Pit Optimisation Update Highlights Copper Production Scale at Horseshoe Lights

New optimisation outlines 71 % more copper contained in one pit shell covering Main Zone and Motters

- **An updated open pit optimisation has been completed at copper price of $25,000/t for the existing Main Zone and Motters Mineral Resource Estimate**
- **Updated pit optimisation contains a total of 12,337,226t at 0.77 % Cu for 95,033t contained Cu from a single open pit to a maximum depth of 260 metres**
- **Previous pit optimisation and scoping study completed in December 2014 assumed $9,925/t and resulted in mining of 5.99 Mt at 0.93% Cu for 55,700t t contained Cu with 47,375t, 12,730 oz and 271,100 oz recovered Cu, Au and Ag respectively**
- **Current Exploration Target modelling confirms continuity and predictability of Main Zone mineralisation from 200 to 600 metres below surface (mbs) and Motters Zone from 80 to 300 mbs**
- **Exploration Target is mostly sulphide mineralisation with minor oxide/transitional in a west dipping and north plunging zone with a strike of about 700m at surface**
- **Exploration Target strongly supports Horseshoe's aims to expand existing Mineral Resource Estimate footprint at the Horseshoe Lights Project in WA**
- **Existing MRE for Horseshoe Lights deposit is 12.85 million tonnes at 1.00% Cu, 0.1g/t Au and 1.9 g/t Ag for 128,600 tonnes Cu, 36,000 oz Au and 793,000 oz Ag**
- **Horseshoe to report XRF and check assay DSO sampling grades near-term, as it pursues multiple near-term sales channels for DSO material underpinned by a favourable copper price**

Horseshoe Metals Ltd (**ASX: HOR**) (**Horseshoe** or **Company**) is pleased to announce the results of a new pit optimisation for the existing Horseshoe Lights Main Zone and Motters resources located within the Horseshoe Lights Copper Gold Project (**HSL or Project**) in Western Australia.

Commenting on the HSL pit optimisation, GM Oxide-Copper Operations Steven Sickerdick said: *"The updated pit optimisation highlights the scale of the opportunity at Horseshoe Lights, with a single optimised pit shell containing approximately **12.34 million tonnes at 0.77% copper for 95,033 tonnes of contained copper**. This provides a strong foundation for further scoping and mining studies to assess the potential development of our existing resource.*

Using a copper price assumption of A$25,000 per tonne and costs based on current market for mining, processing and operating costs, the optimisation supports our assessment of reasonable prospects for eventual economic extraction. No value has been attributed to contained gold and silver in the oxide and transitional material, leaving potential additional value to be assessed through further studies.

The near-surface oxide and transitional mineralisation at Main Zone and Motters Zone, together with the broader resource at depth, provides several opportunities for further evaluation. Our focus is on advancing the near-term operational start-up and commercialisation of our DSO stockpiles, while refining the technical and economic assumptions underpinning the broader development opportunity at Horseshoe Lights."

HORSESHOE METALS LIMITED

BOARD OF DIRECTORS

Ms Kate Stoney
Non-Executive Director, Chief Financial Officer & Joint Company Secretary

Mr Seldon Mart
Non-Executive Director

Mr Peter Walker
Non-Executive Director

Management

Mr Steve Sickerdick
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Horseshoe Lights Open Pit Optimisation

The Company has revised the open pit optimisation using a copper price of A$25,000/tonne to constrain the open pit portion of the existing MRE. The purpose of the open pit optimisation is to demonstrate the reasonable prospects for eventual economic extraction (RPEEE) as defined in the 2012 JORC Code plus provide a basis for further scoping and mining studies.

The input parameters include a copper price of $25,000/tonne and based on various current market costs for mining, processing and operating. No values were ascribed to contained gold and silver in oxide and transitional material. For the near-surface component of the MRE, reporting is contained within the optimised open pit shells at a payability of 80% for contained copper and above a selected lower cut-off grade of 0.1% Cu. Oxide to transitional mineralisation at Main Zone and Motters Zone is interpreted to extend from surface to between 60 and 80 metres below surface (Figures 2 and 3).

The full assumptions including copper price, mining and processing cost, operating parameters including dilution, mining loss and pit wall angles utilised in the 2014 Horseshoe Lights Mineral Resource Estimate constraining open pit optimisation are provided in Table 1.

Horseshoe completed a Pit Optimisation and Scoping Study in December 2014 (see ASX release dated 19 December 2014) based on copper prices of A$7,750/t, A$8,825/t and A$9,925/t and prevailing mining and processing costs at the time. The study identified the potential to mine a total of 5,990,000 tonnes at 0.93% Cu for 55,700t contained Cu resulting in 47,375t Cu recovered over a 6 year production schedule at a copper price of A$ 9,925/t.

The current Pit Optimisation completed at a copper price of A$25,000/t contains a total of 12,337,226t at 0.77 % Cu for 95,033T Cu from a single open pit. The new optimisation results in 71% more copper contained in one pit shell that includes both Main Zone and Motters mineralisation to a maximum depth of 260 metres in Main Zone (Figures 2 to 7).

The key objectives of the updated pit optimisation exercise were to provide information for:

1. *Determining the position of the optimal pit crest at a sensible future copper price*
2. *Assessment of the tonnages mined in the optimum pit to consider an appropriate future mining rate*
3. *Application of a 300 metre buffer zone to determine the effect on existing stockpiles, waste dumps and surface infrastructure*
4. *Plan a future site layout allowing for potential oxide heap leach and sulphide processing outside the 300 metre buffer zone*
5. *Optimal pit provides the potential option for mining Motters near surface oxide mineralisation early in the pit development*

Given the position of the optimal pit crest and associated buffer zone it is clear most of the North Dump and a significant part of the eastern side of the Northwest Dump will be removed.

Given the amount of mineralised material on top of and within the North Dump it is anticipated the early stages of a future oxide heap leach operation would include processing of material from this potential source.

The low-grade sulphide stockpile on top of the northwest dump would also be relocated for potential future sulphide processing.

Table 1: 2026 Mineral Resource Estimate constraining open pit optimisation parameters

Parameter	Units	Value
Mining Costs and Assumptions		
Mining Dilution	%	15.0
Mining Recovery	%	90.0
Grade Control	$/t Ore	2.00
Unit Mining Cost (Ore & Waste) – refer Bench Rates Table 3		
OP Management/Dayworks & Waste Dump Rehab	$/bcm	$0.30
Processing Costs and Assumptions		
Commodity Price - Cu	AUD	25,000
Commodity Price - Au	AUD	6,000
State Royalty	%	5.00
Private Royalty	%	3.00
Payable Cu Price	%	80
Received Gold Price	$/gram Au	185.19
Processing Rate	tpa	1,000,000
Processing Cost (Oxide)	$/t Ore	30.00
Processing Cost (Transitional)	$/t Ore	50.00
Processing Cost (Sulphide)	$/t Ore	50.00
General and Administration Costs	$/t Ore	5.00
Annual Discounting	%	8.00
Processing Recovery (Oxide and Transitional)	%	80.00
Processing Recovery (Fresh)	%	85.00
Geotechnical Assumptions		
Oxide	Deg.	34 - 36
Transitional	Deg.	38 - 40
Sulphide	Deg.	40 - 42

The Open Pit Optimisation has captured about 74% of the contained Cu in the 2014 Horseshoe Lights MRE (Table 6) at a notional strip ratio of 5.0:1 (Table 2).

Table 2: Open Pit Optimisation Summary

Mining Diluted and Recovered Material	Units	Total/Av
Tonnes		
Waste	t	61,648,860
Ore	t	12,337,226
Total	t	73,986,086
Strip ratio	1:n	5.0
Grade		
Copper	%	0.77
Gold	g/t	0.09
Silver	g/t	1.70
Metal		
Copper	t	95,033
Gold	oz	35,198
Silver	oz	675,869

Table 3: Optimisation Results by Material Type - Grades

Material Type	Total – Mining Diluted and Mining Recovered Physicals				
	Ore (t)	Cu (%)	Au (g/t)	Ag (g/t)	NSR ($/t)
Oxide	1,136,547	0.64	0.04	0.35	94.46
Transitional	2,179,896	0.81	0.05	0.65	125.99
Fresh	9,020,784	0.70	0.11	2.13	138.15
Total	**13,337,726**	**0.77**	**0.09**	**1.70**	**131.98**

Given the promising results from the optimisation, the Company will now proceed with Scoping and Mining studies that will assess staged development of surface materials and open pit mineralisation including:

1. *Post DSO heavy media separation or ore sorting of stockpiles to produce additional DSO and material for oxide heap leaching*
2. *Oxide Heap Leaching of existing surface materials and the oxide/transitional components of the open pit mineralisation*
3. *Processing of transitional and sulphide material by via flotation processing after the oxide heap leaching phase has completed.*

Main Zone and Motters Zone Copper Exploration Targets

The Exploration Target range for the Main and Motters Zone (refer ASX releases dated 18 February and 11 August 2026) is summarised in Table 4 below:

Table 4: Exploration Target Ranges Main Zone and Motters Zone - HSL

Target	Tonnes Range (MT)		Cu Range (%)	
	Minimum	Maximum	Minimum	Maximum
Main Zone	*20.0*	*30.0*	*0.7*	*1.2*
Motters Zone	*2.6*	*3.6*	*1.0*	*1.5*
Total Exploration Target*	***22.6***	***33.6***	***0.7***	***1.2***

The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Planned Work Campaigns and Next Steps

The following activities are planned over the coming months:

- *Re-commencement of Phase 2 Drilling at Motters this quarter;*
- *RC drill testing Main Zone northern extension along strike and down plunge;*
- *RC and Diamond drill testing of Motters southern extension down plunge;*
- *Additional metallurgical test work on oxide copper stockpiles and targets;*
- *Gravity recovery test work on Copper Flotation and CIP tailings; and*
- *Update of 2014 scoping study at current and projected future copper prices.*

