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(STOCK CODE: 1208)

MINERAL RESOURCES AND ORE RESERVES STATEMENT AS AT 30 JUNE 2024

This announcement is made by MMG Limited (Company or MMG and, together with its subsidiaries, the Group) pursuant to rule 13.09(2) of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (Listing Rules) and the Inside Information Provisions (as defined in the Listing Rules) under Part XIVA of the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong).

The Board of Directors of the Company (Board) is pleased to report the Group's updated Mineral Resources and Ore Reserves Statement as at 30 June 2024 (Mineral Resources and Ore Reserves Statement).

The key changes to Mineral Resources and Ore Reserves Statement as at 30 June 2024 are:

- the Group's Mineral Resources (contained metal) have increased for copper (17%), zinc (14%), lead (10%), molybdenum (62%), cobalt (10%), silver (11%) and gold (5%) with no metal decreases.
- the Group's Ore Reserves (contained metal) have increased for zinc (10%), lead (10%) and cobalt (19%).
- the Group's Ore Reserves (contained metal) have decreased for copper (-4%), silver (-2%), gold (-12%) and molybdenum (-5%).

These results show Mineral Resource replenishment has either met or exceeded that of milled depletion for all metals at all sites since the 30 June 2023 Public Report of Mineral Resources and Ore Reserves. These results are the culmination of a multi-year commitment to exploration drilling and extending the life of MMG's mineral deposit assets.

The largest contribution to the above result comes from the maiden Mineral Resource of Ferrobamba Deeps at Las Bambas which added 2.5Mt copper, 130kt molybdenum, 31Moz silver and 370koz gold to the 2024 result. The acquisition of Khoemacau added 5.7Mt copper and 230Moz silver to the Mineral



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Resources reported publicly in May 2024. Work on updating estimates of the Mineral Resources for several Khoemac<u>a</u>u deposits added a further 700kt copper and 30Moz silver.

Successful exploration drilling at Dugald River has resulted in the extension of the Dugald lode at depth with a net increase of 1.2Mt zinc metal in Mineral Resources. At Rosebery, both Mineral Resources and Ore Reserves have increased materially as a direct result of continued exploration drilling within the mining footprint coupled with optimisation of the economic evaluation methodology. Rosebery's Ore Reserves have increased by 47% on tonnes and more than 30% for zinc, lead, silver, gold and copper. A key enabler of the Rosebery Ore Reserve increase has been the establishment of plans for further tailings storage facilities bringing greater certainty to extending the life of the operation.

All data reported here are on a 100% asset basis, with MMG's attributable interest shown against each asset within the Mineral Resources and Ore Reserves tables (pages 5 to 13).

MINERAL RESOURCES AND ORE RESERVES STATEMENT

A copy of the executive summary of the Mineral Resources and Ore Reserves Statement is annexed to this announcement.

The information referred to in this announcement has been extracted from the report titled Mineral Resources and Ore Reserves Statement as at 30 June 2024 published on 3 December 2024 and is available to view on www.mmg.com. The Company confirms that it is not aware of any new information or data that materially affects the information included in the Mineral Resources and Ore Reserves Statement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the Mineral Resources and Ore Reserves Statement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the Mineral Resources and Ore Reserves Statement.

By order of the Board MMG Limited Cao Liang CEO and Executive Director

Hong Kong, 3 December 2024

As at the date of this announcement, the Board comprises seven directors, of which one is an executive director, namely Mr Cao Liang; two are non-executive directors, namely Mr Xu Jiqing (Chairman) and Mr Zhang Shuqiang; and four are independent non-executive directors, namely Dr Peter William Cassidy, Mr Leung Cheuk Yan, Mr Chan Ka Keung, Peter and Ms Chen Ying.



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EXECUTIVE SUMMARY

Mineral Resources and Ore Reserves for MMG have been estimated as at 30 June 2024 and are reported in accordance with the guidelines in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 JORC Code) and Chapter 18 of the Listing Rules. Mineral Resources and Ore Reserves tables are provided on pages 5 to 13, which include the 30 June 2023 and 30 June 2024 estimates for comparison for all site except Khoemac<u>a</u>u where the effective date is 31 December 2023. The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources that have been converted to Ore Reserves. All supporting data are provided within the Technical Appendix, available on the MMG website.

Mineral Resources and Ore Reserves information in this statement have been compiled by Competent Persons (as defined by the 2012 JORC Code). Each Competent Person consents to the inclusion of the information in this report, that they have provided in the form and context in which it appears. Competent Persons are listed on page 14.

MMG has established processes and structures for the governance of Mineral Resources and Ore Reserves estimation and reporting. MMG has a Mineral Resources and Ore Reserves Committee that regularly convenes to assist the MMG Governance and Nomination Committee and the Board of Directors with respect to the reporting practices of the Company in relation to Mineral Resources and Ore Reserves, and the quality and integrity of these reports of the Group.

Key changes to the Mineral Resources (contained metal) since the 30 June 2023 estimate include depletion¹ at all sites. At Las Bambas, exploration drilling at Ferrobamba Deeps over the last 4 years coupled with the completion of a positive Scoping Study has led to an extension to the Ferrobamba deposit with potential to be mined underground to be reported for the first time. Ferrobamba Deeps has added 2.5Mt copper metal, 31Moz silver, 130kt molybdenum and 370koz gold to the Mineral Resources. Increased costs have been partially offset by increased metal price assumptions at Las Bambas resulting in a combined negative variance of 320kt copper from the open pits before depletion of 362kt processed through the Las Bambas mill.

At Khoemac<u>a</u>u, a programme of drilling at Zone 5, coupled with a detailed data review and re-estimation of the Banana Zone, Zeta and Zone 6 deposits have resulted in 700kt copper and 30Moz silver being added the inventory before milled depletion of 22kt copper and 0.78Moz silver. This work has returned the metal inventory to within 0.3% of pre-acquisition levels.

At Dugald River Mine, deep drilling has extended the lode by approximately 200 metres down dip and resulted in an additional 1.4Mt zinc and 140kt lead added to the Mineral Resources. Drilling continues into 2024 and 2025 to test for further extensions to the Dugald River lode.

At Rosebery, infill and extensional drilling has continued to increase Mineral Resource tonnage which has been mined continuously for more than 85 years. Additional metal of 280kt zinc, 80kt lead, 27kt copper, 12Moz silver and 210koz gold has been added before mill depletion.

¹ Depletion in this report refers to material processed by the mill and depleted from the Mineral Resources and Ore Reserves through mining and processing.



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In the Democratic Republic of Congo (DRC), 150kt copper has been added to the Kinsevere deposit from infill and extensional drilling in the Saddle zone, while drilling during 2022 and 2023 at a new satellite ore body, Kimbwe-Kafubu, has provided sufficient confidence to report as a new Mineral Resource has added 64kt copper and 2kt cobalt. The Mwepu tenement has been relinquished, due to protracted negotiations with Gécamines to extend the term of the Exploration and Option Agreement.

Key changes to the Ore Reserves (contained metal) since the 30 June 2023 estimate are mostly related to depletion¹. At Khoemac<u>a</u>u, infill drilling, changes to cut off grades and minimum mining widths, 86kt copper and 2.2Moz silver has been added to the Zone 5 deposit at Khoemac<u>a</u>u Ore Reserves before depletion. After depletion this equates to an increase of 64kt copper (7%) and 1.5Moz silver (4%) since MMG reported the Khoemac<u>a</u>u Mineral Resources and Ore Reserves on 24 May 2024.

Las Bambas has added 29kt copper (before depletion), mostly through the change to net smelter return (NSR) based reporting and also from increased metal prices assumptions. Model reduction and higher costs have partially offset all other increases. After depletion, Las Bambas Ore Reserves have decreased as follows: 330kt copper (-7%), 10Moz silver (-13%), 210kt oz gold (-20%) and 6kt molybdenum (-5%).

Rosebery Ore Reserves have increased significantly based on delineation and definition drilling, changes in NSR calculations and Pre-Feasibility Study (PFS) level confidence for future tailings storage solutions. After depletion, metals increased as follows: zinc 102kt (35%), lead 36kt (31%), silver 7Moz (42%), gold 60koz (37%), copper 3kt (34%).

Pages 15 and 16 provide further discussion of the Mineral Resources and Ore Reserves changes.



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MINERAL RESOURCES¹

All data reported here is on a 100% asset basis, with MMG's attributable interest shown against each asset within brackets.

				2024								202	23			
Deposit	Tonnes Mt	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)	Tonnes Mt	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)
Las Bambas (62	.5%)															
Ferrobamba Ox	ide Copper															
Indicated	0.05	1.2							0.02	1.3						
Inferred																
Total	0.05	1.2							0.02	1.3						
Ferrobamba Pri	mary Coppe	r														
Measured	250	0.47			1.8	0.03	200		380	0.59			2.6	0.05	220	
Indicated	310	0.66			2.8	0.04	180		220	0.66			3.2	0.06	180	
Inferred	35	0.58			2.0	0.02	77		39	0.80			2.8	0.07	190	
Total	600	0.57			2.3	0.03	180		640	0.63			2.8	0.05	200	
Ferrobamba Un	derground															
Measured	67	0.31			1.0	0.02	220									
Indicated	390	0.37			1.5	0.02	200									
Inferred	220	0.38			1.3	0.01	170									
Total	680	0.37			1.4	0.02	190									
Ferrobamba																
Total	1,300	0.46			1.9	0.03	190		640	0.63			2.8	0.05	200	
Chalcobamba C	xide Coppe	r														
Indicated	5.0	1.4							6.2	1.4						
Inferred	0.5	1.2							0.5	1.2						
Total	5.5	1.4							6.7	1.4						
Chalcobamba P	rimary Copp	ber														
Measured	150	0.50			1.5	0.02	120		150	0.51			1.5	0.02	120	
Indicated	180	0.60			2.3	0.03	130		190	0.60			2.2	0.03	120	
Inferred	35	0.51			2.3	0.02	160		43	0.47			1.9	0.02	100	
Total	360	0.55			2.0	0.02	130		380	0.55			1.9	0.02	120	
Chalcobamba	370	0.56			2.0	0.02	130		300	0.56			19	0.02	120	
Sulfobamba Pri	mary Coppe	<u>0.50</u> r			2.0	0.02	150			0.50			1.9	0.02	120	
Indicated	100	0.58			4.2	0.02	160		93	0.62			4.4	0.02	140	
Inferred	130	0.49			5.7	0.02	120		110	0.54			6.0	0.02	64	
Total	230	0.53			5.1	0.02	140		210	0.58			5.2	0.02	98	
Sulfobamba																
Total	230	0.53			5.0	0.02	140		210	0.58			5.2	0.02	98	
Oxide Copper S	tockpile															
Indicated	14	1.1							14	1.1						
Total	14	1.1							14	1.1						
Sulphide Stock	oile															
Measured	23	0.34			1.8		110		25	0.36			2.2		110	
Total	23	0.34			1.8		110		25	0.36			2.2		110	
Las Bambas	4 000								1 0 0 0							
iotai	1,900								1,300							

¹ S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt.



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				2024								202	2 3 2			
Deposit	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)
Khoemacau (55%)															
Zone 5																
Measured	16	1.7			16				10	2.1			20			
Indicated	33	1.6			15				27	1.9			19			
Inferred	63	1.8			20				52	2.1			23			
Total	110	1.7			18				89	2.0			21			
Zone 5 North																
Measured	-	-			-				-	-			-			
Indicated	44	26			44				4	26			44			
Inferred	19	1.8			30				19	1.8			30			
Total	23	1.9			32				23	1.9			32			
Zeta NE																
Measured	-	-			-				_	_			-			
Indicated	89	26			53				8.9	2.5			53			
Inferred	20	17			33				20	17			33			
Total	29	2.0			39				29	2.0			39			
Banana Zone																
Measured	-	-			_				-	_			_			
Indicated	33	14			21				15	15			23			
Inferred	120	0.82			97				87	0.92			11			
Total	120	0.02			12				100	10			13			
Onhion	100	0.00			12				100	1.0			10			
Mossured	_	_			_				_	_			_			
Indicated	_	-			_				_	_			_			
Inferred	1/	11			12				1/	11			12			
	14	11			12				14	1.1			12			
Dutue	14	1.1			12				14	1.1			12			
Mossured	2.4	12			12				2.4	1 2			12			
Indicated	2.4	1.3			13				2.4	1.3			13			
Indicated	5.5	1.3			10				57	1.5			10			
	69	1.4			12				69	1.4			12			
Selene		1.4			12								12			
Massurad	_	_			_				_	_			_			
Indicated	_	-			_				_	_			_			
Inferred	71	12			20				7 1	12			20			
Total	7.1	1.2			20				7.1	1.2			20			
7eta LIG	7.1	1.2			20				7.1	1.2						
Measured	_	-			_				0.9	18			31			
Indicated	85	16			31				4.7	1.0			30			
Inforred	12	1.0			20				4.7	1.7			26			
Total	20	1.5			30				9.0	1.4			20			
Zone 6	20	1.0							0.0	1.0						
Measured	_	-			_				_	_			_			
Indicated	_	_			_				_	_			_			
Inforred	71	16			10				5.2	16			7			
	7.1	1.0			10				52	1.0			7			
Mango	7.1	1.0			10				5.2	1.0			/			
Mossurod	_	_			_				_	_			_			
Indicated	- 11	- 1 0			23				- 11	10			- 22			
Inforred	10	1.9			∠.3 10				10	1.9			23			
	21	1./ 1 Q			າອ 21				21	1.9			21			
Stocknilo	21	1.0			21				21	1.9			21			
Monsurad	0.00	1 5			15				0	1 5			12			
	0.02	1.5 1 E			10 1 E				0	1.5			13			
Khoomaaa	0.02	1.5			13				0	1.5			13			
Total	450	1 4			10				270	1 5			10			
iUldi	450	1.4			10				370	1.5			19			

¹ S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt.

² Reported as at 31 December 2023



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				2024								20	23			
Deposit	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)
Kinsevere	(100%)															
Oxide Cop	per															
Measured	1.4	2.8						0.09	1.4	2.7						0.09
Indicated	3.5	2.7						0.10	4.3	2.5						0.10
Inferred	2.3	2.0						0.12	2.2	2.0						0.08
Total	7.2	2.5						0.11	8.0	2.4						0.09
Transition	Mixed Cop	per Ore														
Measured	0.5	2.0						0.12	0.7	2.0						0.11
Indicated	1.5	1.8						0.11	2.1	2.0						0.11
Inferred	1.1	1.5						0.07	1.0	1.6						0.09
Total	3.1	1.7						0.10	3.8	1.9						0.10
Primary Co	opper															
Measured	1.7	2.1						0.15	1.2	2.0						0.17
Indicated	21	2.2						0.09	17.0	2.3						0.09
Inferred	11	1.7						0.06	8.0	1.7						0.06
Total	34	2.0						0.08	26	2.1						0.09
Oxide-TM0	O Cobalt															
Measured	0.01	0.61						0.07	0.01	0.54						0.28
Indicated	0.06	0.52						0.15	0.31	0.24						0.30
Inferred	0.10	0.57						0.08	0.40	0.16						0.31
Total	0.17	0.55						0.10	0.72	0.20						0.31
Primary Co	balt															
Measured	0.02	0.65						0.23	0.00	0.59						0.34
Indicated	0.23	0.64						0.13	0.06	0.53						0.30
Inferred	0.14	0.66						0.09	0.10	0.29						0.30
Total	0.39	0.65						0.12	0.16	0.38						0.30
Stockpiles																
Indicated	13	1.4							18	1.6						
Indicated	5.0	0.1						0.0								
	5.3	2.1						0.2	10	10						
I OTAI	19	1.6							18	1.0						
Total	63	1.9						0.08	55	2.0						0.06
								0.00		2.5						0.00

¹ S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt.



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				20)24							2	023			
Deposit	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)
Sokoroshe	2 (100%)															
Oxide Copp	ber															
Measured																
Indicated	1.7	2.1						0.30	2.7	2.1						0.39
Inferred	0.54	1.6						0.13	0.17	1.1						0.10
Total	2.2	2.0						0.26	2.9	2.1						0.37
I ransition N	Vixed Coppe	er Ore														
Measured	0.00	1.0						0.00	0.07	1.6						0.00
Indicated	0.29	1.3						0.36	0.07	1.0						0.23
Total	0.11	1.4						0.27	0.00	0.80						0.04
Drimary Co	0.40	1.4						0.33	0.07	1.0						0.22
Measured	ppei															
Indicated	0.51	17						0.42	0.62	15						0.48
Inferred	0.30	1.7						0.42	0.00	1.0						0.04
Total	0.81	1.6						0.34	0.62	1.5						0.47
Oxide Coba	lt															
Measured																
Indicated	0.18	0.79						0.38	0.64	0.24						0.52
Inferred	0.08	1.5						0.14	0.31	0.37						0.04
Total	0.25	1.0						0.31	0.95	0.28						0.47
Primary Col	balt															
Measured																
Indicated	0.055	0.61						1.2	0.046	0.54						0.65
Inferred	0.004	0.51						0.9								
Total	0.059	0.61						1.1	0.046	0.54						0.65
Stockpiles																
Indicated	1.1	1.3						0.30								
Sokoroshe	2															
Total	4.8	1.7						0.30	4.6	1.6						0.40
Nambulwa	(100%)															
Oxide Copp	per															
Measured																
Indicated	1.2	2.1						0.11	1.2	2.2						0.11
Inferred	0.11	1.7						0.07	0.12	1./						0.0/
Total	1.3	2.1						0.11	1.3	2.1						0.11
I ransition M	vixed Coppe	er Ore														
Measured	0.02	2.2						0 10	0.02	2.2						0 10
Indicated	0.02	3.Z						0.18	0.02	3.3						0.16
Total	0.02	2.2						0 19	0.02	33						0 18
		3.2						0.10	0.02	5.5						0.10
Measured	Cobart															
Indicated	0.01	0.53						0.20	0.21	0.14						0.27
Inferred	0.01	0.00						0.20	0.21							
Total	0.01	0.53						0.20	0.21	0.14						0.27
Nambulwa																
Total	1.3	2.1						0.11	1.5	1.9						0.13

¹ S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt.



30 June 2024

				2024								2	023			
Deposit	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)
DZ (100%)																
Oxide Cop	per															
Measured																
Indicated	1.0	1.8						0.13	1.0	1.8						0.12
Inferred	0.06	1.8						0.10	0.05	1.9						0.11
	1.1 2.0ahalt	1.8						0.12	1.1	1.8						0.12
Oxide-IMC	JCobalt															
Indicated	0.058	0.6						0.22	0 34	0.23						0.27
Inferred	0.000	0.0						0.22	0.013	0.13						0.25
Total	0.06	0.6						0.21	0.35	0.22						0.27
DZ Total	1.2	1.7						0.13	1.4	1.4						0.16
Kimbwe Ka	afubu (100)	%)														
Oxide Cop	per															
Measured	-	-						-								
Indicated	0.85	1.8						0.13								
Inferred	0.067	1.9						0.15								
Total	0.92	1.8						0.13								
TMO Copp	er															
Measured	-	-						-								
Indicated	1.3	2.6						0.02								
Inferred	0.42	2.3						0.05								
Total	1.7	2.5						0.03								
Primary Co	opper															
Measured	-	-						-								
Indicated	0.12	3.2						0.11								
Interred	-	-						-								
	0.12	3.2						0.11								
Oxide-IMC	JCobalt															
Indicated	-	0 5 9						0.26								
Indicated	0.03	0.50						0.30								
Total	0.01	0.00						0.43								
Kimbwe Ka	afubu	0.00						0.00								
	านมน ว ว	22						0 08								
TUTAI	2.0	2.3						0.08								

¹ S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt.

30 June 2024

				2024								2	023			
Deposit	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)
Mwepu																
Oxide Cop	per															
Measured									0.37	2.0						0.15
Indicated									1.5	2.6						0.14
Inferred									0.38	2.3						0.02
Total									2.3	2.4						0.12
TMO Copp	er															
Measured									0.05	1.3						0.13
Indicated									0.2	1.5						0.17
Inferred									0.10	1.9						0.03
Total									0.4	1.6						0.13
Primary Co	pper															
Measured									-	-						-
Indicated									0.03	1.5						0.29
Inferred									0.01	2.3						0.001
Total									0.0	1.6						0.22
Oxide-TM0) Cobalt															
Measured									0.003	0.45						0.42
Indicated									0.08	0.59						0.40
Inferred									-	-						-
Total									0.1	0.6						0.40
Primary Co	balt															
Measured									0.00	0.22						0.41
Indicated									0.12	0.32						0.44
Inferred									-	-						-
Total									0.12	0.31						0.44
Mwepu																
Total									2.9	2.2						0.15

¹ S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt.

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				2024								2023	3			
Deposit	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)
Dugald Riv	ver (100%)															
Primary Zi	nc															
Measured	16		12.9	1.9	52				16		12.8	1.9	58			
Indicated	10		12.1	1.4	16				13		11.3	1.4	16			
Inferred	39		11.5	1.4	4.9				28		11.3	1.4	6			
Total	66		12.0	1.5	18				57		11.7	1.6	23			
Primary Co	opper															
Inferred	4.3	1.5				0.23			4.8	1.6				0.2		
Total	4.3	1.5				0.23			4.8	1.6				0.2		
Dugald																
River	70								62							
Deceberry	//								02							
Rosebery	(100%)															
Measured	8.0	0.25	66	23	100	11			7 /	0.22	76	2.8	120	13		
Indicated	77	0.25	5.0	1.0	77	1.1			/.4	0.22	7.0	2.0	83	1.0		
Indicated	2.7	0.20	6.8	2.0	76	1.2			4.7	0.21	7.1	2.0	85	1.2		
Total	0.0 25	0.20	0.8 6 5	2.0	96	1.0			0.0 19	0.19	7.5	2.3	00	1.1		
Roseberv	25	0.20	0.5	2.0	00	1.1			10	0.21	7.4	2.4	33	1.2		
Total	25	0.26	6.5	2.0	86	1.1			18	0.21	7.4	2.4	99	1.2		
High Lake	(100%)															
Measured																
Indicated	7.9	3.0	3.5	0.32	83	1.3			7.9	3.0	3.5	0.32	83	1.3		
Inferred	6.0	1.8	4.3	0.41	84	1.3			6.0	1.8	4.3	0.41	84	1.3		
Total	14	2.5	3.8	0.36	84	1.3			14	2.5	3.8	0.36	84	1.3		
Izok Lake	(100%)															
Measured	(,															
Indicated	13	24	13.3	14	73	0.18			13	24	13.3	14	73	0.18		
Inferred	12	1.5	10.5	1.3	73	0.21			12	1.5	10.5	1.3	73	0.21		
Total	15	2.3	13.1	1.4	73	0.18			15	2.3	13.1	1.4	73	0.18		

¹ S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum, Co=cobalt.



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ORE RESERVES¹

All data reported here is on a 100% asset basis, with MMG's attributable interest shown against each asset within brackets.

				20	24							2	023			
Deposit	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)
Las Bambas	s (62.5%)															
Ferrobamba	Primary Co	pper														
Proved	220	0.49			1.9	0.03	200		310	0.63			3.0	0.05	220	
Probable	230	0.68			3.1	0.05	180		130	0.73			3.9	0.06	190	
Total	450	0.58			2.5	0.04	190		440	0.66			3.3	0.06	210	
Chalcobaml	ba Primary C	Copper														
Proved	96	0.60			2.0	0.02	120		96	0.62			2.0	0.03	120	
Probable	130	0.66			2.7	0.03	120		130	0.68			2.7	0.03	110	
Total	220	0.63			2.4	0.03	120		220	0.66			2.4	0.0	120	
Sulfobamba	a Primary Co	pper														
Proved																
Probable	63	0.70			5.5	0.03	160		57	0.77			5.8	0.03	160	
Total	63	0.70			5.5	0.03	160		57	0.77			5.8	0.03	160	
Primary Cop	oper Stockpi	iles														
Proved	23	0.34			1.8		110		25	0.36			2.2		110	
Total	23	0.34			1.8		110		25	0.36			2		110	
Las																
Bambas	760	0.60			27		160		740	0.66			2.2		170	
Khoomaaau	/00	0.00			2.7		100		740	0.00			5.2		170	
Zone 5	(55%)															
Proved	8.8	20			10				5.9	21			22			
Probable	25	17			17				21	19			19			
Total	34	1.7			17				21	2.0			20			
Zone 5 Nort		1.0			17				21	2.0			20			
Proved	-	-			-				_	-			_			
Probable	3.0	2.3			38				3.0	23			38			
Total	3.0	2.3			38				3	2.3			38			
Zeta NE		2.0														
Proved	-	-			-				-	-			-			
Probable	8.1	1.8			37				8.1	1.8			37			
Total	8.1	1.8			37				8.1	1.8			37			
Mango																
Proved	-	-			-				-	-			-			
Probable	6.2	1.8			22				6.2	1.8			22			
Total	6.2	1.8			22				6.2	1.8			22			
Stockpile																
Proved	0.02	1.5			15				0.03	1.5			13			
Khoemac <u>a</u> u																
Total	51	1.8			22				44	2.0			25			

¹ S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum.



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ORE RESERVES¹

				202	24							20	23			
Deposit	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)	Tonnes (Mt)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)	Mo (ppm)	Co (%)
Kinsevere (100%)															
Oxide/TMO	Copper and	l Cobalt														
Proved	1.2	2.6						0.12	0.9	2.5						0.11
Probable	4.0	2.2						0.10	3.2	2.3						0.11
Total	5.2	2.3						0.11	4.1	2.3						0.11
Primary Cop	oper and Co	balt														
Proved	1.3	2.1						0.15	1.2	2.0						0.17
Probable	13.3	2.3						0.09	15	2.3						0.09
Total	14.6	2.3						0.10	16	2.2						0.10
Stockpiles																
Proved																
Probable	18.6	1.6						0.06	18	1.6						
Total	18.6	1.6						0.06	18	1.6						
Kinsevere																
Total	38.4	1.9						0.08	38	2.0						
Sokoroshe 2	2 (100%)															
Oxide Copp	er and Coba	alt														
Proved																
Probable	1.0	1.9						0.30	2.5	1.9						0.42
Total	1.0	1.9						0.30	2.5	1.9						0.42
Primary Cop	oper and Co	balt														
Proved																
Probable	0.13	1.0						0.58	0.09	0.95						0.65
Total	0.13	1.0						0.58	0.09	0.95						0.65
Stockpiles																
Probable	1.1	1.3						0.30								
Sokoroshe		4 5														
lotal	2.2	1.5						0.32	2.5	1.9						0.43
Dugald Rive	er (100%)															
Zinc																
Proved	1/		10.7	17	17				12		11.3	19	57			
Probable	83		10.7	1.7	15				77		10.0	1.0	14			
Total	22		10.2	1.4	35				20		10.8	17	40			
Dugald	22		10.5	1.0					20		10.0	1.7				
River Total	22		10.5	1.6	35				20		10.8	1.7	40			
Rosebery (1	100%)															
Proved	4.3	0.18	6.0	2.4	110	1.1			3.9	0.20	6.5	2.7	110	1.2		
Probable	2.4	0.17	5.6	2.1	91	1.1			0.63	0.18	5.6	2.2	82	1.2		
Total	6.7	0.18	5.9	2.3	100	1.1			4.6	0.20	6.4	2.6	110	1.2		
Rosebery		- 18 ¹														
Total	6.7	0.18	5.9	2.3	100	1.1			4.6	0.20	6.4	2.6	110	1.2		

¹ S.I. units used for metals of value; Cu=copper, Zn=zinc, Pb=lead, Ag=silver, Au=gold, Mo=molybdenum.



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COMPETENT PERSONS

Deposit	Accountability	Competent Person	Professional Membership	Employer
MMG Mineral Resources and Ore Reserves Committee	Mineral Resources and Committee Chair	Rex Berthelsen ¹	HonFAusIMM CP (Geo)	MMG
MMG Mineral Resources and Ore Reserves Committee	Ore Reserves	Cornel Parshotam ¹	MAusIMM	MMG
MMG Mineral Resources and Ore Reserves Committee	Metallurgy: Mineral Resources / Ore Reserves	Andrew Goulsbra ¹	MAusIMM	MMG
Las Bambas	Mineral Resources	Hugo Rios	MAusIMM CP (Geo)	MMG
Las Bambas	Ore Reserves	Jose Calle	MAusIMM	MMG
Khoemac <u>a</u> u	Mineral Resources	Maree Angus	MAusIMM CP (Geo), MAIG	ERM Australia Consultants Pty Ltd
Khoemac <u>a</u> u	Ore Reserves	Terry Burns	FAusIMM CP (Man)	Warbrooke-Burns & Associates Pty Ltd
Kinsevere	Mineral Resources	Mark Burdett	MAusIMM CP (Geo)	MMG
Kinsevere	Ore Reserves	Papa K. A. Empeh ¹	MAusIMM CP (Min)	MMG
Rosebery	Mineral Resources	Maree Angus	MAusIMM CP (Geo), MAIG	ERM Australia Consultants Pty Ltd
Rosebery	Ore Reserves	Andrew Robertson	FAusIMM	MMG
Dugald River	Mineral Resources	Maree Angus	MAusIMM CP (Geo), MAIG	ERM Australia Consultants Pty Ltd
Dugald River	Ore Reserves	Peter Willcox	MAusIMM CP (Min), RPEQ	MMG
High Lake, Izok Lake	Mineral Resources	Allan Armitage ²	MAPEG P.Geo	Formerly MMG

Table 1 - Competent Persons for Mineral Resources, Ore Reserves and Corporate

The information in this report that relates to Mineral Resources and Ore Reserves is based on information compiled by the listed Competent Persons, who are Members or Fellows of the Australasian Institute of Mining and Metallurgy (AusIMM), the Australian Institute of Geoscientists (AIG) or a Recognised Professional Organisation (RPO) and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are 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. Each of the Competent Persons has given consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

¹ Participates in the MMG Long-Term Incentive Plans which may include Mineral Resources and Ore Reserves growth as a performance condition.

² Member of the Association of Professional Engineers and Geoscientists of British Columbia



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SUMMARY OF SIGNIFICANT CHANGES

MINERAL RESOURCES

Mineral Resources as at 30 June 2024 have changed, since the 30 June 2023 estimate, for several reasons with the most significant changes outlined in this section:

• the Group's Mineral Resources (contained metal) have increased for copper (17%), zinc (14%), lead (10%), molybdenum (62%), cobalt (10%), silver (11%) and gold (5%) with no metal decreases.

Increases:

The increases in Mineral Resources (contained metal) are due to:

- reporting the Ferrobamba Underground deposit at Las Bambas for the first time adding 2.5Mt of copper, 130kt of molybdenum, 31Moz silver and 370koz gold;
- drilling at Zone 5 and remodelling the Banana, Zeta and Zone 6 deposits at Khoemac<u>a</u>u have resulted in a further 700kt copper and 30Moz silver added since acquisition of the asset by MMG;
- deep drilling at Dugald River has extended the lode at depth by around 200 meters and contributed the majority of the increased metals of 1.4Mt zinc and 140kt lead before milled depletion;
- drilling in the area known as "The Saddle" at Kinsevere has contributed to 150kt copper and 15kt cobalt coupled with declaring additional cobalt metal contained in stockpiles before milled depletion;
- a new satellite deposit, Kimbwe-Kafubu, in the DRC located approximately 25km NNW of Kinsevere Mine has been reported for the first time adding 64kt copper and 2kt cobalt; and
- infill and exploration drilling during 2023 and changes to the NSR calculation in 2024 at Rosebery resulted in increases to all metals (before milled depletion) as follows: 280kt zinc, 80kt lead, 12Moz silver, 210koz gold and 27kt copper. The impact from increased metal price assumptions have been negated by increased costs at the operation.

Decreases:

The decreases in Mineral Resources (contained metal) are due to:

- milled depletion at all producing operations;
- increased costs at all sites, which are partially offset by increased metal price assumptions. Las Bambas open pit Mineral Resources have a negative variance of 320kt copper before depletion.
- removal of a further 12kt copper from Sulfobamba deposit at Las Bambas due to illegal mining over the last 12 months taking the total estimated depletion due to illegal mining to 74kt copper;
- drilling into the hanging wall copper zone at Dugald River has resulted in 9kt copper (-12%) reduction; and



- 30 June 2024
- Relinquishment of the Mwepu tenement in DRC to Gécamines after protracted negotiations resulted in 64kt copper and 4kt cobalt being removed from the 2024 statement.

ORE RESERVES

Ore Reserves as at 30 June (contained metal) have increased for zinc (10%), lead (10%) and cobalt (19%) and have decreased for copper (-4%), silver (-2%), gold (-12%) and molybdenum (-5%).

Variations to Ore Reserves (contained metal) on an individual site basis are discussed below:

Increases:

Increases in Ore Reserves (metal) as stated above are due to:

- definition drilling and increased metal price assumptions have offset increased costs at Dugald River;
- increased metal price assumptions, changes to NSR, cut-off and dilution methodologies at Khoemacau have added 86kt copper and 2.2Moz silver before milled depletion. This has resulted in a 7% increase to copper and 4% increase to silver metal after milled depletion since the acquisition of the operation;
- definition drilling, inclusion of Z lens for the first time and additional stopes in U and V lenses, changes to minimum mining width at X lens, changes to the NSR calculation and increased planned tailings storage with PFS level confidence at Rosebery. All metals at Rosebery have increased, exceeding depletion however the impact of increased costs have negated increased metal price assumptions;
- the cobalt grade of specific stockpiles at Kinsevere has now been estimated from grade control drilling post 2020. Favourable Resource to Reserve conversions, partly from the Saddle zone have produced a result that is slightly greater than milled depletion (32kt copper) of Kinsevere ore. Mining at Sokoroshe contributed to copper production for the first time but also converted an additional 4kt copper metal to the total Ore Reserve before depletion; and
- copper at Ferrobamba increased by 44kt before depletion which was mostly driven by the change to NSR based cut offs at Las Bambas.

Decreases:

Decreases in Ore Reserves (metal) as stated above are due to:

- milling and mining depletion at all producing operations;
- reductions of molybdenum, gold and silver at Las Bambas due to cost increases, new drilling and model changes at Ferrobamba open pit. Increased metal price assumptions have mostly offset the impact of costs;
- reduced silver metal at Dugald River. Silver grades reduce at depth and the resulting conversion and additional lower grades of the deeper zones have this effect.



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KEY ASSUMPTIONS

PRICES AND EXCHANGE RATES

The following price and foreign exchange assumptions, set according to the relevant MMG Standard in February 2024, have been applied to all Mineral Resources and Ore Reserves estimates.

These prices and FX rates are based on the October 2023 long term prices (basis date 1 January 2024) as approved by the MMG Board. Prices are adjusted for United States CPI (US CPI as the best global inflation indicator) from 1 January 2024 to 1 July 2024 terms.

The reasonableness of prices is tested against forecasts from both Consensus Economics and Wood Mackenzie. Price assumptions for all metals have changed from the 2023 Mineral Resources and Ore Reserves statement.

	Ore Reserves	Mineral Resources
Cu (US\$/lb)	4.08	4.90
Zn (US\$/lb)	1.32	1.58
Pb (US\$/lb)	0.95	1.14
Au US\$/oz	1,722	2,066
Ag US\$/oz	21.78	26.13
Mo (US\$/lb)	12.15	14.58
Co (US\$/lb)	21.28	29.79
USD:CAD	1.25	
AUD:USD	0.73	As per Ore Reserves
USD:PEN	3.81	

Table 2 - 2024 Price (real) and foreign exchange assumptions



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CUT-OFF GRADES

Mineral Resource and Ore Reserve cut-off values are shown in Table 3 and Table 4 respectively. Refer to Table 6 for definitions of abbreviations used in this table.

Table 3 - Mine	ral Resource	cut-off	grades
----------------	--------------	---------	--------

Site	Mineralisation	Likely Mining Method	Cut-Off Value	Comments
	Oxide copper		1% Cu	
	Primary copper Ferrobamba		US\$12.42/t NSR	Cut-off is applied as a range that varies for each deposit
Las Bambas	Primary copper Chalcobamba	OP	US\$12.44/t NSR	Mineral Resources constrained within US\$4.90/lb Cu and US\$14.58/lb Mo pit shell.
	Primary copper Sulfobamba		US\$14.12/t NSR	
	Zone 5 Primary Copper	UG	US\$50/t	Mineral Resources based on \$4.90/lb Cu, \$26.13/oz Ag, recoveries averaging 88% for Cu and 84% for Ag and assumed payability of 97% and 90% respectively. Remnant pillars inside the mining area are considered sterilised and are not included in the stated Mineral Resources.
	Zone 5 North, Zeta NE, Mango Primary Copper	UG	1% Cu	Underground Mineral Resources reported inside the high- grade zones and for sulphide material only. Reporting cut- off grade (1% Cu) was selected based on assumed prices of US\$3.54/lb and US\$21.35/oz for Cu and Ag, respectively, assumed metallurgical recoveries of 88% and 84% respectively, and assumed payability of 97% and 90% respectively. This equates to approximately US\$66/t of NSR value.
	Banana Zone (North East Fold and Chalcocite)	OP	0.2% Cu	Reported within RF 1.3 pit shells with assumed recoveries of 88% Cu and 84% Ag.
Khoemac <u>a</u> u	Banana Zone (North East Fold UG, North Limb Mid, North Limb North, North Limb South, South Limb, South Limb Definition, South Limb Mid, South Limb North, New Discovery),Zeta and Zone 6	a Zone (North East G, North Limb Mid, Limb North, North South, South Limb, Limb Definition, UG 0 Limb Mid, South North, New Yery),Zeta and Zone		Underground Mineral Resources are reported for sulphide only at 0.9% CuEQ where CuEQ = Cu + Ag*0.007; \$4.90/lb Cu, \$26.13/oz Ag and assumed recoveries of 88% for Cu and 84% for Ag.
	Plutus	UG	1.07% CuEQ	Underground Mineral Resources reported above a cut-off grade of 1.07% CuEq (CuEq = Cu + Ag*0.0113); US\$3.24/lb copper and US\$25/oz silver.
	Selene	UG	1% Cu	Underground Mineral Resources reported inside high- grade zone and for sulphide material only.
	Ophion	OP	0.6% Cu	Mineral Resources reported inside high-grade zone and for sulphide material only.
	Oxide copper & stockpiles	OP	0.4% CuAS	
	Transition mixed ore copper (TMO)	OP	0.5% Cu	<i>In-situ</i> copper Mineral Resources constrained within a US\$4.90/Ib Cu and US\$29.79/Ib Co pit shell.
Kinsevere	Primary copper	OP	0.7% Cu	
	Oxide TMO cobalt	OP	>0 NVS	NVS = Net Value Script. In-situ cobalt Mineral Resources
	Primary cobalt	OP	>0 NVS	constrained within a US\$4.90/lb Cu and US\$29.79/lb Co pit shell, but exclusive of copper mineralisation.
	Oxide	OP	0.5% CuAS	
	TMO copper	OP	0.6% Cu	US\$4.71/lb Cu and US\$32.72/lb Co pit shell
Sokoroshe	Primary copper	OP	0.8% Cu	
2	Oxide TMO cobalt	OP	>0 NVS	NVS = Net Value Script. In-situ cobalt Mineral Resources
	Primary cobalt	OP	>0 NVS	constrained within a US\$4.90/lb Cu and US\$29.79/lb Co pit shell, but exclusive of copper mineralisation.
Nambulwa /	Oxide copper	OP	0.5% CuAS	<i>In-situ</i> copper Mineral Resources constrained within a
DZ	TMO copper	OP	0.6% Cu	US\$4./1/Ib Cu and US\$32./2/Ib Co pit shell.



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Site	Mineralisation	Likely Mining Method	Cut-Off Value	Comments
	Primary copper	OP	0.8% Cu	
	Oxide TMO cobalt	OP	>0 NVS	
Kimbwe-	Primary cobalt	OP	>0 NVS	<i>In-situ</i> cobalt Mineral Resources constrained within a
Kafubu	TMO copper	OP	1.0% Cu	of copper mineralisation
	Primary copper	OP	1.0% Cu	
Rosebery	Rosebery (Zn, Cu, Pb, Au, Ag)	UG	A\$191/t NSR	All areas of the mine are reported using the same NSR cut-off value.
Dugald	Primary zinc (Zn, Pb, Ag)	UG	A\$181/t NSR	All areas of the mine are reported using the same NSR cut-off value.
River	Primary copper	UG	1% Cu	All areas of the mine are reported at the same cut-off grade
	Cu, Zn, Pb, Ag, Au	OP	2.0% CuEq	CuEq = Cu + $(Zn \times 0.30)$ + $(Pb \times 0.33)$ + $(Au \times 0.56)$ + $(Ag \times 0.01)$: based on Long-Term prices and metal recoveries at Au:75%, Ag:83%, Cu:89%, Pb:81% and Zn:93%.
Hign Lake	Cu, Zn, Pb, Ag, Au	UG	4.0% CuEq	CuEq = Cu + $(Zn \times 0.30)$ + $(Pb \times 0.33)$ + $(Au \times 0.56)$ + $(Ag \times 0.01)$: based on Long-Term prices and metal recoveries at Au:75%, Ag:83%, Cu:89%, Pb:81% and Zn:93%.
Izok Lake	Cu, Zn, Pb, Ag, Au	OP	4.0% ZnEq	ZnEq = Zn + (Cu×3.31) + (Pb×1.09) + (Au×1.87) + (Ag×0.033); prices and metal recoveries as per High Lake.

Table 4 – Ore Reserve cut-off grades

Site	Mineralisation	Mining Method	Cut-Off Value	Comments	
	Primary copper Ferrobamba		US\$12.42/t NSR		
Las Bambas	Primary copper Chalcobamba	OP	US\$12.44/t NSR	Range based on rock type recovery.	
	Primary copper Sulfobamba		US\$14.12/t NSR		
		UG	US\$77.60/t NSR	Zone 5	
Khoemac <u>a</u> u	Primary copper	UG	US\$65/t NSR	Zone 5 N and Zeta NE	
		UG	US\$50/t NSR	Mango	
	Oxide	OP	0.4% CuAS	Approximate cut-off grades shown in this table.	
	ТМО	OP	0.5% Cu	Variable cut-off grade based on net value script. Copper cut-off assumes zero cobalt. Cobalt cut-off assumes zero copper. For	
Kinsevere	Primary	OP	0.7% Cu		
	Oxide TMO cobalt	OP	>0 NVS	Sokoroshe cut-offs calculated on an	
	Primary cobalt	OP	>0 NVS	incremental cost basis to Kinsevere	
	Oxide	OP	0.4% CuAS	Approximate cut-off grades shown in this table.	
	ТМО	OP	0.5% Cu	Variable cut-off grade based on net value	
Sokoroshe 2	Primary	OP	0.7% Cu	script. Copper cut-off assumes zero copper . For	
	Oxide TMO cobalt	OP	>0 NVS	Sokoroshe cut-offs calculated on an incremental cost basis to Kinsevere	
Rosebery	(Zn, Cu, Pb, Au, Ag)	UG	A\$191/t NSR		
Dugald River	Primary zinc	UG	A\$147/t to 161/t NSR		



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PROCESSING RECOVERIES

Average processing recoveries are shown in Table 5. More detailed processing recovery relationships are provided in the Technical Appendix.

Site	Product	Recovery						Concentrate Moisture Assumptions	
		Cu	Zn	Pb	Ag	Au	Мо	Со	
Las	Copper Concentrate	86.6%	-	-	80%	71%			9.5%
Bambas	Molybdenum Concentrate						49.1%		5%
Khoemac <u>a</u> u	Copper Concentrate	87.9%			83.7%				10%
	Zinc Concentrate		87%						8%
Posobony	Lead Concentrate		6%	77%	34%	12%			7%
Rusebery	Copper Concentrate	63%			44%	36%			8%
	Doré ¹ (gold and silver)				0.22%	30%			
Dugald	Zinc Concentrate	-	91%		35%	-			9.7%
River	Lead Concentrate	-		66%	36%	-			9.0%
	Copper Cathode (Oxide)	86%							
Kinsevere	Copper Cathode (Sulphide)	84%							
satellites	Cobalt Precipitate (Oxide)							55%	
	Cobalt Precipitate (Sulphide)	7						74%	

Table 5 - Processing Recoveries

The Technical Appendix published on the MMG website contains additional Mineral Resources and Ore Reserves information (including the JORC 2012 Table 1 disclosure).

ABBREVIATIONS

Table 6 - List of Abbreviations

OP	Open Pit
UG	Underground
CuAS	Acid soluble copper
NVS	Net Value Scripts
NSR	Net Smelter Return
CuEq	Copper equivalent
ZnEq	Zinc equivalent
RF	Revenue Factor

¹ Silver in Rosebery doré is calculated as a constant ratio to gold in the doré. Silver is set to 0.17 against gold being 20.7.



MMG Mineral Resources and Ore Reserves Statement

as at 30 June 2024

Technical Appendix

3 December 2024



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Approvals Page

	Rex Berthelsen	Head of Geology and Chair of the MMG Mineral Resources and Ore Reserves Committee	3/12/2024
Signature	Name	Position	Date
	Cornel Parshotam	Senior Manager LOA planning	3/12/2024
Signature	Name	Position	Date
	Jedda Malone	General Manager Asset Planning and Support	3/12/2024
Signature	Name	Position	Date

The above signed endorse and approve this Mineral Resources and Ore Reserves Statement Technical Appendix.



1. Introduction

The JORC Code (2012) defines the requirements for public reporting of Exploration Results, Mineral Resources and Ore Reserves by mining companies. Reporting according to the JORC Code is a requirement of the MMG listing on The Stock Exchange of Hong Kong¹ as per amendments to Chapter 18 of the Listing Rules that were announced on 3 June 2010.

The JORC Code requires disclosure of material information prepared by the Competent Person with the addition of a detailed Appendix to the Mineral Resources and Ore Reserves public report, which outlines the supporting details to the Mineral Resources and Ore Reserves statement of tonnes and grades. This Technical Appendix provides these supporting details.

The principles governing the operation and application of the JORC Code are Transparency, Materiality and Competence:

- Transparency requires that the reader of a Public Report is provided with sufficient information, the presentation of which is clear and unambiguous, to understand the report and not be misled by this information or by omission of material information that is known to the Competent Person.
- Materiality requires that a Public Report contains all the relevant information that investors and their professional advisers would reasonably require, and reasonably expect to find in the report, for the purpose of making a reasoned and balanced judgment regarding the Exploration Results, Mineral Resources or Ore Reserves being reported. Where relevant information is not supplied an explanation must be provided to justify its exclusion.
- Competence requires that the Public Report be based on work that is the responsibility of suitably qualified and experienced persons who are subject to an enforceable professional code of ethics (the Competent Person).

¹ Specifically, the Updated Rules of Chapter 18 of the Hong Kong Stock Exchange Listing Rules require a Competent Person's report to comply with standards acceptable to the HKSE including JORC Code (the Australian code), NI 43-101 (the Canadian code) or SAMREC Code (the South African code) for Mineral Resources and Ore Reserves. MMG Limited has chosen to report using the JORC Code.



2. Common to All Sites

The economic analysis undertaken for each Ore Reserves described in this document and for the whole company has resulted in positive net present values (NPVs). MMG uses a discount rate appropriate to the size and nature of the organisation and individual deposits.

2.1 Commodity Price Assumptions

The price and foreign exchange assumptions used for the 2024 Mineral Resources and Ore Reserves estimation at the date at which work commenced on the Mineral Resources and Ore Reserves are as shown in Table 1.

	Ore Reserves	Mineral Resources	
Cu (US\$/lb)	4.08	4.90	
Zn (US\$/lb)	1.32	1.58	
Pb (US\$/lb)	0.95	1.14	
Au US\$/oz	1,722	2,066	
Ag US\$/oz	21.78	26.13	
Mo (US\$/Ib)	12.15	14.58	
Co (US\$/lb)	21.28	29.79	
USD:CAD	1.25		
AUD:USD	0.73	As per Ore Reserves	
USD:PEN	3.81		

Table 1: 2024 Price (real) and foreign exchange assumptions



2.2 Competent Persons

Table	2:	Competent Persons
-------	----	--------------------------

Deposit or Position	Accountability	Competent Person	Professional Membership	Employer
MMG Mineral Resources and Ore Reserves Committee	Mineral Resources	Rex Berthelsen ¹	HonFAusIMM (CP Geo)	MMG
MMG Mineral Resources and Ore Reserves Committee	Ore Reserves	Cornel Parshotam ¹	MAusIMM	MMG
MMG Mineral Resources and Ore Reserves Committee	Metallurgy: Mineral Resources / Ore Reserves	Andrew Goulsbra ¹	MAusIMM	MMG
Las Bambas	Mineral Resources	Hugo Rios ¹	MAusIMM (CP Geo)	MMG
Las Bambas	Ore Reserves	José Calle	MAusIMM (CP Min)	MMG
Khoemac <u>a</u> u	Mineral Resources	Maree Angus	MAusIMM (CP Geo), MAIG	ERM Australia Consultants Pty Ltd
Khoemac <u>a</u> u	Ore Reserves	Terry Burns	FAusIMM (CP Man)	ERM Australia Consultants Pty Ltd
Kinsevere	Mineral Resources	Mark Burdett	MAusIMM (CP Geo)	MMG
Kinsevere	Ore Reserves	Papa K. A. Empeh ¹	MAusIMM (CP Min)	MMG
Rosebery	Mineral Resources	Maree Angus	MAusIMM (CP Geo), MAIG	ERM Australia Consultants Pty Ltd
Rosebery	Ore Reserves	Andrew Robertson	FAusIMM	MMG
Dugald River	Mineral Resources	Maree Angus	MAusIMM (CP Geo), MAIG	ERM Australia Consultants Pty Ltd
Dugald River	Ore Reserves	Peter Willcox	MAusIMM(CP Min), RPEQ	MMG
High Lake, Izok Lake	Mineral Resources	Allan Armitage ²	MAPEG (P.Geo)	Formerly MMG

The information in this report that relates to Mineral Resources and Ore Reserves is based on information compiled by the listed Competent Persons, who are Members or Fellows of the Australasian Institute of Mining and Metallurgy (AusIMM), the Australian Institute of Geoscientists (AIG) or a Recognised Professional Organisation (RPO) and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are 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 (2012 JORC Code). Each of the Competent Persons has given consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

¹ Participates in the MMG Long-Term Incentive Plans which may include Mineral Resources and Ore Reserves growth as a performance condition.

² Member of the Association of Professional Engineers and Geoscientists of British Columbia



3. Las Bambas Operation

3.1 Introduction and Setting

Las Bambas is a world class copper (Cu) mine with molybdenum (Mo), silver (Ag) and by-product gold (Au). It is situated in the Andes Mountains of southern Peru, approximately 75 km south-southwest of Cusco, about 300 km north-northwest of Arequipa, and roughly150 km northwest of Espinar (also known as Yauri). Las Bambas is conveniently accessible from either Cusco or Arequipa via a combination of sealed and good quality gravel roads. Road travel from Cusco takes approximately 6 hours, while road travel from Arequipa takes around 9 hours.



Figure 2-1: Las Bambas Mine location

Las Bambas is a truck and shovel mining operation with a conventional copper concentrator. Copper production commenced in the fourth quarter of 2015, and the first concentrate was achieved on 26 November. The first shipment of product departed the Port of Matarani for China on 15 January 2016. Las Bambas is now in its eighth year of operation.

Las Bambas is a joint venture project between the operator MMG (62.5%), a wholly owned subsidiary of Guoxin International Investment Co. Ltd (22.5%), and CITIC Metal Co. Ltd (15.0%).

The Mineral Resources and Ore Reserves have been updated with additional drilling completed in 2023 for the June 2024 report. The 2024 Mineral Resources estimation includes updated geological interpretation and estimation parameters.



3.2 Mineral Resources – Las Bambas

3.2.1 Results

The 2024 Las Bambas Mineral Resources are summarised in Table 3. The Las Bambas Mineral Resources are inclusive of the Ore Reserves. All data reported here is on a 100% asset basis. MMG's attributable interest in Las Bambas is 62.5%.

Table 3: 2024 Las Bambas Mineral Resources estimated tonnage and grade (as at 30 June 2024
--

Las Bambas Mineral Resource 2024									
				Contained Metal					
Ferrobamba Oxide Copper ¹	Tonnes (Mt)	Copper (% Cu)	Mo (maa)	Silver (a/t Aa)	Gold (a/t Au)	Copper (kt)	Mo (kt)	Silver (Moz)	Gold (Moz)
Indicated	0.05	1.2	(PP)	(3, 3,	(3,)	(,	(,	((
Total									
Ferrobamba Primary	Copper ²								
Measured	250	0.47	200	1.8	0.03	1,200	50	14	0.23
Indicated	310	0.66	180	2.8	0.04	2,000	60	28	0.40
Inferred	35	0.58	77	2.0	0.02	200	3	2	0.02
Total	600	0.57	180	2.3	0.03	3,400	110	45	0.66
Ferrobamba Total	600	0.57	180	2.3	0.03	3,400	110	45	0.66
Chalcobamba Oxide Copper ¹									
Indicated	5.0	1.4				69			
Inferred	0.5	1.2				7			
Total	5.0	1.4				75			
Chalcobamba Prima	ry Copper ³								
Measured	150	0.50	120	1.5	0.02	730	18	7.3	0.09
Indicated	180	0.60	130	2.3	0.03	1,100	24	13	0.16
Inferred	35	0.51	160	2.3	0.02	180	5.5	2.5	0.03
Total	360	0.55	130	2.0	0.02	2,000	47	23	0.28
Chalcobamba Total	370	0.56	130	2.0	0.02	2,100	47	23	0.28
Sulfobamba Oxide C	opper ¹								
Inferred	oppo.								
Total									
Sulfobamba Primary	Copper ⁴								
Indicated	100	0.58	160	4.2	0.02	600	17	14	0.07
Inferred	130	0.49	120	5.7	0.02	620	15	23	0.07
Total	230	0.53	140	5.1	0.02	1200	32	37	0.14
Sulfobamba Total	230	0.53	140	5.0	0.02	1,200	32	37	0.14
Oxide Stockpiles (Me	easured)								
Ferrobamba	14	1.1				160			
Sulphide Stockpiles	(Measured)								
Ferrobamba	22	0.3	110	1.8		73	2	1.3	
Chalcobamba	0.4	0.8	124	1.8		3	0.05	0.02	
Open Pit Total	1200	0.56	160	2.7	0.03	6900	160	110	1.1
Ferrobamba UG Prim	hary Copper ⁵							c	
Measured	67	0.31	220	1.0	0.02	200	10	2	0.03
Indicated	390	0.37	200	1.5	0.02	1 450	80	20	0.2
Interred	220	0.38	170	1.3	0.01	800	30	9	0.1
FB UG Total	680	0.37	190	1.4	0.02	2500	130	31	0.37
Total Contained	1,900	0.49	170	2.2	0.02	9,400	320	140	1.5

Notes:

1. 1% Cu Cut-off grade contained within a US\$4.9/lb pit shell for oxide material.

2. NSR cut-off 12.42US\$/t applied for FB primary material.

3. NSR cut-off 12.44US\$/t applied for CB primary material.

4. NSR cut-off 14.12US\$/t applied for SB primary material.

5. Based on REDCO Scoping Study BC and SLC volumes, below the 2024 resource pit-shell

Figures are rounded according to JORC Code guidelines and may show apparent addition errors.

Contained metal does not imply recoverable metal.



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3.2.2 Mineral Resources JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 4 complies with the 2012 JORC Code requirements specified by "Table-1 Section 1-3" of the Code.

Table 4: JORC 2012 Code Table 1 Assessment and Reporting Criteria for Las Bambas Mineral Resources 2024

Section 1 Sampling Techniques and Data			
Criteria	Commentary		
Sampling techniques	 Diamond drilling (DD) was used to obtain an average 2m sample that is half core split, crushed to 70% passing 2mm and pulverized to produce a pulp (95% passing 106µm). Diamond drill cores are marked and numbered for sampling by the logging geologist. 		
	• Since 2019 samples have also been obtained from Reverse Circulation (RC) drilling for infill drilling programs, using an automated rotation-vibrating-cone splitter to obtain a chips sample with an average weight of 4kg corresponding to 2m drilled. The device takes duplicates in a second tray.		
	• The sampling information is stored in the MMG SQL database through the Geobank interface software for correlation with returned geochemical assay results.		
	• During 2005-2010, the whole drill core was cut as half core and prepared on- site by the Inspectorate Laboratory and pulps analysed in Lima Inspectorate facilities.		
	• During 2014-2015, the whole core was sent to the Certimin Laboratory in Lima for half-core splitting, sample preparation and analysis.		
	• From mid-2015, all DH samples were prepared at the ALS sample preparation laboratory onsite, including core cutting. Pulps samples are sent to ALS laboratory in Lima for analysis.		
	Commencing in 2019, field duplicates were taken from the RC vibrating-rotary- cone splitter.		
	- During late 2022 and the beginning of 2023, four DD holes were sampled as $\frac{1}{2}$ core field duplicate samples.		
	• No inherent sampling problems have been recognised. Measures taken to ensure sample representativity include the collection, and analysis of field and coarse crush duplicates.		
Drilling techniques	• The most widely used drilling technique historically in Las Bambas is diamond drilling, however reverse air circulation drilling method have also been implemented since 2019 for infill drilling short-length holes(<300m). RC drilling is also sometimes used to drill pre-collars for deep diamond holes.		
	Generally, drill cores are not oriented, unless for geotechnical purposes. Most DDHs used in the Mineral Resource estimates have been drilled using HQ size, except for deep directional NQ daughter holes.		
	Directional drilling is utilised for drilling parts of the resource that are not accessible by conventional drillholes. Parent holes are HQ size, and NQ daughter holes are wedged off and curved/cut to a required orientation. Core is not recovered from the curve/cut.		
Drill sample recovery	Recovery is estimated by measuring the recovered core within a drill run length and recorded in the database. Run by run recovery has been recorded for 619,394.31m of the total 737,555.18m of diamond drilling used for Mineral Resources estimation for the Sulfobamba, Chalcobamba and Ferrobamba		



Section 1 Sampling Techniques and Data				
Criteria	Commentary			
	deposits. Diamond drill recovery average is about 97% for all deposits (98% for Sulfobamba, 98% for Chalcobamba and 94% for Ferrobamba deposits).			
	• A minimum RC sample weight has been established, supported by Agoratek International Consultants Inc study, carried out in 2021 for RC sampling in Ferrobamba.			
	• Sample quality is acceptable for dry samples, with acceptable sample recovery per meter drilled, with some loss of samples during rod changes.			
	• The drilling process is controlled by the drill crew, and geological supervision is aimed at maximising sample recovery and ensures suitable core presentation. No other measures are taken to maximize core recovery.			
	• No detectable correlation between recovery and grade can be determined from statistical analysis. Preferential loss/gains of fine or coarse materials are not significant and do not result in sample bias as the nature of mineralization is stockwork veins and disseminated sulphides.			
	Diamond core and RC chips sampling recoveries are considered acceptable.			
Logging	 100% of DD core and RC percussion drilling chips used in the Mineral Resource estimates have been geologically and geotechnically logged (DD only) to support Mineral Resources estimation, mining, and metallurgy studies. 			
	 Although geological logging is generally qualitative, quantitative data such as chemical analyses are used to support visual logging (geochemical assessment). Geotechnical logging is quantitative. All drill core and RC chips are photographed. 			
Sub-sampling techniques	• All samples included in the Mineral Resource estimates are from DD core and RC rock chips.			
and sample preparation	• The drill core is longitudinally sawn to provide half-core samples within intervals directed by the logging geologist. The remaining half-core is kept and stored in the original sample tray. The standard sampling length is 2m for PQ core (minimum 1.2m) and HQ core (minimum 1.2m, maximum 2.2m) while NQ core is sampled at 2.5m (minimum 1.5m and maximum 2.5m). Sample intervals do not cross geological boundaries (lithological and/or mineralogical).			
	 From 2005 geological samples have been processed in the following manner: Dried, crushed to 70% passing 2mm, pulverized to 95% passing 106µm. Sizing tests are carried out on 1 in 30 samples. 			
	• The representativity of samples is checked by duplication at the crush stage one in every 40 samples. No field duplicates were taken for DDH until the end of 2022 where four DD holes were specifically drilled to take field duplicate samples as half-core, obtained a good R2 correlation and acceptable Coefficient of Variation (CV%)			
	 RC Drilling was officially implemented for Mineral Resource Estimations since 2019 (in 2018 only tests were executed, and no RC data was added to the resource model). 			
	 In 2019 RC chips samples were collected in buckets, weighted, and divided on- site using a riffle splitter, aimed at obtaining 2 to 3 kg subsample, weighted on- site with an electronic balance. 			
	Regular practice is that if a sample from a cyclone is:			
	 less than 4-6 kg, no split is undertaken. 			



