projects

Gidji JV (80%)

Glandore

Randalls

Murchison Projects

Lang Well

Lakeside

Capricorn Orogen

Whaleshark

Bangemall (Ni-Cu-PGE)

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Highlights

- › **Aircore drilling at Gidji JV extends and upgrades Marylebone with multiple +1g/t Au results – resplits upgrade initial results**
- › **New 1km long “Blackfriars” target identified parallel to Marylebone with multiple +1g/t Au results**
- › **10,000m infill and extensional aircore programme completed with assays pending at end of Quarter**
- › **Maiden aircore drilling at Glandore outlines very large gold footprint under Lake Yindarlgooda**
- › **Infill MMI soil sampling at Whaleshark outlines two large Cu-U-REE anomalies potentially indicative of IOCG mineralisation**
- › **Additional tenement application submitted at Dooley Downs target (Bangemall Ni-Cu-PGE Project)**
- › **\$3.1M cash and investments at end of Quarter**

Miramar Resources Limited (ASX:M2R, Miramar or “the Company”) is pleased to provide a summary of activities completed during the Quarter ending 31 December 2021.

Miramar’s Executive Chairman, Mr Allan Kelly, said the Quarter had been another very busy one for the Company with exploration activities again conducted across 4 separate projects in the Eastern Goldfields and Gascoyne regions of WA.

“The latest aircore results received from Gidji have continued to upgrade the Marylebone target with drilling now consistently returning +1g/t Au assays across multiple sections,” Mr Kelly said.

“We have also identified a large new target at Blackfriars, parallel to Marylebone, with multiple +1g/t Au results,” he added.

“In addition, the results from the first drilling campaign at Glandore has outlined a very large gold footprint which appears to link up the historic high-grade diamond drilling results at Glandore East with our new aircore hits on land” he said.

“Infill MMI soil sampling at Whaleshark outlined at least two large IOCG targets that we look forward to drill testing in 2022,” Mr Kelly said.



EXPLORATION

EASTERN GOLDFIELDS PROJECTS

Miramar has three projects in the Eastern Goldfields with the potential for new gold discoveries within proximity to existing mining and/or processing operations (Figure 1):

- **Gidji JV (80%)** – strategic land position within the Boorara Shear Zone, 15km north of Kalgoorlie
- **Glandore** – underexplored project with high-grade drill results 40km east of Kalgoorlie
- **Randalls** – Folded BIF adjacent to Silver Lake Resources' Mt Belches gold operations

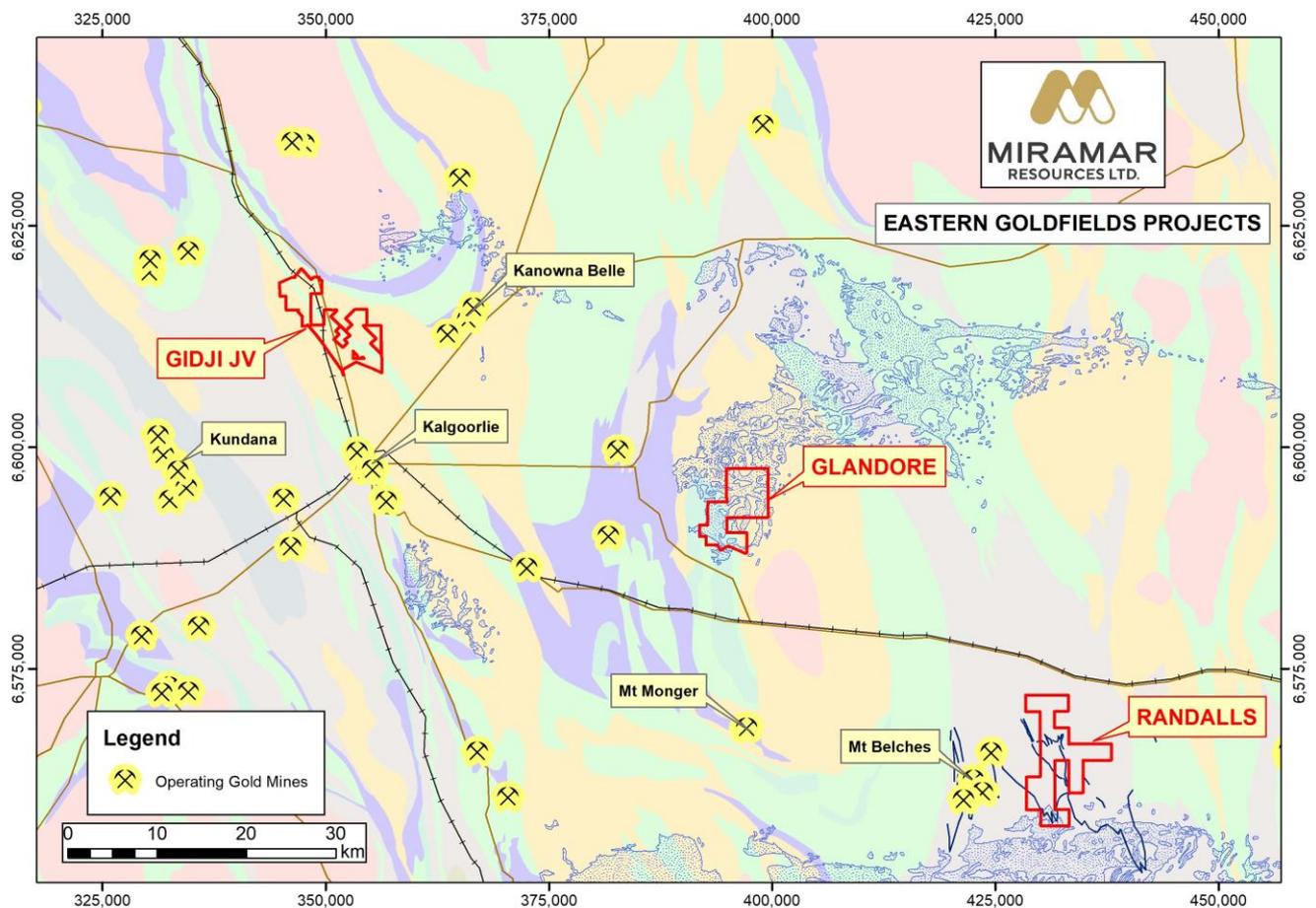


Figure 1. Eastern Goldfields Projects showing proximity to existing gold operations.



Gidji JV (Miramar 80%)

The Gidji JV Project is located within a major regional structure, the “Boorara Shear Zone”, approximately 15km north of Kalgoorlie. The Project had been underexplored previously despite proximity to numerous significant gold deposits and processing plants.

The Company has been actively exploring the Gidji JV Project since soon after listing on the ASX in October 2020, resulting in the identification of several new targets which could host a significant gold discovery.

