

## ASX/MEDIA ANNOUNCEMENT

24 APRIL 2013

ASX Code:

HOR

### Management

**Mr Jeremy Shervington**  
*Non-Executive Chairman*

**Mr Neil Marston**  
*Managing Director*

**Mr Michael Fotios**  
*Non-Executive Director*

**Mr Stuart Hall**  
*Non-Executive Director*

**Mr Damian Delaney**  
*Company Secretary*

### Issued Capital

Shares: 75.9 Million

Options: 22.0 Million

Share Price: \$0.145

Market Capitalisation:  
\$11.0 Million

Cash at Bank  
(31 March 2013)

\$0.6 Million



**HORSESHOE METALS**  
LIMITED

## QUARTERLY REPORT PERIOD ENDED 31 MARCH 2013

### HIGHLIGHTS

#### Horseshoe Lights Project (HOR: 100%)

- High priority VHMS exploration target within prospective corridor identified from geophysical study;
- Prospective corridor extends 800 metres towards the south east of existing open pit;
- Limited historical drilling in the high priority VHMS exploration target area identified the presence of anomalous copper within the Narracoota Formation;
- Diamond drilling commenced subsequent to the end of the quarter in April 2013.

#### Kumarina Project (HOR: 100%)

- Maiden Mineral Resource Estimate at the Rinaldi Prospect of **835,000t @ 1.3% Cu for 10,600 tonnes** of contained copper at a 0.5% Cu cut-off grade;
- Mineral Resource Estimate is predominately in the Measured and Indicated categories;
- Mineralisation is shallow and remains open along strike in both directions and down dip;

#### Upcoming Activities

- Results from drilling at Horseshoe Lights;
- Kumarina Deeps Prospect drilling planned for June 2013.

## QUARTERLY REPORT FOR THE PERIOD ENDED 31 MARCH 2013

### OVERVIEW

Horseshoe Metals Limited (ASX: HOR) ("Horseshoe Metals" or "the Company"), through its wholly owned subsidiary, Murchison Copper Mines Pty Ltd, holds a 100% interest in the Horseshoe Lights and Kumarina Projects located in the Peak Hill Mineral Field, north of Meekatharra in Western Australia (see Figure 1).

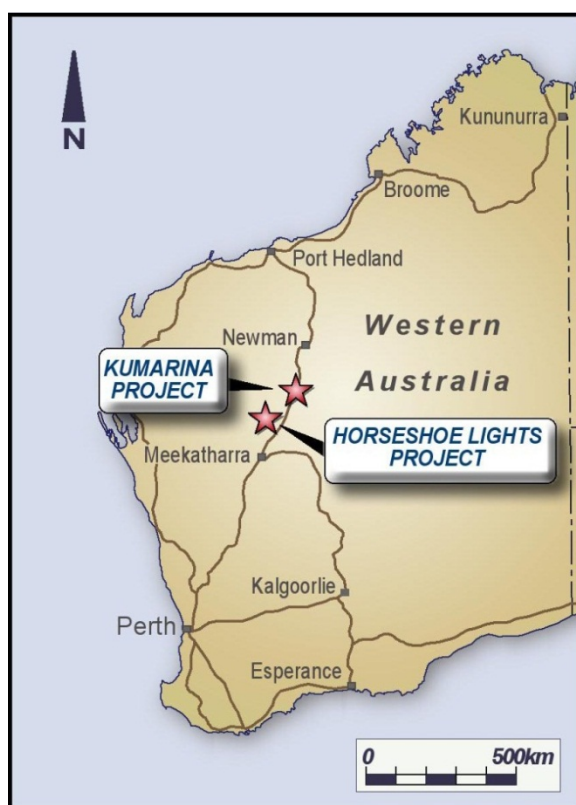


Figure 1 – Projects Location Plan

### EXPLORATION AND EVALUATION

#### Horseshoe Lights Project (HOR: 100%)

The Horseshoe Lights Project covers an area of approximately 80 km<sup>2</sup> including the closed Horseshoe Lights copper-gold mine, which is located 75km West of Sandfire Resources NL's DeGrussa Copper-Gold mine. Historical production from the Horseshoe Lights mine was 313,000 oz gold and 54,800 tonnes of copper.

### Geophysical Study

During the quarter geophysicists at Resource Potential Pty Ltd undertook a detailed study, using all available exploration data generated by the Company over the last 2½ years plus historical information such as soil sampling data.

The aim of the study has been:

- to obtain the best possible understanding of the geology at, and surrounding, the Horseshoe Lights mine; and
- to identify exploration targets for the next stage of drilling by the Company.

A significant exploration target for volcanogenic-hosted massive sulphide (VHMS) copper/gold deposits has been identified through the study, along with several other priority targets in a zone extending 800 metres to the south east of the existing open pit (see ASX announcement, 18 March 2013).

The high priority VHMS target is associated with a gravity high anomaly which has been identified about 400 metres south east from the Main Zone of the existing Horseshoe Lights Mine and just to the west of the topographic feature known as Chert Hill (see Figure 2).

