



**KALGOORLIE-BOULDER  
RESOURCES LTD**  
ABN 48 106 732 487

**ASX Announcement**

**ASX Codes: KAL, KALO**

22 January 2008

## **EXPLORATION UPDATE**

### **Gold Exploration:**

- **KBRL launches major new geophysical exploration initiative at the Norseman Gold Project.**
- **Innovative VTEM geophysical survey commissioned at the 1.4 Million ounce Norseman Gold Project**
- **Further Norseman gold resource upgrade at the Mt Henry deposit expected in three weeks**

### **Nickel Exploration:**

- **SQUID MLTEM survey commissioned for Clinker Hill Project.**
- **New Geochemical Anomalism identified at Clinker Hill**
- **VTEM Geophysical survey commences on Lake Johnston Nickel Project**

### **Norseman Gold Project**

Kalgoorlie Boulder Resources Limited (ASX:KAL) is pleased to announce it has launched a major new geophysical exploration initiative at the Norseman Gold Project. This initiative follows on from the Company's highly successful exploration program in 2007 which resulted in a **40%** increase in the JORC resources at the Norseman Gold Project to a total of **1.4 million ounces** (see resource table next page).

Geotech Ltd of Canada has been contracted to conduct a VTEM (Time domain airborne Electro-Magnetic) survey across the Company's entire Norseman tenement holding, which totals approximately 124 square km, in order to identify previously unknown sulphide mineralisation.

VTEM employs a helicopter-borne EM unit which bounces a radio signal off the ground to identify any conductive geological structures which may lie below the surface.

The VTEM process was developed by Geotech to assist with the identification of massive sulphide orebodies in base metal exploration. As the gold mineralisation at the Company's Mt Henry and Selene deposits are rich in Pyrrhotite, a highly conductive mineral, any similar deposits located in the target area should display good VTEM signatures.

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It is believed that it is the first time that VTEM has been used for gold exploration in the Norseman area but the process has been used successfully to identify similar Banded Iron Formation-hosted gold mineralisation in Canada.

KBRL believes that analyses generated through the use of VTEM technology will deliver an exploration advantage by reducing the amount of scout drilling required to explore its tenement holdings, thereby delivering significant savings in both time and cost.

This survey is expected to be completed prior to the end of January 2008, with the processing expected to be completed by the end of February. Once the survey has been completed and the data analysed, any resulting anomalies will be ranked for drill testing.

Southern Geoscience, which provides specialist geophysics expertise, has been commissioned to supervise the survey and process the data for incorporation into the Company's extensive database and the eventual ranking of exploration prospects.

This geophysical exploration initiative is designed to locate additional gold prospects with the objective of adding to the Company's existing resource deposits. The Company's resource evaluation work continues and it expects to complete a further resource upgrade at Mt Henry in the next three weeks to incorporate the results of drilling announced to the ASX in November 2007. An initial scoping study on the Mt Henry and Selene Resources is expected to be completed during February/March 2008. The Company expects to begin a pre-feasibility study immediately following a positive scoping study outcome.

#### Total Norseman Project Resource

Prospect	Classification	Tonnes (Mt)	Gold Grade (g/t)	Ounces (Mill)
Mt Henry	Indicated	5.0	2.0	0.31
Selene	Indicated	11.3	1.6	0.58
<b>Total</b>	<b>Indicated</b>	<b>16.4</b>	<b>1.7</b>	<b>0.9</b>
Mt Henry	Inferred	5.6	1.8	0.32
Selene	Inferred	3.0	1.4	0.14
Nth Scotia	Inferred	0.3	3.4	0.04
Abbotshall	Inferred	0.5	2.0	0.03
<b>Total</b>	<b>Inferred</b>	<b>9.4</b>	<b>1.7</b>	<b>0.5</b>
<b>Grand Total</b>	<b>Ind &amp; Inf</b>	<b>25.8</b>	<b>1.7</b>	<b>1.4 M oz</b>

- 1) All resources are reported to a cutoff grade of 1.00gm/t.
- 2) Rounding, conforming to the JORC code may cause computational errors.

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## **Nickel Exploration Initiative**

### **Clinker Hill Nickel Project**

Following the success of an initial geochemical sampling program at the Clinker Hill Nickel Project early in 2007, the Company conducted further follow up and infill sampling in November 2007.

This survey has enhanced the definition of coincident nickel, copper, cobalt, platinum and palladium anomalies along the mapped basal contact. This suite of anomalous elements is characteristic of nickel sulphide ore deposits in the Kalgoorlie-Kambalda area.

The latest program has also identified a new area of anomalism considered prospective for nickel and associated minerals. Consequently, the strike length of the anomalism has been increased from five kilometres to seven kilometres. This area will form the focus of further exploration efforts.

The Company has now commissioned a SQUID (Superconducting Quantum Interference Device) Moving Loop EM survey across the length of the basal contact, including the newly identified anomalous extensions. It is hoped that this survey will delineate any areas of massive or semi-massive nickel sulphide mineralisation. This type of geophysical survey has been used successfully to identify new nickel orebodies by Consmin Nickel Pty Ltd and Mincor Resources Ltd in adjacent areas.

This survey is expected to commence in February 2008 for processing and interpretation in March. Any anomalies identified by the survey will then be ranked for follow up drill testing.

### **Lake Johnston Nickel Project**

The company has commissioned a VTEM geophysical survey on the Lake Johnston Nickel Project, which is located near the Emily Ann and Maggie Hays Nickel mines of Norilsk Nickel, in the Forrestania nickel field.

