

# Quarterly Activities Report

## For the period ended 30<sup>th</sup> June 2011

### HIGHLIGHTS

- At the Gidgee Project in Western Australia, EM modeling and data interpretations have defined a number of high priority drill targets
- Targets are defined by coincident geological, geophysical and geochemical VMS-style signatures
- Review of data from Rosie Northeast shows that mineralisation is open to the north, south and at depth, and future work is being planned
- Following the termination of the Cowra JV, Gateway is reviewing all exploration data and seeking a new JV partner for the tenements which have now reverted 100% to the Company

### OVERVIEW OF EXPLORATION PROJECTS

#### WESTERN AUSTRALIA

##### GIDGEE PROJECT

Work completed during the quarter included modelling of a number of EM anomalies outlined during previous EM surveys, and an ongoing interpretation of all results from the 2010/2011 field work.

This has resulted in aircore and reverse circulation drill programmes being planned, with Programme of Work (PoW) applications now being lodged with the Department of Mines and Petroleum.

This ongoing interpretation has reinforced the prospectivity of a number of tenements to host VMS mineralisation, with the known mineralisation at “The Cup” probably representing a zoned VMS lens.

Of particular interest are the under-drilled tenements that include the Gravel Pit and Gossans Galore prospects, which have returned very promising results to date. These prospects exhibit geological, geophysical and geochemical signatures that can be considered indicative of VMS-mineralised systems.

A first pass reconnaissance was also made over the Bungarra tenements, which were recently acquired by Gateway from Legend Mining. This work included field appraisal of prospects identified by Legend, as well as following up a number of EM anomalies that appear not have had any further work carried out on them.

The results are currently being interpreted; however preliminary thoughts indicate that this area too is prospective for VMS mineralisation; however the prospective stratigraphy has been disrupted due to the intrusion of the Bungarra Intrusive Complex.

### **Western Tenements – Gossans Galore E57/417, E57/688, P57/1232, P57/1152**

*Gateway 100%, (Avenue earning 80%)*

#### **Gravel Pit, E57/807**

*Gateway 100%,*

These under-explored tenements represent a prime VMS target area, with pointers to mineralisation including copper/zinc and VMS pathfinder anomalism in shallow drilling, strong EM conductors, and a 50m intersection of semi-massive and massive sulphides (albeit barren) in one aircore hole. The geological environment is one commonly associated with VMS mineralisation, comprising intercalated mafic volcanics and submarine sediments as part of an interpreted back-arc setting.

As reported in the March 2011 Quarterly Report EM surveying carried out over these tenements resulted in a number of conductors being defined as shown in Figure 2. The survey infilled (to 250m spacing) and extended previous 500m spaced surveys carried out by Gateway.

Work carried out during the current quarter has included modelling of the three most prominent anomalies (within the Avenue JV tenements), and an interpretation of work to date in the vicinity of these anomalies.

The westernmost anomaly shown in Figure 2 is interpreted as being a steeply NE dipping body, with a strike length of ~800m, and with a top at 148m below surface. The only drill testing over this anomaly were three shallow aircore holes drilled as part of the October 2010 programme. The holes intersected anomalous copper (to 773ppm) and zinc (to 396ppm) as part of an interpreted dispersion blanket, and strongly anomalous VMS immobile pathfinder elements, including arsenic to 2050ppm in hole AGAC009, which also ended in gossan in the vicinity of the modelled conductor.

The central anomaly is partly coincident with a pronounced magnetic high, and has had no previous drilling. The nearest drilling, including historic RAB and four aircore holes drilled as part of the October 2010 programme intersected anomalous copper and zinc in the saprolite zone, interpreted as being a dispersion blanket from a primary source.

This EM anomaly is interpreted as being a steeply NE dipping conductor with a strike length of ~900m, and a top at ~140m below surface.

The easternmost anomaly is modelled as being a steeply north dipping, 1,000m long conductor with a top at approximately 220m below surface.

