



## ASX ANNOUNCEMENT

### DRILLING RESULTS INDICATE POTENTIAL FOR A NEW GOLD CAMP AT GIDJI

- **Multiple 1-2g/t aircore gold results from Marylebone and Blackfriars targets**
- **New “Blackfriars” target confirmed with multiple +1g/t bedrock Au results**
- **Supergene gold mineralisation observed across multiple targets and rock types**

**Miramar Resources Limited (ASX:M2R, “Miramar” or “the Company”)** is pleased to announce further significant aircore drilling results from its 80% owned Gidji JV Project (“Gidji” or the “Project”) in the Eastern Goldfields region of Western Australia.

The results include multiple 1-2g/t Au resplits from Marylebone and the newly identified “Blackfriars” target where +1g/t bedrock Au results are seen on multiple widely spaced sections over a strike length of at least 1km. Blackfriars currently remains open to the northwest (Figure 1).

The new results from Marylebone are also all from within weathered basement, rather than overlying transported material, and outline multiple NW trending bedrock gold targets to be tested with RC drilling.

Miramar’s Executive Chairman, Mr Allan Kelly, said the new results indicated the potential for a significant new gold camp to be uncovered at Gidji, with the potential for multiple gold deposits.

*“One of the key defining features of a gold camp is the presence of gold mineralisation in multiple deposits and associated with more than one rock type,” Mr Kelly said.*

*“At Marylebone, we are seeing coherent supergene gold mineralisation associated with mafic and ultramafic rocks within the Boorara Shear Zone, similar to Paddington,” he added.*

*“As a result of our systematic aircore drilling at Gidji, we have also outlined a large target at Blackfriars, this time associated with sediments and felsic volcanic rocks of the Black Flag Beds,” Mr Kelly said.*

*“Alongside previous results from the Piccadilly, Railway and 8-Mile targets, it is apparent that we have yet to uncover the full potential of the Gidji Project, which includes a further 4km of the Boorara Shear Zone which we have not yet started exploring,” he added.*

The Company advises that it is awaiting results from the recent Phase 5 aircore drilling programme and has secured a RC drill rig for testing of the Marylebone target in the first quarter of 2022.

Given the ongoing success at Marylebone in 2021, the Company is also eager to conduct first pass aircore drilling over the underexplored northern 4km portion of the Boorara Shear Zone (Figure 2).

**For more information on Miramar Resources Limited, please visit the company’s website at [www.miramarresources.com.au](http://www.miramarresources.com.au), follow the company on social media on social media (Twitter @MiramarRes and LinkedIn @Miramar Resources Ltd) or contact:**

