

# ASX ANNOUNCEMENT

2 February 2021



## Drilling for a Giant Copper-Gold Porphyry

Meteoric Resources NL (ASX: MEI) (“**Meteoric**” or the “**Company**”) is pleased to announce plans to commence its 2021 Brazilian drilling program, which will be targeting a potential Copper-Gold porphyry system beneath the high-grade Juruena Epithermal gold deposits. The key priority of this program, which begins in early February, will be to test the high chargeability anomalies generated by the Deep IP survey, which the Company completed at the end of 2020.

### Highlights:

- An initial **3,600m** drilling campaign will commence in early February with the rig already onsite.
- Three diamond drill holes will test the peak of the chargeability anomaly defined by the 2020 Deep IP and MT survey.
- The anomaly is characterised by:
  - Chargeability values (>20mV/V) in a central core 1,500m long by 1,000m wide
  - The top of the chargeability anomaly is modelled 500m below the surface
- All data, including a 3D Inversion of both the IP and MT has been integrated in drill planning
- The inversions show that the core chargeability IP anomaly is not associated with the large-scale magnetic anomalies, consistent with the interpretation that the IP response is related to sulphides and not background magnetite.
- A downhole EM program is being considered for the proposed drill holes with the aim of identifying vectors towards any high concentration of sulphide related orebodies.

**Dr. Andrew Tunks Meteoric’s MD said**, “This drilling campaign could well be a potential game changer for Meteoric. Up until this point we have had a host of positive indicators that led us to believe that the shallow high-grade Epithermal gold mineralisation we see at Juruena was potentially related to a deeper magmatic source. The 2020 Deep IP & MT survey continues to support this theory having defined a large, high-response IP chargeability anomaly that demands immediate drill testing.

“As such I am pleased to advise that we mobilised the geology team to site early in the New Year and that drilling of an initial 3 hole program totaling around 3,600m will start in early February. Drilling high value targets like this is a key reason that I became an explorer – there is never a more exciting time than when you are drilling a target that has multiple lines of support and serious size potential. What we are about to commence in Brazil represents an enormous opportunity for the Company and I look forward to updating you on our results over the coming months as the drilling continues.”

## 2020 Juruena Deep IP- 2D inversion and 3D inversion

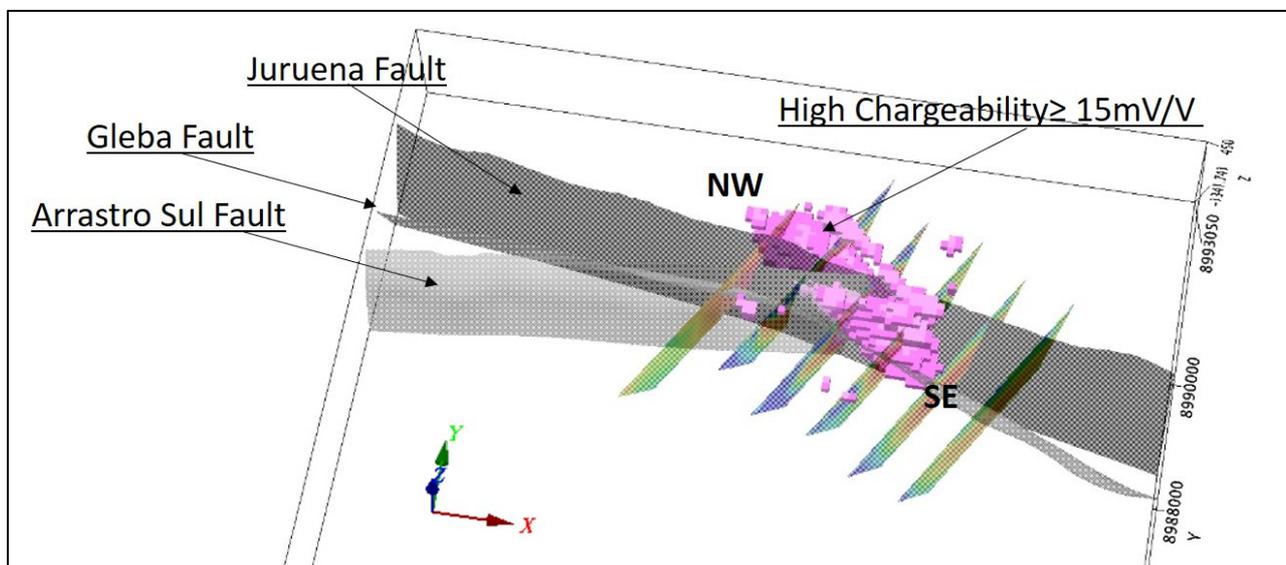
The deep Induced Polarisation (IP) survey finished at the end of 2020 defined a moderately deep, high chargeability/resistivity anomaly interpreted to be a possible magmatic source to the main gold mineralised zones of Dona Maria and Crentes at the Juruena Project.

