

## **ASX ANNOUNCEMENT**

22 October 2010

# CO-INCIDENT BASE METAL SOIL ANOMALIES DETECTED AT RUBY WELL EAST, DOOLGUNNA PROJECT

## **SUMMARY**

Two co-incident "VMS style" base metal anomalies delineated by detailed soil sampling over Narracoota & Karalundi Formations adjacent to Goodin Fault, and one anomaly located in Doolgunna Formation sediments.

# **RUBY WELL EAST - E51/1303 (ENT 100%)**

As announced to the ASX on 18 October 2010, Enterprise Metals Limited ("Enterprise" or "the Company", ASX: "ENT") recently completed detailed (100m x 100m) soil sampling over those portions of the Company's tenements which overlie the prospective Narracoota and Karalundi Formations ("Fm's") of the Bryah Basin.

In all, the Company has collected and submitted to the laboratory some 2,500 soil samples. The samples were analysed for low level gold and base metals associated with Volcanogenic Massive Sulphide ("VMS") type deposits. Results from a further 720 samples submitted over E51/1303 (Ruby Well East) have now been received. Two co-incident VMS style base metal anomalies have been delineated over the Narracoota Fm ("REA") and Karalundi Fm ("REB") adjacent to the Goodin Fault, and one anomaly delineated within Doolgunna Fm sediments ("REC").

# **REA Anomaly**

This anomaly is centered approximately 4km west of Curley's gold occurrence, immediately north of the Great Northern Highway. It is approximately 5km x 2km in extent, and strikes WNW. Although at relatively low levels due to dilution within soils, *REA* is a spatially co-incident and discrete silver-arsenic-bismuth-gold-tellurium-molybdenum-tin anomaly within Narracoota Fm volcanics. (refer figures 1-7 overleaf). The anomaly occurs within a broader zone of anomalous copper and lead. (refer figures 8-9 overleaf). Enterprise is not aware of any historical drill testing of this target.

Curley's gold occurrence lies on a competitor tenement which is excluded from Enterprise's E51/1303. Open File reports of exploration at Curley's record that gold and copper soil anomalies were tested by RAB and RC drilling only to shallow depths, and that gold mineralisation is associated with quartz veins in WNW shear zones within basaltic rocks.

### **REB Anomaly**

This anomaly is centered approximately 8km east of Curley's, immediately south of the Great Northern Highway. It is a complex anomaly and appears to be composed of several zones. *REB* is a spatially coincident and discrete silver-arsenic-bismuth-tellurium-molybdenum anomaly within sediments interpreted to be Karalundi Fm. However airborne magnetic data suggest the presence also of Narracoota volcanics.

The tin anomaly is diffuse, and gold is spotty. (refer figures 1-8 overleaf). This anomaly occurs within a broad, but weaker zone of anomalous copper and lead. (refer figures 9-10 overleaf). Enterprise is not aware of any historical drill testing of this target. The Company has located records of minor shallow

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(30-40m) RAB drilling by a competitor in the 1990's on the southern edge of this target, but Enterprise believes that the target is essentially untested by any drilling.

## **REC Anomaly**

This anomaly lies approximately 10km south of Curley's, and is a circular anomaly a little over 1km in diameter. The anomaly is open to the west, where sampling is incomplete. Unlike REA and REB, this anomaly lies within sediments of the Doolgunna Formation, which is the lateral equivalent of the Thaduna Formation which hosts the Thaduna copper mine ENE of Doolgunna Homestead.

The **REC** area was initially identified from a historical "single point" maglag Sn anomaly from a survey conducted on a 1km x 1km grid. Because of its unusual nature, the area was sampled on a very detailed 50m x 50m grid. **REC** is a spatially co-incident and discrete silver-arsenic-bismuth-gold-tellurium-molybdenum and tin anomaly. (refer figures 1-8 overleaf). It is also weakly anomalous in copper and lead. (refer figures 9-10 overleaf). Enterprise is not aware of any historical drill testing of this target.