Section 1 Sampling Techniques and Data				
Criteria	Commentary			
	 6-12 kg, two subsamples are taken 12-24 kg, a split is undertaken as necessary to get 3 kg sample splits. Since 2020, an automated vibrating-rotary-cone splitter has been implemented to take 2m interval samples in the cyclone, using a couple of trays which take 3 to 6 kg on average (original and duplicate); samples are collected in plastic bags and weighed in an electronic balance on-site, ready to be sent to the lab. 			
	 The vibrating-rotary-cone splitter can handle dry and wet samples. The vibrating-rotary-cone splitter can control the rotation speed and the tray aperture, allowing the amount of material without overspill, or not getting sufficient material. The Competent Person considers the sample types, nature, quality, and sample 			
	preparation techniques appropriate for the mineralisation style from Las Bambas (porphyry and skarn Cu-Mo).			
Quality of assay data and laboratory tests	 From 2005 until 2010 the assay methods undertaken by Inspectorate (Lima) for Las Bambas were as follows: Digestion by 4-Acids. Cu, Ag, Pb, Zn, Mo - 0.5g of sample, and the determination was done by Atomic Absorption Spectrometry (AAS). Acid soluble - 0.2g sample. Leaching by a 15% solution of H2SO4 at 73°C for 5 minutes. Determination by AAS. Acid soluble - 0.2g of sample. Digestion by a citric acid solution at 65°C for 15 minutes. Determination by AAS. Au - 30g Fire Assay Cupellation at 950°C. Determination by AAS. Above detection limit analysis by gravimetry. 35 elements - Digestion by aqua-regia and determination by ICP. From 2010 to 2015, routine assay methods undertaken by Certimin (Lima) for Las Bambas are as follows: Cu, Ag, Pb, Zn, Mo - 0.5g of sample. Digestion by 4-Acids. Determination by Atomic Absorption Spectrometry (AAS). Acid soluble copper - 0.2g sample. Leaching by a 15% solution of H2SO4 at 73°C for 5 minutes. Determination by AAS. Acid Soluble copper - 0.2g of sample. Digestion by a citric acid solution at 65°C for 15 minutes. Determination by AAS. Acid Soluble copper - 0.2g of sample. Digestion by a citric acid solution at 65°C for 15 minutes. Determination by AAS. Acid Soluble copper - 0.2g of sample. Digestion by a citric acid solution at 65°C for 15 minutes. Determination by AAS. Au - 30g Fire assay with AAS finish. Over-range results are re-assayed by Gravimetric Finish. 35 elements - Digestion by aqua-regia and determination by ICP. In 2015 ALS (Lima) used the following methods: Cu, Ag, Pb, Zn, Mo - 0.5g of sample. Digestion by 4-Acids. Determination by Atomic Absorption Spectrometry (AAS). <l< td=""></l<>			



Section 1 Sampling Techniques and Data			
Criteria	Commentary		
	 Cu, Ag, Mo. Digestion by 4-Acids and determination by Atomic Absorption Cu Sequential: Cu is reported as soluble in sulfuric acid, Soluble in cyanide and residual. Determination by Atomic Absorption. Au – 30g Fire assay with AAS Finish. Over-range results are re-assayed by Gravimetric Finish. 		
	 60 elements - Digestion by 4-Acids and determination by ICP, includes a package of rare earth elements. All the above methods except the acid-soluble copper are considered as a 		
	quasi-total digest.		
	 Until 2017 inclusive, 6-8 meters composite samples were analysed by sequential copper analytical methods. Since then, all the pulps exceeding 0.1% Cu (ICP) are sent for sequential copper analysis. 		
	 For the 2014 to 2018 sampling programs, duplicated samples were collected, for umpire analytical test, at the sampling time and securely stored. Samples were then sent to the Inspectorate Laboratory, Lima, for third party (umpire) analysis. The samples were selected at a rate of 1:40. Analytical results indicated a good correlation between datasets and showed no significant bias for copper, molybdenum, silver, and gold. 		
	 In 2018 and 2019, all unassayed 2m pulps where the original copper grade was >0.1% were analysed using the sequential copper method by ALS Global Laboratory. 		
	 In 2019, Certimin was selected as the umpire laboratory, using similar rate of sample selection, 1 in 20 samples, using the criteria to check samples over 0.1% Copper. 		
	 From 2020 to the present, Las Bambas is using Inspectorate-BV laboratory for the umpire assay checks. In 2021 Geobank[®] software was used to make automatic sample selection. The sample selection rate is 1 in 20, checking samples over 0.1% copper. 		
	 From 2022, selected pulps samples from Chalcobamba were analysed for Cu and Fe, using Ore Grade 4a-ICP method (0.4 g charge and 5% precision method). The site employed 'double blind' sample randomisation at the laboratory until 2016. It essentially was to guarantee the secrecy of results from the operating laboratory. However, it poses a negligible risk of compromising sample provenance, although the risk is low. This practice has now been ceased. 		
	Since July 2022 Rare Earth elements are no longer analysed for infill drillholes.		
	 No geophysical tools, spectrometers or handheld XRF instruments have been used to analyse samples external to the ALS laboratory for the estimation of Mineral Resources. 		
	 Assay techniques are considered suitable and representative; independent umpire laboratory checks occurred routinely between 2005-2010 using the ALS Global laboratory in Lima. Check samples were inserted at a rate of 1 in every 25 samples (2005-2007), every 50 samples since 2008, and every 40 samples since 2010. 		
	 ALS provided monthly and quarterly QAQC reports to Las Bambas for analysis of internal laboratory standard performance. The performance of the internal laboratory preparation and assaying processes is within acceptable limits. 		



Section 1 Sampling Techniques and Data				
Criteria	Commentary			
	Las Bambas routinely insert:			
	 Primary coarse duplicates: Inserted at a rate of 1:25 samples (2005-2007), 1:50 samples (2008), and 1:40 samples (2010- to present). Pulp blank samples: Until 2018 inclusive, these controls were inserted before the coarse blank sample, and always after a high-grade sample (blank pulp samples currently make up about 4.1% of all samples analysed). 			
	• From 2019 to the present, pulp blanks are inserted at a rate of 1 in 100 samples.			
	 Coarse blank samples: Inserted after a high-grade sample (coarse blank samples currently make up about 4.1% of all samples analysed). 			
	 Pulp duplicates samples: Inserted 1:25 samples (2005-2007), 1:50 samples (2008), and 1:40 samples (2010-to present). 			
	 From 2019 Field duplicates are inserted at a rate of 1:50 from the RC chips samples. 			
	 Late 2022, a Core Duplicate test was implemented for ½ core Field duplicate samples. 			
	 Certified Reference Material (CRM) samples: Inserted at a rate of 1:50 samples (2005-2006), 1:40 samples (2007) and 1:20 samples (2008 to the present). 			
	QAQC analysis has shown that:			
	 Blanks: no significant evidence of contamination has been identified during the sample preparation and assay. 			
	 Duplicates: the analytical precision is within acceptable ranges when compared to the original sample, i.e., more than 90% of the pairs of samples are within the error limits evaluated for a maximum relative error of 10% (R2>0.90). From 2021 to present, all average Coefficient of Variation (CV%) calculated from coarse and pulp duplicates is acceptable. These results were also repeated in the external umpire check samples. 			
	 Certified Reference Material: acceptable levels of accuracy and precision have been established. In 2021 a recertification Round Robin was run, with the Las Bambas matrix CRMs provided by OREAS, to get copper- molybdenum-silver determinations by specific AAS and ICP separately, allowing to produce digestion/determination matched Statistics and Control Graphics. In 2023 it has been prepared additional CRMs by OREAS for Chalcobamba and Ferrobamba. 			
	 Sizing test results (crushed to 70% passing 2mm and pulverised to 95% passing 106µm) were applied to 3% of samples. In 2023, sizing tests results are inside acceptable parameters. 			
	 Density control was implemented from 2015 onwards; an acceptable density range was established for each rock type unit for each deposit group of samples. 			
	 Commencing in 2019, Field Duplicates were taken from the RC vibrating-rotary- cone splitter. 			
	 Sample Weight: A minimum sample size study was carried out by Agoratek International Consultants Inc. in 2021, to verify the current drill sampling and preparation protocols, concluding that the actual average sample weight used are within the safe and acceptable limits to get representative copper and molybdenum analysis. Three kilograms (3kg) are defined as minimum rock 			



Section 1 Sampling Techniques and Data				
Criteria	Commentary			
	 sample size for the diamond drilling half-core and the Reverse Circulation chips sampling. During late 2022 and the beginning of 2023, four DD holes were sampled as ¹/₂ core Field Duplicate samples, obtaining a good R² correlation and acceptable Coefficient of Variation (CV%). 			
Verification of sampling and assaying	 Drilling, core logging and sampling data is entered by the geologists; assay results are entered by the geochemistry geologists after the data is checked for outliers, sample mix-ups, performance of duplicates, blanks and standards, and significant intersections are checked against core log entries and core photos. Errors are rectified before data is entered into the database. From 2019 to present, the workflow is: logging and sample definition is done by the geology logging team. The mine geologists supervise the QC sample location for its insertion and sample dispatch into Geobank. The geochemist verifies the QC sample insertion and sample dispatch integrity. Assays are reported directly to the Database Team for uploading into the database. The geochemist validates the QAQC from each laboratory assay batch analysis, accepting the data if no anomaly is detected in the control samples. If one 			
	 anomaly is detected, the analysis batch is not approved, and an investigation is triggered. Once the analytical data passes the QC, the results are accepted for release from the database. Subsequently, the data is released for its use. In 2019-2020 a twinning program was completed to test RC drilling against previously completed diamond drill holes (DDH). A comparison is made between the lithology, grade distribution and variability between dry and wet samples. Nine RC drill holes twinned existing DDH. 			
	 In 2021 Agoratek International Consultants Inc validated the RC sampling process, particularly the automatic sample splitter, based on a heterogeneity test previously obtained from blastholes, the study endorsed an adequate process both for Cu and Mo, considering the current economic cut-off grades for both elements. 			
	 All drill holes are logged using tablets directly into the drill hole database (Geobank). Before November 2014, diamond drill holes were logged on paper and transcribed into the database. Assay results are provided in digital format (both spreadsheet and PDF) by the laboratories and are automatically loaded into the database after validation. All laboratory primary data and certificates are stored on the Las Bambas server. 			
	 The database has internal validation processes which prevent invalid or unapproved records from being stored. Additional manual data validation occurs in Geobank[®] and Vulcan software before data is used for interpretation and Mineral Resource modelling. The unreliable information is flagged and excluded from Mineral Resource estimation work. 			
	 No adjustments have been made to assay data – if there is any doubt about the data quality or location, the drillhole is excluded from the estimation process. Aqua Regia digestion method has shown to be inadequate for Fe assessment, this was particularly noted in magnetite stoichiometric calculations for Chalcobamba, and these samples have been removed from the estimation process, representing 54% of samples in the case of magnetite skarn. Ca and Mg show a similar result when compared to 4-acid digestion method, in samples 			


Section 1 Sampling Techniques and Data				
Criteria	Commentary			
	from calcareous protolith in Ferrobamba. Copper was not digested by Aqua Regia, or all samples have been opportunely reanalysed. Aqua Regia has not been in use since 2016.			
Location of data points	 In 2005 collar positions of surface drillholes were picked up by Horizons South America using Trimble 5700 differential GPS equipment. From 2006, the Las Bambas engineering personnel have performed all subsequent surveys using the same equipment. Since 2014, drillholes are set out using UTM co-ordinates with a handheld Differential Global Positioning System (DGPS) and are accurate to within 1m. On completion of drilling, collar locations are picked up by the onsite surveyors using DGPS (Trimble or Topcon). During the 2019 drilling campaign MMG team undertook a survey of drillhole collar locations using Differential GPS. But they also used a TN14 Reflex for alignment of the drilling machine. These collar locations are accurate to within 0.5m. 			
	 During the 2014 due diligence process (2014) RPM independently checked five collar locations at Ferrobamba and Chalcobamba with a handheld GPS and noted only small differences and well within the error limit of the GPS used. RPM did not undertake independent checking of any Sulfobamba drillholes. The collar locations are considered accurate for Mineral Resources estimation work. 			
	 In 2005 the drilling contractor conducted downhole survey's using the AccuShot method for non-vertical drillholes. Vertical holes were not surveyed. If the AccuShot arrangement was not working, the acid test (inclination only) was used. Since 2006, all drillholes are surveyed using Reflex Maxibor II equipment units which take measurements every 3m. The downhole surveys are considered accurate for Mineral Resources estimation work. 			
	 The datum used is WGS 84 with a UTM coordinate system zone 18 South. 			
	 In 2006 Horizons South America surveyed the topography at a scale of 1:1000 based on aerophotogrametric restitution of orthophotos. A digital model of the land was generated every 10m and, using interpolation, contour lines were obtained every metre. The maps delivered were drafted in UTM coordinates and the projections used were WGS 84 and PSAD 56. A triangulated surface model presumably derived from this survey is in current use at site and is considered suitable for Mineral Resources and Ore Reserves estimation purposes. 			
	 Downhole surveys are now routinely completed by modern gyroscope techniques. Instruments such as Champ Navigator, aligner and Gyro Sprint-IQ are employed. 			
Data spacing and distribution	 The Las Bambas mineral deposits are drilled on variable spacing dependent on rock type (porphyry vs. skarn). Drill spacing typically ranges from 100m x 100m to 25m x 25m and is considered sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resources estimation and classifications applied. 			
	 Drillhole spacing of approximately 25m x 25m within skarn hosted material and 50m x 50m within porphyry hosted is considered sufficient for long term Mineral Resources estimation purposes based on a drillhole spacing study undertaken in 2015. While the 25m spacing is suitable for Mineral Resource estimation, the Las Bambas deposits exhibit short scale 5m - 10m variations within the skarn that are not captured by the infill drilling at this spacing. This localised geological variability is captured by mapping and drillhole logging. 			



Section 1 Sampling Techniques and Data				
Criteria	Commentary			
	 In 2022 a Drill hole Spacing Analysis was completed, endorsing the findings of previous studies. 			
	 Diamond drillhole samples are not composited prior to routine chemical analysis; however, the nominal sample length is generally 2m. 			
Orientation of data in relation to geological structure	 Overall drillhole orientation is planned at 90 degrees to the strike of the mineralized zone for each deposit. Drillhole spacing and orientation is planned to provide evenly spaced, high angle intercepts of the mineralized zone where possible, thus minimizing sampling bias related to orientation. However, in some areas of Ferrobamba where skarn mineralization is orientated along strike, holes orientations were not adjusted. 			
	 Drilling orientation is not considered to have introduced sampling bias. 			
Sample security	 Measures to provide sample security include: Adequately trained and supervised sampling personnel 			
	 Samples are stored in a locked compound with restricted access during preparation. 			
	 Dispatch to various laboratories via contract transport provider in sealed containers. 			
	 Receipt of samples acknowledged by receiving analytical laboratory by email and checked against expected submission list. 			
	 Assay data is returned separately in both spreadsheet and PDF formats. 			
Audit and reviews	 In 2015, an internal audit, checking 5% of the total samples contained in the acQuire database (at that time) was undertaken comparing database entry values to the original laboratory certificates for Cu, Ag, Mo, As and S. No material issues were identified. 			
	• An independent third-party audit was completed by AMC Consultants (Brisbane office) on the 2017 Mineral Resource model in February 2018. The audit identified some minor improvements to the estimation process but concluded there were no material issues or risks to long-term mine planning.			
	 Given the COVID19 pandemic there was no option to visit the laboratory in the year 2020, re-establishing visits to the lab in 2021 and 2022. 			
	• AMC Consultants executed a third-party independent audit of both the Ferrobamba and Chalcobamba models in 2020. AMC have reported no material issues from the audit.			
	 In 2023 CSA Global completed an Audit of the Mineral Resources. Low to medium level findings were reported, all of which were addressed and corrective actions taken for the 2024 Mineral Resource estimate. 			

Section 2 Reporting of Exploration Results				
Criteria	Commentary			
Mineral tenement and land tenure status	 The Mineral Resources of Peru are owned by the Peruvian State and the private sector can only exploit them in accordance with the Peruvian system of concessions. According to Peruvian legislation, investors can carry out mining activities in Peru only after obtaining the necessary concessions and the corresponding permits. Therefore, the concession system is the mechanism conceived under Peruvian legislation to grant rights to perform mining 			



Section 2 Reporting of Exploration Results								
Criteria	Commentary							
	e>	exploration, exploitation, processing, and transportation of minerals, among						
		ners. As Bamba	s consists of	11 minina ca	ncas	sions (collecti	valv "The Pro	oorty")
	W	which are listed in the following table:						
			Identification	Extension			Identification	Extension
	No.	Name	code	Available	No.	Name	code	Available
	1	Pombac 1	10215610	(Ha)	22	Rambas 22	10217710	(Ha)
	2	Bambas	10315010	1,000	22	Bambas 22	10317710	1,000
	3	2 Bambas	10315810	1.000	24	Bambas 24	10317910	1.000
		3 Bambas	10315910	1,000	25	Bambas 25	10318010	1 000
	5	4 Bambas	10316010	000 0676	20	Bambas 26	10318110	1,000
	6	5 Bambas	10216110	990.9070	20	Bambas 27	10210210	1,000
		6 Bambas	10310110	007.0010	27	Dambas 27	10318210	1,000
		7 Bambas	10316210	987.9216	28	Bambas 28	10318310	500
	8	8 Bambas	10316310	1,000	29	Bambas 29	10318410	1,000
	9	9 Bambas	10316410	1,000	30	Bambas 30	10318510	1,000
	10	10	10316510	1,000	31	Bambas 31	10318610	1,000
	11	11	10316610	400	32	Bambas 32	10318710	1,000
	12	Bambas 12	10316710	1,000	33	Bambas 33	10318810	800
	13	Bambas 13	10316810	1,000	34	Bambas 34	10318910	800
	14	Bambas 14	10316910	1,000	35	Bambas 35	10319010	700
	15	Bambas 15	10317010	1,000	36	Bambas 36	10409411	141.4319
	16	Bambas 16	10317110	1,000	37	Bambas 37	10409511	123.408
	17	Bambas 17	10317210	800	38	Sulfobamba	05580414Z04	400
	18	Bambas 18	10317310	600	39	Ferrobamba	05580414Z02	400
	19	Bambas 19	10317410	800	40	Chalcobamba	05580414Z05	600
	20	Bambas 20	10317510	1,000	41	Charcas	05580414Z03	400
	21	Bambas 21	10317610	1,000		TOTAL	Approx. 3	4,328
	• Tł	ne Peruvi	an State has g	granted to L	as Ba	mbas each of	the 41 mining	
	cc	oncessior	is titles that c	omprise the	Proje	ect, after havir	ng completed t	he
		orrespond	ling procedure	e. Subseque	ently, Dool I	these were re	gistered in the	Registry of
	IVI SV	ining Rigi Istem of I	Public Registr	ies for an in	defini	te period It is	important to r	onal
	th	ese conc	essions are va	alid and enf	orcea	ble against th	ird parties and	the State.
	• Ea	ach of the	e rights linked	to the minir	ng cor	ncessions that	t comprise the	Project are
	di	fferent of	all rights rela	ted to the s	urfac	e (i.e., land rig	hts) where sai	d mining
	CC	oncessior	is are located	. In effect, t	he Mi	ning Law esta	blishes that th	e mining
		oncession	i is a different	right and so	epara	te from the lai	na property wh	iere It Is
	La	as Bamba	s S.A.				sions granted t	



	Sect	tion 2 F	Reporting of Ex	ploration Re	esults			
Criteria	Commentary							
	 There are no concession ri among other activities will 	known ghts. H things, be dev	legal impedim owever, in ord to have the pr eloped.	ents restricti er to carry o operty rights	ng the ut min s or us	e exercis ing activ se of the	e of the r vities, it is land whe	nining required, re such
Furtherstics								
Exploration done by other parties	 Las Bambas p owners. Explosed so far. Initial explora followed by C 1997 Phelps I and Chalcoba targets, as out 	tion dri Cyprus Dodge amba, a	has a long hist commenced ir lling commenc in the same ye and BHP exect and in 2003 Pro in the table bel	ory of exploi 1966, now v ed in Chalco ar, totalizing uted 2,416m o Invest drille ow.	bamb 2,273 of dia	by the c hore thar a in 1996 am of dia mond dr 28m of E	burrent an 900km o by Cerro mond dri illing in Fo DDH in the	d previous of drilling o de Pasco Il cores; in errobamba e same
		E) NOT IN	(PLORATION HOLES	EXECUTED BY O TABASE FOR RES	THER PA OURCE I	RTIES - ESTIMATION	N	
	Company	Year	Deposit	Purpose	Туре	# Holes	DH size	Total (m)
	Cerro de Pasco Cyprus	1996 1996	Chalcobamba Chalcobamba	Exploration Exploration	DDH	6 9	UNK	906 1,367
	Phelps Dodge	1997	Ferrobamba Chalcobamba	Exploration	DDH	4 4	UNK	738 653
	ВНР	1997	Ferrobamba Chalcobamba	Exploration	DDH	3 4	UNK	366 659
	Pro Invest	2003	Ferrobamba Chalcobamba	Exploration	DDH	4 7	HQ	738 1,590
	 In 2005 Xstra Chalcobamba form Glencore Limited and C Bambas projetin the data ba Xstrata and la 	ta start a and S e plc., t CITIC M ect fron ase for ater), as	ed an aggress ulfobamba. Lat hen MMG Ltd, letal Co. Ltd er n Glencore plc. resource estim s detailed in th	ive drilling ca ter in 2013, C Guoxin Inter Itered into an It is noticea ation purpos e table below	ampaig Glenco matior n agre ble tha ses sta v.	gn in Fer ore and X nal Inves ement to at the av arts in 20	rrobamba (strata me tment Co o purchas vailable in 005 (drillh	, erged to rporation e the Las formation oles from



	Se	ection	2 Reportin	g of Exploratio	n Resu	ılts		
Criteria	Commentary							
	 In 2022 sor reliability. A (17,370.7m) 	ne ho total) from	les were re of 177 hole Chalcobar	moved from the s (40,504.2m) f nba were remov	e estim from Fe ved, giv	ation pro errobamb ven that t	cess due a and 116 hey were	to their low holes reused from
	other objec	other objectives than resource evaluation, or flawed with significant errors in						
	collar, surv	ey, log	gging, assa	ys, etc.				
			DRILL I INCLUDED	HOLES EXECUTED BY XST IN THE DATABASE FOR RI	FRATA AND ESOURCE I) MMG - ESTIMATION		
	Company	Year	Deposit	Purpose	Туре	# of DDH	Drill size	Metres Drilled
		2005	Ferrobamba Chalcobamba Sulfobamba	Resource Evaluation	DDH	109 66 60	HQ	26,840 14,754 13,943
	Veterte	2006	Ferrobamba Chalcobamba Sulfobamba	Resource Evaluation	DDH	124 95 60	HQ	50,432 27,983 16,972
	Xstrata	2007	Chalcobamba Sulfobamba	Resource Evaluation	DDH	135 22 112	HQ	36,743 4,997 44 235
		2008	Chalcobamba	Resource Evaluation	DDH	90	HQ	22,097
		2009	Ferrobamba	Resource Evaluation	DDH	91	HQ HQ	28,400
		2014	Ferrobamba Ferrobamba	Resource Evaluation	DDH	29 153	HQ HQ	13,546
		2016	Ferrobamba	Resource Evaluation	DDH	104	HQ	29,408
		2010	Chalcobamba	Decourse Evoluation	DDH	9		1,629
		2017	Ferrobamba	Resource Evaluation	DDH	109	ЦО	55,638
		2010	Chalcobamba	Resource Evaluation	DDH	49	ПQ	10,452
		2019	Ferrobamba	Resource Evaluation	RC	52	нQ	6,804
	MMG		Chalcobamba		DDH RC	80 2	HQ	29,108 58.9
	WIWIO	2020	Ferrobamba	Resource Evaluation	DDH RC DDH	31 40 115	HQ HQ	7,854 6,033 22,749
			Carrah araka	Resource Evaluation	RC DDH	1 167	HQ	<u> </u>
		2021	Chalaahamha		RC DDH	156 189	HQ	25,190 30,380
			Chaicobamba	Posourco Evaluation	RC	2	ЦО	550
		2022	Ferrobamba	Resource Evaluation	RC	144	ing	22,992
			Chalcobamba		DDH	29	HQ	7,470
		2023	Ferrobamba	Resource Evaluation	DDH RC	115 121	HQ	75,792 24,710
				Total		3,103		913,500
Geology	 Las Bamba porphyry ty controlled l is emplaced Ferrobamb mineralising The porphy rocks. The molybdenit near surfact limestones (garnet, py 	s is loc pe sy by the d in st a Forn g impo rry sty main e, with e. The gave coxen	cated in a k stems situa Andahuay rongly folde nation (Low ortance. le mineralis economic l n minor occ e intrusive r rise to cont e and magr	belt of Cu (Mo-A ated in south-ea las-Yauri Bathol ed and faulted N ver to Upper Cre sation occurs in hypogene miner currence of supe ocks of the bat tact metamorph hetite) bodies w	Au) ska astern l Mesozo etaceo quartz rals are ergene holith i ism an ith Cu	rn depos Peru. This Eocene-C Dic sedim us) being -monzon bornite, copper c n contact d, in cert (Mo-Au)	its associ s metallog oligocene entary un of greate ite to grat chalcopy oxides and t with the ain locatio mineralisa	ated with genic belt is age, which its, with the est nodiorite rite and d carbonates Ferrobamba ons, skarn ation.



	Section 2 Reporting of Exploration Results			
Criteria	Commentary			
Drillhole information	 Historical exploration drillholes (prior to 2005) have been excluded from the Mineral Resource estimates. Drillhole data is not provided as this report is for the Las Bambas Mineral Resources which use all available data, and no single hole is material for the Mineral Resource estimates. 			
Data aggregation methods	 The data is aggregated by lithology and alteration type (the lithology model is a combination of them) for exploratory data analysis and domaining purposes. Lithology model is also sub-grouped by oxidation model to define geometallurgical units (GMU's). The data is then domained by grade-shells (models of mineralisation trends) to disaggregate ore from waste zones. 			
Relationship between mineralisation width and intercepts lengths	 The geological modelling is assisted by 3D implicit modelling (Leapfrog3D), this software allows modelling tri-dimensionally without the need to go through sections, allowing a more accurate identification of contacts and hence honouring the data in the modelling process. Infill drilling campaigns are now more accurate as holes can be oriented perpendicularly to the mineralized orebodies, instead of going strictly through predefined sections. 			
Diagrams	Section Through Ferrobamba			



	Section 2 Reporting of Exploration Results
Criteria	Commentary
	Section Through Chalcobamba
	+8442750 N +8445750 N +844550 N +845500 N +83550
	<figure></figure>
Balanced reporting	 Drilling completed during the 2023 reporting period completed at Ferrobamba and Chalcobamba is dominated by infill type, however exploratory holes (i.e., Ferrobamba Deeps) have also been included in the MROR process. Historical exploration drillholes (prior to 2005) have been excluded from the Mineral Resource estimates. A small number of holes were drilled at Ferrobamba and Chalcobamba for the purpose of hydrogeology and geotechnical.
Other substantive exploration data	 The exploration drilling campaign was directed to Ferrobamba Deeps, Ferrobamba South and Ferrobamba East, and previously to Chalcobamba SW. A positive result in the Ferrobamba Deeps Scoping Study, completed in 2024, has resulted in a significant Mineral Resource being added to the Las Bambas statement this year (Table 3).
	 In previous years, several orebody-knowledge studies have been carried out including skarn zonation, vein densities, age dating, deposit paragenesis, clay / talc sampling, and wall rock control of the skarn mineralisation. Recent work has focused on relogging and standardising the logging database to model geological units more accurately, as well as geotechnical design and blast hole modelling. Limestone modelling is of particular importance for geotechnical assumptions, as inward dipping slopes may put on risk the stability of the pit walls.
Further work	 An ongoing program of regional and deposit scale mapping, cross sectional studies, infrared spectral analyses, isotopic and petrographic studies, and geochemical sampling is currently underway to identify or develop targets of exploration around the property.



Section 2 Reporting of Exploration Results			
Criteria	Commentary		
	 Localised exploration drilling in key targets around the property is also planned for 2024 and further years, looking for social license to engage the communities in the area of influence. 		
	 Ongoing infill programs are planned to increase deposit confidence to support the short to medium-term mine plan. In addition, the Las Bambas Mineral Resource has potential to grow and extend the life of the mine and/or support expansions and replace the annual mined Ore Reserve depletion, the clearest evidence of this is the Ferrobamba Underground Project, where a Scoping Study has recently been completed with a positive economic outcome. 		

	Section 3 Estimating and Reporting of Mineral Resources
Criteria	Commentary
Database	 The following measures are in place to ensure database integrity:
integrity	 All Las Bambas drillhole data is stored in a Microsoft SQL Server database on the Las Bambas site server, which is regularly backed up following IT policies.
	 Geological logging is entered directly into laptop computers which are uploaded to the database. Prior to November 2014, diamond drillholes were logged on paper logging forms and transcribed into the database. From November 2015 logging was entered directly into a customised interface using portable tablet computers using acQuire[®]. From February 2019, logging was entered directly into Geobank[®] using internal validation rules set in the software.
	 Assays are loaded directly into the database from encrypted digital files provided from the assay laboratory.
	 The measures described above ensure that transcription or data entry errors are minimised.
	Data validation procedures include:
	 A database validation project was undertaken in early 2015 checking 5% of the assayed samples in the database against original laboratory certificates. No material issues were identified.
	 In April 2021, an internal database validation took place to check randomly 5% of the assayed samples (data from 2020 and previous years) comparing recorded information vs original laboratory certificates. No material issues were identified.
	 The database has internal validation processes which prevent invalid or unapproved records to be stored.
Site visits	 The Competent Person has undertaken numerous site visits to Las Bambas since acquisition, however during 2021 only one visit was executed, due to Covid-19 restrictions, and further social contingencies. In the view of the Competent Person there are no material risks to the Mineral Resources based on observations of the site's geological practices.
Geological interpretation	 For the Ferrobamba geology model 2024 some readjustments have been made to ensure improved continuity of the exoskarn lithology, which now goes along with the endoskarn as one unique skarn alteration model, subdivided by protolith. Endoskarn has also been restricted to dykes in the exoskarn



Section 3 Estimating and Reporting of Mineral Resources			
Criteria	Commentary		
	environment; these strategies are aimed at giving the proper continuity downwards for the future development of Ferrobamba Deeps (underground).		
	 No changes in geological modelling have been made for the Chalcobamba and Sulfobamba models in 2024, as there were no drill holes to be added this year. 		
	 There is good confidence on the geological continuity and interpretation of the Ferrobamba and Chalcobamba deposits. Confidence in the Sulfobamba deposit is considered moderate due to limited drilling. 		
	 The geological interpretation was undertaken on sections oriented perpendicular to the established structural trend of each deposit, using 3D implicit modelling with Leapfrog® software. Section spacing for the interpretations varied between deposits from 25m at Ferrobamba and Chalcobamba to 50m at Sulfobamba. Geological logging, assay data, blast hole information and surface mapping were used in the interpretation. The drilling and surface mapping were checked against each other to ensure they were concordant. The updating of the lithological model was carried out by the Resource Geology team, with the advice and validation of the Principal Exploration Geologist at Las Bambas. 		
	 The mineralisation has been represented by a grade-shell of Cu, using a Cu cut-off = 0.16% Cu, with tolerance of 0.1% Cu. Grade-shells have been constructed also for Mo (at 50ppm cut off and tolerance of 25ppm), Ag (at 1.5ppm and tolerance of 1ppm) and Au (at 0.1ppm, with tolerance of 0.05ppm) based on statistical and geostatistical analysis, and visual inspection of the general trends. It should be noted that the trend of mineralisation is running along the contact between intrusions and limestones, extending towards both hosts were permeability and geochemical and physiochemical are favourable. The trends of the mineralisation for the economic metals are the same, with subtle local differences in shape. Grade shells are implemented avoid grade smearing in the estimation process. 		
	 Exploratory data analysis (EDA) indicated that the lithological characterisation used for the 2023 geological interpretation was for the most part valid (with minor changes) and were applied for the 2024 modelling. Each lithological unit was modelled according to age, with the youngest modelled first. Structural considerations such as plunge of the units, folding and faults were taken into consideration (where information existed). Orthogonal sections were also interpreted to ensure lithological continuity. 		
	 In 2019, the Chalcobamba geological model and interpretation was changed based on a complete relog of the deposit combined with detailed surface mapping, with refinements according to new information obtained since then. 		
	 In 2023 the 0.15% Cu grade-shell was extended to all rock types except for dykes in Ferrobamba. This criterion ameliorates the grade estimation and prevents over-smoothing or smearing. 		
	 This model was constructed with Leapfrog[®] using RBF Interpolant, transforming numeric data into categoric, with the use of interval selection. 		
	 Oxidation domains were produced for the Ferrobamba and Chalcobamba models. Oxidation domains were based on logged mineral species, sequential copper and acid soluble copper to total copper assay ratios, each of which had a priority to represent the oxidation field. 		



Section 3 Estimating and Reporting of Mineral Resources					
Criteria	Commentary				
	 Geological volumes were then modelled as wireframe solids and peer reviewed by the Principal Exploration Geologist and the Mineral Resources Competent Person. 				
Dimensions	 The Las Bambas Mineral Resources comprises three distinct deposits; each have been defined by drilling and estimated: Forrebamba Mineral Resources accupies a feetprint which is 2500m NLS and 				
	1800m E-W and over 900m vertically.				
	 Chalcobamba Mineral Resources occupies a footprint of 2300m N-S and 1300m E-W and 800m vertically. 				
	 Sulfobamba Mineral Resources is 1800m along strike in a NE direction and 850m across strike in a NW direction and 450m deep. 				
	 Ferrobamba Deeps is a vertical extension of Ferrobamba downwards (same XY dimensions), with similar geological features, extending until level 2200RL; the lowest level of the Resource open pit-shell is 3200RL. 				
Estimation and modelling techniques	 Mineral Resource estimates for the three deposits has been undertaken in Vulcan (Maptek) mining software with the following key assumptions and parameters: 				
	 Ordinary Kriging interpolation has generally been applied for the estimation of Cu, Mo, Ag, Au, As, Fe, S, CuAS (acid soluble copper), CuCN (cyanide soluble copper), CuRE (residual copper) and density. Simple Kriging has been applied for Ca and Mg, and in some distal sectors where the amount of data is scarce and is required to align the estimation to an expected mean. This is considered appropriate for the estimation of Mineral Resources at Las Bambas. 				
	 The Ferrobamba, Chalcobamba and Sulfobamba block models utilised sub-blocking. The models were then regularised for use in mine planning purposes. 				
	 High erratic grade values were managed by upper grade capping based on statistical assessment evaluated for all variables and domains. Consideration was also given to the metal content above the top cut value. 				
	 All elements were estimated by lithology domains. At Ferrobamba five different orientation domains were identified in the skarn and were used in the interpolation. Grade-shells were used along with lithology and oxidation domain models as constraints to the block model estimation. 				
	 Ferrobamba Deeps, having the same geological features of Ferrobamba near surface, has been estimated in the same battery of methodologies, parameters and conditions of Ferrobamba above the current pit-shell, now with considerable proportions of ore to be added to the current report. 				
	 At Sulfobamba high-grade skarn shoots were identified and were used in the interpolation of copper only. The boundaries between the low and the high- grade skarn were treated as hard boundaries. 				
	 Data compositing for estimation was set to 4m, which matches two times the majority of drillhole sample lengths (2m), provides good definition across interpreted domains. 				



	Section 3 Estimating and Reporting of Mineral Resources
Criteria	Commentary
	 Variogram analysis was updated for Ferrobamba (near surface and FB_deeps, same variography). Chalcobamba and Sulfobamba models were not updated in 2024, given the lack of new information.
	 No assumptions have been made about the correlation between variables. All variables are comparably informed and independently estimated.
	 Interpolation was undertaken in two to three passes.
	 Check estimates using Discrete Gaussian change of support modelling have been performed on all models. Block model results are comparable with previous Mineral Resources estimations after changes due to drilling and re- modelling by the site. Discrete Gaussian models become closer to the estimation models when top-cuts and high yields are applied to the data, reducing variance stem from extremely high values.
	 Assumptions about the recovery of by-products are accounted in the net- smelter return (NSR) calculation which includes the recovery of Mo, Ag and Au along with the standard payable terms.
	 Arsenic is considered a deleterious element and has been estimated. It is not considered a material risk. Sulphur, calcium, and magnesium are also estimated to assist in the determination of NAF (non-acid forming), PAF (potentially acid forming) and acid neutralising material.
	 Calcium and Magnesium are also prejudicial to ore recovery in the flotation process, their estimation has been controlled using the lithological information of limestone type, discriminating micritic from dolomitic, dirty, or carbonaceous limestones. These estimations have been executed only with 4-acid digested samples, as Aqua Regia shown to be significantly biased, and hence excluded from the process.
	 Block sizes for all three deposits were selected based on Quantitative Kriging Neighbourhood Analysis (QKNA). The Ferrobamba and Chalcobamba block size was 20m x 20m x 15m with sub-blocks of 5m x 5m x 5m. The block size at Sulfobamba was set to 50m x 50m x 15m (sub-blocked to 25m x 25m x 7.5m) which roughly equates to the drill spacing. The search anisotropy employed was based on both the ranges of the variograms and the drill spacing. All models were regularised to 20m x 20m x 15m for use in Ore Reserve estimates.
	 The selective mining unit is assumed to be approximately 20m x 20m x 15m (x, y, z) which equates to the Ferrobamba block model block size.
	 Block model validation was conducted by the following processes – no material issues were identified:
	 Visual inspections for true fit for all wireframes (to check for correct placement of blocks and sub-blocks).
	Visual comparison of block model grades against composite sample grades.
	 Global statistical comparison of the estimated block model grades against the declustered composite statistics.
	 Change of support analysis was completed on major lithological domains and compared to the block estimates to measure the smoothing in each estimation domain.
	• Swath plots and drift plots were generated and checked for skarn and porphyry domains.



	Section 3 Estimating and Reporting of Mineral Resources
Criteria	Commentary
Moisture	 All tonnages are stated on a dry basis.
Cut-off parameters	 For the first time the 2024 Mineral Resources for Las Bambas are reported above NSR cut-off: US\$12.42/t for Ferrobamba, US\$12.44/t for Chalcobamba and US\$14.12/t for Sulfobamba, considering all material types within each pit-shell. Oxide material has been reported above a 1% Cu cut-off grade. The reported Mineral Resources have also been constrained within a US\$4.9/lb Cu pit shell with revenue factor=1. The NSR reporting strategy is in line with MMG's policy on reporting of Mineral
	Resources which considers current and future mining and processing costs and satisfies the requirement for prospects for future economic extraction.
Mining factors or assumptions	 Mining of the Las Bambas deposits is undertaken by open pit method, which is expected to continue throughout the life of mine. Large scale mining equipment including 300 tonne trucks and 100 tonne electric face shovels are used for material movement.
	 Underground options are now under evaluation to extend the Life of Mine, through the inclusion of Ferrobamba Deeps resources this year (Table 3), supported by an economically positive Scoping Study which has been executed by Redco Global Peru S.A.C., at the beginning of 2024, under the supervision of Las Bambas key people of the Strategic Planning team.
	 The Scoping Study confirms the technical and economic viability of the project, with an effective transition from open-pit to underground, applying Block Caving and Sub-level caving methods (UBC methodology applied to assess the most suitable mining method), yielding 860Mt @ 0.37%Cu.
	 During block regularisation, internal dilution is included to produce full block estimates.
	Further information on mining factors is provided in Section 4 of this table.No other mining factors have been applied to the Mineral Resources.
Metallurgical factors or assumptions.	 Currently the processing of oxide copper mineralisation has not been studied to pre-feasibility or feasibility study level. The inclusion of oxide copper Mineral Resources assumes that processing of very similar ores at Tintaya was completed successfully in the past where a head grade of greater than 1.5% Cu was required for favourable economics. This assumption has been used at this stage for the oxide copper mineralisation.
	 Sulphide and partially oxidised material are included in the Mineral Resources which is expected to be converted to Ore Reserves and treated in the onsite concentrator facilities.
	No other metallurgical factors have been applied to the Mineral Resources.
Environmental factors or assumptions	 Environmental factors are considered in the Las Bambas life of asset work, which is updated annually and includes provision for mine closure. Geochemical characterisation undertaken in 2007, 2009, 2017 and 2021 indicate most of the waste rock from Ferrobamba and Chalcobamba deposits
	to be Non-Acid Forming (NAF) and that no acid rock drainage from the waste rock dumps from these two pits should be expected. Waste rock samples from Sulfobamba were found to contain higher concentrations of sulphur and that 30% to 40% of waste rock could be Potentially Acid Forming (PAF).



	Section 3 Estimating and Reporting of Mineral Resources
Criteria	Commentary
	Suitable controls will be implemented for all PAF waste rock, including investigating opportunities for backfill into pit voids. Additional geochemical characterisation work is ongoing.
	 Tailings generated from processing of Ferrobamba and Chalcobamba were determined to be NAF. Geochemical characterisation of tailings generated from processing of Sulfobamba ores has been finalized and the results determined to be NAF, however for environmental assessment purposes it was assumed to have PAF behaviour. Current Life of Asset schedules have Ferrobamba tailings processing scheduled for approximately 3 years after Sulfobamba tailings are processed. The closure plan update was approved by regulator in Mar-23 (RD No. 0044-2023/MINEM-DGAAM) and describes the encapsulation method for Sulfobamba tailings.
	 On 13 July 2020, the environmental technical report was submitted to SENACE that included: Ferrobamba Phase 7A, drilling, processing facilities, truck shop relocation and ancillary components for Ferrobamba and Chalcobamba. This technical report was approved in October 2021 by the authority.
	 On October 17, 2021, another environmental technical report was submitted, which included Ferrobamba pit expansion (6A), relocation of conveyor belt #4, Chalcobamba pit expansion, Concentrator plant expansion to 152,250 tn/d, relocation of the tailings auxiliary dam and other components. The Environmental Technical report was approved by the authority on February 18- 22.
	 On September 16th, 2022, the environmental technical report was approved, including TSF1 expansion to add 70Mt (4160RL to 4164RL) then Las Bambas submitted the 4th modification to the environmental study for the TSF1 expansion up to the 4200 RL, permits for drilling, Pioneer waste dump and other components. The citizen participation was executed in 2023 and 2024 for MEIA4, which is currently under evaluation by the authority, approval is expected by 2024 EOY. In parallel, TSF2 studies are in process to evaluate the most suitable case to satisfy the ABP needs. In 2023 the authority approved to start operations in Chalcobamba, which commenced in February 2024. In January 2025, Las Bambas will submit the environmental technical report with Chalcobamba Southwest extension (CBSW).
Bulk density	 Bulk density is determined using the Archimedes principle (weight in air and weight in water method). Samples of 20cm in length are measured at a frequency of approximately one per core tray and based on geological domains. The density measurements are considered representative of each lithology domain.
	 Bulk density measurement occurs at the external, independent assay laboratory. The core is air dried and whole core is wax coated prior to bulk density determination to ensure that void spaces are accounted for (bulk density paraffin coated by ALS Global OA-GRA09as methodology).
	 Density values in the Mineral Resources models are estimated using Ordinary Kriging within the lithology domain shapes. Unestimated blocks were assigned a density value based on an expected value of unmineralised rock within each geological domain.



Section 3 Estimating and Reporting of Mineral Resources							
Comment	tary						
 Minera numbe any int to esta (skarn Drillhol drillhol spacin Bamba catego 	Mineral Resource classification used criteria that required a certain minimum number of drillholes. The requirement of more than one drillhole ensures that any interpolated block was informed by sufficient spatially distributed samples to establish grade continuity. Furthermore, rock type specific hole spacing (skarn vs. porphyry) were used to classify each Mineral Resource category. Drillhole spacing for classification were based on an internal Ferrobamba drillhole spacing study undertaken in 2015 and verified in 2022 by a drill hole spacing analysis executed by Geovariances under the supervisory of the Las Bambas Resource Geology team. Drill spacing currently applied for each category are:						
			D	rill Spacing (m)			
	Deposit	Ore Type	Measured	Indicated Inferred			
		Skarn	25x25	70x70	100x100		
	FB	Porphyry	50x50	110x110	200x200		
		Skarn	25x25	60x60	90x90		
	CB	Porphyry	60x60	120x120	150x150		
	CD	Skarn	-	50X50	90x90		
	30	Porphyry	-	100X100	150x150		
 Only conductive deleter purpos The Mit Competition 	o radius. opper estima rious element ses. neral Resour etent Person's	tes were use ts such as ars ce classificat s view of the	d for classific senic are not ion applied a deposit.	ation. Estima considered f ppropriately	ation confid for classifica reflects the	ence of ation	
 Histori review Resour Severa proces by: R P A 2 m A to w C 	cal models has s during their have been in rce estimates al extensive ro s for the pure unge Pincock erson report MC complete 018. Minor re iodel update. ignificant rev iodel. MC complete o Nov. 2020. rere raised. SA Global ex	ave all been s r history of de mplemented s. eviews were chase of Las Minarco (RF in 2014. ed an indeper ecommendat iew work was ed an indeper Minor recom ecuted a thir	subject to a s evelopment. ⁻ at the next up undertaken a Bambas. The PM), which res ndent audit of ions were ma s carried out f ndent audit of mendations w d-party indep	eries of inter The recomm odate of the s part of the ese reviews sulted in the f the 2017 bl de towards t by AMEC in t f the 2020 b vere made, a	rnal and ext endations o relevant Min MMG due o included wo published (ock model o the subsequ 2019 on the lock model and most of	ernal f each neral diligence ork done Competent during Jent 2018 2018 from Aug. them 3, required	
	 Minera numbe any int to esta (skarn Drillhol drillhol spacing Bamba catego At leas referre Only co deleter purpos The Mi Compe Historia review Resour Severa proces by: Re proces Severa proces Severa proces Severa proces Severa proces Severa proces 	 Section 3 Estimate Mineral Resource of number of drillholes any interpolated bloc to establish grade of (skarn vs. porphyry) Drillhole spacing for drillhole spacing analysis ex Bambas Resource of category are: Deposit FB CB SB At least three holes referred radius. Only copper estimate deleterious element purposes. The Mineral Resour Competent Person? Historical models has reviews during their review have been in Resource estimates Several extensive reprocess for the purposes. Historical models has reviews during their review have been in Resource estimates Several extensive reprocess for the purposes. Minor remodel update. Significant review and completent person report AMC complete 2018. Minor remodel update. Significant review and complete person report AMC complete 2018. Minor remodel update. Significant review and complete person report AMC complete 2018. Minor remodel update. Significant review and complete person report AMC complete person person 	 Section 3 Estimating and Report Mineral Resource classification of number of drillholes. The require any interpolated block was infor to establish grade continuity. Fure (skarn vs. porphyry) were used to establish grade continuity. Fure (skarn vs. porphyry) were used to drillhole spacing for classification drillhole spacing study undertake spacing analysis executed by Ge Bambas Resource Geology team category are: Deposit Ore Type Bambas Resource Geology team category are: CB Skarn Porphyry Skarn Porphyry Skarn Porphyry Skarn Porphyry At least three holes are always referred radius. Only copper estimates were used deleterious elements such as any purposes. The Mineral Resource classificated Competent Person's view of the competent Person's view of the review have been implemented Resource estimates. Several extensive reviews were process for the purchase of Las by: Runge Pincock Minarco (RF Person report in 2014. AMC completed an independent purchase of Las by: Runge Pincock Minarco (RF Person report in 2014. AMC completed an independent purchase of Las by: CSA Global executed a thir by MMG at each operations 	 Section 3 Estimating and Reporting of whee of any interpolated block was informed by suffice to establish grade continuity. Furthermore, rogiskarn vs. porphyry) were used to classify ead. Drillhole spacing for classification were based drillhole spacing study undertaken in 2015 an spacing analysis executed by Geovariances us Bambas Resource Geology team. Drill spacing category are: Deposit Ore Type Measured FB Skarn 25x25 FB Skarn 25x25 FB Porphyry 50x50 CB Skarn 25x25 CB Skarn 25x25 Porphyry 60x60 SB Skarn - Se Skarn - SB Skarn - Several extensive review were und	Section 3 Estimating and Reporting of wineral Resource Commentary • Mineral Resource classification used criteria that required number of drillholes. The requirement of more than one d any interpolated block was informed by sufficient spatially to establish grade continuity. Furthermore, rock type spec (skarn vs. porphyry) were used to classify each Mineral Resource distribution of the spacing analysis executed by Geovariances under the sup Bambas Resource Geology team. Drill spacing currently a category are: Deposit Ore Type Drill Spacing (m) Beasing analysis executed by Geovariances under the sup Bambas Resource Geology team. Drill spacing (m) Beasing analysis executed by Geovariances under the sup Bambas Resource Geology team. Drill Spacing (m) Beasing (m) CB Skarn 25x25 f0x50 f10x110 CB Skarn 25x25 f0x60 f20x120 SB Skarn - 50x50 Porphyry f00x60 f10x110 At least three holes are always required to ascertain any or referred radius. Only copper estimates were used for classification. Estim deleterious elements such as arsenic are not considered purposes. The Mineral Resource classification applied appropriately Competent Person's view of the deposit. Historical models have all been subject to a series of inter reviews during their history of development. The recomm review have been implemented at the next update of the Resource estimates. Several extensive reviews were undertaken as part of the process	Section a resolution of Mineral Resources Commentary • Mineral Resource classification used criteria that required a certain mumber of drillholes. The requirement of more than one drillhole ensu any interpolated block was informed by sufficient spatially distributed to establish grade continuity. Furthermore, rock type specific hole sp (skarn vs. porphyry) were used to classify each Mineral Resource cat • Drillhole spacing for classification were based on an internal Ferrobar drillhole spacing study undertaken in 2015 and verified in 2022 by a c spacing analysis executed by Geovariances under the supervisory of Bambas Resource Geology team. Drill spacing currently applied for excategory are: • Deposit Ore Type Drill Spacing (m) • Deposit Ore Type Drill Spacing (m) • Bambas Resource Geology team. Drill spacing (m) • Masured Indicated Inferred • Bambas Resource Geology team. Drill Spacing (m) • Masured Indicated Inferred • Bambas Resource Geology team. Drill Spacing (m) • Masured Indicated Inferred • Bambas Resource Geology team. 0rill spacing (m) • Masured National Resource Instruct • CB Skarn 25x25 70x70 100x100 Instruct • CB Skarn - 50x50	



	Section 3 Estimating and Reporting of Mineral Resources
Criteria	Commentary
	were reported, all of them properly corrected for the 2024 MROR statement.
	 No fatal flaws were detected in any of these reviews and all recommendations were properly addressed in further models.
	 As it was the case in previous years, a self-assessment of all 2024 Mineral Resource modelling was completed by the Competent Person using a standardized MMG template. No fatal flaws were detected. Areas previously identified for improvement have been addressed and include:
	 Mineral Resource classification for the Ferrobamba block model uses a wireframe shape to constrain the final Mineral Resource category.
	 Sequential copper results are used to model an oxidation type domain. This is used to constrain the soluble copper in sulfuric acid, cyanide soluble Cu (which has its own "bornite" domain) and residual Cu which is a calculated field.
	 Some elements are significantly affected by Aqua Regia digestion being not efficient for quantitative assessment, including Fe, Ca and Mg.
Discussion of relative accuracy / confidence	 There is high geological confidence of the spatial location, continuity and estimated grades of the modelled lithologies within the Mineral Resources. Minor, local variations are expected to occur on a sub-25m scale that is not detectable by the current drill spacing. Global declustered statistics of the composite databases on a domain basis were compared against the block model. Block model estimates were within 10% of the composite database. Local swath plots were undertaken for each deposit. All plots showed appropriate smoothing of composite samples with respect to estimated block grades.
	 The Las Bambas Mineral Resource estimates are considered suitable for Ore Reserve estimation and mine design purposes. The Mineral Resource estimates were evaluated using the discrete Gaussian change of support method for copper in most domains. Based on the grade tonnage curves generated, the Mineral Resource estimates should be a reasonable predictor of tonnes and grade selected during mining.
	 Reconciliation of the last 12 months of production indicates that the mine planning block model (derived from the 2024 Mineral Resource model) has over-called the ore control model (F1) by 2% for copper metal. This comprises a 7% over-call of grade and a 5% under-call of tonnage.
	 The F1 reconciliation indicates that the 2024 model has under-called metal by 6% for the year to June 2024, triggered by 3% overcalling of grade and 9% under-calling of tonnage.
	 The F3 (Mill / Reserve) reconciliation for the last 12 months indicates that the Reserve model has over-called metal by 4%, triggered by 11% overcalling of grade and 7% under calling in tonnage. The project to date reconciliation shows the Reserve has over-called metal production (F3) by 1% triggered by 5% overcalling of grade and 5% under calling in tonnage.
	 F2 reconciliation factor (Mill / Grade Control) for the last 12 months (June 2024) shows that metal is 7% lower, comprising 1% lower tonnes and 7% lower grade than reported milled. Both F1 and F2 results indicate that grade estimation needs to be addressed in long- and short-term models. Tonnage in long-term should also be revised in ph5W.



	Section 3 Estimating	g and Reporting	of Mineral	Resource	s	
Criteria	Commentary					
		Block Model	Factor	Grade	Tonnes	Metal
			F1	0.97	1.09	1.06
	Year to June 2024	2024	F2	0.92	0.98	0.91
			F3 F1	0.89	1.07	0.96
	1 July 2023 to 30 June 2024	2024	F2	0.93	0.99	0.93
			F3	1.05	0.87	0.91
	1 July 2022 to 20 Jupo 2022	2024	F1	0.97	1.02	0.98
		2024	F2 F3	0.92	1.04	0.98
			F1	0.98	1.03	1.01
	1 July 2021 to 30 June 2022	2024	F2	0.92	1.04	0.96
			F3	0.90	1.07	0.97
	All (since commercial production	on 2024	F1 F2	0.94	0.97	0.92
	start)		F3	0.95	1.05	0.99
		F1	Ore Control ,	Ore Reserve		
		F2	Mill / Ore Co	ntrol		
		F3	Mill / Ore Res	serve		
	METAL	F1: Metal Polygon Ore/	Reserve Model ()re for Cu		
	1.2					
	1.1					
	1.0					
	0.9					
	0.8 jul 2023	sep 2023 nov 2023	ene 2024 n	nar 2024 may 2	024	
			121 0	1.0		
	METAL	F2: PLant+Stk Delta	/ Polygon Ore	e for Cu		
	-					
	* 0.9					
	-					
	- 0.8					
	Jul 2023	sep 2023 nov 2023	ene 2024 n	nar 2024 may 2	024	
	METAL	F3: PLant+Stk Delta / R	eserve Model	Ore for Cu		
	1.0					
				· · · · · · · · · · · · · · · · · · ·	• • • •	
	0.9					
	jul 2023	sep 2023 nov 2023	ene 2024 n	nar 2024 may 2	024	
		ofician fill - 0				
	 The accuracy and co 	ntidence of the 2	2024 Miner	al Resourc	e estimate	es are
	considered suitable f	or use as an inpu	It to Ore Re	eserve esti	mation and	d public
	reporting by the Com	petent Person.	MMG inter	nal proced	ures for ex	ternal 3 rd
	party reviews are trig	gered upon a 10	% variance	e (excluding	g depletior	i) year on
	year.					



3.2.3 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Mineral Resources statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

3.2.3.1 Competent Person Statement

I, Hugo Rios, confirm that I am the Competent Person for the Las Bambas Mineral Resources section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having sufficient experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member of The Australasian Institute of Mining and Metallurgy and hold Chartered Professional accreditation in the field of Geology.
- I have reviewed the relevant Las Bambas Mineral Resources section of this Report to which this Consent Statement applies.

I am a full-time employee of MMG Las Bambas at the time of the estimation.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Las Bambas Mineral Resources section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Las Bambas Mineral Resources.

3.2.3.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Las Bambas Mineral Resources - I consent to the release of the 2024 Mineral Resources and Ore Reserves Statement as at 30 June 2024 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Hugo Rios MAusIMM (CP) (#311727)

Date:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Signature of Witness:

Witness Name and Residents:

Victor Guimaraes (Lima, Peru)

(eg, town/suburb)



3.3 Ore Reserves – Las Bambas

3.3.1 Results

The 2024 Las Bambas Ore Reserves are summarised in Table 5. All data reported here are on a 100% asset basis. MMG's attributable interest in Las Bambas is 62.5%.

Table 5: 2024 Las Bambas Ore Reserves tonnage and grade (as at 30 June 2024)

Las Bambas Ore Reserves									
							Contained	Metal	
Forrobombo Drimony Copport	Tonnes	Copper	Silver	Gold	Мо	Copper	Silver	Gold	Мо
Ferroballiba Filliary Copper-	(Mt)	(% Cu)	(g/t Ag)	(g/t Au)	(ppm)	(kt)	(Moz)	(Moz)	(kt)
Proved	220	0.49	1.9	0.03	200	1,100	14	0.23	43
Probable	230	0.68	3.1	0.05	180	1,600	23	0.35	41
Total	450	0.58	2.5	0.04	190	2,600	36	0.58	84
Chalcobamba Primary Copper ²									
Proved	96	0.60	2.0	0.02	120	570	6.0	0.08	12
Probable	130	0.66	2.7	0.03	120	830	11	0.13	15
Total	220	0.63	2.4	0.03	120	1,400	17	0.21	27
Sulfobamba Primary Copper ³									
Proved	-	-	-	-	-	-	-	-	-
Probable	63	0.70	5.5	0.03	160	440	11	0.05	10
Total	63	0.70	5.5	0.03	160	440	11	0.05	10
Sulphide Stockpiles									
Proved	23	0.34	1.8	-	110	76	1.3	-	2.5
Total	23	0.34	1.8	-	110	76	1.3	-	2.5
Total Contained Metal	760	0.60	2.7	0.03	160	4,600	66	0.83	120

1 NSR cut-off 12.42 USD/t applied for Ferrobamba primary material.

2 NSR cut-off 12.44 USD/t applied for Chalcobamba primary material.

3 NSR cut-off 14.12 USD/t applied for Sulfobamba primary material.

Figures are rounded according to JORC Code guidelines and may show apparent addition errors

Contained metal does not imply recoverable metal

Major reserve additions from the 2023 reserve report are consistent with the Net Smelter Return (NSR) cut-off classification method, which improves accuracy by including the economic value of by-products.



3.3.2 Ore Reserves JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 6 complies with the 2012 JORC Code requirements specified by "Table-1 Section 4" of the Code. Each item in this table has been summarised as the basis for the assessment of overall Ore Reserves risk in the table below, with each of the risks related to confidence and/or accuracy of the various inputs into the Ore Reserves qualitatively assessed.