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

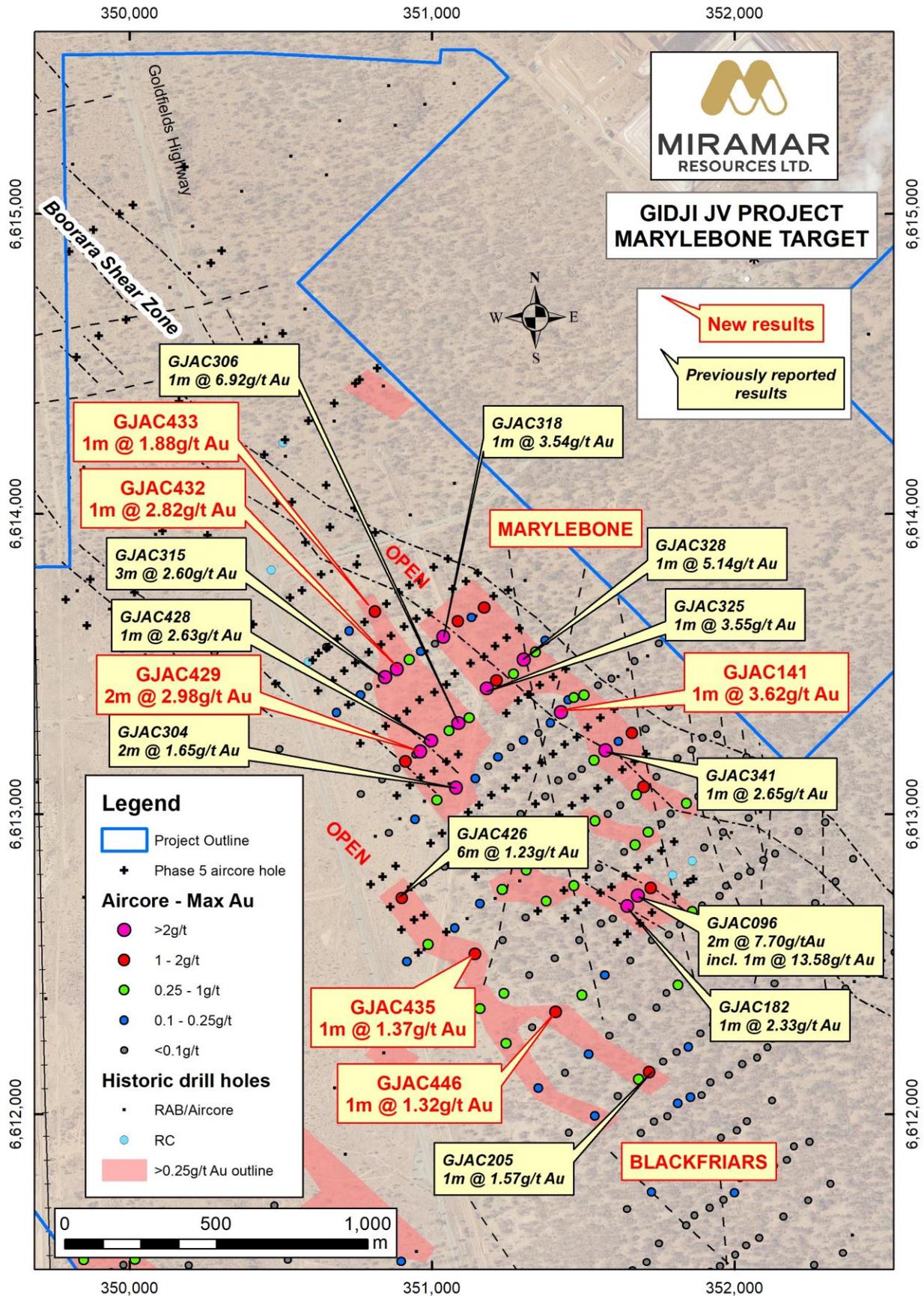


Figure 1. Marylebone and Blackfriars targets showing all significant drill results to date.

