

ASX/MEDIA ANNOUNCEMENT

21 MAY 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
Options:
5.4 Million (60c, exp 5/15)
Performance Rights: 2.8 M

Share Price: \$0.022

Market Capitalisation:
\$3.7 Million

Cash at Bank
(31 Mar 2015)

\$0.26 Million



HORSESHOE METALS
LIMITED

HORSESHOE LIGHTS SURFACE MATERIAL RE-TREATMENT (SMART) PROJECT UPDATE

SUMMARY

- Horseshoe Metals has completed a successful testwork programme as part of its Surface Material Re-Treatment (SMART) Project at Horseshoe Lights.
- Results indicate gravity separation methods can produce a sulphide rich concentrate from flotation tailings.
- Based on these positive results, SMART Project to progress to definitive metallurgical testwork programme.

Horseshoe Metals Limited (ASX:HOR) ("Horseshoe" or "the Company") is pleased to provide an update on its gravity separation testwork programme which was undertaken as part of its Surface Material Re-Treatment (SMART) Project at its Horseshoe Lights Copper-Gold Project in the Gascoyne region of Western Australia (see Figure 2).

The initial gravity separation testwork programme has now been completed, results have been internally reviewed and are considered encouraging.

As a result, the SMART Project will immediately progress to the next phase. Investigations will be expanded to include:

- further bulk sampling and testing of tailings,
- process flowsheet evaluation,
- mineralogical assessment, and
- financial costing and modelling.

The aim is to convert these surface resources into a positive cashflow for the Company.

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OVERVIEW

The SMART project was initiated in mid-2014 by an internal review of previously reported results from an auger drilling program carried out on the copper and gold tailings at the Horseshoe Lights mine in 2010.

A selection of sample material from the drill program has been used in a series of laboratory sighter tests. This testwork had the sole objective of demonstrating whether it was possible to separate copper and gold concentrates by using off the shelf gravity separation equipment. The test criterion was “can separation using gravity methods produce a differentiated product or not?”.

The amount of separation achieved was encouraging and it clearly demonstrated that the flotation tailings material may be amenable to reprocessing with the aim of producing copper and gold concentrates. While the samples were not fully representative of the ~ 1.7M tonnes of copper-bearing material on surface (refer to Figure 1), the result was not unexpected as several grab samples taken in 2014 from the flotation tailings dam showed native copper and copper sulphide compounds in panned concentrates.

Given the positive testwork results the SMART Project will now progress to the next phase. Investigations will be expanded to include:

- further bulk sampling and testing of tailings. The Company will need to undertake a new round of sampling and testing, most likely on site using fresh bulk samples. A test plant in a modular form is being considered. A suitable test plant may be available on the market and will be investigated.
- an equipment evaluation that will result in a proposed process flow sheet.
- mineralogical assessment of tailings. The Company will examine the mineralogy relating to particle liberation required ahead of gravity separation.
- financial costing and cash flow modelling.

COMPLETED ACTIVITIES

Mineral Resource Verification

The first step in the SMART Project was to verify the approximately 1.4Mt surface copper flotation tailings resource with previous mine production reports. A Mineral Resource Estimate for the Horseshoe Lights flotation tailings was completed in February 2015 with tonnes and grade reconciling well with historical production reports (*see announcement dated 26 February 2015*).

A further Mineral Resource Estimate for the Horseshoe Lights low grade (M15) stockpiles was completed by the Company in March 2015 (*see announcement dated 9 March 2015*).

The combined low grade/sub-grade stockpile tonnage is around 280,000 tonnes which is approximately 16% of the surface copper resource. However due to their inferred higher Cu grade the surface stockpiles represent about 30% of the contained copper metal and present a significant opportunity to be treated as incremental feed in any future tailings retreatment plant.



Figure 1 – Site Layout Plan

Gravity Separation Testwork

Following completion of the mineral resources review, an independent laboratory was engaged to run the gravity tests.



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Flotation Tailings

A total of 4 composite auger drilling samples (Composite Samples 1 -4) from 20 holes drilled into the flotation tailings dam in 2010 were processed (See Figure 3). 155 one metre samples were taken from the surface down to the original terrain with the holes being in the region of 6-10 metres deep.