	Section 4 E	stimation and Repor	ting of Ore Reserves			
Criteria	Commentary					
Mineral Resource estimates for conversion to Ore Reserves	 Mineral Resource block models have been updated by Resource Geology within Strategic Planning and reviewed by the Mineral Resource Competent Person. The block models contain descriptions of lithology, Mineral Resources classification, mineralisation, ore types, and other variables described in the model release memorandums. Ore loss modifying factors have been incorporated in the block models via a variable. These block models were used for the pit optimisation purpose using corporately approved assumptions for cost and metal prices. The software package used for this purpose is GEOVIA Whittle. 					
	MR block models	Ferrobamba	Chalcobamba	Sulfobamba		
	Previously Completed by	Paolo Petersen / Hugo Rios	Paolo Petersen / Hugo Rios	Paolo Petersen / Hugo Rios		
	Updated by	Paolo Petersen	Paolo Petersen	Paolo Petersen		
	Reviewed by	Hugo Rios	Hugo Rios	Hugo Rios		
	Memorandum date	17 May 2024	17 May 2024	10 May 2021		
	Block model file	lb_fe_mor_2404.bmf	lb_ch_mor_2404.bmf	lb_sb_mor_1704_v2.bmf		
	Block size (m)	20 x 20 x 15	20 x 20 x 15	20 x 20 x 15		
	Model rotation	35°	0°	0°		
	 The Measured an additional to the 	nd Indicated Mineral I Ore Reserves reporte	Resources quantities a ed.	re inclusive and not		
Site visits	The Competent Pers many weekly and bi planning teams, alor Additionally, frequer Table 7 of Section 2 Modelling, Mine Plar Operations, Tailings meetings have led t estimation.	son has undertaken a -weekly meetings wit ng with monthly meet nt discussion session 2.2.3, focusing on Ore nning, Metallurgy, Gra Disposal, Waste Stor o a comprehensive u	a site visit to Las Bamb th geology, block mod ings of reconciliation s s have been held with Reserves in areas of ade Control, Geotechn rage, and Environment nderstanding of all asp	as and has engaged in elling, and mine since April 2022. site experts listed in Geology, Block ical Engineering, Mine cal. The site visit and pects for Ore Reserves		
Study status	 The Las Bambas Pre-Feasibility let 	Ore Reserve estimate vel studies that inclue	es were prepared base de the following:	ed on Feasibility and		
	 Bechtel Fea TSF-1 PFS-I LK00108M- PFS-B Hydr 0540-F610- PFS-B Tailir LK00108M- Ingeniería d de Relaves, 	sibility Study 2010; a B Geotechnical Desig 0542-0414-MEM-00 ogeology Study TSF- INF-00003E_rev0 ng Deposition Plan Me 0540-0414-MEM-00 e Detalle y Soporte p Ausenco, 2024, LP12	nd In Memorandum, Khlor 006_Rev0 -1 Expansion, Flosoluti emorandum, Khlon Crij 005_Rev1 ara la Procura de los S 2847H-0500-0400-IN	n Crippen Berger, 2023, ons, 2023, LK00108K- open Berger, 2023, Sistemas de Transporte F-00101		

Table 6: JORC 2012 Code Table 1 Assessment and Reporting Criteria for Las Bambas Ore Reserve 2024



	Section 4 Estimation and Reporting of Ore Reserves
Criteria	Commentary
	 Tailings Storage Facility 1 - Design Report, Stage 6 RL 4160 Crest Raise, ATCW, 2023, 114001.60-R01
	 Tailings Storage Facility 1 - Stage 6 'Gap' Options Study RL4164, ATCW, 2024, 114001.60-R04-A
	Additional work/studies include:
	 Glencore Mineral Resources and Ore Reserves Report 2013;
	– Audit of Las Bambas Ore Reserves 2013, by Mintec, Inc in October 2013.
	 MMG Competent Person Report prepared by Runge Pincock Minarco (RPM), June 2014;
	 Audit of Las Bambas Ore Reserves 2020 by AMC Consultants in March 2021.
	 Audit of Las Bambas Ore Reserves 2023 by Agmines Consultants in November 2023.
	 Net Smelter Return (NSR) calculation for Las Bambas, audited by Mining One Consultants in April 2024.
	 MMG Las Bambas cut-Off Grade Report 2024;
	 Rock Mass Model Update by Golder (2019) & Itasca (2022);
	 Structural Geology Mode Update for Ferrobamba (SRK 2021), Chalcobamba (Anddes, 2023)
	 Hydrogeology Model Update by Piteau (2022);
	 Provision of geotechnical design parameters recommendation for Phases 3 and 5 of the Ferrobamba pit, (ITASCA June 2022);
	 Provision of geotechnical design parameters recommendation for Ferrobamba Pit Final Phase (MROR), (ITASCA May 2022);
	 Geotechnical Report for the detail engineering of Chalcobamba expansion pit (Anddes 2023);
	 Stability Analysis Update – Ferrobamba Waste Deposit. (ANDDES, Abril 2023);
	 Geotechnical Slope Design Guidance 2023 (Design parameters update for Ferrobamba, Chalcobamba & Sulfobamba)
	 Sulfobamba Metallurgy Testing, 2015;
	 Tailings Storage Facility 1 – Design Report, Stage 5 RL 4130 Crest Raise, ATCW, 2022;
	 Tailings Storage Facility 1 – Design Report, Stage 6 RL 4160 Crest Raise, ATCW, 2023;
	 The 2024 Life of Mine (LoM) Reserve Case, produced as part of the MMG planning cycle, demonstrates its technical feasibility, economic viability, and thorough consideration of Modifying Factors.
Cut-off parameters	 From July 2024, Ore Reserve for Las Bambas are reported above a Net Smelter Return (NSR) cut-off, which consist of:
	 NSR cut-off (\$/t) = (Variable Process Cost + Fixed Process Cost + Sustaining Capital Cost + G&A Cost + Ore Differential Cost)
	 Ore differential cost is defined as the differential haulage cost between ore and waste destinations.
	 In the calculation of in-pit NSR cut-off determinations, the mining cost at this point is defined as sunk, i.e., the mining cost is incurred whether the block is sent to the



	Section 4 Estimati	on an	d Reporting of	Ore Reserves			
Criteria	Commentary						
	 mill or to the waste dum NSR cut-off calculation. The breakeven NSR cut- Grade Report" for the ye the Las Bambas Finance 	p. For -off, as ear 202 e Depa	this reason, th s detailed in the 24, was determ rtment, resultin NSR Cut-off b	e mining cost is r e "MMG Las Baml ined using the co g on: by pit	emoved from bas Open Pit (ost information	the Cut-Off n from	
		Las Bambas					
		Unit	Ferrobamba	Chalcobamba	Sulfobamba	-	
	NSR Cut-off	\$/t	12.42	12.44	14.12]	
	 In accordance with the N Standard, the MMG Grout the MMG Board for use in NSR cut-off value for early 	MMG N up Fina in the ch pit.	Aineral Resourc ance provided r NSR calculatior	es and Ore Rese metal prices that n of each block to	rves (MROR) were approve be evaluated	ed by d against	
Mining factors or assumptions	 The method of Ore Reservation phase designs, considerration Additional information is 	erves e ation o provio	estimation inclue of mining schec ded in this secti	ded pit optimisat Jule and all modif ion.	ion, final pit a ying factors.	nd	
	 The mining method sele which enables bulk mining that are outcropping to sea and Sulfobamba are eac conventional truck and se equipment are appropriate 	cted for ng of t sub-cr shovel ate for	or the Las Baml hese large low opping. Three o ed in separate o operation. This these deposits	bas operation is o to moderate grad deposits, Ferroba open pits. Mining method and sele	open-cut mini de mineral de Imba, Chalcok I is by way of ected mining	ng, posits pamba	
	 An extension of Chalcob reserve, after the comple planning, geological con studies. It also forms par 	oamba etion c firmati rt of th	pit in the south of various asses ion, hydrogeolo ie Las Bambas	west sector (CB ssments and stuc gical, geotechnic permitting plan.	SW) is include lies, including cal and metall	d in the mine urgical	
	 The geotechnical recom Hydrogeology team at L and Strategic Planning (recommendations are ba site personnel and Itasca for Chalcobamba pit. Th sectors. 	menda as Bar OE&SF ased o a (202 e pits	ations were pro nbas in coordin P) and MMG Ass In recommende 0 to 2022) on F are sectored by	vided by the Geo ation with MLB C set planning and d practices and s Ferrobamba and l y structural doma	otechnical & Operational Ex support team studies perfor oy and Andde ins and geote	cellence . These med by s (2023) echnical	
	 Ferrobamba Design sect sensitivity analysis for sl ltasca. Design paramete structural information an North-East area. Analysi performance targets to s 	tors we ope st rs wer id sens s also suppor	ere updated in a ability validatio e divided in five sitivity analysis. provided updat rt the design im	2022 based on ti n of FB Final pha e sectors base in . Primary changes tes on dewaterin aplementation.	ne stability an se performed new laborato s are on North g and slope	d by ry, and	
	 Chalcobamba design pa kinematic validations at acceptance criteria. Des on Bench Face Angles fo CH-SW (increase from 6 rock mass conditions on introduced. 	ramete bench sign gu or desi 5º to 5 the se	ers were re-vali scale which sh uidance remain ign sectors CH- 70° on upper le ectors are favou	idated during 202 now bench config without changes N, CH-E, CH-SE vel) were maintai urable). No chang	23 performing jurations mee 5. Introduced i 1, CH-S2, CH- 5 ined, as struct ge to IRA was	t ncrease S1 and tural and	



		Section 4	4 Est	imatio	on and F	Reportir	ng of Or	e Reser	ves		
Criteria	Comn	nentary									
	• Ge	otechnical s	slope	desig	n angle	s for 20	24 are	reportec	I on the	memorandum	
	(Ge	eotechnical	Slop	e Desi	ign Guid	lance 20	023). H	ne summ	hary tabl	es for slope desigr	1
	pai	ameters, by	γpπ, Coot	are pi			dationa	for Form	ahamha	nit	
		_	Geol	ecnni		ommend	ations	for Ferr	opampa	pit	
	-	F	error	bamba	I PIT Geo	Bench	cal Des	ign Para			
	Zone	Slope Orientation (Dipdir °)	Li (m Fro	evel ASL) om-to	Bench height (m)	Face Angle (BFA)	Berm Width (m)	Inter-ra Angle (IRA°)	mp ran P Heig) (m	hp Decoupling hp berm width ght (m)	
	1	050 – 125	3	720- 230	15	70	11.2	42	10	5 25	
	2	150 – 295	33	380- 300	15	70	9	46	15	0 30	
		Above T6 Channel		*	15		11.2	42	10	5 30	
	3	000 - 359	3: 4	285- 425	15	70	8.5	47		30	
		080 – 095	N Se 3540	lorth ector 0-3720	30		17	47	15	0 30	
	4	125 – 305	3	510- 870	30	70	12.5	52	15	0 30	
	5	045 – 305	32	285- 870	30	70	12	53	15	0 30	
		G	eote	echnic	al recor	nmend	ations f	or Chalo	cobamb	a pit	
		Cł	nalco	bamb	a Pit Ge	eotechr	ical De	sign Par	ameters	5	
	Zon	e Level (m/	ASL)	BFA	Bench Height (m)	Berm Width (m)	IRA (°)	Decoupl Height (ing Rar (m) Wic	np Decoupling th width (m)	
	CH-S	2 4330 - 4 4450 - 4	450 540	70 70	15 15	8 9.5	48,1 45.0	150	43	3 30	
	CH-S	E 4255 - 4	465	70	15	8	48,1	150	43	3 30	
	CH-	4403 4 E 4165 - 4 4435 - 4	435 540	70 70 70	15 15 15	8 9.5	48,1 45,0	150	43	3 30	
	CH-I	V 4165 - 4 4360 - 4	360 465	70 70	15 15	8 9.5	48,1 45,0	120	43	3 30	
	CH-N	W 4165 - 4	285	70 65	15 15	8	48,1	120	43	3 30	
	CH-\	N 4165 - 4	330	70	15	8	48,1	120	4:	3 30	
	CH-S	4330 - 4 W 4315 - 4	420 435	65 70	15 15	8 8	45,0 48,1	150	4	3 30	
	CH-	4435 - 4	525 450	70 70	15 15	9.5 8	45,0 48,1	100			
	SW2	2 4450 - 4	555	70	15	9.5	45,0	150	43	3 30	
	All	(QT) Overburg	ary & den	65	10	10.2	34	n/a	n/	a n/a	
			Geot	echni	cal reco	ommene	dations	for Sulf	obamba	pit	
			Sul	fobam	ıba Pit (Geoteck	nnical D	esign Pa	aramete	rs	
			Our								
	Ore Reser secto	ve Level rs (mASL	s _)	Bencl Heigh (m)	h Bend It Fac (BFA	ch Ber e wid le (m	m Inte Ith Ar I) (IF	ramp In ngle (A º) he	iteramp / stack eight (m)	Decoupling Berm width (m)	
	Ore Reser secto	ve Levels rs (mASL	s _) 1310	Benc Heigh (m)	h Bend It Ang (BFA	ch Ber e wid le (m	rm Inte ith Ar i) (IR	ramp In ngle (A º) ho 15	iteramp / stack eight (m) 150	Decoupling Berm width (m) 30	
	Ore Reser secto SU-	Levels (mASL N 4460 - 4 IE 4420 - 4	s _) 1310 .345 rock	Benc Heigh (m) 15 15 15	h Bend it Fac Ang (BFA 65 65 70	ch e le o) 8 8 8 8	rm Inte th Ar) (IF	ramp In ngle (A °) ho (45) (45) (8.1)	eight (m) 150	Decoupling Berm width (m) 30 30	



ia	 Commer SU-S SU-W An up inform a drill guida inform from t Reser The 2 incorp 	htary In fresh rock 4565 - 4475 In fresh rock 4565 - 4505 In fresh rock odate of the Fe nation available program for 20 nce of the dep nation on new the data collec rve slope desig	15 15 15 15 15 15 rrobamb e for 202 024 is in posit at N pit exten	70865870865870870825Ore Reserbudget to irbudget to irorth and wesion identified	48.1 45 48.1 45 48.1 ical Model rve slope c mprove co est sector a	is in progr lesign guic nfidence ir	ess throug lance. At C n the slope	30 30 h 2024 chalcoba
	SU-S SU-W • An up inform a drill guida inform from t Reser • The 2 incorp	In fresh rock 4565 - 4475 In fresh rock 4565 - 4505 In fresh rock odate of the Fe nation available program for 20 nce of the dep nation on new the data collec rve slope desig	15 15 15 15 15 15 rrobamb e for 202 024 is in posit at N pit exter	70865870865870825Ore Reserbudget to irorth and wesion identified	48.1 45 48.1 45 48.1 ical Model rve slope c mprove co est sector a	is in progr lesign guic	ess throug lance. At C n the slope	30 30 h 2024 chalcoba
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	 An up inform a drill guida inform from t Reser The 2 incorp 	In fresh rock In fresh rock program for 20 nce of the dep nation on new the data collec rve slope desig	rrobamb e for 202 024 is in posit at N pit exter	a Geotechni 5 Ore Reser budget to ir lorth and we	48.1 ical Model rve slope c mprove co est sector a	is in progr lesign guic nfidence ir	ess throug lance. At C n the slope	30 h 2024 halcoba
	 An up inform a drill guida inform from t Reser The 2 incorp 	date of the Fe nation available program for 20 nce of the dep nation on new the data collec rve slope desig	rrobamb e for 202 024 is in osit at N pit exter tion and	a Geotechni 5 Ore Reser budget to ir lorth and we	ical Model rve slope c mprove co est sector a	is in progr lesign guic nfidence ir	ess throug lance. At C n the slope	h 2024 Chalcoba
	Ore R 2019 due to The p Miner on the incorp optim Dilutio Reser popul – 3%	024 Mineral Re porated the ad- eserves. The N except for an use the illegal min- bit optimisation ral Resource blue e NPV by pit sh porate more pr isation shells. on has been ac rves estimate. I ated with the f	In guidar esources ditional of Aineral R update o ning. All n was dev ock mod nell at rev actical m ccounted in additio	analysis will ace. s models for ore loss varia esources mo f the ore los models were veloped for t els. The stra venue factor hining consic l for in the re on, the ore lo modifying f es for all pit	ed by expl l be availal Ferrobam able, have odel for Su s variable e regularise he three o ategy for th r (RF) of 1.0 derations v egularised oss block r actors: s.	and to inco loration, th ble for incl ba and Ch been used ilfobamba and incorp ed to 20m open pits b ne final pit 0. Final pit vere carrie block mod nodel varia	orporate ac e bulk of ti usion in th alcobamba for the up remained oration of x 20m x 15 ased on th selection d signs th d out using lel used fo able has be	ditional he findir e 2025 o a, which odated 2 the sam depletic 5m. e 2024 was bas hat g those r the Oro een
	Th	is is supported	l by the r		n results b	elow:	-	Madal
				BIOCK MODE	Factor		1 onnes	
	Year	to June 2024		2024	F2	0.92	0.98	0.9
					F3	0.89	1.07	0.9
					F1	0.93	1.05	0.9
	1 July	y 2023 to 30 June	2024	2024	F2	0.93	0.99	0.9
					F3	1.05	0.87	0.9
					F1	0.97	1.02	0.9
	1 July	y 2022 to 30 June	2023	2024	F2	0.92	1.04	0.9
	1				F3 E1	0.89	1.05	0.9
			2022	2024		0.98	1.03	1.0
	1 1.4	1 2021 to 20 June		2024	ΓZ	0.92	1.04	0.9
	1 July	y 2021 to 30 June	2022		ΕQ			0.9
	1 July	y 2021 to 30 June	2022		F3 F1	0.90	1.07	1 ∩
	1 July All (s	y 2021 to 30 June ince commercial p	production	2024	F3 F1 F2	0.90 1.01	1.07	1.0
	1 July All (s start)	y 2021 to 30 June ince commercial p)	production	2024	F3 F1 F2 F3	0.90 1.01 0.94 0.95	1.07 1.07 0.97 1.05	1.0 0.9 0.9
	1 July All (s start)	y 2021 to 30 June ince commercial p)	production	2024 F1	F3 F1 F2 F3 Ore Contro	0.90 1.01 0.94 0.95	1.07 1.07 0.97 1.05	1.0 0.9 0.9
	1 July All (s start)	y 2021 to 30 June ince commercial p)	production	2024 F1 F2	F3 F1 F2 F3 Ore Contro Mill / Ore C	0.90 1.01 0.94 0.95 I / Ore Reserv	1.07 1.07 0.97 1.05 /e	1.0 0.9 0.9
	1 July All (s start)	y 2021 to 30 June ince commercial p	production	2024 F1 F2 F3	F3 F1 F2 F3 Ore Contro Mill / Ore C Mill / Ore R	0.90 1.01 0.94 0.95 I / Ore Reserv ontrol eserve	1.07 1.07 0.97 1.05	1.0 0.9 0.9



Section 4 Estimation and Reporting of Ore Reserves						
Criteria	Commentary					
	mine plans more closely aligned with reconciliation outcomes. These modifying factors were introduced to the Resources Models under the additional ore loss variable.					
	 A program was established to address these issues, and significant progress has been achieved in the areas of resource estimation, grade control practices, blasting designs and practices, monitoring blast movement, accurate positioning of shovels, improved design of ore polygons, and other remedial measures. The continuous improvement program is ongoing. 					
	• The 2024 model shows a significant improvement in terms of global tonnage and grade variability, though it might still present some local variations caused by uncertainty in geological contacts which could affect the high- and low-grade proportion assessment, notwithstanding that these variations are inside the expected range for Measured and Indicated. Infill drilling is particularly insightful in zones with high geological variation, or high sensitivity to ore/waste limit in low-grade zones however it is frequently affected by the lack of compliance of the planned drilling campaigns due to operational restrictions, for which it is recommendable to double the efforts to keep-up the plan as closely as possible.					
	 2024 reconciliation results support the continuing application of the ore loss factors as outlined above. The Competent Person considers this to be appropriate for the 2024 Ore Reserve estimation based on the current information. 					
	 After an internal review that was carried out in 2019 on reconciliation, involving all the key areas including: geological modelling, ore control, operations, mine planning, and operational excellence, differences were explained, and now monthly meetings are held to address issues encountered. 					
	• A midterm model was introduced to inform the ore control process, among other initiatives, including now a cross-functional committee to optimize F2 performance.					
	 Additional studies for mining dilution and recovery will be undertaken when more reconciliation data is available, and the current improvement programs are implemented in the mining operation. 					
	 In the pit, the minimum mining width is 70m; the Selective Mining Unit (SMU) has been set at 20m x 20m x 15m. 					
	 Inferred Mineral Resource material has not been included in the pit optimisation or in the Ore Reserves estimates. 					
	 The main mining infrastructure includes crusher, overland conveyor, tailings and waste storage facilities, stockpiles, roadways/ramps, workshops and so forth. 					
	 All infrastructure requirements are established for. Further capital investment is required for infrastructure to support the needs of Chalcobamba and Sulfobamba final mining limits. 					
	 The planned required infrastructure for Chalcobamba pit has been identified and included in the current and approved Environment Impact Assessment (EIA), including a waste dump at north-east side approved into 8th ITS permit, this location, that is fully within the property boundary, has been identified and used in the Asset Business Plan (ABP), which has been evaluated by environmental, legal and exploration teams. In the 3rd EIA amendment, approval for additional drilling to support the studies has been included and the 4th EIA amendment will include principal components for Chalcobamba (crushing and conveyor), with waste dump fully within the property boundary. 					



Section 4 Estimation and Reporting of Ore Reserves						
Criteria	Commentary					
	 The planned Sulfobamba infrastructure has been identified within the Las Bambas mining concession, however, the infrastructure and deposit are not located within the area of MMG land ownership. 					
	 Budgets for short to long term plans covering land access, environmental and legal permitting, complementary studies, and community agreements are already estimated and under development. 					
Metallurgical factors or assumptions	 permitting, complementary studies, and community agreements are already estimated and under development. Metallurgical copper concentration process comprises the following activities: crushing, grinding and flotation, producing copper and molybdenum concentrates. Copper concentrates contain gold and silver as by-products. Las Bambas Project commenced commercial production on 1 July 2016. Extensive comminution and flotation test work has been conducted and metallurgical recoveries determined for different rock types and different mining areas. Bulk samples and pilot-scale tests have been conducted on representative samples of the deposits. For the Ferrobamba deposit, nearly all the tests were completed by G&T laboratory in Canada as part of Feasibility Study, though additional confirmatory tests were included from more recent testing by ALS in Peru. For Chalcobamba, all the tests were completed by G&T and reported in the Feasibility Study. For Sulfobamba, the data analysed were those from testing at G&T in 2015. Metallurgical test work continues as ore body knowledge increases. Arsenic minerals identified in the orebody are being mapped and monitored in the mining process. The level of arsenic in Las Bambas concentrates remains low by market standards, and concentrate quality continues to be very acceptable for processing by smelters internationally. The recovery equations have been provided by the metallurgical team at Las Bambas in coordination with MMG Operations and Technical Excellence. The equations were generated based on metallurgical test work, from diamond drilling sample data in each pit. It should be noted that the copper (Cu), which is a determining factor for the recovery. The copper recovery is determined by the following equations. All assumptions are validated annually with plant performance data. <i>Ferrobamba:</i> For all the materials except marble: Cu Recovery (%) = (96.0-94.0*(CuAS/Cu)					
	For Marble supride: Cu Recovery (%) = (96.0-94.0*(CuAS/Cu) - 13 + 1.6)					
	For Marble mixed:					
	Cu Recovery (%) = $(96.0-94.0^{+}(CUAS/CU) - 24 + 1.6$ Chalcobamba:					
	<i>Cu Recovery (%) = 94.4-90.0*(CuAS/Cu) + 1.6</i> <i>Sulfobamba:</i>					
	Cu Recovery (%) = 89.2 - 80.4*(CuAS/Cu) + 1.6					



Section 4 Estimation and Reporting of Ore Reserves											
Criteria	Commentary										
	 An improvement in recovery of 1.6% has been added to account for ongoing metallurgical improvement work since the start of operation. The recovery of Mo, Ag, Au, has been provided by Metallurgical Group at Las Bambas 										
	Metal Ferrobamba Chalcobamba Sulfobamba										
		Mo % 49.1 49.1 49.1									
		Ag	%	80.0	80.0	80.0					
		Au	%	71.0	71.0	71.0					
	 Benchmarking of data from four other mines in South America has been contained the recovery algorithms that describe performance at these mines contained the three used for the three Las Bambas deposits. The four other mines Tintava, Toquepala, Cerro Verde and Antamina. 										
Environmental and Legal Permits	 The Environmental Impact Study for the Las Bambas Project was approved on 7 March 2011 by the Peruvian Government with directorial resolution Nº073-2011- MEM/AAM. 										
	 The construction of the project processing facilities, including the Tailings Storage Facility at Las Bambas was approved 31 May 2012 by the General Directorate of Mining through Resolution N°178-2012-MEM-DGM/V. 										
	 The Mine Closure Plan for the Las Bambas Project was approved 11 June 2013 through Directorial Resolution N°187-2013-MEM-AAM. As per the Peruvian regulatory requirements, an update of the Mine Closure Plan was approved 22 March 2023, through Directorial Resolution N°0044-2023-MEM-DGAAM. A first amendment to the Environmental Impact Study was approved 14 August 2013 through Directorial Resolution N°305-2013-MEM-AAM, whereby amendments to the Capacity of the Chuspiri water reservoir and changes to the environmental monitoring program were approved. On 26 August 2013 the relocation of the molybdenum circuit (molybdenum plant, filter plant and concentrate storage shed) from the Antapaccay region to the Las Bambas project area was approved by the environmental regulator through Directorial Resolution N°319-2013-MEM-AAM, after assessment of the technical report showed that the environmental impacts of the proposed changes were not significant. On 6 November 2013, through Directorial Resolution N°419-2013-MEM-DGM/V, the General Directorate of Mining approved the amendment of the construction permit for the processing facilities to allow the construction of the molybdenum circuit at the Las Bambas project area. 										
	 Minor cha Directoria Directoria 	nges to the p Resolution N Resolution N	oroject la N°078-2 N°113-20	ayout were ap 014-MEM-DC 015-MEM-DG	oproved 13 Fe GAAM and 26 AAM.	bruary 2014 t February 2015	nrough 5, through				
	 On 17 Nov Impact wa whereby o transport and train) 	rember 2014, as approved v changes to th system from were approv	, the sec with Dire ne water concent red.	ond modifica ectorial Resol managemen trate slurry pi	tion of the Stu ution Nº 559-2 t infrastructur peline to bimc	udy of Environ 2014-EM/DGA e and change odal transport	mental AM, s in the (by truck				



Section 4 Estimation and Reporting of Ore Reserves					
Criteria	Commentary				
	 On 28 April 2015 through Directorial Resolution RD169-2015-MEM-DGM/V allowed changes to the design of the tailings storage facility and changes to the water management system and auxiliary infrastructure. 				
	 Environmental approval for minor changes to project layout was approved 1 June 2016 through Directorial Resolution N°177-2016-MEM-DGAAM. 				
	 On 6 October 2018, the third amendment to the Environmental Impact Study was approved through Directorial Resolution 00016-2018-SENACE-PE-DEAR, to allow changes to the molybdenum plant, included haul road Ferrobamba to Chalcobamba, impacts and measure management in public transport, other ancillary infrastructure and changes to the environmental management plan. 				
	 Environmental changes to include the third ball mill and drilling at Jatun Charqui and others were approved on 11 February 2019 through Directorial Resolution N°00030- 2019-SENACE-PE-DEAR. 				
	 The permit to discharge treated water to Ferrobamba River was approved in 2016 through Directorial Resolution N°200-2016-ANA-DGCRH by Water National Authority and modified by R.D N° 055-2022-ANA-DCERH.On 16th October 2020, the environmental technical report was submitted to SENACE that included: Ferrobamba Phase 7A, drilling, processing facilities, truck shop relocation and ancillary components for Ferrobamba and Chalcobamba. 				
	 On 18 February 2022, the environmental technical report was approved that includes: Ferrobamba Phase 6A, Chalcobamba SW, increased concentrator plant throughput capacity by 5% (from 145,000 to 152,230 tpd.), relocation of overland conveyor (#4) and other components. 				
	 On 8 March 2022 was approved by MINEM the authorization to start activities for the Chalcobamba pit through R.D. N° 0182-2022-MINEM/DGM. 				
	 On 22 September 2022 was approved by SENACE, the environmental technical report trough Directorial Resolution N°00132-2022-SENACE-PE-DEAR that included TSF1 expansion (67MTn) and other components. 				
	 Las Bambas submitted the 4th modification of EIA on 12 July 2023 for evaluation by SENACE. This study included Ferrobamba Pit expansion (Phase 6 and 8), TSF 1 expansion (4200 level), drilling, conveyor relocation (Chalcobamba and Ferrobamba), selenium treatment plant, water management, new alternative concentrate transport routes and other components. 				
	 Geochemical characterisation studies on waste rock samples were conducted in 2007 and 2009/2010 as part of the Feasibility and Environmental Impact Studies, conclusions from these studies indicate that it should be expected that less than 2% of the waste rock from the Ferrobamba and Chalcobamba pits should be Potentially Acid Forming (PAF). No acid rock drainage from the waste rock dumps from these two pits should be expected. Waste rock samples from Sulfobamba were found to contain a higher concentration of sulphur and that 30% to 40% of waste rock could be PAF. 				
	 Further geochemical characterisation studies on waste rock and tailings samples are currently underway to support the Environmental Impact Study Modification. The operation of the Ferrobamba waste rock dump was approved on 29 September 2015 by the General Directorate of Mining through Directorial Resolution N°1780-2015-MEM/DGM. 				



Section 4 Estimation and Reporting of Ore Reserves						
Criteria	Commentary					
	 The Completion of the works for the construction of the Tailings Deposit Dam at an elevation of 4,096 was approved and its operation has been authorized with Directorial Resolution No. 0558-2022-MEM-DGM/V. Mining Technical Report was approved for the modification of the mining plan, Ferrobamba Pit expansion, Ferrobamba waste dump and low-grade ore pile (Directorial Resolution No 0220-2022- MINEM-DGM/V). Approval of the start of activities of the Chalcobamba pit (Directorial Resolution No. 0182-2022- MINEM-DGM) in March 2022. 					
	 Currently, Las Bambas has four water use licenses: 					
	 License for underground water obtained with Directorial Resolution 0519-2015- ANA / AAA.XI.PA, for a volume up to 9,460.800 m3 / year modified by R.D. 393- 2017-ANA-AAA.PA, R.D. 663-2018-ANA-AAA.PA, la R.D. 879-2019-ANA-AAA.PA y R.D. 0789-2022-ANA-AAA.PA. 					
	 License for non-contact water obtained with Directorial Resolution 0518-2015- ANA / AAA.XI.PA, for a volume up to 933.993 m3 / year, modified by Directorial Resolution 0856-2018-ANA - AAA.PA. 					
	 License for contact water obtained with Directorial Resolution 0520-2015-ANA / AAA.XI.PA, for a volume up to 4,730,400 m3 / year, modified by License for contact water obtained with Directorial Resolution 0957-2016-ANA / AAA.XI.PA, for a volume up to 4,730,400 m3 / year and Directorial Resolution 0861-2018- ANA. 					
	 License for fresh water obtained with Directorial Resolution 0778-2016-ANA / AAA.XI.PA, for a volume up to 23,501,664 m³ / year. 					
Infrastructure	Las Bambas has the following infrastructure established on site:					
	Concentrator currently in operation.					
	 Based on the current TSF design and the design assumptions for dry settled density and beach angle, the TSF currently under construction at Las Bambas has a final capacity of 1,240Mt of tailings from processing 1,260Mt. Four studies have been conducted & updated looking at increasing tailings storage capacity at Las Bambas: 					
	 Tailings characterization test work to assess final settled density and beach slope in current TSF. 					
	 Tailings Storage Facility 1 - RL 4,230 – entering Feasibility Stage. 					
	 Camp accommodation for staff, workers and critical contractors. 					
	 Water supply is sufficient for site and processing, sourced from the following: rainfall and runoff into Chuspiri dam, groundwater wells, contact waters, recirculating water in the process plant and from the tailings dam, pump station from Challhuahuacho River off-take structure. 					
	 Concentrate Storage and loading facilities exist at site. Transport of the copper concentrate is performed by trucks, covering 380km, to the Imata Village, then it is transported by train, covering 330km, up to Matarani Port in Arequipa region. Transport of the molybdenum concentrate is being performed by trucks from Las Bambas site to Matarani Port, covering 710Km. This method is also used temporarily for some of the copper concentrate. 					
	 There are main access roads that connect Las Bambas and hational roads, Cotabambas to Cusco and Cotabambas to Arequipa. 					
	 High voltage (220kV) electrical power is sourced from the national grid from the Cotaruse substation to Las Bambas, with two redundant power lines with a capacity 					



Section 4 Estimation and Reporting of Ore Reserves						
Criteria	Commentary					
	of 185MW each. Capacity can be increase to 230 MW maintaining full redundancy with minor investment from the transport service provider under its BOO contract.					
	 Most unskilled workers at the operation are from the region immediately surrounding the project. 					
	 Technical personnel are mostly sourced from within Peru. The operation has a limited number of expatriate workers. Additional support is provided by Las Bambas office in Lima and MMG Melbourne Head Office personnel. 					
	 Chalcobamba pit operation was planned to require additional purchase of land to the North side of the lease (Waste dump 2). However, an alternative location is already evaluated, it does not require land purchase as it is inside Las Bambas Property Limit, included in ITS8 Permits; this is what the ABP planning is based on currently. Sulfobamba pit operation requires access to additional land for the pit and other infrastructure. 					
	 Ferrobamba pit expansion beyond 2024 ABP's pit limit considers the land purchased in 2022 at the North side "Buffer Antuyo" (82 ha), as this expansion impacts Antuyo hamlet. 					
Costs	Las Bambas began commercial production on July 1, 2016.					
	• Future additional capital costs, such as TSF1 expansion are based on pre-feasibility studies, taking into account the new information that has become available over the past seven years of operation.					
	 According to the "MMG Las Bambas Open Pit Cut-Off Grade Report", the operating costs used for Ore Reserves estimation are based on the 2024 Budget (2024- 2026) and 2023 Asset Business Plan (ABP) (2027 onwards). Specifically: 					
	 The costs are calculated as the average of the first three budgetary years and the remaining years (fourth year and beyond) of the ABP. 					
	 The budget and ABP are connected by making the necessary changes for the input prices and consumption rates that were updated during the budgeting process; and 					
	 Identified initiatives for improvements that will be implemented over the course of the mine's life are integrated with approved cost savings. 					
	• The concentrates are not expected to include any deleterious elements that would result in smelter penalties.					
	• Exchange rates and metal costs are the same as those listed in the section describing cut-off grade parameters. These rates and prices, which have been approved by the Board, are provided by MMG Corporate and based on the opinion of external corporate brokers and internal MMG strategy.					
	Costs associated with concentrate logistics are based on terms of current contracts.					
	 Treatment and refining charges (TC/RC's) are based on marketing actuals and projections. Royalties payable are based on information provided by the Finance and Commercial Group at Las Bambas. 					
	Sustaining capital costs, together with mining costs and processing costs have been included in the pit optimisation. The sustaining capital costs are mainly related to TSF construction and equipment replacement. The inclusion or exclusion of these costs in the Ore Reserves estimation process followed MMG guidelines according to the purpose of each capital expenditure in the operation.					



Section 4 Estimation and Reporting of Ore Reserves							
Criteria	Commentary						
Revenue factors	 All mining input parameters are based on the Ore Reserves estimate ABP Reserve Case production schedule. All cost inputs are based on tenders and estimates from contracts in place, as with net smelter returns (NSR) and freight charges. These costs are comparable with the regional averages. The gold and silver revenue is via a refinery credit. 						
	 TC/RC's have been included in the revenue calculation for the project. 						
Market assessment	 MMG considers that the outlook for the copper price over the medium and longer term is positive, supported by further steady demand growth and supply constraints. 						
	 Global copper consumption growth will continue to be underpinned by rising consumption in China and the developing countries in Asia. These nations invest in infrastructure such as power grids, commercial and residential property, motor vehicles and transportation networks and consumer appliances such as air conditioners. 						
	 Global copper demand will also rise as efforts are made to reduce greenhouse gas emissions worldwide through increased adoption of renewable energy sources for electricity generation and electric vehicles for transportation. 						
	 Supply growth is expected to be constrained by a lack of new mining projects ready for development and the requirement for significant investment to maintain existing production levels at some operations. 						
	 Las Bambas has Life of Mine agreements in place with MMG South America and CITIC covering 100% of copper concentrate production which is sold to these parties at arms' length international terms. These agreements ensure ongoing sales of Las Bambas concentrate. 						
Economic	 The costs are based on the 2023 ABP Reserve Case projections which are based on actual costs and 2023 Budget information. 						
	 The financial model of the Ore Reserves mine plan shows that the mine has a substantially positive NPV. The discount rate is in line with MMG's corporate economic assumptions. 						
	 Various sensitivity analyses on the key input assumptions were undertaken during mine optimisations and financial modelling. All produce robust positive NPVs. 						
Social	 Las Bambas project is situated in the Apurimac region that has a population of approximately 456,000 inhabitants (Census 2014). The region has a university located in the city of Abancay, with mining programs that provide professionals to the operation. The project straddles two provinces of the Apurimac region, Grau and Cotabambas. Transportation of copper concentrate is through Heavy Houl Road (Apurímac, Cusco y Arequipa regions) 						
	 Las Bambas Project contributes to a fund - "FOSBAM" - that promotes activities for the sustainable development of the disadvantaged population within the project's area of influence, comprising the provinces Grau and Cotabambas – Apurimac. 						
	 Las Bambas Project and the local community entered into an agreement for the resettlement of the rural community of Fuerabamba, Convenio Marco. The construction of the township of Nuevo Fuerabamba was completed in 2014 and the resettlement of all community families were completed in 2016. Currently, in joint work with the community, MMG are executing the commitments described in the framework agreement - Convenio Marco. 						



Section 4 Estimation and Reporting of Ore Reserves							
Criteria	Commentary						
	 During the extraordinary general meeting in January 2010, Fuerabamba community approved the agreements contained in the so-called "compendium of negotiating resettlement agreements between the central negotiating committee of the community of the same name and representatives of Las Bambas mining project" that considers 13 thematic areas. 						
	 Las Bambas Project provides important support to the community in the areas of agriculture, livestock and health, education, and other social projects, which is well received. 						
	 Las Bambas has had periodic social conflict with communities along the public road used for concentrate transport and logistics. In response to these concerns Las Bambas has promoted a dialogue process in which the government, civil society and communities along the road participate. Besides, Las Bambas is also working to systematically improve the road conditions and reduce the impacts, while also maximising the social development opportunities available to these communities. 						
	 Las Bambas, for social management, complies with the national regulations of Peru and applies the corporate standards of MMG and ICMM. 						
	 The health emergency generated by COVID-19 has impacted the management of relations with communities from 2020 to 2022, causing difficulties in accessing activities such as meetings, monitoring and compliance with commitments, among others. 						
	 Violence and Social conflicts have occurred due to invasions to Las Bambas property; however, Las Bambas is currently in a dialogue process with six communities (Pumamarca, Huancuire, Fuerabamba, Huancuire, Chila and Choaquere). 						
Other	 Las Bambas owns 8,001 ha of land within the mining project. 						
	 The mining operation of Minera Las Bambas comprises 41 mining concessions, granting it the exclusive right to explore and exploit all metallic minerals within its internal boundaries, covering a total area of 35,000 hectares. 						
	 Furthermore, Minera Las Bambas also holds the respective authorizations issued by the Peruvian Government for the execution of mining activities, such as the Beneficiation Concession (concentrator plant, tailings dam, among others), granted by Resolution No. 2536-2015-MEM/DGM and its amendments, and the Authorization for Exploitation (Ferrobamba and Chalcobamba pits, Ferrobamba and Chalcobamba waste dumps, among others), granted by Resolutions No. 1780-2015- MEM/DGM(Ferrobamba), 182-2022-MINEM/DGM (Chalcobamba) and their amendments. 						
	 It is reasonable to expect that the future land acquisition and community issues will be materially resolved, and government approvals will be granted. 						
Classification	 The classification of Ore Reserves is based on the requirements set out in the JORC code 2012, based on the classification of Mineral Resources and the cut-off grade. The material classified as Measured and Indicated Mineral Resources within the final pits and is above the breakeven NSR cut-off (\$/t) value, classified as Proved and Probable Ore Reserves, respectively. 						
	The Competent Person considers this appropriate for the Las Bambas Ore Reserves estimate.						
	No Probable Ore Reserves have been derived from Measured Mineral Resources.						



Section 4 Estimation and Reporting of Ore Reserves							
Criteria	Commentary						
Audit or Reviews	 The 2014 Ore Reserves were reviewed by Runge Pincock Minarco for the MMG Competent Person's Report as part of the MMG due diligence process. An external third-party audit was undertaken in 2018 on the 2017 Ore Reserves by AMC Consultants Pty Ltd. The audit concluded that the 30 June 2017 Ore Reserve was prepared to an acceptable standard at the time it was completed. The recommendations of the review have been implemented since the completion of the 2019 Ore Reserve. AMC Consultants Pty Ltd completed the second external review on the 2020 Ore Reserve in 2021 and no material issues were found. Agmines Consultants completed the third external review on the 2023 Ore Reserve in late 2023 and no material issues were found. Mining One consultants reviewed the NSR calculation algorithm during 2024 and no material issues were found, as stated in their final report. The 2024 Ore Reserve estimates have been reviewed and validated by José Calle, here Derrices and the provide the provide the provided and validated by José Calle, here Derrices and the provided the p						
Discussion of relative accuracy / confidence	 The principal factors that can affect the confidence on the Ore Reserves are: Proved Ore Reserves are considered to have a relative accuracy of +/- 15% with 90% confidence level over a volume equivalent to 3 months of production while Probable Ore Reserves are considered to have a relative accuracy of +/- 15% with 90% confidence over a volume equivalent to 12 months of production. Geotechnical risk related to slope stability (due to uncertainties in the geomechanical domains/hydrology models) or excessive rock mass blast damage that could increase the mining rate. Metallurgical recovery model uncertainty due to operational variability. In the best-case scenario, this would represent variability of +/- 2% and in the worst scenario +/- 5% to metal recovery. Increases in rising operating costs for mining and processing. Increase in selling cost due to the transportation (truck and rail) cost increases. Capital costs variation for the new or expansion of current TSF. Also land acquisition and/permitting delays for additional TSF needs. The social-political context impacts the schedule of the approvals of studies and requires good relationship with the communities and an ongoing requirement for investment in delivering on social commitments. Future changes in environmental legislation could be more demanding. Current artisanal mining activities at Sulfobamba targeting high -grade mineralisation above the water table and social access may impact the timing of mining this pit due to delay in obtaining permitting and securing surface rights. It is recognised that the cost of accessing this resource will need to account for some form of economic resettlement for those community members engaged in the artisanal mining activities. An assessment has been conducted of the ore extracted by artisanal mining since it started in 2010 to 30 Ju						



3.3.3 Expert Input Table

A number of persons have contributed key inputs to the Ore Reserves determination. These are listed below in Table 7.

In compiling the Ore Reserves the Competent Person has reviewed the supplied information for reasonableness but has relied on this advice and information to be correct.

Table 7: Contributing experts – Las Bambas Ore Reserves

EXPERT PERSON / COMPANY	AREA OF EXPERTISE		
Hugo Rios, Resource Geologist Superintendent, MMG Ltd (Lima), Paolo Petersen, Senior Modelling and Resource Geologist.	Mineral Resource models		
Rex Berthelsen, Head of Geology, MMG Ltd (Melbourne)			
Hernan Guerrero, Principal Metallurgist, MMG Ltd (Lima). Andrew Goulsbra, Head of Processing, MMG Ltd (Melbourne)	Updated processing parameters and production record		
Maximiliano Adrove, Principal Geotechnical, MMG Ltd (Lima)	Geotechnical parameters		
Jeff Price, Head of Geotech, MMG Ltd (Melbourne)			
José Calle, Superintendent Long Term Planning/Studies, MMG Ltd (Lima)	Cut-off grade calculations Whittle / MineSight optimisation and pit designs		
Jaime Trillo, Technical Services Manager, MMG Ltd (Las Bambas)	Production reconciliation		
Pablo Gomez (Manager Area Tailings), Erik Medina (Principal Tailings), MMG Ltd (Lima),	Tailings Management		
Giovanna Huaney, Environmental Permitting Lead, MMG Ltd (Lima)	Environmental / Social / Permitting		
Oscar Zamalloa (Business Evaluation Lead), Mitchell Velasquez (Senior Long Term Cost Engineer), MMG Ltd (Lima)	Economics Assumptions		
Hong Yu, Head of Marketing, MMG Ltd (Melbourne)	Marketing		



3.3.4 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Ore Reserve statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

3.3.4.1 Competent Person Statement

I, José Calle, confirm that I am the Competent Person for the Las Bambas Ore Reserve section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Registered Member of The Australasian Institute of Mining and Metallurgy and have sufficient experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I have reviewed the relevant Las Bambas Ore Reserve section of this Report to which this Consent Statement applies.

I am a full-time employee of MMG Limited at the time of the estimation.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any matters that could be perceived by investors as a conflict of interest.

I verify that the Las Bambas Ore Reserve section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Las Bambas Ore Reserves.

3.3.4.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

Regarding the sections of this report for which I am responsible – the Las Bambas Ore Reserves - I hereby consent to the release of the 2024 Mineral Resources and Ore Reserves Statement as at 30 June 2024, including the Executive Summary and Technical Appendix Report, along with this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

JOSE CALLE, MAusIMM (#334136)

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Signature of Witness:

Date:

Victor Guimaraes (Lima, Peru)

Witness Name and Residents: (eg, town/suburb)



4. Khoemacau Operation

4.1 Introduction and Setting

Subsequent to MMG's acquisition of the project in 2023, Khoemacau Copper Mine is a joint venture operation between the operator MMG (55%) and a wholly owned subsidiary of CNIC Corporation Limited (45%).

The relevant assets comprising the Khoemac<u>a</u>u Copper Project are located within the Ngamiland and Ghanzi districts of northwest Botswana, in the Kalahari Desert. The licence area is approximately 70 km southwest of the town of Maun and 50 km south of the village of Toteng.



Figure 4-1: Khoemacau location

The Project consists of a current operating underground copper mine (Zone 5), and a total of 14 other deposits which have defined Mineral Resources, and several are planned to be in production in the near future.

Copper and silver mineralisation is hosted within the Ghanzi-Chobe Fold and Thrust Belt that forms the southern portion of the much larger Pan-African Mobile Belt. In Botswana, the Ghanzi-Chobe Belt is also known as the Kalahari Copper Belt, and it consists of a deformed package of metasedimentary and metavolcanic host rocks that contains several significant stratabound sediment-hosted copper deposits.

Mineralisation is characterised as sediment-hosted copper with multi-stage mineralisation history that includes both diagenetic (sediment hosted) and epigenetic (structurally hosted) events.

Mining commenced in 2021 at the Zone 5 deposit with ore processed through the 3.65 Mtpa Boseto processing plant. Commissioning of the Zone 5 mine was completed in 2023 to support an Expansion Project focused on the development and mining of three additional areas (Mango, Zeta North East (Zeta NE) and Zone 5 North (Zone 5N)) that will replace Zone 5 production from the Boseto plant. Current plans propose the expansion of production from Zone 5 from 3.65 Mtpa to 4.50 Mtpa that would be processed through a new processing plant co-located in the immediate vicinity of the existing Zone 5 underground mines.



4.2 Mineral Resources – Khoemacau

4.2.1 Results

	2024	30 June				2023	31 Decen	nber		
Khoemacau I	Mineral Res	ources								
				Containe	d Metal				Containe	ed Metal
Zone 5 ¹	Tonnes (Mt)	Copper (% Cu)	Silver (g/t Ag)	Copper ('000 t)	Silver (Moz)	Tonnes (Mt)	Copper (% Cu)	Silver (g/t Ag)	Copper ('000 t)	Silver (Moz)
Measured	16	1.7	16	270	7.8	10	2.1	20	220	7
Indicated	33	1.6	15	530	16	27	1.9	19	520	17
Inferred	63	1.8	20	1,100	40	52	2.1	23	1,100	38
Total	110	1.7	18	1,900	64	89	2.0	21	1,840	62
Zone 5 North	14									
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	4.4	2.6	44	110	6.1	4.4	2.6	44	110	6.1
Interred	19	1.8	30	340	18	19	1.8	30	340	18
	23	1.9	32	450	24	23	1.9	32	450	24
Zeta NE ²										
Indicated	-	-	- 52	-	-	-	- 2 5	-	-	-
Indicated	0.9 20	2.0	33	250	10	0.9	2.3	33	220	15
	20	20	30	580	37	20	20	30	570	37
Banana Zone	23 3	2.0		500	57	23	2.0	55	570	57
Measured	-	-	-	-	-	_	_	-	-	-
Indicated	33	14	21	440	22	15	15	23	220	11
Inferred	120	0.82	97	950	37	87	0.92	11	800	32
Total	150	0.93	12	1.400	59	100	1.1	12	1.000	43
Ophion ⁴				.,					.,	
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	14	1.1	12	150	5.3	14	1.1	12	150	5.3
Total	14	1.1	12	150	5.3	14	1.1	12	150	5.3
Plutus ⁵										
Measured	2.4	1.3	13	31	1.0	2.4	1.3	13	31	1.0
Indicated	9.3	1.3	13	120	4.0	9.3	1.3	13	120	4.0
Inferred	57	1.4	12	790	22	57	1.4	12	790	22
Total	69	1.4	12	940	27	69	1.4	12	940	27
Selene®										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Interred	7.1	1.2	20	83	4.5	/.1	1.2	20	83	4.5
	7.1	1.2	20	83	4.5	7.1	1.2	20	83	4.5
Zeta UG'						0.00	1.0	01	10	0.0
Indicated	- 0 E	-	-	-	- 0 E	0.88	1.8 1.7	31	10	0.9
Indicated	0.0	1.0	20	140	0.0	4.7	1.7	26	62	4.5
	20	1.5	29	320	20	10	1.4	20	160	9.0 9.0
Zone 6 ⁸	20	1.0	30	520	20	10	1.0	20	100	3.0
Measured	-	_	-	_	_	-	-	_	_	_
Indicated	-	-	_	_	-	_	_	_	_	_
Inferred	7.1	1.6	10	110	2.3	5.2	1.6	7.2	85	1.2
Total	7.1	1.6	10	110	2.3	5.2	1.6	7.2	85	1.2
Mango ²										
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	11	1.9	23	220	8.4	11	1.9	23	220	8.4
Inferred	10	1.7	19	170	6.2	10	1.9	19	190	6.2
Total	21	1.8	21	390	15	21	1.9	21	410	15
Stockpile										
Measured	0.02	1.5	15	0.27	0.01	0.03	1.5	13	0.45	0.01
Total	450	1.4	18	6,400	260	370	1.5	19	5,700	230

Notes

 Underground Mineral Resources include all sulphide blocks inside MSO shapes returning \$50 NSR, based on \$4.90/lb Cu, \$26.13/oz Ag, recoveries averaging 88% for Cu and 84% for Ag and assumed payability of 97% and 90% respectively. Depleted to 30 June 2024. Remnant pillars inside the mining area are considered sterilised and are not included in the stated Mineral Resources.

 Underground Mineral Resources reported inside the high-grade zones and for sulphide material only. Reporting cutoff grade (1% Cu) was selected based on assumed prices of US\$3.54/lb and US\$21.35/oz for Cu and Ag, respectively, assumed metallurgical recoveries of 88% and 84% respectively, and assumed payability of 97% and 90% respectively. This equates to approximately US\$66/t of NSR value.

3. Refer to separate reporting table for detail regarding cut-off grades.


- 4. Open pit Mineral Resources reported at 0.6% Cu cut-off for sulphide material only.
- Underground Mineral Resources reported above a cut-off grade of 1.07% CuEq where CuEq = Cu + Ag*0.0113; US\$3.24/lb Cu and US\$25/oz Ag and assumed recoveries of 85% for Cu and 75% for Ag.
- Underground Mineral Resources reported at 1% Cu cut-off for sulphide material only.
- Underground Mineral Resources reported at 1% Cd Cdt off for supplice material only.
 Underground Mineral Resources reported above a cut-off grade of 0.9% CuEq where CuEq = Cu + Ag*0.007;
- \$4.90/lb Cu, \$26.13/oz Ag and assumed recoveries of 85% for Cu and 75% for Ag.
- 8. Underground Mineral Resources reported above a cut-off grade of 0.9% Cu for sulphide blocks only.
- 9. Figures are rounded according to JORC Code guidelines and may show apparent addition errors.
- 10. Contained metal does not imply recoverable metal.



	2024	30 June				2023	31 Decembe	er		
Banana Zor	ne Mineral R	esources								
				Containe	ed Metal				Contain	ed Metal
North	Tonnes	Copper	Silver	Copper	Silver	Tonnes	Copper	Silver	Copper	Silver
East Fold ¹	(Mt)	(% Ċu)	(g/t Ag)	('000 t)	(Moz)	(Mt)	(% Ċu)	(g/t Ag)	('000 t)	(Moz)
Measured	-	-	-		-	-	-	-	-	-
Indicated	15	10	14	160	7	93	11	16	100	5
Inferred	0	0.6	5	0	0	0.1	2.6	29	2	01
Total	15	1.0	14	160	ž	9.3	1.1	16	100	5
Chalcocite ¹	10		••		•	0.0				· ·
Measured	_	-	-	-	_	-	-	-	-	-
Indicated	-	_	_	-	_	_	_	-	_	_
Inferred	68	0.42	34	290	8	50	0.50	39	250	6.2
Total	68	0.42	3.4 3.4	200	ĕ	50	0.00	39	250	62
North East I		0.42	0.4	200	0	00	0.00	0.0	200	0.2
Massurad	-					_				
Indicated	15	1 Q	30	27	2	_	_	_	_	_
Indicated	1.5	1.0	26	27	2			_		
Total	1.J 2.1	0.4	20	52	2					
North Limb	Mid ²	0.4	5		5	_	_	_	_	-
Maggurod	MIG									
Indicated	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Tetel	7.2	1.2	1/	00	4.0	3.0	1.4	20	42	2.0
TOtal	/.Z	1.7	20	32	Z	3.0	1.4	20	42	2.0
	NOTU1-									
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	5.5	1.6	29	87	5.0	0.01	1.0	14	0.1	<0.1
Interred	2.3	1.6	31	38	2.3	6.2	1.6	31	100	6.2
lotal	7.8	1.6	30	120	7.4	6.2	1.6	31	100	6.2
	South									
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	_	-	-	-	-	-	-	-	-	-
Inferred	5	1.0	12	49	2	1.6	1.1	15	18	0./
lotal	5	1.0	12	49	2	1.6	1.1	15	18	0.7
South Limb	2									
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	9.1	1.5	20	130	5.9	3.3	1.5	20	49	2.1
Total	9.1	1.5	20	130	5.9	3.3	1.5	20	49	2.1
South Limb	Definition ²									
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	4.0	1.8	26	73	3.4	2.6	2.2	33	57	2.8
Inferred	3.6	2.1	30	73	3.5	2.9	2.4	36	70	3.4
Total	7.6	1.9	28	150	6.8	5.6	2.3	34	130	6.2
South Limb	Mid ²									
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	3.0	1.7	23	51	2.2	8.0	1.4	20.0	110	5.1
Total	3.0	1.7	23	51	2.2	8.0	1.4	20.0	110	5.1
South Limb	North ²									
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-
Inferred	2.6	1.1	16	29	1.3	1.2	1.5	20	18	0.8
Total	2.6	1.1	16	29	1.3	1.2	1.5	20	18	0.8
New Discov	/ery ²									
Measured	-	-	-	-	-	-	-	-	-	-
Indicated	6.5	1.5	25	100	5.1	3.4	1.9	35	64	3.8
Inferred	4.5	1.3	18	61	2.6	4.1	1.4	21	58	2.8
Total	11	1.5	22	160	7.7	7.5	1.6	27	120	6.6
Total		-								
Banana	150	0.9	12	1,400	59	100	1.0	13	1,000	43

Open pit Mineral Resources are reported for sulphide only at 0.2% Cu cut-off inside rf1.3 optimised pit shells using \$4.90/Ib Cu, \$26.13/oz Ag and assumed recoveries of 88% for Cu and 84% for Ag. Underground Mineral Resources are reported for sulphide only at 0.9% CuEQ where CuEq = Cu + Ag*0.007; \$4.90/Ib Cu, \$26.13/oz Ag and assumed recoveries of 88% for Cu and 84% for Ag. 1.

2.

Figures are rounded according to JORC Code guidelines and may show apparent addition errors. 3.

Contained metal does not imply recoverable metal. 4.



Table 9 Sum	hary of timing for	drilling used in	n Mineral Resource	e estimates acros	s the Khoemacau	Copper F	Project
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Time span	Period	Operator	MR drilling areas
1970-1980	1	US Steel	Plutus, Zeta, Zeta NE
1989-1994	2	AAC	BZ North Limb, BZ NE Fold, BZ South Limb, Zone 6
1999-2000	3	Delta JV	BZ NE Fold, Selene, Zeta, Zeta NE
2007- mid-2015	4a	DML	Ophion, Plutus, Selene, Zeta, Zeta NE
mid-2015 -	5a	KCM	Ophion, Plutus, Selene, Zeta, Zeta NE
current			
2007-2013	4b	Hana	BZ Chalcocite, BZ North Limb, BZ NE Fold, BZ New Discovery, BZ South Limb,
			BZ South Limb Definition, NE Mango, Zone 5, Zone 6
2013-current	5b	KCM	BZ Chalcocite, BZ New Discovery, NE Mango, Zone 5, Zone 5N, Zone 6

Note: AAC is Anglo American Corporation, DML is Discovery Metals (Botswana) Limited, Hana is Hana Mining Limited, KCM is Khoemacau Copper Mining Pty Ltd. The Delta JV was between Delta Gold, Kalahari Gold and Copper Pty Ltd and Gencor/BHP Billiton. BZ is Banana Zone.

4.2.2 Mineral Resources JORC 2012 Assessment and Reporting Criteria

The total reported Mineral Resource for the Khoemacau Copper Project (Khoemacau) comprises 15 deposits, covered by 22 block models. The variety of reporting dates, authors and cut-off grades is a function of changing Project owners and exploration priorities across the Khoemacau area over time. For most of the model areas there is a mix of historical Project operators, so the contributing dataset may have been collected using slightly different methodologies. The details in Section 1 of this JORC Code Table 1 are split by the time spans referred to in Table 9 and then by the deposit concerned where necessary.

Section 1 Sampling Techniques and Data					
Criteria	Commentary				
Sampling techniques	2013 – current (KCM)				
coninques	Sampling – diamond (DD) core:				
	 Core sample intervals are marked after geotechnical logging, geological logging and bulk density measurements are completed. Intervals to be sampled are determined by the geologist based on lithology, alteration and mineralisation. Samples do not cross lithological boundaries. 				
	 Core sampling begins 10 m before and ends 10 m after mineralisation, generally within the D'Kar Formation and into the Ngwako Pan Formation (NPF). Sampling is continuous and lengths vary from 0.3 m to 1.0 m. Sample intervals are marked directly on the core. The core cutter marks a line along the long axis of the core, placing tick marks at 30 cm intervals along one side of the line to ensure the same side of the core is sampled down the drillhole. A diamond rock saw is used to cut along the line. Fresh water is continuously pumped to the saw to prevent sample contamination and overheating of the saw blade. The cut core is returned to the box and the geologist then prepares the half-core sample, placing it into a sample bag for shipment to the assay laboratory for processing. The other half-core is retained in the core box and kept on site as a record. 				
	Sampling – reverse circulation (RC) chips:				
	• Sampling for RC drilling is over regular downhole 1 m intervals. RC chips and powder are collected from the cyclone and placed in large bulk bags that contain approximately 30 kg of sample. The samples are weighed at the drill site before any splitting or sieving takes place. Weights are used to monitor the RC sample recovery.				
	 As with DD drill core, RC sampling begins above visible mineralisation and ends 10 m after the contact of the D'Kar with the NPF. All collected samples are sent through a riffle splitter that divides the sample to one-quarter of its size, with three-quarters of the material being returned to the bulk bag, while the original 				



Section 1 Sampling Techniques and Data				
Criteria	Commentary			
	quarter is split a second time. Of this second split, half is returned to its bulk bag, while one quarter (1/16th of the original sample) is placed in a replica bag and kept as a permanent record of the sample. The other quarter (1/16th of the original sample), weighing approximately 1.5–1.8 kg, is placed into a sample bag for possible laboratory assaying.			
	 The remaining bulk sample is used for sieving and logging purposes with representative chips being placed into chip trays. Each sample selected for assaying is analysed using an Olympus Delta DS 6000 Series handheld x-ray fluorescence (XRF) instrument to aid in the final selection of samples to be sent for analytical testing. 			
	Sampling – Zone 5 On-ore DD drilling (not used in Mineral Resource grade estimations. On-ore drilling is effectively Grade Control drilling):			
	As for current, except:			
	 Sampling is conducted up to 5 m before and after the mineralised zone to provide actual dilution grades for mining 			
	 Full core is sampled. 			
	<u>2007 – 2013 (Hana)</u>			
	Sampling - DD core:			
	 As for current (KCM), except: 			
	 Samples within these intervals are continuous and vary from 0.4 m to 4.0 m in length (although they average 1 m per sample). 			
	 A blank, or a standard was inserted into the sample stream at the appropriate intervals (one quality control sample every 10th sample). An empty sample bag along with a sample number was sent to the laboratory for duplicate samples. 			
	Sampling – RC chips:			
	 As for current (KCM), except: 			
	For the sections that will be sampled, the bulk bags are weighed and placed in the proper order. A 50/50 riffle splitter divides the sample in half, with each half going into their own tray. One half then goes back into the bulk bag, while the other half is split one more time into two trays. One tray is placed in a replica bag (kept as a permanent record of the sample), while the half is returned to its bulk bag. The geologist then takes three scoops of material and places them into a sample bag. Samples each weigh roughly 1.0–1.5 kg.			
	 Duplicate samples were prepared at the field site using the sample technique described above, while blanks and standards are labelled in an empty bag and stapled to the previous sample. Once these samples are prepared, they are brought to the core processing site at which time the appropriate standard and blank samples are filled. 			
	 Samples are never left at the drill site unattended overnight. The replica sample bags are stored at the core processing site. 			
	<u>2007 – 2015 (DML)</u>			
	As for current (KCM), except:			
	 The minimum DD sample length varied and sampling started 3.0 m before the mineralised zone. 			