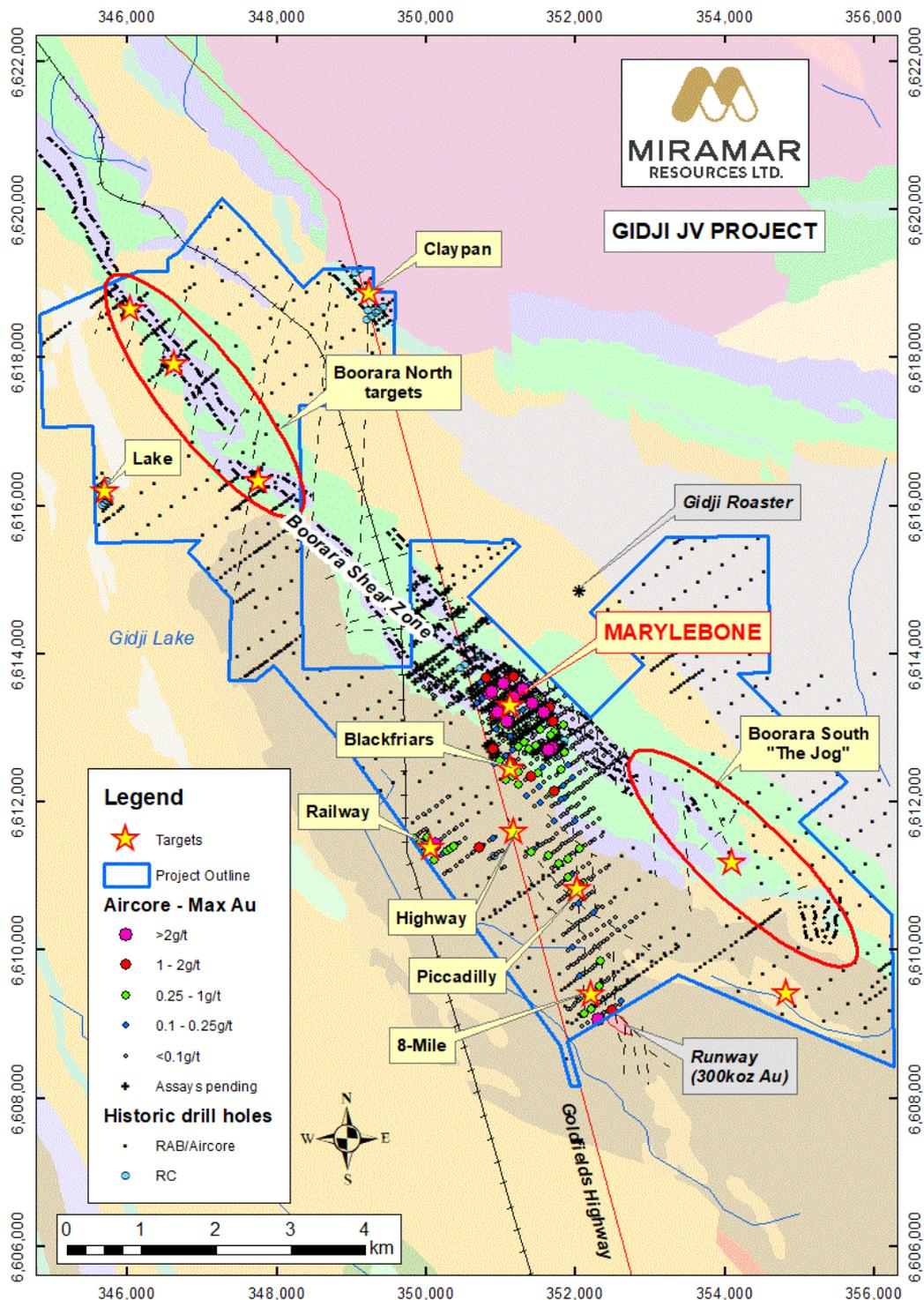
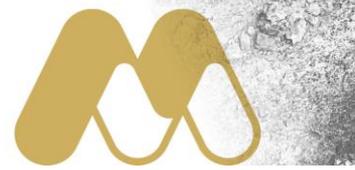


Figure 2. Gidji JV Project showing regional geology, drilling and targets.



The highest priority Marylebone target consists of parallel zones of aircore anomalism $>1\text{g/t Au}$ in weathered basement beneath approximately 40m of transported cover (Figure 3).

The geology, structure and scale of Marylebone is similar to the 4 million ounce Paddington deposit along strike 10km to the northwest.

During the Quarter, the Company:

- received results from Phase 3 and 4 aircore drilling testing Marylebone and other targets
- received results for resplits of significant results
- extended the ground magnetic survey over Marylebone and
- completed a further 10,000m aircore programme of infill and extensional drilling at Marylebone and Blackfriars.

Aircore drilling

The newest results also outlined a new zone of gold anomalism $>0.25\text{g/t Au}$, west of Marylebone, which is at least 1km long and with 6m @ 1.23g/t Au in GJAC426 at its northern end.

This new target, now known as “Blackfriars”, remains open to the northwest.

Within Marylebone itself, holes **GJAC428 (1m @ 2.63g/t Au)** and **GJAC429 (5m @ 1.21g/t Au)** were drilled either side of holes GJAC308 and GJAC309, that did not reach basement. In both cases the new holes intersected high-grade gold in weathered basement directly beneath the unconformity with the transported material.

The easterly zone now stretches for over 1km and contains multiple results over 1g/t Au with several associated with elevated Ag indicating proximity to a potential primary bedrock gold source.

Resplits of significant samples upgraded the Marylebone and Blackfriars targets, which remain open along strike to the northwest on the recently granted tenements.

Late in the Quarter, the Company completed a substantial 10,000m programme of infill and extensional drilling at Marylebone and Blackfriars. Results were awaited at the end of the Quarter.

The Company plans to complete a programme of RC holes at Marylebone in the first quarter of 2022.

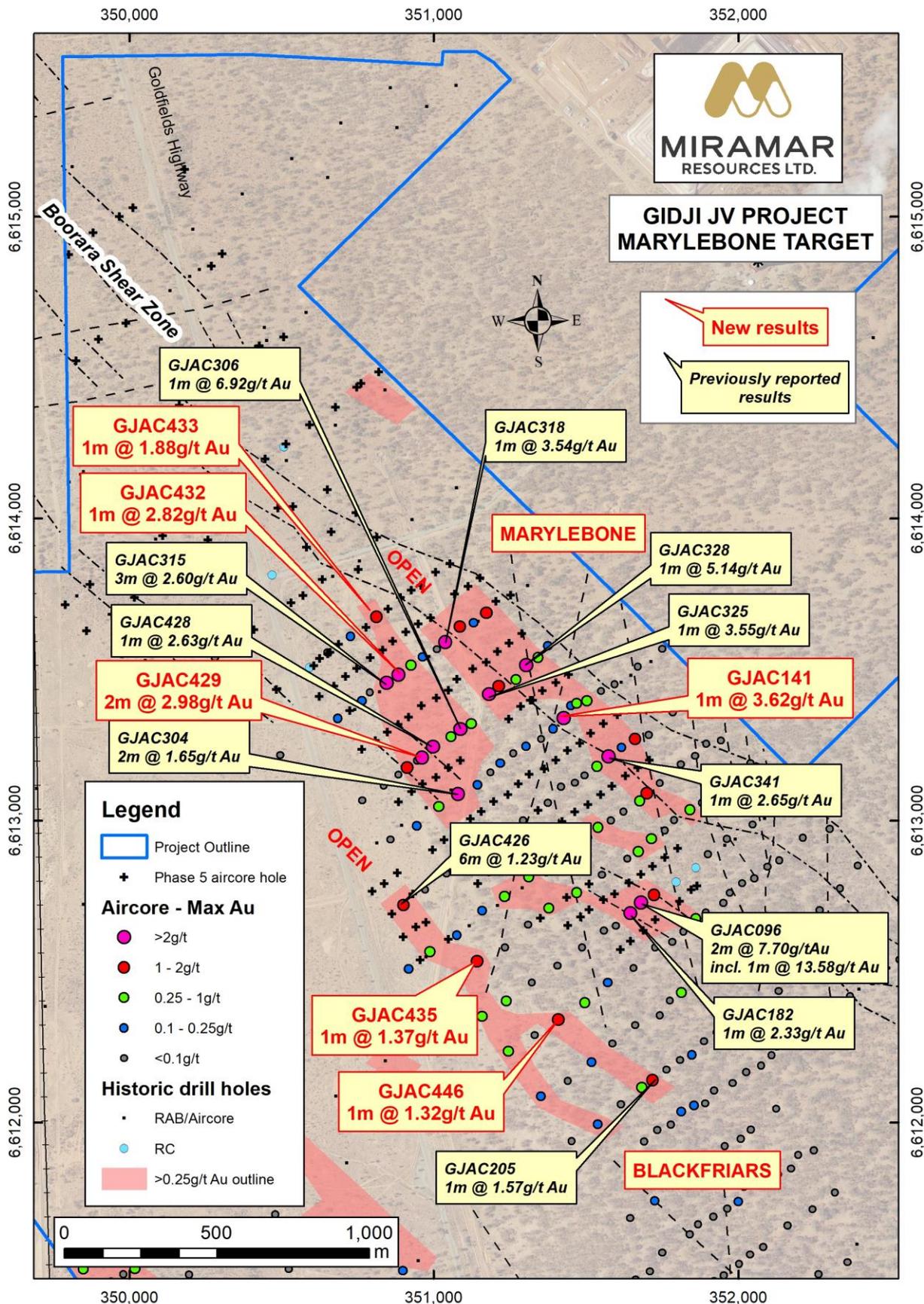


Figure 3. Marylebone and Blackfriars targets showing all drilling to date.



Ground Magnetic Survey

The Company commissioned an extension to the previous detailed ground magnetic survey over Marylebone, including on recently granted tenements to the northwest and southeast (Figure 4).

