



# QUARTERLY REPORT

Quarter ending 30 September 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)

## MIRAMAR RESOURCES LTD

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## Highlights

- › Aircore drilling further extends and upgrades Marylebone with multiple +1g/t Au results – resplits return high-grade gold results
- › Several key Gidji JV tenements granted
- › Aircore drilling at Glandore intersects high-grade gold south of Lake Yindarlgooda – maiden lake aircore drilling campaign completed
- › Randalls tenement granted
- › Whaleshark soil sampling outlines large MMI anomalies similar to 3.4Moz Havieron Au-Cu deposit
- › Review of historical data identifies multiple late-time EM conductors at Dooley Downs target (Bangemall Ni-Cu-PGE Project)
- › Maiden Annual Report released
- › \$4.1M cash 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 30 September 2021.

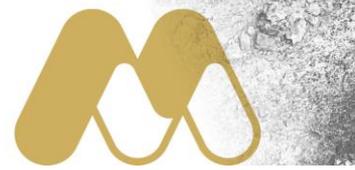
Miramar’s Executive Chairman, Mr Allan Kelly, said the Quarter had been a very busy one for the Company with exploration activities conducted across 4 separate projects.

*“The latest aircore results received from Marylebone significantly upgraded this target with drilling now consistently returning +1g/t assays and improving towards the northwest,” Mr Kelly said.*

*“Late in the Quarter, the remaining tenement applications at Gidji were granted, meaning we can now continue to test the Marylebone target along strike to the northwest and determine the true size of the opportunity,” he added.*

*“We also completed our first drilling campaigns at Glandore and this project looks as good, if not better, than the Gidji Project,” he said.*

*“Early-stage work at the Whaleshark and Bangemall projects in the Gascoyne region has also highlighted additional discovery opportunities within Miramar’s project portfolio,” Mr Kelly said.*

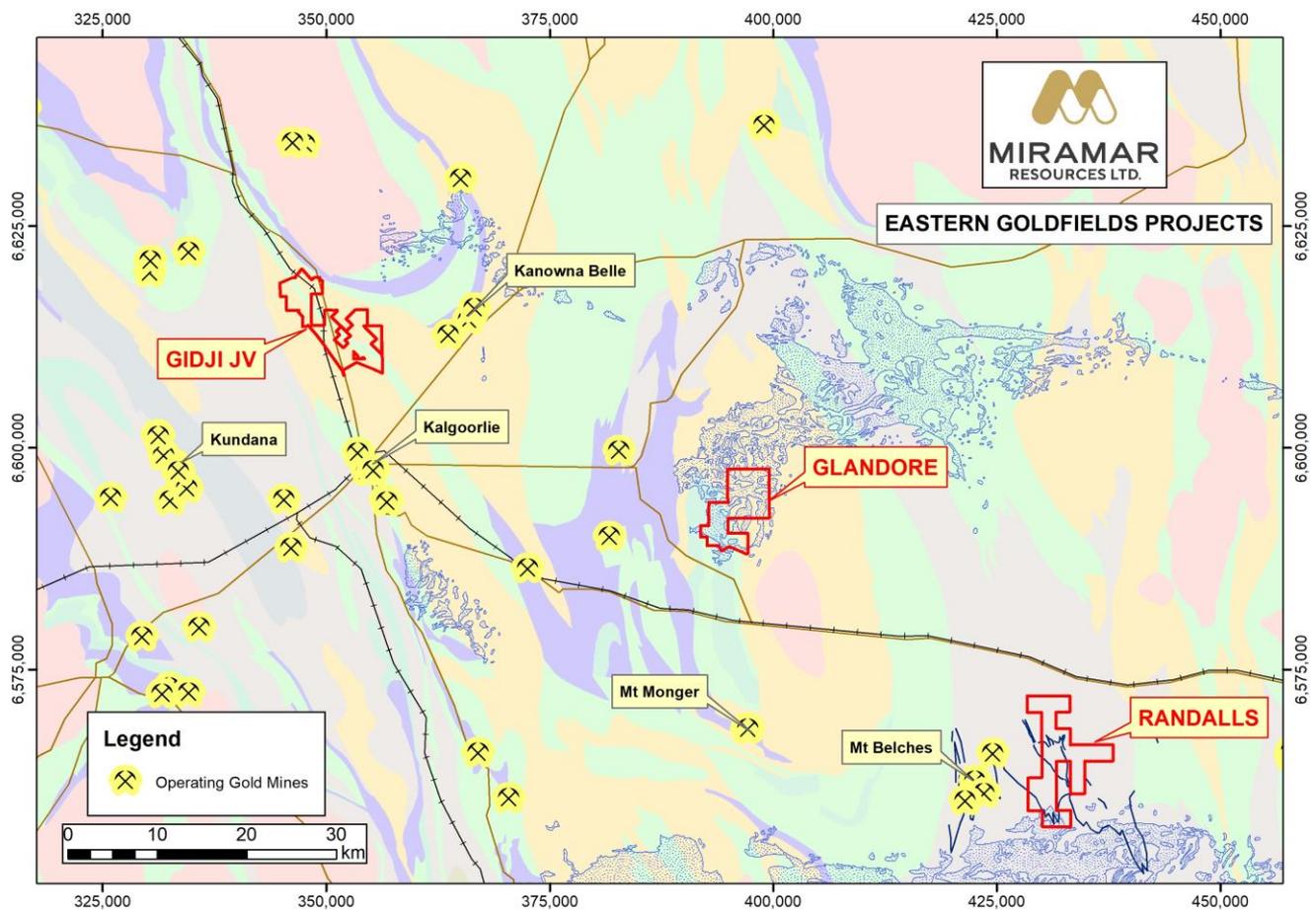


EXPLORATION

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 Boora 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 Company believes the Project has been poorly explored 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 prospects which could host a significant new gold discovery.

During the Quarter, the Company continued to test the “Marylebone” Target with two phases of aircore drilling and received the results of the limited RC drilling campaign conducted in the previous quarter.

#### Aircore drilling

Results from the Phase 3 aircore drilling campaign extended the Marylebone footprint by approximately 800m to the northwest and included multiple intersections greater than 1g/t Au over 3-4m intervals.

#### Significant results included:

- **GJAC303** – 3m @ 1.00g/t Au from 52m to EOH
- **GJAC304** – 4m @ 1.22g/t Au from 48m
- **GJAC310** – 4m @ 1.46g/t Au from 40m
- **GJAC315** – 4m @ 1.47g/t Au from 44m
- **GJAC318** – 4m @ 1.02g/t Au from 52m
- **GJAC328** – 4m @ 1.40g/t Au from 52m
- **GJAC341** – 4m @ 1.33g/t Au from 52m

Late in the Quarter, the Company received assay results from 1m resplits of the above holes.

The new results upgraded the Marylebone target and confirmed the potential for Paddington and/or Panglo-style gold mineralisation at Marylebone.