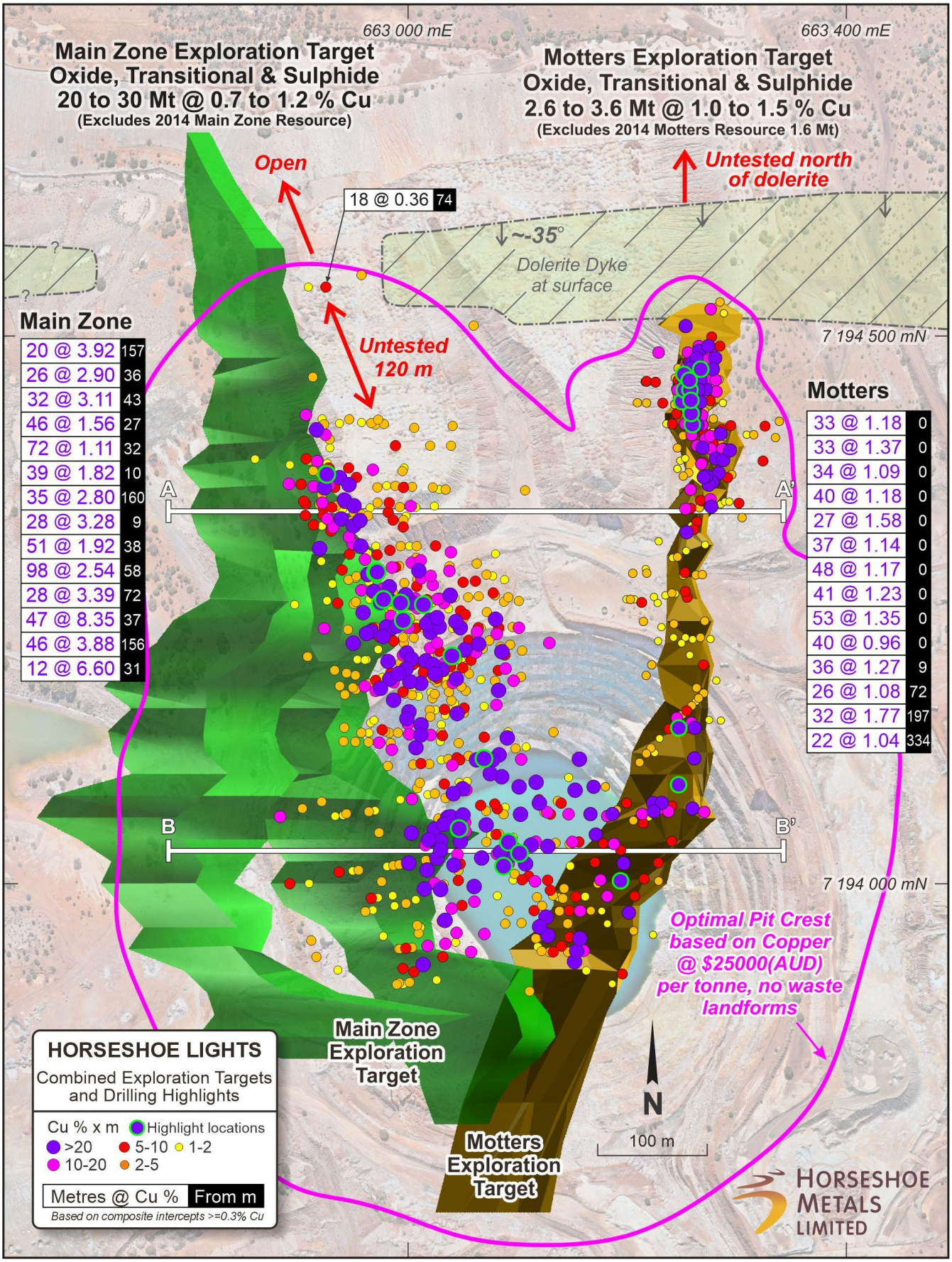


Figure 1: Plan showing Main and Motters Zones Optimised Pit and significant intercepts

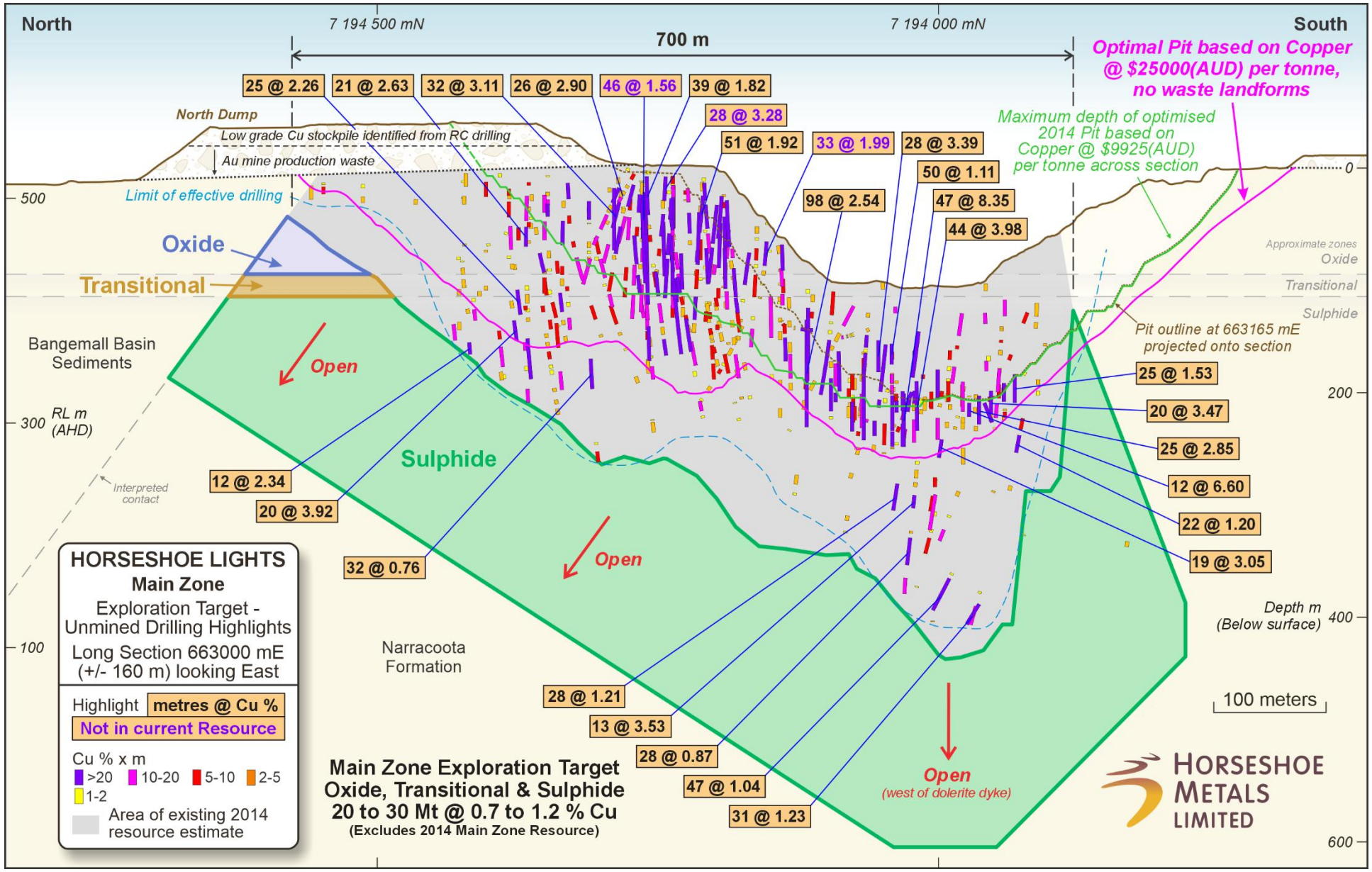


Figure 2: Main Zone Long Section looking East showing Exploration Target and significant intercepts