	Section 1 Sampling Techniques and Data			
Criteria	Commentary			
	 RC samples (1 m length) were reduced to 3 kg at the drill rig using a cone splitter. 			
Drilling techniques	<u>2013 – current (KCM)</u>			
	 A combination of DD drilling and RC drilling informs the reported Mineral Resources. Aircore, rotary air blast and percussion drilling have also been used as explorations tools. 			
	 RC drillhole diameters ranged from 4" to 5.5" depending on the drilling program and the depth of the drillhole. 			
	• DD drilling core sizes range from PQ near surface to HQ, NQ and BQ at depth depending on the capabilities of the drill rig and the depth of the drillhole. Offore drilling at Zone 5 includes underground exploration and resource delineation drilling and is NQ diameter.			
	 From 2015, all drill core (except On-ore drilling) at Zone 5 was orientated with a Reflex Act III tool to collect structural information for geotechnical and structural studies. Coverage of core orientation at other deposits is variable. 			
	<u>2007 – 2013 (Hana)</u>			
	 Drilling comprises RC and fully cored DD drillholes. DD drillholes are either HQ, NQ or BQ in size with RC holes either 130 mm or 140 mm in diameter, with either 152.4 mm or 165 mm diameter drilled for casing. 			
	<u>2007 – 2015 (DML)</u>			
	 Drilling comprises RC, fully cored DD drillholes with RC pre-collars and DD core "tails" in the mineralised zone. DD drillholes are either HQ or NQ in size with RC holes 5.5" in diameter. 			
	 DD core recovery was generally very good, so triple-tube drilling was not considered necessary. 			







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Section 1 Sampling Techniques and Data					
Criteria	eria Commentary				
	Core recovery for MR areas >=100m downhole only				
	Area	Count	M	ean	
	Alea	count	Recovery (%)	Run Length (m)	
	Zone 5	88,304	98	1.1	
	Zone 5 North	10,627	97	1.5	
	Zeta NE	7,553	95	1.7	
	Mango NE	4,356	98	2.0	
	North East Fold	1,733	98	2.2	
	New Discovery	1,822	98	2.8	
	South Limb Definition	207	95	2.5	
	Banana other	882	97	2.2	
	Zeta	4,308	89	1.4	
	Plutus	2,437	97	2.4	
	Ophion	155	96	1.9	
	Selene	362	98	2.1	
	Total	122,746	97	1.3	
	the oxide and t due to sample 2013 – current (KC	ransition loss to th	zone sampl ne fine fractio	ing may resu on.	It in low bias of copper grades
		<u>, , , , , , , , , , , , , , , , , , , </u>	, ,.		
	Geotechnical core logging, including recording core recovery, has been in effect since Hana implemented it in early 2008.				
	 DD core recovery is calculated for individual drill runs and generally very good so triple tube drilling is not considered necessary 				
	 Hole depths are rods in the hole length and core 	e validat e. Work is e loss, ar	ed by measu s done syste nd recording	ring the "stic matically dov the informati	k up", that is, the length of steel vn the hole, measuring drill run on on the log sheet.
	 Under current p the responsible the mineralised Geologist and P the excessive o etc.) or poor dr RC drilling reconsistent 	protocols geologi I zone is Explorati core loss illing pra	s, the driller of st. If a core I recorded, dr on Manager. if caused by ctices and th re monitored	documents a oss greater t illing is stopp The geological geological f he hole will b using the re	nd reports any core losses to han 10% of the drill run is within bed and reported to the Senior st investigates to determine if actors (in fault gouges, cavities e redrilled. lationship between expected
	sample weight <u>2007 - 2013 (Hai</u>	per mete <u>na)</u>	er and actual	ample weigh	nt.
	 Geotechnical c since Hana imp 	ore logg elemente	ing, including d it in early 2	g recording c 2008.	ore recovery, has been in effect
	2007 - 2015 (DM	L)			
	 Holes were re- 20% for a drill r 	drilled in	transition ar	nd fresh rock	if core recovery was lower than
	 Low recovery v 	values we	ere often ass	ociated with	low core retrieval in drill runs in
	poor ground co	naitions			
	 No systematic recovery obser 	recordin ved at th	g of RC sam ne rig was ge	ole recovery enerally adeq	was undertaken. Sample uate.
Logging	2013 – current (KC	CM)			
	All core and RC	holes a	re logged lith	nologically us	ing standardised codes for rock
	9 PC, 9 am 3120	, 551501			



Section 1 Sampling Techniques and Data						
Criteria	Commentary					
	intensity, mineralisation, veining and jointing/faulting was also captured. Core photos were taken after logging was completed.					
	 Geotechnical core logging was implemented in early 2008. At that time, it included total core recovery, rock quality designation (RQD), hardness and joint infill data. In 2015, the geotechnical logging protocols were revised to include orientated core to gain structural data on faults, joints, foliations, and bedding. 					
	 All drill core at Mango, Zeta NE and Zone 5N has been geotechnically logged with orientated core. 					
	 Specific geotechnical drillholes have also drilled in areas of interest within the orebodies and in areas such as the boxcuts for access to Zone 5. The geotechnical drill programs were complimentary to the infill resource drilling programs. 					
	<u>2007 – 2013 (Hana)</u>					
	 Strict logging codes were adhered to during the core logging process and field geologists followed Hana's standard operating procedure for core handling, logging and geotechnical processes. Jointing was only recorded for core drill holes. The metre interval (from and to) was recorded, and the data below was described within the core logs: 					
	 Major rock unit (colour, grain size, texture), subunit, weathering, alteration (style and intensity), mineralisation (type of mineralisation, origin of mineralisation, estimation of % sulphides/oxides), veining (type, style, origin, intensity), structure (joints, faults), water. 					
	<u>2007 – 2015 (DML)</u>					
	 The logging procedure documentation used by DML included general logging principles plus specific DD core logging and RC chip logging principles in line with industry standards at the time. Characteristics logged included lithology, weathering, alteration, stratigraphy and mineralisation type and style. 					
	 Logging was written onto paper forms and entered in spreadsheets. Limited geotechnical data (RQD) was logged within DD holes. 					
Sub-sampling	<u>2013 – current (KCM)</u>					
techniques and sample preparation	 For diamond core, samples vary between 0.3m to 1.0m in length. Core is sawn in half using a wet rock saw. Half of the core is taken as sample to the assay laboratory and the other half left in the core tray as a permanent record. 					
	 Dried RC chips from 1m sample lengths are divided through a multiple stacked splitter to create a 1.5-1.8kg sub-sample (approximately one sixteenth of the original sample) for the assay laboratory. All samples are sealed in wooden crates and shipped to the assay laboratory. 					
	 Intervals to be sampled are determined by the geologist and adhered to the standard operating procedures. 					
	 All laboratories currently in use are independent of Khoemacau and internationally recognised with ISO 9001 certification. 					
	 Certified Reference Materials (CRMs) are rotated into the sample stream to represent a low, average and high copper concentration. Blanks are inserted to help identify contamination problems and duplicates to understand assay precision and the nugget effect of the mineralisation. 					



Section 1 Sampling Techniques and Data				
Criteria	Commentary			
	 The core boxes containing the remaining half of the core and RC chips bags containing the remaining drill chips are stacked in the processing yard. The exploration camp is fenced and gated and is restricted to unauthorised personnel. Core samples, RC chips and pulps are stored within the gated camp. 			
	 Core and RC samples are weighed, dried, and crushed by the laboratory before being pulverised to greater than 85% passing 75 µm. The Competent Person considers the sample size is reasonable for the type of mineralisation and analysis being used. 			
	Zone 5 on-ore drilling (used only for orebody interpretation)			
	 Samples vary between 0.3m to 1.0m in length. Although not used in grade interpolation for the Mineral Resource Estimate, all drill core for the on-ore samples was fully sampled and sent to the lab for assaying. 			
	 The on-site laboratory was used to assay the on-ore samples. The on-site laboratory is not certified with ISO 9001. 			
	 At the laboratory, core samples were prepared for assaying by weighing, drying, crushing, and then pulverised to greater than 85% passing 75 µm. 			
	 The sample size used is considered to be appropriate for the style of mineralisation and the analytical techniques being used. 			
	<u>2007 – 2013 (Hana)</u>			
	 Core samples were cut in half by a core-cutter with one half placed in a sample bag and the other retained at site. Intervals to be sampled were determined from the geological logging. 			
	 RC chips were placed in a sample bag by a field geologist after the chips were logged. The geologist determined the intervals for sampling from the geologic log. Sampling began 2 m above the first appearance of significant mineralisation and was continuous until 2 m past the last mineralisation. All samples were 1 m long. 			
	 Samples were shipped to Australian Laboratory Services (ALS) in Johannesburg, and Scientific Services (SciServ) in Cape Town. Both laboratories were independent of Hana. 			
	 Core samples, sent to ALS prior to August 2011, were weighed, dried, and then crushed through a Boyd crusher to -2 mm before being pulverised in a ring and puck swing mill to 80% less than 75 µm. 			
	 Samples sent to SciServ (core and RC samples, after August 2011) were weighed, dried, and crushed to greater than 70% passing 2 mm, before being pulverised to greater than 85% passing 75 µm (Tyler 200 mesh). 			
	 The sample size and preparation method used is considered reasonable for the style of mineralisation and the analytical techniques used. 			
	<u>2007 – 2015 (DML)</u>			
	 Core was cut in half and sampled over 1.0 m intervals and split at lithological boundaries. Minimum sampling size was 0.1 m. 			
	 All subsequent sample preparation was undertaken at commercial laboratory facilities in Johannesburg and Perth using industry standard crushing and pulverising equipment and protocols. 			
	 RC sampling was conducted at 1 m intervals within mineralisation. The procedures state that samples were cyclone split to a size of 2.5 kg. 			



		Section	n 1 Sampling T	echniques and Data			
Criteria	Commentary						
	 When dry sampling was not possible RC drilling was abandoned in favour of DD drilling. 						
	 DD drill core was sawn longitudinally and half-core samples submitted for analysis. All subsequent sample preparation was undertaken at commercial laboratory facilities in Johannesburg and Perth using industry standard crush and pulverising equipment and protocols. 						
	Plutus and Zeta Grade Control						
	– RC sp Sa to	grade con litter. Samp mples were 90% passir	itrol drill sample les were prepa e crushed to 2 ng 75 μm.	es were initially split at the rig using a cone ared and analysed at the on-site laboratory. mm, split to 800 g using riffle splitter, pulverised			
	– Fie du	eld duplicat plicates we	e samples wer ere collected at	e collected at a ratio of 1:20. Laboratory t the ratio of 1:25.			
	– La co tim	boratory du efficient of nes the leve	uplicates show variation (CV) el of detection.	a typically high level of precision with a for copper of 4% for samples greater than 10			
	- Th de	e precision posit (22%	of field duplic CV for copper	ates was only moderately good for a base metal).			
Quality of	Summary	of assay labo	pratories and met	hodology for MR related drilling			
assay data	Company	Years	Laboratory	Methodology			
and laboratory	US Steel	1970-1980	Unknown	X-Ray Fluorescence (XRF) for all assays			
lesis	AAC	1989-1994	Unknown	Atomic Absorption Spectrometry (AAS) for all assays			
	Delta Gold	1996-2000	Unknown	Atomic Absorption Spectrometry (AAS) for all assays			
	DML	2006-2013	SGS, Genalysis or ALS, Johannesburg or Perth	Aqua Regia or 3-acid digest* with inductively coupled plasma optical emission spectrometry (ICP-OES) finish (up to 33 elements including Cu, Ag, Pb, Zn)			
		2007-2011	ALS, Johannesburg	Cu, Ag, Pb, Zn - acid digest with AAS finish Mo by XRF ASCu - 5% H2SO4 cold leach with AAS finish			
	Hana	2011-2013	Scientific Services Ltd, Cape Town	Aqua Regia or 4-acid digest with inductively coupled plasma optical emission spectrometry (ICP-AES) finish (33 elements including Cu, Ag, Pb, Zn) Cu>10,000ppm reassayed with AAS finish			
		2013- present	Scientific Services Ltd, Cape Town	Aqua Regia or 4-acid digest with inductively coupled plasma optical emission spectrometry (ICP-AES) finish (33 elements including Cu, Ag, Pb, Zn) Cu>10,000ppm reassayed with AAS finish			
		2014- present	Scientific Services Ltd, Cape Town	Cu>1,000ppm analysed for acid soluble Cu (ASCu); 1 hour 5% H2SO4 cold leach with AAS finish			
	КСМ	2017- present	Scientific Services Ltd, Cape Town	All mineralised samples assayed for S and Fe to aid mineralogical classification of Cu species			
		Zone 5 Exploration and off-ore drilling	ALS Johannesburg or Alfred H Knight Laboratories (AHK) Zambia	Aqua Regia or 4-acid digest with inductively coupled plasma optical emission spectrometry (ICP-AES) finish (33 elements including Cu, Ag, Pb, Zn); Cu>10,000ppm reassayed with ICP-AES finish ASCu by H2SO4 leach with AAS finish Fluorine (F) by KOH fusion and ion chromatography			
		Zone 5 on-ore drilling	On site AHK Boseto	4 acid digest with multi-element read by ICP-OES. The on-site laboratory is not ISO 9001 certified.			
	<u> 2013 – c</u>	urrent (KCN	<u>/)</u>				
	Industry followed from the	standard q for all sam protocols p	uality assurand ples analysed. out in place by	ce and quality control (QAQC) procedures are Many of the procedures have been carried over Hana.			
	 Proce use o 	edures inclu f Certified I	ude the proper Reference Mat	documentation and implementation of sampling, erials (CRMs), blanks and duplicates to			



Section 1 Sampling Techniques and Data				
Criteria	Commentary			
	independently check laboratory analysis and maintain a proper chain-of- custody for samples.			
	 On average, CRMs, to monitor accuracy, are inserted into the sample stream at a rate of one of every 30 samples. Field duplicates, to monitor precision, are also inserted into the sample stream at a rate of one of every 30 samples. Likewise, blanks, to monitor contamination and sample mix-ups, are inserted into the sample stream at a rate of one of every 30 samples. The insertions occur on site at Khoemacau. In addition, the assay laboratory follows their own internal QAQC protocols during the sample preparation. 			
	 10% of all sample pulps dispatched for assay to the primary laboratory are sent to a secondary laboratory (Genalysis or ALS in Johannesburg) for check assaying. Samples are selected based on composited mineralised intervals. 			
	 In 2022 an issue was identified in the blank sample analysis for Zone 5 off-ore drilling, with 12% of 422 submitted samples failing to meet the 0.001% Cu upper threshold criteria. Investigations indicated that this is likely due to issues with the background Cu levels in the blank material, as the failures were across multiple laboratories. A new blank material has since been sourced. 			
	 Umpire laboratory check analyses indicate an historical negative bias in silver assays through SciServ between 2008 and 2015. The magnitude of the bias has been estimated at 5–15% by KCM which results in a conservative silver grade estimate in the area of the affected drillholes. Given silver contributes <10% of the deposit value this issue is not considered material by the Competent Person. 			
	 Quality control samples are monitored as results are received and results are accepted or rejected based on criteria set in the site Standard Operating Procedures (SOPs). There are no outstanding issues regarding QAQC. The Competent Person considers the QAQC program is suitable for monitoring of assay inputs for the Mineral Resource estimations. 			
	<u> 2007 – 2013 (Hana)</u>			
	 Hana followed QAQC procedures commonly used in industry at the time, including the proper documentation and implementation of sampling procedures, use of Certified Reference Material (CRMs), blanks and duplicates to independently check laboratory analysis and to have a proper chain-of- custody for samples. 			
	 Copper CRMs were inserted into the sample stream to test the accuracy of the laboratory and comprise one of every 30 samples. Blanks were inserted into the sample stream every 30th sample to test for contamination of laboratory equipment. Duplicates form the sample crushing stage of sample preparation were inserted into the sample stream every 30th sample to test reproducibility by analysing the same sample twice. 			
	 Both ALS and SciServ also have their own internal QAQC protocols. The change to SciServ in August 2011 was in response to QAQC failures and sample swaps. 			
	 ALS completed the following QAQC protocols during the sample preparation: 			
	 One blank is added to the analytical procedure every 50 samples 			
	 Two standards are inserted at random intervals to the analytical procedure (every 50 samples) 			
	 One duplicate is analysed at the end of the batch (about every 12 samples) 			



Section 1 Sampling Techniques and Data			
Criteria	Commentary		
	 Pulps are re-assayed 1 every 40 samples. 		
	• SciServ completed the following QAQC protocols during the sample preparation:		
	 Control samples and a blank are added to the analytical procedure about every 60 samples. These control samples are either "Hana" controls (HN-04 and HN-05) or CRM (998-6 - Geostats or NCS DC 700018 - China). 		
	 Assay repeats of total Cu by aqua regia digestion at the rate of 1 in 20 samples. For highly mineralised intersections, this was increased to about 1 in 10 samples. Where acceptable, the mean of the two values was used. If the result was over range, a repeat analysis was done. 		
	 Repeats for high silver value were done by a "Ag-specific" technique to ensure that all of the silver remained in solution. These samples were read by aqua regia digestion. 		
	 No significant issues have been noted in the Hana QAQC data. 2007 – 2015 (DML) 		
	 Review of QAQC procedures for DML projects suggests that procedures are adequate for data to be used in Mineral Resources. 		
	 The DML procedure for QAQC field standards, blanks and duplicates was to submit one sample of each type in every 25 samples. 		
	 Laboratory QC data (internal sample preparation duplicates, grind size passing check, sample preparation blanks, quartz flush analyses, standard analyses, sample weight checks, batch re-assay occurrences) was not obtained or analysed. 		
	 Blanks were submitted as pulps rather than coarse samples. 		
	Plutus and Zeta		
	 DML inserted commercial CRMs and blanks at a ratio of 1:20. 		
	 No significant QAQC issues were noted, though analytical precision (duplicates) were performing poorly for the RC samples in the open pit areas. The remaining Mineral Resource dataset is dominated by DD drilling. 		
Verification of	<u>2013 – current (KCM)</u>		
sampling and	Many of the current protocols were continued from those in place for Hana.		
assaying	 Significant intersections are reviewed by senior KCM personnel as well as independent qualified consulting geologists. Assay certificates have been compared to the database, with no discrepancies found. 		
	 No twinned holes have been drilled at Zone 5, Zone 5N, Zeta NE or Mango. 		
	 During RC and diamond core logging, data is recorded using project-specific geological codes implemented in May 2010. The geological codes are entered into an acQuire Database by the on-site database manager or project field geologists. All geologists have been trained to use the acQuire software. 		
	 Manually entered data, such as sampling intervals and geological descriptions, is conducted by data entry clerks and geologists. After input, the geologist responsible for each hole compares the data in the database to the original paper logs. The on-site database manager then reviews the database to ensure that no errors occurred during data entry. Automatic validation processes are run through acQuire to capture any further errors. Independent, additional checks have historically been performed in Vancouver, British Columbia by KCM's Quality Control Consultant. 		



Section 1 Sampling Techniques and Data			
Criteria	Commentary		
	The acQuire database is stored on the site network server. Daily partial backups and weekly full backups of the database are stored on the site network server.		
	 All handwritten drillhole logs, assay sample certificates and survey data sheets are stored on-site in locked filing cabinets. These cabinets can only be accessed with permission from the on-site database manager. Each drillhole has its own folder that includes all documents pertaining to that hole. 		
	 No adjustments have been made to the assay data. 		
	<u>2007 – 2013 (Hana)</u>		
	 A total of 11 pre-Hana drillholes were twinned by Hana at Banana Zone (NE Fold) to test the accuracy of assay results for these historical holes as QAQC is not available for the historical drilling. In 2008, Hana commissioned Micon International Co Limited (Micon) to compare six holes (four RC and two core holes) twinned by Hana with the historical holes to determine if historical data could be used in resource calculations. The copper and silver concentrations had similar signatures, but the original RC holes had higher concentrations of these metals. Without QAQC data available for these historical drillholes, the historical data is not used for resource estimation at NE Fold. 		
	 Hard copies of the Hana dataset were stored in filing cabinets which could only be accessed with permission from the on-site database manager. All paper files were scanned into digital format, converted to PDF and stored off-site. 		
	 All data was entered into Sable, stored in the server database. This database was located on the site network server. Daily partial backups and weekly full backups were stored on the site network server. 		
	No adjustments were made to the assay data.		
	<u>2007 – 2015 (DML)</u>		
	 Senior geologists validated anomalous database records against logging and assay submission as part of a database migration (from Access to acQuire in October 2012). 		
	 No twinned holes were completed at Ophion or Selene. A number of DD and RC holes are close enough to be considered twinned at Zeta and Plutus. No systematic variation in grade and or intercept length is apparent in those drillholes. 		
	 Historical analytical grades are considered consistent with the tenor of mineralisation observed and has been confirmed by subsequent phases of drilling and production. 		
Location of	<u>2013 – current (KCM)</u>		
data points	 All collar surveys to date are in Universal Transverse Mercator (UTM) coordinates, using World Geodetic System 1984 (WGS84) projection, Zone 34S with geoidal heights. Drill site locations are surveyed using a handheld global positioning system (GPS) that is accurate to within 5m. Up to 2020, an independent surveyor, Drysdale and Associates consulting located in Botswana would survey the collar location and back-sight positions using a digital GPS. Since November 2020, the Zone 5 Mine Chief Surveyor surveys the collars using a digital GPS once the boreholes have been completed. 		
	 The quality of the topographic data is considered accurate for the purpose of Mineral Resource estimation. 		



Section 1 Sampling Techniques and Data		
Criteria	Commentary	
	 Since April 2013, all drilling programs have used the REFLEX non-magnetic Gyro multi-tool for downhole surveys. The REFLEX Gyro tool proved to be the most advanced surveying package suitable for both magnetic and non-magnetic environments. It provided good results for RC and DD core holes with the use of "anti-roll" equipment, which stabilised the tool during surveying. 	
	Zone 5 on-ore and off-ore drilling	
	 The collars for the on-ore and off-ore drillholes are picked up underground by qualified, surveyors using a TS 16 (Total Station) that has an error limit of ±0.010 mm and degrees in one second (000:00:01). 	
	 All surveys are in the UTM coordinates (WGS84 – projection) Zone 34 South. 	
	 Downhole surveys were conducted using a Gyro multi-tool from the bottom of the hole upwards, at intervals of 10 m. 	
	 All the instruments are calibrated annually. 	
	<u>2007 - 2013 (Hana)</u>	
	 Hana contracted BBC Surveying (Pty) Ltd (BBC), a topographical and surveying consultant located in Botswana, to locate and survey Hana's drillhole collars. A Trimble 5800 Dual Frequency GPS surveying system was used for the survey. The survey was carried out using the Gauss Transverse Mercator Projection system on the Botswana datum with central Lo 23, which used 2° belts on the odd numbers of longitude in degrees. These values were converted using Trimble software to the UTM WGS84 system used by Hana. 	
	 The downhole surveys were conducted by either the geologist or a technician using the Reflex EZ-Trac multi-shot tool; the tool is shared amongst the drill rigs. As of April 2011, Hana switched to using the DeviFlex Gyro multi-tool. The surveys were conducted from the bottom of the hole upwards after completion of the drilling with readings taken at 4–12 m intervals. The raw data was captured and uploaded to a computer using the appropriate tool software. Since using the DeviFlex multi-tool, reliability of the azimuth data improved. 	
	• The project area had not been subjected to a detailed topographic survey. The topographic maps in use at the time were derived from the digital terrain models (DTM) created by NRG Geophysics in conjunction with the high-resolution geophysical survey. In the area over Banana Zone, the DTM had been modified to mesh with the drillhole collar coordinates.	
	2007 – 2015 (DML)	
	 Drillhole collar positions were surveyed using OmniLogger differential GPS from OmniSTAR's Global Positioning System products. The differential GPS had a stated accuracy of ±50 cm. 	
	 A Reflex Ez-TracTM instrument was used to record downhole survey measurements. 	
	 Spatial coordinates for the Boseto prospects were supplied in WGS84, Zone 34 Southern Hemisphere (WGS84_34S). 	
	• A variation in the order of tens of metres between survey relative levels (RL) and that of surface topography was noted. DML adjusted hole collar positions to the surface topography for Mineral Resource modelling due to the very flat terrain.	
	Plutus and Zeta	



Section 1 Sampling Techniques and Data			
Criteria	Commentary		
	 Drilling at Zeta and Plutus was located using differential GPS. Downhole surveys were dominantly collected using electronic single-shot instruments. 		
	 DD holes were mostly surveyed at regular intervals downhole. RC holes generally only had an in-rod dip survey near collar, but as holes are short and at a high angle to structure, this is considered adequate. 		
	 Topographic survey data was obtained from light detection and ranging (LiDAR) survey and has an accuracy of ±0.6 m. Post commencement of mining, surface pickups were made using differential GPS. 		
Data spacing	Details in this section are deposit specific.		
and distribution	Geological continuity is very high. This is seen in a very consistent planar geometry of mineralisation over tens of kilometres and is confirmed from underground development at Zone 5 and by exposures in the Zeta and Plutus open pits.		
	Zone 5		
	 Exploration drilling was completed on 100 m spaced centres along strike and approximately 50 m down dip. The spacing decreased to 75 m along and 25–40 m down to tighten the pattern in areas where there was a significant change in either grade or thickness of the orebody, and to upgrade the Mineral Resource to Measured and Indicated Mineral Resource categories. 		
	 Post the commencement of mining, the 'off-ore' drilling program has been drilled from the return air access, the raising main chambers and underground stockpile areas. The drilling targets development levels for best placement of the ore drive. The data spacing for the off-ore drilling is 30 m along the strike of the orebody, via fans of drillholes. 		
	 The 'on-ore' drilling program is drilled from within the ore drives in rings of two to four drillholes, and defines the local mineralisation boundaries, The rings are spaced 15 – 20 m apart, depending on the location of the stopes and pillars. The on-ore drilling is used for domain definition but not for estimation of grades in the Mineral Resource estimate. 		
	 The spacing of the exploration, off-ore and on-ore drillholes are adequate to establish geological and grade continuity. 		
	Mango NE, Zone 5N, Zeta NE		
	 Exploration drilling is generally spaced 100 m along strike and 100 m down dip but decreased to 75 m or 50 m along strike and 50 m down dip if local changes in grade variability and/or thicknesses were seen. 		
	 Correlograms were completed on copper and silver composites to determine orientation and spatial continuity of the composited mineralisation. Correlograms generally show ranges for both along strike and down dip directions of approximately 150 m to 400 m. This indicates that drillhole spacing and sample distribution are sufficient to establish grade continuity and appropriate for Mineral Resource estimation. 		
	Banana Zone – New Discovery		
	 Stratigraphic and mineralisation continuity is well defined. 		
	 Drillholes are on 100 m spaced sections in the Indicated portion and 200 - 300 m spaced sections in the Inferred material. 		
	Banana Zone – NE Fold		
	 Stratigraphic and mineralisation continuity is well defined. 		



Section 1 Sampling Techniques and Data				
Criteria	Commentary			
	 Drillholes are on 50 m spaced sections in Measured, 100 m spacing for the Indicated portion and 200 m spaced sections in the Inferred material. 			
	Banana Zone – South Limb Definition			
	Stratigraphic and mineralisation continuity is well defined.			
	 Drillholes are on 100 m spaced sections in the Indicated portion and 400 m spaced sections in the Inferred material at depth. 			
	Banana Zone – Chalcocite			
	 Stratigraphic and mineralisation continuity is well defined. 			
	 Drillholes are on 100 m spaced sections in the Indicated portion and 200 - 400 m spaced sections in the Inferred material. 			
	Banana Zone (other)			
	 Resource-testing RC drilling occurred on approximately 200 m spaced sections, with the number of drillholes per section alternating between one and two at 60 m vertical centres. 			
	 Some mineralised areas, such as parts of North Limb North and South Limb Mid2, have been infill drilled down to approximately 100 m spaced sections at 40 m centres. 			
	Zone 6			
	 Drillholes are on 100 – 200 m spaced sections; many section lines have only a single drillhole. 			
	Ophion, Selene			
	• Drillholes are at 400 m section spacing along strike. Geological continuity exists at this spacing but grade continuity is uncertain. An infill drilling program is required to improve confidence in Mineral Resource estimation and make it possible to optimise drill spacing for project development objectives.			
	Plutus			
	• Drillhole spacing at Plutus is variable. The broadest regular spacing is approximately 600 m along strike by 60 m vertical, which is progressively infilled to 100 m x 30 m with some areas to 50 m x 30 m. Grade control drilling intercepts are spaced at 25 m along strike by approximately 10 m vertical.			
	Zeta			
	 Drillhole spacing at Zeta is variable. The broadest regular spacing is approximately 200 m along strike by 60 m vertical, which is progressively infilled to 100 m x 30 m with some areas to 50 m x 30 m. Grade control drilling intercepts are spaced at 25 m along strike by approximately 10 m vertical. 			
Orientation of	Details in this section are deposit specific.			
data in relation to geological	 In general, the drilling orientation is at a high angle to the geological features hosting mineralisation resulting in limited sampling bias. Drill intervals are typically a little-longer than the true thickness of the mineralised zones. 			
	 Typically, drillholes are oriented perpendicular to the expected orientation of mineralisation. Most drillholes are oriented either northwest or southeast depending on which fold limb they are located on. 			
	 Most of the drilling crosses the mineralisation at a moderate to high angle (>45°) and provides excellent definition of the margins of mineralisation. 			



Section 1 Sampling Techniques and Data		
Criteria	Commentary	
	Zone 5	
	 The exploration drillholes were designed to drill towards 322° to intercept mineralisation perpendicular to the orebody strike of 060°. Dip of the holes was generally 60°. Deeper drillholes (>800 m) had a steeper dip of 80° to allow for greater deviation down the hole. 	
	 Due to the location of the Off-ore drilling, it is not possible for the drillholes to have a consistent orientation in relation to the orebody. All the holes that are relatively perpendicular to the orebody were reviewed and the potential bias they may have introduced determined to be negligible. 	
	 83 geotechnical holes have been drilled at Zone 5, many at a different orientation to test for biases in geotechnical data collection and collect samples for stress measurements. Many of these drillholes have been excluded from the Mineral Resource estimation because of a lack of assay QAQC or the angle at which they intersect the mineralisation. 	
	 Drill intervals used in the Mineral Resource estimation are close to true thickness of the mineralised zones. The orientation of the sampling removes any bias from the sampling. 	
	Mango NE, Zone 5N, Zeta NE, New Discovery, South Limb Definition	
	 Majority of drillholes at Zone 5N were oriented at an azimuth of 142° and 60° (to the horizontal), Zeta NE drillholes were drilled at an orientation of 140° and 60° for azimuth and dip respectively whilst Mango NE were oriented at an azimuth of approximately 320° and a dip of 65°. 	
	 Five geotechnical holes have been drilled at Mango NE, Zone 5N and Zeta NE, at a different orientation to test for biases in geotechnical data collection and collect samples for stress measurements. 	
	 No other biases are expected from the drilling orientation. 	
	North East Fold and Chalcocite	
	 The dip of the mineralisation varies greatly between near flat (fold hinges) to near vertical but averages 55° to 60°. Accordingly, drillhole orientations are also variable, aiming for perpendicular to the mineralisation. 	
	 Nine geotechnical holes have been drilled at North East Fold, at a different orientation to test for biases in geotechnical data collection and collect samples for stress measurements. 	
	Banana Zone (other), Zone 6	
	 Most drillholes were oriented at an azimuth of 144° or 324° (180° difference), and a dip of 60°. The drillholes are oriented perpendicular to the expected orientation of mineralisation. Drill intervals are typically a little-longer than the true thickness of the mineralised zones. 	
	Ophion, Selene, Plutus and Zeta	
	 These deposits all dip at moderate to steep angles toward the northwest. In general, the drilling orientation is at a high angle to the geological structures controlling mineralisation, resulting in limited sampling bias. 	
Sample	2013 - current (KCM)	
security	 The preparation, cutting, sampling and transportation were supervised by the onsite geologists. All samples were securely sealed and bagged. Transport of 	



Section 1 Sampling Techniques and Data				
Criteria	Commentary			
	the sealed sample crates was by a professional courier company for delivery to the laboratory in South Africa and Zambia.			
	 Protocols are in place and there have been no breaches of security that would compromise the samples. The core facility has adequate security. 			
	 All analytical records are kept on SharePoint to ensure chain-of-custody between the mine and laboratories. 			
	• The Competent Person believes the camp and core processing facility is secure. 2007-2013 (Hana)			
	 Geologists were responsible for sample collection and preparing shipments. The open sample preparation area was part of the remote fenced exploration camp; however, the camp itself was restricted to unauthorised personnel. 			
	• All core boxes were dead-stacked adjacent to the core logging facility. RC chip trays were stored on shelves and in bins within the logging structure. The replica sample bags of RC chips were stored on shelves, on a sheltered concrete floor next to the logging tables.			
	• Samples that had been prepared for shipment were sealed into wooden crates, which were delivered by Hana personnel to a trucking company that delivered the samples to the laboratory. There had never been a report that the crates or the sample bags had been tampered with.			
	<u>2007 – mid-2015 (DML)</u>			
	Plutus, Zeta Underground, Ophion and Selene			
	 Sample security was managed with dispatch dates noted for each sample by the core technician, this was checked and confirmed at the laboratory on receipt of samples and discrepancies corrected via telephone link up with laboratory and project geologist. 			
	 Sample security is not considered a major issue given the nature of the mineralisation. 			
	Pre-2007			
	• Limited information is available for sample security on drilling completed by US Steel and AAC. Drilling from pre-2007 comprises approximately 3% of drilled metres across the deposits for which Mineral Resources are reported.			
Audit and	2013 - current (KCM)			
reviews	 Ridge Geoscience has reviewed Khoemac<u>a</u>u's database and database management practices between March 2013 and mid-2023. This included conducting two site visits to review on-site procedures and protocols, performing ongoing review of Khoemac<u>a</u>u's quality control procedures and analyses, and checks of the assay database against assay certificates. 			
	• Several independent and site procedural audits have been conducted since the 2019 Zone 5 Mineral Resource Estimate. A technical audit was completed by the KCM Mine Technical Services team in March 2020, with no significant issues raised.			
	2007-2013 (Hana)			
	Grant Geological Services reviewed Hana's database and database management practices and conducted statistical analyses of the data between			



Section 1 Sampling Techniques and Data		
Criteria	Commentary	
	2011 and 2013 to comply with guidelines set out by NI 43-101. A site visit to review on-site procedures and protocols was conducted in July 2011.	
	 A thorough independent audit of the Hana database was carried out in 2012. Data validity checks confirmed that the paper logs were correctly entered and that there were no significant errors. 	
	 The Competent Person reviewed raw data from several drillholes during a site visit in December 2023. No material issues were identified. 	
	• All data is considered suitable for the purposes of Mineral Resource estimation.	
	<u>2007 – mid-2015 (DML)</u>	
	 Audits have been completed by Model Earth (Pty) Ltd, RPM Global USA Inc., Reyna Brown Geological Services, QG, Xstract Mining Consultants, CS-2, and Snowden. 	
	 Previous inspections of RC sampling at Zeta and Plutus conducted by CS-2 Pty Ltd and Snowden identified a bias towards Cu results from DD to RC drilling. This bias is attributed to the loss of copper bearing fines during the sampling process. It was recommended that the sampling equipment and protocols be reviewed and improved. This recommendation remains in place. 	
	 The Competent Person considers the data is suitable for the purposes of Mineral Resource estimation. 	
	<u>Pre-2007</u>	
	 No information is available regarding audits on data collected by US Steel and AAC. Drilling from pre-2007 comprises approximately 3% of drilled metres across the deposits for which Mineral Resources are reported. 	

Section 2 Reporting of Exploration Results			
Criteria	Commentary		
Mineral tenement and land tenure status	 Cupric Canyon Capital LP's subsidiary, Cuprous Capital Ltd, purchased Hana Mining Limited, which in turn owned Hana Ghanzi Copper Pty Ltd, in February 2013 and renamed the company to Khoemacau Copper Mining (Pty) Ltd (Khoemacau). In July 2015, Khoemacau acquired Discovery Copper Botswana (Pty) Ltd (DCB) which held four prospecting licences and the Boseto Project. The Boseto Project had been operational for 2.5 years and comprised three open cuts and a processing plant producing copper-silver concentrate. 		
	 During 2019, Resource Capital Fund VII LP acquired a 11.9% equity share in Cuprous Capital Ltd. Khoemacau is owned by private company Hana Mining Ltd which is in turn owned by Cuprous Capital Ltd, which in turn is owned by Cupric Canyon Capital LP and Resource Capital Fund VII LP. 		
	 Subsequent to MMG's acquisition of the project in 2023, Khoemacau Copper Mine is a joint venture operation between the operator MMG (55%) and a wholly owned subsidiary of CNIC Corporation Limited (45%). 		
	 The Botswana Government retains a royalty of 3% on base metals net smelter return (NSR) and 5% on precious metals NSR. The government declined the right to take up a 15% working interest in the mine upon issue of both Khoemacau and Boseto mining licences. 		



Section 2 Reporting of Exploration Results		
Criteria	Commentary	
	 The prospecting licence area covers 4,040 km2 and consists of 10 prospecting licence blocks (four DCB Boseto operation licences PL098/2005 to PL101/2005, and six Khoemacau licences PL001/2006 to PL005/2006 and PL095/2019). Nine of the licences expire on 31 December 2024. On 26th June 2024, an application for renewal was submitted to the Minister of Mines and Energy for PL095/2019, due for expiry 30th September 2024. 	
	 Two mining leases have been granted over the property: 	
	 2010/99L – granted in December 2010 and expires on 19 December 2025. 	
	 2015/5L – granted in March 2015 and expires on 9 March 2035. 	
	 Various local farm landowners hold surface rights over the prospecting licences. 	
	 The area is sparsely populated and is predominately used for cattle and game farming. The project lies within the Hainaveld and Toteng ranch areas. The Kuke veterinary cordon fence cuts across the licence areas. A small part of the southern licence area extends into the Central Kalahari Game Reserve and the surrounding Wildlife Management Areas but does not impact the three Expansion deposits. 	
	• The Botswana Minister of Local Government holds surface rights for the Central Kalahari Game Reserve and the Wildlife Management Areas. Many local farm landowners hold surface rights over the prospecting licences PL098/2005 to PL101/2005 and PL001/2006 to PL005/2006 and PL095/2019.	
	 Botswana's Mines and Minerals Act allows a company to apply for an extension of its prospecting licences at the end of the two-year licensed period without having to relinquish any licence area. In order to be granted the extension, the company has to demonstrate that it has completed significant expenditure and exploration work on the licences as committed to in the previous licence extension. The exploration programs completed during the recent extension period for the proposed exploration program are designed to satisfy the Botswana Government requirements for the Project. Discussions are continuing on an ongoing basis with the relevant Botswana 	
	authorities on the planned exploration activities and planned prospecting lease extensions.	
Exploration done by other parties	 Since the late 1960s, there have been several phases of exploration in the Kalahari Copper Belt prior to the current exploration by KCM. 	



Section 2 Reporting of Exploration Results			
Commentary			
Year	Company Johannesburg Consolidated	Activity Operated a geological mapping campaign in and around the current project area. No	
1962	Investments Anglovaal South West Africa in JV	economical mineralisation was discovered.	
1967-1970	with De Beers, US Steel and Tsumeb Corporation	early discovery of the Zeta deposit .	
1970-1980	US Steel in JV with Newmont South Africa Lts and INCO of Canada	Conducted several exploration programs that included soil geochemistry, ground-based geophysics, trenching and drilling. These programs led to discovery of additional copper mineralisation mainly within the Zeta deposit area. In 1980, US Steel estimated a non- compliant historical resource. With a low copper price and no infrastructure nearby, the project was not viable and was discontinued.	
1989–1994	Anglo American Corporation (AAC)	AAC (as Anglo American Prospecting Services) completed several exploration programs, including large-scale airborne geophysical surveys, Landsat and photo-geological interpretation, ground-based geophysical surveys, soil geochemistry (including geobtanical anomalies) and drilling (142 holes, core and RC) focused on both the Zeta deposit and the North East Fold area of the Banana Zone. Again, at the prevailing copper price, the exploration work failed to identify an economically viable area.	
1996-2000	Delta Gold in JV with Kalahari Gold and Billiton	In 1996, Glencore/BHP Billiton used data from US Steel and AAC for deposit modelling, but much of the drillhole data was not considered reliable. Only 51 drillholes were deemed sufficient for deposit modelling and only 16 were supported by complete drill logs and assay results. Billiton completed an in-house Mineral Resource estimate (MRE) and recommended a drill program. In 1999, Delta followed up with 27 RC holes totalling 3,300 m within the North East Fold of the Banana Zone. Delta concluded that mineralisation was epigenetic, controlled by both lithology and structure and consistent of high-grade pods within a larger low-grade zone.	
2005	Discovery Nickel Ltd (to become DML, operating as Discovery Copper Botswana)	Acquired the Boseto area tenements from the Delta JV and went on to develop the Zeta and Plutus open pits.	
2002-2007	Stellent	Stellent acquired the licenses over the Ghanzi project area (grey shaded licences in Figure 5-1) and in 2007 Hana Mining Ltd took control of the Project under a share purchase agreement resulting in 100% ownership of the Project.	
2007-2013	Hana Mining Ltd	Hana completed several exploration campaigns within the project area from 2007 including extensive soil sampling, ground geophysical surveys and both RC and core drilling. Until 2012, Hana focused on the Banana Zone in the southern part of the prospecting licences. Hana moved its focus to Zone 5 in 2012 just before being acquired by Cupric.	
2013-present	KCM	KCM conducted several exploration programs that included soil geochemistry, airborne and ground-based geophysics, multi-element geochemistry, desktop and scoping studies and extensive drilling. These programs successfully led to discovery of additional copper- silver mineralisation at several deposits and upgraded the global mineral inventory.	
Jul-15	Cupric	Cupric acquired Discovery Copper Botswana. The acquisition included the Boseto operation and processing plant, as well as four prospecting licences with various early- stage resources. Operations at Boseto were halted in February 2015 just before the project was acquired by KCM.	
 The Kal and me early N Craton. resulted present In Botsy bound s The str. named and gal Group r Format The ent northea mineral permea Depositi stratigr geomet 	lahari Copper Belt co etavolcanic rocks that eoproterozoic eras a . The late Neoproter d in the formation of t-day structural conf wana, the Kalahari C sediment-hosted co atigraphic sequence the Kgwebe Format bbros. The Kgwebe metasediments. This ion, NPF, D'Kar Form tire region has been ast trends resulting i isation over hundred ability are key aspect ts generally occur at aphic redox bounda try. Flexural slip alon	onsists of a deformed package of meta-sedimentary at were deposited during the late Mesoproterozoic to along the rifted northwest margin of the Kalahari ozoic collision of the Kalahari and Congo Cratons if the Pan-African Damara Orogeny forming the figuration of the Kalahari Copper Belt copper Belt is host to several well-known strata- pper deposits and mining operations. e consists of a basal rift related bimodal volcanic suite ion and consists of predominately rhyolites, andesites volcanic is unconformably overlain by the Ghanzi s Group, from oldest to youngest, consists of the Kuke hation and Mamuno Formation. subject to compression, folding and thrusting along n structurally repeated stratigraphically controlled ds of kilometres. The structural orientation and related ts in the mineral trap site development. : the margins of basement structures where the ry is controlled by sediment deposition and structural ing bedding on the limbs of parasitic folding were	
	Comment Year 1962 1967-1970 1970-1980 1989-1994 1996-2000 2005 2002-2007 2007-2013 2013-present Jul-15 2013-present Jul-15 The Ka and me early N Craton, resulted present 5 Un Bots bound 6 The str named and gal Group n Format The en northea mineral permea 5 Stratigr geomet importa and de	Section 2 Reports Commentary 1962 Johannesburg Consolidated Investments 1967-1970 Angloval South Mest Africa in JV with De Beers, US Steel and Tsumeb Corporation 1970-1980 US Steel in JV with Newmont South Africa List and INCO of Canada 1989-1994 Anglo American Corporation (AAC) 1989-2000 Delta Gold in JV with Kalahari Gold and Billiton 2005 Discovery Nickel Ltd (to become DML, operating as Discovery Copper Botswana) 2002-2007 Stellent 2007-2013 Hana Mining Ltd 2013-present KCM Jul-15 Cupric • The Kalahari Copper Belt or and metavolcanic rocks that early Neoproterozoic eras a Craton. The late Neoproter resulted in the formation of present-day structural conter resulted in the formation of present-day structural conter in Botswana, the Kalahari C bound sediment-hosted co • The stratigraphic sequence named the Kgwebe Format and gabbros. The Kgwebe Group metasediments. This Formation, NPF, D'Kar Form • The entire region has been northeast trends resulting i mineralisation over hundred permeability are key aspec • Deposits generally occur at stratigraphic redox bounda geometry. Flexural slip alor important primary fluid patf and deposit scale are the do	







Section 2 Reporting of Exploration Results			
Criteria	Commentary		
	 Economic copper mineralisation is predominantly chalcocite, bornite and chalcopyrite. 		
Drillhole information	 Not applicable as no Exploration Results included in the report. 		
Data aggregation methods	 Not applicable as no Exploration Results included in the report. 		
Relationship between mineralisation width and intercepts lengths	 Not applicable as no Exploration Results included in the report. 		
Diagrams	 Not applicable as no Exploration Results included in the report. 		
Balanced reporting	 Not applicable as no Exploration Results included in the report. 		
Other substantive exploration data	 Not applicable as no Exploration Results included in the report. 		
Further work	Zone 5		
	 Work relating to further refinement of the orebody continues which includes underground mapping, channel sampling and infill diamond drilling. 		
	 To gain more information about the orebody for optimal placement of the ore drives and stopes, drilling programs were implemented in 2021 which continue. These campaigns are on-ore and off-ore drilling campaigns. 		
	 The additional drillholes and underground mapping information is currently being used to develop an improved lithological model. This will assist in the better understanding of the grade distributions in relation to the geology. 		
	Mango NE, Zone 5N, Zeta NE		
	 Infill drilling is proposed to increase confidence within the Indicated material and to confirm grade and width variation at the three Expansion Deposits. 		
	North East Fold, Chalcocite, New Discovery, South Limb Definition		
	 Model updates are planned for the host rock sedimentary architecture and copper/silver mineral distribution and integration of new drill results into the 3D deposit scale geological model. 		
	 Infill exploration drilling is planned at the Northeast Fold and New Discovery deposits to potentially extend the higher quality mineralisation. 		
	 Delineation of potential additional surface mineable tonnage from Chalcocite to support the establishment of the sustainable surface mining operations alongside the Northeast Fold deposit, South Limb Definition and New Discovery deposits. 		
	Other		
	 Several other locations within the Project area are considered highly prospective including Zone 9, Mawana Fold, South Dome, Banana Peel and Kgwebe, all of which have intersected high copper grades in early drilling; the Zeta 		



Section 2 Reporting of Exploration Results	
Criteria	Commentary
	Underground area beneath the historical Zeta open pit is also considered prospective.
	• Lower priority targets include the Banana Zone which has known mineralisation continuity over long strike lengths (>30 km); Baby Banana and areas to the north of Zone 5 such as Selene and Zone 6, as well as the Ophion and Plutus areas.

Section 3 Estimating and Reporting of Mineral Resources		
Criteria	Commentary	
Database integrity	 The Competent Person for this Mineral Resource statement confirms that the databases used are suitable for Mineral Resource estimation. 	
	 Note that the data for the Project now resides entirely with KCM. Details of data handling by previous owners are included here as it is relevant for historical estimations included in the Mineral Resource statement. 	
	<u>2007 – mid-2015 (DML)</u>	
	Ophion, Selene	
	 DML was migrating their drilling database from Microsoft Access to an acQuire software system during the October 2012 Resource Model construction. Data storage and validation protocols were in hiatus due to the change to a new system. 	
	 Senior geologists validated anomalous database records against logging and assay submission as part of a database migration. Further database checks were completed, and corrections made by Xstract, the authors of the 2012 Mineral Resource estimates. 	
	Plutus and Zeta	
	The acQuire database used to capture and store all drilling information for Plutus was established in mid-2012, replacing the earlier Access database. Database validation was undertaken by QG as part of the 2013 Plutus and Zeta Mineral Resource updates. Corrections were made relating to the merging of historical datasets to the then current dataset, as well as to the storage of survey data.	
	<u>2013 – current (KCM)</u>	
	 The main database for the Project prior to 2019 was an SQL Server database via Sable software. Drillholes logged prior to implementation of the Sable database were compiled and imported into the Sable format and entered in the system. Sable is secure and user configured, therefore the data cannot be changed by those other than the user responsible for the data. Data validations were also incorporated into the Sable database to ensure valid data is being loaded. The on-site database manager along with the field geologists were trained to use the Sable software. 	
	• Since 2019, the data is stored in an SQL Server database via acQuire software.	
	• During RC and DD core logging, data is recorded using project-specific geological codes implemented in May 2010. Since 2010, only minor adjustments and updates have been made to the geological codes to maintain consistency in recording. The geological codes are entered into acQuire by the onsite database	



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	manager or project field geologists. These personnel have been trained to use the acQuire software.	
	 Manually entered data, such as sampling intervals and geological descriptions, is conducted by data entry clerks and geologists. After input, the geologist responsible for each hole compares the data in the database to the original paper log. The on-site database manager then reviews the database to ensure that no errors occurred during data entry. Automatic validation processes are run through acQuire to capture any further errors. Finally, additional checks are performed in Vancouver, British Columbia by Khoemacau's Quality Control Consultant. All handwritten drillhole logs, assay certificates and survey data sheets are stored on-site in locked filing cabinets. These cabinets can only be accessed with permission from the on-site database manager. Each drillhole has its own folder that includes all documents pertaining to that hole. 	
	 The on-site database manager oversees the data capturing process and imports external data into the database such as laboratory assay results. 	
	 Inconsistencies have been noted in the KCM database records for the ex-DML deposits that have been re-estimated for this Mineral Resource update (Zeta). The discrepancies are related to the merging of the DML database with the KCM database in 2015. For this reason, the update of the Zeta Mineral Resource has used the verified datasets utilised for the 2013 Mineral Resource estimation, with the addition of any more recently completed drillholes from the KCM database. The Competent Person considers this approach to be reasonable. A through validation of the process of combining the DML and KCM databases is proposed. 	
	Zone 5	
	 The Zone 5 dataset is stored and managed separately to the rest of the project area dataset. Standard data protocols have been adhered to throughout all steps of the 	
	 Logging of drill core is carried out on paper logs and manually uploaded to the on-site database. An acQuire database is used to capture and store all drilling information. Geologists compared the paper logs to the database to check for data entry errors. The database geologists also review the data using the software auditing functions. All paper logs are retained on site in secure files. 	
	 acQuire software auditing tools were used to check the database for errors. Minor discrepancies between tables were identified and corrected. 	
	 Once exported from acQuire, more validations were done. Errors were identified and reported to the database geologist for correction. Drillholes with errors that could not be fixed were excluded from the Mineral Resource estimate. 	
	 55 exploration holes which had been excluded from the 2022 MRE were included in the 2024 MRE after duplicate collar lines in the database were removed and the collar positions re-verified. 	
Site visits	 The Competent Person for the Khoemacau Mineral Resource visited site in December 2023. 	
	 All relevant procedures and protocols for measuring, sampling, logging, capturing, recording, and storing data have been reviewed. Core logging practices have 	



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	 been sighted and selected drill core inspected, as a check against paper copies. The core facility was deemed secure for core storage. All procedures conducted by the core yard geology personnel meet industry standards and no significant issues were identified.
Geological interpretation	 Confidence in the geological interpretation across the Project area is high, with ground truthing (via drilling) of mapping compiled from geophysical surveys consistently intersecting the anticipated stratigraphy. A layer of unmineralised calcrete and Kalahari sand (variable thickness across the project area) overlies the host rocks and has been incorporated into the geological modelling. Tabular and planar lithological units with strong continuity along strike provided good support for stratigraphically hosted mineralisation. A representative section through Zone 5 is shown below.
	Section N125150 50 m Stratigraphically zoned sulfide assemblage Increase in Fe away from NPF Marker sandstone Interbedded silts & sands Carbon rich siltstone Limestone (massive)
	Footwall sandstone (NPF)
	 Good correlation exists between high-grade mineralisation and structural trap zones caused by flexural slip and minor parasitic folding. Localised thrusting, parasitic folding and shearing is responsible for thickening mineralisation and increasing copper and silver grades over wide intervals. The KCM team, and previous owners, have constructed geology models to aid in defining copper grade zones. The lithology models were based on drill hole
	interpretation and logging by geologists. Copper grade zone domains of predominately continuous, stratiform mineralisation were identified and have been built into 3D wireframe solids. Surfaces for base of oxide and top of sulphide have been interpreted using combinations of logged observations, S/Cu ratio, acid soluble Cu/total Cu ratio, distribution of acid soluble copper, silver and sulphur grades, along with observations made in the Zeta and Plutus pits and at Zone 5.
	 The copper grade zone domains used in the Mineral Resource estimations were guided by the interpreted geology models. A summary of the grade thresholds used for domaining of the mineralisation is shown below:



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	Model area	Low grade (Cu%)	High grade (Cu%)	
	Zone 5	0.1	1.0	
	Mango NE	0.1	1.0	
	Zeta NE	0.1	1% CuEq	
	Zone 5N	0.1	1.0	
	Zone 6	0.1	0.8	
	North East Fold	0.1	0.8	
	New Discovery	0.1	0.8	
	South Limb Definition	0.1	0.8	
	Chalcocite	0.1	0.5	
	Banana (other)	0.1	0.5 or 0.8	
	Zeta	0.1	0.8	
	Plutus	0.3	n/a	
	Selene	0.3	n/a	
	Ophion	0.3	n/a	l
	 a material change in mineralisation to occ defined. Local improv result in minor chang Significant increases thickened mineralise 	the geological mo ur higher up in the vements in unders es to orientation to reported tonna d material be deli	odels, though pote e stratigraphic co standing of struct and thickness. ages may occur s neated via furthe	ential exists for lumn than currently tural relationships may should new areas of r drilling
	thickened mineralise	d material be dell	neated via furthe	r arilling.
	Individual deposit geolo	gical summaries a	are as follows:	
	 Zone 5 is interpreted Organic-rich carbonal lithologies are sandstiparasitic folding have Localised thrusting, p mineralisation and re copper and silver gra accumulation method splitting the ore body 	to have formed i ate sediments, sub tone, siltstone and been fundament parasitic folding a plicated the strat ades over wide int d was used to ide y into 4 zones call	n a basin high, sh lphates and limes d marlstone. Flex tal in controlling a nd shearing have igraphy resulting tervals. A Copper, ntify these thicke led Geozones.	allow water setting. tones are present. Host ural slip and minor ind focusing ore fluids. thickened the in the enrichment of /true thickness er zones and resulted in
	 Mango NE is also inte setting. Organic-rich Host lithologies are s 	erpreted to have t carbonate sedim andstone, siltstor	formed in a basin ents, sulphates a ne and marlstone	high, shallow water nd limestones are present.
	 The Zone 5N deposit setting. Carbonate set black shale, siltstone interpreted to repres similarities and chara 	t is interpreted to ediments and sulp and sandstone. ent a pressure sh acteristics.	have formed in a bhates are preser The mineralisatior adow of the Zone	basin high, shallow water it. Host lithologies are i at Zone 5N deposit is e 5 deposit with many
	 The Zeta NE and Zet foreslope/delta settin Zeta NE and Zeta are wedges likely indicat slow sediment input high grade mineralisa fold axes are sub-hoo mineralisation is likely 	a deposits are int ng. Host lithologie bound along stri ing sediments we creating gentle fo ation. Structural d rizontal and plung y continuous alon	erpreted to have are sandstone, ke between two ere deposited in a olds and favourab ata indicates both ge slightly toward ig strike.	formed in a basin siltstone and silty marl. lower DKF sedimentary n active rift basin with le reduced units to host h Zeta NE and Zeta UG the SW, indicating



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	 The geological interpretation at Zeta is considered reliable. ERM re-interpreted mineralisation domains from first principles using Leapfrog software. As with the other deposits in the Project area, the general disposition of mineralisation is remarkable for its continuity and tabular planar geometry, being dominantly hosted in a single thin stratigraphic horizon. The footwall contact is reliably marked by a pronounced jump in grade. It is also clearly apparent in open pit exposure being marked by a changed in blockiness and colour. The hangingwall contact is also generally well-marked by a pronounced step in grade. Analysis of grade behaviour across defined provides strong support for the choice for thresholds used. 	
	• The Zone 6 deposit is located approximately 30 km northeast of Zone 5N on the northern limb of the same regional syncline. Mineralisation sits within brecciated veins and veinlets containing predominately disseminated chalcopyrite and bornite sulphide minerals hosted within the siltstone and lower marl units. Zone 6 is generally low strain with abundant shallow water carbonate stromatolites suggesting a basement high and restricted sub-basin depositional environment is nearby.	
	 The Banana Zone is a double plunging anticline located approximately 60 km to the southwest of Zone 5. The entire reduced contact between the D'Kar Formation and NPF is continuously mineralised for 64 km. A lithology model has been constructed that traces the key lithologies through the areas of most consistent higher grade mineralisation. Copper grade zone domains of predominantly continuous, stratabound mineralisation were identified and built into 3D wireframe solids. 	
	 Confidence in the geological interpretation across the Banana Zone is high, with ground truthing (via drilling) of mapping compiled from geophysical surveys consistently intersecting the anticipated stratigraphy. 	
	 Tabular and planar lithological units with strong continuity along strike provided good support for stratigraphically hosted mineralisation. 	
	 Good correlation exists between high-grade mineralisation and structural zones caused by flexural slip and minor parasitic folding. Localised thrusting, parasitic folding and shearing is responsible for thickening mineralisation and increasing Cu and Ag grades over wide intervals. 	
	 New Discovery and South Limb Definition are examples of stratabound deposits that are structurally controlled and contains vein shears that are not conformable with bedding and crosscut stratigraphy. 	
	 The North East Fold and Chalcocite deposits are the same style, though their location at the fold hinge increases the potential for remobilisation of mineralisation due to structural overprinting. 	
	 The lithology model was based on drill hole interpretation and logging by Khoemacau's geologists. Copper grade zone domains of predominately continuous, stratiform mineralisation were identified and built into three- dimensional wireframe solids. 	
	– The D'Kar Formation lies above the NPF. The lower ductile siltstones and carbonaceous units of the D'Kar Formation are the main host for most of the copper and silver mineralisation. Mineralisation in the NPF is generally only on fractures and/or through-going structures. The low-grade mineralisation domain is generally restricted to the D'Kar Formation, except at North East	



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	Fold where brittle structures in the NPF host a small proportion of the mineralisation.	
	 The Cu grade zone domains and the Mineral Resource estimation were guided and controlled by the interpreted geology models. Continuous high-grade domains, for all but the Chalcocite area, used a Cu cut-off of 0.8% and were typically enveloped by a lower grade, disseminated Cu domain using a Cu cut- off of 0.1%. A grade threshold of 0.5% Cu was used for the Chalcocite area. 	
	 Mineralisation at Selene is hosted by carbonate facies, sediment breccia & stromatolites with abundant sulphur, suggesting proximity to a basin high. Drillcore shows evidence of moderate strain. The geological interpretations for Selene were produced by DML. Sectional outlines of the barren capping overburden lithology, copper mineralisation and levels of copper oxidation were interpreted on drill sections from simplified lithology codes, oxidation codes and copper grades. 	
	• Ophion lies on the same trend as Zeta, Zeta NE and Selene. The sediment facies indicate a deeper basin environment with the highly sheared mineralisation hosted within the siltstone unit at contact with the NPF. Parasitic folding and a plunging fold axis have also been noted.	
	 At Plutus the sediment facies indicate a deeper basinal environment with little lateral change. Boudin fold hinges and parasitic folding as well a plunging fold axis have been noted but overall the stratigraphy indicates relatively low strain. Mineralisation grades are lower but potential exists to define high grade plunging shoots. 	
Dimensions	 The whole of the Project area is covered by an unmineralised overburden sequence of 2 - 60 m depth. 	
	• The mineralisation starts immediately below the cover sequence, though the upper 50-60m is variably oxidised, with reduced metallurgical recovery.	
	• The mineralisation at Zone 5 extends over a strike length of 4.2km and dips between 55° and 65° towards the southeast. The resource model extends from the base of oxidation (approximately 60–80m below surface) to a maximum depth of approximately 1,200m vertically below surface with an average thickness of 20 m. Drilling has intersected deeper mineralisation below the bottom of the model and the deposit remains open at depth and along strike.	
	 The Mango NE deposit has defined mineralisation over a total strike length of 5 km dipping at 65° to the southeast. The central portion of the deposit is host to economic mineralisation over a strike length of 1.5 km. The deposit has only been drilled to 700 m below surface and remains open both along strike and at depth. Two copper domains were identified using a high-grade (>1%) copper cut-off. The domains are separated by 5–6 m of low to moderate grade (<0.4%) copper mineralisation. The high-grade wireframes average 6 m width in both the hangingwall and the footwall zones. Both the hangingwall and footwall zone are continuous across the strike of the central portion of the deposit. 	
	 The Zeta NE deposit has been drilled over a total strike length of 5 km with mineralisation dipping at 80° toward the northwest. The central portion of the deposit is host to economic mineralisation over a strike length of 1.2 km. The deposit has been drilled to 850 m below surface and remains open both along strike and at depth. Two high-grade (>1%) copper domains are present and are separated by 5–10 m of barren to low-grade (0.2%) copper mineralisation. The 	



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	high-grade wireframes average 4m width in both the hangingwall and footwall zones. The footwall zone is continuous across the strike of the deposit. Higher- grade mineralisation is not always present in the upper hangingwall zone but is continuous over the Central portion of the deposit. Where both the hangingwall and footwall are intersected, both zones plus dilution average 13 m.	
	 The Zone 5N deposit has been drilled over a strike length of 4.6 km with mineralisation striking at 235° and dipping at 65° to the northwest. The central portion of the deposit is host to economic mineralisation over a strike length of 1.4 km. The deposit has been drilled to 1,000 m below surface and remains open both along strike and at depth. Economic mineralisation has an average thickness of 5 m. 	
	 The wireframed mineralisation at Banana Zone covers a strike length of approximately 32 km along each limb and has both a southeast dipping and northwest dipping component. The mineralisation starts immediately below the cover sequence, though the upper 50-60m is variably oxidised, with reduced metallurgical recovery. Away from the well drilled model areas (listed separately below), the classification generally extends to 800 m RL which is approximately 250 m below the topography. 	
	 New Discovery has been drilled to a reasonable density to within 200m of surface. A limited amount of drilling has taken place down to 600m from surface, and the deposit remains open at depth. On average the high-grade zones are 2.5m in width. 	
	 North East Fold has been drilled to a reasonable density to within 150m of surface. A limited amount of drilling has taken place down to 450m from surface, and the deposit remains open at depth. On average the high-grade zones are 2m in width. 	
	 South Limb Definition has been drilled to a reasonable density to within 150m of surface. A limited amount of drilling has taken place down to 450m from surface, and the deposit remains open at depth. On average the high-grade zones are 2m in width. 	
	 Chalcocite has been drilled to a reasonable density to within 100m of surface. A limited amount of drilling has taken place down to 350m from surface, and the deposit remains open at depth. 	
	 The mineralisation at Zone 6 extends over a strike length of 2km and dips between 47° and 50° towards the southeast. The deposit has a thickness ranging from 2 to 10 m. The resource model extends from the base of oxidation (approximately 80 to 100m below surface) to a maximum depth of approximately 650m vertically below surface. Drilling has intersected deeper mineralisation below the bottom of the model and the deposit remains open in all directions. At Ophion, the mineralisation wireframes cover a strike distance of approximately 	
	 At opnion, the initialisation wirefames cover a strike distance of approximately 5.5 km and extends to 230 m below surface. Each of the four main mineralisation zones is approximately 2–6 m thick and generally dipping 80° to the northwest. Drilling intersected mineralisation at depths between 23 m and 190 m below surface and always below the base of complete oxidation. On average, the high- grade zones are 8 m in width. 	
	 The Selene deposit has been drilled over a total strike length of 7 km and dips approximately 70° to the southeast. Mineralisation has been intersected at 	



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	 depths between 25 m to 200 m from surface, and the deposit remains open at depth. On average, the high-grade zones are 3 m in width. The Plutus mineralisation extends over a strike length of approximately 3 km and dips between 55° and 65° towards the northwest. The deposit has been drilled to a reasonable density to within 200 m of surface. A limited amount of drilling has taken place down to 500 m from surface in the central portion of the deposit, and the deposit remains open at depth. On average, the zone of copper mineralisation is some 5.5 m wide. The Zeta deposit has been drilled over a total strike length of 6.5 km with mineralisation dipping at 75° toward the northwest. The mineralisation at Zeta has been identified by drilling over a strike length of approximately 6.5 km. Wireframe interpretations have been extended along this entire length. In the centre of the deposit, mineralisation has been identified to a depth of >600 m below surface and is open at depth. On average the high-grade mineralisation is approximately 5.5 m wide. 	
Estimation and modelling techniques	 A summary of the estimation strategy by model is shown in the table below. Deposit specific comments are made separately below the table. Model area <u>increases</u> (increases) and the second increases (increases) and the 	



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	referencing the interpreted lithological solids. Grade was continuous along strike, reflecting the stratiform style of the mineralisation.	
	 Histogram plots by individual grade zones were used to determine the potential risk of grade distortion from higher-grade assays outside the general population. To reduce the influence of excessive values on the deposit, both Cu and Ag grade capping was applied to each grade zone and ore type. 	
	The model was validated by a visual comparison of the colour coded block grades to drillhole assays and composite grades in section view, a global comparison of average/mean grades and swath plot.	
	Mango NE, Zone 5N, Zeta NE ("Expansion deposits")	
	• The block models for the three Expansion Deposits were created by Ridge Geoscience using Hexagon Mining's HxGN MinePlan 3D software or Leapfrog Edge in UTM coordinates. The models were rotated horizontally to align with the strike of the deposits.	
	 Only material within the high-grade zones is included in the tabulation of the Mineral Resource. Material within the low-grade zones is estimated only for potential inclusion as dilution in internal mining studies. 	
	• A combination of decile analysis and review of lognormal probability plots by individual grade zones was used to determine the potential risk of grade distortion from higher grade assays outside the general population. To reduce the influence of extreme values on the estimate, both Cu and Ag grade capping was applied to each grade zone and ore type. Compositing (2 m at Zone 5N, full length at Mango NE and Zeta NE) was applied after grade capping.	
	 The block sizes used for estimation were based on the local drill spacing, geological variability of the deposit and the likely size of the selective mining unit. Each model was further sub-blocked for better definition along grade zone boundaries. 	
	 At each of the Expansion Deposits, OK was used to estimate Cu, Ag, Pb, Zn, As and Mo, while ID² weighting was used to estimate ASCu:Cu ratio and CNCu:Cu ratio. Grades were interpolated using composites within hard boundary mineralised domains. ID² and Nearest Neighbour (NN) methods were used as model comparisons. The estimation method used length weighted composites and search ellipsoids based on the variogram models and were completed in one or two passes. 	
	• The three Expansion Deposits are primarily Cu deposits with additional moderate- grade silver. The mineral grade zone domains were based on primarily on Cu grade. The Mineral Resource estimate interpolated Cu, Ag, Pb, Zn, As and Mo based on the Cu domains defined.	
	No assumptions were made between correlations of variables. Cu and Ag values were estimated independently within the defined grade zones.	
	Ihe Cu domain development and the Mineral Resource estimation was guided and controlled by the interpreted geology models.	
	 The model was validated by a visual comparison of the colour coded block grades to drillhole assays and composite grades in section view, a quantitative comparison of composite and block grade distributions, a global comparison of NN and OK models, and a graphical comparison of several spatial grade distributions using swath plots. 	



