# KINGSTON RESOURCES LIMITED

ASX:KSN ACN 009 148 529

9 April 2015 Company Announcements Office Australian Securities Exchange



# Six Mile Hill Exploration Update - April 2015

## **Highlights:**

- Detailed 3D gravity and magnetic inversion modelling results in Iron Oxide Copper Gold (IOCG) drill targets at Six Mile Hill
- South Australian government support confirms high priority IOCG targets selected by Kingston Resources at Six Mile Hill
- Diamond drilling at Six Mile Hill expected to commence in June
- Government sponsored Mineral Systems Drilling Program to deploy world first innovative technologies
- Kingston Resources Executive Director to present at South Australian Resources and Energy Investment Conference (SAREIC 13<sup>th</sup> April) and feature in Paydirt

Kingston Resources Limited ("Kingston" or "the Company") (ASX: KSN) is pleased to announce several significant developments concerning our 100% owned Six Mile Hill exploration project in South Australia.

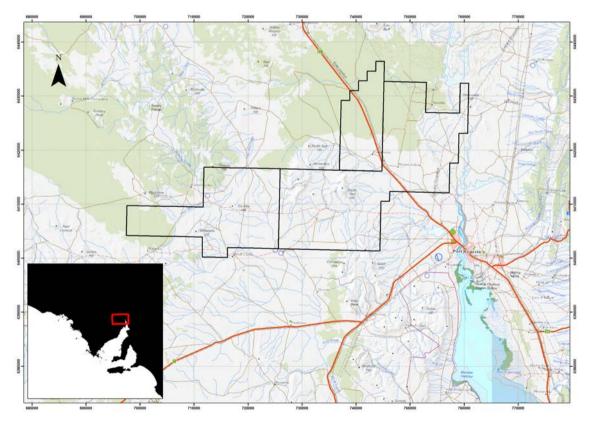


Figure 1: Six Mile Hill project location NW of Port Augusta (grid divisions 10km)

# 3D Inversion Modelling of Gravity and Magnetic Features

Kingston has completed detailed 3D inversion modelling of high resolution gravity and magnetic data over three key areas at the Six Mile Hill project. The modelling by Mr Barry Bourne (previously Chief Geophysicist Global Exploration at Barrick Gold) has revealed several compelling Iron Oxide Copper Gold (IOCG) drill targets.

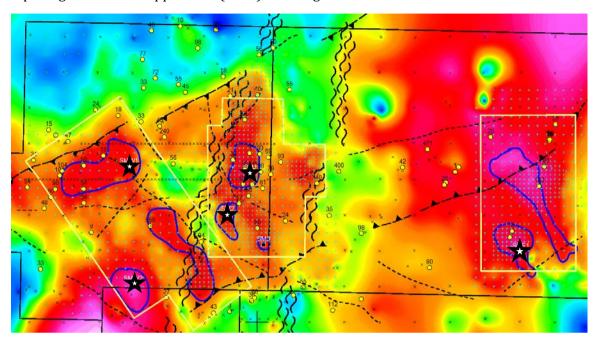


Figure 2: Residual Regional Bouguer gravity (2.67g/cc) with gravity features from regional data in blue. Key areas selected for 3D inversion modelling in yellow polygons. IOCG targets as stars. Figure width ~33km.

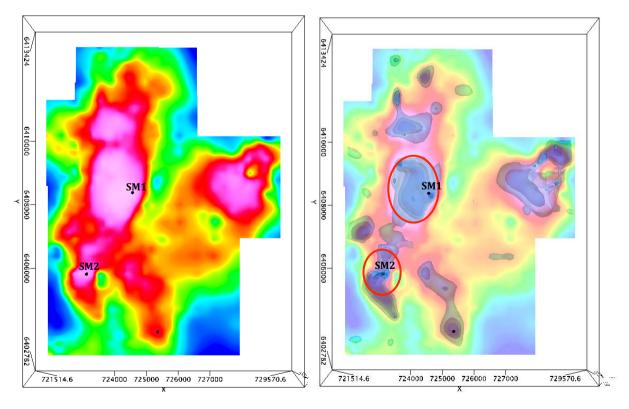


Figure 3: Detailed image of central target area. Residual detailed Bouguer gravity (2.67g/cc) with preliminary  $100m \times 100m \times 50m$  gravity model on the right. Gravity (blue) – Isosurfaces of density, +0.075g/cc light blue outer shell, +0.15g/cc in dark blue inner. Main target areas shown in red.

