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The Manager  
ASX Company Announcements  
PO Box H224, Australia Square  
Sydney NSW 2001

## **Peak Hill – Doolgunna Project: Preliminary VTEM results identify multiple anomalies**

- **Multiple discrete anomalies associated with regional northeast trending structural zones adjacent to Sipa Resource's Thaduna Copper Project**
- **Multiple discrete anomalies associated with historic exploration targets – K42 and Little Well South copper prospect (historic intersection of 4m at 0.81% Cu in RAB drilling)**
- **Interpretation of results underway to prioritise targets for near term surface exploration**

Lodestar Minerals Limited (Lodestar, ASX code: LSR) is pleased to advise that preliminary results from the recent VTEM (versatile time domain electromagnetic) survey have been received. A survey of approximately 1800 line kilometres has been completed over two areas, termed the Western Block and Ned's Creek Block, targeting sediment-hosted and /or structurally emplaced copper-base metal mineralisation.

The Ned's Creek Block (Figure 1) joins the eastern boundary of Sipa's Thaduna Copper Project and the VTEM survey has identified numerous anomalies spatially associated with major north east trending structures, parallel to the Jenkin Fault Zone, in the northern and southern areas of E52/2456 and E52/2468. Numerous VTEM anomalies have been identified in the two areas flown with reconnaissance lines to test historic exploration targets; the K42 magnetic anomaly and the Little Well South copper prospect (4m at 0.81% Cu in shallow drilling), where limited in-fill VTEM has been completed. The VTEM survey has clearly identified multiple discrete anomalies, in addition to more extensive features related to conductive geological units.

The Western Block VTEM survey data is dominated by a major north northwest trending drainage channel (Figure 2). Two anomalies have been identified in the data; T1, coincident with the unresolved "Chieftain" 80ppb gold in soil anomaly and T2, located on the sheared contact between the Marymia Inlier and the Bangemall Group sediments. The target magnetic/structural zones of the Western Block, on the margin of the Jenkin Fault zone, are relatively unresponsive, which is consistent with a geological interpretation of fragmented Archaean greenstone within granite/gneiss of the Marymia Inlier underlying E52/2403 and E52/2512. The Western Block is considered highly prospective for gold and uranium (see Lodestar's announcement to the ASX dated 21<sup>st</sup> January 2010) and Lodestar will continue to develop these exploration targets in addition to evaluating the VTEM anomalies.

The VTEM survey has tested approximately 19% of Lodestar's 2000 square kilometre tenement area (only 4 of a total of 13 tenements) and has been extremely successful in identifying multiple anomalies in areas that have received minimal historic exploration (Figure 3). The final data, once available, will permit better definition of the physical parameters of individual anomalies (relative size/orientation, conductance, depth) and guide prioritising targets for surface exploration in the near term.



*Bill Clayton*  
*Managing Director*

*The information in this report that relates to Exploration Results is based on information compiled by Bill Clayton, Managing Director and full-time employee of Lodestar Minerals Limited, who is a Member of the Australasian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2004 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Clayton consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.*