Detailed geological work since the acquisition of the project in 2019 including: structural analysis, geochemical vectoring and the presence of hydrothermal breccias in the Juruena Faults already confirmed the potential of this area as the source of the metals (copper and gold) observed across the project.

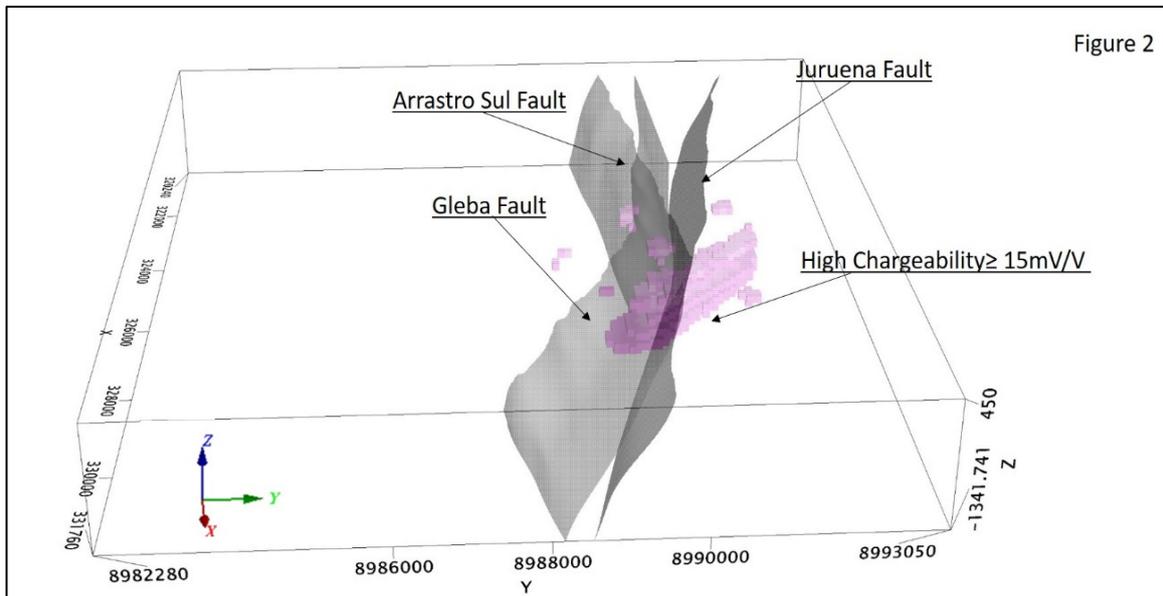
The Company announced (09/12/2021) the preliminary results of the Deep IP and MT survey conducted by GeoMag at Juruena. The results delineated a very large, strong chargeability anomaly (above 15 mv/v) indicative of disseminated sulphides which is 2km in length and 1.5km wide. It defined a core zone of high chargeability (above 20 mv/v) within the anomaly. The top of the chargeability anomaly lies about 500m below surface.

Subsequently, a 3D inversion of the data added considerable definition to the existing anomaly. The 3D results indicate that the high chargeability anomaly is larger than the initial 2D interpretation and has a SE-NW orientation (Figure 1) and shallow northwesterly plunge, aligned at a low angle to the regional structural trend and cut by the Juruena Fault (Figure 2).