#### **Mineral Systems Drilling Program**

The Mineral Systems Drilling Program 2015 (MSDP) will assist with diamond drilling at least four of Kingston's five IOCG targets at Six Mile Hill. Drilling is expected to commence in June 2015.

The MSDP is a joint collaboration between the Department of State Development (DSD), the Deep Exploration Technologies Cooperative Research Centre (DET CRC) and exploration companies Kingston and Minotaur Exploration Ltd. The aim of the MSDP is to map and understand various components of mineral systems in the northern Eyre Peninsula region with the potential to lead to the discovery of new mineral deposits.

DSD is providing \$2 million in funding to MSDP through PACE Frontiers Initiative, DET CRC is providing new technologies related to drilling and real-time analysis of the rocks being drilled, and Kingston and Minotaur are providing the local concepts, resources and access.

The MSDP will deploy world first innovative technologies, including Lab-at-Rig® (top-of-hole XRF geochemistry and XRD mineralogy on drill cuttings), AutoSonde™ (downhole geophysical sensing) and the Wireless Sub (rig performance monitoring). Further information on these technologies is available at the DET CRC website: <a href="www.detcrc.com.au">www.detcrc.com.au</a>

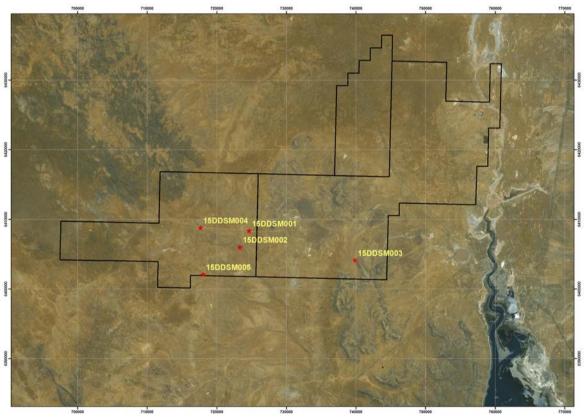


Figure 4: Proposed drillhole locations for the Mineral Systems Drilling Program (grid divisions 10km)

#### Kingston Presentation at SAREIC and interview with Paydirt

Kingston Executive Director Stuart Rechner will present a significant update on the Six Mile Hill project at the South Australian Resources and Energy Investment Conference (SAREIC) in Adelaide on 13 April 2015. <a href="https://www.saresourcesconf.com">www.saresourcesconf.com</a>

Mr Rechner was also recently interviewed by Paydirt Media regarding Kingston's participation in the MSDP. The interview will be published in the April edition of Australia's Paydirt.

#### Further information on Kingston's Six Mile Hill project

The Six Mile Hill project comprises two exploration licences, EL 4494 and EL 5498, and one exploration licence application, ELA 2014/225, with a total area of 967km<sup>2</sup> located northwest of Port Augusta. The project area lies on the eastern margin of the Gawler Craton and straddles the boundary between the Spencer Domain and the Olympic Domain.

