



ASX ANNOUNCEMENT

GIDJI JV EXPLORATION UPDATE - AMENDED

- **RC drilling intersects “Paddington-style” dolerite at Blackfriars**
- **Potential bedrock structures identified in aircore assay data**

Miramar Resources Limited (ASX:M2R, “Miramar” or “the Company”) provides the following update on exploration activities within the Company’s strategic Eastern Goldfields project portfolio.

As previously advised, the Company secured a drill rig at short notice and completed a single RC drill hole at the high-priority Blackfriars prospect, within the Gidji JV Project (“Gidji”).

GJRC028 was drilled beneath aircore hole **GJAC627 (1m @ 11.8g/t Au and 6g/t Ag EOH)** and planned to intersect the dolerite footwall contact but was abandoned at 130m due to difficult drilling conditions associated with running sands in the overlying Gidji Paleochannel.

The hole intersected a quartz-dolerite unit, similar to the >2 million ounce Paddington gold deposit along strike to the north, with significant sulphide mineralisation and quartz-carbonate stringer veins from 113m downhole (Figure 1).

Samples of the last three metres before the hole was abandoned contain anomalous gold, silver and antimony along with the increase in sulphide mineralisation (Table 2).

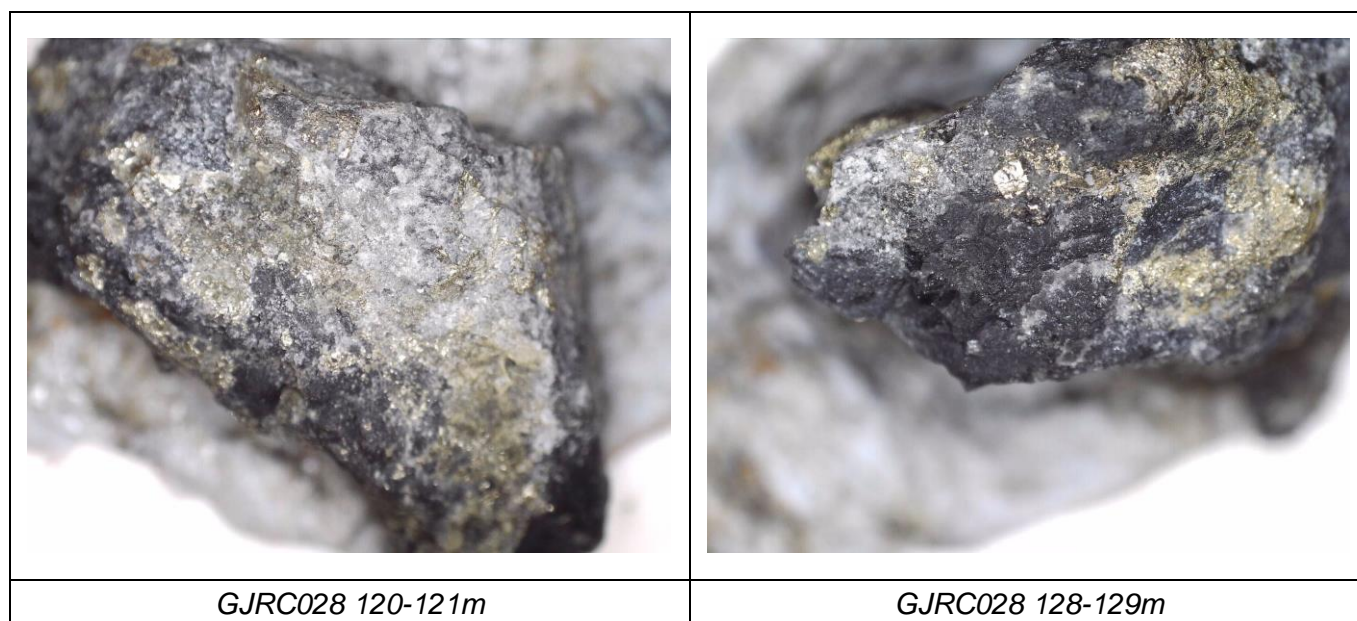


Figure 1. Examples of quartz-dolerite with sulphides (field of view ~20mm).

Miramar’s Executive Chairman, Mr Allan Kelly, said the Blackfriars target remained untested at this stage.

“Frustratingly, we had to abandon the hole just when it was starting to look interesting,” he said.