#### Significant results included:

- **GJAC306** – **1m @ 6.92g/t Au** (48-49m)
- **GJAC315** – 3m @ 2.61g/t Au (45-48m) including **1m @ 6.16g/t Au**
- **GJAC318** – 1m @ 3.54g/t Au (53-54m)
- **GJAC325** – 4m @ 1.11g/t Au (46-50m) including 1m @ 3.55g/t Au
- **GJAC328** – **1m @ 5.15g/t Au** (52-53m)

The Marylebone target now comprises at least four parallel zones of coherent supergene gold mineralisation along the contact between mafic and ultramafic rocks in similar stratigraphic positions to the 4Moz Paddington deposit, the 125koz Panglo deposit and other gold deposits along the Boorara Shear Zone.

At these two deposits, gold mineralisation is hosted in more competent mafic rocks (predominantly dolerite) sandwiched between less competent ultramafic and sedimentary units.

**GJAC306** and **GJAC315** both intersected **+6g/t Au** on the same structure approximately 300m apart, in the position equivalent to the Paddington deposit.

**GJAC318** and **GJAC325** both intersected **+3.5g/t Au** on the same structure over 200m apart, in the position equivalent to the Panglo deposit.

The new results increased the total strike length of the Marylebone prospect to almost 2km, however the prospect remains open along strike to the northwest and is virtually untested at depth below about 60m (Figure 2).



Phase 4 aircore drilling was completed during the Quarter and results were pending.

Further aircore drilling is planned to infill Marylebone to 100m x 50m drill spacing and to test the target further to the northwest, on the recently granted tenements.

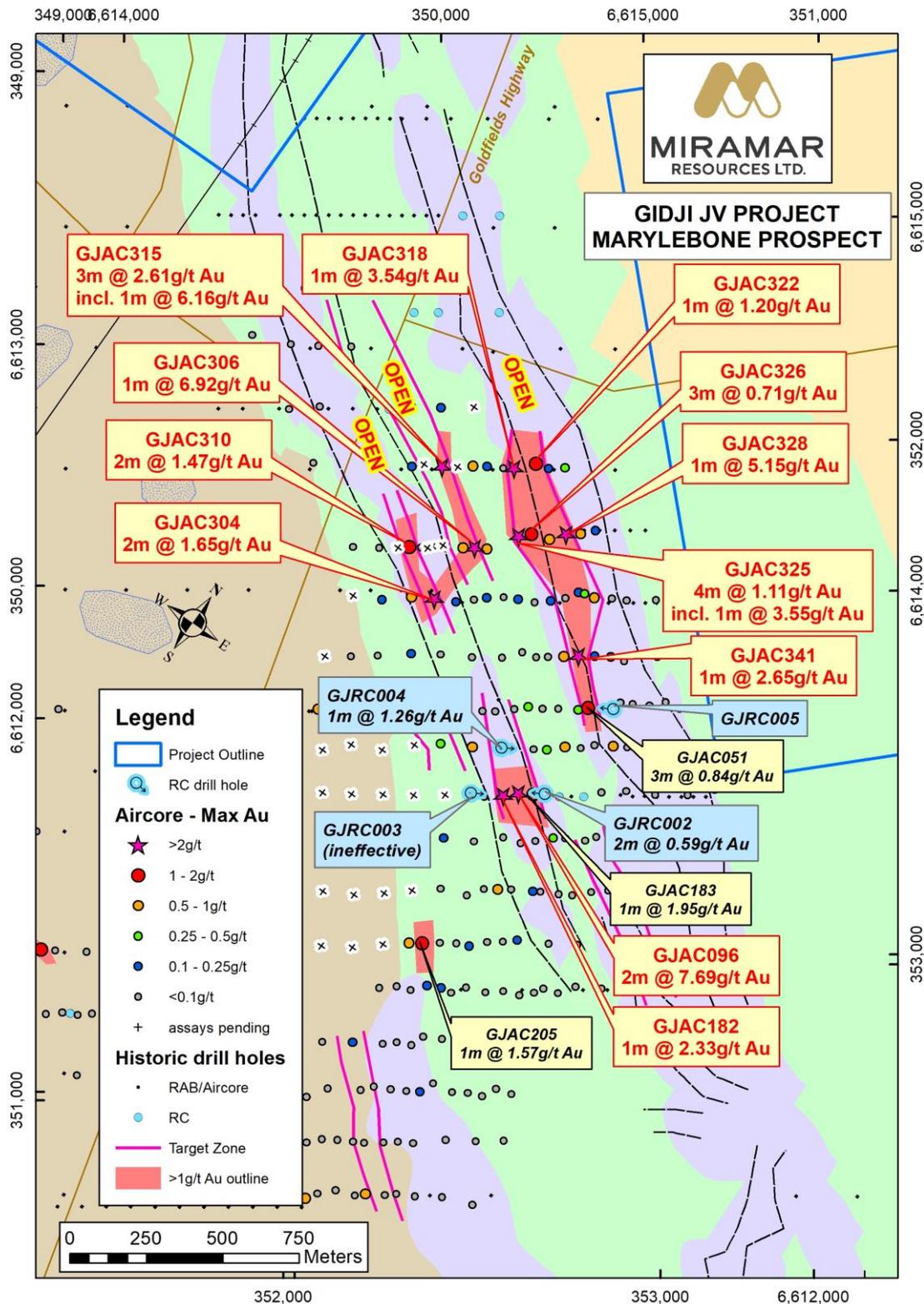


Figure 2. Marylebone Target showing all drilling and significant results to date.



## Tenement grant

During the Quarter, several tenement applications were granted which increased the total strike length of the Gidji JV Project to approximately 15km (Figure 3).

The newly granted tenure includes several highly prospective and under-explored drill targets that were identified prior to the IPO including:

- **The Jog** – obvious dilation jog in the Boorara Shear Zone, with coincident magnetite destruction and gravity anomaly, that has never been drilled
- **Claypan** – 800m long aircore gold anomaly >0.25g/t Au and wide-spaced RC drilling which intersected **1-2g/t Au** within regional structure along strike from Kanowna Belle
- **Lake** – 1km long aircore gold anomaly >0.25g/t Au with sporadic high-grade RC intersections including **2m @ 6g/t Au** and **2m @ 4.9g/t Au**

## RC drilling

The Company received all results from the limited RC drilling campaign completed at Gidji during June.

The aim of the programme was to test beneath the better aircore results from phase 1 and 2, including where aircore drilling was ineffective due to an impermeable silcrete layer, and to gain information about the bedrock geology of the Marylebone target.

Most holes replicated the shallower supergene gold anomalism seen in the aircore drilling but did not intersect significant bedrock gold mineralisation (Table 1).

The hole testing the Railway target (**GJRC006**) and the hole testing beneath the best aircore hole at Marylebone (**GJRC003**) could not be completed to the planned depth due to running sands in the overlying paleochannel sediments.

**GJRC004** intersected primary gold mineralisation returning 1m @ 1.26g/t Au from 142-143m.

Due to the uncertainty about the orientation of the geology and structures, **GJRC001**, **GJRC002** and **GJRC005** were apparently drilled down-dip and were also therefore deemed ineffective.

