



HORSESHOE METALS  
LIMITED

## OXIDE COPPER STUDY UNDERWAY AT HORSESHOE LIGHTS PROJECT

### ASX/MEDIA ANNOUNCEMENT

20 AUGUST 2015

ASX Code: HOR

#### Management

**Mr Neil Marston**  
*Managing Director/Company  
Secretary*

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

**Mr Alan Still**  
*Non-Executive Director*

#### Issued Capital

Shares: 169.7 Million

Share Price: \$0.034

Market Capitalisation:  
\$5.8 Million

#### SUMMARY

- The previously announced SMART (Surface Material Re-Treatment) Project has now been broadened to include shallow in-situ oxide copper mineralisation and possible mineralised dump material.
- Recent in-situ high grade copper oxide drill results expands the project scope.
- Scoping Study on mining and processing oxide copper resources has commenced - will include a review of the study reported in December 2014.
- Project aims to define a low cost route to copper production and cash flow.

**Horseshoe Metals Limited (ASX:HOR)** (“Horseshoe” or “the Company”) is pleased to announce the commencement of Scoping Study work within an expanded SMART (Surface Material Re-Treatment) project at its 100% owned Horseshoe Lights Copper/Gold Project (“**Horseshoe Lights Project**”) in the Gascoyne region of Western Australia (see Figure 1).

The Scoping Study will build on previous work done by the Company in 2014 but will specifically evaluate the viability of a low capex oxide copper treatment process.

Historical leaching test work demonstrated that oxide copper material present at Horseshoe Lights is very amenable to acid leaching with copper recoveries of over 80% achieved. The oxide resources that will be considered in the Scoping Study include:

1. shallow in-situ oxide copper resources which occur from surface to a depth of 100 metres;
2. surface stockpile material (M15 and sub-grade);
3. flotation tailings, and
4. mineralised dumps.

The conceptual production rate for the study is 5,000 tonnes per annum of contained copper metal for a period at least five years.

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The Scoping Study will establish the technical and economic parameters that will be required to recommence copper production at the mine.

### **SMART Project Background**

The SMART project has specifically been evaluating potential low cost retreatment of surface stockpiles and flotation tailings to recover a copper concentrate principally through gravity separation techniques.

The recent intersections of high grade copper from surface has enabled the Company to expand the scope of the SMART project to include evaluation of the much larger in-situ copper mineral resources with particular emphasis on the oxide and transition copper zones present from surface. The scoping study will draw on a considerable body of historical test work that indicates the surface oxide materials including ore stockpiles are readily acid leached at moderate acid consumption levels. Indicative acid leach recoveries range from 75% to 85% across the various material types.

It is possible that gravity techniques will be used in tandem with other treatment processes such as acid leaching to maximise recovery across the full range of materials processed.

### **Future Activities**

The Company will undertake the following activities in the coming weeks and months which will feed into the final Scoping Study:

1. Complete drilling of the in-situ copper resource at Horseshoe Lights;
2. Undertake drilling of the mineralised North Waste Dump to establish a resource estimate. Drilling by the Company in 2012 intersected broad zones of low grade copper mineralisation in several drill holes;
3. Undertake drilling of the potentially mineralised South West Waste Dump where historical grab sampling has identified copper mineralisation;
4. Update the mineral resource block model and mineral resource estimate for the Horseshoe Lights deposit and surface dumps;
5. Acid leaching testwork and design of process flow sheet, and
6. Estimation of Capital and operating costs.

The Scoping Study is expected to be completed by the first quarter 2016.

### **ENDS**

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

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**ASX ANNOUNCEMENT 20 AUGUST 2015****About Horseshoe Metals Limited**

Horseshoe Metals Limited is a copper and gold focused company with a package of tenements covering approximately 500km<sup>2</sup> in the highly prospective Peak Hill Mineral Field, located north of Meekatharra in Western Australia. (see Figure 1).