One line of RAB and aircore holes has been drilled across this anomaly, with all intersecting strongly anomalous copper and/or zinc in an interpreted dispersion blanket. Hole ACAC019 also intersected 50m of massive and semi-massive sulphides from 50-100m downhole (interpreted true width of 25m), in a position that is in broad agreement with the modelled EM anomaly.

Although this sulphide zone had only weakly anomalous geochemistry, zones of barren sulphides are a feature of many mineralised VMS systems.

The Gravel Pit area contains four sub-parallel NNE trending conductors, with the strongest being the second from the east as shown on Figure 2. The only drilling to date in this area has been at the Gravel Pit prospect, which doesn't coincide with any of the conductors. Aircore hole GAC073, as previously reported intersected elevated geochemistry (to 517ppm Cu) and ironstones/gossans.

Work during the current quarter at the Gravel Pit area included some limited rock chip sampling which returned weakly to moderately elevated trace elements, however there is only very limited outcrop in the area so this sampling cannot be considered as representative.

It is interpreted that this zone may be a continuation of the stratigraphic position that which hosts "The Cup" mineralisation, located approximately 6km to the NNW.

A programme of aircore and RC drilling has been planned for these prospects, with a PoW being submitted to the DoMP.

### **The Cup E57/417**

*Gateway 100%, (Avenue earning 80%)*

Analysis of the results of drilling to date indicate that mineralisation at The Cup may represent a massive sulphide lens, with the geochemistry indicating a zonation from copper rich sulphides to more zinc rich marginal sulphides.

Hole AGRC007 drilled in October 2010 was drilled downdip from the mineralisation in hole GRC200, and only intersected weakly anomalous copper with relatively more elevated zinc, possibly representing a down dip termination of the lens. The mineralisation is still open along the interpreted strike to the north and south, with RC drilling planned to test for extensions.

### **Rosie Northeast M57/099**

*Gateway 85%, Herald Resources 15%, (Avenue earning 70%)*

Drilling on this prospect in 2010 was designed to follow up an intersection of 102m @ 0.42 g/t gold in historic drillhole WRC012. Four holes totalling 665m (including one hole abandoned at 65m) were drilled at this prospect, with hole AGRC001 intersecting 120m @ 0.42g/t Au from 80m to end of hole (refer December 2010 Quarterly).

These holes also contain elevated copper, and some narrow zones of elevated molybdenum, and are geochemically and geologically distinct from the lode gold mineralisation present in the Montague area.

Interpretations suggest that the mineralisation may be sub-volcanic porphyry related, with the Montague Granite representing the coeval sub-volcanic intrusive to the volcanic rocks flanking the intrusion.

The mineralisation at Rosie Northeast is still open to the north, south and at depth, with planning for future work underway.

### **Bungarra E57/706, E57/709**

*Gateway 100%*

A reconnaissance site visit has been made to the Bungarra tenements, which were acquired from Legend Mining following the termination of a JV agreement. Work by Legend concentrated on exploring for intrusion related Ni-Cu-PGE mineralisation

within the Bungarra Intrusive Complex (BIC), with activities including geological, geochemical and geophysical (including EM) surveying, with follow up by drilling.

The Gateway site visit included ground checking a number of prospects defined by Legend (and previous explorers), and following up a number of EM anomalies that appeared to have had no follow up work completed on them (Figure 3).

Preliminary interpretations indicate that the project area represents, at least in part, an island arc related felsic volcanic sequence intruded by the ultramafic to mafic BIC. The work has also indicated prospectivity for VMS mineralisation, with a number of rockchips from gossans within the felsic units returning anomalous base metal and pathfinder elements.

One prospect in particular, Bigfinger is of interest, with historic drilling by CRA at what they termed the "Bevan" prospect returning significant copper/zinc mineralisation. Gateway rockchipping of gossans returned up to 2470ppm copper (sample MAY014) and 905 ppm zinc (sample MAY023). A programme of aircore drilling has been designed to further test this area.

