

# MINOTAUR EXPLORATION LTD

247 Greenhill Road, Dulwich 5065, South Australia  
Tel: +61 8 8366 6000 Fax: +61 8 8366 6001  
Website [www.minotaurexploration.com.au](http://www.minotaurexploration.com.au)  
Email [admin@minotaurexploration.com.au](mailto:admin@minotaurexploration.com.au)  
A.C.N. 108 483 601



28<sup>th</sup> October 2009

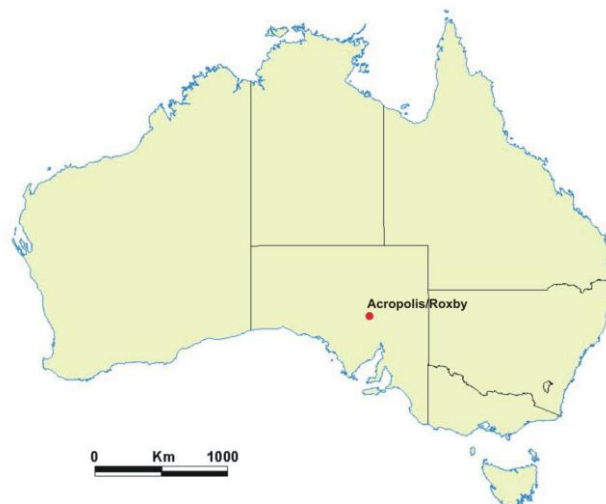
The Company Announcements Office

Australian Stock Exchange Limited

## **New gravity data at the Aphrodite Prospect (eastern Gawler Craton)**

### **upgrades potential for IOCG mineralisation**

The Directors of Minotaur Exploration Ltd (**ASX:MEP**) (“Minotaur”) are pleased to announce that results for a recently conducted detailed gravity survey over the Aphrodite gravity anomaly on EL 3762 (Acropolis South) significantly increase the potential for the region to host IOCG-style mineralization (Figure 1). The tenement is held 100% by Minotaur Operations Pty Ltd, with uranium rights subject to an agreement with Toro Energy Ltd (**ASX:TOE**).

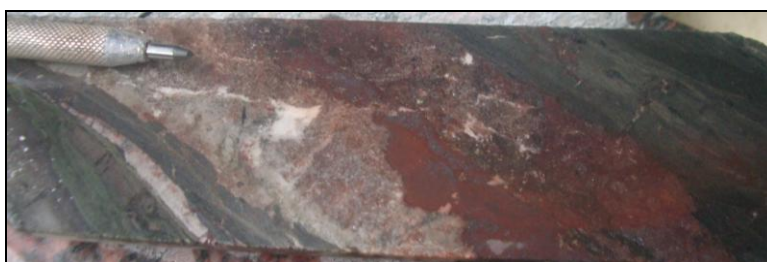


*Figure 1: Location of the Acropolis Roxby Project*

Previous exploration activities on tenement EL 3762 include a 2008 regional gravity survey which defined the northeasterly-trending Aphrodite gravity anomaly with a central zone of ~4 x 1.5 kilometres and amplitude of ~2 mgals. The anomaly was drill tested in early 2009 with



a single drillhole. Crystalline basement lithologies intersected in hole AS09D01, at a depth of 671 metres, consist predominantly of gneissic granite (Palaeoproterozoic Donington Granitoid Suite) and are not sufficiently dense to adequately explain the gravity anomaly. The gneissic granite displays red-rock alteration along with carbonate veins (calcite, dolomite, siderite) variously containing haematite, fluorite, chalcocite, bornite and chalcopyrite (Figure 2). Although assay values were low, such as 0.2 metres @ 1950 ppm Cu and 26.4 % Fe for a 0.2 metre wide bornite-bearing carbonate vein at 758.8 metres, alteration and veining are consistent with IOCG-style alteration regionally present at Olympic Dam, Acropolis and Wirrda Well.



*Figure 2: Dolomite vein with earthy haematite and associated chalcopyrite (AS09D03: 720.0 m)*

The Aphrodite gravity anomaly is 13 kilometres southeast of the Wirrda Well Prospect where Western Mining Corporation historically recorded 215 metres @ 0.8% Cu (419–634 metres) in hole WRD 9. A major south east-trending crustal structure extends from the Wirrda Well Prospect to the Aphrodite target.

As the rock types intersected in hole AS09D01 are not sufficiently dense to adequately explain the Aphrodite gravity anomaly, a more detailed gravity survey was undertaken. This greatly improved resolution and delineation of the target anomaly. Most importantly, the peak of the gravity anomaly shifted approximately 500 metres to the south. Hole AS09D03 that was drilled earlier this year, rather than being located near the centre of the residual gravity anomaly, now appears to be on the anomaly's northern flank (Figures 3-4).

The Aphrodite gravity anomaly is considered highly prospective for haematite-rich IOCG-style mineralization within one or a number of breccia pipes developed proximal to a prominent SE-trending fault zone. Planning is underway for another drillhole to test this interesting geophysical target.