The high priority VHMS target is along strike from the mine, and potentially represents a new zone of mineralisation masked by the sedimentary cover of the Ravelstone Formation.



## QUARTERLY REPORT FOR THE PERIOD ENDED 31 MARCH 2013

The VHMS target is interpreted to be at a depth of about 200-300 metres and is considered to be significant due to the following factors:

1. The presence of a moderately high chargeability anomaly identified on Line 3 of the Dipole-Dipole Induced Polarisation ("DDIP") Survey completed in 2011 (see Figure 3);
2. The presence of a coinciding gravity high anomaly identified by the topographically levelled gravity survey completed in late 2012 (see Figure 4);
3. The nearest historical drill holes (RC 689 & RC 690) were drilled to an angled depth of about 200 metres each and both holes recorded anomalous copper intersections within volcanic schist at the end of each hole (see Figure 4), and
4. From historical drilling information it is interpreted that the Narracoota Formation dips to the south west under the sedimentary cover of the Ravelstone Formation. Geological modelling shows that the abovementioned anomalies are most likely to be situated in the Narracoota Formation (see Figure 4), which is the host geological unit of the Horseshoe Lights mine.

Furthermore, the gravity high anomaly is located about 200 metres south of where the Company drilled four diamond drillholes (HDD001-2 & HDD005-6) in April/May 2012 (see Figure 2), targeting a high chargeability anomaly on DDIP survey Line 2. These holes intersected zones of alteration and structures of a nature amenable to the deposition of VHMS mineralisation, albeit with limited copper mineralisation identified. It is considered that the diamond drilling in 2012 did not completely test the target area, so an additional diamond drill hole is planned near DDIP Line 2, to be drilled down dip of HDD001.

A number of other priority VHMS exploration targets have been identified by the study and an initial series of holes, generally designed to a depth of 350 metres, are planned for drilling (see Figures 2, 3 & 4).

### **Mineral Resource Estimation**

An updated Mineral Resource estimation for the Horseshoe Lights deposit is near completion following a rigorous Quality Assurance/Quality Control process, particularly in respect to the historical (pre-1995) drilling information held by the Company. This process has included the re-assaying of a significant number of old drilling samples retained in storage on-site since 1995.

For the purposes of completeness, the Company is likely to delay finalisation of the Mineral Resource estimation until results of the current drilling programme at Horseshoe Lights are received.

### **Future Activities**

Diamond drilling at Horseshoe Lights commenced in April 2013. This programme is designed to:

1. test for high grade copper/gold zones down dip of the Main Zone beneath the existing open pit; and



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- test the VHMS exploration target located SE of the existing open pit.

The Company intends to prepare each diamond drill hole to allow follow-up Down Hole Electromagnetic (DHEM) surveys to be undertaken.

### Kumarina Project (HOR: 100%)

The Kumarina Project consists of one exploration licence and one mining lease covering approximately 217 km<sup>2</sup>. Drilling by the Company in 2011 & 2012 identified significant copper mineralisation at the Rinaldi Prospect.

### Mineral Resource Estimation

The maiden Resource consistent with the JORC code and guidelines for the reporting of Mineral Resource Estimates for the Rinaldi Prospect was announced in March 2013. At a cut-off grade of 0.5% Cu, the Mineral Resource estimate is **835,000 tonnes @ 1.3% Cu** for 10,600 tonnes of contained copper.

Horseshoe commissioned independent resource specialists H & S Consultants Pty Ltd to undertake the estimation, following the completion of drilling by the Company in December 2012. The Mineral Resource is predominately in the Measured and Indicated categories as shown in Table 1 and Diagram 1 below, providing a high level of confidence in the continuity of the mineralisation.