Other rockchip samples throughout the tenements returned up to 2100ppm zinc and 1710ppm arsenic.

## **VMS Potential**

The continuing work and interpretation supports the view that a number of tenements are highly prospective for VMS-style mineralisation, with the drilled mineralisation at The Cup probably being a geochemically zoned massive sulphide lens. Factors that point towards the VMS potential include:

- Aircore and RAB drilling has intersected significant Cu, Zn, As, Sb, Mn and Ba anomalism along a significant stratigraphic length
- A number of these holes have intersected sulphides and gossans
- This zone also contains a number of Electro-Magnetic (EM) geophysical conductors - VMS sulphide lenses are commonly EM conductors
- The greenstone package contains felsic and mafic volcanic rocks and siliciclastic sediments, typical of "Bi-Modal Mafic" packages that host a number of VMS occurrences within the Yilgarn Craton
- Mineralisation at The Cup occurs associated with massive sulphides, and exhibits geochemical zoning from Cu to Zn/As typical of Bi-Modal Mafic VMS systems
- The Montague Granite appears to be a sub-volcanic intrusion that is co-magmatic with the volcanics in the greenstone package, and was probably the heat engine that drove the VMS mineralisation
- The chemical composition of the granite is typical of sub-volcanic intrusions associated with this style of VMS
- The weak Au-Cu mineralisation within the granite at Rosie Northeast may possibly be porphyry-related mineralisation coincident with the intrusion of the granite and related to the higher level VMS mineralisation, and is different in character to the later lode gold style mineralisation mined previously in the area

## NEW SOUTH WALES

### COWRA PROJECT : EL 5514 & 6102

*Gateway Mining 49%; Minotaur 51%, Mitsubishi Corporation - Mitsubishi Materials Corporation earning 24%.*

On June 10, 2011 Minotaur Operations P/L provided Gateway with 30 days notice of its wish to withdraw from the Cowra Joint Venture.

As part of the termination Minotaur offered Gateway its 51% interest in EL5514 and EL6102, an offer which Gateway has accepted.

Gateway will now begin a review process of all exploration carried out to date over these tenements with a view to deciding on a future strategy and activities.

## QUEENSLAND

### SURPRISE PROJECT : EPM 9053, 13677 & 17870

*Gateway 100%*

The Company has been offered EPM17870.

No other work has been carried out on the Surprise Project during the quarter.

### HODGKINSON BASIN

*Republic Gold, Gateway 6% free carried*

Republic Gold is reviewing options with regards to its North Queensland projects.

## CHANGES IN TENEMENT HOLDINGS

Following the termination of the Cowra JV, EL's 5514 and 6102 will now revert 100% to Gateway.