The 4 composite samples, representing between 32-43 metres of auger drilling each, were scrubbed first to achieve full particle separation before being fed to a Falcon Concentrator. The Falcon concentrate was then fed on to a standard laboratory size Wilfley table.

The various separations can be easily seen at the near end of the table in Plate 1. The separated fractions are shown to be feeding into the cut slots for individual assay.



Plate 1 – Wet Table processing tailings from Composite Sample 1
with apparent sulphides (grey/black) separation.

Plate 2 shows microscopic photos of all four composite samples with details of the first 6 cuts from the Wilfley table. The dark sulphide concentrates in the top cuts is clearly evident. Essentially, it is the darker sulphide rich material that is likely to be a useful product.



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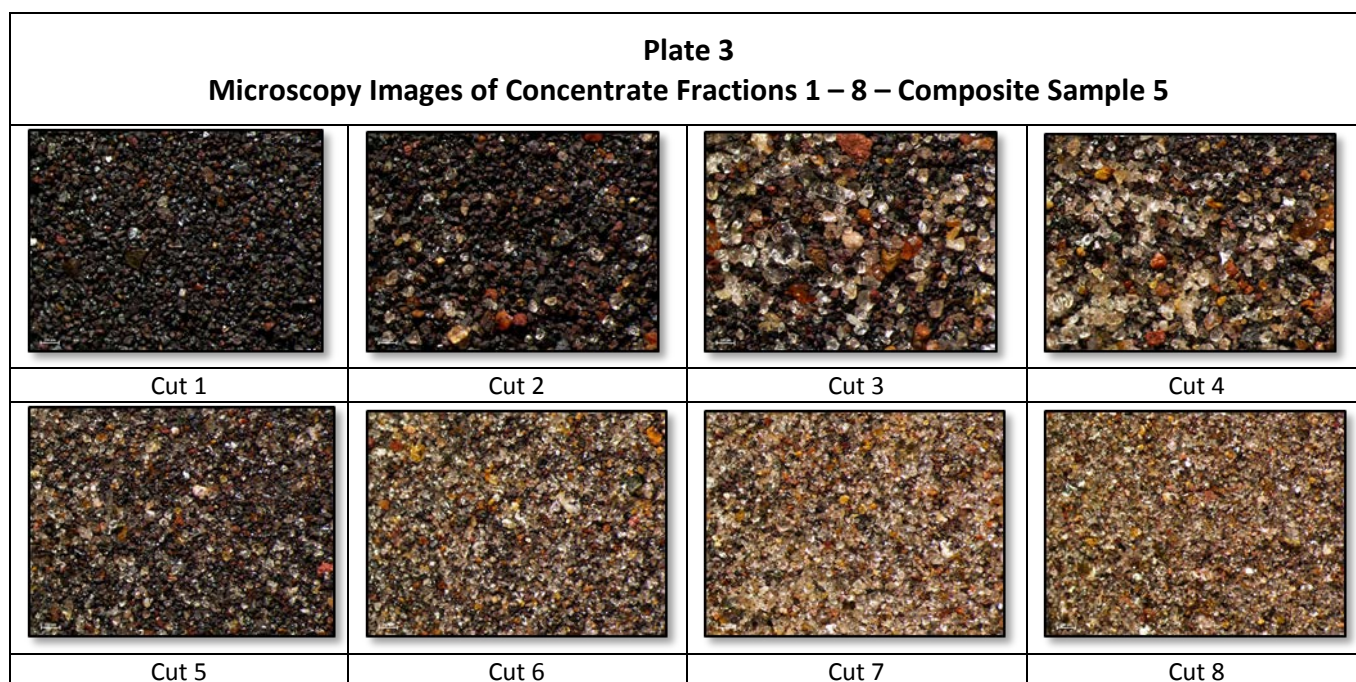
Plate 2
Microscopy Images of Concentrate Fractions 1 - 6 – Composite Samples 1 - 4