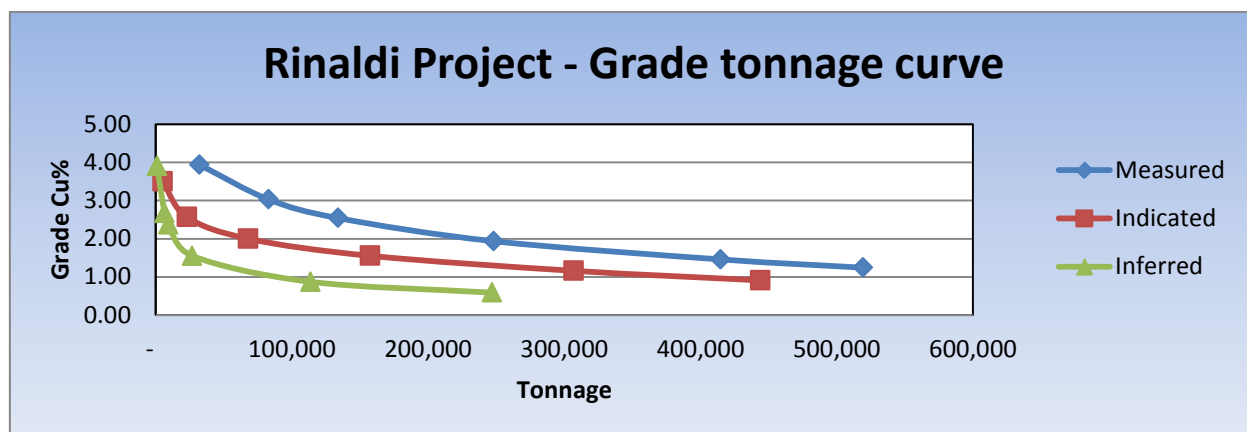


Diagram 1

The mineralisation at the Rinaldi Prospect is hosted within a north-south oriented sub-vertical fault zone, one of several such faults identified within the Company's tenement by a 2011 aeromagnetic survey (see Figure 5).

The deposit is very shallow with resource blocks occurring from 2 metres to 120 metres below surface. Importantly the higher grade zone of mineralisation which contains over 98% of >1.0% copper mineralisation is concentrated between 7267925mN and 7268275mN, a distance of about 350 metres (see Figure 6).

Importantly the copper mineralisation within the fault zone remains open along strike to the north and south of the deposit as well as at depth.



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### **Future Activities**

Activities are focused on drilling of the Kumarina Deeps Prospect, including obtaining the necessary site access clearances. The Company expects to receive site clearances by late May 2013 with the initial programme of drilling scheduled to be completed by the end of the June 2013.

The Kumarina Deeps Prospect is a strong aeromagnetic anomaly, identified over a length of about one kilometre. Geophysical interpretation of the top of the anomaly has it located at a depth of approximately 250 metres below surface. The Company has designed five (5) 500 metre deep drill holes to test the anomaly, each collared approximately 150 metres apart (see Figure 7).

The Company has been granted \$101,754 of co-funding from the WA State Government under the Exploration Incentives Scheme to drill three of the planned holes.

### **CORPORATE**

As at 31 March 2013, the Company had cash at bank of \$554,722. In addition, the Company had \$1,066,500 held on fixed term deposit as cash backing for an environmental rehabilitation bond on the Horseshoe Lights Project.

The Company is liaising with its major shareholder, Investmet Limited, on funding options for its exploration activities.

### **For further information please contact:**

Neil Marston  
Managing Director  
Horseshoe Metals Limited  
Ph: +61 8 9481 5866  
E: [nam@horseshoemetals.com.au](mailto:nam@horseshoemetals.com.au)

James Moses  
Media and Investor Relations  
Mandate Corporate  
M: +61 420 991 574  
T: +61 2 8211 0612  
E: [james@mandatecorporate.com.au](mailto:james@mandatecorporate.com.au)

### **About Horseshoe Metals Limited**

Horseshoe Metals Limited (ASX: HOR) is a copper and gold focused company with a package of tenements covering approximately 300km<sup>2</sup> in the highly prospective Peak Hill Mineral Field, located north of Meekatharra in Western Australia. The Company's projects are the Horseshoe Lights Project and the Kumarina Project.



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### About the Horseshoe Lights Project

The Horseshoe Lights Project includes the old open pit of the Horseshoe Lights copper-gold mine which operated intermittently between 1946 and 1994, producing over 300,000 ounces of gold and 54,000 tonnes of copper. The Horseshoe Lights ore body is interpreted as a deformed volcanic-hosted massive sulphide (VHMS) deposit that has undergone supergene alteration to generate the gold-enriched and copper-depleted cap that was the target of initial mining. The deposit is hosted by quartz-sericite and quartz-chlorite schists of the Lower Proterozoic Narracoota Volcanics, which also host Sandfire Resources' DeGrussa Cu-Au mine.

Past mining was focused on the Main Zone, a series of lensoid ore zones which passed with depth from a gold-rich oxide zone through zones of high-grade chalcocite mineralisation into massive pyrite-chalcopyrite. To the west and east of the Main Zone, copper mineralisation in the Northwest Stringer Zone and Motters Zone consists of veins and disseminations of chalcopyrite and pyrite and their upper oxide copper extensions. Previous operators of the mine drilled approximately 829 RC and 70 diamond drill-holes, many of which do not exceed 100m in depth and, in the case of some of the waste dump sterilisation holes drilled in the 1980's, did not assay for copper.

Prior to the commencement of drilling by Horseshoe in 2010, the project had not been subjected to any significant exploration since the 1990's and Horseshoe believes that systematic drilling, combined with the application of modern geophysical methods, can upgrade the known resources and may lead to new discoveries in the mine area.

### About the Kumarina Project

The copper deposits at the Kumarina Project were discovered in 1913 and worked intermittently until 1973. The workings extend over nearly 3km as a series of pits, shafts and shallow open cuts. At the main Kumarina Copper Mine, the workings are entirely underground with drives from the main shaft extending for some 200m in the upper levels and for about 100m in the lower levels at a depth of 49m below surface.

