HILLGROVE

RESOURCES

Monday, 1 May 2006

AIRMAGNETICS DEFINE NEW HIGH PRIORITY EXPLORATION TARGETS AT KANMANTOO

Highlights

- Initial results from the 10,100 line kilometre airborne magnetic survey have identified at least 10 new significant magnetic anomalies up to 1km in strike, which require follow up exploration.
- The magnetics also defined the known copper mineralisation around the old Kanmantoo pit as a series of "discrete" magnetic highs, highlighting the strong relationship between the copper mineralisation and the magnetic highs.
- Magnetics suggest that the Kanmantoo Mine sequence rocks could extend for over 15kms in strike.
- The magnetics highlight the 500km² Kanmantoo Project as a highly prospective mineralised province with considerable potential for the hosting of long life assets.

Hillgrove Resources Limited (ASX:HGO) is pleased to announce that the first set of results from the recently completed airmagnetic survey over the Kanmantoo Mine (Hillgrove 100%) and Exploration License 3277 (Hillgrove 90% and Argonaut Resources Limited (ASX: ARE) 10%) has identified a number of discrete magnetic anomalies which have similar characteristics to the Kanmantoo mineralisation.

Airmagnetic Survey

Initial results from the 10,100 line km airborne magnetic survey completed in February have now been received. This survey has confirmed the possibility that the mine sequence rocks could extend much further than initially thought with a series of highly prospective magnetic anomalies identified over a 15km strike.

This survey was conducted following recent exploration around the old Kanmantoo Mine which highlighted that there is usually between 1 and 5% magnetite associated with the copper mineralization at Kanmantoo. This strong relationship has meant that there is generally a strong magnetic signature associated with the copper mineralization and it is this association

Hillgrove Resources Limited
ACN 004 297 116
Level 41 Australia Square Tower, 264 George Street, Sydney NSW 2000
Tel: 02 8221 0404 Fax: 02 8221 0407
www.hillgroveresources.com.au

which will be used as a key targeting aid to identifying further Kanmantoo style copper/gold mineralization.

Past work has shown that most of the copper mineralization in the area was emplaced during a complex series of folding events, with most of the mineralization identified to date associated with the second of these folding events (F2). The mineralization at Kanmantoo is predominantly aligned with the regional fold axis and occurs largely in the mine schist (garnet-andalusite-biotite schist).

The airmagnetic survey has defined a series (at least 10) of magnetic anomalies in a similar setting, with similar characteristics to the Kanmantoo mineralisation along the F2 fold axis in the mine sequence rocks. These anomalies vary in strike from 100 metres up to 1000 metres and appear to be located within a similar stratigraphic horizon. Follow up field inspections are now planned to confirm the nature of these anomalies, with first pass rock chipping and soil sampling of any areas of interest.

This survey continues to highlight the regional prospectivity of the Kanmantoo region and the potential for further new discoveries as the regional exploration effort continues. Work is continuing on the airmagnetic data and further results will be released when they come to hand.

The information in this report that relates to Exploration Results is based on information compiled by Mr Dale Ferguson, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Ferguson is the General Manager – Exploration and Operations of Hillgrove Resources and has sufficient experience 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'.

About Hillgrove

Hillgrove is an Australian resources company listed on the Australian Stock Exchange which focuses on identifying resources opportunities that can either be brought into production readily or those where there is a clearly defined value adding route within a clearly understood risk environment. Commodities that are of particular interest include copper, gold, garnet, silver, lead, zinc, uranium and natural gas.

Hillgrove is exploring a total of 974 km² in the Kanmantoo Trough and the Gawler Craton, two of the most prospective regions of South Australia, for copper and gold. Hillgrove is evaluating the Kanmantoo Copper Mine, a potential mid-tier copper producer, where it has established an Indicated and Inferred Resource of 18.37 MT grading 1.1% copper and 0.2 g/t gold. Additionally, the copper/gold mineralisation is associated with what is thought to be a World Class resource of garnet, which has application as an abrasive.

