ASX ANNOUNCEMENT



EXPLORATION UPDATE

- Preparations for aircore and diamond drilling at Gidji JV
- Historical gravity data acquired for Gidji JV and Glandore Projects
- Gravity survey completed at Lang Well and planned for Glandore
- Planning for airborne EM survey at Mt Vernon (Bangemall Ni-Cu-PGE project)

Miramar Resources Limited (ASX:M2R, "Miramar" or 'the Company") is pleased to provide an update on recent and planned exploration activities across its Western Australian exploration project portfolio.

Miramar's Executive Chairman, Mr Allan Kelly, said the Company had been busy working up data for several projects in preparation for upcoming drilling programmes.

"We've managed to acquire some key historical geophysical datasets, at minimal cost to the Company, which will enable us to more effectively plan our next drilling programmes, including the first campaign at Glandore," Mr Kelly said.

"In particular, the gravity data we have obtained for the Gidji JV has highlighted and confirmed a number of key geological features which add to our excitement about the potential of that project," he added.

Gidji JV

The Company is currently completing final preparations for the recommencement of drilling at its 80% owned Gidji JV project, located approximately 15km north of Kalgoorlie.

The next phase of exploration at Gidji will include:

- Aircore drilling to follow up results from the successful phase 1 campaign completed in December 2020, which intersected high grade gold up to **2m @ 7.7g/t Au**
- Diamond drilling to test the potential for an extension to the neighbouring 314koz Runway deposit.

Field personnel have mobilised to site and are pegging and clearing drill sites in advance of the arrival of the respective drill rigs.

In the meantime, the Company has been successful in acquiring several historical geophysical datasets, including for the Gidji JV project, and has reprocessed the various data.

The historical gravity data for Gidji (Figure 1) highlights several important geological features which will assist in refining drill targets within both the granted and pending areas of the project.

The Boorara Shear Zone shows up as an obvious linear gravity high as a result of the relatively dense mafic and ultramafic rocks present within this important regional structure.

A discrete, higher amplitude gravity anomaly is observed within the interpreted dilational jog at the south east end of the Boorara Shear Zone. This is a high priority target and will be drill tested once the relevant tenements are granted.

"Railway", "8-Mile" and the "New target" all appear to be associated with lower magnitude gravity anomalies within sediments of the Black Flag Group which may represent previously unrecognised mafic-intermediate porphyry units, similar to that which hosts the bulk of the gold mineralisation at Runway.

The "Lake" and "Claypan" targets, within an application pending grant, are both located on major regional structures observed in the newly obtained gravity and corresponding magnetic data.





Figure 2. Bouguer gravity image for Gidji, showing major structures and Miramar defined targets.



Glandore

As previously advised, the Company recently received heritage approvals which allow for the commencement of exploration work on the 100% owned Glandore Project, approximately 40km east of Kalgoorlie (See ASX release dated 24 February 2021).

Miramar has recently acquired historical gravity data for the Project which, when combined with the existing magnetic data, highlights a number of important geological features and will be used to assist in planning the first drill programmes.

The historical gravity data outlines the "internal" granitoid pluton alongside which the "East Target" gold mineralisation is located (Figure 2).

Further south, the gravity data highlights a large granite dome which forms the core of a regional anticline.

The Majestic, Imperial and Trojan gold deposits are located on the western and eastern edges of this granite dome respectively.

The Company has planned a survey to infill the historical gravity data within the south western part of the project and to collect first pass gravity data over the Exploration Licence with the aim of testing for repetition of the granite dome and the potential for gold mineralisation similar to the deposits further south.

Lang Well

The Company recently completed a first pass gravity survey over the 100% owned Lang Well project, in the Murchison region of WA.

The Lang Well project has previously been interpreted to consist mostly of granite and/or gneiss with small areas of outcropping greenstone lithologies, which are more prospective for gold mineralisation.

The gravity survey, which covered most of the project at a spacing of 800 x 400m, has highlighted several areas of higher gravity which are interpreted to represent unmapped greenstone (Figure 3).

Notably, the large NE-trending historical auger gold anomalies appear to be associated with strong gravity gradients at the edge of gravity highs, indicating that the geochemical anomalism is most likely related to bedrock features, (i.e. faults) rather than surficial topographic features.

The Company has planned a first pass aircore programme to test the auger anomalies at a spacing of 800m x 200m and has submitted an application for funding under the current Exploration Incentive Scheme (EIS) round.





Figure 2. Glandore Project showing historic gravity data and proposed surveys in relation to targets.





Figure 3. Combined gravity and magnetic (1VD) image for Lang Well project showing auger anomalies and planned aircore drilling.



Mt Vernon (Bangemall Ni-Cu PGE project)

In early 2021, Miramar announced the granting of the first of several Exploration Licence applications in the Bangemall region which are prospective for Ni-Cu-PGE mineralisation (See ASX Release dated 6 Jan 2021).

The Company recently acquired and reprocessed geophysical data for the "Mt Vernon" prospect collected by the GSWA as part of the Capricorn Orogen EM survey in 2013.

Although the flight lines were widely spaced (5km line spacing), the data highlights several large conductive bodies associated with the prospective Proterozoic dolerite sills (Figure 4).

At Mt Vernon, the EM conductors are also associated with a large PGE stream sediment anomaly and several second-order structures linking two major crustal-scale faults.

Examination of the flight line profiles has also revealed two potential conductors on lines 5km apart.

The Company is currently obtaining quotes for an airborne EM survey to cover the project at a more suitable line spacing.



Figure 4. Airborne EM conductivity image for channel 15 (16ms) for Mt Vernon Ni-Cu-PGE prospect.



For more information on Miramar Resources Limited, please visit the company's website at <u>www.miramarresources.com.au</u> 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.

ABOUT MIRAMAR RESOURCES LIMITED

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

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 the acquisition, exploration and monetisation of high-quality mineral assets.

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 the Gidji JV, Lang Well, Glandore Project and Bangemall projects, including JORC Table 1 and 2 information, is included in the Miramar Prospectus dated 4 September 2020.