The subsequent phase 3 aircore drilling shows that the RC drilling did not test the most prospective part of the target, which is located further to the northwest.

**Table 1.** Summary of Gidji JV RC drilling with results >0.25g/t Au shown

Target	Hole	Easting	Northing	Dip/ Azimuth	EOH Depth	From (m)	To (m)	Interval (m)	Au (g/t)	Notes
Piccadilly	GJRC001	352154	660932	-60/270	180				NSR	<i>Down-dip?</i>
Marylebone	GJRC002	351744	6612773	-60/270	180	29	30	1	0.34	<i>Down-dip</i>
						63	65	2	0.59	
	GJRC003	351562	6612640	-60/090	120				NSR	<i>Did not reach target depth</i>
	<b>GJRC004</b>	<b>351554</b>	<b>6612821</b>	<b>-60/090</b>	<b>180</b>	<b>142</b>	<b>143</b>	<b>1</b>	<b>1.26</b>	
	GJRC005	351761	6613131	-60/270	150	65	66	1	0.31	<i>Down-dip</i>
Railway	GJRC006	350040	6611374	-60/090	90	60	66	6	0.66	<i>Did not reach target depth</i>

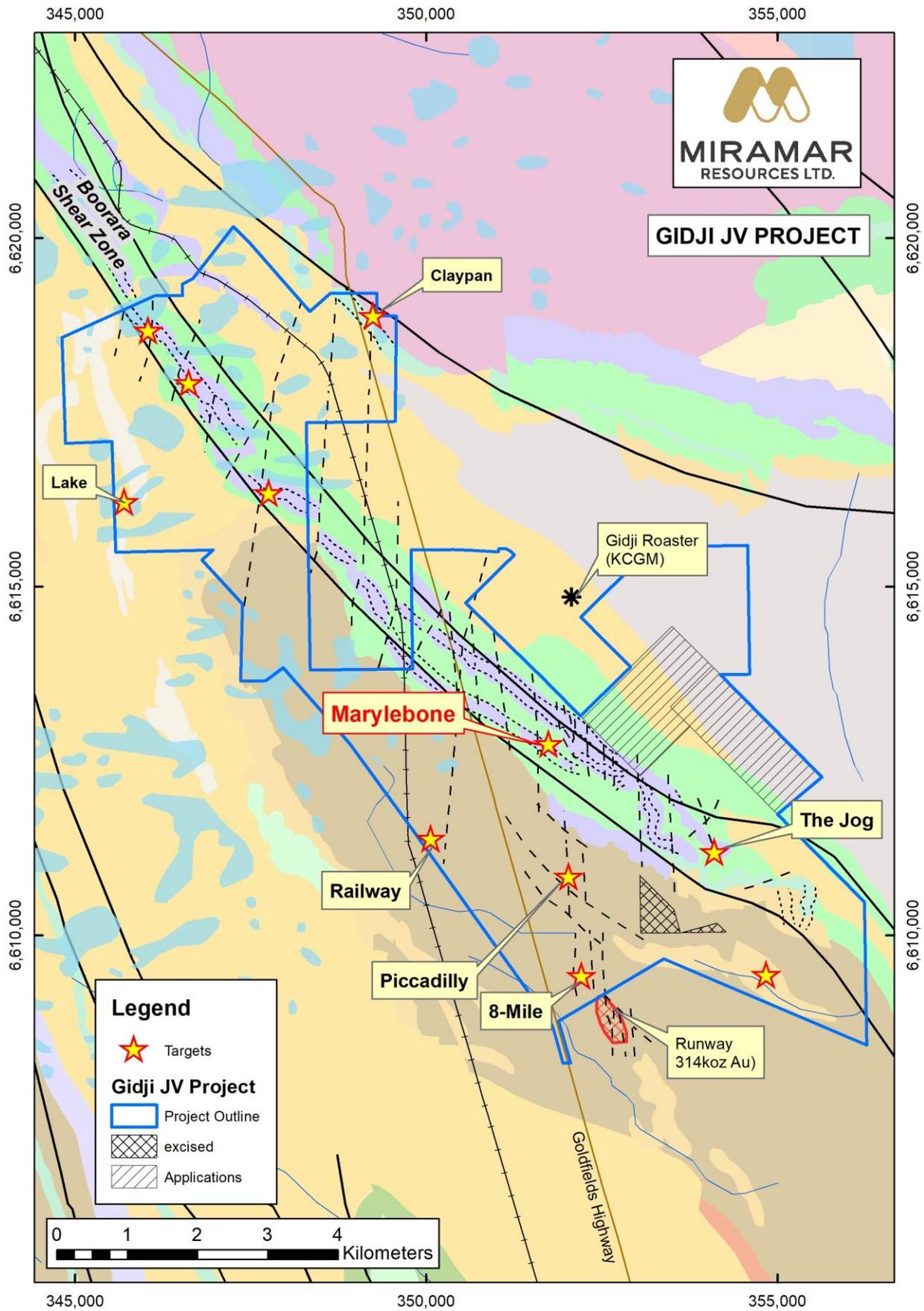


Figure 3. Gidji JV Project showing land position and targets after grant of tenements.



### 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**.

During the Quarter, the Company completed a series of land-based aircore holes south of Lake Yindarlgooda and completed a large lake aircore drilling campaign.

The land-based drilling outlined a 600m long zone of regolith gold anomalism south of Lake Yindarlgooda, with results up to **2m @ 4.78 g/t Au (GDAC015)**.

The northeast trending zone, defined by results  $>0.25\text{g/t Au}$ , remains open onto Lake Yindarlgooda towards the "East Target" where historic drilling intersected high-grade supergene and primary gold mineralisation with results up to **6m @ 29.8g/t Au**, including **1m @ 161g/t Au** (05GDDD003 87-93m) (Figure 4).

Results from the lake aircore drilling campaign were pending at the end of the Quarter.

### 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 5).

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 Exploration Licence was granted late in the Quarter and the Company will now plan for the first exploration programmes.