Incomplete records post-1960s make it difficult to estimate the total copper production from the workings. However, indications are that the Kumarina Copper mine was the second largest producer in the Bangemall Basin group of copper mines. Recorded production to the late 1960s is 481 tonnes of copper ore at a high-grade of 37.0% Cu and 2,340 tonnes at a grade of 17.51% Cu.

Exploration activities completed over the Kumarina area between 1992 and 1998 by St Barbara Limited focused on the Kumarina and Rinaldi workings and included geological mapping, gridding, rock sampling and 51 air core holes for 2,062m. Six metre composite drill samples were assayed for Cu, Au, Ag, Co, As, Pb and Mg. Four holes intersected multiple lodes that returned assays between 1.15% Cu to 3.5% Cu.

Reverse circulation percussion drilling programmes were completed by Horseshoe during 2011 and 2012. Results of the drilling programmes identified significant shallow copper mineralisation at the Rinaldi Prospect along a north – south oriented fault. The Company's 2012 diamond drilling programme of seven holes intersected visible copper with some high grade zones returning one metre assays of up to 15.2% copper.



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**Table 1**  
**Kumarina Project - Rinaldi Prospect**  
**Mineral Resource Estimation**

<b>Cut-off grade Cu (%)</b>	<b>Tonnes</b>	<b>Cu (%)</b>	<b>Cu (t)</b>	<b>Resource Category</b>
<b>0.25</b>	519,000	1.24	6,500	Measured
	444,000	0.91	4,050	Indicated
	247,000	0.6	1,450	Inferred
	<b>1,210,000</b>	<b>1.0</b>	<b>12,000</b>	<b>TOTAL</b>
<b>0.5</b>	415,000	1.46	6,100	Measured
	307,000	1.16	3,500	Indicated
	114,000	0.9	1,000	Inferred
	<b>835,000</b>	<b>1.3</b>	<b>10,600</b>	<b>TOTAL</b>
<b>1.0</b>	248,000	1.94	4,900	Measured
	157,000	1.55	2,400	Indicated
	27,000	1.6	400	Inferred
	<b>432,000</b>	<b>1.8</b>	<b>7,700</b>	<b>TOTAL</b>
<b>1.5</b>	134,000	2.54	3,400	Measured
	68,000	2.00	1,400	Indicated
	9,000	2.4	200	Inferred
	<b>211,000</b>	<b>2.4</b>	<b>5,000</b>	<b>TOTAL</b>
<b>2.0</b>	83,000	3.03	2,500	Measured
	23,000	2.57	600	Indicated
	7,000	2.7	200	Inferred
	<b>112,000</b>	<b>2.9</b>	<b>3,300</b>	<b>TOTAL</b>
<b>3.0</b>	32,000	3.94	1,280	Measured
	5,000	3.50	170	Indicated
	1,000	3.9	50	Inferred
	<b>38,000</b>	<b>3.9</b>	<b>1,500</b>	<b>TOTAL</b>

**Nature of data**

A total of 10,967.6 metres in 101 drill-holes were used in the resource estimate consisting of 7 diamond core (DD) holes and 94 reverse circulation (RC) holes. Average drill-hole depth is to 108.59m and the deepest drilling was to 202m below natural surface in drill-hole KRC082.

Drill-holes were predominantly sampled in one to three metre intervals for RC and predominantly one metre intervals for DD (although a number of sample intervals were employed for DD drilling in line with geological constraints).



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For estimation purposes the assay data was composited into one-metre intervals resulting in 14,295 samples being available for modelling over the broader Kumarina project area. The block model consists of parent cell blocks with the dimensions of 10 metre x 10 metre x 5 metre (XYZ). The block model was sub-celled to a minimum block dimension of 1 metre x 1 metre x 0.5 metre (XYZ) in-line with post processing requirements.

**Block Classification**

Ordinary Kriging was used for the estimation, the search and data criteria used for the domains is shown in Table 2 below.

**Table 2**  
**Block Classification**  
**Search Criteria**

Category	X (m)	Y (m)	Z (m)	Min samples	Max samples	Octants
Measured	20	40	8	16	32	4
Indicated	35	70	14	16	32	4
Inferred	35	70	14	8	32	2

Searches were aligned consistent with the orientations defined during the geometry modelling for each individual mineralised domain.

**Competent Persons Statement**

*The information in the report to which this statement is attached that relates to Exploration Results is based on information compiled by Mr Geoff Willetts, BSc. (Hons) MSc. who is a Member of the Australian Institute of Geoscientists. Geoff Willetts is employed full-time by Horseshoe Metals Limited.*

*Geoff Willetts has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to 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 Exploration Results, Mineral Resources and Ore Reserves'. Geoff Willetts consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*The information in this announcement that relates to Mineral Resources is based on information compiled by or under the supervision of Mr Robert Spiers, who is a member of the Australian Institute of Geoscientists. Mr Spiers has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to 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 Exploration Results, Mineral Resources and Ore Reserves". Mr Robert Spiers is an independent consultant to Horseshoe Metals Limited and a full time employee and Director of H&S Consultants Pty Ltd (formerly Hellman & Schofield Pty Ltd). He consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*