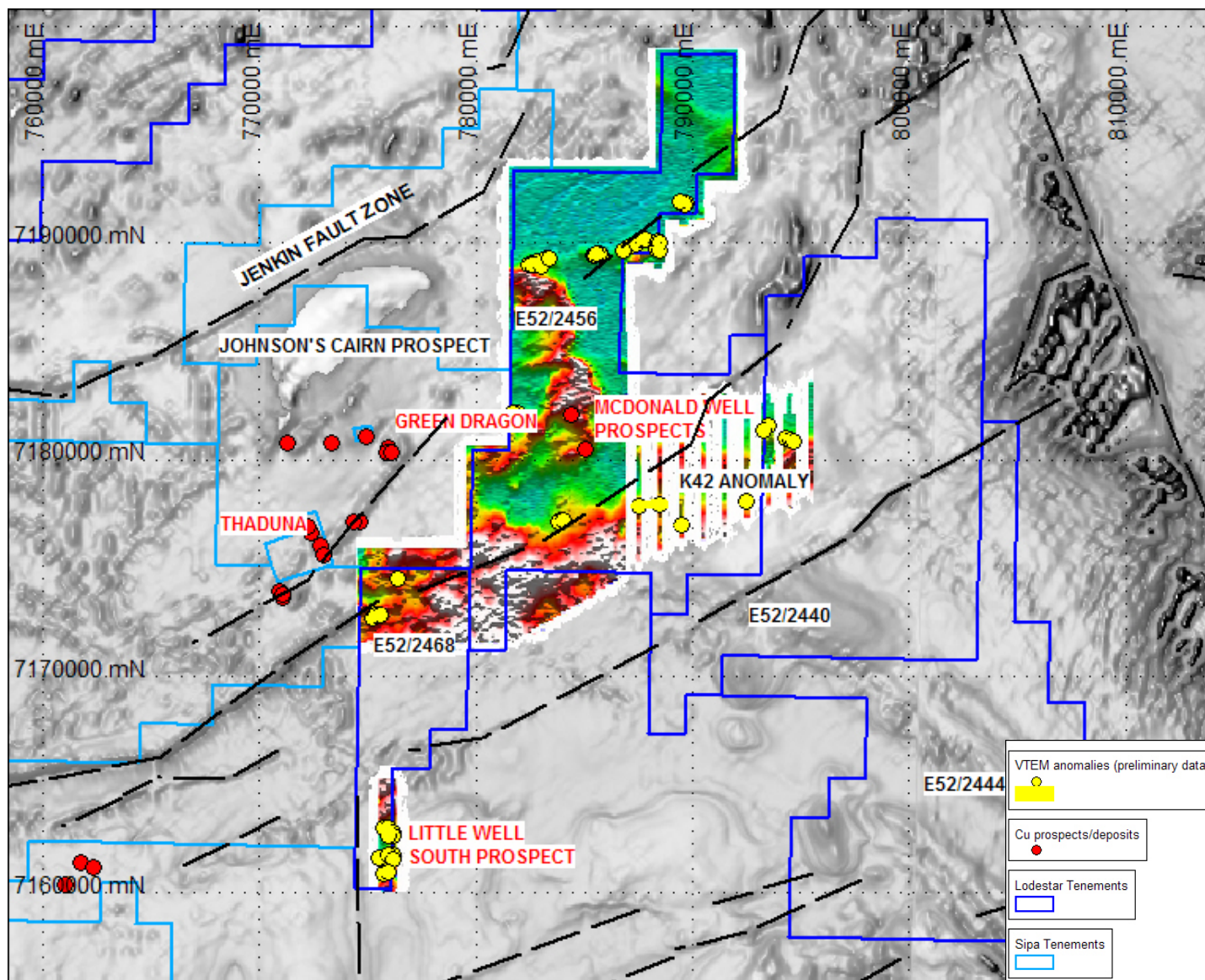


Figure 1 NED'S CREEK BLOCK Preliminary VTEM data CH40 image over TMI aeromagnetic image, showing VTEM anomalies (yellow) (aeromagnetic data copyright Geoscience Australia 2009) GDA94 Zone 50