The new data highlighted and helped refine the basement geology and structures within the Boorara Shear Zone to the northwest of the Marylebone target.

The survey also covered an area of subdued magnetics to the southeast of Marylebone, over “The Jog” target, and highlighted a feature currently interpreted to represent a shallow channel filled with maghemite.

Further ground magnetic surveys will be conducted over the northern part of the Gidji JV Project focussing on the 4km long underexplored northern segment of the Boorara Shear Zone under Gidji Lake.

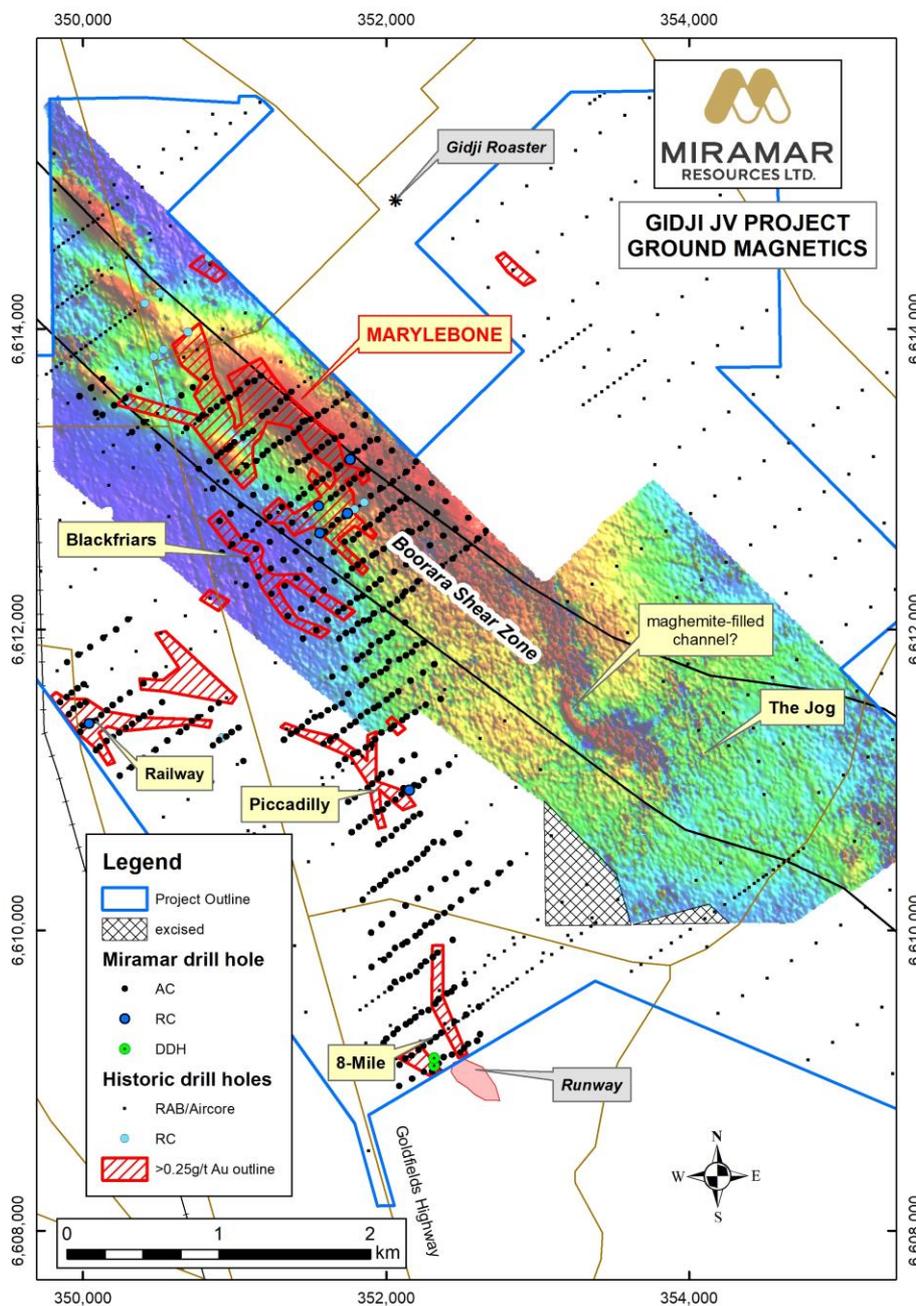


Figure 4. Southern half of Gidji JV project showing newly acquired ground magnetic data.



Glandore (Miramar 100%)

The Glandore Project is located within the Eastern Goldfields, approximately 40km east of Kalgoorlie, Western Australia and covers approximately 42 square km. The Project consists of 10 Prospecting Licences and one Exploration Licence, all of which are granted.

The highest priority southwestern part of the project is underlain by a layered mafic sill which has been intruded by a later granodiorite pluton, like that seen at the Majestic and Trojan deposits to the south and southeast respectively.

The prospective geology is overlain by up to 50m of recent playa lake sediments which thin towards the west. Exploration has been mostly limited to the western part of the project, within the Prospecting Licences, and has been sporadic since the late 1980's.

Historic aircore drilling outlined a large area of gold anomalism on the eastern side of the late granodiorite pluton whilst subsequent diamond drilling returned significant results including **6m @ 29.8/t Au**.

Lake aircore drilling

During the Quarter, the Company received all results from the first land and lake aircore drilling campaign at Glandore since listing.

The recent drilling targeted the southern and western margins of an interpreted granodiorite pluton which intrudes into a layered mafic sill and outlined coherent shallow supergene gold anomalism over almost 5km of strike and across multiple targets (Figure 5).

High-grade gold mineralisation up to **6m @ 29g/t Au** has previously been intersected in shallow diamond drilling on the eastern side of the granodiorite at the "Glandore East" target.

The recent drilling by Miramar has extended the Glandore East footprint to the south by at least 1 kilometre whilst multiple holes across the project returned and/or ended in results >0.25g/t Au including **GDAC037** which intersected **6m @ 0.62g/t Au** from 12m and ended in **2m @ 1.04g/t Au**.

GDAC061 intersected **4m @ 0.46g/t Au** and **4m @ 0.61g/t Au** and is approximately 400m south of historical aircore holes which intersected **6m @ 1.33g/t Au** and **9m @ 1.10g/t (EOH)**.

The Glandore East footprint now extends for over 3km towards historic gold workings and remains open.

On line 6,589,700mN, consecutive holes ended in weathered granite with bottom of hole results >0.1g/t Au over a width of 350m, whilst several other target areas remain open in at least one direction.

Strongly anomalous Ag is also seen in several holes along interpreted NE-trending structures, indicating a likely relationship to bedrock gold mineralisation.

The recent lake drilling had identified a very substantial gold system at Glandore and increased the potential for the discovery of gold mineralisation including that like the nearby Majestic and Trojan deposits.

Gold mineralisation at Majestic and Trojan is also hosted in NE-striking structures within granitic intrusions, so our recent results indicate significant potential for a similar discovery at Glandore.

The Company is planning for diamond drilling of the Glandore East target and follow-up aircore drilling of other targets.