**About the Horseshoe Lights Project**

The Horseshoe Lights Project includes the old open pit of the Horseshoe Lights copper-gold mine which operated up until 1994, producing over 300,000 ounces of gold and 54,000 tonnes of contained copper including over 110,000 tonnes of Direct Shipping Ore (DSO) which graded between 20-30% copper.

The Horseshoe Lights ore body is interpreted as a deformed Volcanogenic Hosted Massive Sulphide (VMS) 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 Formation, which also host Sandfire Resources' DeGrussa copper/gold 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.

Table 1 below summarises the total Mineral Resources for the project as at 31 December 2014.

<b>TABLE 1 HORSESHOE LIGHTS PROJECT SUMMARY OF MINERAL RESOURCES AS AT 31 DECEMBER 2014</b>								
<b>Location</b>	<b>Category</b>	<b>Tonnes (Mt)</b>	<b>Cu (%)</b>	<b>Au (g/t)</b>	<b>Ag (g/t)</b>	<b>Cu metal (tonnes)</b>	<b>Au metal (oz)</b>	<b>Ag metal (k oz)</b>
<b>In-situ Deposit</b> (0.5% Cu cut-off grade)	<i>Measured</i>	1.73	1.04	0.0	0.5	18,000	1,900	28.8
	<i>Indicated</i>	2.43	0.95	0.0	0.7	23,200	3,400	52.2
	<i>Inferred</i>	8.69	1.01	0.1	2.6	87,400	30,700	712.4
	<b>Total</b>	<b>12.85</b>	<b>1.00</b>	<b>0.1</b>	<b>1.9</b>	<b>128,600</b>	<b>36,000</b>	<b>793.4</b>
<b>Flotation Tailings</b>	<b>Inferred</b>	<b>1.421</b>	<b>0.48</b>	<b>0.34</b>	<b>6.5</b>	<b>6,800</b>	<b>15,300</b>	<b>294.8</b>
<b>M15 Stockpiles</b>	<b>Inferred</b>	<b>0.243</b>	<b>1.10</b>	<b>0.17</b>	<b>4.7</b>	<b>2,650</b>	<b>1,300</b>	<b>36.7</b>
<b>TOTAL</b>						<b>138,050</b>	<b>52,600</b>	<b>1,124.9</b>