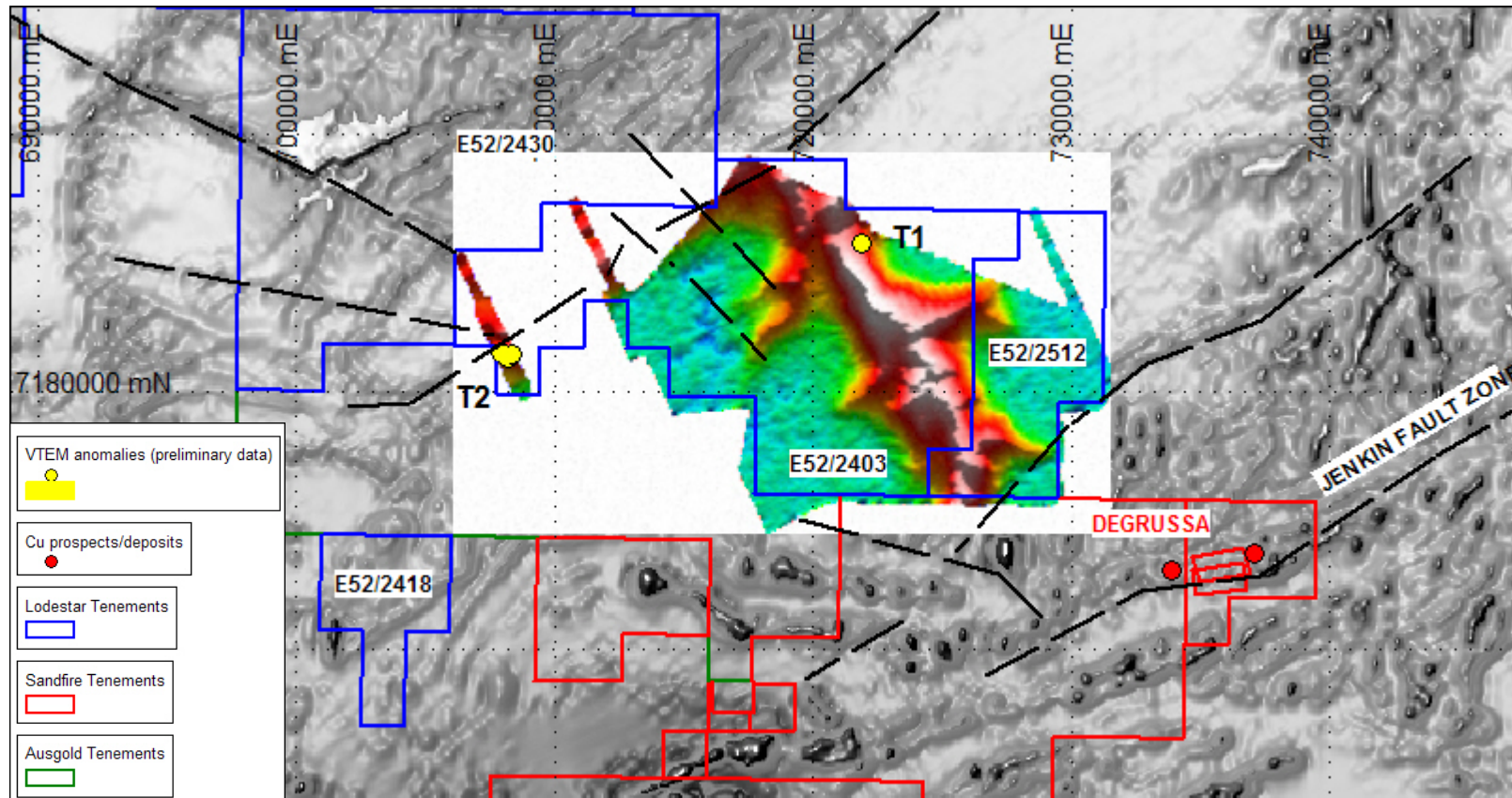


Figure 2 WESTERN BLOCK Preliminary VTEM data CH40 superimposed over TMI aeromagnetic image, showing VTEM anomalies (yellow) (aeromagnetic data copyright Geoscience Australia 2009) MGA94 Zone 50

