



# ASX ANNOUNCEMENT

24 June 2015

Electronic lodgement

## COMPANY SNAPSHOT

**LODESTAR MINERALS LIMITED**  
ABN: 32 127 026 528

### CONTACT DETAILS

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### CAPITAL STRUCTURE

Shares on Issue:  
324,546,575 (LSR)

Options on Issue:  
20,750,000 (unlisted)  
36,077,402 (listed - 31 Mar 2016)

ASX: LSR

### PROJECTS

Peak Hill – Doolgunna:  
Base metals, gold



## DRILLING AND SAMPLING PROGRAMME TO COMMENCE AT CAMEL HILLS GOLD TARGET

- Programme of work and preliminary heritage approvals received for the initial sampling and drilling programme on E09/2099.
- The target is a 1.2 kilometre long, gold anomalous zone located at the base of a prominent ridge; the anomalous zone is partly concealed beneath shallow colluvial soils.
- A series of shallow trenches up to 280m long will sample near – surface material north of historic RC drilling that reported anomalous gold.
- Shallow aircore drilling located between the trenches will test for bedrock-related lode gold mineralisation.
- The programme represents a scoping investigation of the auriferous zone (which has not been effectively drill tested) with the aim of identifying bedrock targets for RC drilling.
- Interpretation of the Camel Hills gold target data indicates potassic alteration associated with strongly elevated metal ratios characteristic of intrusion-related gold systems, consistent with GSWA predictive mineral systems analysis.

West Australian gold and base metal explorer Lodestar Minerals Limited (ASX: LSR) advises that statutory and heritage approvals for an initial sampling programme on E09/2099 has been received. A scoping programme of shallow trench sampling and aircore drilling will commence as soon as the necessary equipment and contractors have been selected. It is anticipated that the programme will be completed within the next four to six months

Lodestar's Camel Hills project comprises five tenements and a total area of 924 square kilometres over the Errabiddy Shear Zone (ESZ) in the Gascoyne Province of Western Australia (Figure 1). The ESZ forms a 100 kilometre long, east northeast-trending shear zone at the boundary of the Archaean Narryer Terrane and Palaeoproterozoic rocks of the Glenburgh Terrane. Significant gold geochemical anomalies have been identified at both regional and local scales in historic data within the ESZ.