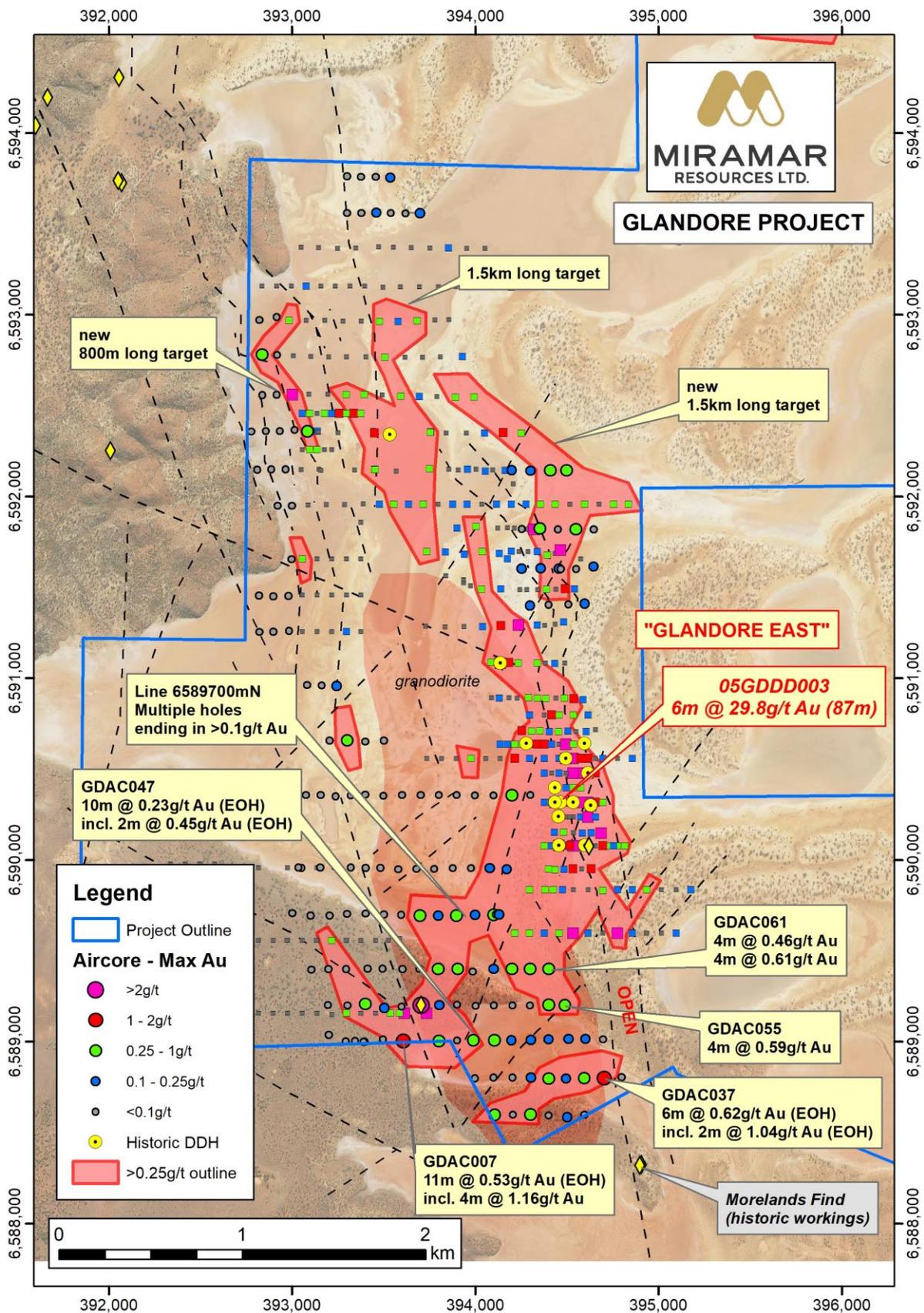
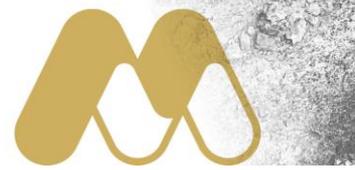


Figure 5. Glandore Project showing results of drilling to date



Randalls (Miramar 100%)

The Randalls project is located immediately east of Silver Lake Resources Limited's Maxwell's and Cockeyed Bob gold mines, approximately 70km east of Kalgoorlie (Figure 6).

The project consists of a single Exploration Licence (E25/596) and covers the same folded Banded Iron Formation and sediments that host the gold mineralisation currently being mined by Silver Lake.

The Company is currently planning for reconnaissance aircore drilling during the first half of 2022.

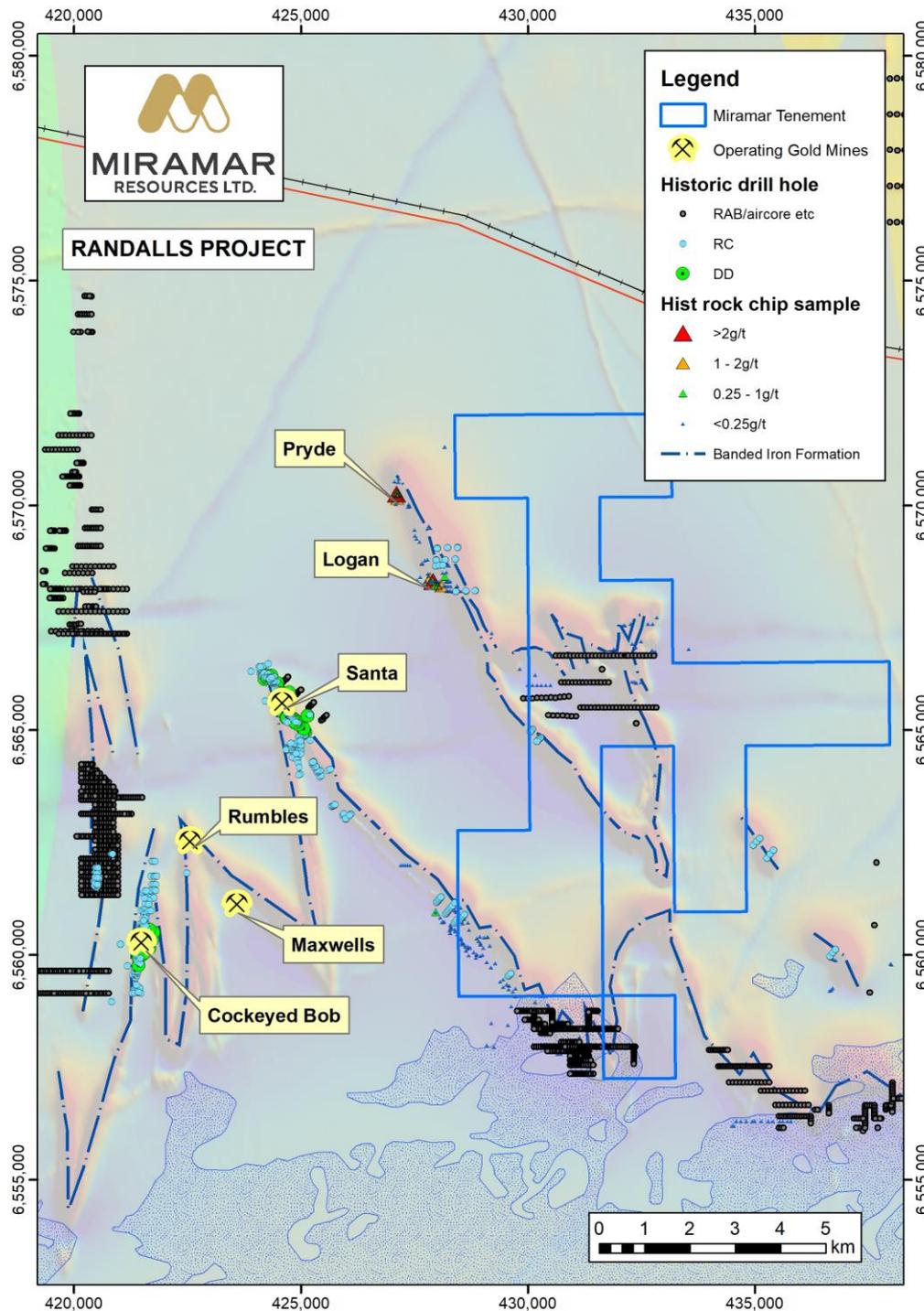
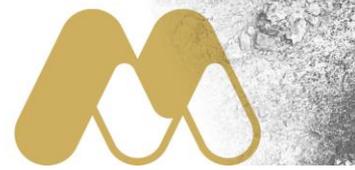


Figure 6. Randalls Project showing proximity to Silver Lake Resources gold operations.



MURCHISON REGION PROJECTS

Miramar has two exploration projects in the Murchison region within proximity of existing mining operations.

Lang Well (Miramar 100%)

The Lang Well Project consists of a single Exploration Licence covering a large, complexly folded remnant greenstone belt located between the Deflector, Golden Grove and Rothsay gold operations.

Historical rock chip sampling returned results from 0.10g/t up to 16g/t Au whilst subsequent auger drilling in 2010 identified several large +5km long gold +/-pathfinder anomalies which have not been drill tested.

The Company is planning for aircore drilling at Lang Well during 2022.

Lakeside (Miramar 100%)

No work was completed as the Company waits for this tenement to be granted.