Composite Sample 1	Composite Sample 2	Composite Sample 3	Composite Sample 4
			
Cut 1	Cut 1	Cut 1	Cut 1
			
Cut 2	Cut 2	Cut 2	Cut 2
			
Cut 3	Cut 3	Cut 3	Cut 3
			
Cut 4	Cut 4	Cut 4	Cut 4
			
Cut 5	Cut 5	Cut 5	Cut 5
			
Cut 6	Cut 6	Cut 6	Cut 6

**ASX ANNOUNCEMENT 21 MAY 2015****CIP Tailings**

A single composite sample (Composite Sample 5) was made from 0-3m depth samples of the 10 holes drilled in the CIP tailings dam as part of the 2010 auger drilling programme. The sample was treated using the same test layout as Composite Samples 1-4 (see Plate 3). The table cut assays showed gold was recovered in every cut. Cut 1 indicated that there is free gold present in the sample and the others show gold contents of between 0.2 g/t and 1.0 g/t.

As only a single sample has been tested to date, additional testing on the CIP tailings needs to be done. Depending upon the recoveries that can be achieved it may be possible that processing the CIP tailings may be the quickest and easiest method to generate revenue.

**DISCUSSION**

The laboratory scale Wilfley Table and Falcon Concentrator used were the best equipment selection available to undertake the sighter testwork and there was no attempt made to emulate normal plant operating conditions. The test runs were task specific to show gravity separation could produce copper and gold concentrates.

Despite these qualifications, there is clearly some gravity separation that has taken place and this provides sufficient encouragement to advance to the next phase of the project. An aim in the next phase will be to get to optimum separation efficiencies based on the results of a definitive metallurgical testwork programme.

An ideal situation would be that gold and copper concentrates could be produced simultaneously.

Overall the results from the gravity separation testwork programme represent an encouraging result. The Company is of the opinion that gravity separation methods may enable it to produce a saleable product(s) from the tailings with a relatively low capital investment.



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HORSESHOE LIGHTS - DRILLING UPDATE

The Company is currently undertaking an RC drilling programme at the Horseshoe Lights Project (*refer to ASX announcement dated 8 May 2015 for details*).

A total of 6 holes for 947 metres of drilling have been successfully completed so far. Samples have been submitted for laboratory analysis and the first assay results are expected to be received next week.

ENDS

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About Horseshoe Metals Limited

Horseshoe Metals Limited is a copper and gold focused company with a package of tenements covering approximately 500km² in the highly prospective Peak Hill Mineral Field, located north of Meekatharra in Western Australia. The Company's projects are the Kumarina Project and the Horseshoe Lights Project (see Figure 2).

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.

The table below summarises the total Mineral Resources for the Horseshoe Lights Project as at 31 December 2014.

HORSESHOE LIGHTS PROJECT SUMMARY OF MINERAL RESOURCES AS AT 31 DECEMBER 2014								
Location	Category	Tonnes (Mt)	Cu (%)	Au (g/t)	Ag (g/t)	Cu metal (tonnes)	Au metal (oz)	Ag metal (k oz)
In-situ Deposit (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
	Total	12.85	1.00	0.1	1.9	128,600	36,000	793.4
Flotation Tailings	Inferred	1.421	0.48	0.34	6.5	6,800	15,300	294.8
M15 Stockpiles	Inferred	0.243	1.10	0.17	4.7	2,650	1,300	36.7
TOTAL						138,050	52,600	1,124.9