“The reason that the Gidji Project has remained underexplored for so long, despite its prime location on a major highway between two major gold camps, is due in large part to the presence of extensive transported cover and the Gidji Paleochannel,” Mr Kelly said.

“This makes drilling more challenging than in other parts of the Goldfields but also means that any potentially significant bedrock gold mineralisation remains undiscovered,” he said.

“Given the favourable geology and structural setting, and the amount of shallow gold we have outlined from aircore drilling so far, we still believe Gidji has the potential to host significant bedrock gold mineralisation in one or more deposits,” he added.



The Blackfriars prospect contains a quartz-dolerite unit located at the contact between the Black Flag Group and mafic and ultramafic rocks of the Boorara Shear Zone (Figure 2) and therefore shares the same geological setting as the Paddington gold deposit along strike to the north.

The Blackfriars aircore gold footprint stretches for at least 1 kilometre, at greater than 1g/t Au, and remains open along strike to the northwest on the western side of the Goldfields Highway (Figure 3).

Publicly available information on the discovery of Paddington in 1982 highlights a relationship between the gold mineralisation, tungsten and arsenic (WAMEX report a12796).

Reviewing assay data from all aircore holes drilled at Gidji to date reveals a series of parallel E-W trending tungsten anomalies which crosscut both the local geology and the Gidji Paleochannel.

Significantly, a series of anomalous tungsten results link the high-grade gold results at the Marylebone and Blackfriars prospects, including GJAC627 (Figures 4 and 5).

The E-W orientation of these anomalous tungsten results appears to mirror the expected orientation of extensional structures formed by D2 sinistral shearing, which host most gold mineralisation within the Boorara and Bardoc Shear Zones, including at Paddington.

Given the similarities to Paddington, Blackfriars remains a high priority target within the Gidji JV Project.

Miramar will review options for further work at Blackfriars, including adding a diamond tail to GJRC028 to properly test the dolerite unit and testing along strike to the northwest with further aircore drilling.

The Company is working towards obtaining approvals for drilling of other high-priority targets at Gidji.