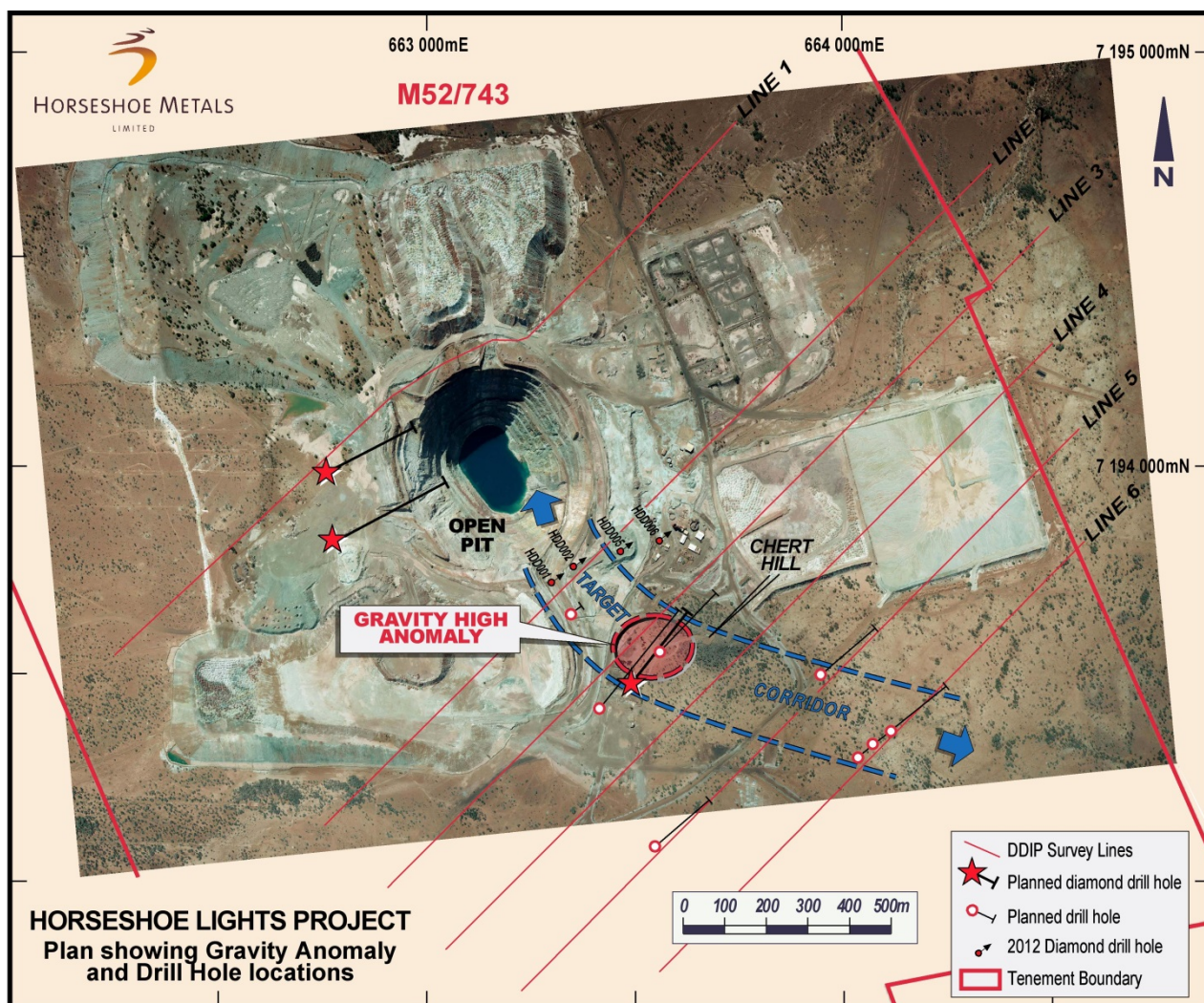


Figure 2 - Plan showing Gravity Anomaly and Planned Drill Hole Locations



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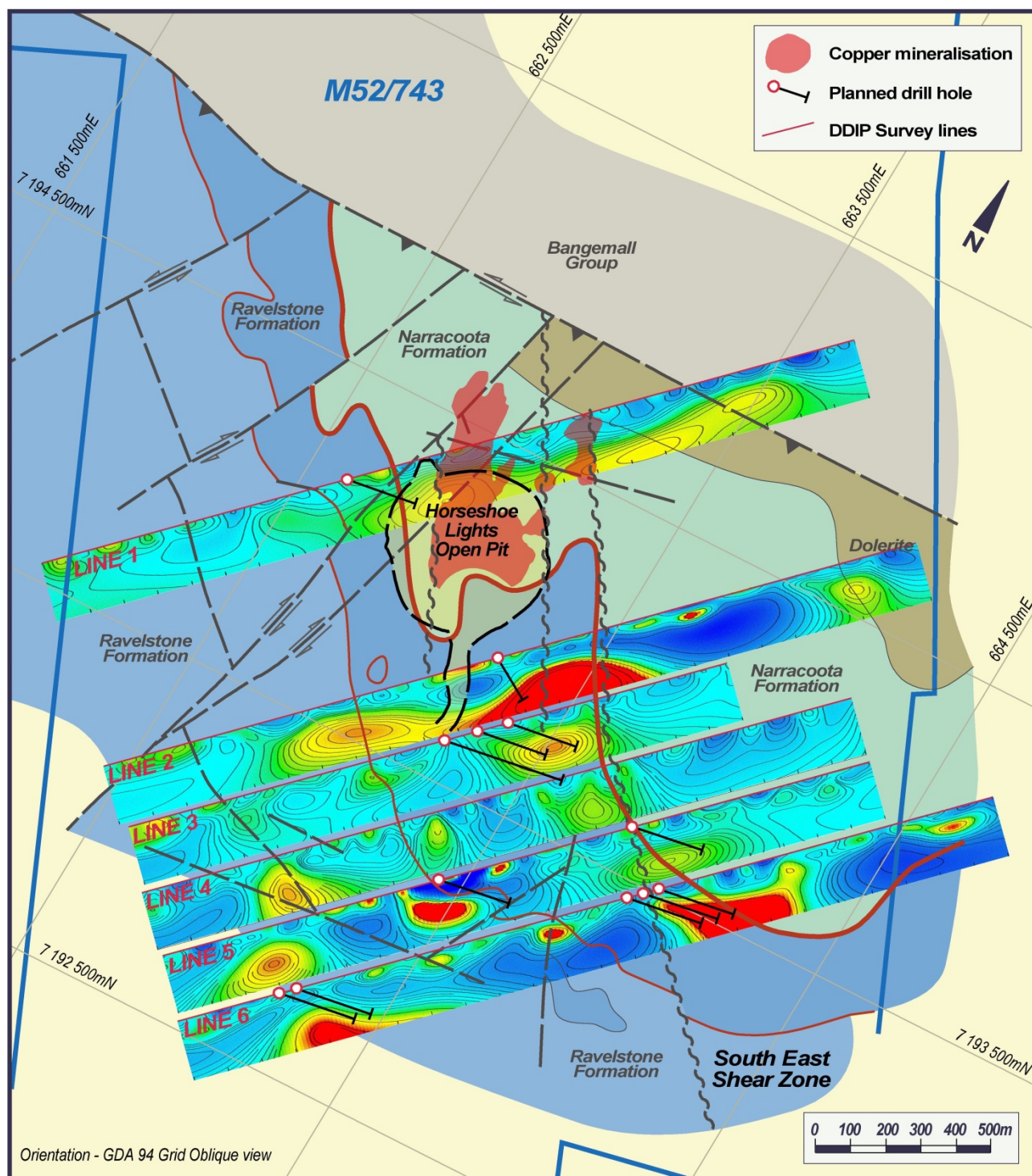