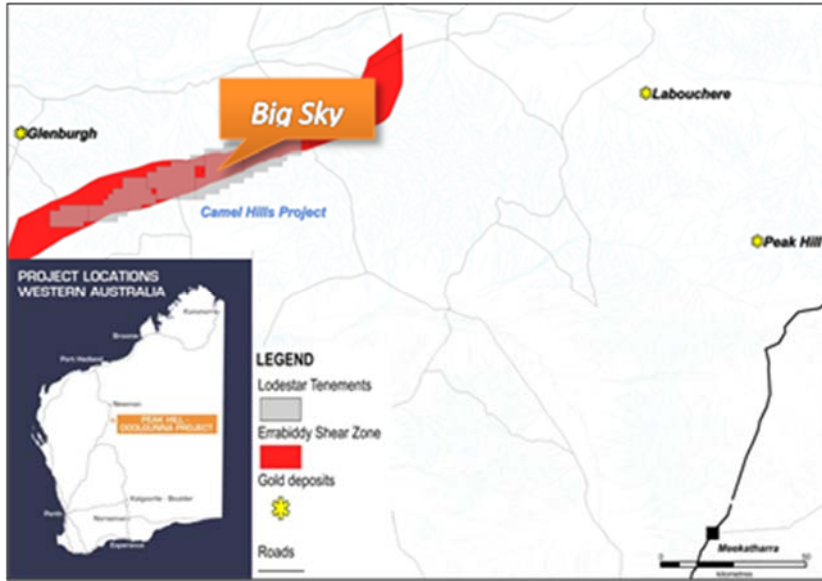


Figure 1 Location Plan - Lodestar's Camel Hills tenements

The target, named the Big Sky prospect, comprises a 1.2 kilometre long litho-structural zone defined by the east-northeast trending boundary between magnetic and non-magnetic Palaeoproterozoic metamorphic rocks. The magnetite is believed to be a product of large-scale hydrothermal alteration around major structural breaks within the ESZ. The Big Sky prospect is located approximately 1.1 kilometres north of the mapped contact between re-worked Archaean gneiss and the Camel Hills metamorphics. This contact is believed to be a major (first-order) structure throughout the development of the ESZ and is connected at depth to the Cardilya Fault, a deep boundary fault that penetrates the lower crust and upper mantle. The magnetic unit is associated with a large gold anomaly in regional stream sampling and strongly anomalous local soil sampling that was the target of previous RC drilling (Figure 2). Lodestar’s programme will target the northern extension of local gold anomalies, on the lower slopes of the ridge beneath a shallow cover of transported colluvium, for shear-hosted lode gold mineralisation.

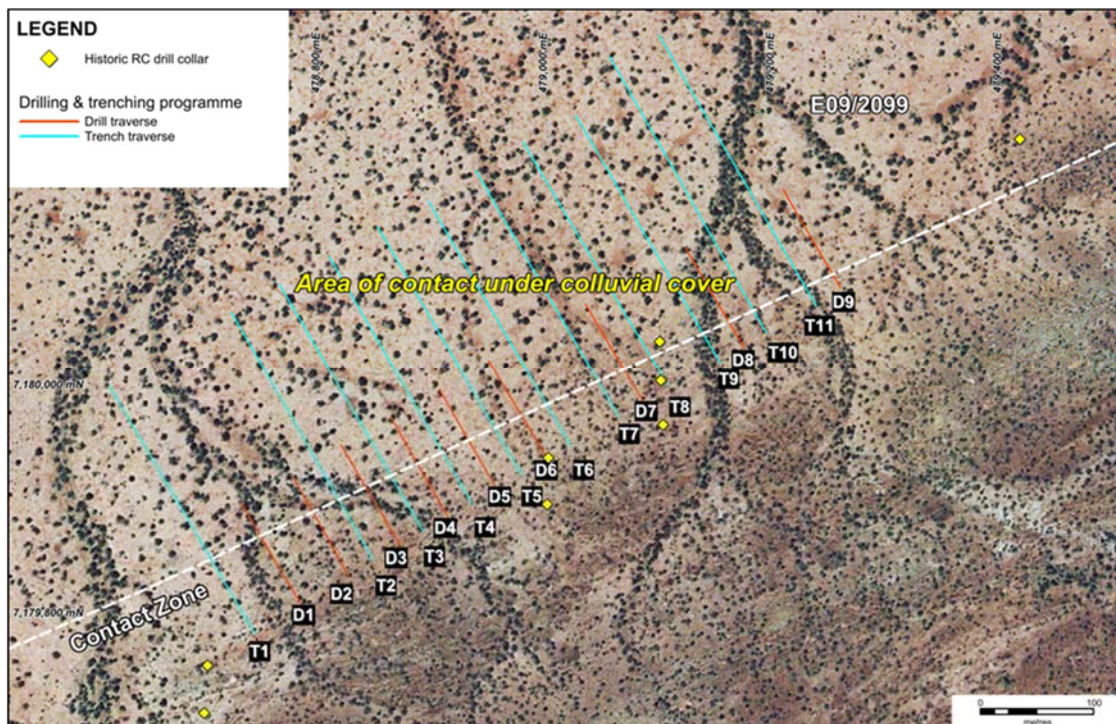


Figure 2 Planned test of mineralised shear zone, Big Sky prospect



A reconnaissance field visit with consulting geologist Dr Walter Witt, for the purpose of reviewing the setting of the Big Sky gold target, has provided an insight into the geology and alteration of the metamorphosed host rocks. Limited rock sampling over the area suggests that the mineralisation is associated with significant biotite-magnetite (potassic) alteration that is commonly associated with intrusion-related gold mineralisation. This interpretation is supported by geochemical zonation in historic soil sampling that shows a central gold anomaly surrounded by anomalous Cu, Pb and Zn. Metal associations similar to those of felsic to intermediate intrusions in the Laverton region are also strongly elevated over the Big Sky anomaly. The intrusion-related gold interpretation is consistent with the GSWA predictive mineral systems analysis<sup>1</sup> that identified potential for intrusion-related gold systems in the Camel Hills area.