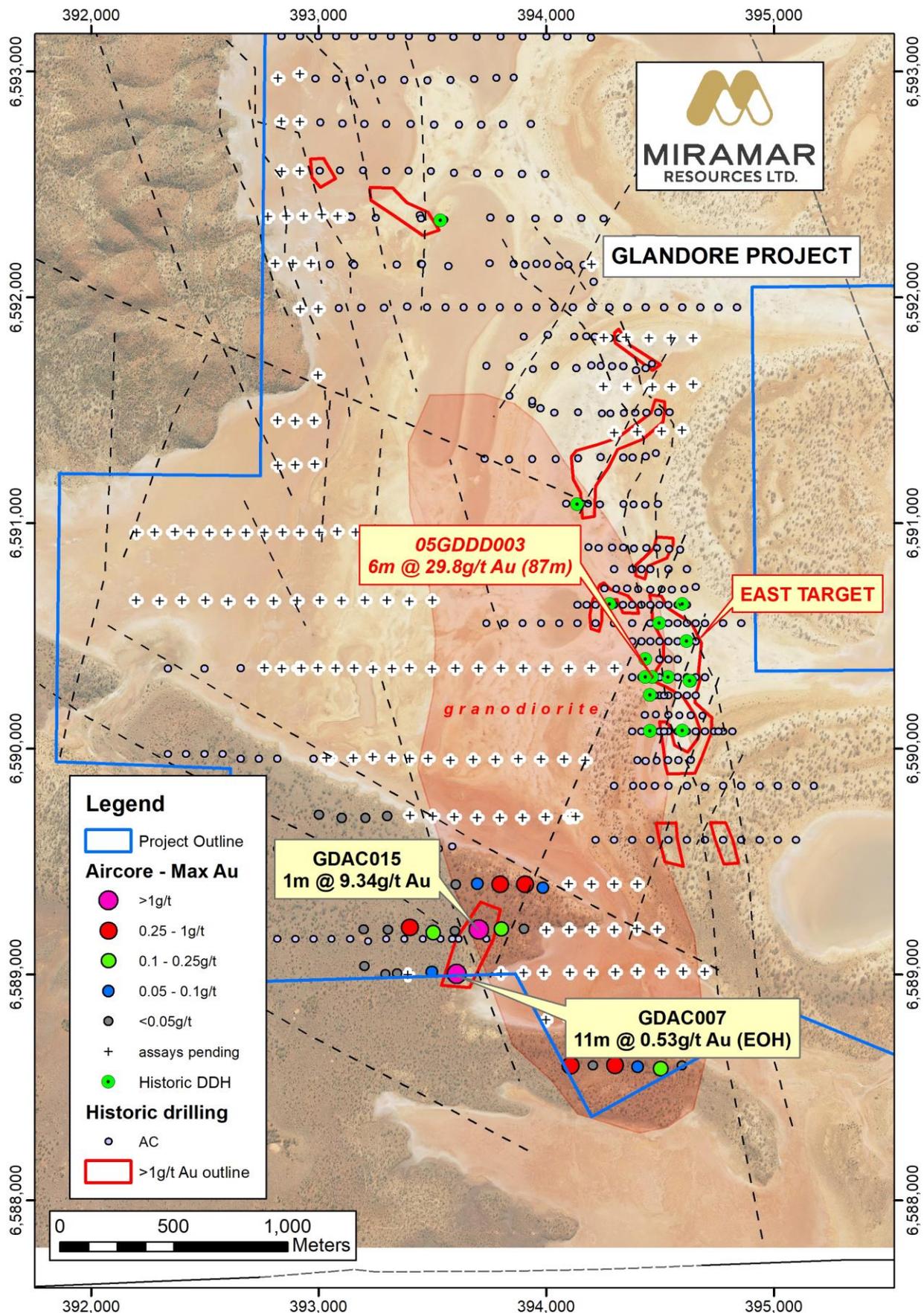


Figure 4. Glandore Project showing recent aircore results and lake drilling.

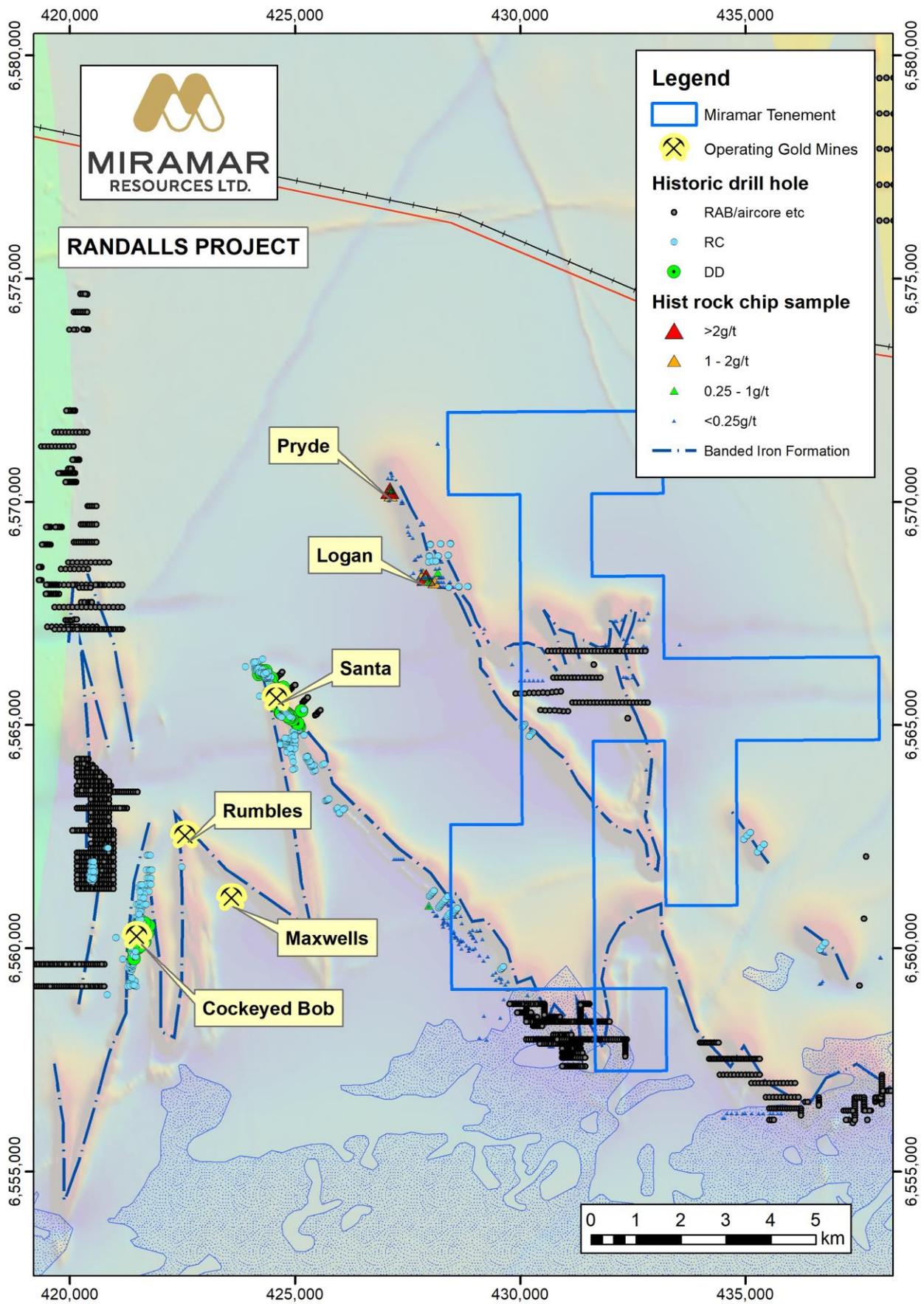
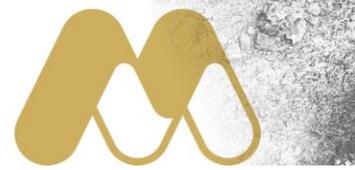
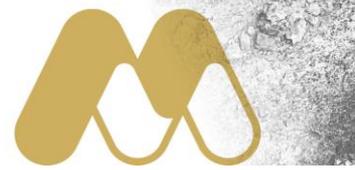