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	 Visual comparison for Cu and Ag showed a strong correlation between values. No large discrepancies were apparent. The quantitative assessment comparing the distribution of composite and block grades indicates a good comparison that shows the smoothing effect of the Kriging algorithms. A comparison of the NN and OK models resulted in Cu and Ag grade differences of less than 3% which is within acceptable tolerances. Correlation of the swath plots over the high-grade domains showed consistent agreement with the primary estimates being slightly smoother vs that of the NN estimates. 	
	Banana Zone	
	 11 block models comprise the Banana Zone Mineral Resource. The model updates were compiled by ERM in 2024 using Datamine software (version 2.0.66.0 or 1.13.202.2). 	
	 The mineralisation domain threshold was selected based on the geology models (lithology, structure, and mineralogy) and on continuity of the grade distribution. 	
	 Assays were composited to 1m intervals within individual high-grade and low- grade domains. Residual segments shorter than 1m have their length distributed among the other intervals. 	
	 Composited data was used to generate cumulative probability and histogram plots. A review of the results showed that some high-grade outliers were spatially discontinuous from the remainder of the data set and that there was justification for applying grade caps. No spatial grade restrictions were applied. 	
	 Variogram models were completed to determine the orientation and spatial continuity of the composited grade values. Estimation domains were combined for variogram analysis in cases where either insufficient samples were available for a reliable analysis, or the domains were volumetrically minor and/or of no economic significance. 	
	 The block models were created in local coordinates, oriented north-south. Parent blocks were sub-blocked along domain boundaries to ensure the wireframe volumes were maintained in the block models. 	
	 The grade estimations (Cu, Ag, ASCu, Pb, Zn, ASCu/Cu) were compiled using both ordinary kriging (OK) and inverse distance squared (ID²) methodologies with a concurrent nearest neighbour (NN) check estimate. Estimates were constrained by the mineralisation domains as hard boundaries without consideration of the oxidation profile for all but the ASCu and ASCu/Cu estimates. The ASCu and ASCu/Cu estimates used a soft boundary (20 m) from the oxide+transition domain into the sulphide material. All interpolations used a dynamic search orientation based on the geometry of the zones. The search orientations at ND and SLD incorporated a plunge component; shallow to the south and north respectively. The estimations were compiled in three passes with expansion factors of 2 times and 4 time the pass 1 search for passes 2 and 3. Pass 1 and 2 estimates requires contributions from at least 3 drillholes. 	
	with wider space drilling but was maintained as a pseudo- spatial restriction on what were generally higher grades in the areas with closer spaced drilling.	



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	 The OK estimates were retained for reporting of the CC, NEF, SLD, ND, SLM2 and NLN model areas. The ID2 results were used for reporting of model areas with limited wider spaced drilling (NLS, NLM, SLS, SLM, SLN). 	
	 Density values were assigned based on median values in each part of the oxidation profile: 2.58 t/m³ for oxide, 2.66 t/m³ for transition and 2.71 t/m³ for sulphide. 	
	 No by-products are expected to be recovered. 	
	 No assumptions have been made regarding selective mining units. 	
	• Pb and Zn are not considered economic but have been included in the evaluation as they also occur through the hangingwall waste material. Insufficient As and S data were available to enable estimates of those variables for acid mine drainage characterisation.	
	 The grade models were validated by visual comparison of colour coded block grades to drill hole composite grades in both sectional and long section views, global comparison of the NN models with the OK and ID2 models, swath plot analysis comparing NN and OK grades and statistical comparison of composite and block model mean grades. 	
	Zone 6	
	 The block model for Zone 6 was created by KCM in 2024 using Leapfrog Geo (domains and data analysis) and Datamine (estimation) software in WGS84_34S coordinates. The block model was rotated to align with the 045° strike of the orebody. The model was also inclined along the plunge/dip of the orebody at 40° dip. 	
	 Mineral domains were defined by KCM geologists and used to construct geology wireframes to aid in defining Cu domains. Cu domains of continuous, stratiform mineralisation were identified and built into 3D solids. These models were compared to previous interpretations of the mineralised zones to validate them. 	
	 A total of 87 drillholes, of which 37 are diamond drillholes and 46 are RC drillholes were used in the current Zone 6 Mineral Resource model. Continuous, high-grade domains used a copper cut-off of > 0.8% and were enveloped by a lower grade, disseminated copper domain using a copper cut-off of > 0.1%. Internal waste zones within the high-grade domain were also modelled. Cu, Ag, As, Pb and Zn have been interpolated based on the Cu grade zones in the Mineral Resource. 	
	 Histogram plots by individual Cu domain were used to determine the potential risk of grade distortion from higher-grade assays outside the general population. To reduce the influence of excessive values on the deposit, both Cu and Ag grade capping was applied to each domain and ore type. 	
	 The model is sub-blocked along domain boundaries to a minimum of 1 mE x 1 mN x 1 mRL, with the Datamine 'splits' set to 3 to get better resolution on the edge of the wireframes. 	
	 Ordinary kriging, constrained by the mineralised zone wireframes, was used to estimate Cu, Ag, Pb, Zn, ASCu and ASCu:Cu ratio, while ID² was used to estimate the molar Cu:S ratio, As, Ca, Al, Fe and S. Grades were interpolated using 1 m composites within hard boundary mineralisation domains. Dynamic anisotropy was used to estimate Cu, Ag, Pb, Zn and As in all grade zones. 	
	 Density values were assigned based on the oxidation profile. 	



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	 The model was validated by a visual comparison of the colour coded block grades to drillhole assays and composite grades in section view, a global comparison of average/mean grades and slice plot. 	
	 An Inferred Mineral Resource model was previously reported for Zone 6 in August 2009 and again in 2022 (the 2022 model was not JORC Code compliant). The June 2024 model shows a strong correlation with the previous models. 	
	 No by-products are expected to be recovered. 	
	 No assumptions have been made regarding selective mining units. 	
	Ophion	
	 The block model for Ophion was created by Xstract Mining Consultants in 2013 using Datamine software in WGS84_34S coordinates. 	
	 Assays were weight-averaged into nominal 1 m composites within the individual grade zones. Residual segments shorter than 1 m have their length distributed among the other intervals. 	
	 Copper, grades were capped at 5% to limit the effect of high-grade outliers located at depth creating an artificial high-grade bias in areas where block grades were extrapolated beyond drilling. 	
	 Sub-celling was employed to accurately represent model volumes down to 1 mE x 8 mN x 0.05 mRL. 	
	 Whist there is a correlation between Cu, Ag and S, each element was estimated independently from the same or similar numbers of data. 	
	 Estimation parameters were optimised based on the drillhole data spacing and the models of grade continuity produced by the variography study. Data density is not sufficient to model grade variation across the mineralisation width; geological modelling is currently simulating a mining cut-off envelope. Infill drilling is required to allow for more confident modelling of mineralisation volume and to make it possible to determine grade variation across strike and to a scale indicative of selective mining units along strike and down-dip. 	
	 Search ranges for all elements were adjusted in order to ensure a reasonable number of samples were included in each block estimate and so data in the dip and across-dip direction was not "screened out" by the high dimensional ratios between strike and dip directions and the narrow across-dip width of mineralisation. 	
	 A comparison between the mean grades from the drillhole composite data and the block estimates (on a parent cell basis) was performed to ensure they were similar and the estimate unbiased in a global sense. 	
	 Local validation of the estimates was performed by visually inspecting the block model in plan sections, long sections and cross sections. The quality of the local estimates was checked by averaging block grades and composite data for Cu, Ag and S both along strike and down dip. 	
	Selene	
	 The block model for Selene was created by Xstract Mining Consultants in 2013 using Datamine software in WGS84_34S coordinates. 	
	 Assays were weight-averaged into nominal 1 m composites within the individual grade zones. Residual segments shorter than 1 m have their length distributed among the other intervals. 	



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	No grade caps were applied to the Selene composites.	
	 Sub-celling was employed to accurately represent model volumes down to 1 mE x 8 mN x 0.05 mRL. Each sub-cell within the mineralisation outline was assigned the grade values of the parent cell. 	
	 Whist there is a correlation between Cu, Ag and S, each element was estimated independently from the same or similar numbers of data. 	
	 Estimation parameters were optimised based on the drillhole data spacing and the models of grade continuity produced by the variography study. 	
	 Data density is not sufficient to model grade variation across the mineralisation width; geological modelling is currently simulating a mining cut-off envelope. Infill drilling is required to allow for more confident modelling of mineralisation volume and to make it possible to determine grade variation across strike and to a scale indicative of selective mining units along strike and down-dip. 	
	 Search ranges for all elements were adjusted in order to ensure a reasonable number of samples were included in each block estimate and so data in the dip and across-dip direction was not "screened out" by the high dimensional ratios between strike and dip directions and the narrow across-dip width of mineralisation. 	
	 Density values were assigned based on the oxidation profile. 	
	 A comparison between the mean grades from the drillhole composite data and the block estimates (on a parent cell basis) was performed to ensure they were similar and the estimate unbiased in a global sense. 	
	 Local validation of the estimates was performed by visually inspecting the block model in plan sections, long sections and cross sections. The quality of the local estimates was checked by averaging block grades and composite data for Cu, Ag and S both along strike and down dip. 	
	Plutus	
	 The block model for Plutus was created by QG Pty Ltd (QG) in 2013 using Datamine software in WGS84_34S coordinates. 	
	 All data was composited to 1 m prior to estimation. The S:Cu ratio was calculated from S and Cu assay values. 	
	 Grade caps were applied to different variables in order to restrict the influence of extreme grades during estimation. QG based their capping decisions on subjective judgements, which include consideration of: 	
	 The total population distribution Examination of histogram and log probability plots The spatial location of extreme grades The impact that extreme values will have in estimates. 	
	 Variogram models were completed for composited Cu, Ag, S, ASCu, S:Cu ratio and bulk density values. 	
	 A 3D block model was defined for Plutus. Sub-cells to a minimum dimension of 0.3125 mE x 3.125 mN x 1.25 mRL were used to represent volume. The model is rotated 50° clockwise around the vertical axis. 	
	 Cu, Ag, S, ASCu, S:Cu ratio and bulk density values were interpolated by OK and hard boundaries were used between the various grade shells. 	


	Section 3 Estimating and Reporting of Mineral Resources
Criteria	Commentary
	 No by-products are expected to be recovered. Estimates were validated visually in Datamine's 3D graphical environment, by examining reproduction of global estimation statistics, and by comparing semi-local reproduction of grade in swath plots.
	 The block model for Zeta was created by ERM Australia Pty Ltd (ERM) in 2024 using Datamine software (version 1.13.202.2) in WGS84_34S coordinates.
	 A threshold of ~0.1% Cu was used to define a mineralized envelope. Two internal zones of consistently higher Cu grades (>0.8% Cu), the main one being in the centre extending to the north-east and the other to the south-west were also differentiated. Another smaller higher grade Cu zone was defined in the hanging wall to the south-west that is outside of the 0.1% Cu envelope.
	 Cu, Ag, ASCu and S were estimated using OK into parent blocks with dimensions approximately ¼ to ½ the drill spacing below the mined pit. Sub-blocks to a minimum dimension of 0.5 mE x 5 mN x 5 mRL were used at domain boundaries. An estimate was also compiled for the ratio of S:Cu and ASCu:Cu. Both of these ratios assist in defining the base of oxidation and top of fresh material.
	• The estimation domains were based on combinations of individual oxidation and mineralisation domains, with all boundaries being treated as hard for all variables.
	 Grade caps were applied to Cu, Ag, ASCu and S in some domains when examination of the tail of the histogram, log-probability and mean and variance plots indicated it was appropriate.
	 Estimation parameters were chosen after considering output kriging estimation statistics, variogram models and data geometry.
	• Whilst there is a correlation between Cu, Ag and S each element was estimated independently from the same or similar numbers of data.
	 Density values were assigned based on the oxidation profile and mineralisation domain.
	No by-products are expected to be recovered.
	• Estimates were validated visually in Datamine's 3D graphical environment, by examining reproduction of global estimation statistics, and by comparing semi- local reproduction of grade in swath plots.
Moisture	All tonnages are estimated and reported dry in-situ basis.
Cut-off	Zone 5
parameters	 Reported Mineral Resource includes all blocks inside mineable stope optimiser (MSO) shapes returning, or above, \$50 NSR, based on \$4.90/lb Cu, \$26.13/oz Ag, recoveries averaging 88% for Cu and 84% for Ag and assumed payability of 97% and 90% respectively. As all blocks within the \$50 NSR MSO shape are reported, internal dilution is included.
	Mango NE, Zone 5N, Zeta NE (Mineral Resource models not updated for 2024)
	The Mineral Resources for the Expansion Project are reported on a dry in-situ basis at a 1.0% Cu cut-off. Reporting cut-off grade was selected based on assumed prices of US\$3.54/lb and US\$21.35/oz for copper and silver, respectively, assumed metallurgical recoveries of 88% and 84%, respectively, and assumed payability of 97% and 90%, respectively. This equates to approximately US\$66/t of NSR value, which is considered a reasonable underground mining.



	000000	3 Estimating and Report	ing of Mi	neral Resources	
a Co	ommentar	у			
	operation location.	incremental cut-off base	d on opei	rations of similar ty	pe, scale, and
Ba	inana Zone	e - Open Pit (Chalcocite, I	North Eas	t Fold)	
	The cut-c pit optimi assumption prices and The optim	off for the open pit mining sations were compiled. The ons as those used in the 2 d costs updated to reflect hisations suggested a cop	scenario ne optimis 2022 Bana t those in oper cut-c	at Banana was sele sations used the sa ana Zone Economic use at Zone 5. off grade of 0.2% is	ected after Whittle me mining Study, with metal reasonable.
	Category	Item	Unit	North East Fold	Chalcocite
		Copper Selling Price	USD/t	10,803	10,803
		Silver Selling Price	USD/oz	26.13	26.13
	Financial	Govt Royalties Cu	%	3	3
		Govt Royalties Ag	%	5	5
	-	Other Royalties	%	0	
		Mining Costs at Surface (1025RL)	USD/t	\$2 then Variable @ 10c/m)	\$3 then Variable @10c/m
	-	Mining Recovery (Ore Loss)	%	95	95
		Mining Dilution	%	5	5
	Mining	Mine Sustaining Capex	USD/t	0.2	0.2
		Mine Development Capex	USD/t	0.4	0.4
		Overall Slope Angles	degrees	Sand 30 deg, Calcrete 35 deg, Oxide 40 deg & Sulphide 45 deg	42
		Ore Transportation	USD/t ore	\$0.90	\$0.90
		Sustaining Capital	USD/t ore	\$0.90	\$0.90
		Processing	USD/t ore	\$8.90	\$8.90
	Brossesing	Centralised Services and G & A	USD/t ore	\$1.80	\$1.80
	Processing	Total processing costs	USD/t ore	\$12.50	\$12.50
		Metal		Recovery	Formula
		Cu recovery	%	86.42 + (0.56 * Cu%)	86.42 + (0.56 * Cu%)
		Ag recovery	%	74.47 + (0.327 * Ag g/t)	74.47 + (0.327 * Ag g/t)
		Road train haulage to FOB	USD/t conc	N/A	N/A
		Port costs	USD/t conc	N/A	N/A
	Selling &	Shipping Costs	USD/t conc	280	280
	Logistics		9/	96.5	96.5
	Logistics -	Cu Payability	70		
	Logistics costs	Cu Payability Ag Payability	%	90	90



	Section 3 Estin	nating and Reporting of Min	eral Resource	S
Criteria	Commentary			
	Section	Parameter	Value	
	Optimisation Method for	r Cu		
	Maximise Stope Grade	Above Cutoff	1.01	
	Cutoff Grade	Cutoff - Discrete	1%	
	Framework Type	Stopes along Framework Y Avis (YZ)		
		Stopes along Hamework TAXIS (12)	10	
	Section and Level	Section (U) - Fixed	IU m	
		Level (V) - Fixed	25 m	
		Minimum - Use Single Value	- 3 m	
	Stope Width	Maximum - Use Single Value	100 m	
		Maximum Pillar between Stopes	10 m	
		ELOS Dilution	0	
	Stope Dilution	Footwall/Hanging wall	0	
	Stope Dilution	Footwall Dilution	0	
		Hanging wall Dilution	0	
	Stope Strike Angles	Minimum	0	
	(Defaults)	Maximum	180°	
		Maximum Change	200	
	Stope Dip Angles	Minimum	-45	
	(Defaults)	Maximum Change	45 ⁻	
		Haximum Change	20	
	 The MSO shapes reporting. The dri considered adeque closer spaced, no Definition indicate will result in incre The assumed recursed by KCM in h sulphide material pricing for 2024. 	have not been used as cons ill spacing at depth through t uate to apply Modifying Fact ear-surface drilling at both N es there is a reasonable char ased thickness of mineralisa covery values for the copper historical reporting and are b . Metal pricing has been upd Metal pricing and the copper	straints for the the Inferred ma cors such as M lew Discovery nce that additi ation in some a equivalence c ased on metal lated to reflect r equivalence	Mineral Resource aterial is not SO shape constraints. and South Limb onal drilling at depth ireas. alculation are those lurgical studies on t MMG's corporate calculation are shown
			ror sulprilue i	naterial.
	Copper 4.90/lb;	10,803/t 88%		
	Silver 26.1	3/oz 84%		
	1 g/t Ag = 0.007	% Cu		
	*MMG 2024 Resource m	netal price		
-	Zeta			
	Given the similar	mineralisation style and anti-	cinated mining	method the cut-off
		liched for Denone Zone how		for reporting the
	parameters estat	Disned for Banana Zone nave		i for reporting the
	updated Mineral	Resources for Zeta (0.9% Cu	iEQ). Metal pri	cing and the copper
	equivalence calcu	ulation are shown in the tabl	e below. Recov	very assumptions are
	for sulphide mate	erial.		
	Price (USD)* Assumed recovery		
	Copper 10,8	03/t 88%		
	Silver 26.1	3/oz 75%		
	I J J L AY - 0.007	70 GU		



Section 3 Estimating and Reporting of Mineral Resources								
Criteria	Commentary							
	 Zone 6 The Mineral Resource for Zone 6 has been reported at a 0.9% Cu cut-off in line 							
	with reporting for the Bahana Zone and Zeta. The copper equivalence calculation was not applied for Zone 6 due to the relatively low reported silver values.							
	Ophion, Selene (Mineral Resource models not updated for 2024)							
	• The nominal 0.6% block copper lower cut-off used for reporting these Mineral Resources when they were compiled in 2013 has been retained on the basis of what was used at the time for the nearby Zeta open pit mining operation.							
	Plutus (Mineral Resource models not updated for 2024)							
	 All remaining Mineral Resources at Plutus are currently considered underground resources. The reporting cut-off of 1.07% CuEq has been retained from the modelling compiled by QG in 2013, where CuEq = Cu + Ag*0.0113. This cut-off grade is derived from economic analysis incorporating taxation, transport, smelting and refining charges. At the time the formula was set the metal prices in use by DML were USD7,250/t Cu and USD25/oz Ag, with payabilities of 97% for Cu and 93% for Ag, and variable Cu recovery at Min(2.961*(S:Cu Ratio %) + 14.439,93) and Ag recovery in sulphide material at 75%. 							
Mining	Zone 5							
factors or assumptions	 The underground Mineral Resource at Zone 5 is constrained by the MSO shapes described in the previous section. These MSO shapes include internal dilution and all material within the shapes is reported. 							
	 Ore production at Zone 5 is conducted through Long Hole Open Stoping (LHOS) methods (planned 25m high, 50m long and a minimum width of 3m). 							
	 Paste fill is planned at depths greater than 445m below surface for North Corridor and 475m below surface for Central Corridor and South Corridor. 							
	Mango NE, Zone 5N, Zeta NE (Expansion Project)							
	 MSO shapes generated for Mango NE, Zeta NE and Zone 5N use the same methodology as used for Zone 5 (planned 25m high, 50m long and a minimum width of 3m). 							
	 The current mine designs for the Expansion deposits are based on the Zone 5 single corridor assumptions of a twin decline layout, LHOS and 25 m level spacing. 							
	 The table below summarises the mining assumptions for Zone 5 and the Expansion Project. 							
	Factor Zone 5 Expansion Zone 5N Mango Zeta NE Davelogment 100% Davelogment 100% Davelogment 100%							
	Extraction Development = 100% Development = 100% <thdevelopment 100%<="" =="" th=""> Development = 10</thdevelopment>							
	Recovery (one-pillar loss) Backfilled stopes - 100%. Open stopes - varies from 53% to 76% dependent on depth below surface, hydraulic radius and stope width. Backfilled stopes - 100%. Open stopes - 70%. Open stopes - 75% to 82% dependent on depth below surface. Backfilled stopes - 100%. Open stopes - 75% to 82% dependent on depth below surface.							
	Dilution 10% untilled stopes Overbreak allowance Overbreak allowance <th< td=""></th<>							
	Banana Zone							
	 Underground mining scenarios were assessed for development of the New Discovery and South Limb Definition deposits and on the deeper portions of the 							



	Section 3 Estimating and Reporting of Mineral Resources
Criteria	Commentary
	 North East Fold deposit. The proposed mining method entails fully mechanised long hole open stope mining with access development and support infrastructure developed in the footwall of the deposit. This arrangement has been demonstrated to be the best approach for the long strike, but in some cases relatively narrow, deposits encountered in the Kalahari. In each case the production rate from the deposit was sized for local conditions and varied between0.8Mtpa and 1.1Mtpa of ore mining. At North East Fold, the stacked but relatively narrow ore zones were considered better suited to approach truck and sharel encountered.
	defined the maximum economic depth of the open pit. An analysis of underground mining potential was undertaken on the remaining ore zones below the North East Fold open pit, particularly on the steeply dipping NW limb. The 2022 analysis of the potential for underground mining at NEF concluded that the grade and/or width was not sufficient to support development at the prices in use for that study (USD7600 versus the current MMG corporate Ore Reserve copper price of USD8995/t.
	 As the Banana Zone (other) areas are in the early stages of project development, as further engineering studies are completed, the individual model areas could change from potentially mineable by open pit methods to a combination of open pit and underground methods. Work completed in 2014 by RPM Global indicated that CC and NEF were the only areas that should be considered open pit targets.
	Zeta
	 Underground mining plans developed for Zeta by RPM Global in 2014 proposed sub-level cave stoping as the mining method. Stope recovery of 90% with 15% dilution was applied, with a minimum mining width of 4 m.
	Underground mining studies have not been completed for any of the other deposits in the Project area. Given the similarities noted regarding the morphology and metallurgical characteristics across the deposits the Competent Person considers it reasonable to apply similar mining assumptions across the remaining deposits.
Metallurgical	Zone 5
factors or assumptions	• No oxide material or recoveries have been included in the mineral resource estimate. The top of the model was terminated against the oxide+transition/sulphide boundary.
	 Multiple metallurgical testwork programs have been completed on the Zone 5 ore between 2013 and 2020. This includes testwork on both oxidised, partially oxidised, and sulphide ore composites. The average copper and silver recoveries applied to the Mineral Resource and Ore Reserve assumptions for sulphide material on average are 88.2% and 84.1% respectively. These recoveries reflect the best fit regression recoveries from sulphide ore testwork completed up to
	 June 2020. Mineralogy in the model was estimated based on the molar Cu:S ratio. The ratio was calculated from individual assay intervals and averaged in 1 m downhole composites. Grade zone boundaries were respected in the compositing. The Hangingwall Zone is predominantly chalcopyrite and pyrite with the lowest recoveries, while the Central Zone is dominantly bornite with improved recoveries and chalcocite with the highest recoveries. The Cu:S ratio was estimated using



Section 3 Estimating and Reporting of Mineral Resources					
Criteria	Commentary	1			
	inverse dis zone solid: • The estima recovery. (discounted	stance cubec s. ated Cu:S rat Copper recov d by the prop	I (ID ³) weighting and io was used to defir veries were capped portion of oxide whe	a constrained to the mineralogy and sub at 95%. The recovery n the AsCu/TCu ratio v	neralised grade sequently value was then was greater than
	15%.				
	 Mango NE, Zo Mineralogi Expansion 	one 5N, Zeta ical and meta Deposits.	NE Ilurgical sampling w	as initiated in early 20	20 for the three
	 Testwork of intersected each depo copper-silt mineralisat and confin deposits w 	consisted of d sulphide m osit: bornite, o ver grades. T tion, testing o m plant desig where the bes	nine composite sam ineralisation. Three chalcocite and chalc The testwork aimed ore hardness fluctua gn and mine plannin st economics have b	ples from each deposi dominant ore types we copyrite at low, modera at characterizing sulph ations across the strike g in the Central portion peen obtained.	t that ere tested for ate and high ide and down dip as of the
	 Preliminary nine comp Work Inde: similar min 	y testwork wa oosite sample x (BMWi), rou neralogy, BM	as carried out by Mi s per deposit (27 sa ugher and cleaner a Wi and metallurgical	ntek in Johannesburg, amples in all) were test nalysis. Preliminary res response to Zone 5.	South Africa. All ed for Bond Mill ults exhibit
	 Overall, co was found 	opper recover I to be in the	ries were in excess range of 38% to 50'	of 87% and copper cor %.	ncentrate grade
	 Mineralogy calculated respecting using ID³ a Cu:S ratio below. 	y in the block for each ass the boundar and constrain was used to	model was estimat ay interval and com ries of the grade zon ed to the mineralise define mineralogy a	ed based on the molar posited down the hole nes. The Cu:S ratio wa ed grade zone solids. T and subsequently recov	Cu:S ratio, while s estimated he estimated very as shown
		С	u:S ratio	Recovery formula	
		From To	Mineralogy	Cu	Ag
		0.75 1.5	Bornite	86.42 + 0.56 * Cu%	83.1
		1.5 99	Chalcocite	88.65 + 0.56*Cu%	87.1
	Copper red	coveries wer	e capped at 95%. R	ecovery values were th	nen discounted
	by the pro	portion of ox	ide when the AsCu/	TCu ratio was greater	than 10%.
	Banana Zone	- New Disco	very, North East Fo	ld, South Limb Definitio	on, Chalcocite
	 Metallurgic guidance of flotation te metallurgica comminutio base for the 	cal testing in of Hana with esting on the al program for on testing and e NEF Zone.	support of the Bana mineralogical evalua Banana Zone resou the Banana Zone in 2 more detailed sulphide	ana Zone PEA began in ations, oxide leach tes Irce areas. Khoemacau th 013 with mineralogy exan e flotation testing on an e	2010 under the ting and sulfide nen advanced the ninations, expanded resource
	 Based on t for Ag is p mineralizat bearing mi and a Cu c 	the metallurg rojected. Cop tion. It is asso inerals in the concentrate o	ical response, a flot oper concentrate gr umed that bornite a various deposits co grade of 38% is proj	ation recovery of 90% ade will be a function on nd chalcocite will be the filectively known as the ected.	for Cu and 85% of Cu ie dominant Cu e Banana Zone



Section 3 Estimating and Reporting of Mineral Resources							
Criteria	Commentary						
	 The current recovery formulae are based on recent metallurgical test work on Zone 5 ore. 						
	Variable	Equation 1	Equation 2	Maximum			
	Cu (CC) R	RECM = 88.85 + (0.56 * CUOK)	If ASCu/Cu>0.1 then recovery= equation 1 * (1-ASCu/Cu)	95%			
	Cu (NEF) R	RECM = 86.42 + (0.56 * CUOK)	If ASCu/Cu>0.15 then recovery= equation 1 * (1-(ASCu/Cu + 0.05))	95%			
	Cu (SLD, ND) R	RECM = 86.42 + (0.56 * CUOK)	If ASCu/Cu>0.1 then recovery= equation 1 * (1-ASCu/Cu)	95%			
	Ag (CC, NEF, ND, SLD) R	EAM = 74.47 + (0.327 * AGOK)		95%			
	 Cu and Ag recover the sub-blocked The Cu recovery AsCu/TCu ratio vertice 	veries are calculated for I model. The maximum v value was then disco was greater than 10%, Recovery(final) = Reco	or each block independently and s Cu and Ag recoveries are capped unted by the proportion of oxide v using the formula: very (Initial) x (1-(AsCu/TCu)).	tored to at 95%. /hen the			
	Banana Zone (othe	r):					
	 Cu and Ag recoveries have not been calculated into the other Banana Zone models due to significant uncertainty relating to the relationship between acid- soluble and total Cu concentrations in these areas. 						
	Zone 6						
	 No metallurgical deposit character 	testwork has been ca eristics are assumed to	rried out on material from Zone 6. be similar to those at Zone 5.	The			
	 No oxide material or recoveries have been included in the mineral resource estimate. The top of the model was terminated against the oxide/sulphide boundary. The molar Cu:S ratio was interpolated into the model using Inverse Distance Cubed Weighting and constrained to the mineralised grade zone solids. The molar ratio can be used to determine mineralogy. 						
	Plutus, Zeta						
	 The metallurgican data from the Plu 	al recoveries for Zeta a utus and Zeta open pit	nd Plutus are based upon mill reco s (at 2013) and are shown below.	onciliation			
	Metal	Recovery (%)					
	Copper	Min(2.0755 (S:Cu	ı Ratio %) + 36.285, 93)				
	Weathered Silver		40				
	Transitional Silver		70				
	Sulphide Silver		75				
	Ophion, Selene						
	 Trends in Ophion and Selene Cu:S ratios indicate that metallurgical assumptions from mining the Zeta pit should be tested for these deposits. 						
Environmental factors or assumptions	• KCM ensures compliance to the requirements of the applicable regulations of Botswana including, the <i>Environmental Impact Assessment Act of 2011</i> and <i>Waste Management Act</i> .						
	 KCM has complete process for Zone 	eted the Environmenta e 5 and North East Fol	I and Social Impact Assessment (E d.	SIA)			



Section 3 Estimating and Reporting of Mineral Resources			
Criteria	Commentary		
	 Authorisation of the Environmental Management Plan for exploration activities at Mango NE, Zone 5N and Zeta NE was given on 30 March 2020 and is valid for five years. 		
	 The ESIA for the Expansion Project (Mango NE, Zone 5N and Zeta NE) is to be submitted October 2024. The document investigates land use changes should current farmland need to be acquired for some aspect of mine expansion. While potential land acquisition may result in resettlement, farmland is generally occupied by livestock and not permanently or temporarily inhabited by community settlers. The KCM Environmental Management Plan is monitored by on-site staff and biannually audited by an independent consultant. Key to the independent consultant review is the assurance that the company is complying with the recommendations of the ESIA. ESG data and progress made on key ESG aspects are reported to the Board each quarter. 		
	 Environmental performance is routinely monitored. Systems have been developed to manage potential issues of regulatory non-compliance and implement the necessary remedial measures. 		
	 Baseline studies have been completed on various aspects including inter alia air quality, biodiversity, and community impacts. Accordingly, a substantial volume of environmental and social baseline data has been accumulated. From a legal and regulatory compliance perspective, the collection of baseline data for impact assessment purposes has been fulfilled given the completed status of permitting approvals. 		
	 A series of internal Standards have been developed as part of the Project's Environmental Management Plan, including: 		
	 Soil Stripping Management Plan 		
	 Biodiversity Management Standard 		
	 Water Management Standard 		
	 Waste Rock and Ore Stockpile Management Standard 		
	 TSF Emergency Response Management Plan 		
	 Hazardous Materials Management Standard 		
	– Waste Management Plan		
	 The Banana Zone area predominantly covers three land uses, namely freehold game farms, the Central Kalahari Game Reserve (CKGR) and the Wildlife Management Area (WMA). Most of the Banana Zone covers the freehold farms; a total of eight farm plots, belonging to three separate owners, are expected to be impacted should the development of North East Fold proceed. The balance of the Banana Zone area covers the WMA outside the CKGR and a small section in the northwest corner of the CKGR (10 km² assessed during detailed ESIA for North East Fold). The Banana Zone area also impacts the Kuke veterinary fence. A full and comprehensive Closure, Decommissioning and Rehabilitation Plan has not been compiled for the Banana Zone and would be included as part of the detailed ESIA phase for use within this project should it progress. 		
Bulk density	 Mean values for measured dry bulk density across individual deposits are shown in the table below. Statistical analysis indicates there is generally no significant difference between mineralised and unmineralised material, though where more than one value is shown below, the higher value is for material in the high-grade 		



Section 3 Estimating and Reporting of Mineral Resources							
Criteria	Commentary						
	zone. The estimat various models are	ion metho e also list	odologie ed.	s used	for arriving	g at the o	density values in the
	Mean Value (t/m3) Model						
	Deposit	Count	Oxide	Transitior	n Sulphide	value	
	Zone 5	15,221	2.0	56	2.72	ID3	
	Zeta NE	1,622	2.0	57	2.72	ID2 ID2	
	Zone 5N	1,179	n/	a	2.72	ID2	
	Zone 6	1,100	2.	6	2.7 or 2.75	assigned	
	North East Fold	6,716	2.51	2.61	2.70	assigned	
	South Limb Definition	2,619	2.63	2.03	2.74	assigned	
	Chalcocite	775	2.70	2.72	2.74	assigned	
	Banana (other)	3,904	2.56	2.67	2.71	assigned	
	Plutus	3,046	2.63	55	2.72 2.71 or 2.73	OK	
	Selene	0	2.61	2.64	2.72	assigned	
	Ophion	16	2.64	2.72	2.75	assigned	
	 KCM has a Standa the same protocol Bulk density meas 	ard Proce Is for its c surements	dure in p lensity m s are coll	place fo neasure ected,	r density n ements. on 10 – 20	neasurei cm piec	ments. Hana used
	core, throughout t 2 m intervals with waste material. Se their position is ma	the minera fewer me elected co arked on	alised zc easureme ore piece the core	ones (pl ents (50 es do no tray.	us 10 m eit 0 m interva ot cross lith	ther side als) bein nologica	at approximately g made through l boundaries and
	 The Archimedean 	water im	mersion	technic	ue and ca	Iculatior	ו was used:
	Dry Bu	lk Densit	y (t/m ³) :	= Mass	in air/(Mas	s_in air	- Mass_in water)
	 Testing of 30 sam masses. Samples 	ples at Zo are not o	one 5 sh ven dried	owed < d prior t	1% differe	nce betv ements k	ween wet and dry being made.
	Zeta, Plutus, Selene,	Ophion, Z	Zone 6				
	 The same measur deposits, however nominally 5-6 m b Measurements in 	ement tee r the spac ut depene waste ma	chnique cing of m dent on aterial we	was us neasure visual c ere take	ed by DML ments with changes no en at 10 – 1	and Ha nin the n ted in th 5m inter	na on these nineralisation was ne drill core. rvals.
	 Zeta density value insufficient local m 	es were u neasurem	sed for S ients we	Selene a re avail	and Ophior able.	n in dom	ains where
	 Grab samples obta mining support the 	ained fror e measure	m the Plu ements t	utus and aken o	d Zeta pits n drill core	post co	mmencement of
Classification	Zone 5						
	- The recourse was	oloccific		ourod	Indicated	and Info	arrad according to
	the JORC Code (2 (AusIMM) guidelin	es.	Australa	isian Ins	stitute of N	lining ar	nd Metallurgy
	 Resource classific spacing and the q consistency with t 	ation con uality of t he depos	isidered he data. sit definit	geolog It also tion.	ical and gr ensured s	ade con patial co	tinuity, sample intinuity and
	 Measured Resource composites from t 	ces were he closes	based o st three o	n an av drillhole	erage distant es and used	ance of d a minir	55 m for the mum of three holes.
	 Indicated Resourc three drillholes wh distance of the co 	es were a nere the c mposites	assigned losest co in the c	l to bloo omposi losest t	cks that we te was with hree drillho	ere estin hin 60 m oles use	nated using at least 1 or the average 2d was within 95 m.



	Section 3 Estimating and Reporting of Mineral Resources
Criteria	Commentary
	 Inferred Resources were assigned to blocks that used at least two drillholes and the distance to the closet composite was within 150 m. The Inferred classification was also assigned to near surface blocks to the southwest where the drilling is spaced 400 m along strike.
	Mango NE, Zone 5N, Zeta NE
	 Classification was subdivided into Indicated and Inferred Resources according to the JORC Code (2012) and AusIMM guidelines. Classification was based on order of increasing confidence levels using a combination of drill hole spacing, number of samples used to estimate a block, and other geostatistical studies.
	 The classification method considered geological and grade continuity and the quality of the informing data. It also ensured spatial continuity and consistency with the deposit definition.
	 Indicated Resources were assigned to blocks that were estimated using at least three drillholes where the average distance of the composites in the closest three drillholes used was within approximately 120–140m, variably for each of the three Expansion Deposits.
	 Inferred Resources were assigned to the remaining blocks within the mineralisation wireframes, where the average distance of the composites in the closest drillholes used was within approximately 250 m. The Inferred classification was allowed to carry across some strike lengths along the outer edge limits where the drilling is spaced 400 m or greater along strike. The final classification was smoothed to ensure spatial continuity and to be
	consistent with the level of understanding of each deposit.
	Banana Zone
	 The Mineral Resource has been classified as Indicated and Inferred according to the JORC Code (2012).
	 Indicated classification was assigned to blocks that were estimated using at least three drill holes, where the average distance to the closest three drill holes was within approximately 100m.
	 Inferred classification was assigned to blocks that used at least two drill holes and the average distance to the closest two drill holes was less than approximately 200m, and distance to the closest drill hole was less than 150m. Subsequent to the drillhole spacing assessment the Inferred classification was increased to at least 800 mRL, which approximates the extent of the closest drillhole criteria used for Zone 5.
	 After applying the above criteria, the boundaries of the classification were smoothed to ensure spatial continuity and to be consistent with the understanding of the deposit and confidence in the grade estimates.
	 Six areas across the Banana Zone were deemed unlikely to ever be economic due to their narrow width (<1.5 m thickness over 4 or more 200 m spaced drill sections i.e approximately 1 km strike length). These areas are located within the SLM, SLS, NLN and NLM model areas and their removal from the classification equates to a 73 kt Cu metal reduction in the total reported MR.
	 The drill hole spacing criteria for categorizing the Mineral Resource is based on geological observations that mineralisation, although largley vein-style, is strata- bound. Encountering certain mineralised horizons is highly predicable in drilling,



	Section 3 Estimating and Reporting of Mineral Resources
Criteria	Commentary
	and this fact was considered when determining drill spacing requirements for classification.
	Zone 6
	 Resource classification considered geological and grade continuity, sample spacing and the quality of the data. It also ensured spatial continuity and consistency with the deposit definition.
	 The Mineral Resources were classified as Inferred.
	Ophion and Selene
	 The Mineral Resources have been classified as Inferred according to the JORC Code (2012).
	 Due to the current, early stages of project development, where data density is typically beyond grade continuity along strike and key areas of spatial location and QAQC require further investigation and issue resolution a higher classification cannot be supported.
	Plutus
	 The estimates have been classified into Measured, Indicated and Inferred Resources according to the JORC Code (2012), taking into account data quality, data density, geological continuity, grade continuity and estimation confidence.
	 Measured Resources are largely restricted to the area of grade control drilling, where drill spacing is 25 m along strike x 10 m vertically. The Measured Resource has been extended beyond the limits of grade control drilling where resource drilling is present at 50 m along strike x 25 m vertically.
	 Indicated Resources are defined where drilling is at 100 m centres along strike, by 50 – 70 mRL or better.
	 Inferred Resources are defined around the margins of Indicated resource.
	 Long section polygons were used to defined zones of different classification.
	Zeta
	 The estimates have been classified into Indicated and Inferred Resources according to the JORC Code (2012), taking into account data quality, data density, geological continuity, grade continuity and estimation confidence. The previously reported Measured Resource has been downgraded to Indicated due to database uncertainties encountered during this update.
	 Indicated classification was assigned to blocks that were estimated using at least three drill holes, where the average distance to the closest three drill holes was within approximately 100m. A long section wireframe was used to define the Indicated material.
	 Inferred classification was assigned to estimated blocks around the margins of Indicated resource. Exceptions to this are the isolated hangingwall splay and estimated blocks south of 7,717,525 mN or north of 7,721,005 mN. These areas were not classified due to the narrowness of the high-grade zone.
Audits or reviews	 High level internal reviews of the updated 2024 MR estimates have been completed by ERM and MMG as part of compilation of this update (Zone 5, Zone 6, Zeta, Banana Zone).



	Section 3 Estimating and Reporting of Mineral Resources
Criteria	Commentary
	 Most recently, high-level reviews of the remaining reported Mineral Resource estimates have been completed by ERM as part of compilation of the MMG acquisition Competent Persons Report.
	 Previous reviews of the models that have not been updated are listed below:
	Mango NE, Zone 5N, Zeta NE
	 Both Ridge and Khoemacau geologists conducted internal peer reviews of the Mineral Resource estimates.
	Ophion, Selene
	Xstract completed an internal peer review of the Mineral Resource estimates.
	Plutus
	 QG completed an internal peer review of the Mineral Resource estimate.
Discussion of relative accuracy /	 The Mineral Resource data collection and estimation techniques are considered reasonable for the style of mineralisation. Zone 5
confidence	 The Mineral Resource statement relates to both selective and global estimates of tonnes and grade in each mineralised domain. A drillhole spacing study supports the criteria selected for use in the Mineral Resource classification. The accuracy and confidence of the Mineral Resource estimations are consistent with the results from the mining operations.
	 Quarterly reconciliation data, ranging from January 2023 to June 2024, was collected for mining at Zone 5. Key indicators for the performance of the Mineral Resource model included the model's performance against the Grade Control model, which includes more closely spaced data. On this metric, there is a good correlation between the Grade Control and the Mineral Resource model with the Resource Model over-calling the Cu grade by 1.5%.
	• The Ag results show more variability, but overall, the correlation between the GC and Resource models is good, with the Resource model over-calling the Ag grade by 3.8%.
	 Performance of the grade control model against mill production for the period of reconciliation shows an average tonnage under-call of 0.5%, a 3% Cu grade over- call, a 3.4% Ag grade under-call for an overall over-call of -2.5% for Cu metal and over-all under-call of 4% for Ag metal.
	Mango NE, Zone 5N, Zeta NE
	 The Mineral Resource statement relates to global estimates of tonnes and grade in each mineralised domain. The accuracy and confidence of the Mineral Resource estimations are consistent with the current study level.
	 No production data is available for comparison.
	Banana Zone
	 The Mineral Resource statement relates to global estimates of tonnes and grade in each mineralised domain. No studies have been undertaken to quantify the accuracy and confidence of the estimate.
	 Confidence in continuity of the low to medium grade portion of the MR is high given the demonstrated continuity of the host stratigraphy. The drillhole spacing, particularly in the Inferred material, potentially precludes definition of locally



Section 3 Estimating and Reporting of Mineral Resources			
Criteria	Commentary		
	thickened higher grade mineralisation. More drilling is required to improve confidence.		
	 No production data is available for comparison. Changes to the domaining thresholds in the updated MR models precludes meaningful comparison to previous estimates. 		
	Zone 6		
	 The Mineral Resource statement relates to global estimates of tonnes and grade in each mineralised domain. No studies have been undertaken to quantify the accuracy and confidence of the estimate. 		
	 No production data is available for comparison. Changes to the domaining thresholds in the updated MR models precludes meaningful comparison to previous estimates. 		
	Ophion and Selene		
	 The Mineral Resource statement relates to global estimates of tonnes and grade in each mineralised domain. Estimates do not model local grade variability across the mineralisation and only broadly along strike and down dip. Overall estimation accuracy is relatively low compared to projects sampled sufficiently to warrant a detailed mining study. 		
	 No studies have been undertaken to quantify the accuracy and confidence of the estimate. 		
	 No mining has occurred at Ophion or Selene. 		
	Zeta		
	 The Mineral Resource statement relates to global estimates of tonnes and grade in each mineralised domain. No studies have been undertaken to quantify the accuracy and confidence of the estimate. 		
	 Confidence in continuity of the low to medium grade portion of the MR is high given the demonstrated continuity of the host stratigraphy. The drillhole spacing, particularly in the Inferred material, potentially precludes definition of locally thickened higher grade mineralisation. More drilling is required to improve confidence. 		
	 No production data from the Zeta pit is available for comparison. Changes to the domaining thresholds in the updated MR models precludes meaningful comparison to previous estimates. An analysis by QG of their 2014 MR against mine production indicated their model, which was compiled using domain thresholds of 0.3% Cu and 1.5% Cu for low grade and high grade respectively, was under-calling tonnage and over-calling grade. On this limited information, the Competent Person considers the lowering of the high-grade domain threshold for this MR update to 0.8% Cu should improve MR reconciliation against any future mining. 		
	Plutus		
	 The Mineral Resource statement relates to global estimates of tonnes and grade in each mineralised domain. 		
	 Mining reconciliation data for the Plutus pit was not available. 		



4.2.3 Expert Input Table

Contributor	Position	Nature of Contribution
Shaun Crisp	Senior Resource Geologist (KCM)	Resource modelling and reporting (Zone 5, Zone 6)
Lindsay Farley	Principal Technical Consultant Resource Geology (ERM)	Resource modelling and reporting (Zeta and Banana Zone)
Chris Adams	Principal Consultant Resource Geology (ERM)	Resource modelling and reporting (Banana Zone)
Kwadwo Sarpong	Grade Control Geologist (KCM)	Leapfrog domain development (Zone 5)
Elvis Molema	Grade Control Geologist (KCM)	Leapfrog domain development (Zone 5)
Matt Clark	Principal Technical Consultant Resource Geology (ERM)	Leapfrog domain development (Zeta)
Nerys Waters	Principal Technical Consultant Resource Geology (ERM)	Leapfrog domain development (Banana Zone)
Oarabile Sekgwele	Senior Modelling Geologist (KCM)	Database and QAQC contributions
Nick McNulty	Principal Mining Engineer (ERM)	MSO sensitivity testing (Banana Zone)
Khairulla Aben	Principal Mining Engineer (ERM)	Open pit optimisations (Banana Zone)
Mitesh Jethva	Senior Mining Engineer (ERM)	Open pit optimisations (Banana Zone)
Bava Reddy	Technical Services Manager (KCM)	Contribution overview and contribution supervision
Oarabile Disang	Exploration Manager (KCM)	Contribution overview and contribution supervision
Maree Angus	Principal Consultant Resource Geology (ERM)	Resource modelling, peer review and JORC (2012) MRE Competent Person



4.2.4 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Mineral Resource statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

4.2.4.1 Competent Person Statement

I, Maree Angus, confirm that I am the Competent Person for the Khoemac<u>a</u>u Mineral Resource section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member and Chartered Professional in the discipline of Geology of The Australasian Institute of Mining and Metallurgy
- I have reviewed the relevant Khoemac<u>a</u>u Mineral Resource section of this Report to which this Consent Statement applies.

I am a full-time employee of ERM Consultants Australia Pty Ltd at the time of the estimation.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Khoemac<u>a</u>u Mineral Resource section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Khoemacau Mineral Resources.

4.2.4.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Khoemac<u>a</u>u Mineral Resources – I consent to the release of the 2024 Mineral Resources and Ore Reserves Statement as at 30 June 2024 Executive Summary and Technical Appendix Report and this Consent Statement, by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Maree Angus MAusIMM CP (Geo) #108282

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Signature of Witness:

Date:

Terry Burns (Perth, Australia)

Witness Name and Residents: (eg, town/suburb)



4.3 Ore Reserves - Khoemac<u>a</u>u

4.3.1 Results

The following table outlines the Ore Reserve Estimate (ORE) as at 30 June 2024 for the current Zone 5 mine and the Expansion Deposits of Zone 5N, Mango, and Zeta NE.

Table 10 Khoemacau Copper Project Ore Reserve Estimate as at 30 June 2024

	2024	30 June			
Khoemacau Mineral	Resources				
				Containe	ed Metal
Zone 5	Tonnes (Mt)	Copper (% Cu)	Silver (a/t Aa)	Copper ('000 t)	Silver (Moz)
Proved	8.8	2.0	19	180	5.3
Probable	25	1.7	17	440	14
Total	34	1.8	17	620	19
Zone 5 North					
Proved	-	-	-	-	-
Probable	3.0	2.3	38	68	3.6
Total	3.0	2.3	38	68	3.6
Zeta NE					
Proved	-	-	-	-	-
Probable	8.1	1.8	37	150	9.6
Total	8.1	1.8	37	150	9.6
Mango					
Proved	-	-	-	-	-
Probable	6.2	1.8	22	110	4.4
Total	6.2	1.8	22	110	4.4
Stockpile					
Proved	0.02	1.5	15	0.3	0
Total	51	1.8	22	930	37

Notes:

1. Cut-off grade is based on Net Smelter Return (NSR) after Royalties, expressed as a dollar value

2. Zone 5 cut off is US\$77.60/t

3. Zone 5 North and Zeta NE cut off is US\$65/t

4. Mango cut off is US\$50/t

5. Contained metal does not imply recoverable metal.

6. The figures are rounded according to JORC Code guidelines and may show apparent addition errors.

The last Ore Reserve Estimate for the Khoemacau project was completed as at 31 December 2022 and was notionally depleted for production for the acquisition transaction Competent Person's Report (CPR). The changes since that time involve only the Zone 5 deposit where mining depletion and ongoing deposit delineation have been accounted for in this updated estimate. The Expansion deposits (Zone 5N, Mango, and Zeta NE) have remained unchanged since the last update.



Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
Mineral Resource estimates for conversion to Ore Reserves	 Various consultancies and KCM personnel have been involved in the production of the Mineral Resource Estimates used for the Zone 5 and Expansion Project Ore Reserve Estimates. All Mineral Resource estimates used in this work have been reviewed by the MRE Competent Person and each is classified and reported in accordance with the JORC Code (2012). The MRE CP is satisfied that the Mineral Resource estimates are appropriate and fit for purpose. The following Mineral Resource estimated as at 30 June 2024. The dates of each Mineral Resource estimate are listed below - Zone 5 – 30 June 2024 (and depleted for mining up to this date). Zone 5N - 18 April 2023. Mango – 16 August 2021. Zeta NE – 20 November 2020. 		
	The Mineral Resource estimates are inclusive of the estimated Ore Reserves.		
Site visits	 The Competent Person for this estimate, Terry Burns visited site from 13 December to 17 December 2023 (inclusive). Contributors to the Prefeasibility Study (PFS) visited the site during 2023. 		
Study Status	 Zone 5 is currently an operating underground mine and the current operational business plan, and the mining and processing performance has formed the basis for the conversion of each of the deposit's Mineral Resource Estimate into an Ore Reserve Estimate with a corresponding level of confidence. A PFS was completed in early 2023 for each of the deposits included in the Expansion Project (Zone 5 Expansion, Zone 5N, Mango and Zeta NE). The PFS has largely been informed by the Zone 5 operation as each new deposit has adopted a similar mining and processing approach. 		
Cut-off Parameters	 NSRs have been used to determine the cut-off grade for each deposit. The NSR factor was used as the cut-off metric for mine planning because an NSR considers value contributions from both copper and silver, their respective recoveries, metal prices, and any possible impacts from deleterious elements. The profitability of a mining block is determined to aid in the selection of areas of the Zone 5 deposit that should be considered for inclusion into the mine plan. In this process, the value of the ore in a mining block is determined and evaluated against a set of techno-economic mining criteria that is relevant to the mining method that has been selected. All considerations are completed on the tonnage and grade information that is contained within the MRE block model estimated for the deposit. The net revenue per tonne of ore in the block is calculated after consideration of the variations in metal price and the metal recovery for the saleable metals contained in each block. The polymetallic nature of the deposit has predicated the coding of the model with a singular field which is representative of the value within each discrete block. This field is designated as the Net Smelter Return (NSR) and the following formula is used at Khoemacau to determine the NSR value for each block. The following formula represents how each discrete value is calculated. 		

4.3.2 Ore Reserves JORC 2012 Assessment and Reporting Criteria



Section 4 Estimation and Reporting of Ore Reserves					
Criteria	Commentar	у			
	$NSR = \left(CuUSD - \left(\frac{CTC + STC}{Con_{Cu}\%} \right) - CuR_{USD} \right) \times Cu\% \times CuRec\% + \left(AgUSD - AgR_{USD} \right) \times \left(\frac{Ag}{31.1035} \right) \times AgRec\%$				
	Factor	Zone 5 /Zone 5 Expansion	Zone 5N	Mango	Zeta NE
	NSR cut-off	US\$50/t down to 500RL, US\$65/t below 500RL.	US\$65/t.	US\$55/t.	US\$65/t.
Mining factors or assumptions	 There we resulted is stope oriois stope oriois for the proje Engineeri retreat lookhoemaaa medium wasystem frithe proje The exervite with corrimechanis hole long increasin to establi Multiple of multiple of faces. Geotechriboxcut sl domainin estimatio remnant pillar. Individua dependiri – Crovi – 2.5 den – Cab convi – Shoi – Baci extri Mineable the NSR – Leve – Stop – Mini – Mini – Mini – Mini 	ere five mining methods in 48 primary variations entation, contained me ing studies completed nghole open stoping w eau-style deposits exhil- width mineralised zone for ~400 m below surf ct economics by increa- cise resulted in an incli- idor strikes ranging from sed mining method was itudinal longhole open g depth. multiple boxcu- ish portal faces declines accessing the boxcuts were developed hical studies focused o ope and stability analy- g of the deposits, deriv- n of the size and place pillars in barren zones, I geotechnical design v ing on depth, the followi- win, rib and sill pillars. m long 25 mm diamete sities and dependent o le bolt support for large ditions as specified. tcrete at 50 mm to 60 m kfill from ~400 m belov action with the excepti Stope Optimiser (MSC cut-off. Parameters inc- el spacing 25 m. De length including rib p mum mining width 3.0 mum waste pillar (Zone gingwall dilution skin 0 Zeta NE).	s considered for s in concept whi ital, mine fill and in 2018 confirme vas the preferred biting a tabular of s. The inclusion face was also sho asing the ultimat ned three corrid m 0.9 km to 1.1 k s considered mo stoping and trar uts were develop deposits from the s considered mo stoping and trar uts were develop deposits from the d through the K n data acquisition sis, geotechnication of acceptation of acceptation and the minimul values for each u ing have been in r full column result of e excavations or mm in thickness v surface in order ion of Mango whe b) was used to co cluded in the MS coillar 50 m. m (true width). e 5, Zone 5N and .5 m built into sta	the Zone 5 dev ch considered of production pro- ed that up-hole, d mining method geometry and n- of paste backfil nown to add sign e extraction of lor mining syste of mining syste of mining syste of an end through the he footwall is us alahari sand to on and validation al characterisation able stope geor inter-stope was m requirements underground mini- heluded in the de- sin bolt support of areas of poor of the footwall will reate the stope (O runs were -	relopment that crown pillars, files. continuous d for use with arrow to l into the mining hificant value to each deposit. m at Zone 5, d where a bulk and utilised up- ste fill with e Kalahari sand sed where establish portal n, indicative on and netries, the ste pillars and for a crown he can vary esign - at various ground ercentage not be used. shapes above



Section 4 Estimation and Reporting of Ore Reserves					
Criteria	Commenta	гу			
	 Foo Zeta Zon Mining la mining m stope sha and thes production Resource Minor am unavoida which is tonnages included 	twall dilution skin 0.5 a NE). e 5 is outlined below. youts for each of the ethod design criteria apes identified in the e have been evaluate on mining inventories es only. nounts of Inferred Min ably included in the m payable based on Me s have been excluded in the ORE.	m built into stop deposits were of for the selected MSO evaluation d and a summa includes only M eral Resource a ining inventory v asured and Indi from any finance	pe shape (Zone generated and b I mining method I. Mine designs ry of the develo easured and Inc nd unclassified where they form cated compone cial evaluations	5N, Mango, and based on the l as well as the were developed, pment and dicated Mineral material are part of a stope nt only. These and are not
	Factor	Zone 5 / Zone 5 Expansion	Zone 5N	Mango	Zeta NE
	Extraction	Development – 100% Stopes – 95%	Development – 100% Stopes – 95%	Development – 100% Stopes – 95%	Development – 100% Stopes – 95%
	Recovery (one-pillar loss)	Backfilled stopes – 100%. Open stopes – varies from 53% to 76% dependent on: • Depth below surface • Hydraulic radius • Stope width.	Backfilled stopes – 100% Open stopes – 70%	Open stopes – 75% to 82% dependent on depth below surface	Backfilled stopes – 100% Open stopes – 75% to 82% dependent on depth below surface
	Dilution	10% unfilled stopes 8% dilution overbreak (external to stope shape) in Fill Zone	Overbreak allowance 0.5 m. Footwall and hanging wall internal to stope shape	Overbreak allowance 0.5 m. Footwall and hanging wall internal to stope shape	Overbreak allowance 0.5 m. Footwall and hanging wall internal to stope shape
	A vertical pro	jection of each of the m ding the expansion ope	ine layouts is also ration)	o shown below.	