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



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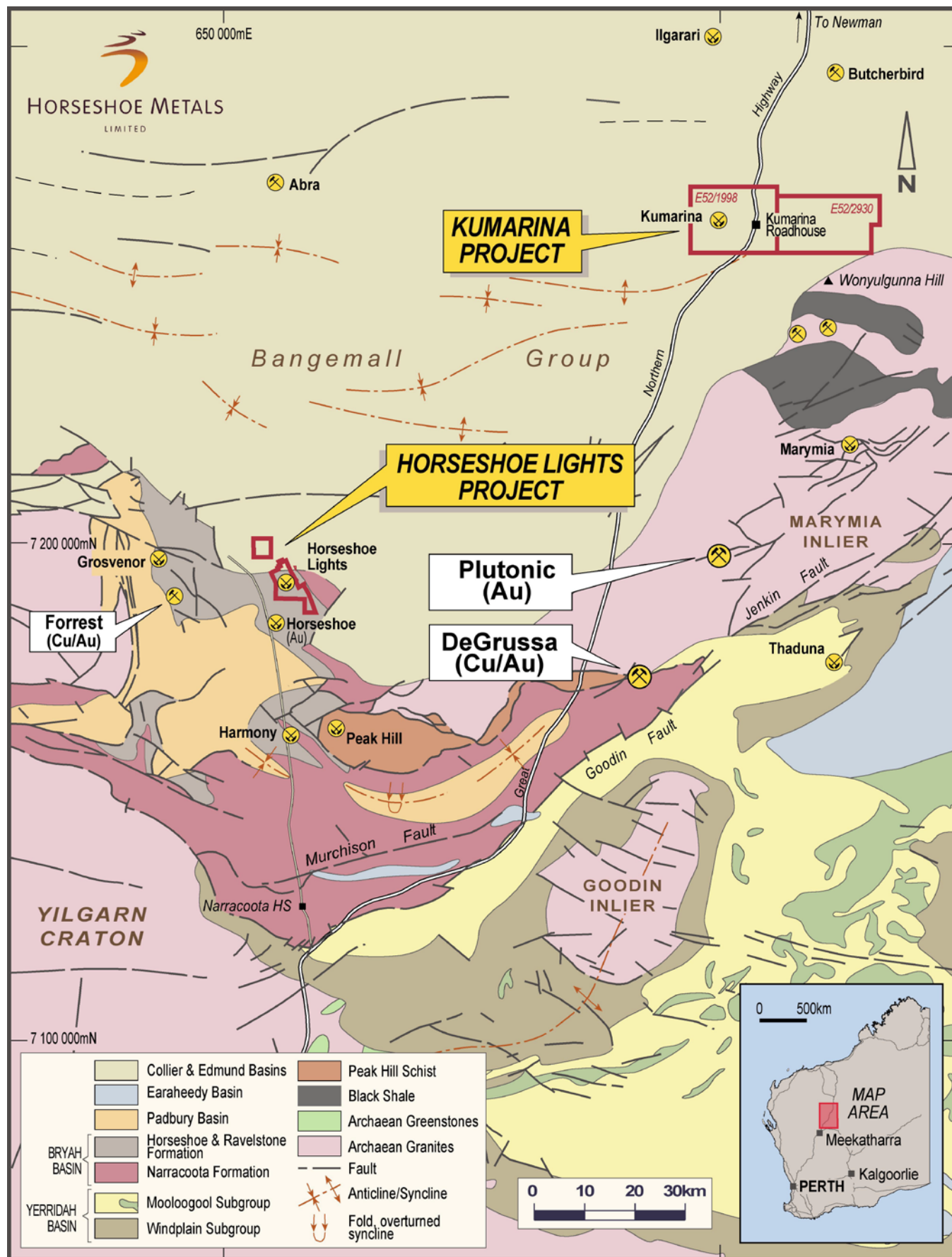