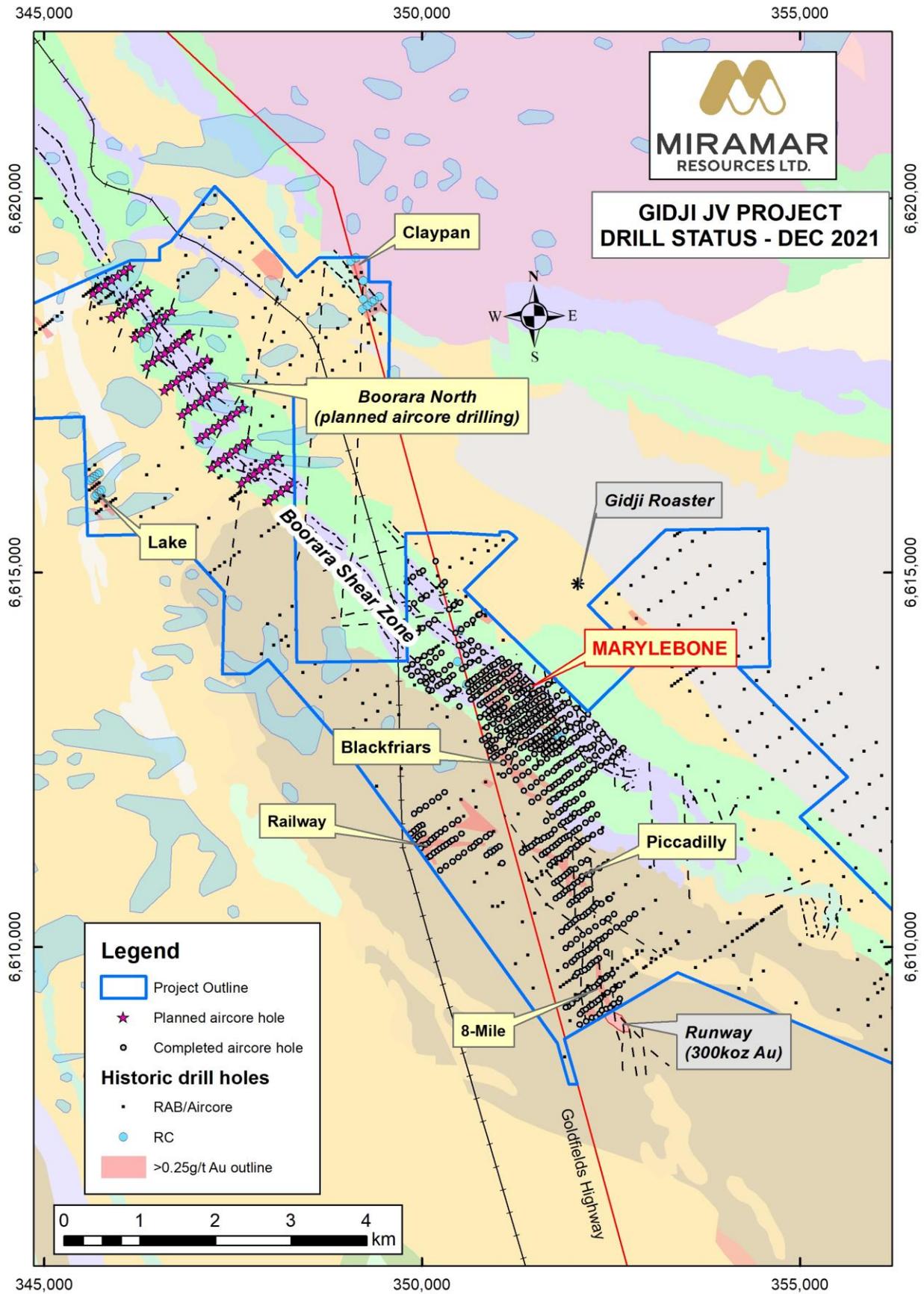


Figure 2. Gidji JV Project showing existing and proposed drilling over GSWA regional geology.

**Table 1.** Significant aircore results >0.25g/t from recent Gidji JV aircore drilling.

Target	Hole	Easting	Northing	EOH Depth	From (m)	To (m)	Interval (m)	Au (g/t)	Notes
Marylebone	GJAC141	351427	6613340	66	54	55	1	3.62	
	GJAC176	351672	6612899	92	57	59	2	0.43	3.28g/t Ag
	GJAC429	350962	6613209	72	43	45	2	2.98	
	GJAC432	350885	6613484	81	49	50	1	2.82	7.87g/t Ag
	GJAC433	350812	6613484	63	53	54	1	1.88	
Blackfriars	GJAC435	351142	6612536	78	49	50	1	1.37	
	GJAC441	351239	6612404	61	52	54	2	0.25	1.05g/t Ag
	GJAC442	351159	6612352	66	50	51	1	0.60	1.26g/t Ag
	GJAC443	351076	6612292	60	45	48	3	0.19	
	GJAC446	351409	6612342	61	52	55	3	0.56	1.50g/t Ag
				Incl.	52	53	1	1.32	
	GJAC447	351497	6612398	50	40	41	1	0.55	Paleochannel?
GJAC453	351539	6611996	63	62	63 EOH	1	0.19	EOH	
Piccadilly	GJAC397	351410	6611326	48	36	37	1	0.74	
Railway	GJAC415	349910	6611436	57	50	53	3	0.24	
	GJAC418	350019	6611517	63	51	52	1	0.30	

## 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 Announcement of the matters based on his information and in the form and context in which it appears.