Section 4 Estimation and Reporting of Ore Reserves				
Criteria	Commentary			
	 Paste fill placeme Paste Fill curing. The following developr the mine plan and sche 	nt. nent rate assumptions edule.	s have bee	en used in developing
	 Paste fill placeme Paste Fill curing. The following development the mine plan and scheenee Description Capital Lateral Decline Level Access Return Air Access Stockpile Sump Substation Link Drive Other Non-Specific Capital Operating Lateral Ore Drive Orepass Access Vertical Return Air Raise (5.5m dia) Fresh Air Raise (5.5m dia) Escapeway (1.5m dia) Drilling Diamond Drilling Infill Drilling The development and on historical performance date at Zone 5 has bee development activities Expansion Deposits are eventually align as Zon The sequencing logic a logic which is a more constant of development excavation ancillary development of development of development of development excavation ancillary development of the sequencing logic a	nt. nent rate assumptions edule. Rate (Zone 5) 70 m per month 70 m per month 60 m per day 50 m per day 50 m per day drilling rates used at Z for activities estimate en below what is consi and the development e in line with industry se e 5 reaches planned p applied to the mine sch onservative approach main level breakaway the decline face is ce ons are developed (inco off level access).	s have been Rate (Expanded 100 m 100	en used in developing ansion Deposits) m per month m per day ve been based on storical performance to ustry standard for some umed/used for the . These estimates will ce. s a series development allel sequencing. This is ecline system is reached d the main level vel access and all
	 The decline development completed. This approvent some 2.5–3 months for estimated overall decline instantaneous rate. Thi which is stopped when in an effective ore driven rate. The following outlines the stopped stopped stopped stopped stopped 	ent restarts only once ach has the effect of c reach main level deve ne system advance ra s approach is also app ancillary excavations e advance rate lower t the stope activity rates	each mair lelaying th lopment a te less tha blied to the need to b than the ir s used -	n level development is ne decline advance by and results in an an the scheduled e ore drive development be developed, resulting instantaneous schedule
	Description	Rate (Zone	5)	Rate (Expansion Deposits)
	Stope Slotting	2 slot m per	dav	2 slot m per day
	Production Drilling	250 m per c	day	250 m per day



Section 4 Estimation and Reporting of Ore Reserves					
Criteria	Commentary				
	Stope Mucking 0 - 150m from Ore Pass	1,900 t per day	2,750 t per day		
	Stope Mucking 150 - 300m from Ore Pass	1,700 t per day	2,000 t per day		
	Stope Mucking >300m from Ore Pass	1,500 t per day	1,600 t per day		
	Paste fill Preparation	7 days	7 days		
	Paste fill Curing Time	21 days	21 days		
	 Several essential delays have stoping activities for the stop scheduled time for each activities 	been built into the links ing schedule and these a vity.	between the various are additional to the		
	 The mine layouts generated a LOM schedules for each of th stoping sequencing and prod including waste, ore, grade ar Various mine services and su to support the new mines and 	are linked, sequenced an le deposits using the about uctivities. Each schedule and metal content. pport infrastructure will b the expansion of produ	d scheduled to produce ove development and includes all physicals, be required at each site ction levels at Zone 5,		
	 This has been included as paid of the second seco	rt of the PFS completed i and reticulation. Ily and reticulation.	n 2023 and includes:		
Metallurgical	- Surface Support Infrastru	ucture (onices, workshop	os, stores, etc.).		
factors or assumptions	 Initial metallurgical testwork on Khoemacau was completed in 2010 using drill cores from the Banana Zone and Chalcocite Zone (Ghanzi district). The testwork included preliminary basic comminution, mineralogical characterisation, and scoping flotation tests. 				
	 In 2013 and 2014, a series of out by KCM under the superv characteristics of 14 drill core deposits. Work included geod work index testwork on 14 co develop an initial flowsheet for and silver contained in the Zo data developed from the test studied were amenable to red Copper recoveries for the Zor and copper concentrate grad concentrates from the NE Fol of the feed copper at grades deposit contains transition or which exhibit low recoveries of Sulphidisation of malachite w therefore, flotation of oxide m process option. 	further metallurgical test ision of Sedgman to defi composites from the Zo chemical and mineralogic mposites of varying mine or the project which was one 5 and NE Fold deposi work indicated that the co covery by conventional mine to composites ranged e varied between 27% and d composites contained ranging from about 29% e (ores with higher acid sunder standard flotation as attempted but cleane hineralisation was not pure	programs were carried ne the metallurgical ne 5 and NE Fold al characterisation, plus eralogy and depth to to beneficiate copper its only. The metallurgical composite samples hilling and flotation. between 83% and 92% nd 53% Cu. The between 92% and 98% to 50% Cu. The NE Fold soluble copper content), conditions. r recoveries were low; rsued further as a viable		



Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
	 Silver recoveries for Zone 5 variability composites ranged between 77% and 97%, with silver concentrate grades between 126 g/t and 549 g/t. Silver recoveries for the NE Fold composites ranged between 88% and 96%, with silver concentrate grade varied between 107 g/t and 1,721 g/t. 		
	 Four test programs (KM3703, KM3964, KM4014 and KM4069) were subsequently completed by KCM in support of the Feasibility Study (FS) plant design under the supervision of Sedgman at ALS laboratories in Kamloops, British Columbia, between 2014 and 2015. A total of 39 composites from oxide, transition and sulphide materials from open pit and underground zones at both the NE Fold zone and Zone 5 were analysed. 		
	Zone 5 Pre-Production Testwork		
	 Further testwork was carried out by SGS in 2015 and 2016 on six samples of varying mineralogy and depth from Zone 5. The testwork confirmed the flowsheet developed in 2014 and established a recovery algorithm for geological modelling. 		
	 Detailed metallurgical characterisation of Zone 5 ores was undertaken by Fluor in 2018, including mineralogical analysis and metallurgical response of Zone 5 ore types. Work was principally undertaken to develop a recovery algorithm by ore type to be used in the geological block model, as well as provide design parameters for equipment sizing for the expansion from 3.00 Mtpa to 3.65 Mtpa. 		
	 The mineralogical work suggested composites varied widely in the content of different copper sulphide species, primarily chalcopyrite, while several showed varying amounts of bornite and chalcocite group minerals. Trace amounts of covellite and tetrahedrite were found. Minor galena, sphalerite, molybdenite, arsenopyrite and silver was also detected. The main gangue minerals identified were silicate minerals, primarily quartz, feldspars, muscovite and chlorite. 		
	• The Zone 5 variability composites showed that recovery of copper to the final concentrates ranged from 77% to 92%, and for the NE Fold variability composites, between 83% and 97% of the copper was recovered. Final concentrate grades ranged from 20% to 55% copper for both Zone 5 and NE Fold variability composites. Copper grades were lower than expected, given secondary copper sulphide deportment and this was attributed to non-sulphide gangue dilution of the concentrates. Several tests were repeated with additional regrinding and although this showed some improvement, resulting concentrate grade was found to be variable depending on the cyanide soluble copper content (representing the chalcocite and bornite copper minerals), and the relative concentrations of lead to copper (Pb:Cu) and zinc to copper (Zn:Cu).		
	 Silver recoveries ranged from about 57% to 95% for both Zone 5 and NE Fold variability composites. Increased feed ratios of lead and zinc, in relation to copper content of the feed, resulted in an increased content of lead and zinc in the concentrates. 		
	 Results of these tests were used to size the regrind mill and flotation cells in the FS design, as well as to determine the appropriate reagent additions. The original Boseto processing plant was built to the FS design in order to treat open pit oxide transition and sulphide as well as underground sulphide materials from Zone 5 and the NE Fold. 		



Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
	 Further metallurgical testwork on bornite, chalcopyrite and chalcocite dominant ore types at Zone 5, and grade recovery testwork by domain was also carried out in 2018, with additional testwork including detailed concentrate analysis completed in 2018. The Boseto processing plant flowsheet was then finalised, and the expansion design completed in 2019. In September 2020, further grade/recovery optimisation work for Zone 5 ores treated at the Boseto processing plant was undertaken at SGS and Mintek in 		
	with sulphidisation by NaHS and dispersion by sodium silicate was recommended from this work.		
	<u>Operational Performance – Jan 2022 to June 2024 (inclusive)</u>		
	 Good recoveries have been due to favourable mineralogy and process improvements (see graph below). The average copper and silver feed grades and Cu:S have often been lower than budget due to limited blending capacity and the plant has consistently achieved target copper and silver recoveries despite lower feed grades. The average monthly moisture content of filtered concentrate has been within target (<10%). 		
	92.0% 90.0%		
	 The copper and silver tailings grade has consistently been within target since plant start-up and this performance is due to favourable copper and silver mineralogy which is in line with the testwork results. 		
	 The significant ore dilution underground has had an adverse effect on recovery leading to the inefficient crushing and grinding of waste in the ore. 		
	 The plant has consistently achieved concentrate grades above the saleable copper concentrate grade of > 30% Cu and the silver grades are within the specification. The average concentrate grade is lower than design (35%) mainly due to lower than design feed grade and Cu:S ratio (less bornite and chalcocite-dominant ore types in feed), elevated Pb and Zn in the feed (especially in December 2023 and February 2024) and the low availability of the HIG mill because of drive and transformer failures 		











Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
	volumes, this elevated arsenic would normally be blended out, but constrained ore supply during ramp-up has provided limited the scope for this to occur.		
	 These elevated levels of arsenic were anticipated in the first two to three years of mining of Zone 5 and this has been related to isolated pods of arsenic in the shallow levels of the Zone 5 orebody defined by structures. LOM modelling of the Zone 5 orebody indicates these are less prevalent over time and blending is expected to avoid future elevated levels in concentrate. 		
Environmental	• The proposed Expansion Project is part of a fully permitted existing operation and therefore there is already a Permitting Framework in place with all permits and licences necessary to support current and future activities.		
	 It is understood that the mining permits required for the Expansion Project can be incorporated into the existing mining licences, with the Zone 5N and Mango mines integrated as an extension to the existing Zone 5 Mining Licence (ML2015/05L), and the Zeta NE mine as an amendment to the existing Boseto Mining Licence (ML2010/99L). The current operation has a sound system in place for identifying and managing all permitting requirements and KCM maintains a detailed permit and compliance register. The DEA has been consulted on requirements for the Expansion Project and while the process may be slow, there does not appear to be any remaining issues in obtaining the required project permits. 		
	• The environmental and social impact assessment (ESIA) studies for the Expansion Project have been contracted and advice obtained from the DEA proposes that four different Project Briefs would be submitted to start the ESIA process:		
	 ESIA for Zone 5N and Mango mines, and the Zone 5 processing plant. Update existing Boseto processing plant ESIA to include Zeta NE mine. ESIA for the 50 MW solar plant at Boseto. 		
	 There is an ESG operating framework based on IFC Guidelines and the Equator Principles, with an Environmental Strategy and Management System in place. There is a great deal of accumulated environmental and social baseline data and monitoring data; mitigation of impacts; and functioning environmental and social management plans. 		
	 Impacts for the Expansion Project are likely to be similar to those of Zone 5, possibly with a cumulative increase or acceleration of those identified previously. 		
	 The Zone 5 mine has an established tailings storage facility (TSF) adjacent to the Boseto processing plant with capacity of 33 Mt. A design has been completed to expand this to 66 Mt and a new TSF near Zone 5 is planned for the Expansion Project with a capacity of 73 Mt. The combined volume is considered suitable to accommodate the volume of tailings produced during the life of the Expansion Project given that significant volumes of tailings will be placed back underground as stope backfill. 		
	• The mining method proposed generates limited amounts of waste and the waste from boxcut excavations has been dumped adjacent to the excavations at Zone 5. A similar approach has been proposed for the new mining sites and the limited development waste generated from underground will also be		



Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
	located adjacent to each of the boxcuts (as currently exists at the Zone 5 mine).		
Infrastructure	 All primary project infrastructure for Zone 5 is operational and is able to support the proposed increase in production at Zone 5. Additional infrastructure similar to that already constructed for Zone 5 has been planned for the Zone 5N, Mango and Zeta NE mines. The figure below shows the proposed site layout. 		
	 A site wide power supply is already in place and is capable of supporting the proposed Expansion Projects. Current capacity is 125 MVA total and the Expansion Project requirement is estimated at 106 MVA. 		
	 A bulk water supply has been constructed from the Haka borefield to the Zone 5 site. Additional sources of water are planned for the Expansion Project, and this will be sourced from a planned extension to the Haka wellfield (total supply 80,000 m³ per month) and the establishment of a new wellfield at Kgwebe (total supply 40,000 m³ per month). 		
	• A surface road network is in place on the mining lease and additional roads will be constructed as required to access new sites.		
	• The existing camp accommodation will be expanded for the Expansion Project and suitable land is available for the construction of all required infrastructure.		
Costs	 The operation has been in operation since mining at Zone 5 commenced in 2021 and processing commenced at the Boseto processing plant in January 2022. Considerable operation cost information has been collected to inform the current mine design and scheduling. 		
	Capital Costs		
	 Capital costs have been estimated for the completion of the initial project and to facilitate the Expansion Project to a PFS level of accuracy in the study completed in early 2023. Capital costs have been based primarily on actual costs or updated quotations for mechanical equipment, plus scaled bills of quantity with unit pricing escalated from 2020 pricing to 2023, or January 2023 pricing applied. The quantities have been scaled in some areas with the resultant costs escalated from a 2020 base costing. A broad-based contingency of 20% (for surface infrastructure and the processing plant) has been allowed which is considered acceptable for PFS levels of design and cost 		



Section 4 Estimation and Reporting of Ore Reserves				
Criteria	Commentary			
	estimation. Sufficient provisions for sustaining capital as well as closure capital have been made. Up-front and sustaining capital estimates over the projected life of mine are considered within the benchmark for a project of this context and at this scale.			
	Sustaining Capital Costs			
	 All sustaining capital cost estimates are based on estimates of equipment replacement and the historic performance from the maintenance and equipment records. Current economic conditions have been considered and the unit rate used is based on the estimates produced for the Khoemacau 2024 Interim Budget compilation. 			
	Operating Costs			
	 Operating cost estimates for Zone 5 are largely informed from the current operational experience and those for the Expansion Project are based on actual December 2022 operating costs for initial operations. The assumptions for the planned expansion are considered to be at or better than PFS levels of accuracy. The following table shows the economic and cost assumptions used for the NSR calculations that are central to the estimation of an Ore Reserve at KCM. Zone 5 Economic and Cost Assumptions 			
	Item/Activity	Unit	Value	Comments
	Copper Price <i>(as at 01 Jan 2024) **</i>	USD/Ib	4.03	Period 2024-2026
	Silver Price <i>(as at 01 Jan 2024) **</i>	USD/oz	21.5	Period 2024-2026
	Net Smelter Return (NSR) Zone 5	USD	65	
	Freight Allowance	USD/wmt conc	185	
	Copper Treatment Charge	USD/dmt	50.4	
	Cu Refinery Charge	USD/Ib	5	
	Payable Metal (Copper)		97	
	Breakeven Cut-Off Grade	Ag/a	90 77.6	Rounded up to 78 for practical use
	Stope Cut-Off Value	USD/t	48.6	Rounded up to 50 for practical use
	Mine Operating Costs (BCOV)	USD/t	53.3	Used in breakeven cut-off calculations
	Mine Operating Cost (SCOV)	USD/t	24.3	Used in stope cut-off calculations
	Processing Operating Costs	USD/t	9.5	
	General & Admin Operating Costs	USD/t	9.7	
	Sustaining Capital Costs	USD/t	5.0	
	Realisation (Selling) Costs USD/t 23.1			
	 ** see below for comments ** - It should be noted here that a copper price of USD4.03/lb and a silver price USD21.5/oz was used for the calculation of the NSR and for any other techno-economic calculations contained within the ORE. These price forecasts were estimated as at 1 January 2024 rather than using the usual 01 July 2024 MMG forecasts. The 01 July forecasts of USD4.08/lb Cu and USD21.78/oz Ag are increases of 			

+1.2% for copper and +1.3% for silver respectively over the values currently used and this suggests that there may be a very limited potential to understate



Section 4 Estimation and Reporting of Ore Reserves				
Criteria	Commentary			
	the ORE. However, the magnitude of the percentage differences suggests that this is likely to be minor and not material to the results presented in the ORE.			
	• The Expansion Deposits have used a very similar set of assumptions for the calculation of the NSR and the following table exhibits the significant differences only.			
	The following table shows the economic and cost assumptions used for the NSR calculations that are central to the estimation of an Ore Reserve at the Expansion Deposits.			
	Expansion Deposits Economic and Cost Assumptions			
	Item/Activity	Unit	Value	Comments (Source)
	Copper Price <i>(as at 26 June 2023 PFS)</i>	USD/lb	3.54	Zone 5N - PFS
	Silver Price <i>(as at 26 June 2023 PFS)</i>	USD/oz	21.35	Zone 5N - PFS
	Copper Price <i>(as at date of earlier ORE)</i>	USD/lb	2.99	Zeta NE & Mango - PFS
	Silver Price (as at date of earlier ORE)	USD/oz	17.75	Zeta NE & Mango - PFS
	Net Smelter Return (NSR)	USD	65	Zone 5N & Zeta NE - PFS
	Net Smelter Return (NSR)	USD	55	Mango - PFS
	Copper Treatment Charge & Transport	USD/dmt	202.0	Zone 5N - PFS
	Copper Treatment Charge & Transport	USD/dmt	227.72	Zeta NE & Mango - PFS
	Cu Refinery Charge	USD/Ib	0.05	Zone 5N - PFS
	Ag Refining Charge	USD/oz	0.50	Zone 5N - PFS
	Cu Refinery Charge	USD/lb	0.073	Zeta NE & Mango - PFS
	Ag Refining Charge	USD/oz	0.50	Zeta NE & Mango - PFS
	Payable Metal (Copper)	Cu%	97	All Expansion Deposits - PFS
	Payable Metal (Silver)	Ag%	90	All Expansion Deposits - PFS
	Cut-Off Grade (mine planning)	USD/t	various	NSR value –PFS (see above)
	Mine Operating Cost	USD/t mined	31.11	All Expansion Deposits - PFS
	Ore Transport Costs	USD/t mined	2.37	All Expansion Deposits - PFS
	Processing Operating Costs	USD/t processed	8.95	All Expansion Deposits - PFS
	Centralised Services	USD/t processed	1.66	All Expansion Deposits - PFS
	General & Administration Operating Costs	USD/t processed	3.46	All Expansion Deposits - PFS
	Sustaining Capital Costs	USD/t processed	13.55	All Expansion Deposits - PFS
	Realisation (Selling) Costs	USD/t concentrate	-	Not included in PFS
	 It should be noted USD21.35/oz was of USD2.99/lb and the NSR Zeta NE 	here that a copper used for the calcula d a silver price USD1 and Mango and for a	price of USD3.54/lk tion of the NSR Zor 7.75/oz was used fo ny other techno-ec	and a silver price the 5N, a copper price or the calculation of conomic calculations



Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
	 contained within the ORE. These price forecasts were estimated for inclusion into the 26 June 2023 PFS (Zone 5N) or a little earlier for completion of ORE updates. The 01 July forecasts of USD4.08/lb Cu and USD21.78/oz Ag are increases of +15% for copper and +2% for silver for Zone 5N and +37% for copper and 		
	+23% for silver for Zeta NE and Mango respectively over the values currently used and this suggests that there may be a potential to understate the ORE. However, the magnitude of the percentage differences may not suggest that this is significant or material as these are stratabound orebodies with a tightly defined mineralised halo.		
	Realisation		
	• Khoemacau entered into an Offtake Agreement for the sale of its copper and silver concentrate. The offtake party will take custody of the concentrate once it is loaded onto that party's truck at Boseto having been bagged, sampled, weighed, and assayed, ready for trucking from the Boseto Processing facility.		
	 Current offtake terms allow for a payable copper between 96.6% and 97.25% depending on Cu concentrate grade, and a payable silver of 90%. Treatment and Refining Charges for Cu is at a discount to the benchmark that is set annually between large mining companies and large Asian smelters. Logistics charges for both land freight, sea freight, and port charges will be charged back to KCM, at agreed rates. 		
	 Provisional payment for the concentrate will be made based on weight, assay, and moisture content as determined at the Boseto independent laboratory and be paid within three days following invoicing from the Company. Final payment is adjusted based on final assays completed by a third-party laboratory and metal prices as quoted within a one to four-month period following final invoicing. 		
	Taxes and Royalties		
	 The Zone 5 operation is subject to various taxes and royalties on any revenue generated from mining operations. Royalties payable to the Department of Mines are 3% on gross Cu revenue less sum of transport costs, Cu treatment and refining charges and penalty charges. Royalties of 5% are payable on gross Ag revenue, less Ag refining charges. Income taxes are applicable to revenue and expenses at an annual rate of 70% minus 15% divided by taxable income as a percentage of gross income, and not less than 22%. All taxes are payable to the Botswanan Unified Revenue Service (BURS). Tax losses suffered in early phases of exploration and development where no revenue is generated can be carried over and used to offset future taxable income. 		
	 Value Added Tax (VAT) is applicable on most taxable supplies and imported goods to the country of Botswana. A standard VAT rate of 14% applies to all supplies that are not exempt or are not zero rated. 		
	 Withholding taxes are applicable at a rate 10% on dividends paid by Khoemacau, and at a rate of 15% on interest paid or management fees, which is reduced to 10% if paid to a company registered in the Republic of South Africa. 		



Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
Revenue factors	• The tables included in the Cost section above shows all revenue assumptions used in the estimation of an Ore Reserve for the Khoemacau Project.		
Market assessment	• The operation currently produces a high-grade copper-silver concentrate from Zone 5 of greater than 30% copper with relatively low impurity levels.		
	Concentrates are sold direct to smelters serving markets in Asia. Minor penalties are experienced for certain deleterious elements, including fluorine, arsenic, zinc and lead, but the levels are low and do not affect the marketability of the concentrates currently produced.		
	• A formal contract is in place for sale of concentrates, and future contracts for expanded production is in process. Copper represents about 90% of the concentrate revenue, with by-product silver accounting for the remainder of the revenue from concentrate sales.		
Economic	 The mining, services and infrastructure design was costed to an appropriate level of accuracy to support a PFS level of study. Operating and capital costs have been generated from first principals using zero based information such as actual costs from the Zone 5 project, budget quotations and modelled quantities and schedules relating to the mine production physicals. 		
	• The costs generated were aggregated based on the development and mining schedules and a discounted cashflow analysis completed in the PFS to determine the viability of the projects based on the Measured and Indicated Mineral Resources only.		
	 It is specifically noted that in generating mining schedules for Measured and Indicated mineral resources that it is unavoidable that some Inferred and Unclassified mineralisation in the geological block models is included into the mining schedule. This is predominantly due to the spatial distribution of the mineralisation in the various categories and the regularised shape of the planned stopes. 		
	• The amount of Inferred and Unclassified mineralisation in these schedules has been excluded from the financial evaluation and the reporting of financial metrics for these studies. No costs or revenues attributable to these volumes has been included in the evaluation.		
Social	• ESIA authorisations for the existing project include suitable Social Management Plans incorporating the proposed mitigations for identified impacts.		
	• Monthly report statistics and descriptions are compiled in annual ESG databases that cover site labour statistics, human resources issues, and health and safety outcomes. Social monitoring includes stakeholder engagements undertaken, grievances, community development, compensations, and procurement opportunities.		
	Public meetings and community engagement have been required for the various ESIA studies as part of the original permitting process and the operational stakeholder engagement is comprehensive in range of stakeholders and the approach to engagement. This includes local community consultations, local and national government authorities, non-government organisations, and covers Community Leadership engagement workshops, meetings with the Local Enterprise Authority, District Council meetings and		



Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
	visits from politicians, Commissioner and the DHMT. Activities are recorded and reported.		
	• A grievance mechanism for both community and the workforce is well established and functioning on site. Local people know about the mechanism, it is easy to use and culturally appropriate, and any complaints and queries are properly and quickly dealt with by the structure of the process.		
Other	Not Applicable		
Classification	Measured and Indicated Mineral Resources at Zone 5 have been directly converted into Proven and Probable Ore Reserves should the blocks under estimation be deemed economic during the ore reserve estimation process. Inferred Mineral Resources and unclassified material have been excluded as far as possible in generating the inventory used in the actual estimation and the final reporting process.		
	Mineral Resources for Zone 5N, Mango and Zeta NE deposits are all classified as Indicated Resources and have generated Probable Ore Reserves for these projects.		
	However, it is noted that relatively small amounts of Inferred Mineral Resource and unclassified material have been unavoidably included in the mining inventory where they form part of a stope which is payable based on the mineralisation being classified as Measured and/or Indicated Mineral Resources. However, these small amounts of Inferred Mineral Resource and unclassified material are excluded from the financial evaluation and the tabulation of the ORE.		
Audits or reviews	 CSA Global originally reviewed the work completed for the PFS and was satisfied that the standard was of a PFS level of accuracy or better and that it was suitable to support the conversion of the Mineral Resource estimates to an Ore Reserve estimate. ERM later found the approach to be reasonable during the review and compilation for the Competent Persons Report associated with the transaction. 		
Discussion of relative accuracy / confidence	 The following lists several key aspects (not in any order of importance) that can affect the assumptions and outcome used in the generation of the ORE and a current risk rating versus a future risk rating with ongoing focus and mitigation efforts. Value Sensitivity to Market Forces – Operating margins could be lessen if inflationary forces continue, and the copper price stagnates or increases at a lesser rate to offset this effect. Low/Medium risk > Low/Medium risk. Mining Performance to Design, Budgets and Schedules – A failure to traand retain key mining skills both in the local workforce and in key expatriate technical roles would affect production outcomes. KCM mus ensure that the programs and mechanisms are in place to make Khoemacau an employer of choice and to "incentivize" the mining contractor to maintain focus. There is a need to appropriately monitor k performance metrics and ensure that focus is maintained on equipment maintenance and units employed on site. High/Medium risk > Low/Medium risk Transition from Mining Contractor to Owner Mining - Transition can only occur when the mine is operating at a steady state with good adherence to budgets and schedules. Requires a multi-skilled and flexible local 		



Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
	 Excessive and Unplanned Overbreak - Requires strict adherence to development location and proximity to the mining hangingwall and timely resource definition drilling and interpretation. Appropriate drill-and-blast practices used for identified weak hangingwalls. Decline drive profiles maintained as close as possible to design to achieve increased face turnaround by improving mucking cycles times. High risk > Low/Medium risk. 		
	 Overarching Backfill Assumptions - The decision to exclude backfill until >420 mbs in all deposits and use only rib pillars for support requires achievement of planned stope dilution and recovery rates. This deferral may require review for the Expansion Deposits based on experience gained at Zone 5. High risk > Low risk. 		
	 Ventilation (Cooling System) Installation – Chilled water-cooling augmentation at each operation must be timely to ensure that time is not lost and to an increasing VRT. Medium risk > Low risk. 		
	 Current and Future Water Supplies (Volume & Quality)- Current site practice is appropriate and timely in terms of understanding current and future water supply requirements. Low risk > Low risk. 		
	 Mining Dilution and Plant Performance - Higher than expected dilution increases the plants operating costs and introduces uncertainty in the ore characteristics being treated. Medium risk > Low risk. 		

4.3.3 Expert Input Table

Contributor	Position	Nature of Contribution
Denis Grubic	Principal Mining Engineer (consultant)	Mine designs and scheduling
Tommie Sherman	Financial Controller (KCM)	Cost modelling and project economics
Boago Maphane	Senior Mining Engineer (KCM)	Mine designs and scheduling
Gerrit Kotze	Senior Rock Mechanics Engineer (consultant)	Geotechnical input
Bava Reddy	Technical Services Manager (KCM)	Contribution overview and contribution supervision
Matthys Vermaak	Chief Metallurgical Engineer (KCM)	Metallurgical and recovery information
Damian Connelly	Metallurgical Consultant	Processing plant background and analysis
Ben Ridley	Partner, Sustainable Finance (ERM)	Environment and social background and compliance
Shaun Crisp	Senior Resource Geologist (KCM)	Resource modelling and reporting
Maree Angus	Principal Consultant Resource Geology (ERM)	Resource modelling peer review and JORC (2012) MRE Competent Person
Gary Harman	Principal Consultant	Cost modelling and project economics
Terry Burns	Ore Reserve Competent Person (consultant)	Peer review, coordinating author and JORC (2012) ORE Competent Person



4.3.4 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

4.3.4.1 Competent Person Statement

I, Terry Noel Burns, confirm that I am the Competent Person for the Khoemac<u>a</u>u Copper Project Ore Reserve section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Fellow and Chartered Professional in the discipline of Management of The Australasian Institute of Mining and Metallurgy (#107527) and have sufficient experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I have reviewed and compiled the relevant Khoemac<u>a</u>u Copper Project Ore Reserve section of this Report to which this Consent Statement applies.

I am an employee of Warbrooke-Burns & Associates Pty Ltd and was contracted as an Associate Principal Consultant to ERM Australia Consultants Pty Ltd at the time of the estimation.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any matters that could be perceived by investors as a conflict of interest.

I verify that the Khoemacau Copper Project Ore Reserve section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Khoemacau Copper Project Ore Reserves.

4.3.4.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

Regarding the sections of this report for which I am responsible – the Khoemac<u>a</u>u Copper Project Ore Reserves - I hereby consent to the release of the 2024 Mineral Resources and Ore Reserves Statement as at 30 June 2024, including the Executive Summary and Technical Appendix Report, along with this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 - with the author's approval. Any other use is not authorised. TERRY NOEL BURNS, FAusIMM CP (Man) Date: (#107527) This signature was scanned for the exclusive use *in this document – the MMG Mineral Resources* and Ore Reserves Statement as at 30 June 2024 Maree Angus (Brisbane, Australia) - with the author's approval. Any other use is not authorised. Witness Name and Residents: Signature of Witness: (eq, town/suburb)


5. Kinsevere Operation

5.1 Introduction and setting

Kinsevere is located in the Haut-Katanga Province, in the southeast of the Democratic Republic of Congo (DRC). It is situated approximately 27 kilometres north of the provincial capital, Lubumbashi (Figure 41), at latitude S 11° 21′ 30″ and longitude E 27° 34′ 00″.



Figure 5-1: Kinsevere Mine location

Kinsevere is a conventional truck and excavator operation with atmospheric leaching of the oxide ore using a solvent extraction electro-winning (SX-EW) plant. The mine was started in 2006 using heavy media separation (HMS) and an electric arc furnace operation. The electric arc furnace was put on care and maintenance in 2008 with HMS then producing a direct shipping ore product grading 25% copper. The HMS was decommissioned in June 2011 when the Stage II SX-EW plant was commissioned.

Kinsevere's expansion project phase, to allow the beneficiation of elemental Cobalt, was commissioned as planned in October 2023 and has fully ramped up with a capacity to go up to 6kt per annum.

The final major phase of the expansion project, that will allow the mine to process sulphide material is in its final stages of commissioning. The mechanical components of the sulphide plant, as well as the floatation circuit to treat Transitional-Mixed Ore (TMO) have been completed with test commissioning initiated in July 2024. The plant is expected to be fully commissioned by October 2024 and full ramp up expected to be achieved by December 2025.

The two circuits, Oxide/TMO and Sulphide, will process a total of 4.4Mt of ore per annum.



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5.2 Mineral Resources – Kinsevere

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5.2.1 Results

The 2024 Kinsevere Mineral Resources are summarised in Table 11. The Kinsevere Mineral Resources are inclusive of the Ore Reserves.

Table 11: Kinsevere Mineral Resources tonnage and grade (as at 30 June 2024)

Kinsevere Mineral Resour	ce						
						Contained Metal	
	Tonnes	Copper	Copper AS ¹	Cobalt	Copper	Copper AS ¹	Cobalt
Oxide Copper ²	(Mt)	(% Cu)	(% Cu)	(% Co)	('000)	('000)	('000)
Measured	1.4	2.8	2.3	0.09	40	33	1.3
Indicated	3.5	2.7	2.3	0.10	96	80	3.7
Inferred	2.3	2.0	1.6	0.12	45	36	2.8
Total	7.2	2.5	2.1	0.11	180	150	7.8
Transition Mixed Ore (TM	IO) Copper ³						
Measured	0.5	2.0	0.67	0.12	11	4	0.6
Indicated	1.5	1.8	0.56	0.11	27	8	1.6
Inferred	1.1	1.5	0.48	0.07	17	5	0.8
Total	3.1	1.7	0.55	0.10	54	17	3.0
Primary Copper ⁴							
Measured	1.7	2.1	0.17	0.15	37	3	2.6
Indicated	21	2.2	0.13	0.09	460	27	19
Inferred	11	1.7	0.11	0.06	190	12	6.2
Total	34	2.0	0.12	0.08	680	42	27
Stockpiles							
Indicated ⁷	13.3	1.4	0.90	-	183	120	-
Indicated ⁸	5.3	2.1	0.33	0.20	111	17	11
Total	19	1.6	0.74	0.06	290	140	11
Kinsevere Copper Total	63	1.9	0.55	0.08	1,200	350	49
Oxide-TMO Cobalt⁵							
Measured	0.01	0.61	0.36	0.07	0.07	0.04	0.01
Indicated	0.06	0.52	0.32	0.15	0.29	0.18	0.09
Inferred	0.10	0.57	0.36	0.08	0.59	0.37	0.1
Total	0.17	0.6	0.4	0.10	0.95	0.59	0.2
Primary Cobalt ⁶							
Measured							
Indicated	0.23	0.64	0.05	0.13	1.5	0.11	0.31
Inferred	0.14	0.66	0.04	0.09	0.9	0.06	0.12
Total	0.39	0.65	0.05	0.12	2.5	0.17	0.47
Kinsevere Cobalt Total	0.56	0.62	0.14	0.12	3.5	0.8	0.6

¹ AS stands for Acid Soluble

² 0.4% Acid soluble Cu cut-off grade and Net Value Script positive

³ 0.5% Total Cu cut-off grade and Net Value Script positive

⁴ 0.7% Total Cu cut-off grade and Net Value Script positive

⁵ Net Value Script positive and not Cu Mineral Resource

⁶ Net Value Script positive and not Cu Mineral Resource

⁷ Without Cobalt

⁸ With Cobalt

All Mineral Resources except stockpiles are contained within a US\$4.90/lb Cu and \$29.79/lb Co pit shell

Contained metal does not imply recoverable metal.

Figures are rounded according to JORC Code guidelines and may show apparent addition errors.

The cut-off criteria applied to report the Mineral Resource is a combination of a Net Value Script (NVS) and copper cut-offs. The NVS is run to determine if a blocks value is positive, based on applied Mineral Resource criteria, and if so, flagged as a Mineral Resource. A copper cut-off is then applied to classify blocks as either a copper or cobalt Mineral Resources.

If a block is flagged as a Mineral Resource by running the NVS then copper Mineral Resources use a 0.4% acid soluble copper (CuAS) for Oxide Mineral Resource, 0.5% total copper (CuT) for the Transitional Mixed (TMO) Mineral Resource and 0.7% total copper (CuT) for the Primary Sulphide Mineral Resource. The Oxide Mineral Resource is defined as having a Ratio (CuAS/CuT) greater than 0.5. The TMO Mineral Resource is defined as having a Ratio greater than or equal to 0.2 and less than 0.5. The Primary Sulphide Mineral Resource is defined as having a Ratio less than 0.2.



Cobalt Mineral Resources are reported as blocks that have been flagged as a Mineral Resource by the NVS and do not classify as copper Mineral Resources as defined above. The cobalt Oxide-TMO Mineral Resource is defined as having a Ratio greater than or equal to 0.2. The cobalt Primary Mineral resource is defined having a Ratio less than 0.2. Cobalt Mineral Resources are exclusive of copper Mineral Resources. All reported Mineral resources a constrained with a reasonable prospects pit shell.

5.2.2 Mineral Resources JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 12 complies with the 2012 JORC Code requirements specified by "Table-1 Section 1-3" of the Code.

Section 1 Sampling Techniques and Data				
Criteria	Commentary			
Sampling techniques	 The Mineral Resource uses a combination of reverse circulation (RC) drilling and diamond drilling (DD). The RC drilling is predominately collected for Grade Control (GC) purposes. GC is also included in the Mineral Resource model to better delineate the grade / chemistry envelopes, but not for lithological / stratigraphic modelling due to challenges with the RC material for detailed lithology determination. The DD is used for lithology / stratigraphy modelling as well as exploration and resource delineation work in the areas below and outside of current mining. 			
	• DD core is sampled mostly in 1m intervals while samples in un-mineralised zones are generally sampled over 4m lengths. Sampling is predominantly performed by cutting the core longitudinally in half, with one half retained on site for future reference. For PQ drilling undertaken from 2015 onwards, quarter core was submitted for sampling.			
	 Grade control drilling (RC) samples are collected directly from the cyclone after every 2m of drilling. A subsample is taken using a riffle splitter of approximately 2kg weight. The rods are "blown" by the RC Rig after each 3m rod addition. 			
	 For grade control each sample is crushed and pulverised to produce a pulp (>85% passing 75µm) prior to analysis at the Kinsevere SGS laboratory. The exploration DD samples are prepared at commercial laboratories to produce a pulp (>85% passing 75µm) for analysis. 			
	 Measures taken to ensure sample representativity include orientation of the drill holes as close as practical to perpendicular to the known mineralised structure. In addition, field duplicates are also collected and analysed as part of the QAQC insertion for both RC coarse duplicates at the rig and DD coarse duplicates prepared at the core yard. 			
	 The sample types, nature, quality and sample preparation techniques are considered appropriate for the style of the Kinsevere mineralisation (sediment hosted base metal) by the Competent Person. 			
Drilling techniques	• At the RC drilling site, samples are collected for a 2m drilled interval, while DD is sampled at nominal 1m intervals for mineralised core and up to 4m for visually unmineralized core. A total of 447,421m or 82% of the sample data within the database was from RC samples (5.5-inch hammer), of that approximately 80% was from Grade Control drilling.			
	 PQ and HQ sized DD core were used to obtain nominal 1m sample lengths. From 2015 onwards DD core was not routinely oriented. 99,124 m or 18% of the sample data within the database was from DD samples. 			

Table 12: JORC 2012 Code Table 1 Assessment and Reporting Criteria for Kinsevere Mineral Resource 2024



Section 1 Sampling Techniques and Data			
Criteria	Commentary		
	 27,578m of RC Grade Control drilling was completed since the previous Mineral Resource estimate (2023) and utilised in the 2024 estimate. 		
	18 DD holes were drilled since the previous 2023 estimate.		
	 In the view of the Competent Person, the drilling techniques are appropriate for providing samples with which to estimate the Kinsevere Mineral Resource. 		
Drill sample recovery	 DD core recovery recorded was typically above 90%, with only minor losses in competent ground (recovery average 97% for all drilling, and over 98% within ore zones). As expected, the recovery is less in unconsolidated ground, such as weathered material close to surface and in vuggy zones of dolomitic rocks (average recovery approximately 85% in this area). The vuggy zones are generally controlled by major structures. Triple tube core barrels were used to maximize core recovery. DD core recovery and run depth are verified and checked by a geological technician at the drill site. This data is recorded and imported into the Geobank® database. RC drilling has been observed for sample recovery with adequate sample 		
	volume being returned. However, no quantitative measurements of recovery have been recorded.		
	grade, therefore no preferential bias has occurred due to core loss.		
Logging	 RC chips were logged by geologists directly into an Excel logging template, however recent practice is directly into Geobank® Mobile using ruggedised laptops. Geological information captured includes lithology, stratigraphy, weathering, oxidation, colour, texture, grain size, mineralogy and alteration. This data is then imported into the database. 		
	 For DD core samples, both geological and geotechnical information is logged directly into Geobank® Mobile using ruggedised laptops. The information includes lithology, stratigraphy, mineralisation, weathering, alteration and geotechnical parameters (strength, RQD, structure measurement, roughness and infill material). 		
	• All RC chip and DD core samples (100%) have been geologically logged to an appropriate level to support Mineral Resource estimation.		
	• Logging captures both qualitative descriptions such as geological details (e.g., rock type, stratigraphy) with some semi-quantitative data (e.g., ore mineral percentages). Core photography is not known to have occurred prior to MMG ownership (2012). Since MMG took control of the site, all DD core was photographed.		
	 100% of all intersections were logged. 		
Sub-sampling techniques and sample preparation	 DD core was split longitudinally in half (NQ) or quarter (PQ) using a diamond saw. Sample lengths were cut as close to 1m as possible while also respecting geological contacts. Samples were generally 2kg to 3kg in weight. RC samples were collected from a cyclone by a trained driller's assistant. The procedure is that if the sample is dry, the sample is passed through a riffle splitter and 2kg is collected into a pre-numbered calico bag. A sample of the residual material is sieved for collection into chip trays for logging. The splitter is cleaned using compressed air or a clean brush and tapped using a rubber 		



Section 1 Sampling Techniques and Data				
Criteria	Commentary			
	mallet. If the sample is wet, then the sample is dried in the laboratory oven before being split according to the procedure for dry samples.			
	• Samples from individual drill holes were sent in the same batch to the relevant preparation laboratory. For RC drilling, field duplicates were collected at a rate of approximately 2% by riffle split to ensure that the sampling was representative of the in-situ material collected.			
	 RC Grade Control samples were prepared mainly on-site by the Kinsevere Geology Department's Sample Processing Facility prior to dispatch to the relevant analytical laboratory. The procedure is for samples to be checked and weighed on receipt, oven dried at approximately 110°C, weighed dry, crushed to 85% passing 2mm using a jaw crusher, passed twice through a riffle spitter to obtain a sample of approximately 1kg that is milled to 85% passing 75µm using one of three single sample LM2 vibratory pulverising mills. 50g of the milled material is packaged for analysis as well as a 30g sample for rapid Niton XRF analysis when required. The pulp reject material is stored. Since 2015, all exploration and near-mine DD drilling core and RC chips were processed at the ALS managed Containerised Preparation Laboratory (CPL). Pulp samples where then sent to ALS Johannesburg for analysis. Since the closure of Near Mine Drilling Project at the end of May 2019, all the DD samples were prepared by the SSM Laboratory in Likasi (milled to 85% passing 75µm) and analysed at SSM in Kolwezi. 			
	 The sample size for both RC and DD is considered appropriate for the grain size of the material being sampled. The RC field duplicates typically show precision of 85% better than ±20% indicating that the sample size is appropriate, and the sub-sampling is of acceptable quality. 			
Quality of assay data and laboratory	• RC GC samples are routinely assayed at the on-site SGS Laboratory. Some samples are assayed at ALS laboratory (JHB) and SSM at Kolwezi if there are capacity constraints on-site. The process is as follows:			
tests	 Following preparation, 50g pulp samples are routinely analysed for total and acid soluble copper, cobalt and manganese. 			
	 A 3-acid digest with AAS finish is used to analyse for total values. 			
	 A sulphuric acid digest with AAS finish is used to analyse for acid soluble copper. 			
	 All DD core samples prior to 2011 were assayed at either ALS Chemex Laboratory in Johannesburg, McPhar Laboratory in Philippines or ACT Labs Laboratory in Perth. Samples were analysed for total copper and acid soluble copper with some having a full suite of elements analysed with a four-acid digest and ICP-OES analysis. 			
	• From 2011 to 2015, prepared samples were submitted to the ISO 17025 accredited SGS Laboratory in Johannesburg with the following assay scheme:			
	 ICP-OES method with a 4-acid digest analysing 32 elements including copper from 0.5ppm to 1%. 			
	 ICP-OES method using alkali fusion is applied to over-range copper results. 			
	 ICP-AES with a 4-acid digest was used for calcium and sulphur analysis. 			
	 XRF was used for uranium analysis. 			
	 Acid soluble copper using a sulphuric acid digest and AAS finish 			



Section 1 Sampling Techniques and Data				
Criteria	Commentary			
	 Since 2015, prepared samples were submitted to the ALS Laboratory in Johannesburg with the following assay scheme: 			
	 ICP-OES (ME-ICP61) method with a 4-acid digest analysing 33 elements plus OG triggers when Cu greater than 1% (OG62) 			
	 LECO analysed Total Carbon (C-IR07), Organic Carbon (C-IR17), Total Sulphur (S-IR08) and Sulphide Sulphur (S-IR07) 			
	 Acid soluble copper using a Sequential Leach (Cu-PKGPH06) finish. 			
	 The analysis methods used are appropriate for the style and type of mineralisation at Kinsevere. 			
	 No geophysical tools, spectrometers or handheld XRF instruments external to the laboratory have been used in the analysis of samples for the estimation of Mineral Resources. 			
	 QAQC employs the insertion of Certified Reference Material (CRM) every 25 samples. Blanks, field duplicates, coarse duplicates and pulp duplicates are taken / inserted within every batch of 50 samples to check repeatability of the assay result. If control samples do not meet an acceptable level the entire batch is re-analysed. GC samples are subjected to the same assay QAQC as the exploration RC and DD samples. 			
	 Historically samples have been sent to a second laboratories for check assay. These were ISO 17025 accredited commercial facilities, previously Intertek Genalysis (Perth) and currently ALS (Johannesburg). 			
	 The QAQC results demonstrate that the sample assays are both accurate and precise and minimal contamination was introduced during the process. The sample assays are considered by the CP to be suitable for Mineral Resource estimation. 			
Verification of sampling and	 Significant intersections are verified by alternate company personnel following receipt of assay results and during the geological modelling process. 			
assaying	 Twinned holes were used to confirm and check specific geological intervals and/or assay intervals. Twin drill holes are not used in the Mineral Resource estimate. 			
	 Data is collected in Excel spreadsheets and imported into industry standard databases that have built in validation systems and QAQC reporting systems. Raw electronic assay data is imported directly into the database as received by the laboratory, using import scripts, and is checked by the DB manager. 			
	 Where data was deemed invalid or unverifiable it was excluded from use in Mineral Resource estimation. 			
	 Individual acid soluble copper assays greater than total copper assays are adjusted to the total copper assay value. 			
Location of data points	 Prior to 2011, all drill hole collars were located using a hand-held GPS. Accuracy is approximately ±5m for X and Y coordinates and poorer accuracy for the Z (elevation) coordinates. Elevations of these holes were later projected to a LiDAR survey surface. 			
	 RC and DD holes collared post-2011 are surveyed by qualified surveyors. Down hole surveys have been carried out using Eastman single-shot cameras or Reflex EZ tools. Surveys are taken at variable intervals and stored in the database. 			



Section 1 Sampling Techniques and Data			
Criteria	Commentary		
	 Coordinates are in Kinsevere Mine Grid, which is related to WGS84 by the following translation: -8,000,000 m in northing and -22.3 m in elevation. 		
	• A LiDAR survey was used to generate a topographic surface. This surface was also used to better define the elevation of drill hole collars. The LiDAR survey is considered to be of high quality and accuracy for topographic control.		
Data spacing and distribution	 Majority of the GC drilling is on a 5m by 15m grid, however in 2018 the GC grid was 10m by 10m. Since 2019, the standard has been revised back to 5m by 15m. The RC GC drilling is sufficient to provide high confidence in the definition of grade and material type boundaries for the operation. The overall DD spacing is between 25m and 75m, which is sufficient to establish the required degree of geological and grade continuity for Mineral Resource estimation. Between 2015 and 2019, diamond drilling aimed to infill target areas to 40m by 40m spacing and 20m by 20m in places. 		
	• DD samples are not composited prior to being sent to the laboratory however the nominal sample length is generally 1m. RC samples are 2m intervals but compositing up to 4m has occurred in the past. Compositing to 2 m is completed for the Mineral Resource estimation process.		
Orientation of data in relation to geological structure	 The mineralisation strikes between north and north-west at Mashi and Central pits, and from east-southeast to west-northwest at Kinsevere Hill. All drill holes are oriented such that drill holes have a high angle of intersection with the dominant strike and dip of bedding and structures, with the local scale of mineralisation also considered. Drill holes are generally either oriented east or west with dips of 60° to sub-vertical. 		
	 The combination of both east and west orientations likely minimises sampling bias, which, if present, is not considered material. 		
Sample	 Measures to provide sample security include: 		
security	 Adequately trained and supervised sampling personnel. 		
	 Shipping containers used for the storage of samples are kept locked with keys held by the security department. 		
	 Assay laboratory checks of sample dispatch numbers against submission documents. 		
Audit and reviews	 An external independent audit was performed on the grade control sampling techniques in July 2019 by OBK Consultants. Recommendations for improvements were provided and no material issues were identified. 		
	 Internal visits by MMG Group Office geologists to the SGS, ALS and SSM Lubumbashi laboratories are undertaken regularly. No material risks identified. 		
	• A audit of the complete 2023 Mineral Resource process including sampling and assaying was undertaken by AMC consulting, Perth office, in the first quarter of 2024. No material risks were identified.		



Section 2 Reporting of Exploration Results							
Criteria	Cor	nmentary					
Mineral tenement and land tenure status	 MMG has a Contrat d'Amodiation (Lease Agreement) with Gécamines to mine and process ore from the Kinsevere Project until 2039. The PE 528 permit covers the three major deposits of Tshifufiamashi (Mashi), Tshifufia (Central) and Kilongo (Kinsevere Hill). A Contrat d'Amodiation is provided for under the DRC Mining Code, enacted by law No 007/2002 of July 11, 2002. A conversion of the adjacent PR7274 to an exploitation permit was completed in 2018. Tenement amalgamation (of PE528 and PE7274) was completed in 2019, with PE7274 incorporated into PE528. There are no known regulatory impediments to operating at Kinsevere. 						
Exploration	• 3	Summary of Prev	ious Explora	ation Work	by Gécamines a	nd EXACO:	:
parties			Pitting	-	Trenching	D	rilling
		Deposit	No (m depth)	No. (metres)	Significant Grades	No. holes (metres)	Significant Grades
		Tshifufiamashi	11	16 (1,304 m)	5.8% Cu 0.2% Co over 50 m	37 (846 m)	10.5% Cu 0.72% Co over 22.2 m
		Tshifufia Central	-	17 (1,106 m)	7.6% Cu 0.3% Co over 15 m	19 (950 m)	6.3% Cu 0.6% Co over 23 m
		Tshifufia South	-	39 (278 m)	7.2% Cu 0.3% Co over 40 m	11 (497 m)	
		Kinsevere Hill	7 (44 m max.)	11 (625 m)	6.6% Cu 0.2% Co over 20 m	10 (1,021 m)	3.99% Cu 0.22% Co over 14.6 m
	Kinsevere Hill (44 m max.) (625 m) 0.2% Co over 20 m 0.22% Co over 21 m) 0.22% Co over 14.6 m In 2004 Anvil Mining carried out intensive exploration drilling to define the deposits at Kinsevere. In 2012 MMG continued exploration aimed at identifying additional mineralisation beyond the Anvil Mining Mineral Resource. In 2013/2014 MMG Exploration conducted works around the Mine Lease within a 50km radius of the known deposit to explore for additional high-grade oxide material. In 2015 MMG conducted a Scoping Study on the potential to process the copper sulphide ore at Kinsevere located beneath the current oxide Ore Reserves. As part of this study, 5 DD holes were drilled in early 2015. In August 2015, DD drilling re-commenced as part of a follow up on Pre-Feasibility Study to increase confidence in the copper sulphide Mineral Resource. This drilling was completed at the end of 2016 and included in the 2017 Resource Estimate. Drilling commenced in May 2017 to inform the Sulphide Feasibility Study. This drilling was used to update the 2018 Mineral Resource model. Drilling commenced in Jan 2018 to test the geological continuity between Mashi and Central Pit. This was completed in September 2018. Drilling then continued in 2018 in the south of Kinsevere Hill (south of Kinsevere copper deposit). This drilling tested the copper mineralisation at depth. These two drilling programs were used to update the 2020 Mineral Resource model						



Section 2 Reporting of Exploration Results				
Criteria	Commentary			
	 In early 2020, exploration diamond drilling was conducted to delineate and test the continuity of the deeper sulphide mineralization between Central and Mashi pits. A total of 5 holes were drilled targeting the deeper Central Sulphide Extension below the current final pit Mineral Resource reporting limit. 			
	 In early 2021, 31 holes were drilled to test the continuity of the mineralisation at Kinsevere Hill South. 			
	 During 2023, 16 holes were drilled in the Saddle, the area between Central and Mashi Pits and were a combination of infill of previous Mineral Resources with extensional drilling 			
Geology	The Kinsevere deposit is a sediment hosted copper deposit with low-grade cobalt association.			
	 The deposit is comprised of the R1, R2 and R3 Subgroups of the Neoproterozoic Roan Group (Refer to stratigraphic column in this section.). Copper mineralisation is generally confined to the Mines (R2) Subgroup; however, minor copper-oxide and copper-sulphide development occurs along the R1-R2 contact and the R2-R3 contact. 			
	• The deposit is located along a major structural element termed the Kinsevere lineament. Halokenetic and tectonic processes have resulted in the emplacement of discrete lower Roan (R2) stratigraphic blocks onto younger, upper Roan (R3 and above) stratigraphy.			
	 The Kinsevere deposit is comprised of three distinct mineralisation domains: Central, Mashi and Kinsevere Hill. Central and Mashi form a contiguous sequence of mineralised Mine Series correlates that host copper-cobalt oxides and sulphides. Kinsevere Hill represents a structurally isolated occurrence of Mine Series host rocks containing copper-cobalt oxides with minor copper sulphides. 			
	• The extent of oxidation of copper mineralisation is defined by the ratio of acid- soluble copper (CuAs) to total copper (CuT).			
	 Copper oxide mineralisation is defined as material that has CuAS:CuT ratio (Ratio) from 0.5 to 1. The principal copper oxide mineral is malachite with subordinate chrysocolla, copper clays (Goethite and Mn-WAD), pseudomalachite and rare azurite. Tenorite, native copper and other minor copper oxide phases (Cu-intergrowths) are also present in minor quantities (<5% of total Cu oxide mineralogy). The largest proportion of copper oxide mineralisation is hosted in weathered/oxidised carbonates (CMN) as fracture fill, void fill, mineral replacement and coatings. There is a strong preference for copper oxides to develop in CMN lithologies, especially within strongly weathered, brecciated and karstic zones. 			
	 "Transitional and Mixed Ores" (TMO) are copper ores that have a Ratio between 0.2 and 0.5. Transitional ore zones are classified as zones that contain dominantly transitional copper species such as chalcocite, covellite, cuprite and native copper and are likely to have formed during progressive supergene weathering. Mixed ore zones are defined as containing both sulphide and oxide copper phases present together - particularly malachite, chalcocite and chalcopyrite. 			
	• Sulphide mineralisation at Kinsevere is defined by all material that has an Ratio less than 0.2. Sulphide mineralisation at Kinsevere has several different modes			



	Section 2 Reporting of Exploration Results				
Criteria	Commentary				
	of development and styles. The three major types are: 1. Replacement of early diagenetic pyrite and evaporites by chalcopyrite and carrolite. 2. Replacement of carbonate minerals by copper and cobalt sulphides. 3. Sulphide bearing veins and vein replacement.				
	Schematic Kinsevere Stratigraphic Column Domain code and name Marker name + Code Description Katangan Correlates				
	DIPETA Silstones and carbonates on western margin of Central and Mashi Pits Dipeta Hydrogeologically significant R3				
	SDOL Cream white to grey dolonites with dark silicified. Kambove Interhedded Sicified dolonite Green Silitstone Silicified dolonite Bands/nodules, interhedded with dark silicified. Dolomite Silicified dolonite Green Silitstone Silicified dolonite Silicified dolonite Dolomite Silicified dolonite Silicified Dolonite Silicified dolonite Silicified dolonite Dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite Silicified dolonite				
	LMU Crinkly laminated, often coarsely re-crystalised and magnesite altered carbonate (c)fare dolomite). Crinkly laminated, often coarsely re-crystalised and magnesite altered carbonate (c)fare dolomite). Crystaline texture defined by cm scale magnesite/dolomite crystals with no apparent defined orientation. Carbonaceous laminate throughout. Kambove Dolomite Dolomite Dolomite Dolomite				
	IDSH Interbedded Interbe				
	ICSL Interbedded calcareous siltstone and shale. Siltstone Siltstone after doolnitk with weak primary mineralisation Siltstone Siltstone after doolnitk with yeak yong yealing with primary copper mineralisation - mostly as chalcographyrite with Shale Middle Modular. Middle Modular. Middle Modular.				
	LSH Lower Shale Grey Banded Shale Grey Control of the Control of t				
	RSL RAT Sitistone Purple-ref. (reconstruction) Purple-ref. Perconstruction Purple-ref. massive substruction Purple-ref. massive substruction Structural context One or both units can be present and contain Context with the LSH, mg-choine and taic. RAT Context with the LSH, mg-choine and taic. RA.T R1 Context with the LSH, mg-choine and taic. Can often be comprised of monomic to between the RSL RA.T				
	Heterogeneous Interp: Decolement and Dipeta. Interpreted as a deformed decolement surface that was Brecola Frescola Frescola Frescola Brecola Nonger this national stable sufficiences dolomites and fine-grained arenaceous and siliciclastics Dipeta				
	Kinsevere Mine Series Stratigraphy				
Drill hole information	• Within the database used for estimation, there are 2,417 exploration drill holes (414 DD, 30 RC with DD tail and 1,973 RC) and 12,800 grade control drill holes (all RC).				
	• The details of the individual drillholes are not material to the report. Exploration results are not being reported.				
Data aggregation methods	Exploration Results not being reported.No metal equivalents were used in the reporting.				
Relationship between mineralisation width and intercepts lengths	 Exploration Results not being reported. Most drilling was at 50° to 60° dip angles close to perpendicular to the strike in order to drill close to true width intersections with the sub-vertically dipping mineralisation. 				



	Section 2 Reporting of Exploration Results			
Criteria	Commentary			
Diagrams	00 000 00 <t< td=""></t<>			
	Plan view geology map of the Kinsevere deposit			
Balanced	• Evploration Results not being reported			
Balanced reporting	Exploration Results not being reported.			
Other substantive exploration data	 There is no other substantive exploration data of relevance. 			
Further work	 Brownfields RC and DD drilling is carried out, as when required. 			



Section 2 Reporting of Exploration Results			
Criteria	Commentary		
	 The mine has a detailed Grade Control drilling programme that is ongoing. 		