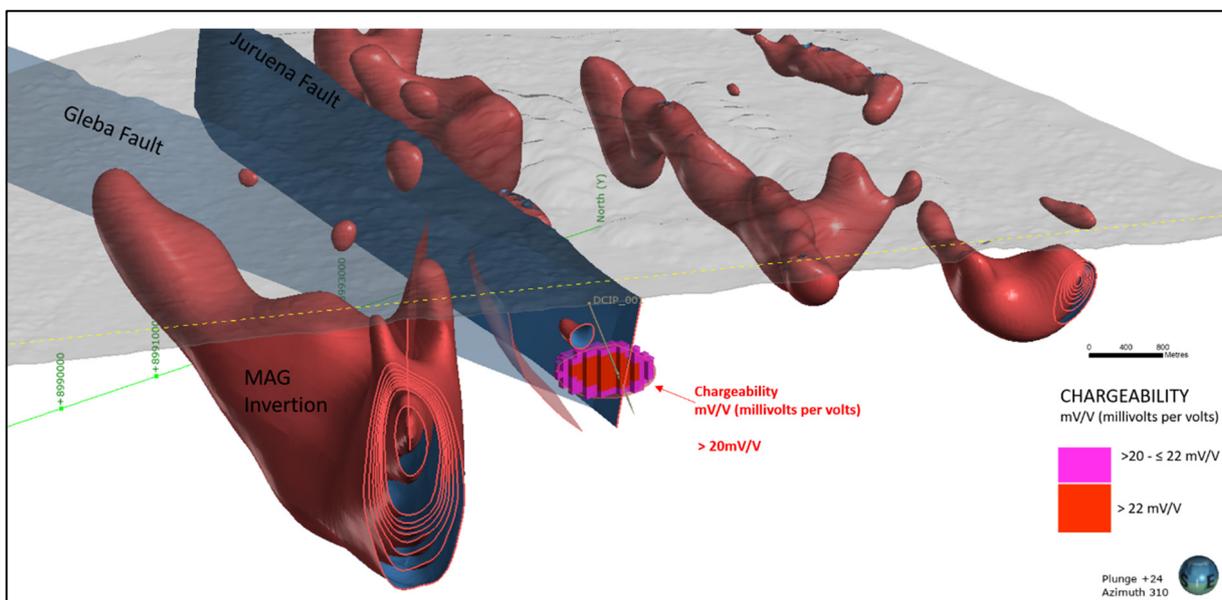
It is important to note that the high chargeability anomaly is interpreted to be the result of elevated concentrations of sulphide and not merely elevated magnetite in the country rock (which is also chargeable). This is supported by results from 3D inversion modelling by Southern Geoscience (Australia) of a detailed historical MAG survey (50m line spaced). Figure 3 clearly shows the chargeability anomaly is not coincident with the MVI anomaly from the 3D inversion of the magnetics, hence is not interpreted to correlate with magnetite but is likely generated by elevated sulphides associated with potential Cu-Au porphyry mineralisation.



**Figure 1.** 3D inversion showing the direction of the major high chargeability anomaly (>15 mv/v) and the regional faults. Note the NW SE orientation of the anomaly compared to the WNW trend of the major faults. In all figures Y = North, X = East and Z = vertical



**Figure 2.** 3D E-W view showing the major chargeability anomaly cutting the Juruena fault



**Figure 3.** 3D Magnetic data inversion (MVI) model and the high chargeability IP anomaly. Note the Juruena deep IP chargeability anomaly is well separated from the high magnetic MVI anomalies (the red shapes) indicating the chargeability anomaly is not related to increased magnetite concentrations but more likely increased sulphide concentrations associated with Cu-Au porphyry mineralisation.

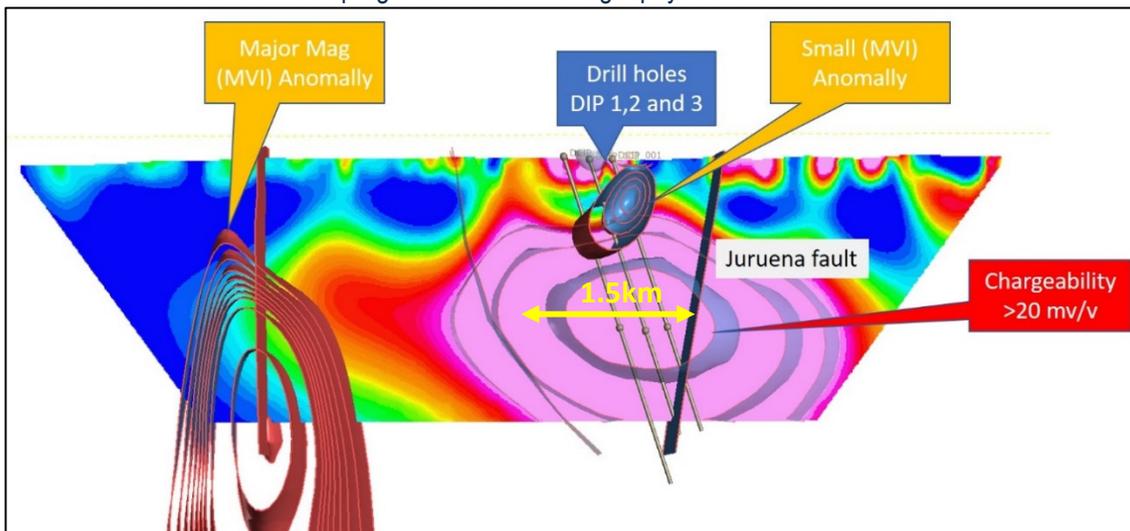
Additional support for the quality of the drill target is evident from several other independent features. Firstly, the chargeability anomaly lies below a major Cu-Mo soil geochemical anomaly from regional soil/auger data. Secondly, the anomaly is directly below a suite of intrusive lamprophyres and an intermediate porphyry intrusive suite whose fertility indicators from multi-element sampling and analysis show a geochemical affinity with Cu-Au porphyries (i.e. the presence of high magmatic water contents ubiquitous to large porphyry Cu-Mo-Au systems).