**About the Gidji JV Project**

The Gidji JV Project is located within the Eastern Goldfields approximately 15km north of Kalgoorlie. Miramar purchased an 80% interest in the Project tenements as part of the 2020 IPO.

The Project comprises several tenements located along a major regional structure, the “Boorara Shear Zone”, which hosts gold mineralisation in several deposits along strike in either direction.

A significant dilational jog in the Boorara Shear within the project tenements has been poorly explored.

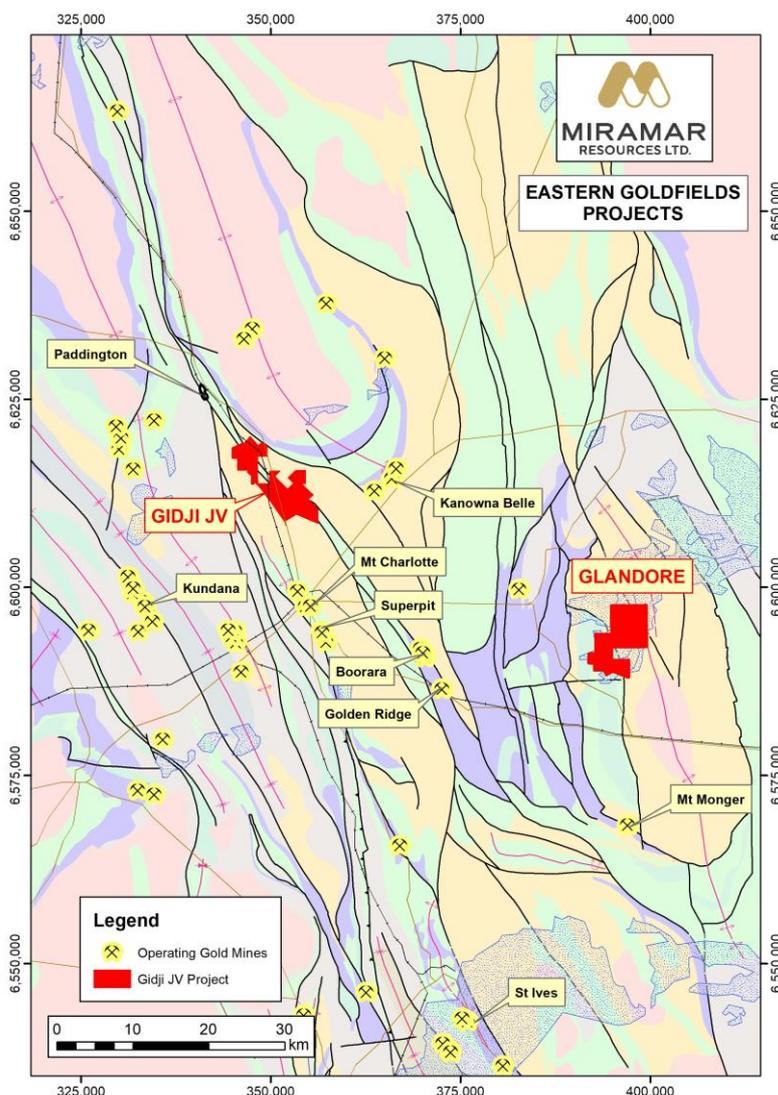
The Project has been well covered by historic drilling and auger sampling, but most holes were angled and less than 40m deep.