Section 3 Estimating and Reporting of Mineral Resources					
Criteria	Commentary				
Database	 The following measures are in place to ensure database integrity: 				
integrity	 Drillhole data (RC and DD) is stored in two SQL databases with front end access provided by Geobank[®] software. 				
	 The grade control logging and assay data (RC) is managed by the on-site Geology team with support from the Operations and Technical Excellence database team in Melbourne. 				
	 The exploration/resource logging data (RC and DD) is managed by the on-site Resource team with assay loading and support provided by the Operations and Technical Excellence database team in Melbourne. 				
	 Assay data is provided by the laboratory as .csv files in a prescribed format and loaded directly into the dataset using a script. The data is then checked to ensure there are no errors, such as column swaps. 				
	 Data is entered directly into Geobank® or Geobank Mobile® using the database validation rules. These check for data consistency, missing intervals, overlaps, invalid codes and invalid values, thus maintaining data integrity. 				
	 The databases offer secure storage and consistent data which is exposed to validation processes, standard logging and data recording lookup codes. 				
	 The measures described above ensure that transcription or data entry errors are minimised. 				
	 Data validation procedures include: 				
	 Internal database validation systems and checks. 				
	 Visual checks of exported drill holes in section and plan view, checking for accuracy of collar location against topography, and downhole trace de- surveying. 				
	 External checks in Vulcan software prior to the data used for Mineral Resources. 				
	 Checks on statistics, such as negative and unrealistic assay values. 				
	 Any data errors were communicated to the Database team to be fixed in Geobank. 				
	 Data used in the Mineral Resource has passed a number of validation checks, both visual and software related, prior to use in the Mineral Resource. 				
Site visits	 The Competent Person (Mark Burdett) has visited the Kinsevere site on numerous occasions since 2014 including several visits in 2023 and 2024. 				
	 During the site visits, data collection methods were demonstrated, and the open pits were inspected. The CP considers that the procedures used at Kinsevere are appropriate. 				



	Section 3 Estimating and Reporting of Mineral Resources							
Criteria	Commentary							
Geological interpretation	 The geological sequences at Kinsevere can be considered correlatives of the Katangan Mines Subgroup units, albeit with unique features (thick shale sequence) and notable absences (no RSC). These subtle differences have resulted in inconsistent mapping and logging at the deposit-scale. In response to this, a Kinsevere-specific classification was generated with the aim of assisting geological understanding, facilitating consistent logging and mapping between geologists, and improving geological and resource modelling. The local stratigraphy has been termed the Kinsevere Mine Series (KMS). 							
	 Detailed 3D geological modelling was completed using the Kinsevere Mine Series framework and updated annually using diamond drilling. Diamond drilling, mapping/structural observations, photogrammetry and litho-geochemistry were integrated into the model. The model was updated as part of this Mineral Resource update. The resulting model is considered robust and reliable for mineralisation modelling and grade/estimation domaining. 							
	 Most of the estimated gangue variables were domained to help constrain each estimation. The following variables were domained using numeric indicator interpolation methods in Leapfrog Geo: Mg (6%), Ca (1% and 9%), Al (2.5%) and Organic Carbon (0.25% and 1.5%). 							
	 Cobalt was domained using a numeric indicator interpolant approach. A 0.07% Co threshold was used to guide the interpolation. 							
	 Copper was domained using a numeric indicator interpolant approach aligned with geological and mineralisation trends and boundaries. Copper volumes were generated using a 0.4% total Cu threshold for oxide and 0.3% for TMO/Sulphide, to guide the interpolation. 							
	• The magnitude of the CuAS:CuT ratio (CuAS/CuT or Ratio) has been used as an important criterion for the determination of the oxide, TMO and primary sulphide zones. The following ratios have been used to delineate the respective zones:							
	- Oxide > 0.8							
	- Transition and mixed (TMO) between 0.2 and 0.8 Primary < 0.2							
	 An Indicator Kriging approach was used to construct oxide domains (within the mineralised zone) based on specific Ratio thresholds. 							
	 Structural features (faults/fractures) provide an important control on the mineralisation and grade continuity. The structural model is used to inform the geological and grade interpretations. 							
	 All geological and grade modelling was completed using Leapfrog Geo software except for the Ratio Indicator model that was created in Vulcan software. 							







Section 3 Estimating and Reporting of Mineral Resources								
Criteria	Commentary							
	strike length. The mineralisation dips sub-vertically. Mineralisation extends to 400m at depth, and it can be up to 300m in width. The mineralisation outcropped prior to mining.							
Estimation and modelling	• Estimation applied mostly kriging interpolation within domains as outlined further in this section and is considered appropriate for this style of mineralisation.							
techniques	 Mineral Resource estimation was conducted using Maptek's Vulcan software (version 2024.1). 							
	 Variograms were modelled for major elements including CuT, CuAS, Ratio, Ca, Fe, Mn, Mg and S. Estimation was based on a combination of grade shells, weathering and lithology. Variogram models were updated for the 2024 Mineral Resource. The key estimation assumptions and parameters are as follows: 							
	 Cu, CuAS, Ratio, Co, CoAS, Ca, Fe, Mg, Mn and S were estimated using Ordinary Kriging (OK). Uranium (U) was estimated by using Inverse Distance to the power of 2 (ID2). 							
	 Locally Varying Anisotropy (LVA) grade modelling was applied to capture the local varying directional grade and geology trends. The LVA outputs (Bearing, plunge and dip) were applied to both the search ellipse orientations and the variogram directions. 							
	 Oxide, TMO and primary sulphide domains were based on Ratio. This formed domains for Cu, Ratio, Co, Fe, Mn, Ca and Total Carbon. Individual elements were estimated with their respective domains as modelled in Leapfrog Geo: Cu (0.4%), Co (0.07%), Mg (6%), Ca (1% and 9%), Al (2.5%), Organic Carbon (0.25% and 1.5%) and S (1.5%). Lithology wireframes were used as domains for the major elements. Uranium was domained by the total copper envelope. 							
	 Wireframes consisting of mineralised domains, lithology and together with oxide domain were used to code the drill hole samples. 							
	 The samples were composited to 2 m by length weighting for statistical analysis and grade estimation. Any residual intervals less than half the composite interval were appended to the previous sample interval. 							
	 Extreme grade values were managed by grade capping, which was performed post compositing. Values greater than the selected cut value were set to the top cut (cap) value and used in the estimation. Were relevant, high-yield search restrictions were utilised as a second method of managing outlier grades. 							
	 Grade estimation was completed using a hard boundary for each domain. 							
	 All variables are independently estimated however particular estimation parameters are consistent between variables that display statistical relationships. 							
	 Search parameters for CuT, CuAS, Ratio, Co, CoAS, Ca, Fe, Mg and Mn estimation were derived from mineralisation and waste domain variography and on Quantitative Kriging Neighbourhood Analysis (QKNA). U search parameters were based on a generic search of 400m x 400m x 400m, U grades higher than 250ppm were distance limited to 20m. 							
	 Three estimation passes were used to estimate the block model. The first pass search radii generally used 80 % of the variogram range and second estimation pass search radii used 100% of the variogram range and the third pass estimation search radius used 200% of the variogram range. Approximately 70% of the blocks are informed in the first pass. The second and third passes required fewer sample composites to estimate a block. 							



Section 3 Estimating and Reporting of Mineral Resources							
Criteria	Commentary						
	 A minimum of 6 sample composites were required for the first pass and 4 for the second pass. A maximum of 10 sample composites was used for each estimate. The third pass generally required less samples, with the number modified according to the individual element. The search neighbourhood was also limited to a maximum of 3 samples per drill hole. 						
	 The matrix of discretisation points was set to 4 x 8 x 2 (X, Y, Z) to provide for block estimates. 						
	 Kriging variance (KV), kriging efficiency (KE) and kriging regression slope (RS) of the Cu estimate were calculated during the estimation. 						
	• The 2023 and 2024 in-situ Mineral Resource models were compared and show no material difference for all estimations. Some adjustments were applied to the Ca shells which resulted in minor changes. An improvement in the LVA process and some rationalisation of domains resulted in an improved local estimate.						
	• The comparison between the Mineral Resource and the mill feed grade is complicated by the operational strategy of treating high-grade ore and stockpiling lower-grade ore for later treatment and processing of Third-Party material. The Mineral Resource model and Grade Control model are compared annually.						
	 Kinsevere produces copper metal and cobalt hydroxide and does not currently produce any by-products hence no assumptions regarding the recovery of by- products are made in the estimate or cut-off and reporting. 						
	 Parent block size of the Kinsevere block model is 10mX x 20mY x 5mZ with sub- blocking down to 2.5m in the X, Y and Z. Estimation was into the parent block. The size of the blocks is appropriate to the spacing of drill holes. 						
	 No further assumptions have been made regarding modelling of selective mining units. 						
	 The block model and estimate has been validated in the following ways: 						
	 Visual checks in section and plan view against the drill holes. 						
	 Grade trend plots comparing the model against the drill holes. 						
	 Summary statistics comparing the model to the sample. 						
Moisture	 Tonnes in the model have been applied on a dry basis. 						



	Section 3 Estimating and Reporting of Mineral Resources								
Criteria	Commentary								
Cut-off parameters	 The cut-off criteria applied to report the Mineral Resource is a combination of a Net Value Script (NVS) and copper cut-offs. The NVS is run to determine if a blocks value is positive. A copper cut-off is then applied to classify blocks as either a copper or cobalt Mineral Resources. 								
	 The NVS assigns a value on a block-by-block basis based on, but not limited to the following: 								
	 Commodity Price Assumptions (Cu-US\$4.90/lb, Co-US\$29.79/lb) 								
	 Processing Costs including G&A 								
	 Metal Recovery's 								
	 Product Payability, Royalty and Selling costs. 								
	 Based on the above, it a block is calculated to have a positive value it is flagged as a Mineral Resource. 								
	 If a block is flagged as a Mineral Resource by running the NVS then copper Mineral Resources use a 0.4% acid soluble copper (CuAS) for Oxide Mineral Resource, 0.5% total copper (CuT) for the Transitional Mixed (TMO) Mineral Resource and 0.7% total copper (CuT) for the Primary Sulphide Mineral Resource. The Oxide Mineral Resource is defined as having a Ratio (CuAS/CuT) greater than 0.5. The TMO Mineral Resource is defined as having a Ratio greater than or equal to 0.2 and less than 0.5. The Primary Sulphide Mineral Resource is defined as having a Ratio less than 0.2. 								
	 Cobalt Mineral Resources are reported as blocks that have been flagged as a Mineral Resource by the NVS and do not classify as copper Mineral Resources as defined above. The cobalt Oxide-TMO Mineral Resource is defined as having a Ratio greater than or equal to 0.2. The cobalt Primary Mineral resource is defined having a Ratio less than 0.2. Cobalt Mineral Resources are exclusive of copper Mineral Resources. 								
	 Comparatively, cut-off grades have remained similar to the 2023 Mineral Resource. 								
	• The reported Mineral Resources have been constrained within a US\$4.90/lb Cu and US\$29.79/lb Co optimized pit shell using Whittle software. The reported cut- off grade and the pit-shell price assumptions are in line with MMG's policy for reporting of Mineral Resources based on reasonable prospects for eventual economic extraction.								



Section 3 Estimating and Reporting of Mineral Resources						
Criteria	Commentary					
	1200 0					
Mining factors or assumptions	 US\$4.90/lb pit shell Mining of the Kinsevere deposits is undertaken by the open pit method, which is expected to continue throughout the life of mine. Mining selection has been considered in the calculation of cut-off grade parameters and in the constraint of Mineral Resources within the US\$4.90/lb Cu pit shell. No mining factors have been applied to the Mineral Resource. 					
Metallurgical factors or assumptions	The metallurgical process applied at the current Kinsevere Operation includes H ₂ SO ₄ acid leaching followed by solvent extraction and electro-winning (SXEW) to produce copper cathode. This enables processing of oxide ores only. Kinsevere's expansion project phase, to allow the beneficiation of elemental Cobalt, was commissioned as planned in October 2023 and has fully ramped up with a capacity to go up to 6kt per annum. The Kinsevere Expansion Project (KEP) is close to commissioning (late 2024) and sulphide ores will be processed using flotation followed by roasting and fed into the SXEW plant to produce copper cathode. TMO tails from the flotation circuit will be sent to the oxide leach for further processing. The main deleterious components of the ore are carbonaceous (black) shales, which increase solution losses in the washing circuit, and dolomite which increases acid consumption in the leaching process. This is managed by stockpiles and blending. No metallurgical factors have been applied to the Mineral Resource estimate aside from oxide state. Metallurgical factors have been utilised in the NVS					
Environmental factors or assumptions	 Environmental factors are considered in the Kinsevere life of asset work, which is updated annually and includes provisions for mine closure. There are no known environmental impediments to operating in the area. 					



Section 3 Estimating and Reporting of Mineral Resources									
Criteria	Со	mmentary							
Bulk density	•	n-situ dry bulk density values are determined from 6,992 diamond core density measurements, 4 in-pit bulk sample measurements and 12 in-pit measurements from specific lithologies. Bulk sample and in-pit measurements account for void spaces. Bulk density was calculated using the wet and dry method: - Bulk Density = Dry Sample Weight/(Dry Sample Weight – Wet Sample Weight Average in-situ bulk density values were assigned to the blocks within each							
		Oxidisation State Minz Code (Block Model) Lithology Code rocktype code (Block Model) Assigned Bulk Density (t/m3)							
		Air	_	_	_	0.00			
					rock_weath	1.90			
			Weathered Pr		rock_soil	1.65			
			weathered Rt		cavity	0.00			
			1		air	0.00			
		Oxide	ALL	ALL	ALL	2.00			
			waste	Breccia		2.30			
			waste	Laminated Dolomite		2.30			
			waste	Dineta		2.30			
			ore	KH RAT Siltstone		2.20			
			ore	Breccia		2.10			
			ore	Lower Shale		2.10			
			ore	Intercalated Shale SD		2.10			
			ore	Interbedded Dolomite Shale		2.20			
			ore	Laminated Dolomite		2.30			
			ore	Upper CMN		2.20			
			ALL	ALL	ALL	2.50			
			waste	KH RAT Siltstone		2.40			
			waste	Breccia I/H DAT Siltatona		2.40			
			ore	Breccia		2.05			
		Primary (Fresh)	ore	Lower Shale		2.55			
			ore	Intercalated Shale SD		2.55			
			ore	Interbedded Dolomite Shale		2.65			
			ore	Laminated Dolomite		2.65			
			ore	Upper CMN		2.65			
Classification	• '	ll Wireframes use	ed for Miner	al Resource classif	ication are b	ased on a co	mbination		
		of confidence i	n assayed g	grade, geological c	ontinuity, Kri	ging outputs	(Kriging		
	,	variance, Krigin	g efficiency	y and slope of regr	ession) and (drilling spacir	າg.		
		Measured Mine	eral Resourc	es are defined by	the slope of	rearession of	f the		
		kriging estimate	e > 0.8 and	kriging efficiency :	> 0.7, which	generally res	ults from		
		drilling spacing	less than 2	Om x 20m (mostly	GC). Indicate	ed Mineral Re	esources		
		are defined by	the slope re	egression of kriging	estimation	> 0.7 and krig	ging		
		efficiency > 0.6	s, which ger	nerally results from	drilling space	ing of 40m x	40m		
		(exploration dri	lling, mostly	/ DD). Inferred Mine	eral Resourc	es are where	drilling is		
		more widely sp required for an	aced (up to individual b	80m x 80m), with block estimate.	a minimum d	of two holes	being		







	Section 3 Estimating and Reporting of Mineral Resources								
Criteria	Commentary								
Discussion of relative accuracy / confidence	 The estimation within lithology and fault domains and the use of local varying anisotropy (LVA) is valid to accommodate changes in local dip through the deposit. 								
	 Estimates in the deeper primary copper mineralisation will not be as locally accurate when compared to the shallower oxide and TMO areas. This is due to wider spaced drilling. However, the geological and grade interpretations are robust due to a high level of understanding of geological controls. The level of uncertainty is captured by the Indicated / Inferred Mineral Resource category. 								
	 Due to complexity of the weathering profile, it was decided to use an Indicator Kriging approach based on the ratio of acid soluble copper to total copper grade. The weathering was defined into three cut-off ratio grades; oxide is defined at above 0.8, primary is defined below 0.2, and TMO is defined between 0.2 and 0.8. A high variance of ratios in the TMO could potentially over-smooth the estimate. 								
	 The method of assigning bulk density values is undergoing review. Direct estimation of dry bulk density values needs to be evaluated where adequate bulk density data is available. 								



5.2.3 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Mineral Resource statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

5.2.3.1 Competent Person Statement

I, Mark Burdett, confirm that I am the Competent Person for the Kinsevere Mineral Resource section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member of The Australasian Institute of Mining and Metallurgy.
- I am a full-time employee of MMG Limited.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Kinsevere Mineral Resource section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in the supporting documentation relating to the Kinsevere Mineral Resources.

5.2.3.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Kinsevere Mineral Resources - I consent to the release of the 2024 Mineral Resources and Ore Reserves Statement as at 30 June 2024 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author' s approval. Any other use is not authorised.

Mark Burdett, BSc Hons (Geology), MAusIMM CP (Geo) #224519

Date:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author' s approval. Any other use is not authorised.

Signature of Witness:

Witness Name and Residents: (eg, town/suburb)

Dean Basile (Melbourne, Australia)



5.3 Ore Reserves - Kinsevere

5.3.1 Results

Kinggyorg Org Degeryo

The 2024 Kinsevere Ore Reserves is based on the 2024 Mineral Resources model as described in Sections 1, 2 and 3 above.

The 2024 Kinsevere Ore Reserves are summarised in Table 13.

Table 13: Kinsevere Ore Reserves tonnage and grade (as at 30 June 2024)

KIIISEVELE ÜLE RE										
						Contained Metal				
Oxide/TMO Copper	Tonnes (Mt)	Copper (% Cu)	Copper (AS % Cu)	Cobalt (% Co)	Copper ('000) t	Copper AS ('000) t	Cobalt ('000) t			
Proved	1.2	2.6	1.7	0.12	31	21	1.5			
Probable	4.0	2.2	1.5	0.10	89	58	4.1			
Total	5.2	2.3	1.5	0.11	120	78	5.6			
Primary Copper										
Proved	1.3	2.1	0.16	0.15	27	2	1.9			
Probable	13	2.3	0.13	0.09	310	18	12			
Total	15	2.3	0.14	0.10	330	20	14			
Stockpiles										
Proved ¹	-	-	-	-	-	-	-			
Probable ²	19	1.6	0.74	0.06	290	140	11			
Total	19	1.6	0.74	0.06	290	140	11			
Kinsevere Copper Total	38	1.9	0.61	0.08	750	240	30			

Figures are rounded according to the JORC code guidelines and may show apparent addition errors. Contained metal does not imply recoverable metal.

¹Without Cobalt

²With Cobalt

Cut-off grades and Cut-off values were calculated at a US\$4.08/lb copper price and \$21.28/lb Cobalt. They are based on a Net Value Script considering the following:

- Gangue acid consumption
- Oxide Flotation Recovery
- Sulphide Flotation Recovery
- Roaster Recovery for Copper and Cobalt
- Cobalt Solution Recovery
- Cobalt Hydroxide Payables
- Oxide Leach Recovery

The cut-off grades for Kinsevere in-situ material are approximately 0.76% CuAS and 0.09% Co for Oxide, 0.95% CuT and 0.10% Co for Mixed Ore, 1.13% CuT and 0.08% Co for Primary Material. The existing stockpiles at Kinsevere's cut-off grades are 0.75% CuAS and 0.09% CuT for oxides, 0.95% CuT and 0.10% Co for Mixed Ore and 1.13% CuT and 0.08% Co for Primary material.

The main differences from the 2023 Ore Reserves are:

- Adopted copper price increased to US\$4.08/Ib from US\$3.92/Ib in 2024.
- Adopted cobalt price decreased to US\$21.28/lb from US\$23.37/lb in 2024.
- Mine and stockpile depletion.
- Dilution is modelled using the Mine Shape Optimiser concept (MSO) to simulate planned dilution and mining recovery. This results in an 11% dilution and 6% planned ore loss.
- Additional factors are applied to estimate unplanned dilution and unplanned ore loss. The factor applied for the current reserves are 5% unplanned dilution and 5% ore loss.
 - Projected cash flows from Ore Reserves do not consider any existing (30 June 2024) rehabilitation liability.



5.3.2 Ore Reserves JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 14 complies with the 2012 JORC Code requirements specified by "Table-1 Section 4" of the Code. Each of the items in this table has been summarised as the basis for the assessment of overall Ore Reserves risk in the table below, with each of the risks related to confidence and/or accuracy of the various inputs into the Ore Reserves qualitatively assessed.

Section 4 Estimation and Reporting of Ore Reserves							
Criteria	Commentary						
Mineral	 The Mineral Resources are reported inclusive of the Ore Reserves. 						
Resource	The Ore Reserves include Mineral Resources on stockpiles.						
conversion to Ore Reserves	 The Mineral Resources block model named "KIN_GMR_2024_V1.bmf" and dated 09-04-2024 has been used for the Ore Reserve estimation. 						
	 Mine Shape Optimiser (MSO) software is used to simulate planned dilution and ore loss. This results in an 6% dilution and 11% ore loss. 						
	• To estimate unplanned dilution and ore loss, additional factors established from previous studies are applied to the MSO model. This results in a further 5% unplanned dilution and 5% ore loss.						
	 Mineral Resources estimates are based on Ordinary Kriging interpolation which has been applied for the estimation of all elements. The block model has a parent block size of 10m x 20m x 5m (X, Y, Z) with sub-blocking down to 2.5m in the X, Y and Z. 						
	 All existing stockpiles have been included in the Mineral Resources and Ore Reserves tonnes and grade estimates. These are reported as Indicated Resources. 						
Site visits	• The Competent Person is a current employee of MMG and is based at the Kinsevere Mine Site. Several interactions and discussions go on with relevant people associated with Ore Reserves modifying factors, including geology, grade control, mine-to-mill reconciliation, mine dilution and mining recovery, geotechnical parameters, mine planning, mining operations, metallurgy, tailings and waste storage, and environmental and social disciplines.						
Study status	 The current mine and processing plant configuration has been in operation since September 2011. Ore Reserves are based on a combination of actual historical performance and cost data, lab test work and metallurgical simulation. This data has been adapted to projected Asset Business Planning, incorporating the Kinsevere Expansion Project (KEP), which incorporates the feasibility study of the sulphide processing plant. Reserve Estimates were produced as part of the MMG planning cycle. This 						
	Estimate informs the Ore Reserves – it demonstrates it is technically achievable and economically viable, while incorporating material Modifying Factors.						
Cut-off parameters	 Breakeven cut-off grades (COG) were calculated at a US\$4.08/lb copper price, \$21.28/lb Co considering all known Copper and Cobalt mineral species. The following COGs have been used for the Ore Reserve estimation: 						
	- 0.76% CUAS IOF OXIGES						
	= 0.85% Cut for transitional waterial $= 113% Cut for Primary material$						

 Table 14: JORC 2012 Code Table 1 Assessment and Reporting Criteria for Kinsevere Ore Reserves 2023



Section 4 Estimation and Reporting of Ore Reserves							
Criteria	Commentary						
	 The ex-pit COG estimates are based on a Net Value Script that flags all material above the calculated processing cost as economically viable ore. These calculations incorporate commodity price assumptions, recoveries and estimated payables, and costs associated with current and projected operating conditions. For the cost assumptions please see the "Costs" section. For the price assumptions, please see the "Revenue factors" section. 						
Mining factors or assumptions	 The method for Ore Reserves estimation included: dilution of resource model, pit optimisation, pit shell selection, final pit and phase designs, consideration of mine and mill schedules, all identified modifying factors and economic valuation. Kinsevere mine is an open pit operation that is mining and processing oxide copper ore. The mine has recently completed the mechanical components of the sulphide plant and are currently undergoing commissioning tests to start treating mixed and primary ore. The operation uses a contract mining fleet of excavators and both rigid body and articulated dump trucks along with a fleet of ancillary equipment. This mining method is appropriate for the style and size of the mineralisation. The pit optimisation was based on a diluted model based on the 2024 Mineral Resources block model, and the strategy for the final pit selection was based on a revenue factor 1. The RF 1 pit shell was used to best estimate and "waste strip efficient" final pit shell, considering cutback mining, and appropriate discounting of revenues and costs. Final pit designs incorporating further practical mining considerations, such as minimum mining width, were carried out using these optimisation shells. Mine Shape Optimiser (MSO) software is used to simulate planned dilution and ore loss. The shapes used for the Kinsevere Ore body are 20m x (Min10m) x 5, and this results in a 6% dilution and ore loss. To estimate unplanned dilution and ore loss, additional factors established from previous studies are applied to the MSO model. This results in a further 5% unplanned dilution and 5% ore loss. Minimum mining width (bench size) is typically more than 45m but is ~35m in some isolated areas during stage development. No Inferred Mineral Resources material has been included in the Ore Reserve reporting. All required infrastructure is in place for processing Oxide Copper bearing minerals. In addition, all infrastructure required for p						



Section 4 Estimation and Reporting of Ore Reserves										
Criteria	Commentary									
	Donain	Weathering Code	BFA (Max °)	Bench Height)m)	Bench Width (m)	IRA (°)	Stack Height (m)	Geotech Berm (m)		
		Completely Weathered (w4)	50	10	6	35	-	-		
	All	Highly Weathered DIP West (W3)	45	10	9.5	27	30	15		
		Highly Weathered Other (W3)	50	10	9	30	30	15		
	RAT_HBX	Moderately Weathered (W2)	70	10	7.25	50	90	17.5		
	-	Slightly Weathered to Fresh (W1, W0)	80	10, 15*	13.25	50	120	26		
	RAT_RSL	Slightly Weathered to Eroch (W1, W0)	70 00	10 15*	12 25	50	90	17.5		
	-	Moderately Weathered (W2)	70	10, 15	7 25	50	90	17.5		
	CDOL	Slightly Weathered to Fresh (W1, W0)	80	10. 15*	13.25	50	120	26		
		Moderately Weathered (W2)	70	10	9.5	45	90	17.5		
	KMS	Slightly Weathered to Fresh (W1, W0)	80	10, 15*	13.25	50	120	26		
		Moderately Weathered (W2)	70	10	7.25	50	90	17.5		
	DIP	Slightly Weathered to Fresh (W1, W0)	80	10, 15*	13.25	50	120	26		
	* At trial st	age					+			
	 A 15m bench trial was commenced in 2024 for the Stage 6 design and till date, has been implemented successfully. On completion of the trial, it is expected to implement the 15m design across future designs for W2, W1 and W0 weathering classes which will deliver increased rockfall protection as well as reduced waste stripping and overall load and haul costs. 2024 guidelines remain unchanged for the Kinsevere Hill pit, which consider observed performance of the current exposures. Inter-ramp and overall slope design criteria have been in place since 2019 from High to Medium Consequence of Failure while further water and blast control measures are implemented i.e. inter ramp and overall slope factors of safety from limit equilibrium analysis are in excess of 1.2 and 1.3, respectively. This factor of safety was decreased from 1.3 and 1.2 in 2020, as water and blast control measures were implemented. The design sectors highlighted in the table above can be seen in the figure below: 									
Motallurgiaal	- T K a	bese guidelines consi insevere and potentia nd overall slope scale	der obs at Kins	KMS RSL RSL Served per e modes th severe.	HBX HBX formance of at could of	of the ccur a	current ext t bench, in	posures at ter-ramp		
Metallurgical factors or	KINSEVE	ere Acia Leach Proce	<mark>SS</mark> oon in <i>i</i>	noration f	or over a d	امدعط	- The ovid	sting		
assumptions	- meta	allurgical process is a	hvdrom	petallurnica	al nrocess i	nyolvi	ing grinding	n tank		



Section 4 Estimation and Reporting of Ore Reserves								
Criteria	Commentar	Commentary						
	 leaching, counter-current decantation (CCD) washing, solvent extraction and electrowinning. This extraction setup supports the Oxide bearing Cupper material. The acid leach process has been operating successfully since start-up in Operational Sectors and Sectors a							
	 September 2011. Copper recovery is determined by the equation: 							
	$(0.963 \times CuAS)$							
	$Cu_{recovery (\%)} = \frac{(cover v duile)}{CuT}$ where CuAS refers to the acid soluble copper content of the ore which is determined according to a standard test and CuT is the total digest of copper. The CuAS value has historically been around 80 to 90% of the total copper value though the exact percentage varies with the ore type. Much of the non-acid soluble copper is present in sulphides which are not effectively leached in the tank leaching stage.							
	month. T	he following ta	able summarizes the outco	omes for the last eig	ght quarters.			
		Period	Recovery of Acid Solu	ble Copper (%)				
			Predicted	Actual				
		Q3 2023	96.3	97.0				
		Q4 2023	96.3	96.9				
		Q1 2024	96.3	96.1				
		Q2 2024	96.3	96.3				
	 The main deleterious components of the ore are carbonaceous (black) shales, which increase solution losses in the washing circuit, and dolomite, which increases acid consumption in the leaching process. The effect of black shale is currently controlled by blending, which limits the percentage of this component in the feed to less than 35. Further studies are underway to ascertain how this can be increased with minimal effect on the current metallurgical recoveries. 							
	 Total gan 	gue acid cons	umption has been estimate	ed based on the fol	llowing			
	 To prever acid cons 	GAC (kg/t) = 3 nt process issu umption does	ues, ore feed to the mill is I not exceed operating limit	/Ig + 2.8. blended to ensure t ts.	he gangue			
	 For Ore Reserves, an Oxide processing capacity of approximately 2.4Mtpa of ore (Maximum of 2.3 Mtpa when the Sulphide plant is operating) and an electrowinning capacity of 80ktpa of copper cathode has been assumed. Both mill throughput and cathode production rates have been demonstrated as sustainable. 							
	 Cobalt is October 2 part of the 	produced as a 2023 after suc e Kinsevere Ex	by-product at the Kinseve cessfully commissioning th pansion Project (KEP).	ere mine. This was he cobalt plant, whi	achieved in ich forms			
	 Acid will k Gas Clear 	be produced a ning and Acid	s a by-product after comm (RGA) plant later this year.	nissioning the Roas	ter Circuit,			







Section 4 Estimation and Reporting of Ore Reserves						
Criteria	Commentary					
	Recovery Description Unit Comment					
	Sulphide Circuit Flot Copper Recovery % Calc >10% ASCu/Tcu; the recovery = 96 - 94 * ASCu/TCU (Ratio<0.4 / 0.2 - plan / target)					
	Sulphide Circuit Flot Cobalt Recovery % Calc >10% ASCu/Tcu; the recovery = 96 - 94 * ASCu/TCU - 2% (Ratio<0.4 / 0.2 - plan / target)					
	Oxide Circuit Flotation Copper Recovery % Calc 72% * (CuT - ASCu) (Ratio<0.4 / 0.2 - plan / target)					
	Oxide Circuit Flotation Cobalt Recovery % 30% (Ratio<0.4 / 0.2 - plan / target)					
	Leach Copper Recovery % 98 Less Soluble Losses (Includes Recovery Losses)					
	(Oxide Feed) Leach Cobalt Recovery % 35 (70% Cobalt / Oxide only - i.e. 12 months prior to commissioning of the Sulphide plant)					
	Roaster Recovery - Cu Conversion%95Roaster Recovery - Co Conversion%92.5					
	 Sulphide recovery curves are supported by test work samples greater than 0.7% CuT; these curves are extended below 0.7% to cover the entire range of sulphide copper values within the sulphide Resource mineralised shells (0.3% CuT). Given that the predominant mineralisation for the sulphide ore is chalcopyrite, this recovery curve is expected to reasonably estimate recovery for all grades estimated within the shell. A campaign has been initiated to obtain metallurgical samples to further support this recovery curve, specifically in the aforementioned lower grade range (i.e. 0.3% to 0.7% CuT). 					
	 Cobalt sulphide recovery is fully supported by test work samples across the considered range. 					
	• There is the potential for plant misallocations. Due to this, continuous monitoring of CuAS: CuT ratios are paramount to ensure that oxide material does not report and eventually go through the Sulphide plant, as these materials will be lost to the tailings. Targets are as below:					
	 Sulphide Circuit where the Ratio CuAS / Cu < 0.2 					
	 Oxide Circuit where the Ratio CuAS / Cu >= 0.2 					
Environmental	 Geochemical analysis of mine waste material over a period greater than 2 years (2017 onwards) has been reviewed to confirm the classification of Potential Acid Forming (PAF) material. Non Potential Acid forming waste (NAF) is preserved fo construction and rehabilitation requirements. An assessment for 2024 is expected to commence in Q4 2024 to update the analysis. 					
	 Surface water management plans for the short and medium term have been completed and are progressively being implemented. Maintenance of infrastructure will continue throughout the 2024 dry season. 					
	 The existing tailings storage facility (TSF 2 and TSF 3) has a design capacity to meet the 2024 Ore Reserve requirements. The TSF 2 RL is projected to be at approx. 1297.6mRL by Q4 2024 with a maximum height at the north side (41m). TSF 3 projected RL will be approx. 1,244.6mRL. An additional facility (TSF4) is currently being investigated as a value optimization opportunity. It is currently at the PFS stage. 					
Infrastructure	The Kinsevere mine site is well established with the following infrastructure in place:					
	 The Oxide processing plant is operational. 					
	 The Cobalt plant was commissioned in Q4 2023 					
1						



Section 4 Estimation and Reporting of Ore Reserves				
Criteria	Commentary			
	 Labour is mostly sourced from Lubumbashi and surrounding villages with some expatriate support. There is an existing accommodation facility onsite. 			
	 There is sufficient water for the processing. 			
	 Copper cathode and Cobalt hydroxide are transported off-site by trucks. 			
	 The site has an access road that is partially sealed. 			
	 There is power supply from the national grid and onsite generators. 			
	 The Ore Reserves do not require any additional land for expansion. 			
	 Tailings Storage Facility in place and future lifts are planned for. 			
	 Grid power in country can be intermittent; mitigation management is through diesel-based power generation. Future grid power availability is forecast to improve. 			
	 Timely dewatering of the mining areas continues to be an important aspect of mining operations. 			
	Kinsevere Expansion Project (KEP)			
	Tailings storage facility (sulphide tailings), including tailings and decant pipelines			
	 Reagents storage and utilities, power, water, air, sewerage, etc., have all been designed and are being re-established. 			
	 Operational buildings and services relocations. 			
	 Roads and drainage upgrades. 			
Costs	 Kinsevere is an operating mine, and historical costs have been used to inform the 2024 Kinsevere Budget (January 2024 to December 2024), except for the contract mining costs and the Sulphide processing plant costs. 			
	• Mining costs are based on existing contract mining costs, tendered in 2021.			
	 The sulphide processing plant costs are based on the most recent feasibility study (KEP), consisting of independent estimates from two engineering houses. Construction activities are underway, and the most recent expenditure forecasts for the Sulphide Plant construction have been included in the Valuation process. 			
	 Transportation charges used in the valuation are based on the actual invoice costs that MMG are charged by the commodity trading company per an existing agreement. 			
	 Royalties charges have been considered, approximating 6% of the copper revenue and 12.5% of the cobalt revenue (\$/Ib). 			
	 The processing costs include calculated gangue acid consumption. 			
	 The final product contains no deleterious elements. 			
	 US dollars have been used; thus, no exchange rates have been applied. 			
	 Weathering profiles have been used to model in-pit blasting costs. 			
	 Since the final Copper product is copper cathode (Grade A non-LME registered) there are no additional treatment, refining or similar charges. The final product for Cobalt is Cobalt Hydroxide; payability, transport, export duty, customs clearance, agency fees and freight have been estimated and incorporated. 			
	 Sustaining capital costs have been included in the pit optimisation. The sustaining capital costs are mainly related to the tailings storage facility lift construction and the process plant(s). The inclusion or exclusion of these costs in the Ore Reserves estimation is based on accepted industry practice. These 			



Section 4 Estimation and Reporting of Ore Reserves				
Criteria	Commentary			
	costs are derived from the approved Strategic Life of Mine Plan to simulate the look ahead costs.			
	 A cash flow model was produced based on the mine and processing schedule and the aforementioned costs. 			
	 The Ore Reserve estimation has been based on the aforementioned costs. 			
Revenue factors	 For cost assumptions, see the section above – "Costs" 			
	 The assumed long-term copper and cobalt prices are US\$4.08/lb and US\$21.28/lb, respectively. These prices inform the cut-off grade parameters (see cut-off section above). These prices are provided by MMG corporate and approved by the MMG Board. They are based on the consensus of the external company broker and internal MMG analysis. 			
	 The current practice is to process Black Shale material at a maximum blend of 35% of the total feed. Internal studies are currently in progress; they identify opportunities whereby black shale is proposed to be increased in the total feed. 			
Market assessment	 MMG considers that the outlook for the copper and cobalt prices over the medium and longer term is positive, supported by further steady demand growth. 			
	 Global copper consumption growth will continue to be underpinned by rising consumption in China and the developing countries in Asia as these nations invest in infrastructure such as power grids, commercial and residential property, motor vehicles and transportation networks and consumer appliances such as air conditioners. 			
	 Cobalt has received considerable attention in the past decade or so due to its importance in the rechargeable battery industry, most notably with the increase in the electric vehicle and related industries. 			
	 Global copper and cobalt demand will also rise as efforts are made to reduce greenhouse gas emissions through increased adoption of renewable energy sources for electricity generation and electric vehicles for transportation. 			
	 Supply growth is expected to be constrained by a lack of new mine projects ready for development and the requirement for significant investment to maintain existing production levels at some operations. 			
	 There is a life of mine off-take agreement with a trading company in place for all Kinsevere's copper cathode production. The off-take arrangement has been in place since the commencement of cathode production at site and has operated effectively. There is no reason to expect any change to this in future. Cobalt Hydroxide sales will be conducted by the MMG Sales and Marketing team. 			
Economic	 The costs are based on historic actuals and estimated Sulphide Plant feasibility study operating costs, with adjustments to reflect the current economic parameters, the 2024 Kinsevere Mid Year Forecast (MYF) and tendered contractor mining costs. 			
	 Revenues are based on forecasted Cu cathode and Co hydroxide to be produced and sold. Copper and Cobalt prices are based on MMG's Corporate Economic Assumptions long-term pricing forecast of \$4.08/lb Copper and \$21.28/lb Cobalt. 			
	 Other non-production costs are based on historic rates adjusted for current economic parameters and MYF pricing assumptions. 			



Section 4 Estimation and Reporting of Ore Reserves				
Criteria	Criteria Commentary			
	 The Ore Reserves financial model demonstrates the mine has a positive NPV (US\$465.6M) 			
	• The discount rate is in line with MMG's Corporate Economic Assumptions and is considered to be appropriate for the location, type and style of operation.			
	 Standard sensitivity analyses were undertaken for the Ore Reserve work and support that the Ore Reserve estimate is robust. 			
Social	 Social and Security teams are working together to mitigate security threats resulting from theft and other illegal activities by engaging the community to raise awareness of issues and garner support, improving security at the site. 			
	• There were some incursions during 2023. Officials continue to be engaged in the management of artisanal miners from the region and site. Improved security management has been implemented in response to incursions.			
	• The Social Development and security teams, authorities, local NGOs and community chiefs continue to engage to address the issue of children entering the site and training programs are run through the schools to educate children on the dangers and risks they could be exposed to.			
	• The Social Development team continue to engage with Community leaders and government representatives regarding the MMG Social Development Plan and governance and project implementation by the Cahier de' Charges to better direct the funds to those in community needs.			
Other	 MMG has a Contrat d'Amodiation (Lease Agreement) with Gécamines to mine and process ore from the Kinsevere Project until 2039. 			
	• The PE 528 permit covers the three major deposits of Tshifufiamashi, Tshifufia and Kinsevere Hill/Kilongo.			
	• A Contrat d'Amodiation is provided for under the DRC Mining Code, enacted by law No 007/2002 of July 11, 2002.			
	• A conversion of the adjacent PR7274 to an exploitation permit was completed in 2018. Tenement amalgamation (of PE528 and PE7274) was completed in 2019, with PE7274 incorporated into PE528.			
Classification	 The Ore Reserves classification is based on the JORC 2012 Code. The basis for the classification was the Mineral Resources classification and calculated cut-off grades using the approved strike prices for Cu and Co. The ex-pit material is classified as Measured and Indicated Mineral Resources and have grades greater than the calculated COG. It is demonstrated to be economical to process and is classified as Proved and Probable Ore Reserves, respectively. 			
	 Existing stockpile material at Kinsevere is classified as Indicated. Existing stockpiles with confidence in Co grades have been isolated from stockpiles with low confidence in Co grades. These have been reported separately to clearly define its confidence. Indicated Mineral Resources with COG greater than 0.75% CuAS for oxide, 0.95% CuT for Transitional material and 1.13% CuT for Primary are demonstrated to be economical to process and are classified as Probable Ore Reserves. 			
	The Ore Reserves do not include any Inferred Mineral Resources (metal).			
Audit or Reviews	• An external audit was completed in 2020 on the 2020 feasibility study. The work was carried out by AMC Consultants and subsequently by Nerin Institute of			



Section 4 Estimation and Reporting of Ore Reserves				
Criteria	Commentary			
	Technical Design. Whilst some minor improvements were suggested, no material issues were identified.			
	 An external Ore Reserves audit has been conducted on the 2023 Ore Reserves. The result of the audit did not identify any fatal flaw in the estimation process. However, suggestions for improvement were recommended, and these will be implemented fully in the next cycle of Ore Reserve estimation. 			
Discussion of	The most significant factors affecting confidence in the Ore Reserves are:			
relative accuracy/ confidence	 Mining Dilution and Ore Loss. 			
	 Existence of Karst features, with respect to perched water and impacts to mining Dilution and Ore Loss. 			
	 Increase in operating costs for mining and processing. 			
	 Geotechnical risk related to slope stability. 			
	 Effective management of both ground and surface water. 			
	 The ability to increase the proportion of Black shale material in the plant feed, without negatively impacting the Plant Performance. 			
	 Ability to blend oxide and mixed ore to achieve maximum throughput and recoveries. 			



5.3.3 Expert Input Table

Several persons have contributed key inputs to the Ore Reserves determination. These are listed below in Table 15.

In compiling the Ore Reserves the Competent Person has reviewed the supplied information for reasonableness but has relied on this advice and information to be correct.

Table 15: Contributing experts – Kinsevere Mine Ore Reserves

EXPERT PERSON / COMPANY	AREA OF EXPERTISE
Mark Burdett, Principal Resource Geologist, MMG Ltd (Melbourne)	Mineral Resource Estimation Resource Block Models Production Reconciliations Stockpile Tonnes and Grade
Andrew Goulsbra, Head of Metallurgy, MMG Ltd (Melbourne) Jean Bilali, Processing Manager, MMG Kinsevere SARL (Lubumbashi)	Metallurgical and Processing Parameters
Dr. Jeff Price, Head of Geotechnical Engineering, MMG Ltd (Melbourne) Ebenezer Conduah, Specialist Geotechnical Engineer, MMG Kinsevere SARL (Lubumbashi)	Geotechnical parameters
Dean Basil – Principal Mining Engineer, Mining One PTY	Cut-off Grade Calculations Block Model Dilution
Papa K. A. Empeh, Manager - Mine Technical Services, MMG Kinsevere SARL (Lubumbashi) Obed Kofi Addo, Senior Long Term Planning Engineer, MMG Kinsevere SARL (Lubumbashi)	Whittle Optimisations Pit Designs Mine and Mill Schedules
Gerard Venter, Tailings and Water Manager, MMG Kinsevere SARL (Lubumbashi) Knight Piésold	Tailings Dam Design and Capacity
Ben Qian, Deputy General Manager Commercial, MMG Kinsevere SARL (Lubumbashi) Jason Duffin, Business Evaluations and Business Improvement Superintendent, MMG Kinsevere SARL (Lubumbashi)	Economic Assumptions and Evaluation
Charles Kyona, Stakeholder Relations Manager, MMG Kinsevere SARL (Lubumbashi)	Environment and Social
Hong Yu, Head of Marketing, MMG Ltd (Beijing)	Marketing



5.3.4 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Ore Reserve statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

5.3.4.1 Competent Person Statement

I, Papa K. A. Empeh, confirm that I am the Competent Person for the Kinsevere Ore Reserves section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member of The Australasian Institute of Mining and Metallurgy
- I have reviewed the relevant Kinsevere Ore Reserves section of this Report to which this Consent Statement applies.

I am a full-time employee of MMG Kinsevere SARL.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Kinsevere Ore Reserves section of this Report is based on and fairly and accurately reflects in the form and context in which it appears the information in my supporting documentation relating to the Kinsevere Ore Reserves.

5.3.4.2 Competent Person Consent

Pursuant to the requirements of Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Kinsevere Ore Reserves – I consent to the release of the 2024 Mineral Resources and Ore Reserves Statement as at 30 June 2024 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Papa K. A. Empeh BSc (Hons) Mining Engineering, MSc Minerals Economics, MAusIMM(CP) (#226250)

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Signature of Witness:

Date:

Patrick Nkulu. (Lubumbashi, Democratic Republic of Congo)

Witness Name and Residents: (eg, town/suburb)



6. Dugald River Mine

6.1 Introduction and Setting

The Dugald River mine is located in northwest Queensland approximately 65km northwest of Cloncurry and approximately 85km northeast of Mount Isa (Figure 6-1). It is approximately 11km (by the existing access road) from the Burke Developmental Road, which runs from Cloncurry to Normanton. It is an underground zinc-lead-silver deposit and wholly owned by a subsidiary of MMG Limited.

Dugald River Mine commenced commercial production in August 2018 and has been in continuous production since.



Figure 6-1: Dugald River project location


6.2 Mineral Resources – Dugald River

6.2.1 Results

The 2024 Dugald River Mineral Resources are summarised in Table 16. The Mineral Resource has been depleted to account for mining of ore by way of underground development of ore drives and stope production. The 2024 Mineral Resource has been reported above an A\$181/t NSR *(net smelter return)* cut-off.

Dugald River Mineral Resource											
2024								Con	tained Me	etal	
	Tonnes (Mt)	Copper (% Cu)	Zinc (% Zn)	Lead (% Pb)	Silver (g/t Ag)	Gold (g/t Au)	Copper ('000)	Zinc ('000)	Lead ('000)	Silver (Moz)	Gold (MoZ)
Primary Zinc ¹											
Measured	16		12.9	1.9	52			2,100	310	27	
Indicated	10		12.1	1.4	16			1,300	150	5.4	
Inferred	39		11.5	1.4	4.9			4,500	550	6.1	
Total	66		12.0	1.5	18			7,900	1,000	39	
Stockpiles											
Measured	0.08		11.4	2.5	86			8.9	2.0	0.22	
Total	0.08		11.4	2.5	86			8.9	2.0	0.22	
Total Primary Zinc	66		12.0	1.5	18			7,900	1,000	39	
Primary Copper ²											
Inferred	4.3	1.5				0.23	67				0.03
Total	4.3	1.5				0.23	67				0.03
Dugald River Tot	tal						67	7,900	1,000	39	0.03

Table 16: Dugald River Mineral Resource tonnage and grade (as at 30 June 2024)

Notes

1. \$181/t NSR Cut-off, in-situ (less depletion and oxide material)

2. 1% Cu Cut-off, in-situ (less depletion and oxide material)

3. Figures are rounded according to JORC Code guidelines and may show apparent addition errors.

4. Contained metal does not imply recoverable metal

Key changes include:

- Addition of 141,840.6 m of drilling (565 drillholes) to the MR estimation dataset. A new footwall splay has been defined at 14000 mN and significant tonnage has been added as Inferred material at depth.
- Updates to lithology and mineralisation domains to accommodate additional data collected since the 2023 Mineral Resource. In particular, review of the internal waste threshold resulted in an increase from 4% to 6% Zn as the domain threshold.
- Revision of the trend surfaces that control the search orientation used in sample selection for block grade estimates.



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6.2.2 Mineral Resources JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 17 complies with the 2012 JORC Code requirements specified by "Table-1 Section 1-3" of the Code.

Table 17: JORC 2012 Code Table 1 Assessment and Reporting Criteria for Dugald River Mineral Resource 2024

			Sectio	on 1 Samplir	ng Techniqu	ues and Da	ata
Criteria	Co	ommenta	ry				
Sampling techniques	•	Diamono the samp geologic mineralis sampled Less tha drilling te and gene Approxin The table Mineral F	d drilling (oles colle al contac sation. Th either as n 5% of t echnique erally fror nately 28 e below s Resource	DD) method cted to defi its with aver e DD core, of whole core he assay da s, although t n regions ou % of the tot shows samp (MR) by dri	Is of varying ne the mine rage sample dependent e, or cut into taset was s this was mo utside of the al drilled me les collecte Il type, drillh	g hole diar eralisation. e lengths b on core siz $0^{3/4}$, $1/2$, or campled us ostly confir e mineralis eters were d at Duga nole size a	meter sizes comprise most of DD core was sampled to being 1 m through the ze and type of drilling, was ¼ using a diamond core saw. sing reverse circulation (RC) ned to pre-collar surface drilling sed zone. e sampled. Id River for use in the 2024 nd sample type.
1		Drill Type	Hole Size	Sample Type	Metres	% of Total	
				Whole Core	254.80	0.11%	
			PQ	Pulp	230.16	0.10%	
			PO3	1/2 Core	85.02	0.04%	
				1/4 Core	316.20	0.14%	
				Whole Core	2,132.73	0.94%	
				3/4 Core	396.28	0.17%	
			HQ	Unknown	334.00	0.43%	
				1/4 Core	245.78	0.13%	
		Diamond Core		Pulp	22.00	0.01%	
			HQ2	1/2 Core	5.00	0.00%	
			ПО3	1/2 Core	8,245.54	3.62%	
			пцз	1/4 Core	8.00	0.00%	
			NQ	Whole Core	2,755.60	1.21%	
				1/2 Core	206.20	0.09%	
				Unknown	275.20	0.12%	
				1/4 Core	42.00	0.02%	
				1/2 Core	75 402 25	33.08%	
			NQ2	1/2 Core	85.77	0.04%	
				Pulp	152.20	0.07%	
				Whole Core	6.00	0.00%	
			NQ3	1/2 Core	1,211.57	0.53%	
				Unknown	157.80	0.07%	
			BQ/BQTK	Whole Core	200.06	0.09%	
				1/2 Core	113.65	0.05%	
			LTK60	Whole Core	3,781.89	1.66%	
				Whole Core	2,902.67	0.73%	
			UNK	1/2 Core	443.80	0.19%	
		Total Diamon	d Core		216,990.61	95.19%	
		D	100&150	Chips	1,516.00	0.67%	
		Circulation	5.75in	Chips	1,659.60	0.73%	
			Unknown	Chips	7,791.00	3.42%	
		Total Reverse	Ciurculation		10,966.60	4.81%	
		Total			227,957.21	100.00%	
		Note that estimatio	t this data: n.	set is further	clipped at th	e northern	and southern extents for the grade
Drilling techniques	•	The drill undergro surface.	nole data ound diar	base used f nond drilling	or the 2024 I (DD). A sn	MR consi nall propor	ists primarily of surface and rtion of RC drilling is used from



	Section 1	Sampling Techniqu	es and Data		
Criteria	Commentary				
	 Drillholes used for the present. The MR drill holes drilled from su A summary of the to provided in the table with other listed drill 	he MR have drilling da Ihole dataset contain rface (both RC and D tal database drilled m below. Some histori holes were not incluc	ates after 196 s 4,604 drill D) and 3,967 neters by dril cal holes dril ded in the da	69 and cor holes which 7 from und Ihole type led prior to ta for the	ntinue until ch includes 637 derground (all DD). e and size is o 1969, combined MR due to poor
	sample quality and r	eliability.			
	Drill Type	DD Core/ RC diameter	Total Metres	% of Total	
		PQ	494.26	0.06%	
		PQ3	401.22	0.05%	
		HQ	4,120.13	0.51%	
		HQ2	5.00	0.00%	
		HQ3	8,253.54	1.02%	
	Diamond core	NQ	3,279.00	0.41%	
	Diamonu core	NQ2	189,962.22	23.47%	
		NQ3	1,375.37	0.17%	
		BQ	190.06	0.02%	
		BQTK	123.65	0.02%	
		LTK60	6,684.56	0.83%	
		Unknown and Blank	2,112.90	0.26%	
	Diamond_Core Sub Total		217,001.91	26.81%	
		100	1,392.00	0.17%	
	Reverse Circulation	150	124.00	0.02%	
		5.75	1,659.60	0.21%	
		UNK	7,791.00	0.96%	
	Reverse Circulation Sub Tot	tal	10,966.60	1.36%	
	Not recorded	Unknown and Blank	218,776.30	27.03%	
	Not Recorded Sub Total		218,776.30	27.03%	
		5.75in	134.60	0.02%	
		PQ	3.10	0.00%	
		PQ3	2,280.65	0.28%	
		HG	2,311.80	0.29%	
		HG3	8,843.12	1.09%	
	No Sampling	NQ	/46.50	0.09%	
		NQ2	344,955.60	42.62%	
		NU3	19.75	0.00%	
		BUIK	5/5.22	0.07%	
			2,126.68	0.26%	
	No Sampling Sub Total	UTKHOWH	362 EEE 42	11 90%	
	Total		809 300 23	100.00%	
	Note that this dataset is for estimation.	urther clipped at the no	rthern and sol	uthern exte	ents for the grade
Drill sample recovery	 Recovery recorded of broken / sheared and used in 2017) and PO maximise core recov Rock quality designation database to measure 	during drill core loggin d faulted ground mos Q3. At times, triple tul very, but this is not co ation (RQD) data were e the degree of jointin	ng was 99.85 stly occurring be drilling fro ommon. e logged and ng, fractures	%, with mi g in the LT om surface recorded , or core lo	nor losses in K60 drilling (last has been used to in the geological oss in the sample.



	Section 1 Sampling Techniques and Data
Criteria	Commentary
	 Shearing and broken ground zones are located at the edges of the mineralisation zones and are not associated with locations of good grade intercepts. There is no relationship between core loss and mineralisation or grade – no sample bias has occurred due to core loss within broken/sheared ground.
Logging	 All drill core samples as well as RC pre-collars have been geologically logged (lithology, stratigraphy, weathering, alteration, geotechnical characteristics) to a level that support the MR. The logging captures both qualitative (e.g. rock type, alteration) and quantitative (e.g. mineral percentages (pre-2017)) characteristics. Post 2017 only primary holes have mineral percentages logged outside of sampling zones. Core photographs are available for most drill holes. All drill holes post-2008 have been photographed (wet and dry), and with a higher resolution camera in use from 2016. Representative mineralised core is stored at -4°C in refrigerated containers to minimise oxidation for metallurgical testing. Representative non mineralised core is stored at -4°C.
	 Currently, all drillholes are logged using laptop computers directly into the drillhole database. Logging has occurred in the past onto paper log-sheets and was then transcribed into the drillhole database.
Sub-	Diamond Drill Core Sampling
sampling techniques and sample preparation	 Prior to 2007, various sub-sample techniques and sample preparation techniques were used for DD including whole core sampling, ³/₄ (generally restricted to metallurgical samples) and ¹/₂ and ¹/₄ (for general samples) core, where sample length is nominally 1 m.
	 Since 2007 DD core was halved using a circular diamond saw, with density measurements taken before being sent for analytical testing. Sample lengths were cut as close to 1 m as possible while respecting geological contacts.
	 From 2016 whole NQ core was sent for analysis for any underground in-fill drilling campaigns.
	 Sample lengths average 1 m while still respecting the geological contacts (but can vary from 0.2 m to 1.5 m within the mineralised zone). Intervals were determined according to lithology and visible mineralisation. Sample intervals were taken up to, but not across, lithological contacts, and obvious high-grade zones were sampled separately from lower grade intervals.
	 This method ensured that as much information as possible was collected on the controls of the mineralisation while maintaining the standard sample length of 1 m.
	RC Sampling
	 The sample collection protocol for RC grade control drill holes has typically been as follows:
	 RC samples are collected from a cyclone at 2 m intervals from pre-collar surface drilling.
	 If the sample was dry, the sample was passed through a riffle splitter and collected into a pre-numbered calico bag.
	 Residual material was sampled and sieved for chip trays and the remainder returned to the larger poly-weave bag.



	Section 1 Sampling Techniques and Data
Criteria	Commentary
	 The splitter was cleaned using compressed air or a clean brush and tapped using a rubber mallet.
	 If the sample was wet, then the sample was dried before being split according to the procedure above (for dry samples).
	 Samples from individual drill holes were sent in the same dispatch to the preparation laboratory.
	 Historical RC programmes were designed to test the 'un-mineralised' hanging wall material in DD pre-collars. 2 m bulk composites stored at the drill site were sampled using the spear method.
	 The vast majority of drillhole intersections are orthogonal to the mineralisation and as such are representative.
	Sample Preparation - Coarse Crusher and Pulp Duplicates and Laboratory Repeats
	 The sample preparation of RC chips and DD core adheres to industry good practice.
	 Since 2010, samples were bagged, numbered, and dispatched to ALS Mt Isa laboratory:
	 Prior to 2016, the sample was jaw crushed and 50% split.
	 Since 2016, all samples are jaw crushed, then 100% re-crushed using a Boyd crusher, 70% nominal passing 3.15 mm.
	 The sample is rotary split with 500-800 g subsample which is pulverised to 85% passing 75 μm.
	 All reject material is retained and stored (Coarse – jaw crushed product, collected 2010 to 2016).
	 Pulps are despatched to ALS Brisbane, Townsville, Mt Isa for base metal analysis and to ALS Townsville for gold analysis.
	 For the 2007/2008 drilling campaigns, laboratory sample preparations involved drying, crushing (jaw and Boyd), and pulverising the ½ core sample to 85% passing 75 μm.
	• No detailed information can be found regarding laboratory preparation techniques prior to 2007 and it is assumed prevailing industry standard protocols were followed.
	 Different assay laboratories have been utilised over time and have been summarised in the table below (over 95% of all assays have been processed by ALS laboratories).



Section 1 Sampling Techniques and Data								
Criteria	C	Commentary						
		Date range	Laboratory	Number of samples	% of total]		
		2023	ALS	30,852	13.4	1		
		2022-2023	ALS	27,917	12.1	1		
		2021-2022	ALS	28,709	12.4]		
		2020-2021	ALS	22,749	9.9]		
		2019-2020	ALS	16,803	7.3]		
		2010-2010	ALS	79,828	34.6			
		2010-2019	Genalysis	439	0.2			
		2001-2009	ALS	13,142	5.7			
		2001-2009	Unknown	96	0.04			
			AAL	234	0.1			
			Amdel	4,551	2.0			
			Aminya	224	0.1			
		Prior to 2000	Analabs	1,887	0.8			
			Pilbara	2,175	0.9			
			UNE	7	0.003			
			Unknown	1,323	0.6			
		То	tal	230,936	100			
	•	Prior to 2015, c end of the drill Since 2015, du laboratory alte	duplicate sample ing campaign af plicate samples rnating between	es were selected a ter the routine res have been selecte one taken at the	nd sent to the la ults had been re ed every 20th sa crushing stage a	aboratory at the wiewed. ample by the and the other		
		taken at the puriod to the pur	ulverisation stage. These are then analysed at the same time as the es.					
	•	Analysis of dup in the results e slightly higher significant.	blicate results ag xcept above 24 zinc values than	ainst the original of % zinc where dupl the original howe	data demonstrat icate samples h ver this is not co	tes no major blas ave returned onsidered		
	•	The sample typ considered ap (sediment/shea	bes, nature, qual propriate for the ar hosted base r	lity and sample pre style of the Dugal netal) by the Com	eparation techni Id River minerali petent Person.	ques are sation		
Quality of assay data and laboratory	-	The assaying r digest which is are estimated furnace.	nethods current s used for the an in the Mineral Re	ly applied at Duga alysis of Zn, Pb, A esource. Total cark	ld River are ICP- g, Fe, S, Mn, Cu bon (TotC) is and	MS with a 4-acid , Mo & Co which alysed by Leco		
16313	•	All these analy	ses are consider	red total.				
	E	Base Metals						
	•	Since 2010, the as follows:	e four-acid diges	stion process has	been used by A	LS Brisbane and is		
		– Approximat	ely 0.25g of sam	nple weighed into a	a Teflon test tub	be.		
		– HNO ₃ and F	ICIO4 are added	and digested at 1	15°C for 15 minu	ites.		
		 HF is added 	l and digested a	t 115°C for 5 minut	tes.			