GASCOYNE REGION PROJECTS

Miramar has two projects within the Proterozoic Capricorn Orogen, in the Gascoyne region of Western Australia (Figure 7):

- **Whaleshark** – folded BIF complex under Carnarvon Basin sediments
- **Bangemall** – multiple tenements over areas prospective for Ni-Cu-PGE (+/-REE) mineralisation

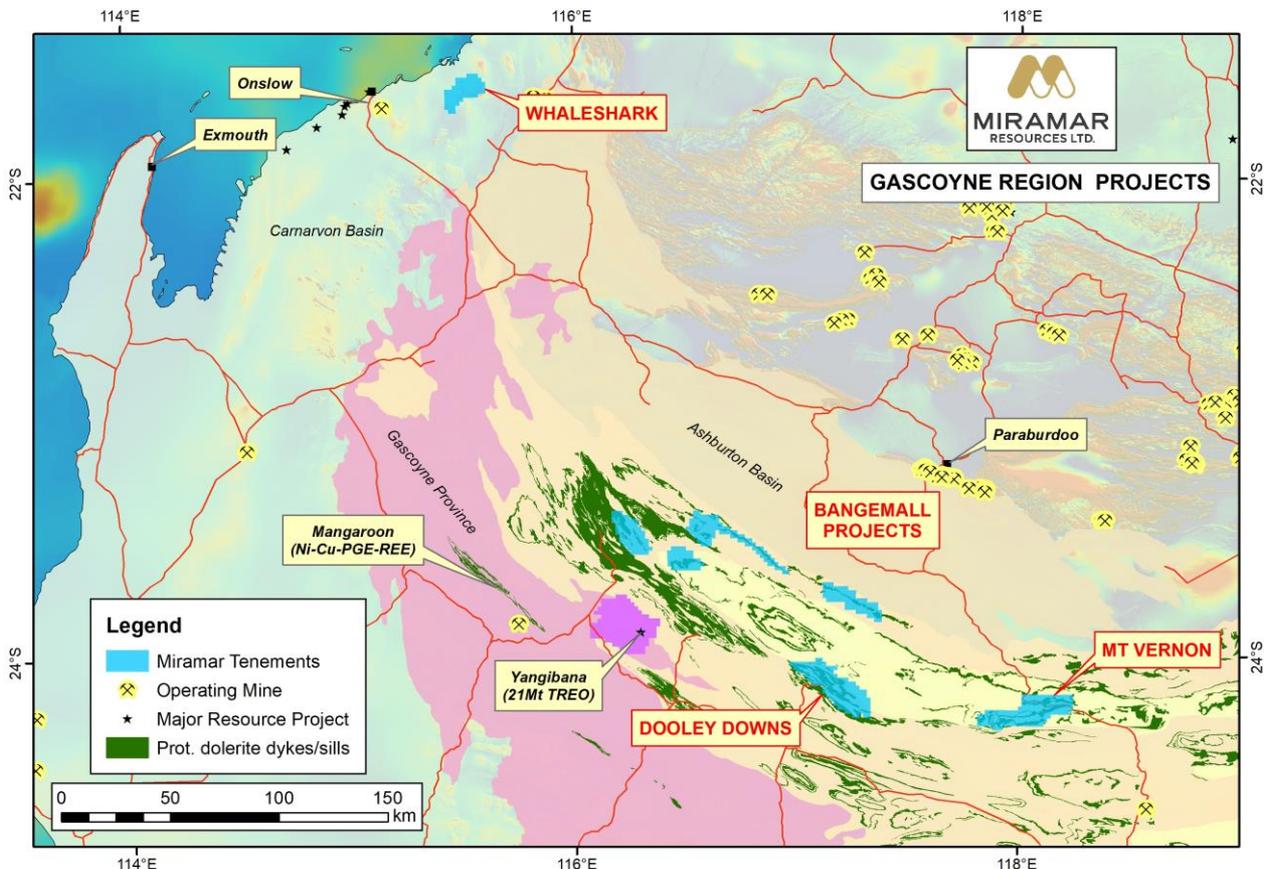
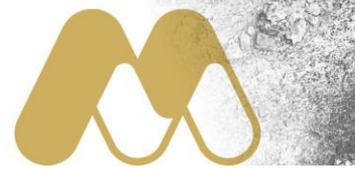


Figure 7. Location map for Miramar's Gascoyne region projects.



Whaleshark (Miramar 100%)

The Whaleshark project is located 40km east of Onslow and consists of a single Exploration Licence, E08/3166. The project is located within the north-western extension of the Proterozoic Capricorn Orogen and is characterised by a folded Banded Iron Formation (BIF) complex under 40 to 120m of Carnarvon Basin sediments.

The Project has potential for BIF-hosted Au and Iron Oxide Copper Gold (IOCG) mineralisation.

During the Quarter, the Company completed a second programme of surface geochemical sampling using the Mobile Metal Ion (MMI) technique. The 250m x 250m sampling infilled two areas identified by the first pass survey (Figure 8).

The data from the infill sampling survey showed two large areas of anomalous Cu, Ag, Pb, Zn and REE's, which appear indicative of buried IOCG mineralisation (Figure 9).

Importantly, the scale, tenor and element association of the MMI anomalism is apparently similar to that seen over the 3Moz Havieron deposit.

The next step in exploration will be to re-examine historical gravity data and plan further surveys as required.

Given the shallow cover (40-120m) over the basement geology in the vicinity of the two MMI anomalies, the Company is considering completing a programme of interface aircore drilling in mid-2022.

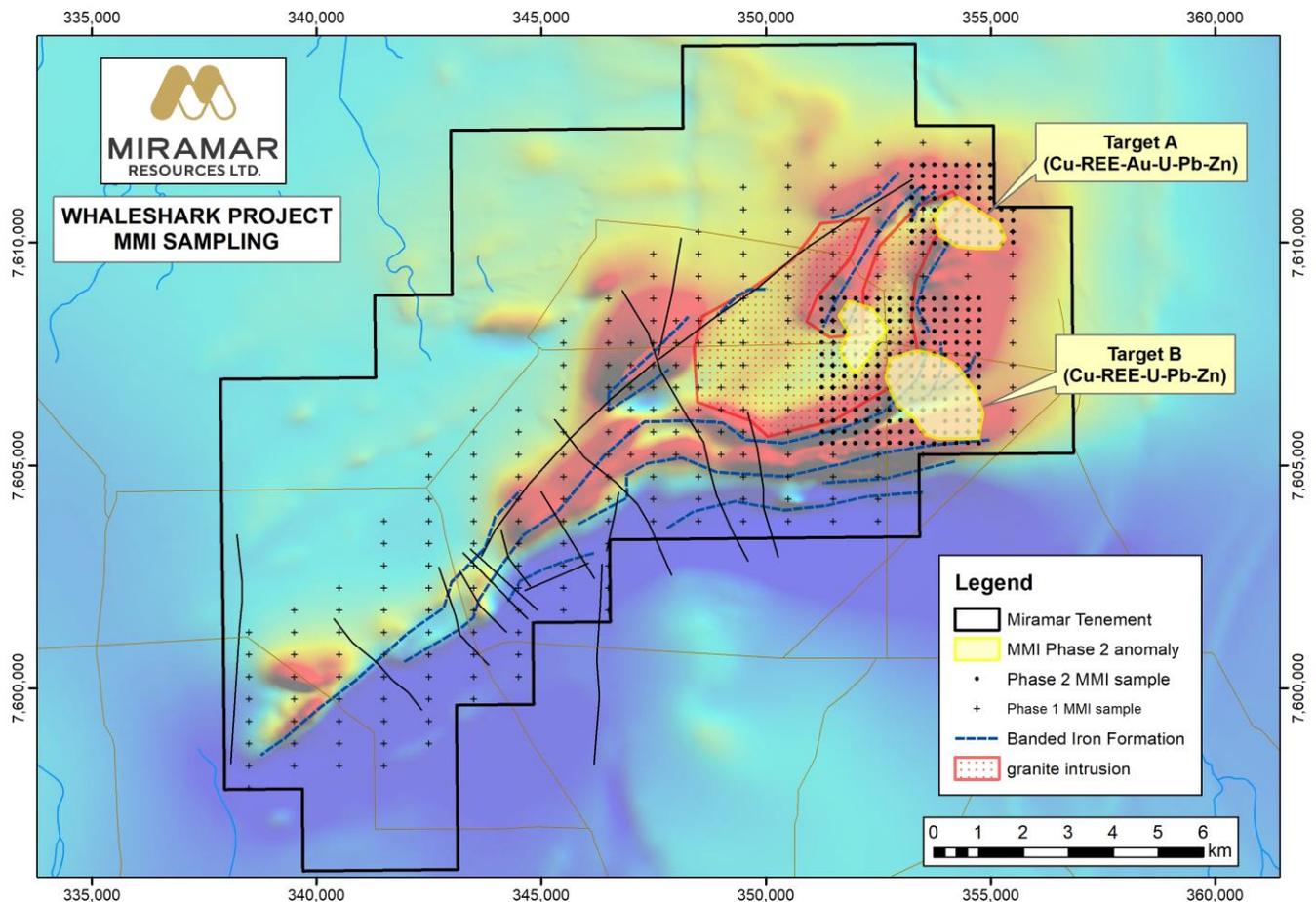


Figure 8. Whaleshark Project showing summary of MMI anomalism over magnetic image.