Figure 3 - Oblique Plan showing DDIP Chargeability Anomalies along survey lines





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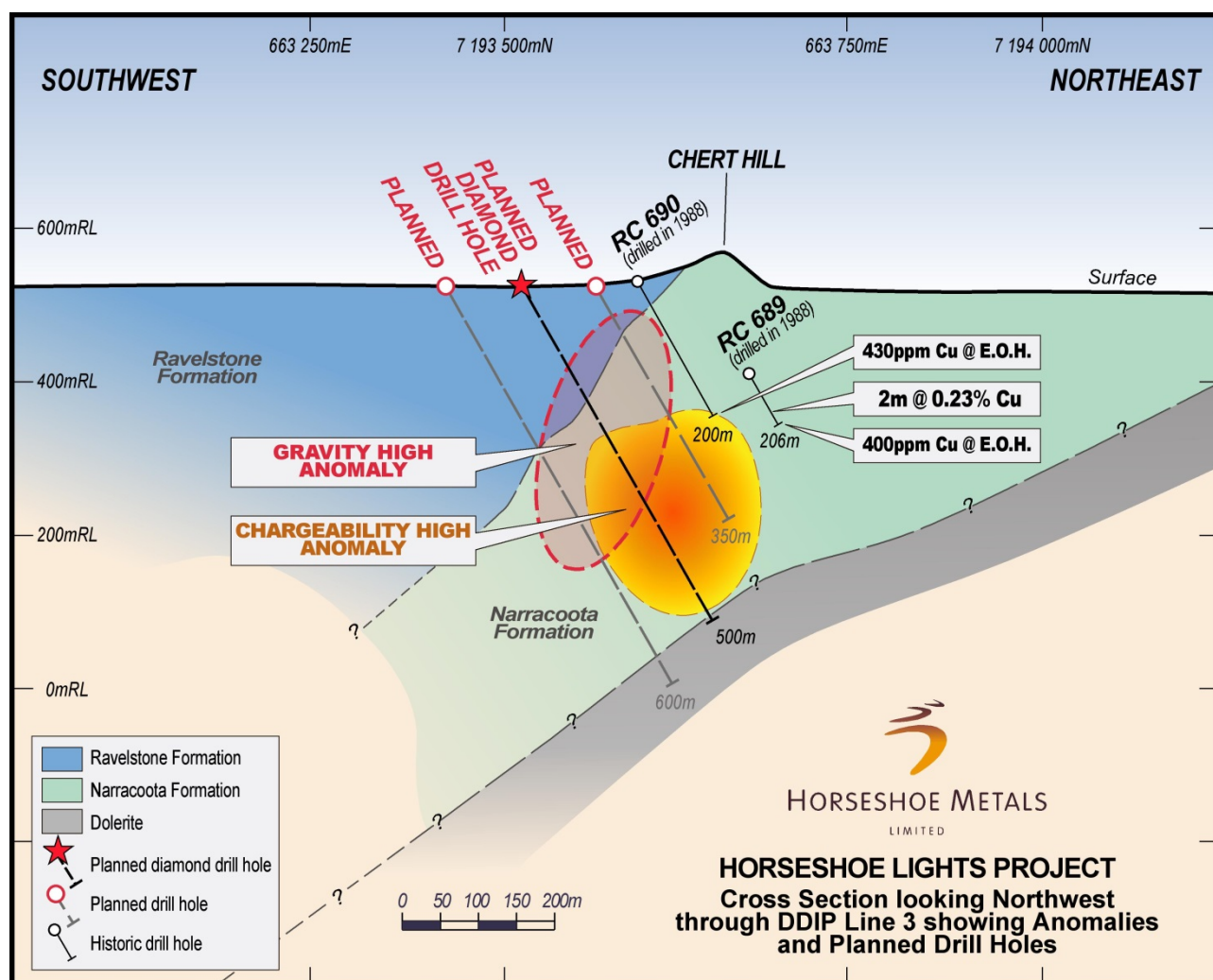