The review has identified other areas in the region, on the basis of limited data, that may have similar potential to host gold mineralisation. These areas will also be assessed in the coming months.

Bill Clayton  
**Managing Director**

### **Competent Person Statement**

*The information in this report that relates to Exploration Results is based on information compiled by Bill Clayton, Managing Director, 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 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Clayton is a full-time employee of the company. 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*

### **About Camel Hills**

*The Camel Hills project is located 170 kilometres northwest of Meekatharra and 60 kilometres south and east of Gascoyne Resource's Glenburgh gold deposits (1Moz Au). The Errabiddy Shear Zone is 5 to 20 kilometres wide and is linked at depth to the Cardilya Fault, a major tectonic boundary between the Archaean Narryer Terrane and the accreted Palaeoproterozoic Glenburgh Terrane to the north. Re-worked craton margins are a favourable location for the formation of world-class orebodies, including orogenic gold deposits (e.g. Tropicana). The Errabiddy Shear Zone was reactivated during the collision of the Yilgarn and Pilbara cratons and is intensely deformed. Recent mineral systems prospectivity mapping by the GSWA has identified the Errabiddy Shear Zone as a favourable site for large-scale gold mineralisation, this view is supported by historic surface sampling that has identified strong gold anomalies associated with outcropping gneiss in the Big Sky area. Limited drilling completed by previous explorers is not regarded as a conclusive test of the gold potential at Camel Hills.*

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<sup>1</sup> Aitken, ARA, Joly, A, Dentith, MC, Johnson, SP, Thorne, AM and Tyler, IM 2014, 3D architecture, structural evolution and mineral prospectivity of the Gascoyne Province: Geological Survey of Western Australia, Report 123, 94p.



## About Lodestar Minerals

Lodestar Minerals Limited is a Perth-based active explorer with projects in the Peak Hill district and bordering the northern Yilgarn margin. The Ned's Creek project forms the core of Lodestar's project portfolio and represents a strategic landholding of 830 square kilometres over the north eastern margin of the Yerrida Basin and the Jenkin Fault, a fundamentally significant regional fault system that is adjacent to the DeGrussa Cu-Au deposit.

The Ned's Creek tenements are located 170 kilometres north east of Meekatharra, 7 kilometres east of the Thaduna-Green Dragon copper mines being evaluated by Ventnor Resources and Sandfire Resources and 5 kilometres east of Sandfire Resources and Sipa Resources' Enigma copper discovery. The Yerrida Basin contains thick volcano-sedimentary sequences that are bounded by major structures, the Jenkin and McDonald Well Faults and there is good potential for large-scale base metal and gold mineralisation adjacent to these structures.

In 2013 Lodestar discovered significant gold mineralisation at the Contessa prospect. Contessa lies within a 5 kilometre long gold anomaly overlying Archaean greenstone, on the southern margin of the Marymia inlier. Lodestar believes that this structural position marks a major crustal break, a highly favourable environment for magma-driven metal accumulation during cyclic reactivation of a former continental margin represented by the northern boundary of the Yilgarn Craton.

The region has potential to host a number of styles of base metal and gold deposits and Lodestar has embarked on an aggressive exploration program to assess the potential of Ned's Creek and the tectonic margin of the northern Yilgarn Craton.

Lodestar is targeting palaeo-arc and back arc settings at Camel Hills and Imbin where historic exploration has identified gold and copper mineralisation, respectively. The Camel Hills and Imbin projects are currently progressing to grant of the tenement applications.