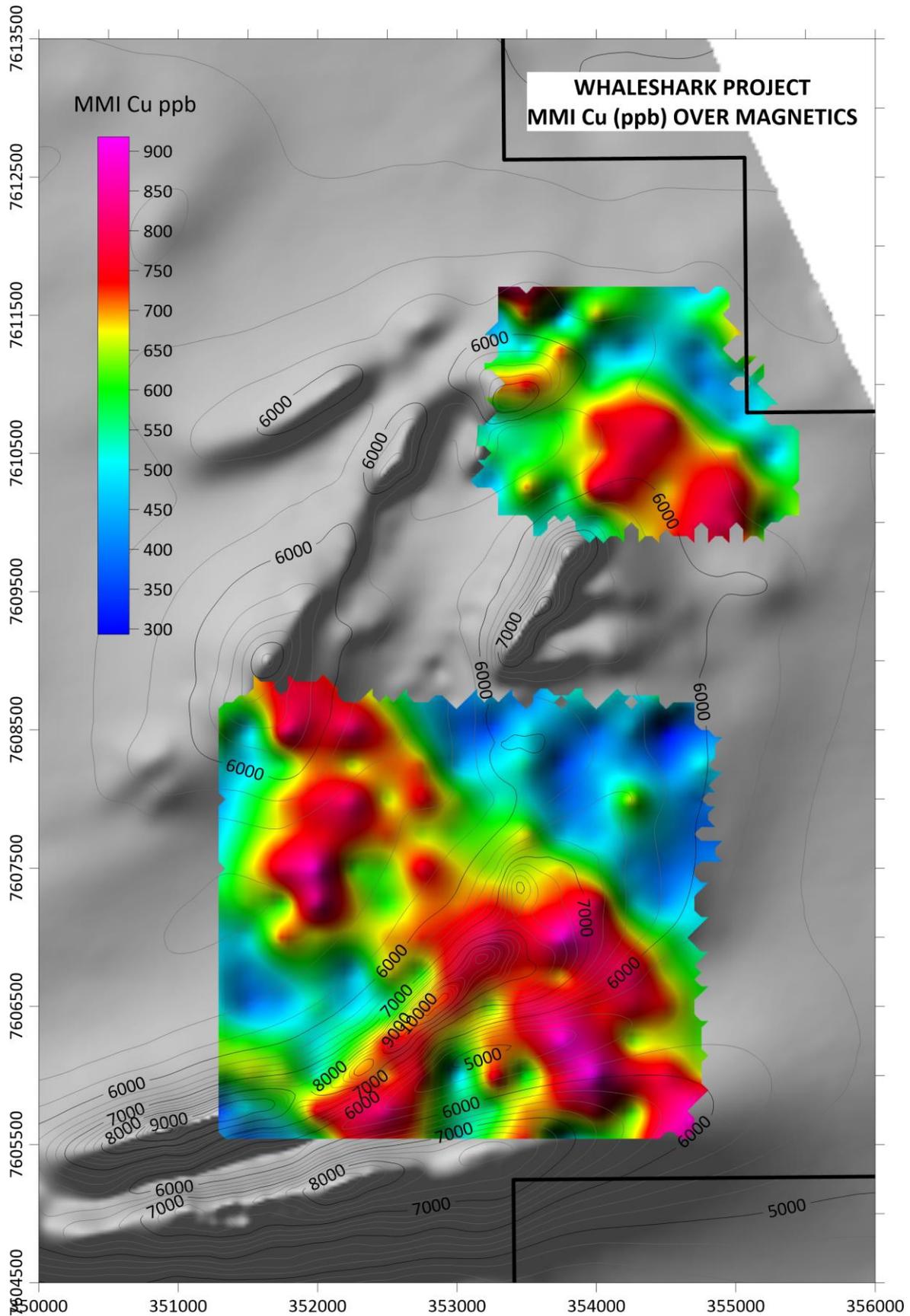
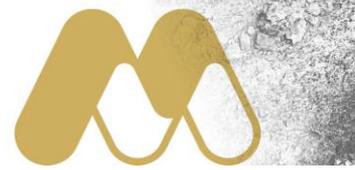


Figure 9. Whaleshark Project showing infill MMI Cu anomalism over greyscale magnetic image.



Bangemall Ni-Cu-PGE Projects (Miramar 100%)

The Bangemall Projects cover a series of major crustal-scale structures in the Proterozoic Capricorn Orogen. The area has been highlighted by both the GSWA and Geoscience Australia as having high prospectivity for Proterozoic craton-margin style Ni-Cu-PGE mineralisation like that seen in the Albany-Fraser Province (e.g. Nova-Bollinger), the West Musgraves (e.g. Nebo-Babel) and the giant Voisey Bay and Norilsk deposits.

The Bangemall Projects consists of six Exploration Licence applications and two granted Licences covering:

- Major crustal-scale faults - confirmed by seismic traverses
- Proterozoic-aged dolerite dykes/sills with the same age as the West Musgraves
- Regional-scale stream sediment Ni-Cu-Pt-Pd anomalism from GSWA sampling
- EM conductors identified by regional airborne surveys

The area has seen significant prior exploration for manganese and Cu-Pb-Zn, but minimal exploration for Ni-Cu-PGE's. The area has also seen a recent resurgence in exploration for REE's.

The Company is scheduled to complete an airborne EM survey over the **Mt Vernon** target in early 2022.

A field visit to check EM anomalies at the **Dooley Downs** tenement was conducted in November and several rock chip and soil samples were taken and sent for analysis. Assays were pending at the end of the Quarter.

A new Exploration Licence Application adjacent to the existing Dooley Downs tenement was submitted during the Quarter.