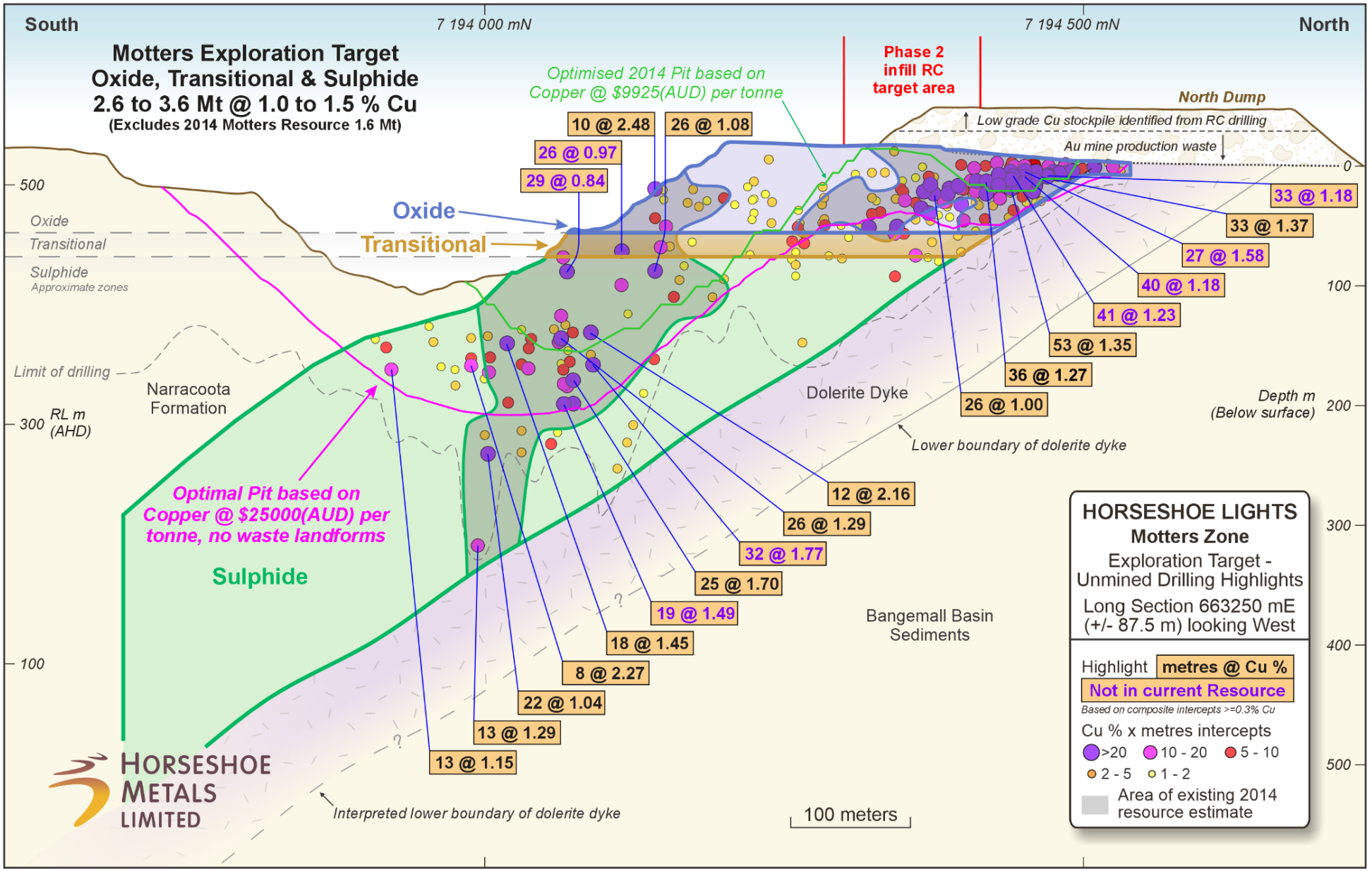


Figure 3: Motters Zone Long Section Looking Southwest

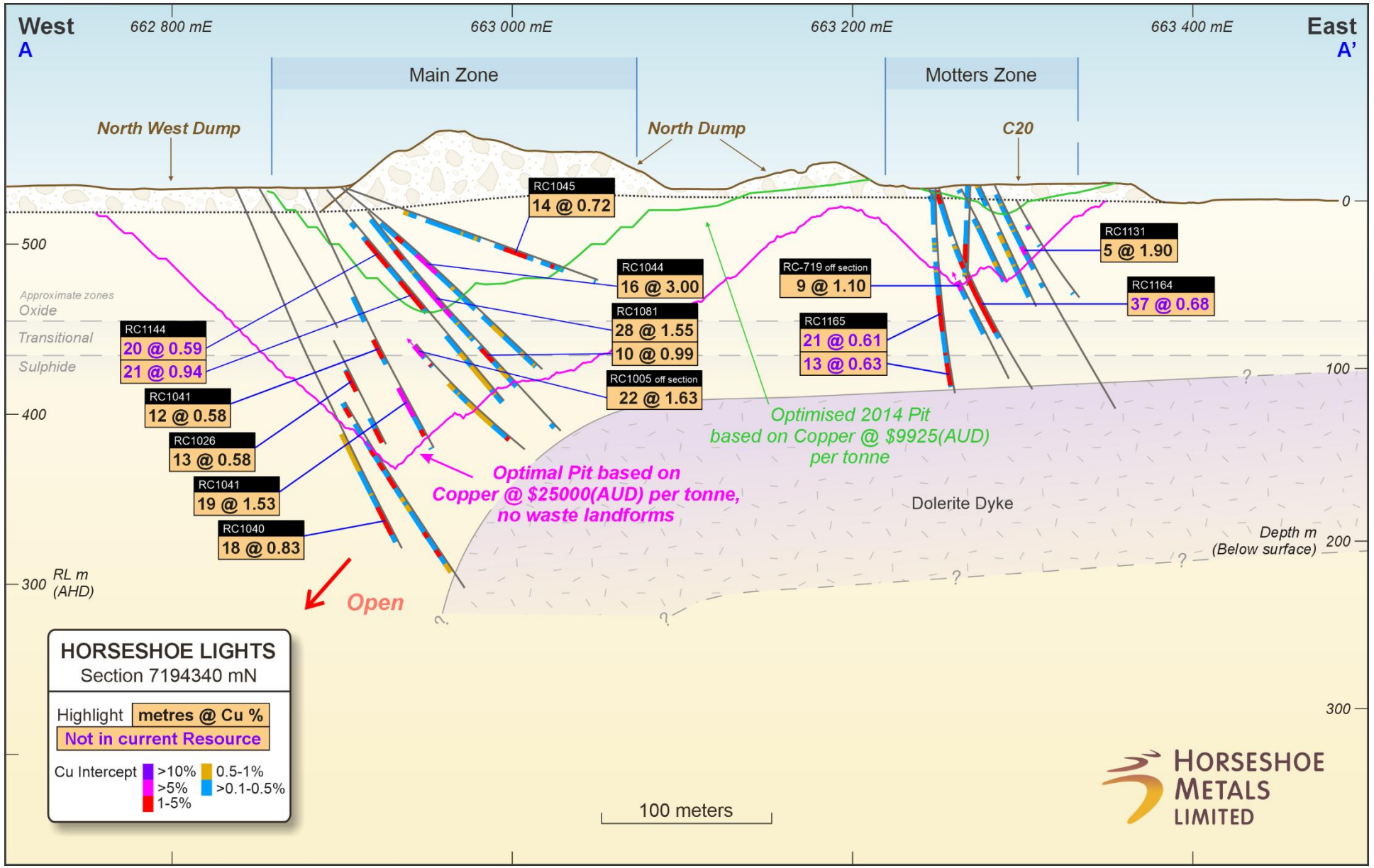


Figure 4: Cross Section A-A' looking north at northern end of optimised pit (see Figure 1)

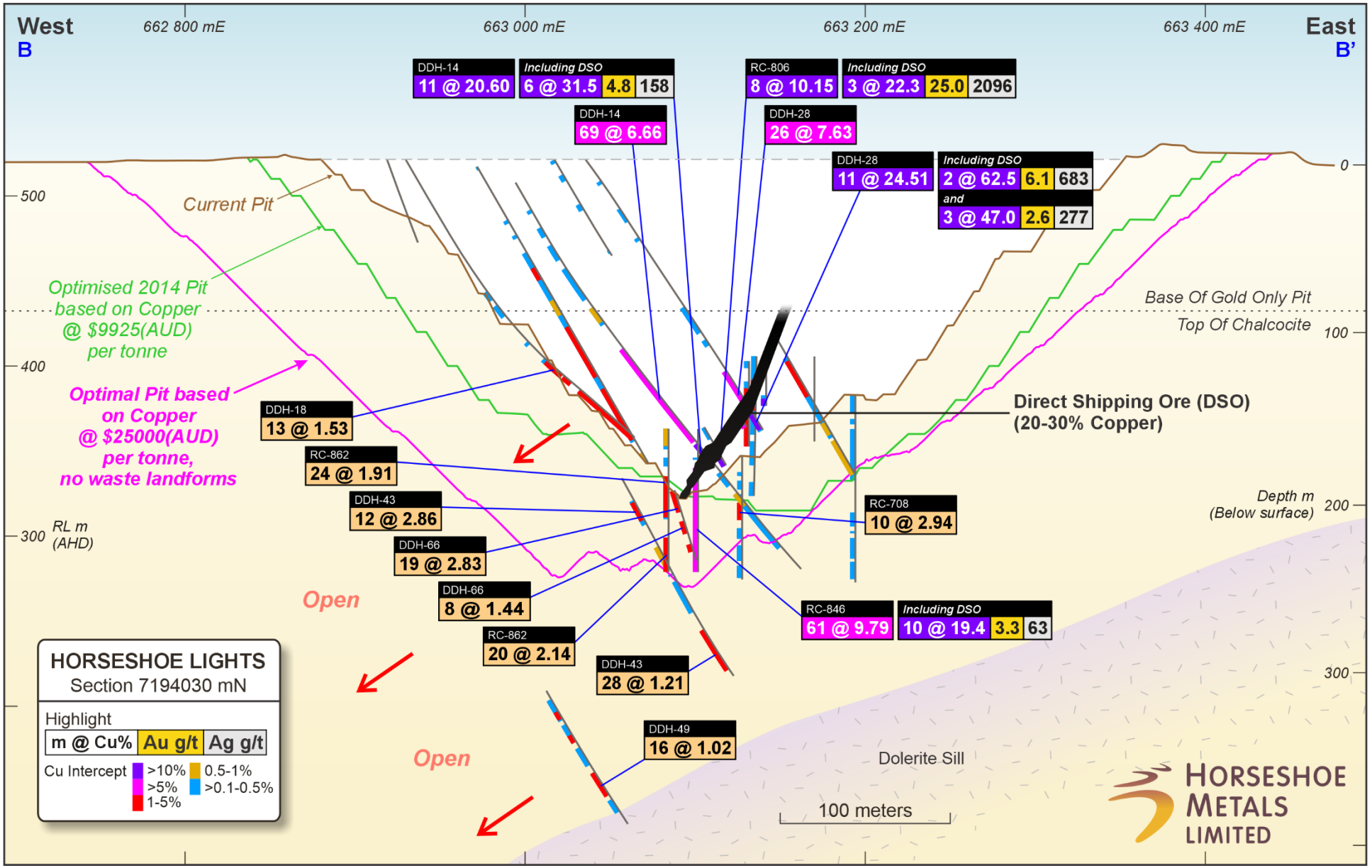


Figure 5: Cross Section B-B' looking north at southern end of optimised pit (see Figure 1)