Note: At 0% Cu cut-off grade unless otherwise stated



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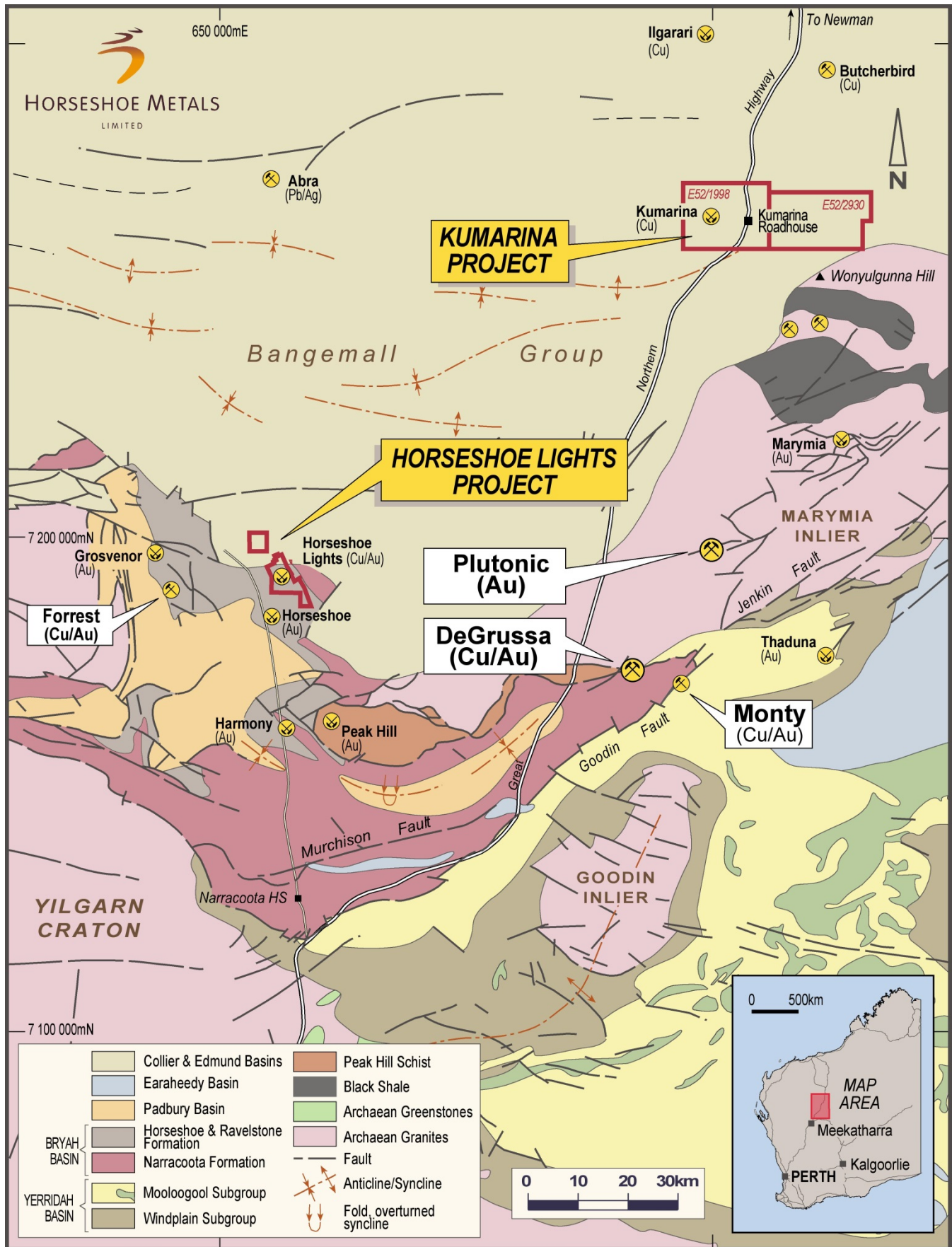


Figure 1 - Projects Location Plan



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### **Competent Persons Statement**

*The information in this report that relates to the Horseshoe Lights Project Mineral Resources is based on information compiled by Mr. Dmitry Pertel, who is a member of the Australian Institute of Geoscientists. The information was previously issued with the written consent of Mr Dmitry Pertel in the Company's 30 June 2013 Quarterly Report released to the ASX on 31 July 2013. Mr. Pertel was an employee of CSA Global Pty Ltd at the time. The Company confirms that:*

- (a) the form and context in which Mr. Dmitry Pertel's findings are presented have not been materially modified.*
- (b) it is not aware of any new information or data that materially affects the information included in the 31 July 2013 ASX announcement and that all the material assumptions and technical parameters underpinning the estimate in the 31 July 2013 ASX announcement continue to apply and have not materially changed.*
- (c) it is uncertain that following evaluation and/or further exploration work that the historical estimates will be able to be reported as mineral resources in accordance with the JORC Code.*

*The information in this report that relates to the Horseshoe Lights Project flotation tailings and surface stockpiles Mineral Resources is based on information compiled by Mr Geoff Willetts, BSc. (Hons) MSc. who is a Member of the Australian Institute of Geoscientists. The information was previously issued with the written consent of Mr Geoff Willetts in announcements released to the ASX on 26 February 2015 and 9 March 2015. Mr. Willetts was an employee of Horseshoe Metals Limited at the time. The Company confirms that:*

- (a) the form and context in which Mr Geoff Willetts' findings are presented have not been materially modified.*
- (b) it is not aware of any new information or data that materially affects the information included in the 26 February 2015 and 9 March 2015 ASX announcements and that all the material assumptions and technical parameters underpinning the estimates in the 26 February 2015 and 9 March 2015 ASX announcements continue to apply and have not materially changed.*
- (c) it is uncertain that following evaluation and/or further exploration work that the historical estimates will be able to be reported as mineral resources in accordance with the JORC Code.*