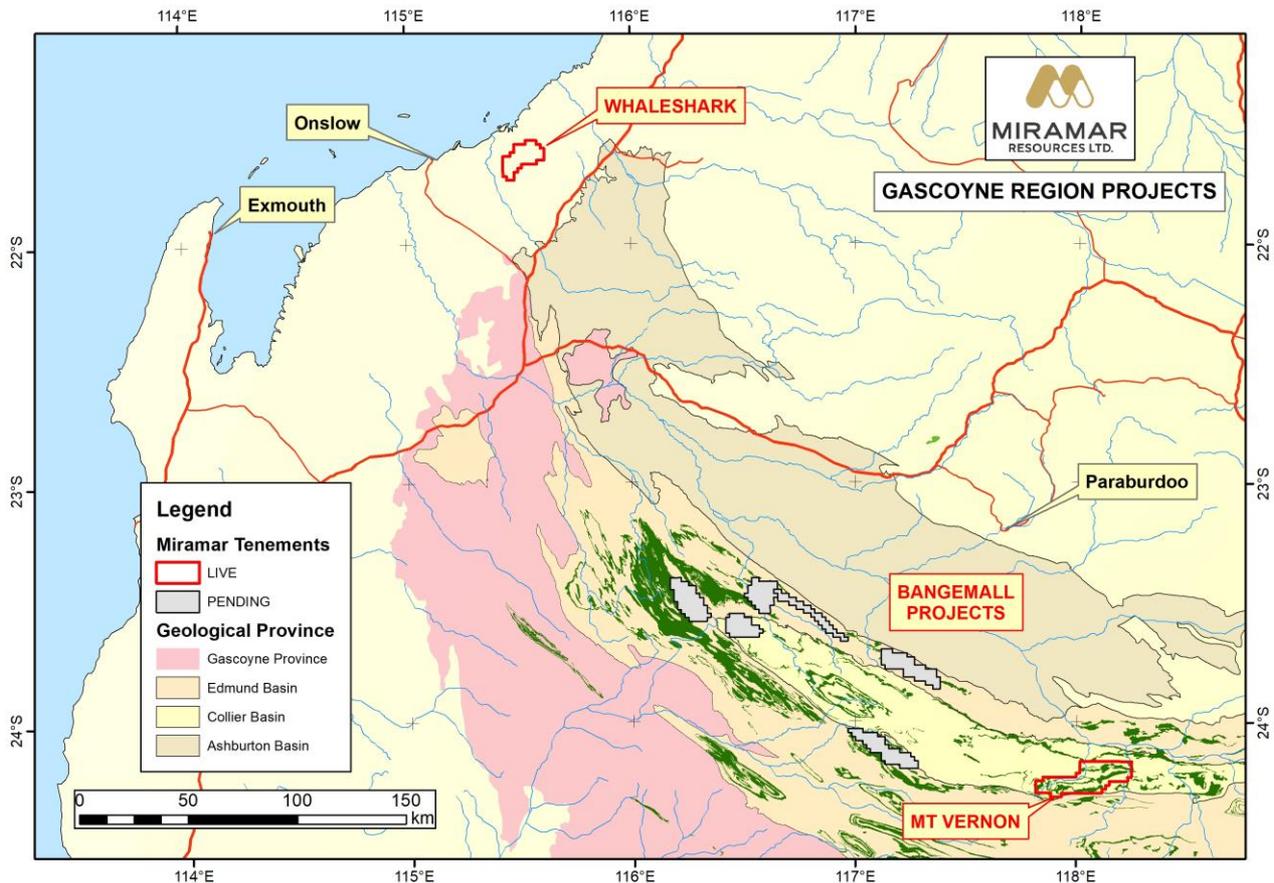
Figure 5. Randalls Project showing proximity to Silver Lake Resources gold operations.



**GASCOYNE REGION PROJECTS**

Miramar has two projects within the Proterozoic Capricorn Orogen, in the Gascoyne region of Western Australia (Figure 6):

- **Whaleshark** – folded BIF complex under Carnarvon Basin sediments
- **Bangemall** – multiple applications over areas prospective for Ni-Cu-PGE mineralisation



*Figure 6. Location map for Miramar’s Gascoyne region projects.*

**Whaleshark (Miramar 100%)**

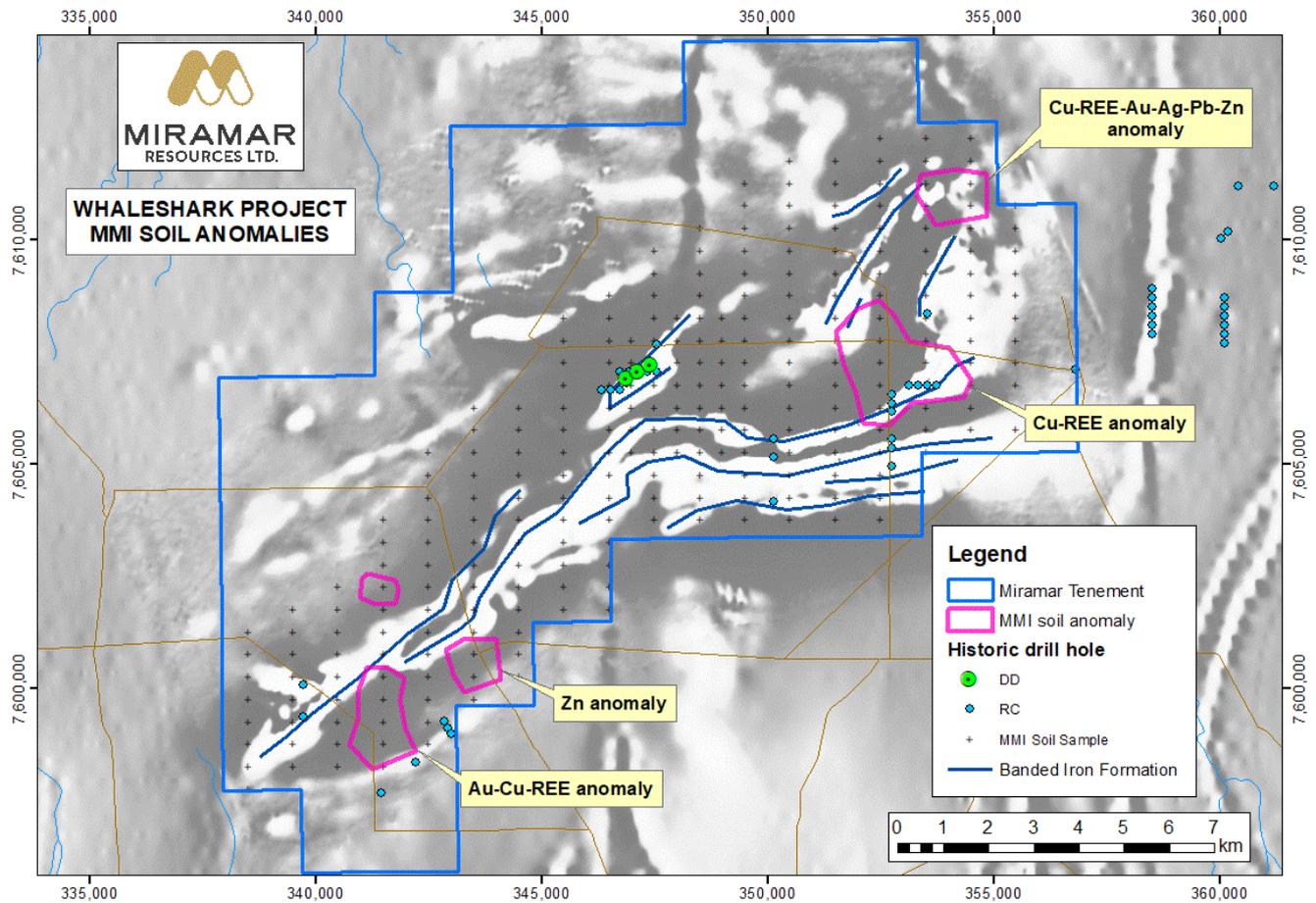
The Whaleshark project is located 40km east of Onslow and consists of a single Exploration Licence, E08/3166. The project is located within the north-western extension of the Proterozoic Capricorn Orogen and is characterised by a folded Banded Iron Formation (BIF) complex under approximately 100m of Carnarvon Basin sediments (Figure 7).