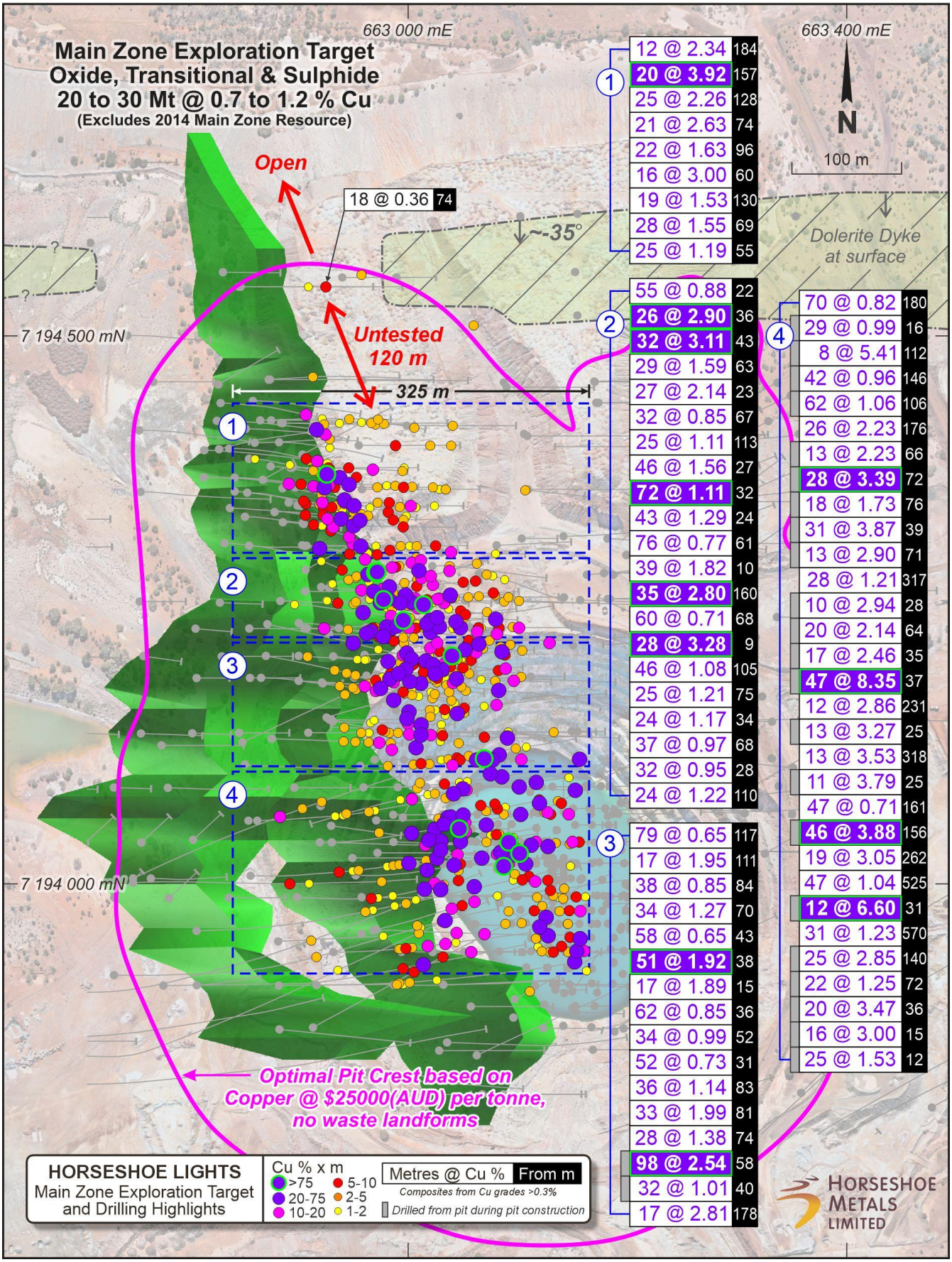


Figure 6: Plan Showing Main Zone Optimised Pit, Exploration Target and Significant Intercepts

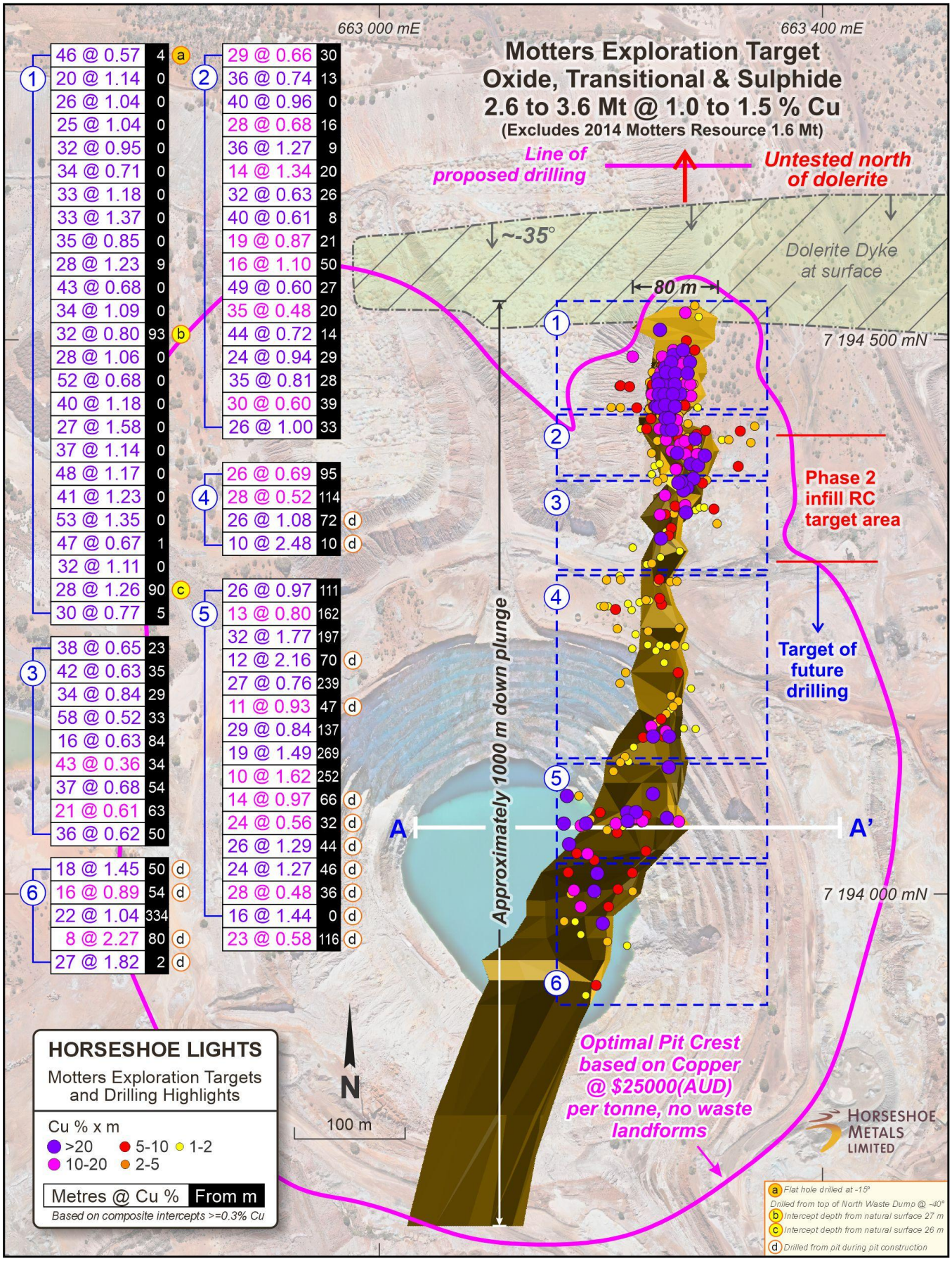


Figure 7: Plan Showing Motters Zone Optimised Pit, Exploration Target and Significant Intercepts

For additional background on the Horseshoe Lights Project please refer to ASX releases:

12/09/2018	*"Exploration Update- Horseshoe Lights Project"*
06/08/2021	*"Horseshoe Lights Exploration Activities Update"*
10/09/2021	*"Horseshoe Lights Phase 1 Auger Programme Completed"*
13/09/2021	*"Horseshoe Lights Phase 1 RC Drilling Programme Completed"*
29/10/2021	*"Horseshoe Lights RC Drilling Results"*
26/11/2021	*"Horseshoe Lights Phase 1 Stockpile Results Received"*
21/02/2022	*"Horseshoe Metals Successful Relisting"*
03/03/2022	*"Horseshoe Lights Activities Update"*
11/03/2022	*"Horseshoe Lights Copper-Gold Resource Grade-Tonnage Review"*
21/04/2022	*"RC Drilling Underway at Horseshoe Lights Project"*
19/05/2022	*"RC Drilling Campaign Complete at HSL Project"*
11/08/2022	*"Significant Drilling Results in Copper-Gold Surface Material at Horseshoe Lights"*
31/08/2022	*"Outstanding Copper Results at Horseshoe Lights"*
11/10/2022	*"Review Confirms Broad Zones of Copper Mineralisation"*
27/10/2022	*"Broad Zones of Copper up to 8.3%"*
17/11/2022	*"RC Drilling Commences at Main Zone, Motters and North Dump"*
09/03/2023	*"Outstanding Copper Results – Main Zone and Motters at Horseshoe Lights"*
31/10/2023	*"High-Grade Surface Material Underpins DSO Strategy*
23/04/2024	*"DSO Strategy to Accelerate Horseshoe Lights Copper Project"*
26/05/2025	*"Infrastructure Recommissioning Well Advanced at HSL"*
28/11/2024	*"Horseshoe Lights Project Expanded – High-Grade Cu & Au Targets"*
20/01 2025	*"Horseshoe Lights Project Commercial Development""*
05/05/2025	*"Gold Surface Materials processing Update"*
26/05/2025	*"Infrastructure Recommissio0ning Well Advanced at HSL"*
12/06/2025	*"Option Exercised – Gold Surface Materials Processing Rights"*
02/07/2025	*"DSO Mining Approval Granted for Horseshoe Lights"*
05/08/2025	*"Operations and Exploration Update Horseshoe Lights"*
11/08 2025	*"Appointment of General manager – Oxide Copper Operations"*
01/09/2025	*"RC Drilling Underway at Horseshoe Lights Copper-Gold Project*
30/10/2025	*"RC Drilling Confirms Motters Upside"*
06/11/2025	*"New Assays Confirm Shallow, Broad Copper at Motters Zone"*
12/11/2025	*"More Shallow, Broad Copper Zones at Horseshoe Lights"*
11/12/2025	*"Drilling Continues to Deliver More Broad Oxide Copper Zones"*
18/02/2026	*"New Copper Exploration Target – Motters Zone"*
28/04/2026	*"Precious Metal Credits Add Significant Value to Copper DSO"*
11/08/2026	*"Copper Exploration Target Highlights Large-Scale Potential"*
19/08/2026	*"DSO Operations to Commence at Horseshoe Lights project"*
01/10/2026	*"DSO Operations Update"*
08/10/2026	*"DSO Sampling and Site Upgrades Advance"*

The Board of Directors of HOR has authorised this announcement to be given to the ASX.