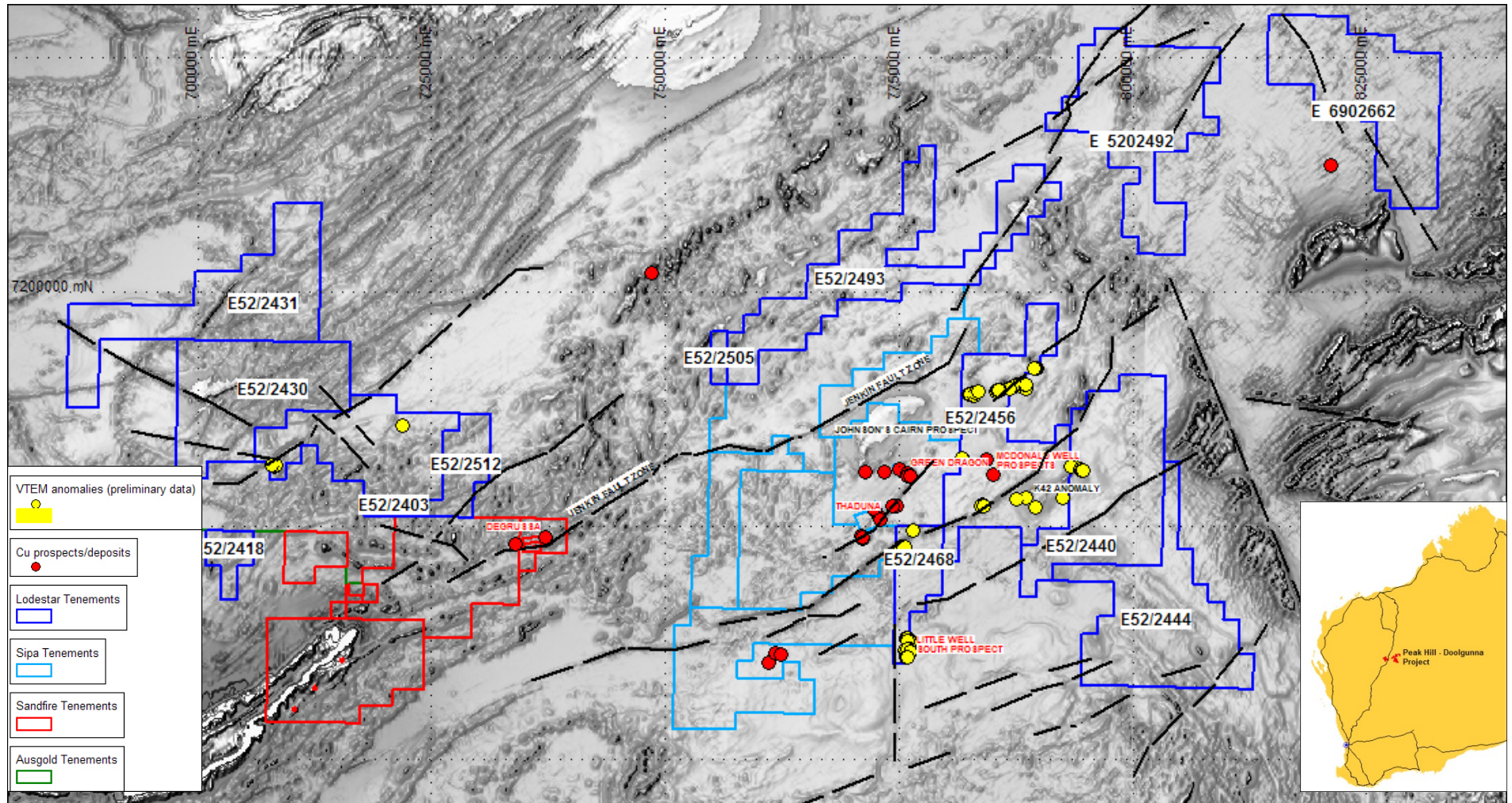


Figure 3 Regional TMI aeromagnetic image with VTEM anomalies superimposed (yellow) (aeromagnetic data copyright Geoscience Australia 2009) MGA94 Zone 50.