#### **DISCUSSION AND FORWARD PROGRAM**

Although the anomalies outlined above are at relatively low levels due to dilution within soils and a very deep weathering profile, the Company believes that the consistent silver-arsenic-bismuth-gold-tellurium-molybdenum-tin metal association and discreteness of the anomalies is a reflection of the emplacement of sulphide mineralisation into structures at depth. The associated copper anomalism at surface is thought to be more diffuse due to the solubility and mobility of copper in the surficial environment.

Drilling by Sandfire Resources NL (ASX: SFR) at DeGrussa has already demonstrated that mobile elements such as copper are significantly depleted in the Doolgunna weathering environment, and may form enrichment blankets at the base of weathering.

Due to the relatively small dimensions of the Degrussa type deposits, the Company is planning to conduct ground EM/IP surveys to effectively delineate sulphide targets at depth below its Ruby Well East surficial geochemical anomalies. This geophysical work is expected to commence in the first week of December. Deep drill testing of any associated IP/EM anomalies is likely to commence early in 2011.

The Company is still awaiting geochemical assays for soil samples from the area immediately southeast of Curley's, and over its other tenements covering the Narracoota Formation volcanics and Goodin Fault.

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The information in this announcement that relates to Exploration Results has been compiled by Mr Dermot Ryan, who is a Fellow of the Australian Institute of Geoscientists, and a full time employee of geological consultancy Xserv Pty Ltd. Mr Ryan has sufficient relevant experience in the techniques being reported and styles of mineralisation and types of deposit under consideration, and in the activity 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" (the JORC Code), and consents to the inclusion of the information in the form and context in which it appears.

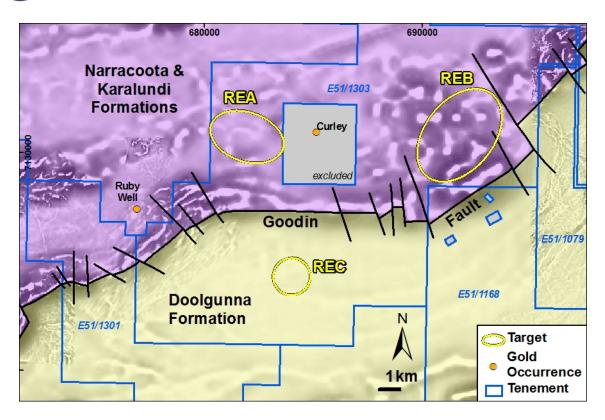


Figure 1. Geological Interpretation over 1st Vertical Derivative Magnetic Image

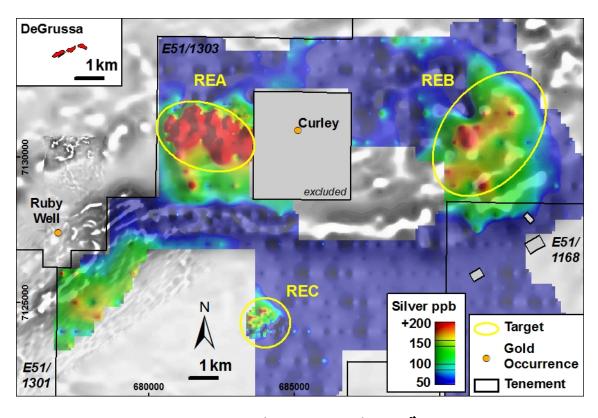


Figure 2. Silver Soil Geochemistry (max Ag 500ppb) Over 1<sup>st</sup> VD Magnetic Image, with *DeGrussa* inset to show Scale.

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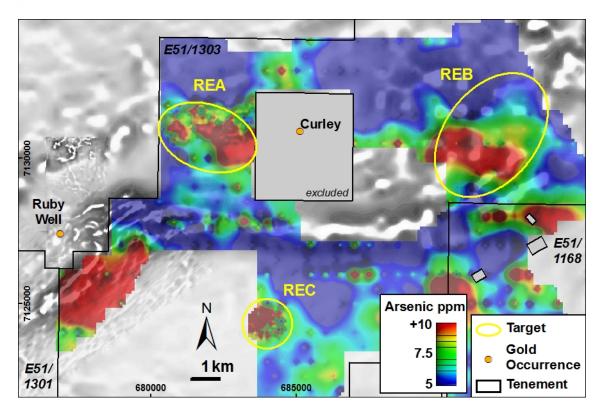