First-pass aircore drilling undertaken by Miramar in December 2020 identified several large new targets including Marylebone, Railway, Piccadilly and 8-Mile.

Follow-up aircore drilling throughout 2021 upgraded and extended these targets.

Marylebone is currently the highest priority target at Gidji with geology, structure and scale similar to the 10Moz Paddington deposit along strike to the northwest.

Applications granted in September 2021 include several under explored targets such as The Jog, Claypan and Lake, along with an underexplored 4km section of the Boorara Shear Zone.

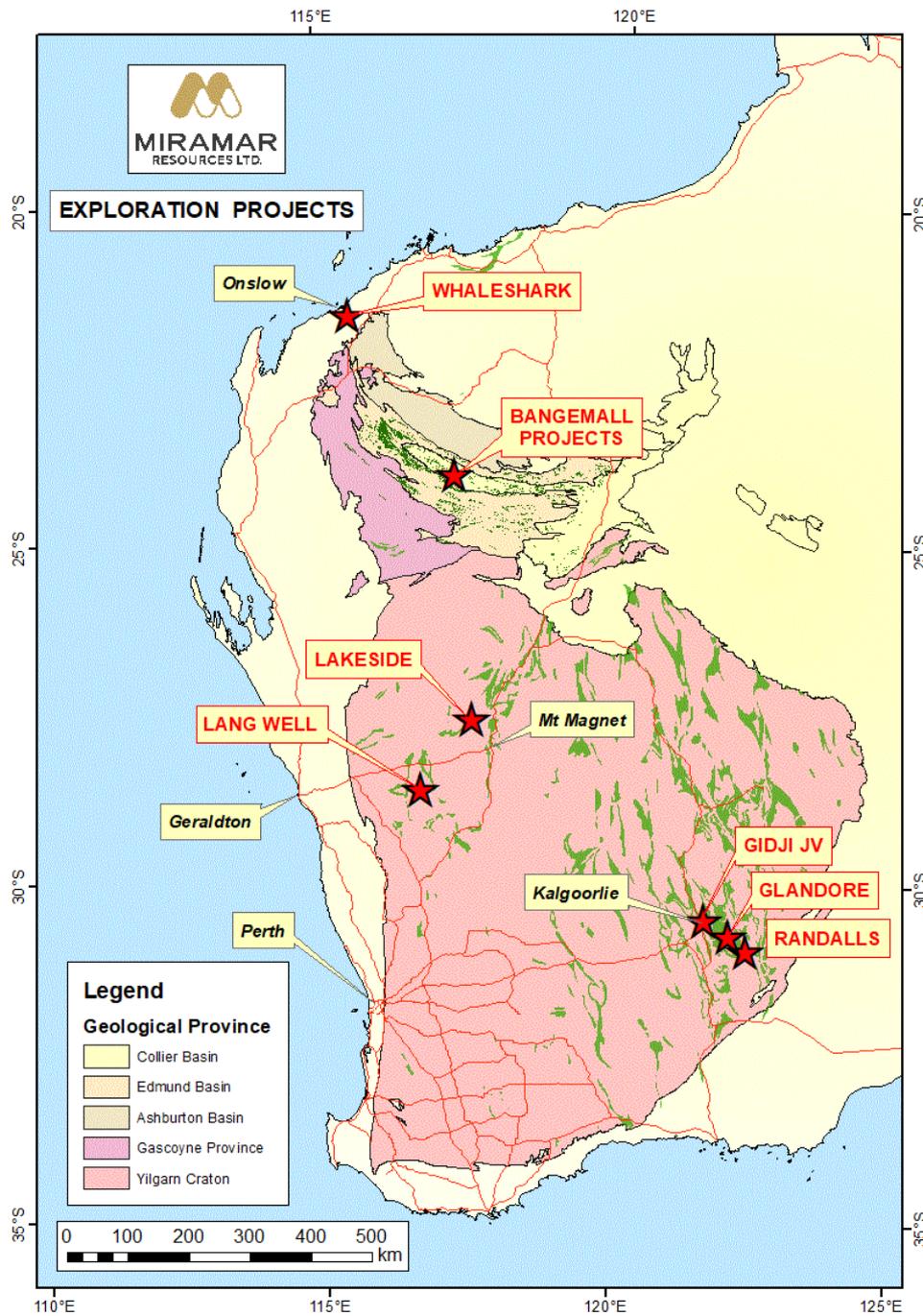




**ABOUT MIRAMAR RESOURCES LTD**

Miramar Resources Limited is a WA-focused mineral exploration company actively exploring projects in the Eastern Goldfields, Murchison and Gascoyne regions and listed on the ASX in October 2020, following a heavily oversubscribed \$8 million IPO.

Miramar’s Board has a track record of successful discovery, development and production within Australia, Africa, and North America, and aims to create shareholder value through discovery of high-quality mineral deposits.





## JORC 2012 Table 1 – Gidji JV Aircore Drilling

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>4m composite samples compiled from individual 1m sample piles</li> <li>Samples average 3kg in weight</li> <li>Samples with significant results are resplit by taking individual 1m samples for re-assay</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Aircore drilling to “blade refusal”</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Comments recorded for samples with low recovery</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the</li> </ul>	<ul style="list-style-type: none"> <li>Samples were logged for colour, weathering, grain size, geology, alteration and mineralisation where possible</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>relevant intersections logged.</i>	
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• 4m composite samples combined from individual 1m samples piles to achieve approximately 3kg of sample</li> <li>• Where possible sample intervals are split across the transported/basement boundary</li> <li>• Samples with significant results are resplit by taking individual 1m samples for re-assay</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were assayed using an aqua-regia digest followed by analysis of gold and multi-elements by ICPMS with lower detection limit of 1ppb Au</li> <li>• QAQC samples inserted at frequency of 4 QAQC samples (i.e. standard, blank duplicate) per 100 samples</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples with &gt;0.25g/t Au will be re-assayed as 1m re-splits</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Hole collar locations were recorded with a handheld GPS in MGA Zone 51S</li> <li>• RL was also recorded with handheld GPS but accuracy is variable</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill spacing is generally 50-100m along lines and from 150-300m between lines.