This VTEM program is designed to define areas of potential nickel sulphide mineralisation, adjacent to an interesting magnetic anomaly, located in a mafic / ultramafic belt, similar to the mineralising structures of the Emily Ann and Maggie Hays nickel mines. The VTEM survey will be starting in the fourth week of January and should be completed and processed by the end of February.

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## About Kalgoorlie-Boulder Resources

Kalgoorlie-Boulder Resources is an ASX-Listed minerals exploration company focused on its 100% owned Norseman Gold Project and its Clunker Hill Project NNW of Kambalda WA.

The Norseman Gold Project covers 124 square kilometres of the prolific South Norseman-Wiluna Greenstone belt of the Eastern Goldfields in Western Australia. Norseman is the southern most gold mining centre of the Norseman-Wiluna gold belt which hosts an endowment of over 270 million ounces of gold. The Norseman region has been a major gold producer with production in excess of 6.1 million ounces of gold from 1935.

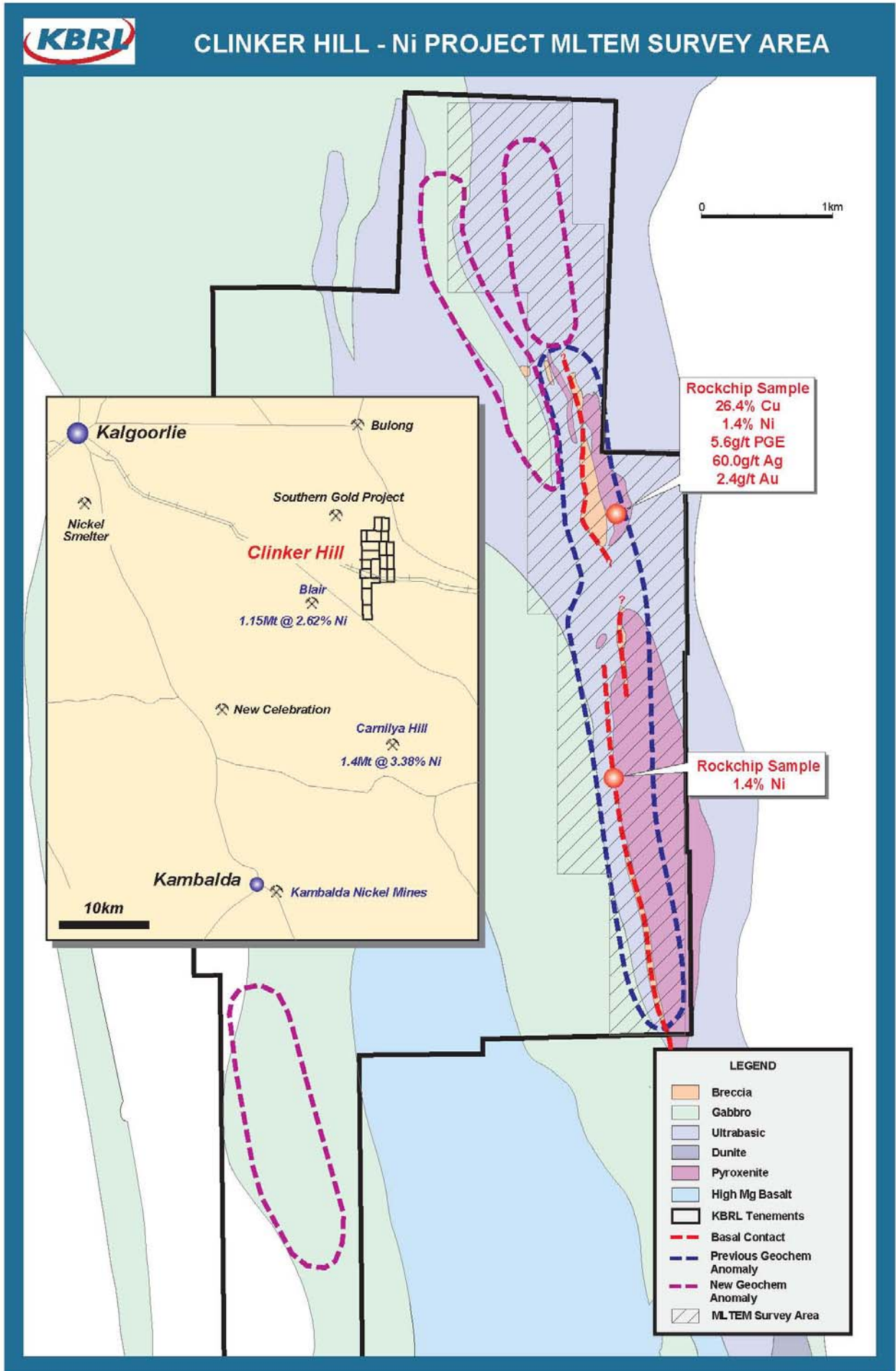
The Norseman Gold Project contains a number of mineral resources at the Mt Henry, Selene and Scotia deposits where there are currently indicated and inferred resources totalling 25.8Mt @ 1.7 g/t for 1.4M ounces of gold.

Kalgoorlie Boulder Resources is currently undertaking a Scoping study to evaluate the economic potential of the Norseman project, which includes the Newly updated resources at both Selene and Mt Henry. The Scoping study is due to be completed in the first Quarter of 2008, which will then lead to a Pre-Feasibility and a Full Feasibility study.

*The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Richard Breyley, who is a member of the Australasian Institute of Mining and Metallurgy. Richard Breyley is a full time employee of Kalgoorlie Boulder Resources. Richard Breyley has sufficient experience which is relevant to the style of mineralisation and the type of ore deposit under consideration and 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 Mineral Resources and Ore Reserves. Richard Breyley consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*



CLINKER HILL - Ni PROJECT MLTEM SURVEY AREA



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