Figure 3. Arsenic Soil Geochemistry (max As 18.8ppm)

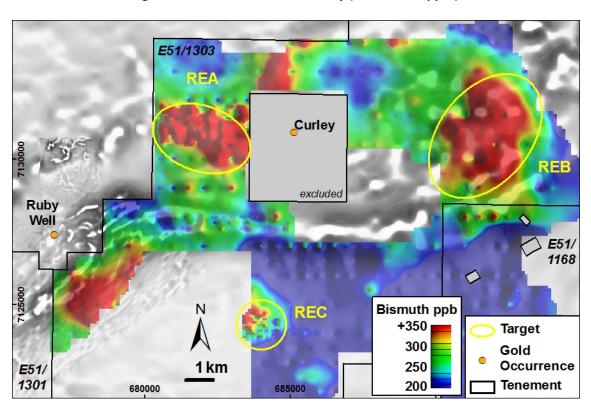


Figure 4. Bismuth Soil Geochemistry (max Bi 720ppb)



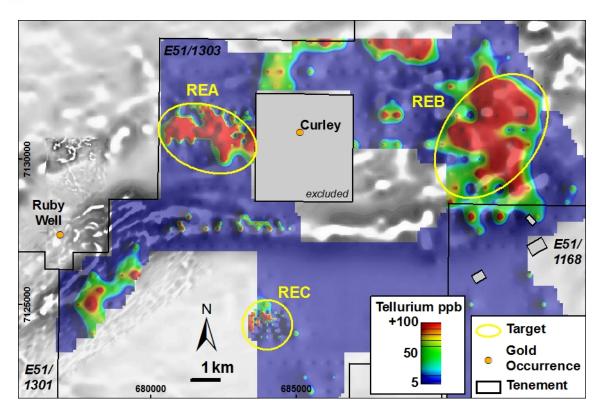


Figure 5. Tellurium Soil Geochemistry (max Te 300ppb)

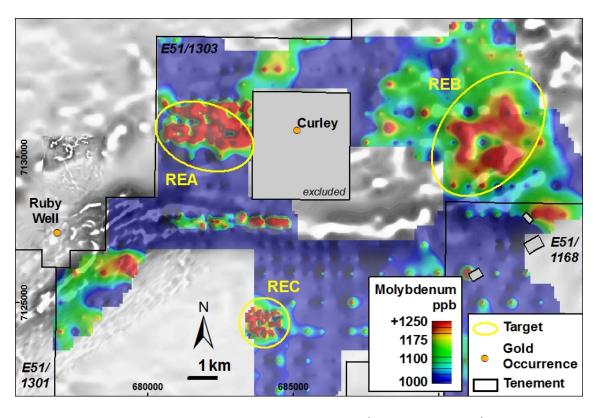


Figure 6. Molybdenum Soil Geochemistry (max Mo 1900 ppb)



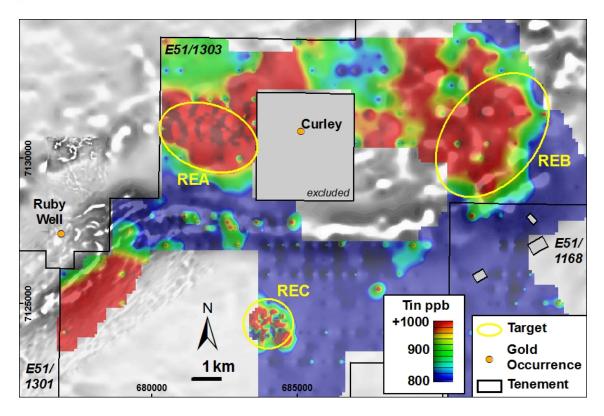


Figure 7. Tin Soil Geochemistry (max Sn 2600ppb)