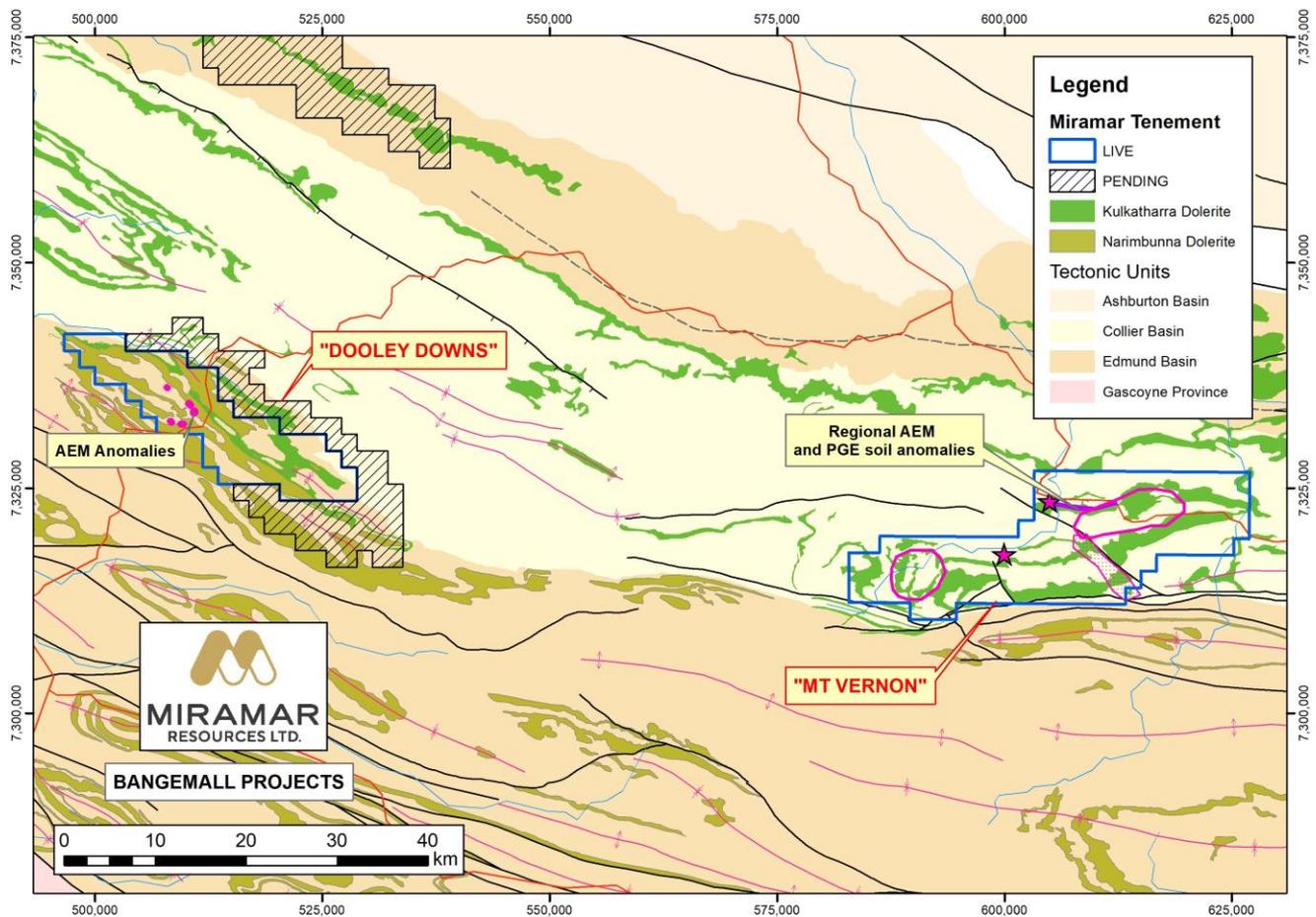


Figure 10. Dooley Downs and Mt Vernon Targets showing new tenement application.



CORPORATE

Financial

The Company had cash and investments on 31 December 2021 of approximately **\$3.1 million**.

Related Party payments for the Quarter, as outlined in the Appendix 5B at section 6.1, totalled \$137,000 and include amounts paid to directors including salary, directors' fees and statutory superannuation.

Refer to the Appendix 5B for an overview of the Company's financial activities during the Quarter.

Capital Structure on 31 December 2021

Description	Number
Fully paid ordinary shares at end of Quarter	56,310,100
Unlisted options exercisable at \$0.20 on or before 22 October 2022	8,210,000
Unlisted options exercisable at \$0.48 on or before 6 January 2023	50,000
Unlisted options exercisable at \$0.25 on or before 9 October 2023	6,000,000
Unlisted options exercisable at \$0.20 on or before 26 June 2025	3,000,000
Unlisted options exercisable at \$0.27 on or before 3 November 2025	1,500,000

Use of Funds¹

Miramar provides the following disclosures required by ASX Listing Rule 5.3.4 regarding a comparison of its actual expenditure to date since listing on 22 October 2020 against the 'Use of Funds' statement in its Prospectus dated 4 September 2020.

Expenditure	Funds allocated under Prospectus	Actual to 31 December 2021	Variance
Vendor payments	\$282,500	\$282,500	nil
Exploration	\$4,430,000	\$3,043,437	\$1,386,563
Working capital	\$2,868,855	\$1,273,027	\$1,595,828
Cost of Offer	\$670,000	\$695,785	-\$25,785
TOTAL	\$8,251,355	\$5,294,748	\$2,956,607

Figure 11 shows a summary of Quarterly expenditure since listing with the "Use of Funds" statement in the Company's Prospectus.

Since listing, active exploration programmes make up approximately 75% of the Company's cash outflow.

Marketing and Investor Relations

During the Quarter, Miramar conducted interviews with several mining publications and websites in relation to the Company's ongoing and planned exploration programmes.

Representatives of the Company attended and presented at the RIU Resurgence Conference and were advised Miramar had been successful in securing a presentation spot at the RIU Explorers' Conference in Feb 2022.

¹ The Use of Funds table is a statement of current intentions. Investors should note that the allocation of funds set out in the table may change depending on a number of factors including the results of exploration, outcome of development activities, regulatory developments and market and general economic conditions.

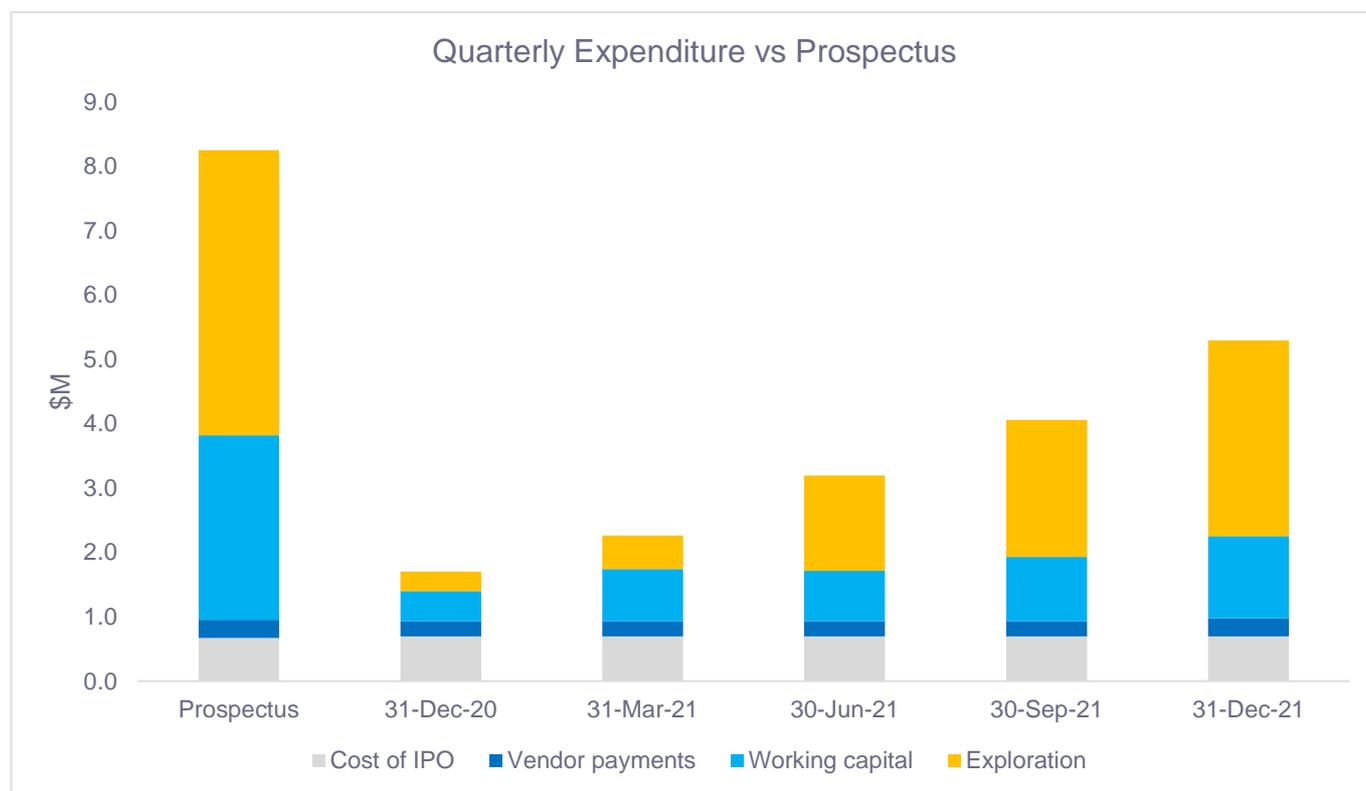


Figure 11. Quarterly Expenditure since listing versus Prospectus "Use of Funds".

Planned Activities for Quarter ending 31 March 2022

- Complete airborne EM survey at **Mt Vernon** (Bangemall)
- **Gidji JV**
 - Await assays from Dec 2021 Gidji JV aircore drilling
 - RC drilling testing of **Marylebone** target
 - Aircore drilling of Blackfriars and Highway targets
- Plan lake diamond drilling at **Glandore East**
- Plan initial aircore drilling at **Randalls**
- Exhibit and present at RIU Explorers Conference (15-17 Feb)

This announcement has been authorised for release by Mr Allan Kelly, Executive Chairman on behalf of the Board of Miramar.