Further information, please contact:

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Table 5: Horseshoe Lights Mining Costs and Assumptions – Bench Rates

Mining Costs and Assumptions		
Unit Load & Haul Rates		
		$/bcm Ore & Waste
Bench 1	520 mRL	6.15
Bench 2	515 mRL	6.28
Bench 3	510 mRL	6.40
Bench 4	505 mRL	6.53
Bench 5	500 mRL	6.65
Bench 6	495 mRL	6.78
Bench 7	490 mRL	6.90
Bench 8	485 mRL	7.03
Bench 9	480 mRL	7.15
Bench 10	475 mRL	7.28
Bench 11	470 mRL	7.40
Bench 12	465 mRL	7.53
Bench 13	460 mRL	7.65
Bench 14	455 mRL	7.78
Bench 15	450 mRL	7.90
Bench 16	445 mRL	8.03
Bench 17	440 mRL	8.15
Bench 18	435 mRL	8.28
Bench 19	430 mRL	8.40
Bench 20	425 mRL	8.53
Bench 21	420 mRL	8.65
Bench 22	415 mRL	8.78
Bench 23	410 mRL	8.90
Bench 24	405 mRL	9.03
Bench 25	400 mRL	9.15
Bench 26	395 mRL	9.28
Bench 27	390 mRL	9.40
Bench 28	385 mRL	9.53
Bench 29	380 mRL	9.65
Bench 30	375 mRL	9.78
Bench 31	370 mRL	9.90
Bench 32	365 mRL	10.03
Bench 33	360 mRL	10.15
Bench 34	355 mRL	10.28
Bench 35	350 mRL	10.40
Unit Drill and Blast Rate		
Oxide		2.26
Transitional		2.90
Fresh		4.02

About the Horseshoe Lights Project

The Horseshoe Lights Project includes the historic 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.

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 6 summarises the total Mineral Resources for the Horseshoe Lights Project.

TABLE 6
HORSESHOE LIGHTS PROJECT
SUMMARY OF MINERAL RESOURCES
AS AT 30 June 2026

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)	*Measured*	*1.73*	*1.04*	*0.0*	*0.5*	*18,000*	*1,900*	*28.8*
	Indicated	*2.43*	*0.95*	*0.0*	*0.7*	*23,200*	*3,400*	*52.2*
	Inferred	*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**
Note: At 0% Cu cut-off grade unless otherwise stated					**TOTAL**	**138,050**	**52,600**	**1,124.9**

The above Mineral Resource Estimates all meet the reporting requirements of the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

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 5km 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 481t of copper ore at a high-grade of 37.0% Cu and 2,340t at a grade of 17.51% Cu.

An initial Mineral Resource Estimate for the Rinaldi deposit was completed by the Company in 2013 (see 30 June 2013 Quarterly Report announced on 31 July 2013). The total Measured, Indicated and Inferred Mineral Resource Estimate is summarised in Table 7 below.

TABLE 7 KUMARINA PROJECT SUMMARY OF MINERAL RESOURCES AS AT 30 June 2026				
Location	**Category**	**Tonnes (t)**	**Cu (%)**	**Cu metal (tonnes)**
Rinaldi Prospect (0.5% Cu cut-off)	*Measured*	*415,000*	*1.46*	*6,100*
	Indicated	*307,000*	*1.16*	*3,500*
	Inferred	*114,000*	*0.9*	*1,000*
	Total	**835,000**	**1.3**	**10,600**

The Mineral Resource Estimate meets the reporting requirements of the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Forward Looking Statements

Horseshoe Metals Limited has prepared this announcement based on information available to it. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement. To the maximum extent permitted by law, none of Horseshoe Metals Limited, its directors, employees or agents, advisers, nor any other person accepts any liability, including, without limitation, any liability arising from fault or negligence on the part of any of them or any other person, for any loss arising from the use of this announcement or its contents or otherwise arising in connection with it. This announcement is not an offer, invitation, solicitation or other recommendation with respect to the subscription for, purchase or sale of any security, and neither this announcement nor anything in it shall form the basis of any contract or commitment whatsoever. This announcement may contain forward-looking statements that are subject to risk factors associated with gold exploration, mining and production businesses. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including but not limited to price fluctuations, actual demand, currency fluctuations, drilling and production results, reserve estimations, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory changes, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimates.

Competent Persons Statement

The information in this report that relates to the Exploration Results, Exploration Targets, Pit Optimisation and Mineral Resources at the Horseshoe Lights and Kumarina Projects is based on information reviewed by Mr Michael Fotios, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Fotios is a contractor engaged by Horseshoe Metals Limited and has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity he is undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012)'. Mr Fotios consents to the inclusion of the information in the form and context in which it appears.

The information in this report that relates to the Horseshoe Lights Project surface stockpile Mineral Resources is based on information compiled by a previous employee of Horseshoe Metals Limited and reviewed by Mr Michael Fotios, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Fotios is a contractor to Horseshoe Metals Limited and has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity he is undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012)'. Mr Fotios consents to the inclusion of the data in the form and context in which it appears. The information was previously issued in announcements released to the ASX on 26 February 2015 and 9 March 2015. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the findings are presented have not materially modified from the original market announcements.

The information in this report that relates to the Horseshoe Lights Project In-situ Mineral Resources is based on information originally compiled by Mr Dmitry Pertel, an employee of CSA Global Pty Ltd, and reviewed by Mr Fotios. This information was originally issued in the Company's ASX announcement "40% increase in Copper Resource at Horseshoe Lights Copper/Gold Project", released to the ASX on 5 June 2013, and first disclosed under the JORC Code 2004. This information was subsequently disclosed under the JORC Code 2012 in the Company's ASX release "Quarterly Report Period Ended 30 June 2013", released on 31 July 2013. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the findings are presented have not materially modified from the original market announcements.

The information in this report that relates to the Kumarina Project (Rinaldi Prospect) Mineral Resources is based on information compiled by or under the supervision of Mr Robert Spiers, an independent consultant to Horseshoe Metals Limited and a then full-time employee and Director of H&S Consultants Pty Ltd (formerly Hellman & Schofield Pty Ltd) and reviewed by Mr Fotios. The information was originally issued in the Company's ASX announcement "Horseshoe releases Maiden Mineral Resource Estimate for Kumarina", released to the ASX on 4 March 2013, and first disclosed under the JORC Code 2004. This information was subsequently disclosed under the JORC Code 2012 in the Company's ASX release "Quarterly Report Period Ended 30 June 2013", released on 31 July 2013. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the findings are presented have not materially modified from the original market announcements.

JORC CODE, 2012 EDITION

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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.*	• **HOR 2025** RC Drilling Motters, was undertaken as industry standard reverse circulation drilling, with 1m samples were split from the cyclone, with residual sample collected in plastic bags. Analysis for Cu by 4 Acid Digest, NAGROM method ICP003 • **HOR 2021** RC Drilling- samples were collected to best represent the source material. Samples were sent to Nagrom Perth for Au analysis by ICP-OES (Method ICP-008), 50g charge with a lower detection limit of 0.001 ppm NAGROM method – ICP008; 40gm Aqua Regia Digest-suite included Au, Ag, Ca, Cu, Fe, Hg, Mg, Pb, S, Se and Zn. Samples were pre-screened at hole for Cu for subsequent assay by portable XRF. • **HOR 2022** RC Drilling- samples were collected to best represent the source material. Samples were sent to Bureau Veritas Perth for Au, Cu, Ag and S analysis by BV method AR101 with either ICP-MS or ICP-AES/MS finish. Samples were pre-screened at hole for Cu for subsequent assay by portable XRF. • **HOR 2021/22** RC Drilling -undertaken as industry standard reverse circulation drilling, with 1m samples were split from the cyclone, with residual sample collected in plastic bags • **HOR 2021** Auger drilling- samples were collected by spiral auger bit and shafts with flights 3 ½ "in diameter. Samples were collected every metre from a collared liner base of around 50cm x 40cm, into a large labelled plastic bag, and the base swept clean before proceeding with the next metre. Sub-sampling into numbered calico bag was via an aluminium scoop collecting around 500-750gm of sample from the plastic bag, which was retained at the hole over the collar. • **HOR 2021** Auger drilling Depth control was at the decimetre level, with depth checked against a metre stick • **HOR 2021** Auger drilling was undertaken by experienced contractors Gyro Australia and is considered industry standard with a geochemical auger rig used to obtain 1 m samples of 5-10kg from a vertical auger hole of less than 6m in this instance. Sub samples of 500-750gm were taken via scoop and pulverised at the laboratory to produce a 50 g charge for fire assay analysis for gold only. **Historic** • All activities completed by Horseshoe Gold Mine Pty Ltd which was a wholly owned subsidiary of Barrack Mines Ltd between 1983-91 and Sabminco NL between 1992-1995. Barrack Mines Ltd drilled 43 diamond holes for 15,353m, 638 Reverse Circulation holes for 55,343m and 19 channel samples for 520m between 1983 and 1990. • Sabminco NL drilled 14 HQ & NQ diamond holes for 2672.25m and 108 Reverse Circulation holes for 9,244m between 1992 and 1993. Initial hole spacing was on a nominal spacing of 50 x 50m with infill as required in the pit area. • Reverse Circulation samples were collected mainly on 1m & 2m intervals and prepared for assaying at the onsite laboratory of Horseshoe Gold Mine Pty Ltd, and/or at accredited laboratories. • Diamond core is HQ, NQ and BQ was mainly half cut sampled on geological intervals (0.1m to 3.1m) and assayed using the same techniques as the reverse circulation samples. • RAB drilling sampled and composited on intervals from 2 to 4m, unknown contractors. • The majority of holes are orientated perpendicular to mineralisation which is mainly toward mine grid east and north east at various inclinations. **Bedrock Geochemical Sampling** • 1984 Homestake RAB bedrock geochemical drilling on a 160m x 20m grid pattern. Depth of holes ranged between 2m and 5m. The last metre of each hole was sampled and assayed for Au by Fire assay and Cu, Pb, As, and Ba by AAS. (WAMEX report a15731) **Rock Chip Sampling** • Samantha Exploration – Unknown sampling and assay technique. • Homestake 1984 – Systematic sampling of Jasperoid units. Analysis conducted AAL, Au by fire assay, multi elements by AAS • Horseshoe Gold Mine - Unknown sampling and assay technique. • Horseshoe Metals – Standard rock chip sampling technique, Analysis by Nagrom, Au and multi elements by method ICP008
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc)*	• **HOR 2025** RC Drilling Motters, was undertaken as industry standard reverse circulation drilling, with iDrilling completing work with a HYDCO 350 truck mounted rig with 350/1250 onboard compressor, and separate 900/1150 booster. Face-sampling drill bit size varied from 143mm