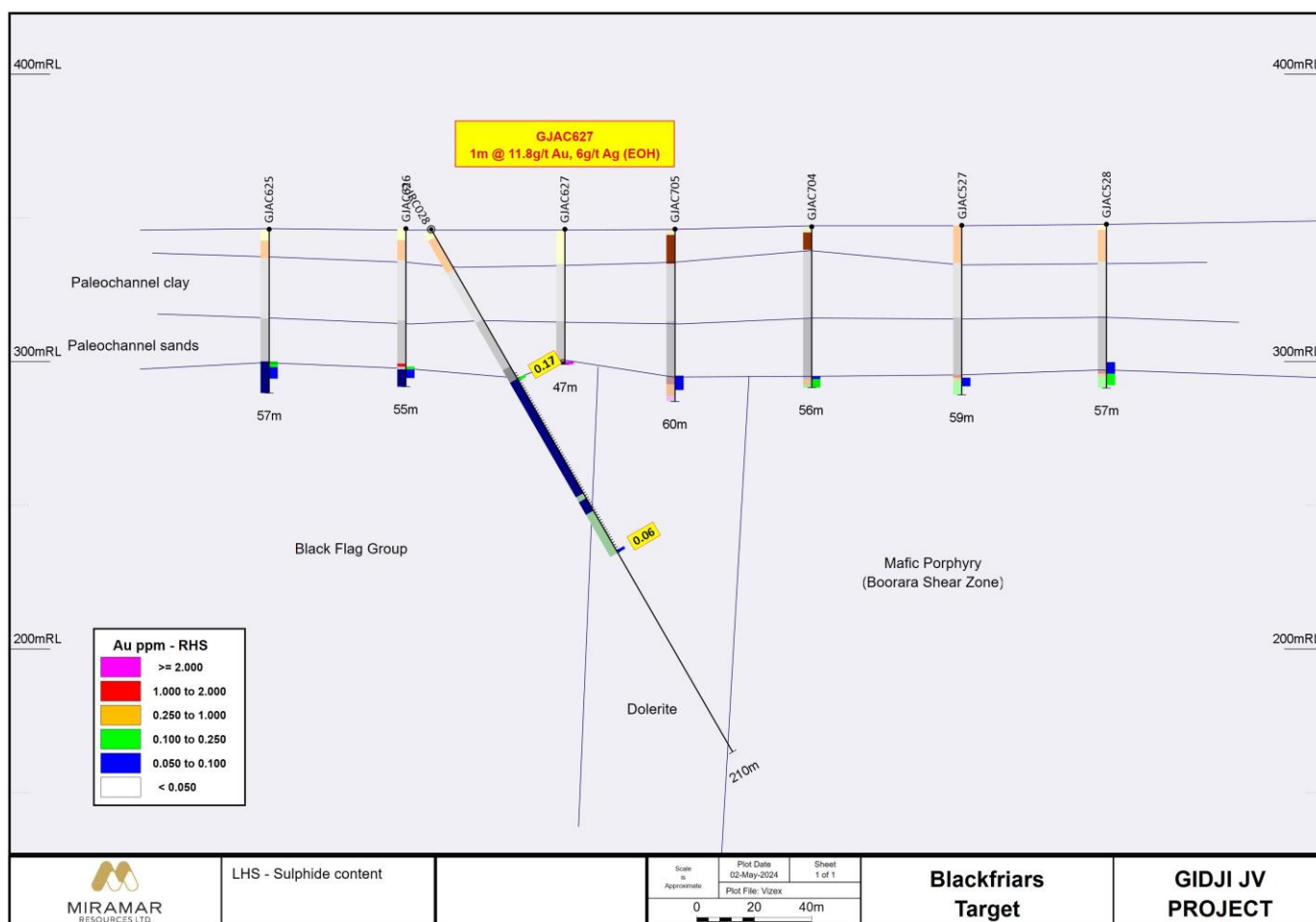


Figure 2. Cross section showing incomplete hole GJRC028 in relation to GJAC627.

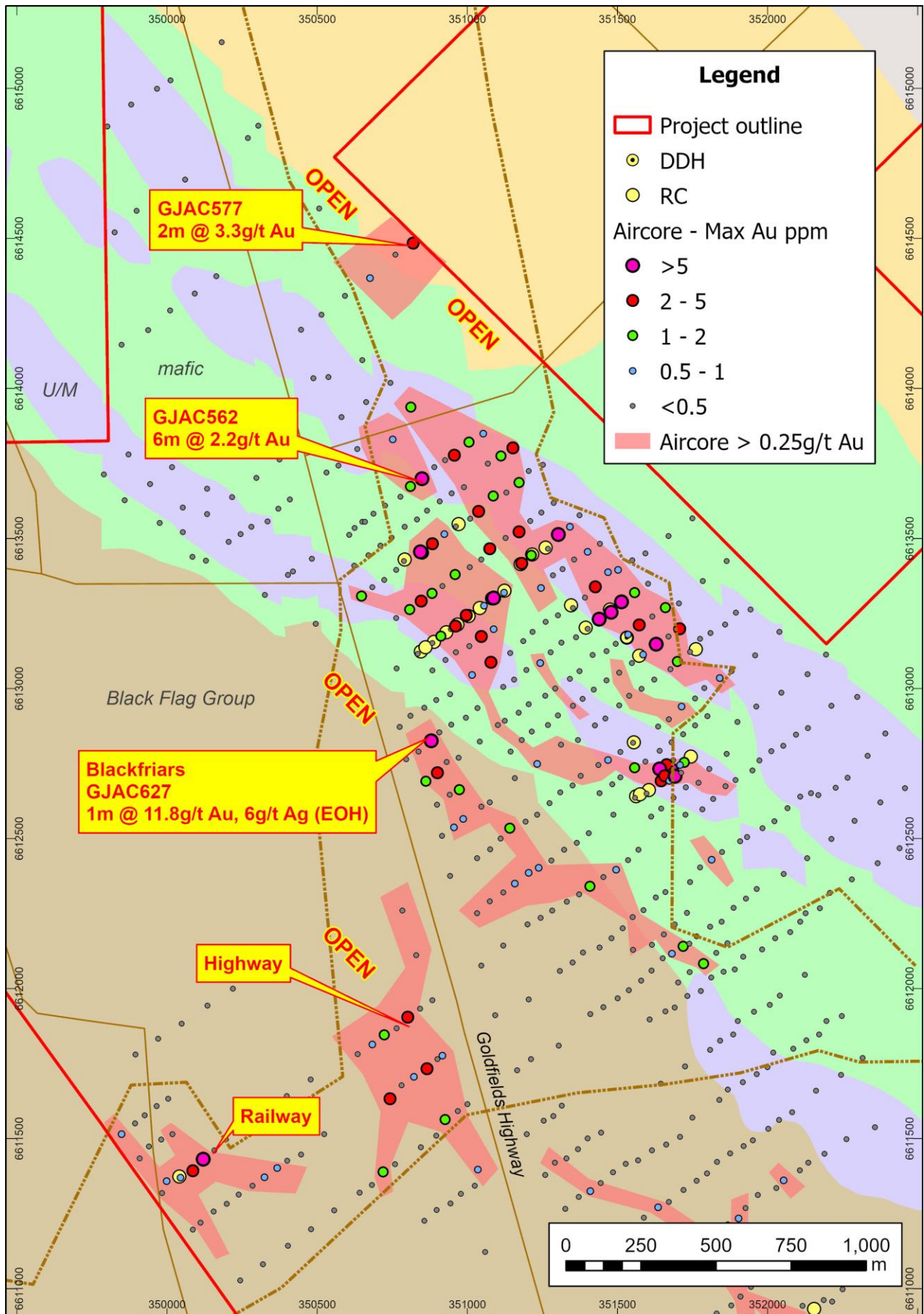
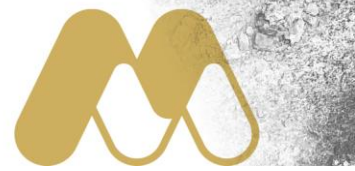