For further information, please contact:

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 Executive Chairman
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Margie Livingston
 Ignite Communications
 margie@ignitecommunications.com.au



Competent Person Statement

The information in this report that relates to Exploration Targets or Exploration Results is based on information compiled by Allan Kelly, a “Competent Person” who is a Member of The Australian Institute of Geoscientists.

Mr Kelly is the Executive Chairman of Miramar Resources Ltd. He is a full-time employee of Miramar Resources Ltd and holds shares and options in the company.

Mr Kelly has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to Qualify as a “Competent Person” as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’.

Mr Kelly consents to the inclusion in this presentation of the matters based on his information and in the form and context in which it appears.

Information on historical exploration results for all Miramar’s projects, including JORC Table 1 and 2 information, is included in the Miramar Resources Limited Prospectus dated 4 September 2020.

Information on recent exploration results for all Miramar’s projects, including JORC Table 1 and 2 information, is included in the relevant ASX announcements as shown in the following table.



ASX Releases during the Quarter (bold type refers to market sensitive announcements)

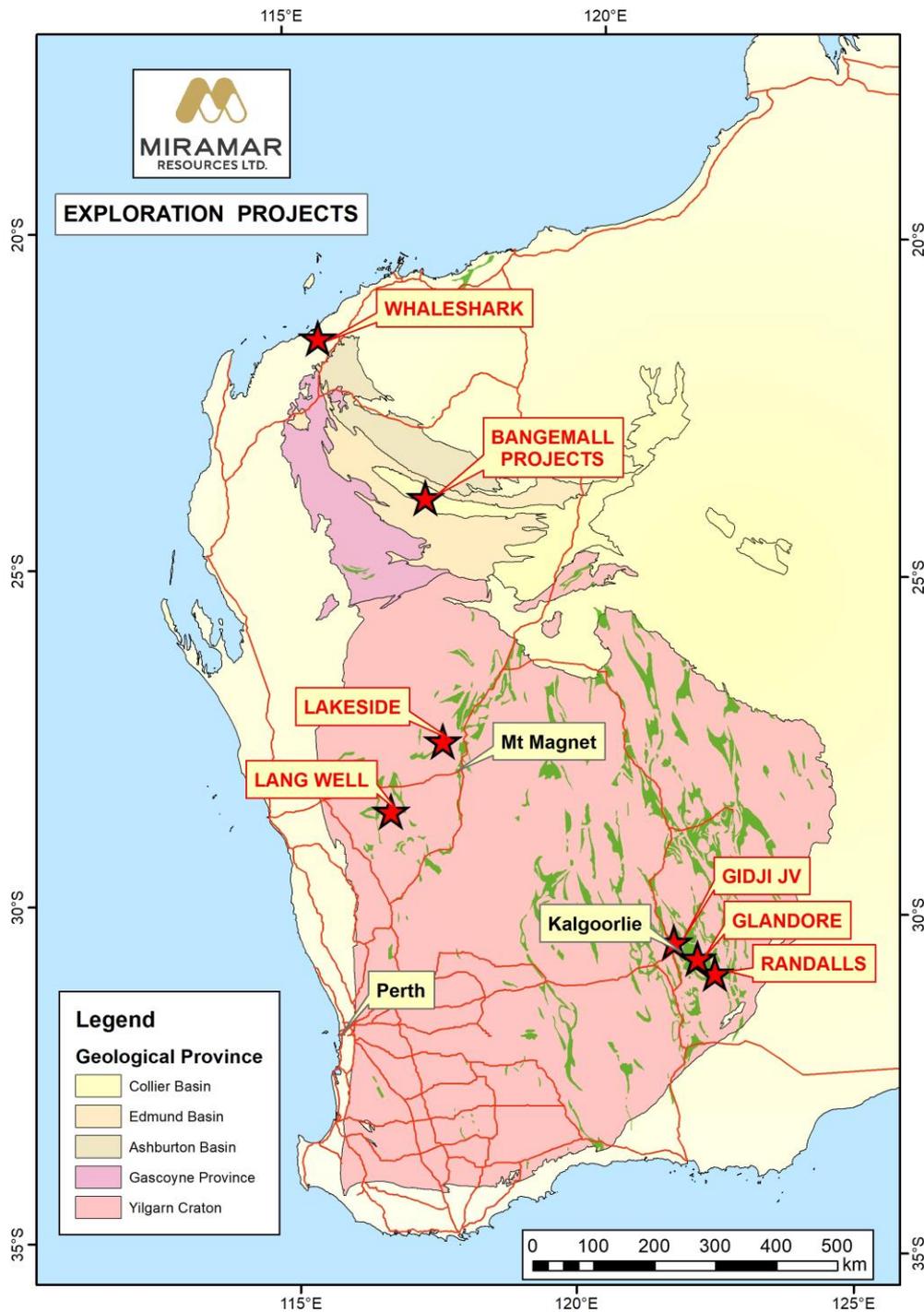
Date	Title
7-Oct-21	Significant Gold Results from Gidji JV Drilling
13-Oct-21	Becoming a substantial holder (Faraday)
13-Oct-21	Investor Presentation
14-Oct-21	Notice of Release of Escrow
25-Oct-21	Application for quotation of securities - M2R
25-Oct-21	Quarterly Activities Report
25-Oct-21	Quarterly Cashflow Report
4-Nov-21	AGM Results
4-Nov-21	AGM Presentation
5-Nov-21	Change of Directors' Interest Notice (AK, MB, TG)
5-Nov-21	Notification regarding unquoted securities - M2R
25-Nov-21	Gidji JV Exploration Update
1-Dec-21	Large Gold Footprint Outlined at Glandore
2-Dec-21	Gidji drilling results indicate potential new gold camp
2-Dec-21	RIU Resurgence Conference Presentation
13-Dec-21	Large IOCG Targets Outlined at Whaleshark
20-Dec-21	Change of Registry Address
22-Dec-21	Gidji drilling results indicate potential new gold camp



About Miramar Resources Limited

Miramar Resources Limited is a WA-focused mineral exploration company with highly prospective gold exploration projects in the Eastern Goldfields, Murchison and Gascoyne regions of Western Australia.

Miramar listed on the ASX in October 2020, following a heavily oversubscribed IPO, and has a Board with a track record of successful discovery, development and production within Australia, Africa, and North America. Miramar’s aim is to create shareholder value through the acquisition, exploration and monetisation of high-quality mineral assets.





Tenement Schedule

Project	Tenement	Status	Ownership	
			Start of Quarter	End of Quarter
Gidji JV ²	E24/225	Live	80%	80%
	E26/214	Live	80%	80%
	E26/221	Application	0%	0%
	E26/225	Live	80%	80%
	P24/5439	Live	80%	80%
	P26/4527	Live	80%	80%
	P26/4528	Live	80%	80%
	P26/4529	Live	80%	80%
	P26/4530	Live	80%	80%
	P26/4531	Live	80%	80%
	P26/4532	Live	80%	80%
	P26/4533	Live	80%	80%
	P26/4534	Live	80%	80%
	P26/4221	Live	80%	80%
	P26/4222	Live	80%	80%
Glandore	E25/544	Live	100%	100%
	P25/2381	Live	100%	100%
	P25/2382	Live	100%	100%
	P25/2383	Live	100%	100%
	P25/2384	Live	100%	100%
	P25/2385	Live	100%	100%
	P25/2386	Live	100%	100%
	P25/2387	Live	100%	100%
	P25/2430	Live	100%	100%
	P25/2431	Live	100%	100%
	P25/2465	Live	100%	100%
Randalls	E25/596	Live	100%	100%
Lang Well	E59/2377	Live	100%	100%
Lakeside	E21/212	Application	0%	0%
Whaleshark	E08/3166	Live	100%	100%
Bangemall	E08/3176	Application	0%	0%
	E08/3177	Application	0%	0%
	E08/3195	Application	0%	0%
	E08/3196	Application	0%	0%
	E08/3284	Application	0%	0%
	E09/2484	Live	0%	100%
	E09/2647	Application	0%	0%
	E52/3893	Live	100%	100%

² Remaining 20% held by Thunder Metals Pty Ltd