Criteria	JORC Code explanation	Commentary
	and details (eg 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).	to 138mm. • **HOR 2021/22** RC Drilling - was undertaken as industry standard reverse circulation drilling, with iDrilling completing work with a UDR450 track mounted rig and separate 900/1150 booster. Face-sampling drill bit size was 140mm • **HOR 2021** Auger drilling was completed using a Landcruiser mounted post-hole style auger, capable of at least 10m drill depths. Hole diameters were 3.5". **Historic** • Historical data: With reference to the historical database Barrack Mines Ltd and Sabminco NL used 16 rotary air blast (RAB) holes, 756 reverse circulation (RC) and 57 diamond holes for resource definition and exploration. • No formal drilling reports are available outlining details of RC drill programs during the mining period 1983- 1994 but conversations with original mine personnel suggest that industry standard practices were employed during the mining period 1983-1994. • Diamond drilling is HQ, NQ and BQ core with the majority using Reverse Circulation pre-collars to various depths. Only alpha angles were recorded in geological logs. • Horseshoe Metals; A total of 94 Reverse Circulation holes for 16,059m and 7 diamond drill holes, including 3 diamond tails for 1111.6m were used in the resource calculation. The four diamond holes from surface totalled 1111.6m of HQ diameter core and 5.8m of NQ core. The diamond tails totalled 196.3m of which 39.5m was HQ diameter core and 156.8m of NQ diameter core. Diamond rigs use hydraulic power wireless drilling methods with three and six metre runs. • RAB drilling sampled and composited on intervals from 2 to 4m, unknown contractors.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• **HOR 2025** RC Drilling Motters, visually assessed metre recovery, booster used to assist drilling as required, cyclone cleared at clayey interfaces, no sample bias known to have occurred • **HOR 2021/22** *in situ* RC Drilling- Visual inspection of the RC sample volume indicates sample recovery is excellent • **HOR 2021/22** stockpile RC Drilling- Visual inspection of the RC sample volume indicates sample recovery is moderate, but considered representative of the volume being tested • **HOR 2021** Auger drilling -Visual inspection of the auger sample volume indicates sample recovery is excellent • **HOR 2021** RC Drilling -all samples drilled dry with minimal clayey component. All RC samples samples are visually checked for recovery, moisture and contamination • **HOR 2021** Auger drilling -Visual inspection of the auger sample volume indicates sample recovery is excellent. 1985 RC Vat sampling programme- stated as 'satisfactory'. Auger samples are visually checked for recovery, moisture and contamination. Hole sides were conditioned where possible, and sample bases cleaned before proceeding. 1985 RC Vat sampling programme- not known. • **HOR 2021** RC Drilling - No potential for sample bias was observed, with no fine/coarse separation • **HOR 2021** Auger drilling -Ground conditions for auger drilling are good and drilling returned consistent size samples. No potential for sample bias was observed, with no fine/coarse separation. 1985 RC Vat sampling programme- not known **Historic** • No formal recovery technique is recorded for RC or RAB drilling by either Barrack Mines Ltd or Sabminco NL. • Diamond core recovery statistics are recorded in hard copy for the majority of historical diamond holes. No formal assessment of core recovery has been made to date. • No formal report or information is available but conversations with original mine personnel suggest that industry standard practices were employed during the mining period 1984-1995.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• **HOR 2025 RC Drilling** Motters ○ RC samples were geologically logged in the field to a level consistent with the supporting of respective Mineral Resource Estimation ○ Quantitative, supported by retention of chip trays for photography • **HOR 2021/22** RC Drilling - logged to a level to support appropriate Mineral Resource estimation, mining studies, and metallurgical studies. C20 stockpiles and dumps not logged • **HOR 2021/22 RC Drilling** - logged to a level to support appropriate Mineral Resource estimation, mining studies, and metallurgical studies. • **HOR 2021** Auger drilling - N/A • **HOR 2021/22** RC Drilling- - All drilling logged to a level to support appropriate Mineral Resource estimation, mining studies, and metallurgical studies.

Criteria	JORC Code explanation	Commentary
		• **HOR 2021** Auger drilling -NA. **Historic** • All reverse circulation, diamond drilling and RAB drilling was logged to a level of detail considered sufficient at the time. However, the nature of deposit that has been subject to strong weathering and alteration makes identification of stratigraphical units very difficult. The lack of an early stratigraphical interpretation model and limited understanding of the deposit style has also caused inconsistency in the logging by various geologists. As a consequence, only the overlying sediments and underlying shale and dolerite have been logged according to their primary rock type. Barrack Mines Ltd and Sabminco NL used similar mine-specific geological codes to describe the geological units. A metamorphic and alteration methodology was used to describe the volcanic stratigraphy but interpretation of the various descriptions is very difficult. • Original logging of historical diamond core described lithology, colour and mineralisation content as well as some geotechnical data including core recovery, RQD data and alpha angle measurements. Approximately 10% of the original diamond holes in areas outside the existing pit have been re-logged and photographed so far. Diamond core for Horseshoe Metals holes was logged for recovery and RQD. Information on structure, lithology and alteration zones was recorded. Diamond core trays are stored on site for future reference. • Original logging of reverse circulation, diamond core and RAB drilling describes lithology, colour and mineralisation content only in handwritten form on hard copies.

Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*
	• *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.*
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*
		• **HOR 2025** RC Drilling Motters
		  ○ Non-core drilling, generally sampled dry, wet samples noted
		  ○ Sample preparation technique considered appropriate to sample type
		  ○ Cyclone cleaning routinely carried out during drilling
		  ○ Sample sizes considered appropriate to the grain size of the material being sampled
		• **HOR 2021/22** RC Drilling- -Non-core drilling, generally sampled dry, wet samples noted; Sample preparation technique considered appropriate to sample type; Cyclone cleaning routinely carried out during drilling; No field duplication undertaken to date, further work planned; sample sizes considered appropriate to the grain size of the material being sampled.
		• **HOR 2021** Auger drilling- Whole samples collected and swept off rubber lined collar pad; Auger drilling All auger samples drilled dry for the purposes of sampling. Sample sizes considered appropriate to the grain size of the material being sampled. 1985 RC Vat sampling programme- not known
		• RC and Auger sample analysis follows industry best practice whereby samples are sorted, reconciled, placed onto trolleys and dried at 105°C in an oven, then crushed to ~2mm and a 500-700g subsample taken by rotary division for pulverisation. The subsample was pulverised >90% passing 75µm using bowl-and-disc type mills, and ~200g of pulverised sample was taken for analysis. The technique is considered appropriate for the process of sub-sampling. 1985 RC Vat sampling programme- not known
		• Sub sampling stages are considered appropriate for the representivity of samples.
		• *In situ* RC and Auger sample analysis -Residuals and original samples sources retained for checks. C20 and dump stockpiles original metre samples not retained
		• RC and Auger sample analysis-The sample size is considered industry standard for base and precious metal mineralisation.
		Historic
		• All diamond core sampled intervals were half core cut for HQ, NQ and BQ diameter.
		• No formal report or information is available but conversations with original mine personnel suggest that industry standard practices were employed during the mining period 1984-1995.

Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*
	• *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.*
	• *Nature of quality control procedures adopted (e.g.*
		• **HOR 2025** RC Drilling Motters
		  ○ Cu by 4 Acid Digest, NAGROM method ICP003
		  ○ Standards and Blanks submitted at minimum once each per hole; acceptable levels of accuracy established.
		• **HOR 2021** RC Drilling-- RC samples were submitted to Nagrom Laboratory, an ISO_9001:2015 assay laboratory and mineral processor for analysis by Method ICP008; 40gm Aqua Regia Digest- suite included Au, Ag, Ca, Cu, Fe, Hg, Mg, Pb, S, Se and Zn. Aqua Regia digest is considered an effective but partial digestion technique. C20 stockpiles analysed by ICP008 for Copper, Gold only
		• **HOR 2022** RC Drilling- samples were collected to best represent the source material. Samples were transported to Bureau Veritas (BV) Kalgoorlie for preparation then BV Perth for Au, Cu, Ag and S analysis by BV method AR101 with either ICP-MS or ICP-AES/MS finish. Samples were pre-screened at hole for Cu for subsequent assay by portable XRF.