Figure 3. Central portion of Gidji JV Project showing location of the Blackfriars Prospect.

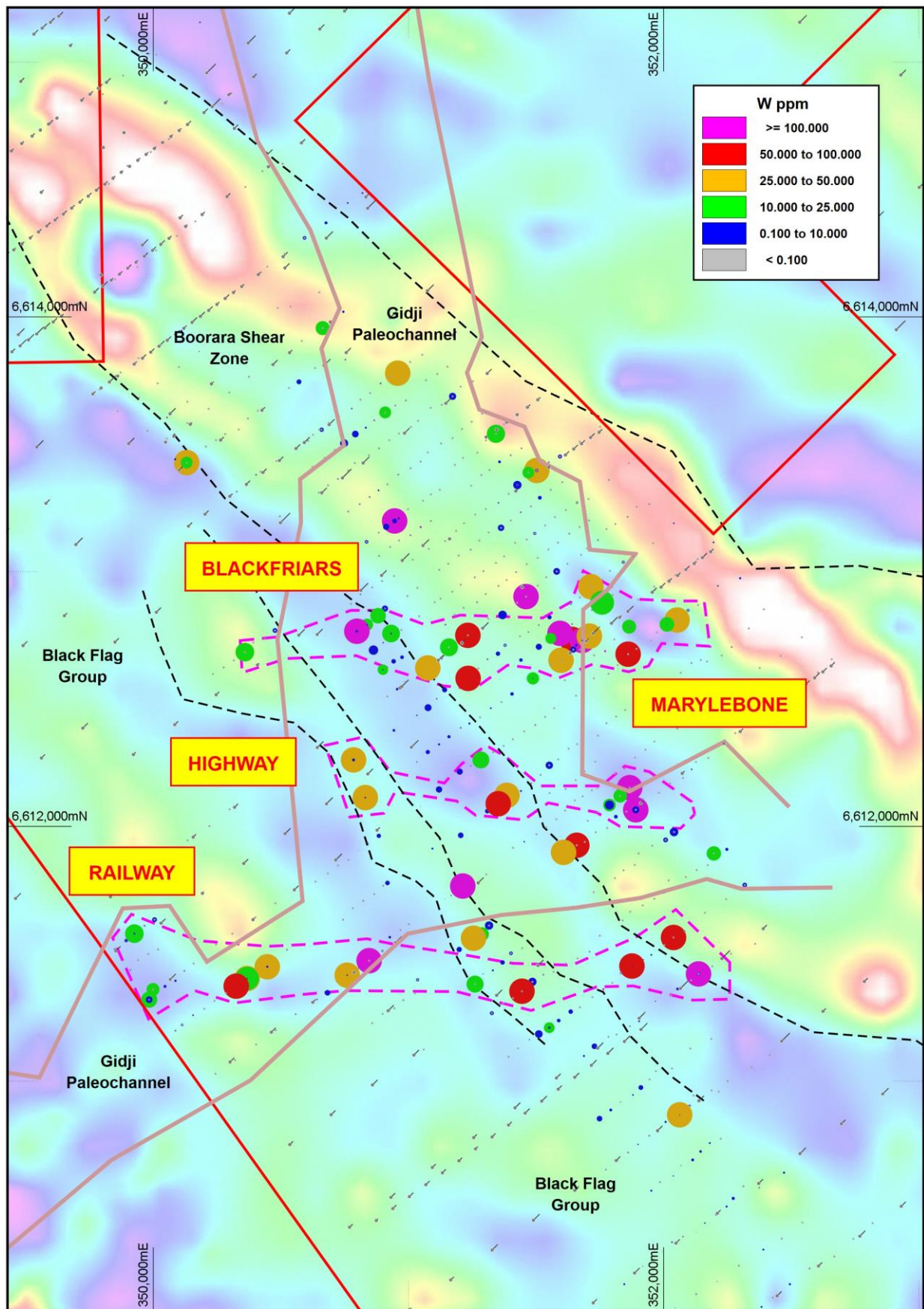


Figure 4. Tungsten results in aircore drilling