</li> <li>• The spacing is appropriate for the stage of exploration</li> <li>• 1m sample piles were composited over 4m</li> <li>• Samples with significant results are resplit by taking individual 1m samples for re-assay</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>applied.</i>	
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Drill lines were completed perpendicular to the trend of the main geological units and parallel to previous drill lines.</li> <li>It is likely that the mineralized structures trend at a different orientation to the regional geology</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were transported from site directly to the laboratory by Miramar staff</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits have been undertaken</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The exploration was conducted on E26/214, E26/225, P26/4221 and P26/4222 which are owned 80% by Miramar Goldfields Pty Ltd and 20% by Thunder Metals Pty Ltd</li> <li>Miramar Goldfields Pty Ltd is a wholly owned subsidiary of Miramar Resources Limited</li> <li>Miramar has an exploration JV with Thunder Metals Pty Ltd</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration has been previously completed by other companies including Goldfields and KCGM, and included auger drilling, RAB, aircore and limited RC drilling.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The target is Archaean greenstone-hosted mesothermal gold mineralisation.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>See Table 1 and Figures which show all drilling completed to date.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Intervals reported over 0.25g/t Au with maximum of 1 sample of internal dilution</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>No assumptions about true width or orientation of mineralisation can be made from the current programme</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li><i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>See attached Tables and Figures</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>All reported holes shown in Figure 1</li> <li>Figure 2 shows all holes completed to date</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>No other relevant data</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Further aircore, RC and/or diamond drilling planned</li> </ul>