Figure 2 – Projects Location Plan

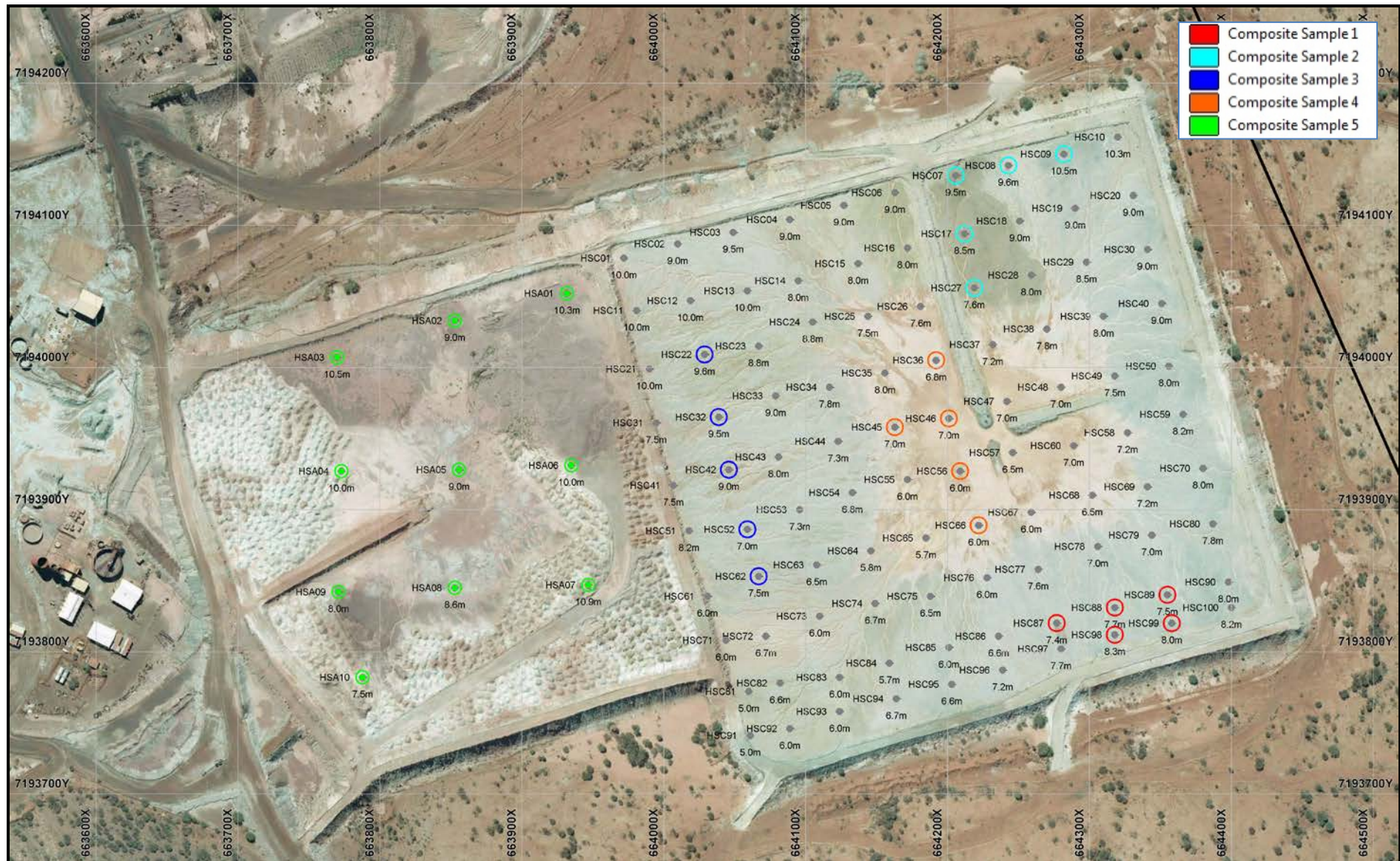


Figure 3 – Horseshoe Lights Project - Tailings Composite Samples Location Plan



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APPENDIX 1 - JORC Code Reporting Criteria

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC-Code Explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i>	For details of original sampling and methods refer to ASX announcement made by the company on the 26 th February 2015. 185 x 1m samples from 30 selected drill holes have been composited and homogenised to form 5 composite samples. A RSD blend and composite split have been used to obtain 0.5kg for head assay analysis.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	
Drilling techniques	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i>	Not applicable in this instance. For details of the original drilling methods refer to ASX announcement made by the company on the 26 th February 2015.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Not applicable in this instance. For details of original recovery and results refer to ASX announcement made by the company on the 26 th February 2015.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	



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Criteria	JORC-Code Explanation	Commentary
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	Not applicable in this instance. For details of the original drilling methods refer to ASX announcement made by the company on the 26th February 2015.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	
	<i>The total length and percentage of the relevant intersections logged.</i>	
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Not applicable.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	Samples were initially rotary split whilst wet for scrubber testwork. The wet samples were subsequently split using cone and quarter method for moisture and particle size distribution analysis. The solid samples were dried and riffle split.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Due to their age all original 1m samples were soaked in water for 4 days in an effort to liberate particles. Samples were subsequently composited and homogenised entirely before the scrubber test work process.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Sampling procedures were compliant with Australian Standards and carried out under the ISO9001 quality management system.
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	No duplicates were completed during this program.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Samples sizes are considered appropriate for this style of test work.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	<p>A minimum of 45kg from each of the 5 composite samples has been used for scrubber test work. Each sample was placed in an ISO Tumble Drum to liberate individual particles. The sample mix was 50% pulp density i.e. 50% water and 50% sample for a residence time of 180 seconds.</p> <p>A 0.5kg sub-sample of this mix was removed from the scrubber output and used for moisture determination using a filter press. A further 0.5kg sub-sample was used for particle size distribution at 1, 0.71, 0.5, 0.355, 0.212, 0.150, 0.106, 0.075, 0.045 and 0.038mm. The remainder of the scrubber output was sent to a Falcon Concentrator.</p> <p>The Falcon Concentrator was run on each scrubber output at 20% solids to produce one concentrate and one tailing fraction.</p>