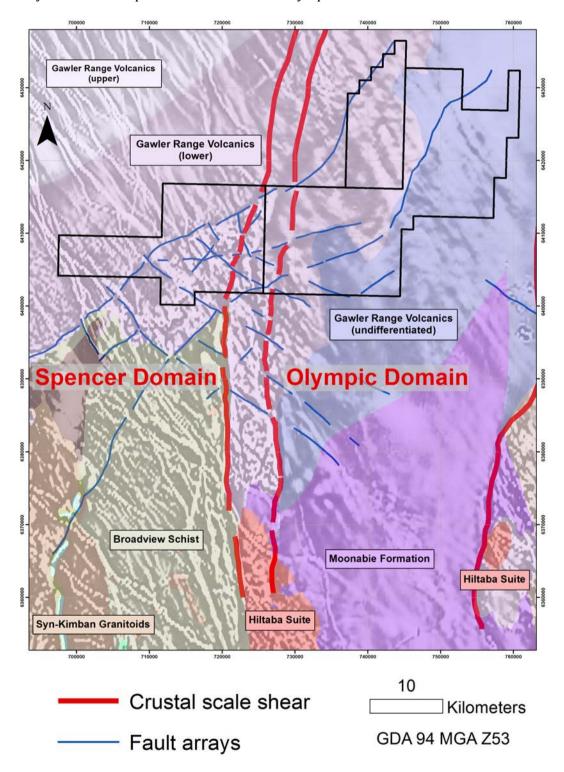


Figure 5: District geological setting showing major structures and interpreted basement geology

The Olympic Domain has long been recognised as highly prospective for IOCG mineralisation, hosted in hematite-magnetite breccia complexes. IOCG mineralisation on the Gawler Craton is related to the Mesoproterozoic  $\sim 1590$  Ma thermal magnatic event which produced the Hiltaba Granite Suite and co-magnatic Gawler Range Volcanics.

The Six Mile Hill project occupies a prime structural address for potential mineralisation. The Roopena Shear Zone (RSZ), a splay from the Kalinjala Shear Zone (a mantle-cutting regional tectonic structure), runs through the Six Mile Hill project area. District scale faults are predominately oriented NE/NW and reveal a pronounced NE/SW oriented gravity ridge. Geophysical modelling indicates the possible presence of granitic bodies. These are thought related to the Hiltaba Granite Suite, host to Olympic Dam and Prominent Hill mineralisation.

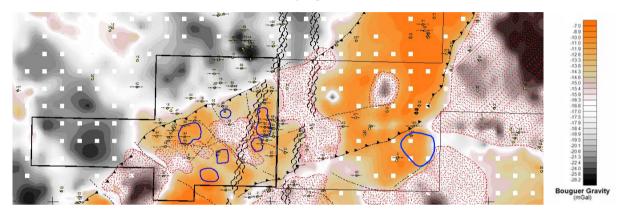


Figure 6: Residual Regional Bouguer gravity (2.67g/cc) with regional structure (black), interpreted felsic intrusives (pink) and gravity features (blue). Note pronounced NE/SW oriented gravity ridge.

Although Upper-Gawler Range Volcanics outcrop in the southwest of Six Mile Hill, the majority of the project area lies under Neoproterozoic (Adelaidean) and younger Shallow sedimentary cover. drilling conducted in the 1970s encountered shallow sediment-hosted copper mineralisation in the sediments above Kingston's priority target area. **Further** south along the RSZ are several historic copper occurrences and modern copper prospects.

## **Next Steps**

The Company will provide a significant technical update on the Six Mile Hill project next week to coincide with our presentation at SAREIC 2015.

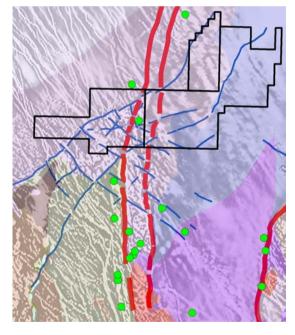


Figure 7: Copper occurrences and prospects along the Roopena Shear Zone (RSZ)

#### **Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Barry Bourne, who is engaged as a consultant by the Company through geophysical / geological consultancy Terra Resources Pty Ltd. Mr Bourne is a fellow of the Australian Institute of Geoscientists and a member of the Australian Society of Exploration Geophysicists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and 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 Bourne consents to the inclusion in the report of matters based on information in the form and context in which it appears.

# **JORC Code 2012 Reporting**

The most recent JORC Code 2012 edition exploration results reporting on the information contained within this ASX Announcement can be reviewed in the "KSN Exploration Update – October 2014" ASX Announcement as released to ASX on 30<sup>th</sup> October 2014.