## Preliminary Drill Program

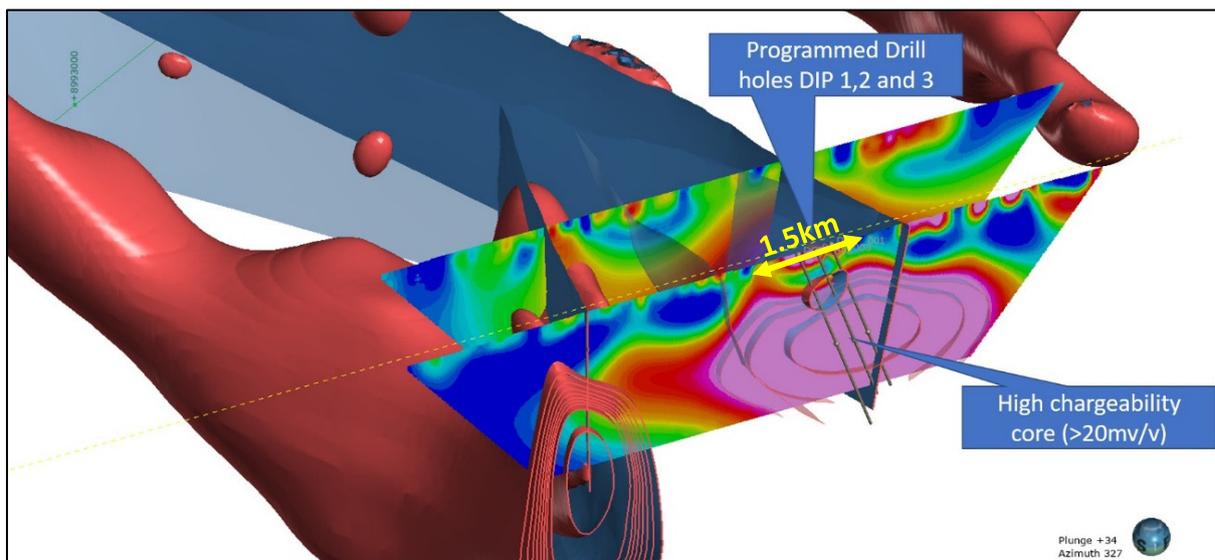
The preliminary drilling program will commence in early February. Initially, 3600m are planned to include three drill holes, each approximately 1200m deep. Samples will be analysed for gold and base metals.

The drill holes are designed to intercept the large, high chargeability anomaly in the central region (Figures 4 & 5) close to the Juruena Fault. The objective is to test the chargeability anomaly and characterise the types of sulphides that are responsible for the anomaly. In addition, Borehole EM is being considered at the completion of each hole to look for off hole, electrical anomalies (generally associated with massive and semi-massive sulphides) to generate vectors towards the highest concentration of sulphides related to porphyry Cu-Au mineralisation.

Figures 4 & 5 show the core of the chargeability anomaly with the drill holes designed to pass through the anomaly and to also test the Juruena Fault. The program will run from February through to the middle of the year and results will be released to the market as the holes progress and downhole geophysics is received.



**Figure 4.** Vertical Pseudo Section (2D data) showing the major chargeability anomaly, the traces of the MVI Mag anomalies and the 3 planned drill holes. Holes are targeting the main portion of the chargeability anomaly and the Juruena fault which has a significant control of the regional structure and fluid flow.



**Figure 5.** An integrated 3D model showing vertical pseudo IP Sections and 3D Mag inversion highlighting the major chargeability anomaly, the model of the MVI Mag anomalies and the 3 planned drill holes.

This announcement has been authorised for release by the Directors of the Company.

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*The information in this announcement that relates to mineral resource estimates and exploration results is based on information reviewed, collated and fairly represented by Mr Peter Sheehan who is a Member of the Australasian Institute of Mining and Metallurgy and a consultant to Meteoric Resources NL. Mr Sheehan has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Sheehan consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.*