Figure 4 - Sectional View of Geophysical Anomalies on DDIP Line 3



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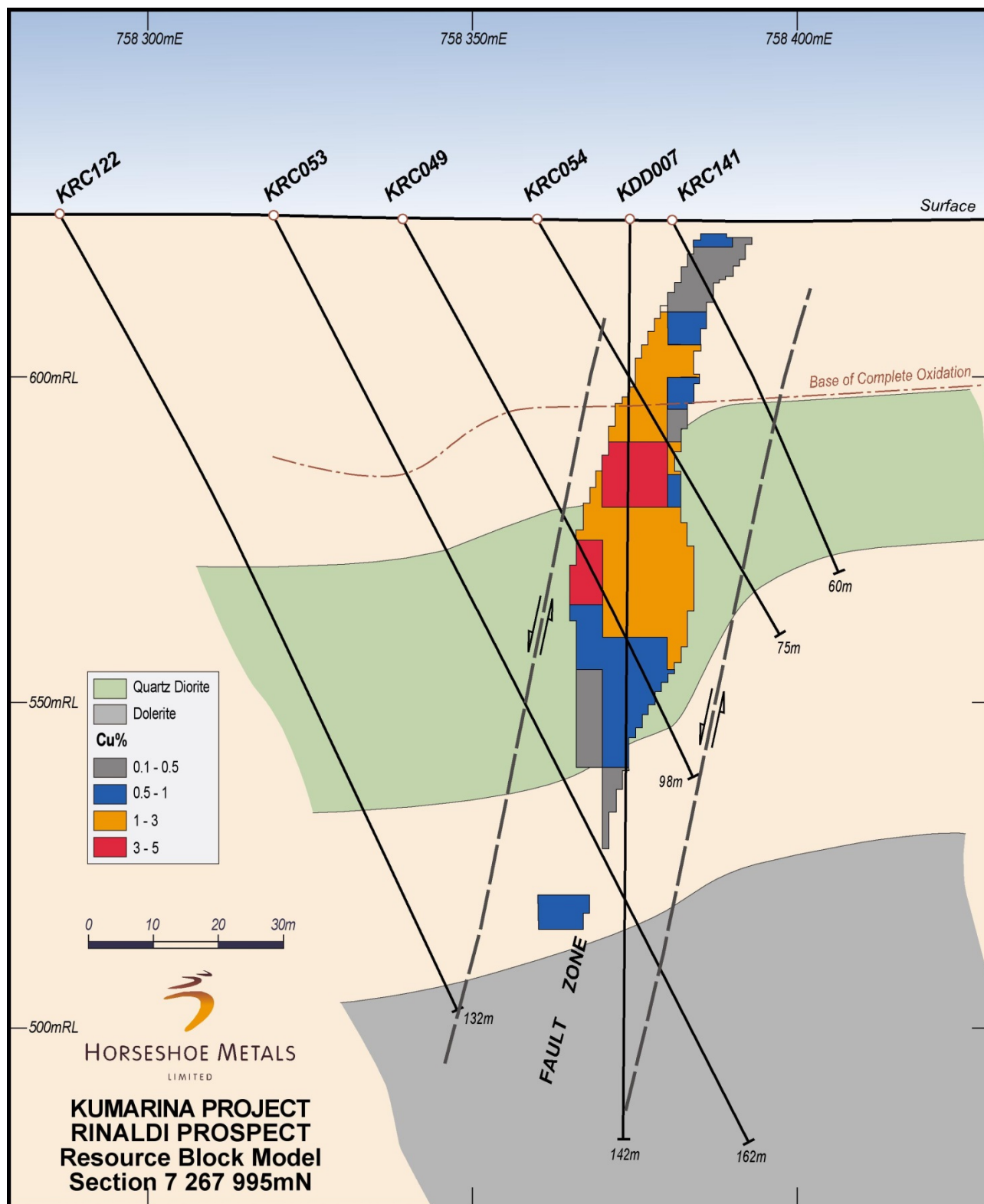