Criteria	JORC Code explanation	Commentary
	standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e lack of bias) and precision have been established.	• **HOR 2021** Auger drilling -Auger samples were submitted to Nagrom Laboratory, an ISO_9001:2015 assay laboratory and mineral processor for analysis by Method FA50. 1985 RC Vat sampling programme- Fire assay analysis conducted by Classic Laboratories Pty Ltd, a NATA registered laboratory. Fire assay for gold is considered a total digestion technique. Vat 2 samples assayed by ICP008 for Copper, Gold only • **HOR 2021/22** RC Drilling- Standards and Blanks submitted at minimum once each per hole; acceptable levels of accuracy established. C20 and Dump Stockpile drilling- Standards submitted every 50 samples, acceptable standards of accuracy established • **HOR 2021** Auger drilling- Auger sampling was submitted with two standards per 100 samples, and 1 blank per 100, and acceptable levels of accuracy and precision have been established. 1985 RC Vat sampling programme- not known **Historic** • Historical procedures: Barrack Mines Ltd and Sabminco NL predominantly used two laboratories to assay diamond drill core and RC drill cuttings. The majority of samples were processed and assayed at the on-site Horseshoe Gold Pty Ltd mine laboratory • No geophysical, spectral or XRF data is available for the historical database. • No formal report or information is available but conversations with original mine personnel suggest that industry standard practices were employed during the mining period 1984-1995.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative Company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• **HOR 2025** RC Drilling Motters o Significant intersections verified by multiple company personnel o Paper logs of primary data transferred to digital storage and stored, verified by alternate company personnel; electronic records managed by company personnel at Perth office. o No adjustments have been made to the data as received from the laboratory. • **HOR 2021/22** RC Drilling- -Significant intersections verified by multiple Company personnel Some holes approximately twinning historic drilling Paper logs of primary data transferred to digital storage and stored, verified by alternate Company personnel; electronic records managed by Company personnel at Perth office. No adjustments have been made to the data as received from the laboratory • **HOR 2021** Auger drilling- Auger significant intersections and tabulations were confirmed by alternative Company personnel from first principals. 1985 RC Vat sampling programme- not known All auger drilling and sample data is captured in the field, then entered using established templates and verified in Perth office before upload into database. 1985 RC Vat sampling programme- not known **Historic** No formal report or procedure is available for the historical data but verification of significant intersections is considered to have been the duty of the senior mine geologist at the time. There is no information or formal report detailing how this process worked. The assumption is that during the mining period all assays from the Horseshoe Gold Mine lab had been handwritten on the geological logs along with associated sample number. These assays would have been subsequently hand entered into an ASCII format.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• **HOR 2025** RC Drilling Motters o Drillholes were located using a Garmin hand held GPS, accuracy approximately +/- 3m o GPS recorded as UTM coordinates, MGA94 zone 50 • **HOR 2021/22** RC Drilling-Initial collar locations are determined by handheld Garmin GPS but will be surveyed using DGPS before resource estimates are undertaken. Holes subsequently located by high definition photography, with estimated accuracy +/- 1m. Gyroscopic down hole surveys completed on holes RC1164-1180 • **HOR 2021** Auger drilling- Initial collar locations determined by handheld Garmin GPS but will be surveyed using DGPS before resource estimates are undertaken. 1985 RC Vat sampling programme- not known • RC and Auger sampling- Grid system coordinates are GDA94 MGA Zone 50. • RC and Auger sampling -Topographic control is available from known survey stations and Hyvista detailed aerial photography acquired in 2017. Topographic control is at the decimetre level on site. 1985 RC Vat sampling programme- not known **Historic**

Criteria	JORC Code explanation	Commentary
		• The Mine surveyors used standard industry practices at the time to mark out and pick up collar coordinates in mine grid format. The mine grid coordinates have subsequently been transformed into MGA_GDA94 format. All available historic collar locations still visible at surface have recently been surveyed using RTK DGPS system by MHR Surveyors Pty Ltd. • Downhole surveys were taken from Eastman camera discs employed by the various drilling companies at that time. Several available historic collar locations still visible at surface have recently been surveyed down hole either by re-entering the drill hole with a drill rig then downhole surveying using single shot digital camera readings or by DHS (Aust) Pty Ltd using an Electronic Multishot tool with readings in and out of the hole every 5m. Stated accuracies are +/- 0.2^{o} for dip and 0.3^{o} for azimuth. • Barrack Mine Ltd created a NW mine grid orientated over the pit area with an east-west azimuth equivalent to 89^{o}. The mine grid RL was offset from real RL by 62.2m. These coordinates have subsequently been transformed to MGA_GDA94 zone 50 using the historic grid transformation. • Rock chip and geochemical sample locations have been extracted from WAMEX reports or digitised from georeferenced plans.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• **HOR 2025** RC Drilling Motters, holes typically drilled at right angle to apparent structures, holes 10-20 apart or as stated • **HOR 2021/22** RC Drilling-Sectional E-W drilling, typically 20m spacing, otherwise various. C20 stockpile drilling now 10m x 10m upon completion of 2022 infill lines • **HOR 2021** Auger drilling- auger drilling used approx. 20m spacing in a diamond pattern. • RC and Auger sampling- drilling spacing and results employed in this program are considered sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • No sample compositing has been applied. **Historic** • The historical data spacing and distribution was not considered sufficient for the purpose of a modern resource estimation. Follow up drilling has been completed to infill obvious gaps in order to provide sufficient geological and grade continuity. When the drilling was complete, the mineralised domains display sufficient geological and grade continuity for the mineral resource procedures and classifications applied to support the definition of Measured Indicated and Inferred Mineral Resources under the 2012 JORC code.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• **HOR 2025** RC Drilling Motters, no knowledge of sampling bias at this stage. • **HOR 2021/22** RC Drilling-Orientation of sampling has not necessarily achieved unbiased sampling of some structures, discussed in text. • **HOR 2021** Auger drilling-Drilling in this program is vertical and considered to represent an unbiased section of the material being sampled. • RC and Auger sampling- No knowledge of sampling bias **Historic** • The majority of drilling was orientated mine grid east which is slightly oblique to the mineralised trends but intersection angles are closer to perpendicular in most cases. • A consistent sampling bias is not considered to be an issue for the purpose of this resource estimation. Diamond drilling confirmed that drilling orientation did not introduce any bias regarding the orientation of key mineralised structures.
Sample security	• *The measures taken to ensure sample security.*	• **HOR 2025 RC Drilling** Motters, samples were collected in the field by Company geologists, bagged and stored at a secure location before collection by Company personnel, before delivery directly to Nagrom in Kelmscott, receipted by the laboratory upon arrival. • **2021/22** RC and Auger sampling-Prior to submission all samples were stored on-site under supervision of the Company personnel. Samples are transported to Perth by Horseshoe Metals personnel and then onto the assay laboratory. **Historic** • All drill samples were assayed onsite at the Horseshoe Gold Mine Pty Ltd laboratory or at Laboratories in Perth or Meekatharra
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• **HOR 2025** RC Drilling Motters, no audits or reviews have been completed at this stage. • **2021/22** RC and Auger sampling-No audits or reviews have been performed to date. **Historic** • Sampling techniques are consistent with industry standards. Consistency of data was validated by CSA Global Pty Ltd while loading into the database (Depth from < Depth to; interval is within hole depth, check for overlapping samples or intervals, etc.). Any data which fails the database constraints and cannot be loaded is returned to Horseshoe Metals for validation and correction. Global consistency was also checked later on by plotting sections using the database and reconciling assays.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Horseshoe Lights Project comprises one Mining Lease M52/743. The current registered holder of the tenement is Murchison Copper Mines Pty Ltd (MCM) a wholly owned subsidiary of Horseshoe Metals Limited. • The Kumarina project consists of two tenements, M52/27; and a mine lease application, M52/1078. MCM has 100% interest in the tenements. • Unrelated party Horseshoe Gold Mine Pty Ltd (a subsidiary of Granges Resources Limited) retains a 3% net smelter return royalty in respect to all production derived from M52/743 • Tenements are in good standing, and the Company is unaware of any additional impediment to it obtaining a licence to operate in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The Horseshoe Lights deposit surface gossan was discovered in 1946 and worked at a prospect level until 1949. Open pit and underground workings were operated by Asarco from 1949 to 1954. Asarco explored the deposit by sampling surface trenches, drilling one surface diamond drill hole, underground drilling and cross-cutting underground on two levels. • In 1964, Electrolytic Zinc Company conducted widespread exploration including eight diamond drill holes in a search for copper. During 1969 and 1970 Planet Metals Ltd drilled seven holes. In the period 1975 to 1977, Amax Corporation and its partner Samantha Mines investigated the Horseshoe Lights area for base metals. This investigation included drilling a further three diamond drill holes including one beneath the southern end of the main ore zone. Placer Austex Pty Ltd and Homestake Mining Company Ltd also investigated the property. • Previous exploration activities during the main phase of open pit mining were completed by Horseshoe Gold Mine Pty Ltd which was a wholly owned subsidiary of Barrack Mines Ltd between 1983-89. Barrack Mines Ltd drilled 43 diamond holes for 15,353m, 638 Reverse Circulation holes for 55,343m. The area was subsequently mined as a copper mine by Sabminco until 1992/3, when production ceased. The Project was re-established by current owners Horseshoe Metals in 2010 after a long period of inactivity.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• VMS mineralisation at Horseshoe Lights occurs in the core of a NNW trending and SE plunging anticline. The mineralised envelope of the deposit itself is also SW dipping and plunging to the SSE, and was likely folded. It sits within altered basalt and mafic volcanoclastic units along the contact with overlying felsic volcanic schist. The VMS mineralisation in the mine area is constrained by the tightly folded and sheared stratigraphy, and appears to be affected by offsets along N-S and NE trending brittle faults.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Refer to the body of text of this report and relevant Tables for information material to the understanding of the exploration results. • No exclusions of information have occurred.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.*	• HOR 2025 RC Drilling, Motters - no high-grade cutting, copper results reported above 0.3% Cu, reported composite have been calculated using a 0.3% cu lower cut and allowing for 4m of internal dilution • HOR 2021/22 RC Drilling- no high-grade cutting, copper results reported above 0.3% Cu C20 stockpile reported above 0.3% Cu, 0.3 g/t Au. Stockpile drilling reported above 0.2% Cu, 0.2 g/t Au • HOR 2021 Auger drilling- Only 1m split samples are reported and simply length weighted and averaged over the length of the hole above the vat liner; no top cut, no minimum interval, no internal dilution considered. Results are gold only unless stated • HOR 2021/22 RC Drilling - significant copper and gold intersects reported • HOR 2021 Auger drilling, gold assay only