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Criteria	JORC-Code Explanation	Commentary
		<p>The Falcon concentrate was dried at 70°C and riffle split to obtain a 0.1kg charge for analysis and microscopy. The remainder was sent to a Wilfley Wet Table.</p> <p>The Wilfley Wet Table process produced eight cuts. Each fraction was dried at 70°C and a 0.05kg charge was riffle split for analysis and microscopy.</p> <p>A 1kg charge was split from the Falcon tailing by cone & quarter for analysis, moisture determination using a filter press, and microscopy. A further 1kg charge was obtained by the same method for cyanidation bottle roll tests with the following parameters:</p> <ul style="list-style-type: none"> • 50% solids • 1000ppm NaCN (maintained) • pH 10.5 (maintained with lime) • 24 hour residence time • No carbon addition <p>The cyanidation bottle roll test produced a single leach residue, leach liquor and leach wash sample. Subsampling occurred at 1, 2, 4, 6 and 24 hours.</p> <p>The remainder of the Falcon tailing was analysed for total acid soluble copper.</p> <p>All solid samples were analysed via Aqua Regia and XRF for Au, Ag, Fe, SiO₂, Al₂O₃, TiO₂, MnO, CaO, P, S, MgO, K₂O, Zn, Pb, Cu, Ba, V, Cr, Cl, As, Ni, Co, Sn, Sr, Zr, Na₂O, LOI₁₀₀₀. In addition the head assay charge was analysed for water soluble copper.</p> <p>All liquor samples were analysed via ICP for Au, Ag and Cu as well as pH and free cyanide determination.</p>
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	No such instruments used in the analysis.
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	No external quality control (QC) procedures are adopted for this initial test program. Head Assay pulps are still in laboratory storage and can be re-assayed when QC procedures are required.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	None undertaken in this programme
	<i>The use of twinned holes.</i>	Not applicable in this context.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	
	<i>Discuss any adjustment to assay data.</i>	No adjustments undertaken.



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Criteria	JORC-Code Explanation	Commentary
<i>Location of data points</i>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	For details of original data location methods refer to ASX announcement made by the company on the 26 th February 2015.
	<i>Specification of the grid system used.</i>	
	<i>Quality and adequacy of topographic control.</i>	
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i>	Not applicable in this instance. For details of original data spacing and distribution refer to ASX announcement made by the company on the 26 th February 2015
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	The data spacing is considered acceptable for this preliminary assessment.
	<i>Whether sample compositing has been applied.</i>	For details of original compositing methods for drillholes used in the Mineral Resource Estimate refer to ASX announcement made by the company on the 26 th February 2015. For the purpose of the gravity separation test work the original 1m samples from 5 selected drillholes within the copper flotation tailings have been composited together to form a composite test sample. 4 Composite samples were produced by this method. The composite samples are compiled from 32 – 43 original 1m samples and weigh between 47.5 – 65.7Kg. In addition, another composite sample (#5) was also compiled from the top 3 individual 1m samples from 10 drillholes within the CIP gold tailings for a total of 30 samples with a combined weight of 42.5Kg.
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Not applicable in this instance. For details of original data orientation in relation to geological structure refer to ASX announcement made by the company on the 26 th February 2015.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	Prior to submission all samples are stored on-site under supervision of the senior geologist. Samples are transported to Meekatharra by Horseshoe Metals personnel and then onto the assay laboratory by licensed couriers.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits or reviews have been performed to date.



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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 an employee of 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 2012 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 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. Mr. Pertel is an employee of CSA Global Pty Ltd. 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. 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. Geoff Willetts is an employee of Horseshoe Metals Limited. 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. 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.*