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

During the Quarter, the Company completed a programme of surface geochemical sampling using the Mobile Metal Ion (MMI) technique.

The data from this survey showed several large areas of anomalous Cu, Ag, Pb, Zn and REE’s, which appear indicative of buried IOCG mineralisation.

Importantly, the scale and tenor of the anomalism is apparently like that seen over the 3Moz Havieron deposit. Infill sampling is planned for the December Quarter.



*Figure 7. Whaleshark Project showing summary of MMI anomalism over magnetic image.*

### Bangemall Ni-Cu-PGE Project (Miramar 100%)

The Bangemall Project covers a series of major crustal-scale structures in the Capricorn Orogen between the Yilgarn and Pilbara cratons.

The area has been highlighted by both the GSWA and Geoscience Australia as having high prospectivity for Proterozoic craton-margin 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 Project consists of six Exploration Licence applications and one granted Licence that cover areas with:

- Proximity to 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 substantial exploration for Cu-Pb-Zn and Manganese but minimal exploration for Ni-Cu-PGE's.

### Mt Vernon Target

The Company is planning to conduct an airborne EM survey over the Mt Vernon target as soon as practicable following discussions with the local pastoralist.



**Dooley Downs Target**

A desktop review of historical data has identified a detailed magnetic/EM survey which covers the central quarter of the tenement application (Figure 8). The 160m line-spaced data shows a series of linear EM anomalies interpreted to be related to the various dolerite sills and/or sulphidic sediments.

More interesting are several discrete EM anomalies, in the order of 400-500m diameter, that are located immediately adjacent to the stratigraphic conductors (“pinpoint EM conductors”).

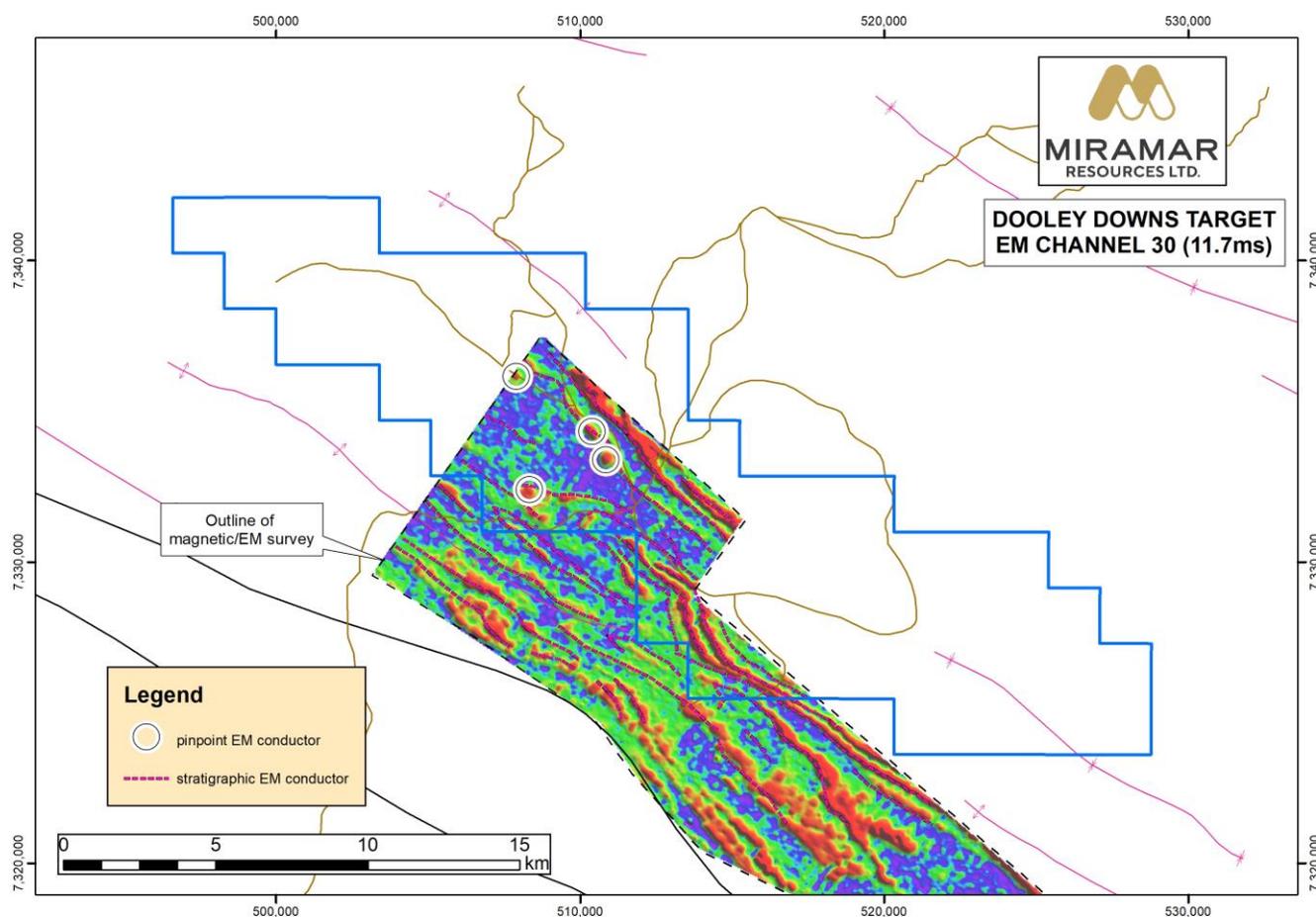
These smaller anomalies appear in both the late time (Channel 30 – 11.7ms) and deeper depth slice (60-100m) images and appear to coincide with areas of demagnetisation within strike-parallel structures.