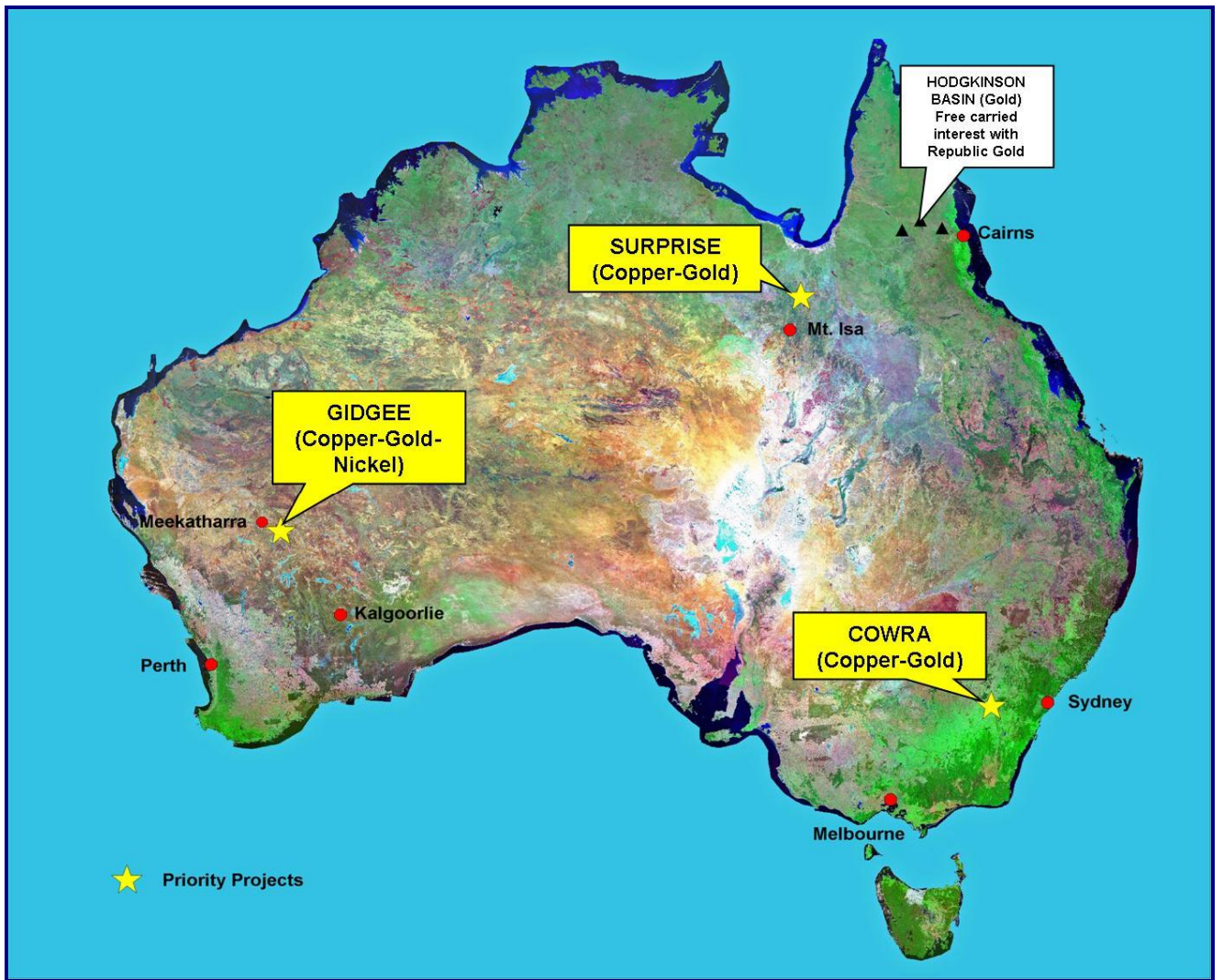
Surprise area EPM17870 has been offered to Gateway.

## CORPORATE

On April 5, 2011 \$122,500 was raised through the issue of 3.5 million shares at 3.5 cents per share with two free attaching options to raise additional working capital.

*For further information visit our website at [www.gatewaymining.com.au](http://www.gatewaymining.com.au) or contact: Bob Creelman, Director, or Mark Gordon on Tel: 02 9283 5711*

*The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. M.J.Gordon, a consultant to Gateway Mining, a Member of the Australasian Institute of Mining and Metallurgy (CPGeo) and Australian Institute of Geoscientists. Mr.M.J.Gordon has a minimum of 5 years experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. M.J.Gordon consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*