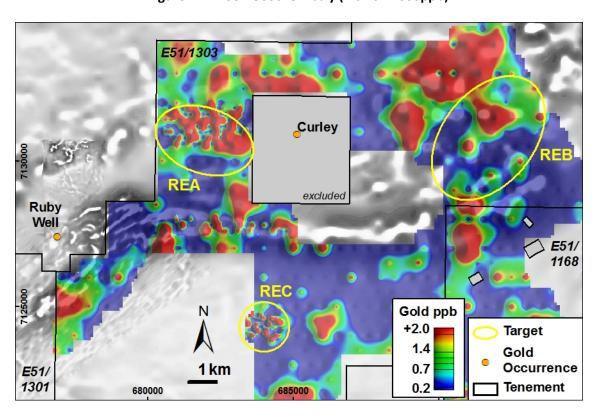


Figure 8. Gold Soil Geochemistry (max Au 14ppb)

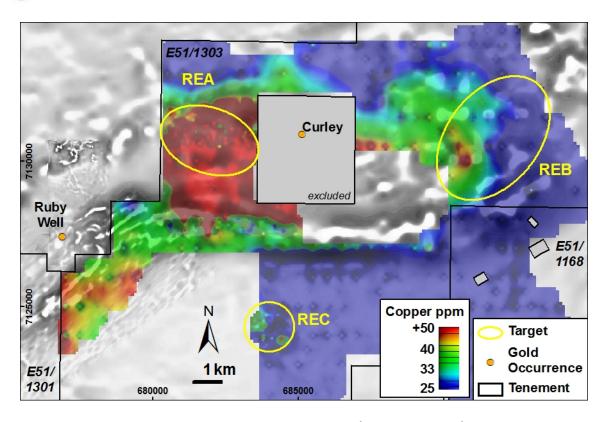


Figure 9. Copper Soil Geochemistry (max Cu 153ppm)

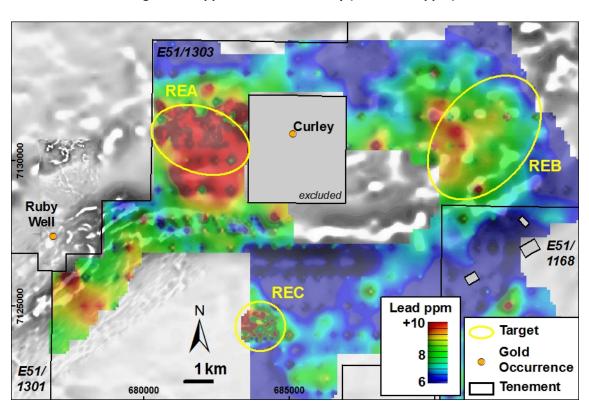


Figure 10. Lead Soil Geochemistry (max Pb 17ppm)



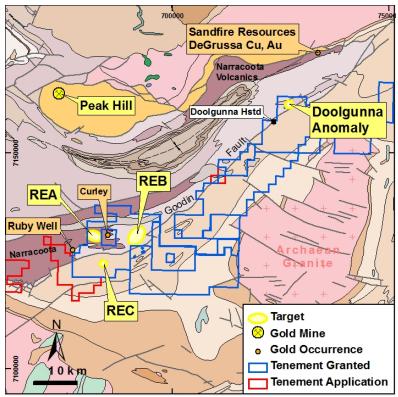


Figure 11. Location Plan & Regional Geology Plan, Showing Tenements & Prospects

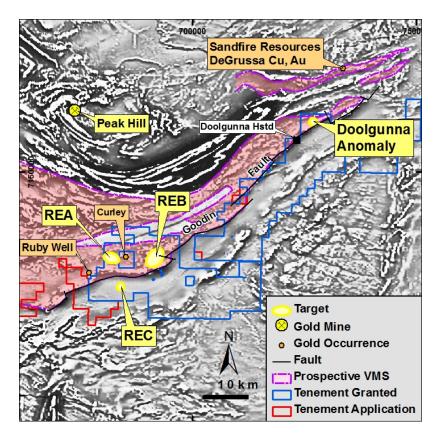


Figure 12. Regional Magnetics Plan Showing Tenements & Interpreted Narracoota/Karalundi Formations