Historical surface geochemical sampling has been sporadic and mostly focussed on exploration for manganese. As such, there is limited useful data in terms of Ni, Cu and/or PGE analyses.

A number of historic rock chip samples are reported to contain malachite, but most samples have not been assayed for Ni or Cu and no samples have been taken directly over the EM conductors (Figure 9).

There is no evidence for any relevant historical drilling in the vicinity of the conductors.

The Company plans to model the EM data and will field-check the anomalies once the tenement is granted.



*Figure 8. Dooley Downs Target showing location of open file EM/magnetic survey and conductors.*

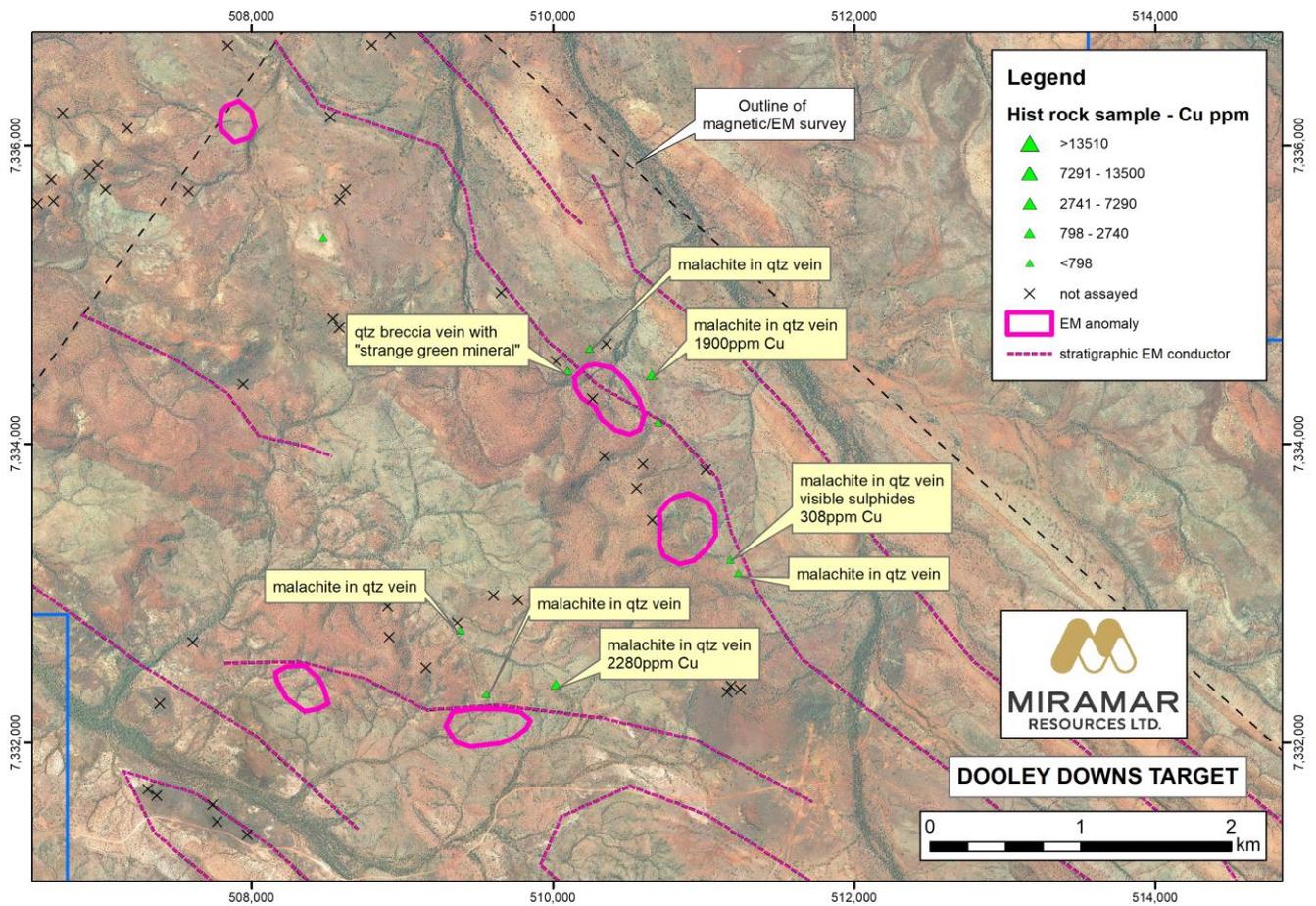
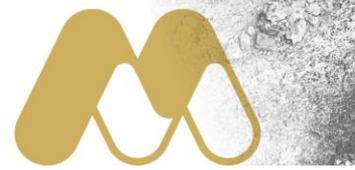


Figure 9. Dooley Downs Target showing location of historic rock samples in relation to EM conductors.

**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 the maiden aircore drilling programme at Lang Well.

**Lakeside (Miramar 100%)**

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



## CORPORATE

### Financial

The Company had cash on hand on 30 September 2021 of approximately **\$4.1 million**.

Related Party payments for the Quarter, as outlined in the Appendix 5B at section 6.1, total \$141,000 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 30 September 2021

The Company issued shares to the vendor of the Gidji JV Project following the grant of the remaining tenements.

Description	Number
Fully paid ordinary shares at start of Quarter	55,060,100
Shares issued to Thunder Metals upon grating of Gidji JV tenements	1,250,000
<b>Fully paid ordinary shares at end of Quarter</b>	<b>56,310,100</b>
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

### Use of Funds<sup>1</sup>

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 30 September 2021	Variance
Vendor payments	\$282,500	\$232,500	\$50,000 <sup>2</sup>
Exploration	\$4,430,000	\$2,130,155	\$2,299,845
Working capital	\$2,868,855	\$1,002,699	\$1,866,156
Cost of Offer	\$670,000	\$695,785	-\$25,785
<b>TOTAL</b>	<b>\$8,251,355</b>	<b>\$4,061,139</b>	<b>\$4,190,216</b>

### Marketing and Investor Relations

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

Representatives of the Company attended the annual Diggers and Dealers conference in Kalgoorlie.

<sup>1</sup> 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.

<sup>2</sup> All remaining tenements were granted subsequent to the end of the quarter. The balance of \$50,000 will be paid in October 2021.



### Planned Activities for Quarter ending 31 December 2021

- AGM, 4 November 2021
- Infill and extensional aircore drilling at Marylebone (Gidji JV)
- Await assays from Glandore lake drilling and plan follow-up as required
- Complete infill surface geochemical sampling at Whaleshark
- Field visit to Dooley Downs Ni-Cu-PGE Target

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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Ignite Communications  
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#### 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.