Criteria	JORC Code explanation	Commentary
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• HOR 2025 RC Drilling, Motters - mineralisation dips around 80° to the west, west dipping holes were designed based on waste dump interference. Designed at -55 to best define edges and bottom of mineralisation. • HOR 2021/22 RC Drilling- mineralisation dips around 70° to the west, east dipping holes intersect approximately perpendicular to mineralisation, vertical and west dipping holes are non-perpendicular to mineralisation • HOR 2021 Auger drilling All intercept widths reported are downhole lengths, and equivalent to true widths for remnant vat stockpiles. • HOR 2021/22 RC Drilling- typically reported as down hole length, true width not known, C20 stockpile drilling considered true width • HOR 2021 Auger drilling- downhole lengths considered true widths
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• See plans and sections
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Reported results considered representative, no isolation of high-grade results.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• RC Drilling-Various, substantially covered by 2013 CSA report Horseshoe Lights Project In-situ Mineral Resources • Auger drilling -1985 Vat Sampling programme detail taken from in-house memo "Horseshoe Lights Vat Sampling Programme March 1985", authored by Rosalind Wright, checked and verified by V.J. Novak, M.Sc.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Planned activities discussed in text. • Refer to diagrams in body of text.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Bulk of estimate based on recent drilling. Unreliable historical data omitted from resource estimate. • Horseshoe Metals Ltd primary data was collected on laptop computers in Excel or MicroMine tables using drop down codes. • Field data and original assay certificates compiled and validated by database administrators. Drilling data provided in MicroMine tables for collar, survey, lithology and assay data. • Validation of the data import include checks for overlapping intervals, missing survey data, missing and incorrectly recorded assay

Criteria	JORC Code explanation	Commentary
		data, missing lithological data and missing collars.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The site was visited by Senior Geologist for Horseshoe Metals numerous times. • CSA Global have previously supervised drilling programs at Horseshoe Lights between 2012-11 and provided previous resource estimate.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology*	• Interpretation based on Horseshoe Metals RC and diamond drilling validated geological logging and assays. There is a reasonable level of confidence in the geological interpretation of mineralised lodes that is traceable over numerous drill holes and drill sections. Additional work is required to better define exact geometry and the extents of the interpreted mineralised lodes. • Drill hole intercept logging and assay results have formed basis for the geological interpretation. • Attempts to further delineate individual shoots and remove internal waste using grade intervals results in lower tonnage but higher grades. • The interpreted late dolerite sill and Bangemall sediment basement were used to limit the interpolation of grade at depth. No geology data was used within the interpreted domains. • The volcanic package at Horseshoe Lights has been subjected to complex folding and faulting events along with associated alteration within a wide shear zone. As such the interpretation of mineralised shoots is subjective.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• Horseshoe Lights deposit strike length is ~700m, width variable up to 30m, and down-dip extent of 250m+ north of pit. • Mineralisation is from actual surface and extends to between 210-480m vertical depth.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non- grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the*	• Grade estimation was by Multiple Indicator Kriging (MIK) using MicroMine 2011 software. The interpretation was extended perpendicular to the corresponding first and last interpreted cross section to the distance equal to a half distance between the adjacent exploration lines which is approximately 40m; • If a mineralised envelope did not extend to the adjacent drillhole section, it was projected halfway to the next section and terminated. The general direction and dip of the envelopes was maintained. • Grade interpolation search ellipses based on Variography. First pass search radii are ⅓ semivariogram ranges, second pass – full semivariogram ranges. • The MIK estimate was completed concurrently with OK and two check Inverse Distance Weighting (IDW) estimates. The MIK estimate used the parameters obtained from the modelled variograms. The results of the check estimates correlate well. • Resource estimate represents 40% increase on CSA Global previous estimate. • No assumptions have been made. • No deleterious material assessment was made during the estimation. • The block model was constructed using a 5mE x 10mN x 5mRL parent block size, with subcelling to 1mE x 2mN x 1mRL for domain volume resolution. The parent cell size was chosen on the basis of the general morphology of mineralised bodies and in order to avoid the generation of too large block models. The subcelling size was chosen to maintain the resolution of the mineralised bodies. The subcells were optimised in the models where possible to form larger cells. • The search radii were determined by means of the evaluation of the semivariogram parameters, which determined the kriging weights to be applied to samples at specified distances. The first search radii for all lodes were selected to be equal to two thirds of the semivariogram long ranges in all directions. Model cells that did not receive a grade estimate from the first interpolation run were used in the next interpolation with greater search radii equal to full long semivariogram ranges in all directions. The model cells that did not receive grades from the first two runs were then estimated using radii incremented by the full long semivariogram ranges. When model cells were estimated using radii not exceeding the full semivariogram ranges, a restriction of at least three samples from at least two drillholes was applied to increase the reliability of the estimates. • No selective mining units were assumed in this estimate. • No strong correlations were found between the grade variables. • The 0.18% Cu grade envelopes were defined. Hard boundaries between the grade envelopes used to select sample populations for grade estimation.

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td>comparison of model data to drill hole data, and use of reconciliation data if available.</td><td>• No grade cutting was applied, because MIK was used for the grade interpolation. The last bin defined for MIK is likely to contain occasional very high values, the estimate for this bin only is calculated using the median, which gives a more conservative value for positively skewed data than the mean.
• Validation of the block model consisted of comparison of the block model volume to the wireframe volume. Grade estimates were validated by statistical comparison with the drill data, visual comparison of grade trends in the model with the drill data trends. No reconciliation data is available at this early stage of the project.</td></tr>
<tr><td>Moisture</td><td>• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</td><td>• Tonnages are estimated on a dry basis</td></tr>
<tr><td>Cut-off parameters</td><td>• The basis of the adopted cut-off grade(s) or quality parameters applied.</td><td>• Mineralised domain interpreted on grade ≥0.18% based on statistical mean of drill data. Statistical analysis showed natural breaks in the Cu grade population distribution at approximately 0.18% which formed the basis for the decision regarding determination of mineralisation envelope cut-off grade. Mineral Resources estimated at a range of cut-offs.
• A pit optimisation was compiled to support the reasonable prospects for eventual economic extraction (RPEEE) of the Old Prospect Resource. The reporting pit was developed by Entech Ltd using the parameters listed in the section below.</td></tr>
<tr><td>Mining factors or assumptions</td><td>• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</td><td>• Possible mining methods are via existing open pit cut back and selective underground operation from bottom of pit.
• Lode mineralisation extends from surface to significant depths. It is anticipated the upper portions of the deposit are amenable to conventional open pit mining methods using drill and blast, load and haul.
• Parameters used for the MRE reporting pit optimisation are listed below:
<table>
<tr><th>Parameter</th><th>Units</th><th>Value</th></tr>
<tr><td colspan="3">Mining Costs and Assumptions</td></tr>
<tr><td>Mining Dilution</td><td>%</td><td>15</td></tr>
<tr><td>Mining Recovery</td><td>%</td><td>90</td></tr>
<tr><td>Grade Control</td><td>$/t Ore</td><td>2</td></tr>
<tr><td>Unit Mining Cost (Ore & Waste)</td><td></td><td></td></tr>
<tr><td>OP Management/Dayworks & Waste Dump Rehab</td><td>$/bcm</td><td>$0.30</td></tr>
<tr><td colspan="3">Processing Costs and Assumptions</td></tr>
<tr><td>Commodity Price - Cu</td><td>AUD</td><td>25,000</td></tr>
<tr><td>Commodity Price - Au</td><td>AUD</td><td>6,000</td></tr>
<tr><td>State Royalty</td><td>%</td><td>5</td></tr>
<tr><td>Private Royalty</td><td>%</td><td>3</td></tr>
<tr><td>Payable Cu Price</td><td>%</td><td>80</td></tr>
<tr><td>Received Gold Price</td><td>$/gram Au</td><td>185.19</td></tr>
<tr><td>Processing Rate</td><td>tpa</td><td>1,000,000</td></tr>
<tr><td>Processing Cost (Oxide)</td><td>$/t Ore</td><td>30</td></tr>
<tr><td>Processing Cost (Transitional)</td><td>$/t Ore</td><td>50</td></tr>
<tr><td>Processing Cost (Sulphide)</td><td>$/t Ore</td><td>50</td></tr>
<tr><td>General and Administration Costs</td><td>$/t Ore</td><td>5</td></tr>
<tr><td>Annual Discounting</td><td>%</td><td>8</td></tr>
<tr><td>Processing Recovery (Oxide and Transitional)</td><td>%</td><td>80</td></tr>
<tr><td>Processing Recovery (Fresh)</td><td>%</td><td>85</td></tr>
<tr><td colspan="3">Geotechnical Assumptions</td></tr>
<tr><td>Oxide</td><td>Deg.</td><td>34 - 36</td></tr>
<tr><td>Transitional</td><td>Deg.</td><td>38 - 40</td></tr>
<tr><td>Sulphide</td><td>Deg.</td><td>40 - 42</td></tr>
</table></td></tr>
<tr><td>Metallurgical factors or assumptions</td><td>• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding</td><td>• No metallurgical factors or assumptions used to restrict or modify the resource estimation.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
	metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• No detailed assumption regarding possible waste and process residue disposal options have been made at this stage. • No environmental factors or assumptions used to restrict or modify the resource estimation.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Applied bulk density values based upon recent test work by Nagrom. • Process involved hydrostatic weighing of 18 HQ core samples from the representative profiles. • Sample were oven dried at 105^{o} C for 24 hours and then weighed to record a dry mass. • Individual samples wrapped in cling film and placed into a weighing basket and submerged in water to record a wet mass. Bulk density is determined by dividing the dry mass value by the dry mass minus the wet mass value. • Calculated bulk density values applied to interpreted weathering profiles i.e. oxide, transitional and fresh. The bulk density values have been applied to all corresponding material in the model. • Weathering profiles based on logging records and core and chip photography.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Mineral Resource classification is based on the evidence from the available drill sampling. This evidence is sufficient to imply the geological and grade continuity. The areas with the denser drilling and robust continuation of the mineralised zones were classified as Measured or Indicated Mineral Resource. • The Measured, Indicated and Inferred classification has taken into account all available geological and sampling information, exploration grid density and geological continuity. The classification level is considered appropriate for the current stage of this project. • The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No audits of the Mineral Resource estimate have been undertaken at this time.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed*	• The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource to an Inferred and Indicated classification as per the guidelines of the 2012 JORC Code. Mineral resource estimate technique deemed appropriate. Estimation result concurs with internal desktop studies. • The statement refers to global estimation of tonnes and grade. • No production data is available.

Criteria	JORC Code explanation	Commentary
	appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	