over gravity image showing E-W trends crosscutting local geology and the Gidji Paleochannel.

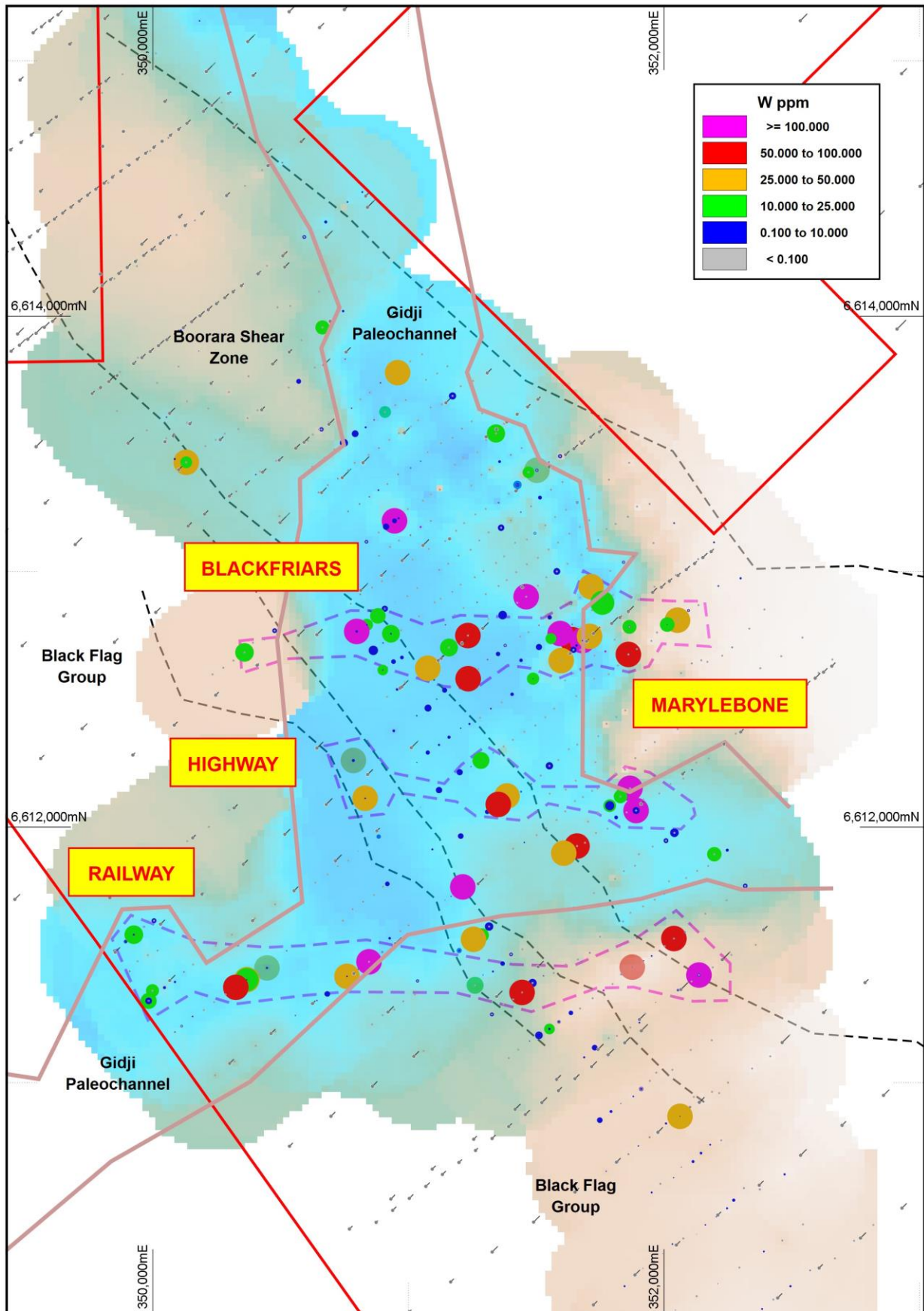
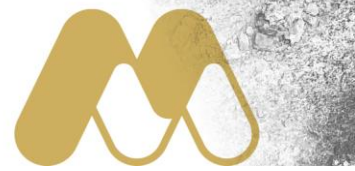