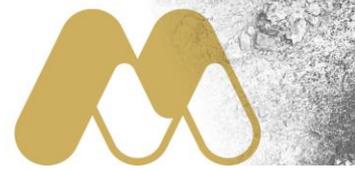
Information on historical exploration results for all Miramar's projects, including JORC Table 1 and 2 information, is included in the Miramar Resources Limited Prospectus dated 4 September 2020.

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



ASX Releases during the Quarter

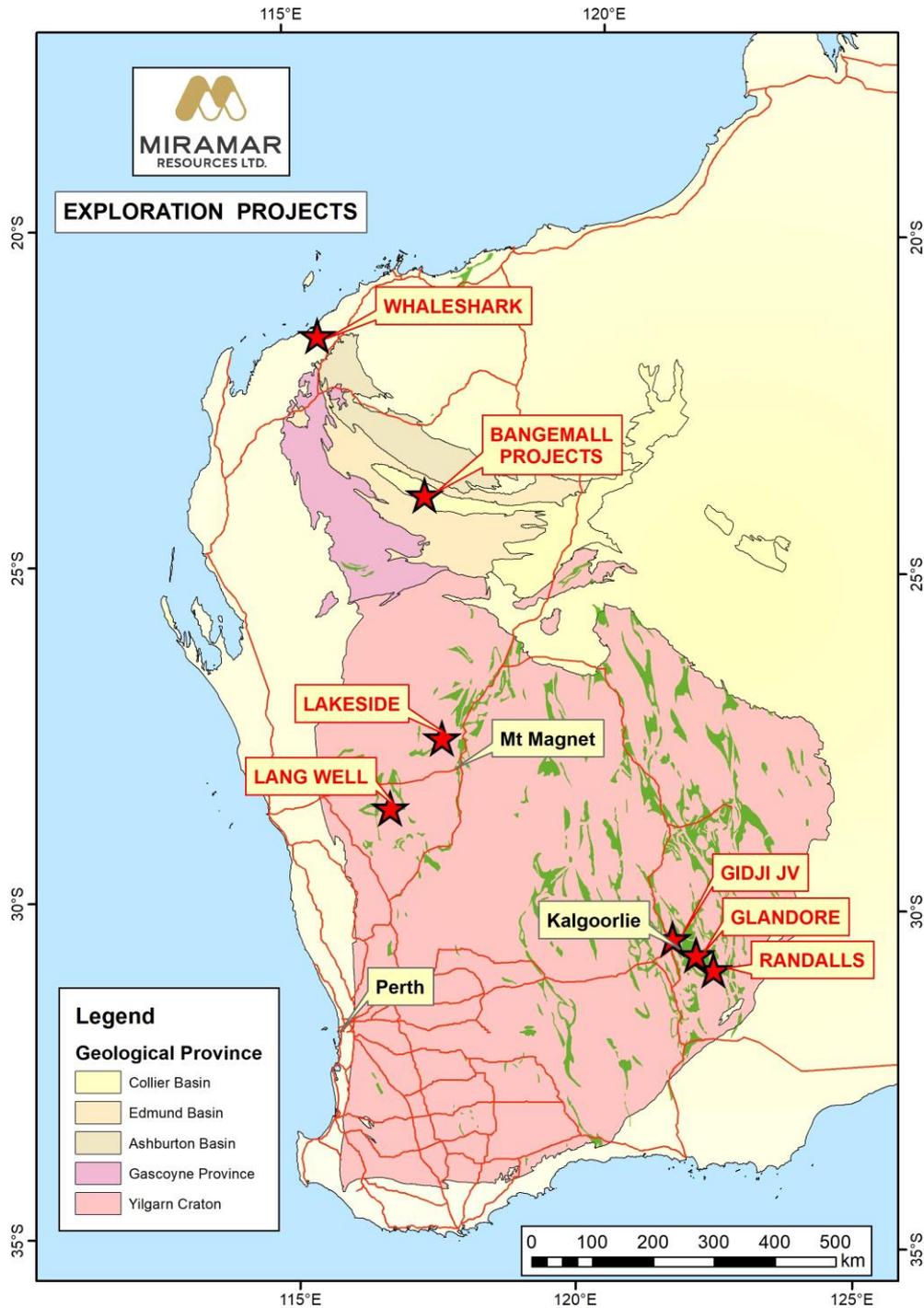
DATE	DESCRIPTION
27/09/2021	<a href="#">Randalls Tenement Granted</a>
24/09/2021	<a href="#">Notice of Annual General Meeting</a>
23/09/2021	<a href="#">Multiple High-Grade Gold Results from Marylebone</a>
20/09/2021	<a href="#">Trading Halt</a>
16/09/2021	<a href="#">Notification regarding unquoted securities - M2R</a>
16/09/2021	<a href="#">Amended Appendix 4G &amp; Corporate Governance Statement</a>
16/09/2021	<a href="#">Corporate Governance Statement</a>
15/09/2021	<a href="#">Director Nomination</a>
15/09/2021	<a href="#">Appendix 4G</a>
15/09/2021	<a href="#">2021 Annual Report</a>
13/09/2021	<a href="#">Proposed issue of securities - M2R</a>
13/09/2021	<a href="#">Gidji JV Tenements Granted</a>
08/09/2021	<a href="#">Investor Update</a>
08/09/2021	<a href="#">High-Grade Gold Result from Glandore Drilling</a>
03/09/2021	<a href="#">Whaleshark Soil Survey Outlines Numerous Large Targets</a>
01/09/2021	<a href="#">Multiple EM Conductors Identified within Bangemall Project</a>
16/08/2021	<a href="#">Change of Director's Interest Notice (MB)</a>
02/08/2021	<a href="#">Investor Presentation</a>
02/08/2021	<a href="#">Aircore Drilling Grows Marylebone</a>
26/07/2021	<a href="#">Quarterly Activities Report</a>
26/07/2021	<a href="#">Quarterly Cashflow Report</a>
21/07/2021	<a href="#">Investor Presentation</a>



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 <sup>3</sup>	E24/225	Live	0%	80%
	E26/214	Live	80%	80%
	E26/221	Application	0%	0%
	E26/225	Live	0%	80%
	P24/5439	Live	0%	80%
	P26/4527	Live	0%	80%
	P26/4528	Live	0%	80%
	P26/4529	Live	0%	80%
	P26/4530	Live	0%	80%
	P26/4531	Live	0%	80%
	P26/4532 <sup>4</sup>	Application	0%	0%
	P26/4533 <sup>5</sup>	Application	0%	0%
	P26/4534	Live	0%	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	0%	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	Application	0%	0%
	E52/3893	Live	100%	100%

<sup>3</sup> Remaining 20% held by Thunder Metals Pty Ltd

<sup>4</sup> Granted subsequent to end of Quarter

<sup>5</sup> Granted subsequent to end of Quarter