Figure 5 –Sectional View of Rinaldi Block Model

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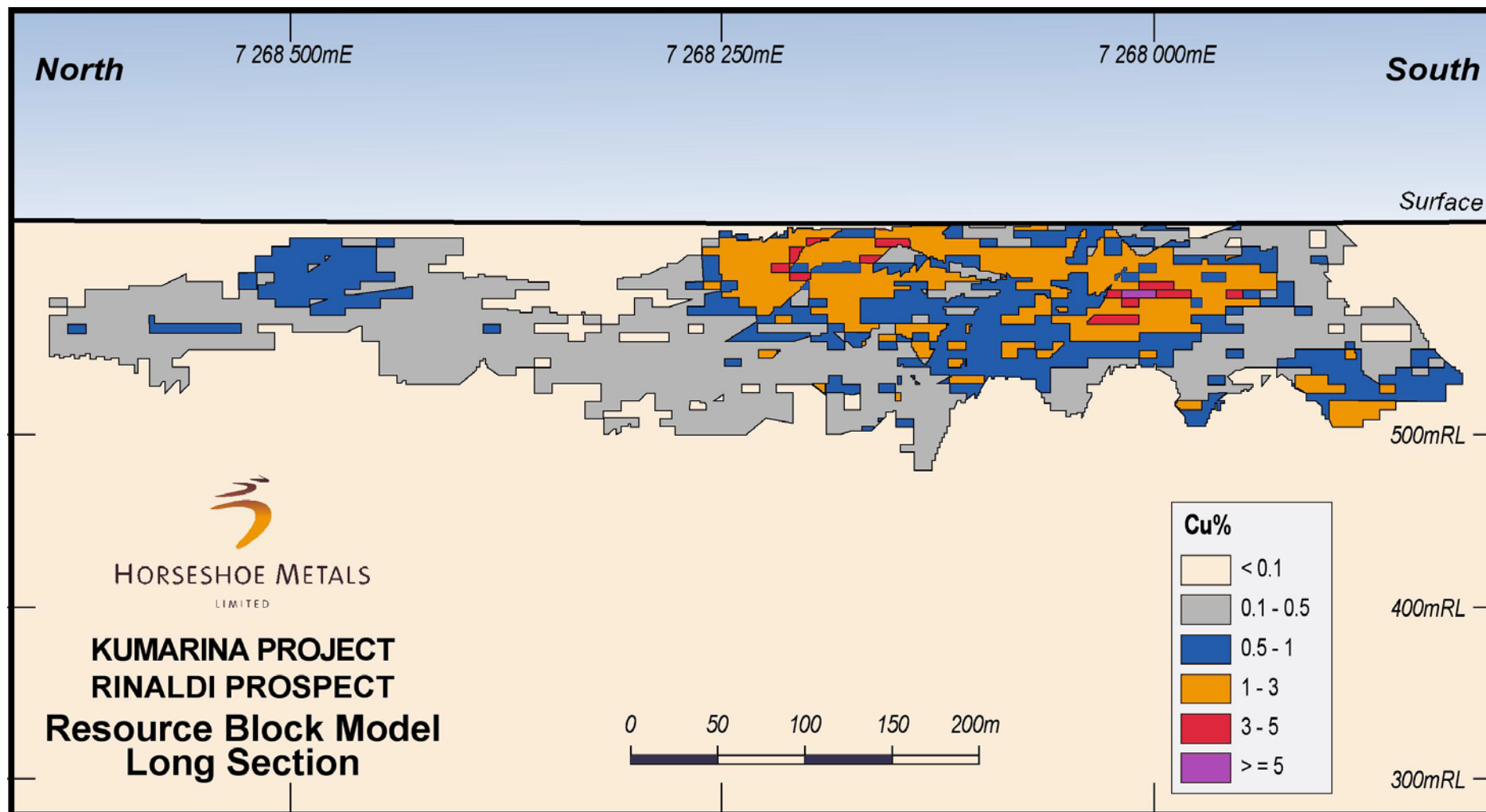


Figure 6 –Long Sectional View of Rinaldi Block Model