Figure 5. Tungsten results in aircore drilling over depth to basement image showing E-W trends crosscutting the Gidji Paleochannel.

**Table 1. Blackfriars RC hole summary**

Hole ID	Easting	Northing	RL	Dip	Azimuth	Total Depth
GJRC028	350846	6612796	350	-60	054	130*

* Planned depth ~210m

Table 2. Blackfriars RC hole summary log (as provided on 22 April 2024)

From	To	Lithology	Mineralisation
0	3	Red soil and colluvium	
3	5	White/pink mottled clays	
5	36	paleochannel clays	
36	55	paleochannel sands	
55	58	coarse paleochannel sands/gravel	
58	60	mixed coarse paleochannel sand/gravel and black shale fragments	
60	80	Black shale	
80	103	Black shale with coarse pyrite cubes	2% pyrite
103	106	Black shale with coarse pyrite cubes	5% pyrite
106	108	Blocky silicified dolerite with vuggy silica fragments	10% pyrite
108	113	Black shale with coarse pyrite cubes	10% pyrite
113	121	Blocky silicified dolerite with quartz stringers	10% pyrite
121	130	Blocky silicified dolerite with quartz stringers, fine disseminated pyrite along fractures and coarse pyrite cubes	15% pyrite

Cautionary statement: Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

Table 3. GJRC028 assay summary (Au results above 0.025ppm lower cutoff shown)

From	To	Interval	Au g/t	other	Comments
60	61	1	0.17		supergene gold at unconformity
90	91	1	0.04		
127	128	1	0.05	0.60g/t Ag	
128	129	1	0.05	0.60g/t Ag, 8ppm Sb	
129	130 (EOH*)	1	0.06	0.70g/t Ag, 15ppm Sb 1280ppm Zn	

For more information on Miramar Resources Limited, please visit the company's website at www.miramarresources.com.au, follow the Company 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.



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.

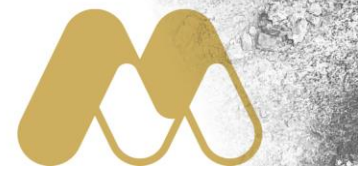
Mr Kelly has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to Qualify as a “Competent Person” as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources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

Historical exploration results for the Gidji JV Project, including JORC Table 1 and 2 information, is included in the Miramar Prospectus dated 4 September 2020.

JORC Table 1 and 2 information for exploration results at the Gidji JV Project, including drill hole collar information, is contained in the following ASX Announcements:

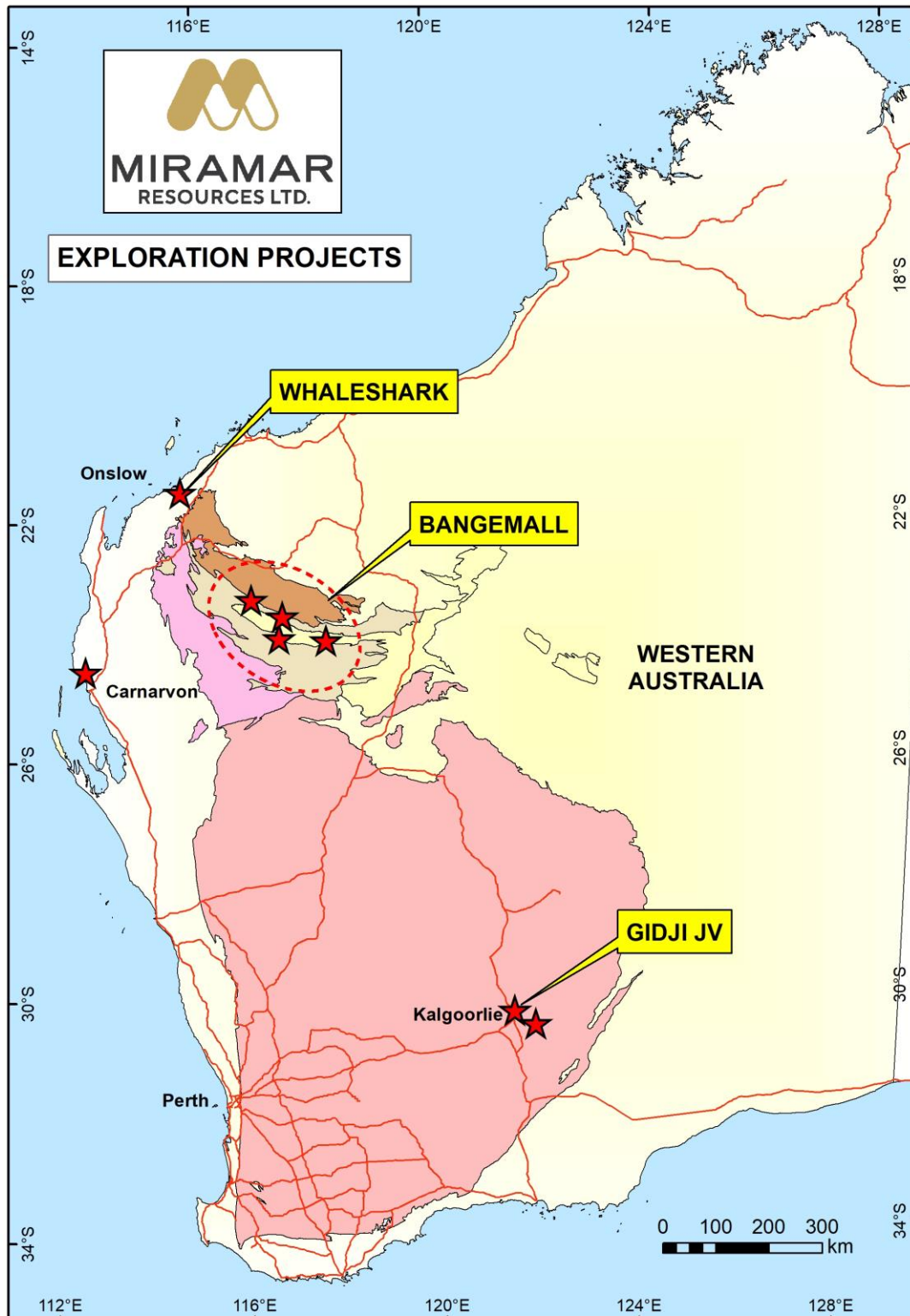
- 2/2/2023 Large Exploration Target Highlights Gidji JV Gold Potential
- 10/8/2022 *Significant gold results from “Highway” Target*
- 1/8/2022 *Further High-Grade Gold Results from Gidji JV*
- 30/6/2022 *Multiple High-Grade Gold Results from Gidji JV*
- 29/6/2022 *Gidji JV Project – Exploration Update*
- 26/5/2022 *Gidji JV Exploration Update*
- 3/5/2022 *Miramar to accelerate Gidji drilling following \$2.4M raising*
- 13/4/2022 *Potential for Multiple Large Deposits at Gidji JV*
- 8/4/2022 *Multiple High-Grade Gold Results from Gidji JV*
- 10/3/2022 *Nickel Sulphide Targets Identified at Gidji JV*
- 1/2/2022 *RC Drilling Underway at Marylebone*
- 10/1/2022 *New Target at Gidji JV Increases Camp-Scale Potential*
- 22/12/2021 *Gidji drilling results indicate potential new gold camp*
- 25/11/2021 *Gidji JV Exploration Update*
- 7/10/2021 *Significant Gold Results from Gidji JV Drilling*
- 23/09/2021 *Multiple High-Grade Gold Results from Marylebone*
- 13/09/2021 *Gidji JV Tenements Granted*
- 2/08/2021 *Aircore Drilling Grows Marylebone*
- 29/06/2021 *New Aircore Results Upgrade Gidji Targets*
- 3/06/2021 *RC and Aircore Drilling Underway at Gidji JV*
- 11/05/2021 *Aircore Drilling Extends and Upgrades Marylebone*
- 6/05/2021 *Gidji JV Project Exploration Update*
- 15/04/2021 *Gidji Diamond Drilling - Additional Information*
- 12/04/2021 *Gidji Drilling Extends Runway and Hits Visible Gold*
- 16/03/2021 *Drilling Underway at Gidji*
- 11/02/2021 *High-grade gold at Gidji upgrades targets*
- 1/02/2021 *Gidji drilling intersects visible gold and outlines multiple targets*