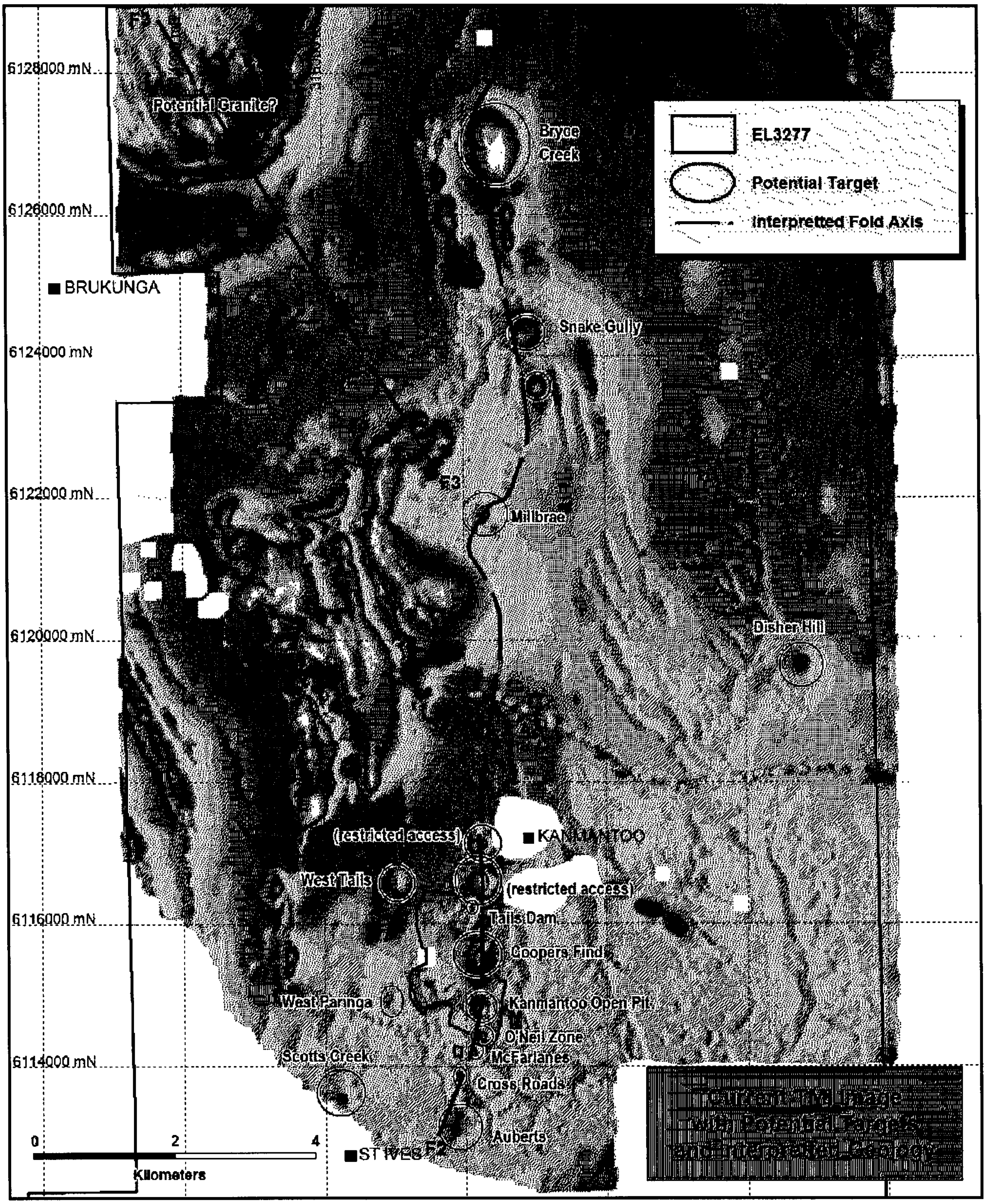
In October 2005 Hillgrove announced the conclusion of a strategic alliance with Sempra Metals, a subsidiary of Fortune 500 Company Sempra Energy, involving an $8 million equity and debt package to assist the development of Kanmantoo.

The Company has a 32.5% interest in the Gunnedah Basin Gas Joint Venture's PEL 238 Coal Seam Gas Project in New South Wales. The Joint Venture currently has five wells in test production with a nine well production pilot currently being drilled. PEL 238 contains one of the largest onshore accumulations of natural gas in Australia totalling 17,000 PJ's (17 TCF) of gas-in-place within two thick coal seams.

For more information contact:

Mr David Archer
Managing Director
Hillgrove Resources Limited
Tel: + 61 2 8221 0404
Mobile: 0414 737 767

Mr Dale Ferguson
General Manager, Exploration & Operations
Hillgrove Resources Limited
Tel: + 61 8 9322 6377
Mobile: 0439 886 019



HGO 06 034a.wor

FIGURE 1.