*Figure 1. Gateway Mining Limited Project Locations*

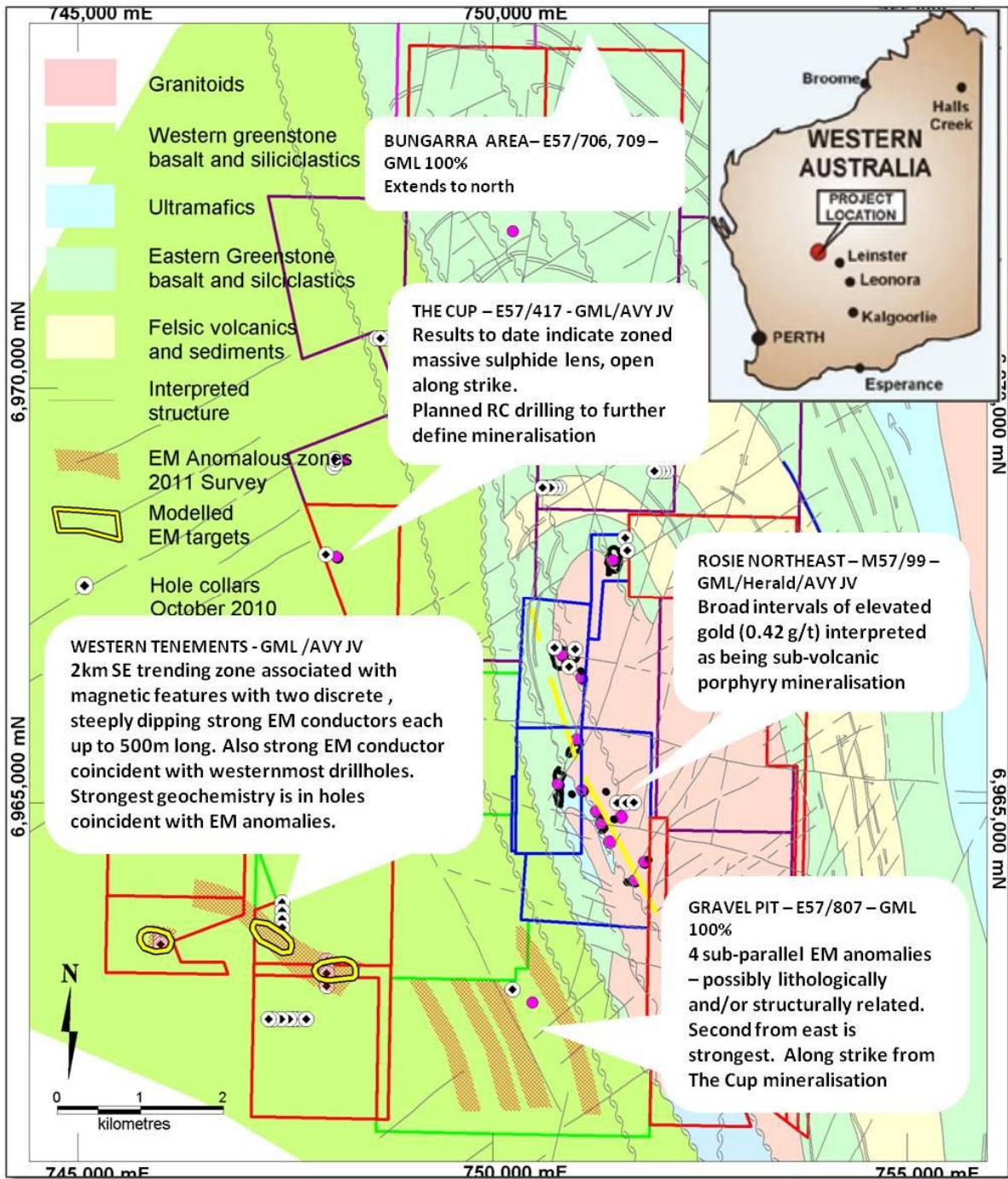
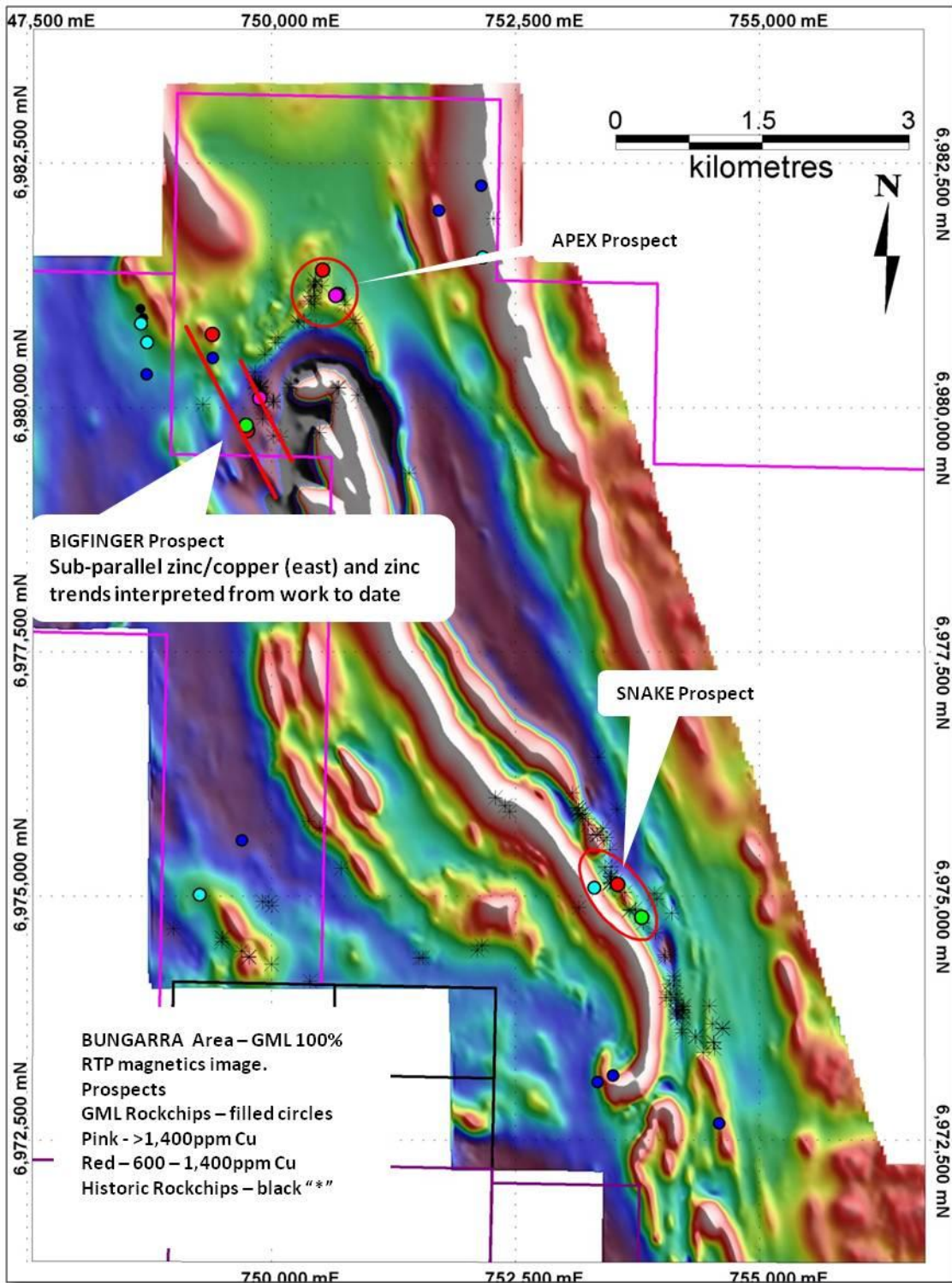


Figure 2. Gidgee Project, showing tenements, prospects (pink dots) and results summary. Tenements outlined in red and blue are in the Avenue JV's



*Figure 3. Bungarra area, Gidgee Project, on magnetic image, showing main prospects and sampling during current quarter*