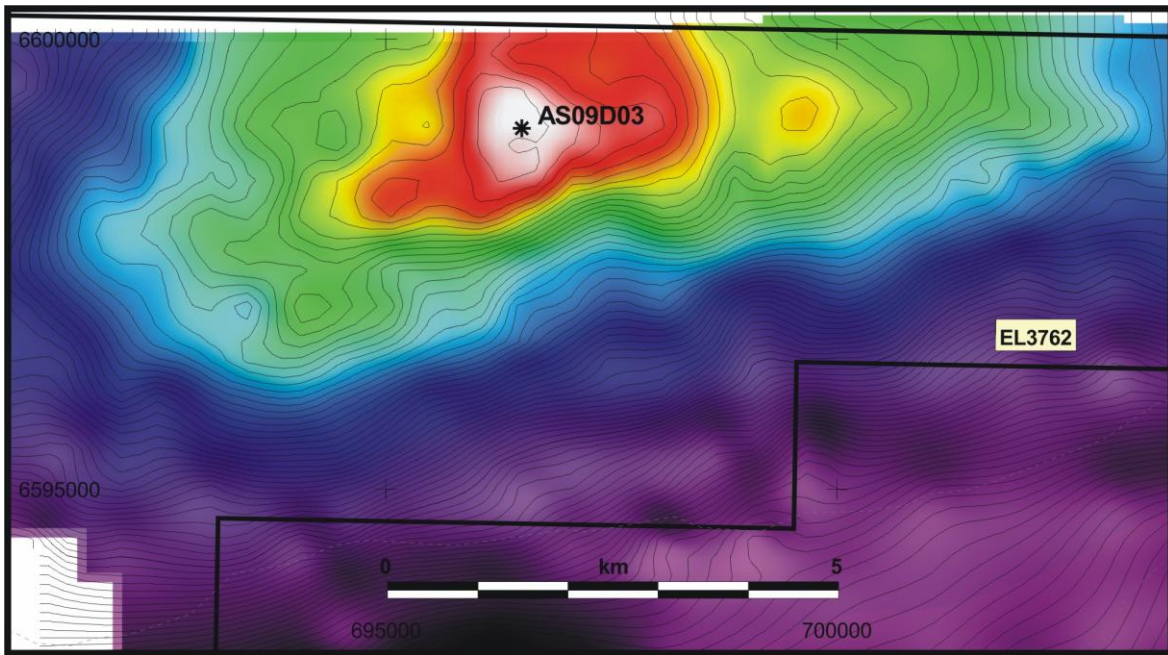


Figure 3: 2008 Residual gravity image (using 500 metre station spacing) and location of hole AS09D03

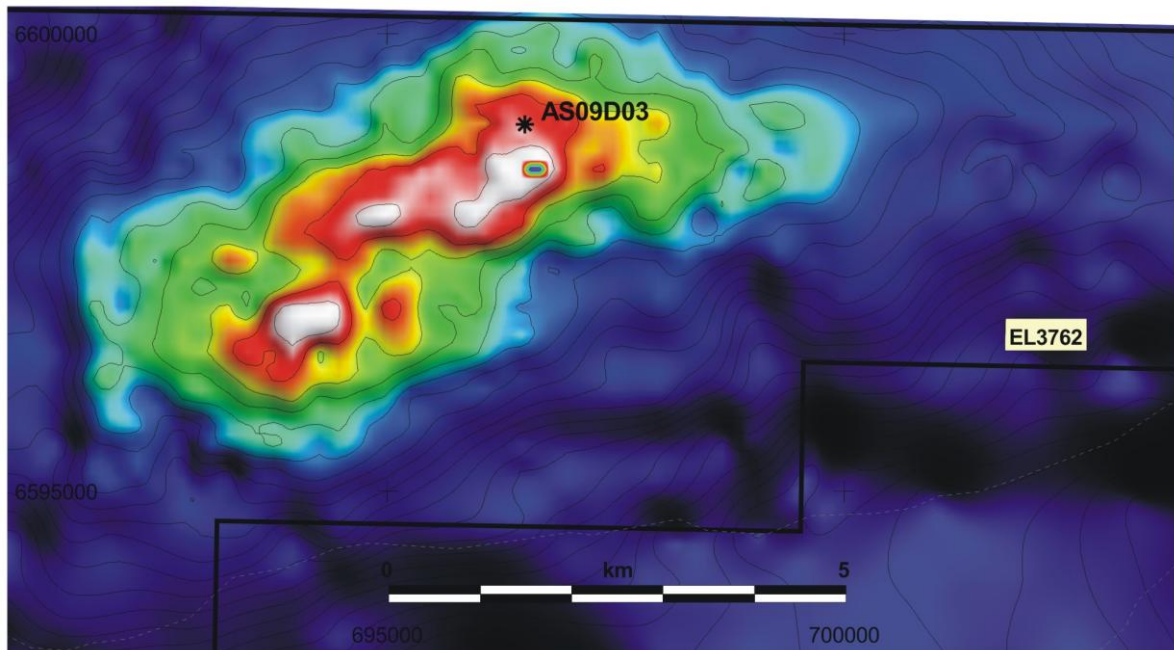


Figure 4: 2009 Residual gravity image (using 250 metre station spacing) and location of hole AS09D03

**For further information contact Derek Carter (Managing Director)  
or Tony Belperio (Exploration Director)**

*The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dr A. P. Belperio, who is a full-time employee of the Company and a Fellow of the Australasian Institute of Mining and Metallurgy. Dr A. P. Belperio has a minimum of 5 years experience which is relevant to the style of mineralisation 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 "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr A. P. Belperio consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