About Miramar Resources Limited

Miramar Resources Limited is an active, WA-focused mineral exploration company exploring for gold, copper and Ni-Cu-PGE deposits in the Eastern Goldfields and Gascoyne regions of WA.

Miramar's Board has a track record of 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 RC Drilling

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <i>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.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>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.</i> 	<ul style="list-style-type: none"> 1m samples collected from 1m piles Sampling commenced 2m above the interpreted uniformity between transported material and weathered basement Samples average 3kg in weight
Drilling techniques	<ul style="list-style-type: none"> <i>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).</i> 	<ul style="list-style-type: none"> RC drilling with hammer bit
Drill sample recovery	<ul style="list-style-type: none"> <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <i>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.</i> 	<ul style="list-style-type: none"> Comments recorded for samples with low recovery Hole was abandoned due to poor ground conditions including running sands
Logging	<ul style="list-style-type: none"> <i>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.</i> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the</i> 	<ul style="list-style-type: none"> Samples were logged for colour, weathering, grain size, geology, alteration and mineralisation where possible



Criteria	JORC Code explanation	Commentary
	<i>relevant intersections logged.</i>	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> • <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> • <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> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> • Samples collected from 1m sample piles to achieve approximately 3kg of sample
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <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> • <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> 	<ul style="list-style-type: none"> • Samples were assayed using a 50g fire assay for gold and a four-acid digest followed by ICP-OES for multi-elements • QAQC samples inserted at frequency of 4 QAQC samples (i.e. standard, blank duplicate) per 100 samples
Verification of sampling and assaying	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	
Location of data points	<ul style="list-style-type: none"> • <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> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • Hole collar locations were recorded with a handheld GPS in MGA Zone 51S • RL was also recorded with handheld GPS but accuracy is variable
Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <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> • <i>Whether sample compositing has been</i> 	<ul style="list-style-type: none"> • Single RC hole drilled under previous aircore holes



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

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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. 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. 	<ul style="list-style-type: none"> The exploration was conducted on E26/214 which is owned 80% by Miramar Goldfields Pty Ltd and 20% by Thunder Metals Pty Ltd Miramar Goldfields Pty Ltd is a wholly owned subsidiary of Miramar Resources Limited Miramar has an exploration JV with Thunder Metals Pty Ltd
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Exploration has been previously completed by other companies including Goldfields and KCGM, and included auger drilling, RAB, aircore and limited RC drilling.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The target is Archaean greenstone-hosted mesothermal gold mineralisation.
Drill hole Information	<ul style="list-style-type: none"> 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"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. 	<ul style="list-style-type: none"> See Table 1 and 2 and Figures which show all drilling completed to date.



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> <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> <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> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> Significant results reported in Table 2
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <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> 	<ul style="list-style-type: none"> No assumptions about true width or orientation of mineralisation can be made from the current programme
Diagrams	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> See attached Tables and Figures
Balanced reporting	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> All holes shown in Figure 3 to 5 Table 1 shows collar information for GJRC028 Table 2 shows all significant assays
Other substantive exploration data	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> No other relevant data
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <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> 	<ul style="list-style-type: none"> Further aircore, RC and/or diamond drilling planned