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Comm	enta	ry									
- 1	he t	ubes	are the	en dige	estec	d at 185°	°C for 14	15 to 18	0 minut	es whi	ch takes
C	iges	t to i	ncipien	t dryne	ess (digest is	s not "ba	aked").			
- 5	 50% HCI is added and warmed. 										
— N	1ade	up t	o 12.5m	nl using	g 9.5	5ml 11% l	HCI.				
 The 	table	e bel		imarise	es th f tho	ne analyt	tical me	thod an	d diges [.]	tion us	ed for all
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ME-	digest with an ICP AES read. The routine used from ALS labs for the ORE routine ME-ICP61MG, for exploration work ME-MS61.										
DIGEST						Analy	tical Metho	bd			
Base metal	AA	S	ICP	ICPAES		CPAESMS	ICPMS	ICP-MS	UNK	XRF	TOTAL
4 Acid		2469	4745	2192	258	0	159	0	0	0	226631
Aqua		24	0	40	034	72	0	0	0	0	4130
Regia Aqua		0	0	4(044	0	0	0	0	0	4044
Regia /Perchlor	c										
Mixed Ac	id	88	0		0	0	0	0	0	0	88
Mixed		0	0	3	303	0	0	165	0	0	468
ACIU/HF	、	158	0		0	0	0	0	0	0	158
Perchlori	,										4000
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	Section 1 Sampling Techniques and Data
Criteria	Commentary
	 There are no inherent sampling problems recognised.
	 Measures taken to ensure sample representivity include orientation of the drill holes as close as practical to perpendicular to the known mineralised structure, and the collection and analysis of field duplicates.
	 No geophysical tools, spectrometers or handheld XRF instruments have been used in the analysis of samples external to the ALS laboratory for the estimation of Mineral Resources.
	 These assaying techniques are considered suitable for the Dugald River Mineral Resource.
	Quality Assurance/Quality Control (QA/QC)
	• Externally prepared certified reference materials (CRMs) and blanks are submitted with every batch of samples.
	 The performance of the CRMs and blanks is monitored weekly by the Dugald River Geology team when results are loaded. Assay performance is reviewed through Quarterly and Annual reports.
	 Prior to 2015, duplicate sampling was performed by selecting samples from the returned coarse rejects and resubmitting a subsample to ALS for analysis.
	 Since 2015, duplicates are taken by the laboratory every 20th sample, alternating between a duplicate taken at the primary crushing stage or at the pulverisation stage.
	 Sample batches that return values outside three standard deviations (3SD), or with two successive failures of two standard deviations (2SD) are considered to have failed and all or part of the batch is re-analysed by the laboratory (ALS).
	 Insertion rates for QAQC samples in 2023 were consistent with the MMG QAQC work quality requirement (WQR). CRMs were inserted at a rate of 1:16, and blanks inserted at a rate of 1:21. These insertion rates exceed the WQR requirement because of increased sampling through mineralised zones requiring the insertion of extra CRMs and blanks for assay routines and the insertion of extra quartz flush samples because of drilling through multiple high-grade ore lenses with waste material in between. Pre-2023 QAQC results have been reviewed in previous report and are considered acceptable by the Competent Person.
	Blanks and Duplicate samples
	 Currently one coarse blank standard is used by ALS to monitor the performance of Zn, Pb, and Ag analyses using the ORE routine (ME-ICP61MG), and a separate blank is used for exploration (ME_MS61), where the exploration routine entails lower limits of detection. Results were acceptable during 2023 with discrepancies generally resolved with internal and laboratory QAQC reviews instigated immediately upon discovery.
	 Prior to March 2016, a non-certified blank was submitted from material sourced from site.
	 Laboratory duplicates for Zn-Pb-Ag performed well during 2023. Most duplicate failures that fell outside the acceptable QAQC threshold were those that returned very low values for these elements (i.e., at or near limit of detection) and from within waste units including slate, limestone and metamorphosed calc-silicate lithologies and therefore not of concern.



	Section 1 Sampling Techniques and Data
Criteria	Commentary
	Umpire samples are sent to Intertek Genalysis laboratory in Perth. Check assays are still pending at the time of writing.
	Certified Reference Materials
	 Several CRMs are used for Zn, Pb, Ag, Cu and Au.
	 CRMs generally performed well over the duration of 2023. OREAS-100 series CRMs performed consistently well. Any Zn, Pb or Ag failures were reviewed and reassayed at discovery. Of the other 15 QAQC failures, approximately 90% were Au failures and 50% of those were associated with OREAS 500 series material.
	 The Competent Person considers the assay QAQC performance for the reporting period is acceptable.
Verification of sampling	 Assay results are visually verified against logging and core photos by alternative company personnel.
and assaying	 No planned twinning of drillholes has occurred at Dugald River. However, close- spaced and crossing holes give comparable grade and width results.
	 Core logging data were recorded directly into a database (Micromine Geobank®) by experienced geologists (geological information such as lithology and mineralisation) and field technicians (geotechnical information such as core recovery and RQD).
	Where data were deemed invalid or unverifiable it was excluded from the MRE.
	 No manual adjustments to the assay data have been performed during import into the Micromine Geobank[®] Database.
Location of data points	 Down-hole surveying has been undertaken using various methods including Eastman, Reflex and gyroscopic cameras. In general, a spacing of 30 m down hole between survey readings is used.
	 Measurement interference due to the presence of magnetite and pyrrhotite has been an issue in past drilling programmes.
	 During the 2007/2008 drilling program routine survey checks were undertaken on the reflex survey camera using an aluminium calibration stand positioned in a known orientation.
	 Since 2008 all drill holes are gyroscopically surveyed.
	 North-seeking, true north azimuth tools (set in continuous mode) are now used for all underground drilling surveys since 2018 and are calibrated fortnightly by the drill crew.
	 The grid system used is MGA94 (Pre-2020) and MGA2020 (Post-2020), the conversion to local mine grid is rotated and scaled. The grid transformation is undertaken using a formula provided by the onsite surveyors.
	 A LiDAR survey flown in 2010 is used for topographic control on drillholes collared at surface. Further fixed-wing topographic survey have been flown in 2021 and 2022 to assist with validation of surface drill hole positioning. In the view of the Competent Person the LiDAR survey provides adequate topographic control.
Data spacing and distribution	 Drill spacing varies across the strike and dip of the mineralisation lode. 20m x 15m (horizontal x vertical) while the lowest drill density is greater than 160m x 120m (horizontal x vertical) spacing.
	 Locations drilled at 20m x 15m and up to 40m x 30m are adequate to establish both geological and grade continuity. Wider spaced drilling is adequate for



	Section 1 Sampling Techniques and Data
Criteria	Commentary
	definition of broader geological continuity but not sufficient for accurate grade continuity.
	 Underground mapping of faces is digitised and used in the interpretation and wire-framing process. ADAM Tech photogrammetric data complements the mapping.
	• Drill hole data is concentrated within the upper 700m of the Mineral Resource with broader-spaced drilling at depth, due to the access restraints, mine schedule requirements and costs involved in drilling deeper sections.
	• Drill spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the MRE procedure and classification applied.
	• Samples are not composited prior to being sent to the laboratory for analysis.
Orientation of data in relation to geological	 Geological mapping (both underground and surface) and interpretation show that the mineralisation is striking north south and dips between 85 and 45 degrees towards the west. Drilling is conducted on cast west and west cast directions to interpret
structure	mineralisation across-strike.
	• The orientation of underground drill holes is generally no greater than 40° from orthogonal to the mineralisation. Sometimes drilling must exceed these parameters due to operational and safety constraints but increased drilling density in the area provides improved geological confidence during sampling.
	 Drilling orientation is not considered to have introduced sampling bias. Drill holes that have been drilled down dip and sub-parallel to the mineralisation have been excluded from the estimate.
Sample	 Measures to provide sample security include:
security	 Data entry validation rules to prevent common errors, including duplicate and overlapping sample interval rules, sample length limit rules and unique sample ID rules.
	 Peer reviews of 1 in 5 drillholes.
	 Automatically generated cut sheets.
	 Stored QAQC photos of CRM's and Coarse Blanks against the numbered calico sample bags for every drill hole since 2018.
	 Adequately trained and supervised sampling personnel.
	 Well maintained and ordered sampling sheds.
	 Cut core samples stored in numbered and tied calico sample bags.
	 Calico sample bags transported by courier to assay laboratory.
	 Assay laboratory checks of sample dispatch numbers against submission documents.
	 Database validation rules for loading of returned assay data.
	 Assay data is returned as a .sif file via email and processed via the MMG assay loading software.
Audits or reviews	 The Dugald River database has been housed in various SQL databases. iOGlobal managed the database until the end of 2009 when the database was transferred and migrated to an MMG database using the Micromine Geobank[®] software.



	Section 1 Sampling Techniques and Data					
Criteria	Commentary					
	 Internal audits and checks were performed at this time. Any spurious data were investigated and rectified or flagged and excluded. 					
	• No external independent audits have been performed on the sampling techniques or the database.					
	• Pre-Covid restrictions, both ALS Mount Isa and Brisbane laboratories were audited on an annual basis by MMG personnel. Brisbane ALS laboratories were audited by MMG in Q1 2022. During 2023, the ALS Townsville and ALS Brisbane laboratories were audited by MMG representatives on 20 July 2023 and 21 July 2023 respectively. No issues were reported.					
	Teams meetings between MMG and ALS laboratory management occurs monthly to discuss any issues and concerns.					

	Section 2 Reporting of Exploration Results
Criteria	Commentary
Mineral tenement and land tenure status	 The Dugald River Mining Leases are wholly owned by a subsidiary of MMG Limited. MMG holds one exploration lease (EPM12163 – MMG Australia Ltd) and one mineral development lease (MDL79 -MMG Dugald River Pty Ltd) in addition to the 40 mining leases on which the Dugald River Mineral Resource is located. EPM12163 consists of 3 sub-blocks and covers an area of 20 km² to the west of the Dugald River deposit. ML2479 overlaps the eastern area of the EPM12163. The list of leases includes:
	 ML2467-ML2471 ML2477-ML2482 ML2496-ML2502 ML2556-ML2559 ML2596 ML2599 ML2601 ML2638 ML2684-ML2685 ML7496 ML90047 ML90047 ML90049-ML90051 ML90211-ML90213 ML90218 ML90220 ML90230
	 ML90237 There are no known impediments to operating in the area.
Exploration done by other parties	 The History of the Dugald River zinc-lead deposit is summarised below. Discovered in 1881, the first drilling programme in 1936 comprised three drill holes. The maiden Mineral Resource was reported in 1953 by Zinc



Section 2 Reporting of Exploration Results	
Criteria	Commentary
	Corporation. Drilling continued from 1970 through 1983 totalling 28 drill holes. CRA then re-estimated the Mineral Resource in 1987. Between 1989 and 1992 a further 200 drill holes were drilled, resulting from the discovery of the high- grade, north plunging shoot. Infrastructure, metallurgical and environmental studies were undertaken during this period. Between 1993 and 1996 irregular drilling was focused on the delineation of copper mineralisation in the hanging wall. In 1997 the project was transferred to Pasminco, which had entered a joint venture with CRA in 1990. Recompilation of the database, further delineation drilling, metallurgical test work, and the check assaying of old pulps was completed. Continued drilling between 2000 and 2009 with subsequent metallurgical studies culminated in a Feasibility Study. Structural analysis and a focused review on the northern copper zone in 2010 were completed. In 2011 the decline commenced which resulted in trial stoping. In 2014 some underground development was completed and drilling focused on confirming and extending continuity of the mineralisation within the Dugald River lode.
Geology	 The Dugald River deposit is located within a 3 to 4 km wide north-south trending high-strain domain named the Mt Roseby Corridor (MRC). The MRC has experienced complex polyphase deformation and metamorphism during the Isan Orogeny, which has resulted in widespread alteration and transposition of both stratigraphy and pre-existing structural fabrics. The MRC is comprised of the Mt Roseby Schist Formation that includes the local hanging wall Calc-silicates, Dugald River Slate (DRS) and the Footwall (argillaceous) Limestone. It is bordered to the west by the Knapdale Quartzite and the east by the Mt Rose Bee Fault. The Knapdale Quartzlie forms a prominent range of hills within the local area. The Dugald River Slates, which host the Dugald Lode, are a package of carbonaceous to dolomitic siltstones and schists. The footwall argillaceous limestone shares affinities with the Lady Clayre Dolomite package. The Dugald Lode is hosted within in a north-south shear zone that dips steeply to the west. The lode and its alteration halo transect and crosscut the strike of the slate sequence at a low angle from hangingwall (HW) to footwall (FW). A HW lens splits from the main orebody and anastomoses due to the influence of graphitic shears. Lithological codes used to subdivide the Dugald Lode sequence are based on the primary mineralogy and/or distinguishing features, which are most often a product of alteration. Lithology codes contain built in descriptions of alteration and mineralogy where consistent through the unit. All significant Zn-Pb-Ag mineralisation is restricted to the main lens with the HW and FW lenses being predominantly zinc-lead-silver mineralised. Five main mineralisation textures/types are recognised: sulphide stringer, banded ore, sphalerite-slatey breccia, pyrrhotite-slatey breccia and massive breccia. Generally, these mineralisation textures/types transition gradually between one another. Interpretations from 2019 have shown that the geometry, location



Section 2 Reporting of Exploration Results	
Criteria	Commentary
	 It is recognised that the previously modelled hanging wall and footwall domains are likely to be part of the main lens which anastomoses, splits and merges. All zinc and associated lead-silver mineralisation is governed by this geometry.
	 The mineralogy of the Dugald Lode is typical of a slate-hosted base metal deposit. The main sulphide minerals are sphalerite, pyrite, pyrrhotite and galena, with minor arsenopyrite, chalcopyrite, tetrahedrite, pyrargyrite, marcasite and alabandite.
	 The gangue within the lode is composed of quartz, muscovite, carbonates, K- Feldspar, clays, graphite, carbonaceous matter and minor amounts of calcite, albite, chlorite, rutile, barite, garnet, and fluorite.
	• The mineralised zone extends approximately 2.4 km in strike length and up to 1.4 km down dip, while being open at depth.
	 Further drilling of the hanging wall copper zone since 2019 has led to an interpretation of the copper (and associated cobalt, gold and molybdenum mineralisation) being part of a later mineralising event.
	 A lithology model has been generated using Leapfrog software. The model is updated annually using additional drillhole data but is not directly used for the Mineral Resource.
Drillhole Information	 4,995 drill holes and associated data are held in the database (combination of RC and DD).
	 Drillholes used for the Mineral Resource estimate have drilling dates after 1969 and continue until present. The drillhole database for the MRE contains 4,604 drill holes which includes 637 holes drilled from surface (both RC and DD) and 3,967 from surface and underground (all DD).
	 The Mineral Resource estimate and associated vertical sections and plans provided in this report provide sufficient information to give context to the exploration results. Therefore, a tabulation of each individual hole is not considered material to the understanding of these results.
Data aggregation methods	 This is a Mineral Resource Statement and is not a report on Exploration Results hence no additional information is provided for this section. No metal equivalents were used in the Mineral Resource estimation. However,
	the Mineral Resource has been reported above an A\$181 NSR calculated cut-off.
Relationship between mineralisation widths and intercept lengths	 Mineralisation true widths are captured by three-dimensionally modelled wireframes with drill hole intercept angles ranging from 90° to 40°. The true thickness of the majority of the Mineral Resource is between 3 m and 30 m with the thickest zones occurring to the south of the deposit.



	Section 2 Reporting of Exploration Results
Criteria	Commentary
Diagrams	Image: State of the state
	North section +14980.00 0 125 250 375 500 Schematic cross section a – looking north – showing thickness variations and distribution in
	North Mine.



	Section 2 Reporting of Exploration Results	
Criteria	Commentary	
	Commentary	
	DRM Mafic Porphyry DRM Mineralisation DRM Mineralisation FW1 Splay DRM Mineralisation FW1 DRM Mineralisation FW2 DRM Mineralisation HW 1 DRM Mineralisation HW 2 DRM Mineralisation HW 3 DRM Mineralisation HW 4 DRM Mineralisation HW 5 DRM Mineralisation HW 5 DRM Mineralisation HW 6 DRM Mineralisation HW 7 DRM Mineralisation HW 7	
	North section +13980.00 0 125 250 375 500	
	Schematic cross section b – looking north – showing thickness variations and distribution in South Mine.	







Section 2 Reporting of Exploration Results	
Criteria	Commentary
Other substantive exploration data	 This is a Mineral Resource Statement and is not a report on exploration results hence no additional information is provided for this section.
Further work	 MMG plans to continue to improve geological confidence and Mineral Resource classification through infill drilling programmes ahead of the current mining schedule.

Section 3 Estimation and Reporting of Mineral Resources	
Criteria	Commentary
Database	The following measures are in place to ensure database integrity:
integrity	 All data is stored in an SQL database that is routinely backed up.
	 All logging is digital and directly entered into the onsite Micromine Geobank[®] database. Data integrity is managed by internal Micromine Geobank[®] validation checks/routines that are administered by the Database Group and/or the site Geology Team.
	 The measures described above ensure that transcription or data entry errors are minimised. Data validation procedures include:
	 Database validation procedures are built in the database system to manage accurate data entry during logging and collection of data.
	 Prior to use in the Mineral Resource the drillhole data was checked in Leapfrog software for inconsistencies.
	 Manual checks were carried out by reviewing the drill hole data in plan and section views.
Site visits	 The Competent Person visited site from the 8th to the 10th of March 2024, when a review of geological data capture, storage and validation was conducted.
	 Some minor recommendations were made to improve practices, however overall, the Competent Person concluded that the geological data capture, storage and validation conducted by MMG was aligned with either industry standard or best practice.
Geological interpretation	 The five main types of mineralisation style recognised at Dugald River are sulphide stringer, banded ore, sphalerite-slatey breccia, pyrrhotite-slatey breccia and massive breccia.
	 The mineralisation is interpreted as a continuous lens of zinc (Zn) mineralisation that anastomoses, splits and merges.
	 Globally, the Dugald River deposit follows a reasonably predictable lens of mineralisation but with short-range (10–20 m) variations associated with localised structures that are adequately defined by close-spaced (nominally 20 m × 15 m) drilling within the Measured Mineral Resources.
	 Confidence in the mineralisation continuity was based on the grade distribution of Zn assay data that were cross-referenced with available core photography, photogrammetry, underground mapping of both access and ore development drives, and structural geology wireframes.



Section 3 Estimation and Reporting of Mineral Resources	
Criteria	Commentary
	MMG updated major deposit-scale lithologies to further the understanding of mineralisation relationships. Lithology contacts were modelled from downhole logged geology.
	 The mineralisation interpretations were a collaborative process; compiled by MMG Dugald River geologists with MMG and ERM consultants review to ensure modelling represented observations and understanding of geological and mineralisation controls.
	 Interpretation of all elemental mineralisation domains was undertaken using all available drillholes in Leapfrog[™] Geo software.
	 Domain grade thresholds (cut-offs) for all modelled elements were reviewed for the 2024 MRE.
	Zinc domains
	 Prior to interpretation, raw Zn assays grades were composited in Leapfrog[™] Geo software using the 'Economic Composite' function. Compositing cut-off grade of ≥6% Zn was applied for high-grade and ≥0.5% Zn was applied for low-grade domaining.
	• A total of 31 high-grade and 35 low-grade domains were modelled. Composited mineralisation intercepts were manually selected prior to creating an implicit 'vein model'.
	 The high-grade and low-grade domains in each vein model were combined to create two output domain boundaries: the 'outer' low-grade and the 'inner' higher-grade Zn domains.
	• The high-grade zone broadly defines a continuous horizon of massive and breccia sulphide textures. The low-grade zone defines the surrounding stringer sulphide and shoots of discontinuous massive and breccia sulphide texture mineralisation.
	 For the purposes of geological continuity in the high-grade domains, isolated raw assay intervals were selected in areas which did not meet the high-grade (≥ 6% Zn) compositing criterion.
	 An Indicator numerical modelling approach on a 6% Zn grade threshold was used to create an internal waste (IW) probabilistic model in the combined high-grade domain. The resultant IW domain makes up ~12% of the high-grade domain volume.
	 MMG and ERM consider confidence in the geological interpretation and continuity of the zinc mineralisation is high.











Section 3 Estimation and Reporting of Mineral Resources	
Commentary	
 0.5% for low- and high-grade Cu; and 100 ppm and 500 ppm for low- and high-grade Co. Gold and molybdenum grades were estimated within the copper domains. Two types of Cu mineralisation occur. The first type occurs in the hanging wall of the South Mine area and hanging wall Zn lens position associated with Au, and is locally high in Au and Mo. The second type occurs in the South Mine area between the main lens and hanging wall lens with lower Au but associated with Co which is locally elevated (>1%). 	
 The hanging wall Cu-Au mineralisation occurs primarily as chalcopyrite within the mica schist but can extend into the mafic porphyry and black slate lithologies. Chalcopyrite occurs as disseminated and massive infill textures, and sometimes at the selvedge of large quartz veins. Rare bornite is locally disseminated in the altered mica schist, mafic porphyry and calc-silicate. Cu-Co mineralisation occurs at the margins of pervasive albite alteration that contains disseminated pyrite. The margins of the albite are brecciated with carbonate infill, with trace chalcopyrite and arsenopyrite. The deportment of the Co is unknown but is interpreted to occur in cobaltite, 	
al senopyme and/or cobart-rich pyrite.	
Hand LG Co domains with 10000 Elev 10000	



Section 3 Estimation and Reporting of Mineral Resources		
Criteria	Commentary	
	14100 mN +/- 10m 1	
Dimensions	 The Dugald River lode is hosted within a major N-S striking steeply west dipping shear zone which crosscuts the strike of the Dugald River Slate stratigraphy at a low angle. The strike length of mineralisation is approximately 2,400 m. Dip varies between 85° and 40° to the west. The true thickness of the majority of the Mineral Resource is between 3 m and 30 m with the thickest zones occurring to the south. The mineralisation is open at depth. The deepest drill intersection of mineralised material is about 1140 m below the surface. 	
Estimation	 Mineral Resource modelling was completed using both Supervisor (v8.15) and 	
and modelling techniques	 Datamine (v2.0.66.0) software applying the following key assumptions and parameters: Ordinary Kriging (OK) interpolation has been used for the estimation of Zn, Pb, Ag, Mn, Fe, S, total carbon, Cu, Au, Mo, Co and dry bulk density (DBD). This interpolation methodology is considered appropriate for the estimation of Mineral Resources at Dugald River. The Zn domains were used for estimation of DBD, Fe, total carbon and S. The Cu domains were also used for the Au 	



Section 3 Estimation and Reporting of Mineral Resources	
Criteria	Commentary
	 Extreme grades were treated by grade capping and spatial restriction after the assays were composited to 1 m intervals. Residual retention ensured no loss of sample intervals.
	 Grade cap values and spatial restriction threshold values were selected using a combination of histograms and cumulative log probability plots, and consideration of spatial relationships.
	 Grade estimation was performed using dynamic anisotropy (DA), to align and optimise the search direction of the estimate to the mineralised domain trend (that is the dip and dip direction at the local block was used in the estimation of the model).
	 Hard boundary contacts were used to select samples used to estimate blocks in each of the mineralised domains. Boundary analysis plots support this decision.
	 Variograms (as correlograms within Supervisor) were modelled within each of the respective domains in transformed space to maximise continuity through the otherwise (locally) variable trends in the mineralisation. The modelled variograms were back transformed to 'real' space using the difference in length between slices through the low-grade zinc lens in real and transformed space to adjust the variogram ranges. This methodology was independently checked against a small area of conventionally unfolded mineralisation with reasonable results.
	 No assumptions have been made about the correlation between variables. All variables are independently estimated.
	 Search distances for each estimation pass remain largely unchanged from those used in the 2023 MRE. The pass 1 search ellipse (30 m down dip, 25 m along strike, 11 m across strike) is approximately 1.5 times the drill section spacing in the close-spaced drilling area of the deposit.
	 A maximum of 3 composites per drill holes was used for pass 1 and 2 grade estimates. A maximum of 2 composites per drillhole was used for the pass 3 and 4 grade estimates to assist with more scattered sample selection in more sparsely drilled areas.
	 The number of composite samples used per block grade estimate was restricted to a minimum of 6 and a maximum of 16 in pass 1 and 2, based on Kriging Neighbourhood Analysis (KNA). Fewer samples were used in pass 3 and 4 estimates to reduce smoothing of the grade estimates.
	 Block discretisation of 2 x 4 x 4 was applied. All grades were estimated into parent blocks. Minimum sub-block size was 0.5 m(X) x 1.25 m(Y) x 1.25 m(Z).
	 In areas of close spaced drilling (10 m x 20 m), the parent block size is 2.5 m(X) x 6.25 m(Y) x 6.25 m(Z). This smaller block size is used to better estimate local variance with the increased information available from the close spaced drilling in and around the current mining areas.
	 Away from the close-spaced drilling the parent block size is 2.5m(X) x 12.5m(Y) x 12.5m(Z)
	 Background waste has a parent block size of 12.5m(X) x 62.5m(Y) x 62.5m(Z), to reduce the total block model size.
	 No external dilution has been applied to block grades. However, parent block size has assumed mining selectivity at a stope level. No other selective mining unit size assumptions were made in the grade estimation process. Validation of the 2023 block model included the following steps:



Section 3 Estimation and Reporting of Mineral Resources	
Criteria	Commentary
	 Comparison against the 2023 MR block model, including visual comparison of plans and cross-sections, grade tonnage curves, statistical comparisons and trend plots. Improvements in grade continuity from realignment of the dynamic anisotropy surfaces were noted, as was reduced smoothing of grade estimates. The 2024 MR model reports lower tonnage at slightly higher grades than the 2023 MR in the mined area (for blocks with NSR>=181) and this is expected with the change to the internal waste domain threshold.
	 A comparison of the high- and low-grade Zn domains between 2023 and 2024 is shown below.







Section 3 Estimation and Reporting of Mineral Resources		
Criteria	Commentary	
Moisture	 Tonnes in the model have been estimated on a dry basis. 	
Cut-off parameters	 The Mineral Resource is reported above a A\$181/t NSR (net smelter return) cut- off. The selection of the A\$181/t NSR cut-off defines mineralisation, which is prospective for future economic extraction, based on annually updated exchange rates, metal pricing and costings and a long-term production rate (Commercial in Confidence). The reporting cut-off grade is in line with MMG's policy on reporting of Mineral Resources that are prospective for future economic extraction. The NSR value is calculated using the block grade estimates for zinc, lead, silver, manganese, sulphur, iron, SiO2, and total carbon. A small portion of the MR lies within a freehold lease and this potion attracts a different royalty payment. This is also accounted for in the NSR calculation. 	
Mining factors or assumptions	 Mining at Dugald River is underground with the mining methods being Sub-Level Open Stopes (SLOS), both Longitudinal and Transverse, in the South Mine and Longitudinal with rib pillars in the North Mine. Level intervals occur every 25m and stopes have a strike length of 15m. Currently the deposit is accessed by two declines, with a third 'A Block' decline coming off the south decline at the 565 level. No external dilution has been applied to block grades. However, parent block size has assumed mining selectivity at a stope level. The Mineral Resource has been depleted to account for mining and any unminable stope remnants. 	
Metallurgical factors or assumptions	 The metallurgy process proposed for the Dugald River deposit involves crushing and grinding followed by flotation and filtration to produce separate zinc and lead concentrates for sale. Deleterious elements include manganese and carbon, which have been estimated in the block model. Manganese percentage in the zinc concentrate is calculated as a post-processing step within the NSR calculation process, to allow the generation of a value that can be used for the Ore Reserve. 	
Environmental factors or assumptions	 Dugald River operates under Environmental Authority EPML00731213 issued by the Department of Environment Heritage Protection on 12 August 2012 and amended on 21 April 2023. Non-acid forming (NAF) and Potentially Acid Forming (PAF) waste rock are distinguished by a north-south striking Limestone and Undifferentiated Black Slate lithological boundary respectively. Volumes are estimated and managed in accordance with site procedures. Waste rock storage space on surface is limited. The north mine area will allow for the return of waste rock as backfill and the south mine is backfilled with paste fill generated from tailings. PAF/NAF classification is based on the work by Environmental Geochemistry International (EGI) in 2010. Subsequent follow-up test work onsite confirms EGI's conclusions. 	



	Section 3 Estimation and Reporting of Mineral Resources
Criteria	Commentary
Bulk density	 Dry bulk density (DBD) is measured on site using the weight in air and water method. Frequency of samples pre-2017 was at least 1 determination per core tray and based on geological domains. Since 2017 whole sample measurements have been made through sampled
	intervals as well as 20 m either side of the mineralisation. The current database consists of 50,149 DBD measurements.
	 Dugald River rock is generally impermeable, requiring no coatings for reliable measurements.
	 For this MR update, the measured DBD dataset is complemented by a dataset of predicted DBD values using the XGBoost machine learning algorithm. The predicted values are based on relationships between assayed Zn, Pb, S and Fe, inside and outside the Zn domains. A separate relationship was used to predict DBD inside the Cu domains. The proxy DBD dataset was compiled by Datarock Pty Ltd.
	 The use of the combined measured and predicted DBD dataset provides essentially equivalent DBD data coverage (compared to the data available for the reported metals) for the estimation.
	 DBD was estimated using OK within the Zn domains. A check estimate using ID² was compiled for comparison. The use of the hybrid dataset has resulted in more local variability in the 2024 DBD model compared to pre-2023 models, but no material global change. This is as expected due to local variability of grades and sulphide content. Un-estimated blocks were assigned a bulk density value based on a stoichiometric formula (see below):
	– DBD (assigned) = (3.8*A/100) + (7.3*B/100) + (4.6*C/100) + (2.573*D/100)
	 Sphalerite content A = 1.5*Zn%
	 Galena content B = 1.15*Pb%
	Pyrrhotite/Pyrite content C = (Fe%-(0.15*Zn%))*1.5
	– Gangue D = 100-A-B-C
	 Specific gravity (SG) of sphalerite = 3.8
	– SG of Galena = 7.3
	 SG of Pyrrhotite/pyrite = 4.6
	– SG of gangue = 2.573
	 Fe content in Sphalerite = 10%
	 A DBD of 2.76 g/cm3 has been assumed for the waste host domain.
Classification	 The base metal (Zn, Pb, Ag) MR at Dugald River is classified separately to the copper MR.
	 An in-house (MMG) drillhole spacing study was completed in February 2023. The results confirmed historically utilised drillhole spacings of ~20 m x 20 m for Measured and ~60 m x 60 m for Indicated continue to be reasonable. These drillhole spacings have been used as the main criteria for classification of the base metal MR, with remaining estimated blocks being classified as Inferred. Consideration was also given to confidence in data quality and location, confidence in geological understanding and interpretation and confidence in the block grade estimates.



	Section 3 Estimation and Reporting of Mineral Resources
Criteria	Commentary
	 A classification model was compiled using an isotropic search for the 3 nearest drillholes to any given block as an objective 'sense check' on the chosen boundaries. The drillhole spacing based classification criteria were applied to individual mineralisation lenses using 'cookie-cutter' strings. Mineable Stope Optimiser (MSO) shapes were then generated across the model as a check on reasonable prospects for eventual economic extraction (RPEEE). Any blocks outside the main mineralised lens that were not covered by an MSO shape (due to low grade and/or narrow lens width) were flagged as unclassified. All estimated blocks within the main lens with NSR values above the \$181NSR cutoff were classified for inclusion in the MR reporting.
	The maximum classification for the copper MR is Inferred, primarily because of the current low level of confidence in the understanding and interpretation of mineralisation controls, particularly at the southern end of the deposit. Blocks estimated in pass 4 and those that fall outside the limiting string shown below
	are not classified. The copper mineralisation is to be a focus for the exploration department over the coming months.



	Section 3 Estimation and Reporting of Mineral Resources
Criteria	Commentary
	Long section view (looking west) of 2024 Cu MR classification.
	The MR classification reflects the Competent Person's view on the confidence and uncertainty of the Dugald River Mineral Resource.
Audits or reviews	 An internal peer review by ERM has been carried out on the 2024 MR estimate. An external audit of the 2022 MR was carried out by AMC Consultants and SRK Consulting. Several recommendations were made, and many have been implemented since that time.
Discussion of relative accuracy/ confidence	 The Competent Person is of the opinion that the current block estimate provides a good estimate of tonnes and grades on a global scale. In locations where grade control drilling of approximately 20 mN x 15 mRL spacing has been completed, the Competent Person has a high level of confidence in the local estimate of both tonnes and grades, which is reflected in the Mineral Resource classification. The interpretation at the down-dip extremities of the MR is based on limited drilling and experimentation during the modelling process has shown that an alternative, more conservative interpretation is permissible and could materially reduce the contained metal locally and globally. This is reflected in the Resource classification. It should be noted that deeper drilling during 2023 generally maintained the currently interpreted width of the mineralised zone. Mine void data (development pickups and stope CMS's) were collated for the period February 2014 to 31 December 2023 to reconcile the previous and current block model estimates with mine and mill production data.
	 Interest of the mineral ised zone. Adjustments and improvements to the modelling and estimation process will continue to be investigated prior to the next iteration of the Mineral Resource estimate.



iteria	Commentary						
	Mined to date	Reported Mine Claimed	Mill Reconciled	Processed + stockpile change	2024 MR	F3	F2B
	Tonnes (kt)	10,707	10,676	10,765	11,070	0.97	1.00
	Zn %	10.68	10.49	10.35	10.72	0.97	0.98
	Zn Metal (kt)	1,144	1,120	1,114	1,186	0.94	0.98
	Pb %	1.9	1.8	1.78	1.77	1.01	0.95
	Pb Metal (kt)	203	192	192	196	0.98	0.95
	Ag ppm	56.83	54.08	54.04	55.36	0.98	0.95
	Ag metal (koz)	19,581	18,563	18,702	19,703	0.95	0.95

6.2.3 Expert Input Table

Contributor	Position	Nature of Contribution
Thomas King	Project Geologist (MMG DRM)	Leapfrog mineralisation domaining and database input
Nick Dyriw	Senior Geologist – Projects and Orebody Knowledge (MMG DRM)	QAQC reporting, database and modelling input
Sarah Traeger	Senior Geologist (Contractor)	Reconciliation reporting
Laura Moore	Superintendent – Geology (MMG DRM)	Contribution overview and contribution supervision
Peter Willcox	Principal Mining Engineer (MMG DRM)	Preliminary MSO outlines for classification
Maree Angus	Principal Consultant Resource Geology (ERM)	Resource modelling, peer review and JORC (2012) MRE Competent Person



6.2.4 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Mineral Resource statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

6.2.4.1 Competent Person Statement

I, Maree Angus, confirm that I am the Competent Person for the Dugald River Mineral Resource section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member and Chartered Professional in the Geology Discipline of The Australasian Institute of Mining and Metallurgy
- I have reviewed the relevant Dugald River Mineral Resource section of this Report to which this Consent Statement applies.

I am a full-time employee of ERM Consultants Australia Pty Ltd at the time of the estimation.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Dugald River Mineral Resource section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Dugald River Mineral Resources.

6.2.4.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Dugald River Mineral Resources – I consent to the release of the 2024 Mineral Resources and Ore Reserves Statement as at 30 June 2024 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author' s approval. Any other use is not authorised.

Maree Angus MAusIMM CP (Geo) #108282

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author' s approval. Any other use is not authorised.

Signature of Witness:

Date:

Aaron Meakin (Brisbane, Australia)

Witness Name and Residents: (eg, town/suburb)



6.3 Ore Reserves – Dugald River

6.3.1 Results

The 2024 Dugald River Ore Reserves are summarised in Table 18 below.

Table 40. Downald Diver	A B		+ 00 1 00041
I apie 1X. Dildald Biver	Uro Recerve tonnadi	and drade la	S AT KU IIINA 707701
			5 at 50 5unc 2027
			,

Dugald River Ore Reserves							
2024					Contain	ed Metal	
Durald Diver Ore Deserves	Tonnes	Zinc	Lead	Silver	Zinc	Lead	Silver
Dugaid River Ore Reserves	(Mt)	(% Zn)	(% Pb)	(g/t Ag)	('000)	('000)	(Moz)
Primary Zinc ¹							
Proved	14	10.7	1.7	47	1,500	240	21
Probable	8.3	10.2	1.4	15	840	110	4
Total	22	10.5	1.6	35	2,300	350	25
Stockpiles							
Proved	0.08	11.4	2.5	86	9	2.0	0.2
Total	0.08	11.4	2.5	86	9	2.0	0.2
Total	22	10.5	1.6	35	2,300	350	25

 Cut-off grade is based on Net Smelter Return (NSR) after Royalties, expressed as a dollar value (\$A) of dependant on the area of the mine as described in Table 16 ranging from \$A147/t to \$A161/t

2. Contained metal does not imply recoverable metal.

3. The figures are rounded according to JORC Code guidelines and may show apparent addition errors.

- Resource drilling in 2023 has been dominated by infill, focusing on material conversion from Indicated to Measured categories in 5C block and from Inferred to Indicated categories in A Block. Consequently, along with the depletion of 12 months of production, this has driven the change in Proved and Probable Ore Reserves.
- A change in domaining methodology and thresholds (increased continuity, especially at depth) in the revised geological block model were the main drivers for changes to Pb, Ag and Mn grades.
- A variable Stope cut off was used to optimise ore tonnes in the supporting Ore Reserve schedule.



6.3.2 Ore Reserves JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 19 complies with the 2012 JORC Code requirements specified by "Table-1 Section 4" of the Code.

Table 19: JORC 2012 Code Table 1 Assessment and Reporting Criteria for Dugald River Ore Reserve 2024

	Section 4 Estimation and Reporting of Ore Reserves
Criteria	Commentary
Mineral Resources	 The Mineral Resources are reported inclusive of the Mineral Resources used to define the Ore Reserves.
conversion to Ore Reserves	 The Mineral Resources model used the MMG March 2024 Mineral Resources model. (drm_gmr_2404e_d2312b_nsr.bmf)
	 Risks associated with the model are related to orebody complexity seen underground, but not reflected in the Mineral Resources model due to the spacing of the drill holes that inform the model.
	 The 2024 Geotechnical Equivalent Linear Overbreak Slough (ELOS) model was used to estimate the HW thickness, tonnes and grade of the planned dilution applied to the 2024 stope shapes.
Site visits	 Peter Willcox, the Competent Person for the Dugald River Ore Reserve visited the site multiple times during the 2023/2024 reporting period. Communication with site has been via video conferencing and email as required.
Study status	 The mine is an operating site with on-going detailed Life of Mine planning.
Cut-off parameters	 The breakeven cut-off grade (BcoV) and Mineral Resources cut-off grade have been calculated using 2024 Budget costs.
	 The BcoV has been calculated for 19 discrete areas of the mine reflecting differences in backfill methodologies, and increased costs at depth, namely ground support and haulage distances to surface and power requirements for ventilation refrigeration.
	 3-year operating costs, both fixed and variable, have been attributed on a per tonne basis using the average 3 year planned mine production rate of 1.84 Mtpa
	 The Net Smelter Return (NSR) values are based on metal prices, exchange rates, treatment charges and refinery charges (TC's & RC's), government royalties and a metallurgical recovery model.
	 The NSR value for the BCoV is to the mine gate and includes the average sustaining capital estimate for the 2023 Ore Reserves.
	 Infill diamond drilling has been included as part of the sustaining capital.
	 For 2024 Ore Reserves (OR) and Life of Mine (LoM), the break-even cut-off values (BCoV) have been used to create stopes and for the level-by-level evaluation. In addition, Stope Cut Off Value (ScoV) has been used to identify additional incremental stoping where development has been previously established.
Mining factors or	 A detailed design of the 2024 OR was used to report Mineral Resources conversion to an Ore Reserve.
assumptions	 The 2024 Geotechnical Equivalent Linear Overbreak Slough (ELOS) model was used to estimate the HW thickness, tonnes and grade of the planned dilution which was applied to the 2024 stope shapes.



Section 4 Estimation and Reporting of Ore Reserves		
Criteria	Commentary	
	 The orebody access is split into a north and south mine, due to its 2 km strike length and a low-grade zone at the extremities of the orebody. 	
	 The north mine is narrow (average ~5 m true width) and sub-vertical. The south mine is wider than the north mine with a flexural zone in the centre. The south mine is narrow and steep in the upper zone (~top 200 m from surface) and lower zone (~below 700 m from surface). The central zone is flatter and thicker than the upper and lower zones. 	
	 Mining methods for the mine are Sub-Level Open Stopes (SLOS) both Longitudinal and Transverse in the South Mine and Longitudinal with rib pillars in the North Mine. Level intervals occur every 25m and stopes have a strike length of 15m. 	
	 The stopes are broken into the following categories: 	
	 Longitudinal SLOS, for stopes up to 10-15m wide horizontally. (Where the orebody has thickened adjacent stopes are mined in sequence after paste filling). 	
	 Transverse SLOS, for stopes where the orebody thickness lends itself to sequential stope extraction retreating along crosscuts. 	
	 Crown pillar SLOS, for the top level of each panel where stoping occurs directly below a previously mined area. 	
	 Longitudinal SLOS for the North Mine, where a rib pillar is also left. 	
	 The stopes were created by applying the Mineable Shape Optimiser (MSO) plugin, within Deswik MineCAD, to the 2024 Mineral Resources model (drm_gmr_2404e_d2312b_nsr.bmf) which required conversion into a Datamine format. NSR values were written to each block via a script (validated against an excel spreadsheet). The macro and spreadsheet considered metallurgical recoveries, metal pricing, transport costs, royalties TC/RC's and exchange rate. 	
	 The parameters used to create the stope shapes were: 	
	 All Mineral Resources categories included; 	
	– 25 m level interval;	
	 Variable strike length; 	
	 Minimum mining width (MMW) of 2.5m; 	
	 The minimum dip of 52 degrees for Footwall (FWL) and 37 degrees for Hanging wall (HW); 	
	 Minimum waste pillar between parallel stopes of 7.5m; and 	
	 A BCoV associated with the appropriate mine zone, applied to create initial stope shapes. 	
	No Inferred Mineral Resources are included in the Ore Reserves.	
	 Several aspects of dilution were considered, planned dilution, fill dilution and HW dilution. Planned dilution was included in the MSO stope shapes and covers localised variations in dip and strike as well as minimum mining width. No additional FW dilution was applied as the initial stope shapes considered minimum mining widths and dip. 	
	 The HW dilution was calculated for each stope based on the Geotechnical conditions and thicknesses of the HW materials. The site has compiled a detailed HW dilution model as dilution varies across the orebody according to the HW conditions. 	



	Section 4 Estimation and Reporting of Ore Reserves
Criteria	Commentary
	Fill Dilution and Stope Recovery Factors:
	 Floor 0.15m, backs 0.5m and wall fill ranges from 1m to 1.5m dilution;
	 Recoveries Longitudinal 90%, Modified AVOCA / Core & Shell with rib pillars 75% and crown stopes 90%;
	 Development grades were diluted by the application of a grade factor of 95% to the development grade estimated from the block model.
	 The underground (UG) mine is accessed via two separate declines and as such the mine is split into two – north and south, although both declines are connected via a link drive approximately every 150m vertically at the base of each production Panel. As of 30 June 2024, 10,920m of decline has been mined, along with a further 87,733m of lateral development (excluding 6,295m of paste development). A third in-mine decline in the south mine, for independent access to Block A, has commenced, with initial access to drill platforms for resource conversion.
	Currently, six raise-bored ventilation shafts have connection to the surface:
	– The southern Fresh Air Raise (FAR1) – at 3.5 m diameter and 90m depth;
	 The southern Fresh Air Raise (FAR2) – at 5.0 m diameter and 190 m depth; with 120m, 130m and 160m extensions to the 340 level, 490 and 665 level respectively.
	 The southern Return Air Raise (RAR1) – at 5.0 m diameter and 154 m depth; with 548m of extension (multiple holes) to the 715 level
	 The southern Return Air Raise (RAR2) – at 5.0 m diameter and 197 m depth; with a 270m extension (multiple holes) to the 490 level and a further 135m extension to 640 level.
	 The northern Fresh Air Raise (FAR) at 3.5 m diameter and 165 m depth with a 275m extension (multiple holes) to the 490 level and a further 130m extension to the 640 level.
	 The northern Return Air Raise (RAR) at 5.0 m diameter and 104 m depth with a 310m extension (multiple holes) to the 490 level and a further 140m extension to the 640 level.
	 On each return shaft collar there is an exhaust fan drawing approximately 270-300m³/s.
	 There is also a secondary RAR system in the north and south mines comprising of LHW and 3.0-3.5m raise bored holes that have connections to each production level where there is access.
	 Secondary egress is provided by link drives between the South & North declines. These link drives are positioned at the base of each production Panel. The lowest connection to date has been made at the base of Panel 4 on the 640 Level.
	 An internal ladderway also exists in the South mine between the 50 and 200 Levels. In addition, strategically placed refuge chambers are to be found throughout both mines.
	 The current mining mobile fleet is currently a mix of MMG and contractor owned and operated. This includes 4 twin-boom jumbos, 2 cable bolting rigs, 9 loaders, 13 dump trucks, 3 long-hole drill rigs, 2 shotcrete rigs, 4 Transmixers, 3 charge- up vehicles, 8 integrated tool carriers, and a light vehicle fleet.



	Section 4 Estimation and Reporting of Ore Reserves
Criteria	Commentary
Metallurgical factors or assumptions	 The metallurgical process for treatment of Dugald River ore involves crushing, grinding followed by sequential carbon/lead/zinc flotation to produce separate lead and zinc concentrates. The carbon concentrate is a waste product and reports to final tailings. This process, and the equipment used, is conventional for this style of mineralisation and used worldwide.
	 The Dugald River processing facility was commissioned with production commencing in October 2017, with nameplate throughput reached after 7 months of operation (May 2018). Both lead and zinc concentrate produced at Dugald River meet saleable grade and impurity specifications.
	 Production performance has shown good alignment of concentrate grade and recovery performance to that derived through the project study phases.
	 Dugald River plant operating data has been analysed to establish the metallurgical factors used for Ore Reserve calculations These are detailed herein.
	 %Znpf Feed, %Pbpf Feed, %Fepf Feed, %Mnpf Feed, %CPf Feed refer to the relevant assays of the plant ore feed.
	Lead Concentrate Grade Pb% =
	52.41-2.927 x %CPF Feed+3.019 %PbPF Feed+0.3435 x Pb cct %Pb Rec -5.326 x Pb %Zn loss
	 Lead recovery to lead concentrate accounts for lead lost to the carbon concentrate via the following equation:
	- Pb recovery Pb Conc (%)=
	(100 – PF %Pb loss) * Pb cct %Pb Rec * Pb Rec factor 100
	Where
	Lead recovered to carbon concentrate:
	PF %Pb Loss = -4.25+ 0.7368 x %CPF Feed + 0.12503 x %CPF Recovery
	Carbon recovered to carbon concentrate:
	%CPF Recovery = 100 x (35.95 / %CPF Feed) x (%CPF Feed – 2.75) / (35.95 – 2.75) Lead recovered by the lead circuit:
	19.94 + 49 x %PbPF Feed – 11.11 x %PbPF Feed ^ 2 Lead recovery factor:
	Pb Rec Factor = 0.987
	 Silver recovery to lead concentrate accounts for the silver which is lost to the carbon concentrate, the equation being:
	Ag recovery Pb Conc (%) = $(100 - PF \% 4a loss) * Pb cct \% 4a Rec (wrt PF tail)$
	100
	• Whore
	Silver recovered to carbon circuit
	$PEW A = 1 = -0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.415 \times PEW A = 1 = 0.061 + 0.050 \times PEW A = 1 = 0.061 + 0.050 \times PEW A = 1 = 0.061 + 0.050 \times PEW A = 1 = 0.061 + 0.050 \times PEW A = 1 = 0.061 + 0.050 \times PEW A = 1 = 0.061 + 0.050 \times PEW A = 1 = 0.061 \times PEW A =$
	rr 70 Ag 1055 - 0.901 + 0.415 X Pr 70211 1055 + 0.9954 X Pr 70PD 1055


Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
	PF %Zn loss = -3.337 + 0.5021 x %CPF Feed + 0.08359 x %CPF Recovery		
	Lead recovered to carbon concentrate:		
	PF %Pb Loss = -4.25+ 0.7368 x %CPF Feed + 0.12503 x %CPF Recovery		
	Lead circuit silver recovery		
	Pb cct %Ag Rec (wrt PF tail) = $3.04 + 0.2161 \times \text{AgPF} \text{Feed} + 1.86 \times \text{%PbPF} \text{Feed} + 0.3352 \times \text{Pb}$ cct %Pb Rec		
	 Zinc concentrate grade is directly affected by the manganese in the ore feed due to it being substituted for zinc within the sphalerite mineral, and as such the final concentrate grade is estimated to account for this. 		
	Zinc Concentrate Grade Zn% =		
	%Zn _{zn con} = 1.894 + (%ZnSphalerite x %Sphalerite Zn Con)		
	Where:		
	Sphalerite content of zinc concentrate:		
	%Sphalerite _{zn Con} = 93% (Long Term 2025+)		
	Zinc in sphalerite:		
	%ZnSphalerite = 62.96 – 1.131 x (%MnSphalerite + %FeSphalerite)		
Manganese in sphalerite:			
	%MnSphalerite = %MnZn Con x 97.63% / %SphaleriteZn Con		
	Manganese in zinc concentrate:		
	%MnZn Con = 0.5535 + 2.3816 x %MnPF Feed		
	Iron in the sphalerite:		
	%FeSphalerite = 4.381 +1.291 x %MnSphalerite		
	Zinc recovery to zinc concentrate accounts for the zinc lost in both the carbon and lead concentrates by the equation:		
	Zn recovery Zn Conc (%) =		
	(100 – PF %Zn loss – Pb %Zn loss) * Zn cct %Zn Rec * Zn Rec factor		
	100		
	Where;		
	Zinc recovered to carbon concentrate: PF %Zn loss = -3.337 + 0.5021 x %CPF Feed + 0.08359 x %CPF Recovery		
	Zinc recovered to lead concentrate: Pb %Zn Loss = -0.835 + 13.016 x Pb/ZnPF Feed + 0.00804 x %Pb Rec		
	Zinc circuit stage recovery:		
	Zn cct %ZnRec = %Zn _{Final Con} / %Zn _{Rgher Feed} x (%Zn _{Rgher Feed} - Zn _{Comb tail})/(%Zn _{Zn Con} - Zn _{Comb tail})		
	Zinc in zinc circuit rougher feed:		



Section 4 Estimation and Reporting of Ore Reserves						
Criteria	Commentary					
	%ZnRgher Feed = -0.3307 + 1.06293 x %ZnPF Feed					
	Zinc in zinc circuit combined tail:					
	ZnCombined tail = 0.2% if %ZnRgher Feed <= 16% or else					
	ZnCombined tail = 0.4105 + 0.03 x %ZnRgher Feed					
	Zinc recovery factor:					
	Zn Rec Factor = 0.989					
	 A full check has been completed for possible deleterious elements, and the only two that are material to economic value are iron and manganese in the zinc concentrate. It is for this reason that the algorithms to predict these components have been developed using Dugald River operating data. Fluorine has been identified within the orebody and to date has resulted in 					
	isolated elevated levels in the lead concentrate however has been successfully controlled through the flotation process.					
Geotechnical	 Ground conditions at Dugald River are generally good to fair with isolated areas of poor ground associated with shear zones and faults. 					
	 Development ground support at this stage in the mine life of Dugald River focuses on static stability requirements with surface support matched to the ground conditions, e.g. mesh for good ground/ short design life and Fibrecrete for poor ground and long-term design life (e.g. decline, level access and infrastructure). 					
	 Stope stability is strongly influenced by the presence and proximity of hanging wall shear zones which are associated with very poor ground conditions. 					
	 Historical stoping conducted at Dugald is used to calibrate the geotechnical stope dilution model from which guidance on stope dimensions (strike/ hydraulic radius) and estimates of stope dilution can be made. 					
	 Conservative stope design has been recommended after a review of previous stope performance at Dugald River highlighted a large step change in stope performance once spans had increased above a Hydraulic Radius of 5.0~5.5. Decreased stope sizing to a nominal 15m strike has improved predicted ELOS. From the most recent run of the mechanistic overbreak model, the predicted dilution for stopes contained within the 2024 Reserves is 13.2%. 					
	 The life of mine mining sequence is modelled using MAP3D (a linear-elastic method) to provide guidance on favourable sequences that will minimise the adverse effects of induced stress. 					
Environmental	 Dugald River operates under Environmental Authority EPML00731213 issued by the Department of Environment, Heritage Protection on 12 August 2012 and amended on 21 April 2023. 					
	 Non-Acid Forming (NAF) and Potentially Acid Forming (PAF) waste rock are distinguished by a north-south striking Limestone and Undifferentiated Black Slate lithological boundary respectively. Volumes are estimated and managed by site procedures. With limited stockpile space on the surface, all NAF waste rock stored on the surface has been identified for use during closure activities and PAF waste rock is used as a priority for underground rockfill. 					



Section 4 Estimation and Reporting of Ore Reserves		
Criteria	Commentary	
	 The north mine area predominantly uses waste rock as backfill, and the south mine is backfilled with paste fill generated from tailings. Cemented Rock Fill (CRF) has also been used in discrete production areas in the upper part of the orebody. 	
Infrastructure	• Currently, the Dugald River mine is operating via an electricity grid feed from the gas fired Diamantina Power Station and the Mica Creek Solar Farm, on the southern outskirts of Mount Isa.	
	 Gas for the power station is supplied via the Carpentaria pipeline, with a compression station in Bellevue. 	
	 Cloncurry airport is used by commercial and charter airlines flying to and from Townsville, Cairns and Brisbane and operates as both a commercial and fly-in– fly-out (FIFO) airport. 	
	Existing surface infrastructure includes:	
	 An 11 km sealed access road from the Burke Developmental Road, which incorporates an emergency airstrip for medical and emergency evacuation use; 	
	 Permanent camp & recreational facilities; 	
	 Telstra communication tower; 	
	 Ore and waste stockpile pads; 	
	 Contaminated run-off water storage dams; 	
	 Change house facilities for mine and processing personnel; 	
	 Office buildings, including emergency medical facilities; 	
	 Core shed; 	
	 Fuel farm; 	
	 Bore water fields and raw water supply lines; 	
	 Processing plant and Assay Laboratory; 	
	 Paste plant; 	
	 Tailings storage facility; 	
	 Mobile equipment workshop and supply warehouse 	
	 UG Ventilation Exhaust Fans x 3 	
	 Bulk Air-Cooling Plant supplying chilled air to North and South Mines 	
Costs	 The estimation of capital cost for the Dugald River project was derived from first principles from the 2023 schedule and inflated by one year for 2024. The financial model captures the transition of mining operations to an owner miner model. Phase 1 (production) received board approval in 2022, and Phase 2 (development) is now forecast for 2028. The MMG commercial department estimated the mining operating costs for the OR evaluation using first principles. Costs were inclusive of Operating and Sustaining Capital. Costs are in Australian dollars and are converted to US dollars at the applicable exchange rate. Deleterious elements Mn and to a lesser extent Fe, are to be controlled by metallurgical blending. It is expected that the feed for flotation will be blended to 	
	maintain Mn (and to a lesser extent Fe) within the contractual range for	



Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
	concentrate sales and thus not expected to attract additional costs and penalties.		
	 The MMG finance department supplies the commodity price assumptions. The Dugald River Ore Reserve applied the January 2024 guidance. 		
	• The long-term exchange rate used the January 2024 Long-Term MMG guidance and assumptions supplied by the MMG Business Evaluation department.		
	• The road freight and logistics for domestic and export sales have been updated using the costs from the 2024 budget. The additional costs for storing and ship loading of concentrate in Townsville are included, the storage and ship loading cost has been added to the freight and logistics cost for export. The freight and logistics costs for the domestic sale of concentrate includes the sea freight cost based on an agreement with Sun Metals. Road transportation costs to Mount Isa, for a portion of the Pb concentrate is also considered.		
	 Treatment and refining charges are provided in the Corporate Economic Assumptions and considers Trader Frame, Smelter Frame and Spot Price contracts. 		
	 Queensland State Government royalties payable are prescribed by the Minerals Resources Regulation 2013 and are based on a variable ad valorem rate between 2.5% to 5.0% depending on metal prices. Freehold leases have been identified and applied to production that falls within them. 		
Revenue factors	Realised Revenue Factors (Net Smelter Return after Royalty)		
	 As part of the 2024 Ore Reserves process, the net smelter return (after royalty) (NSR) has been revised with the latest parameters and compared against the previous 2023 NSR calculation that was used for the 2023 Ore Reserve. 		
	• The NSR is used to convert the various zinc, lead and silver grades into a single number for cut-off estimation and determining if the rock is ore or waste.		
	 Treatment and refining charges, royalties and transportation costs for different commodities were supplied by MMG Group Finance and have been included in the NSR calculation. 		
	• The MMG Group Finance department provides assumptions of commodity prices and exchange rates and are based on external company broker consensus and internal MMG analysis.		
Market assessment	 In 2023, the zinc concentrate market tightened due to various factors, including mine closures, strikes, operational issues, and delays in new projects. This led to a 2.7% decrease in global zinc mine production compared to 2022. Despite this, global refined zinc metal production increased by 1.3%, driven mainly by a 4.6% growth in Chinese smelter production, while production outside China, especially in Europe, decreased by 1.7%. European smelter output was particularly affected by high power prices and the closure of major mines, limiting concentrate supply. The strong demand from smelters and increased metal production shifted the concentrate market from a surplus in 2022 to a deficit in 2023, causing a reduction in spot treatment charges and a significant drop in the 2024 benchmark treatment charge. However, global zinc consumption was weaker than expected due to economic recovery challenges post-COVID-19, with particularly low demand in the construction. 		



Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
	sectors in China and Europe. This led to a significant increase in metal surplus and exchange stocks, putting a fundamental constraint on the zinc metal price.		
	 The strong smelter demand and constrained mine supply has seen the concentrate deficit market widen and treatment charges have fallen throughout 2024. Demand for Dugald River zinc concentrate from Asian and Australian smelters has been very strong, with treatment charges falling to their lowest ever levels as smelters have bid very aggressively for any Dugald River zinc concentrates being offered in the market. 		
	• With the major global economies starting to recover and stimulus measures announced in China, zinc consumption is forecast to increase in 2024. With smelter production forecast to be constrained by a lack of concentrate supply, the metal market is forecast to move to a deficit and providing further fundamental support to the zinc price. The zinc price has also pushed higher during 2024 as positive investor sentiment returned to the base metals sector as recessionary fears abated and expectations of a fall in interest rates together with the importance of metals in the global energy transition buoyed investor sentiment and all commodity prices.		
	 Over the medium terms, most analysts forecast that the concentrate market tightness will ease during late 2024 and into 2025 as the higher zinc metal price encourages several major mines, currently on care and maintenance to restart, several new zinc mine projects will also commence production. Improvement in the global economy and investor sentiment is also anticipated. This, together with rising demand due to significant base metals usage in renewable energy infrastructure, will all act to drive the price of base metals higher. 		
	• For zinc, analysts expect Chinese authorities to continue their efforts to support the economy with further infrastructure-based stimulus which would boost zinc demand. Zinc demand is forecast to be further boosted by global efforts to curb global warming. Zinc is used in the infrastructure to support the energy transition, including large scale solar, offshore wind and associated transmission and distribution networks. Zinc based batteries are also increasingly being used in large scale energy storage. World zinc consumption growth is forecast to average 2% p.a. from 2024 to 2034, growing to over 15Mtpa in 2034. (Wood Mackenzie, June 2024).		
	• While mine production is forecast to decline 1.2% to 12.3mt in 2024, strong mine production growth is expected in the medium term as output recovers at several large mines and new projects ramp up, taking global mine production to a peak of 13.8mt in 2026. Current mine capability is then forecast to decline as attrition and ultimately ore reserve depletion gradually reduces mine production and the number of active operations. A considerable investment in new mine capability is required to meet the forecast consumption growth to 15mtpa in 2034. This is a confronting challenge for the zinc industry as almost all possible new projects face significant challenges due a range of factors including grade, size, logistics and location. Financing for new zinc projects is difficult due to volatility of the zinc price and new project development around the world is further constrained by increased environmental and ESG regulation and the permitting processes means any new project will take 10 to 15 years from first discovery to eventually mine concentrate production.		



Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
Economic	 Economic modelling of the total mining inventory shows positive annual operating cash flows. Applying the revised costs, metal prices and exchange rate (MMG January 2024 Long-Term economic assumptions) returns a positive NPV. MMG uses a discount rate supported by MMG's Weighted Average Cost of Capital (WACC) and adjusted for any country risk premium (as applicable) based on an internal evaluation of the country risk for the location of the deposit. Sensitivities were run on the economic evaluation and showed a positive NPV is maintained when operating costs increase by 10% and if the Zinc grade drops by 		
	 10% or if the metal price drops by 10% All evaluations were done in real Australian (AU) dollars. 		
Social	 The nearest major population centre for the Mine is Cloncurry with a population of approximately 3,500, and the largest employers are mining, mining-related services, and grazing. Regarding Native Title, the Kalkadoon # 4 People filed a claim in December 2005 covering an area which includes the project area, water pipeline corridor and part of the power line corridor. This claim over 40,000 square kilometres of land was granted in 2011. MMG has concluded a project agreement with the Kalkadoon People dated 6 April 2009. Under this agreement, the claimant group for the Kalkadoon are contractually required to enter into an s31 Native Title Agreement under the Native Title Act 1993. The agreement sets out the compensation payments and the largest of the payments and payments and the payments and payment		
	 MMG's obligations for training, employment and business development opportunities if/when the project is commissioned. MMG has developed an excellent working relationship with the Kalkadoon claimant group. MMG has instituted the MMG/KCPL Liaison Committee, which meets at least twice yearly and addresses the Kalkadoon agreement obligations for both parties. An official 'Welcome to Country' ceremony was held for MMG in late March 2012. The Mitakoodi and Mayi People filed a claim in October 1996 and covered an 		
	 The Mitakoodi and Mayl People filed a claim in October 1996 and covered an area that includes part of the power line corridor. While the Mitakoodi have not yet been granted Native Title, MMG continues to liaise with them as a stakeholder due to the 'last claimant standing' legal tenement. MMG has registered an Indigenous Cultural Heritage Management Plan (CHMP) which covers the entire project area and has undertaken all necessary surveys and clearances for all disturbed groundwork undertaken on site to date without any issues or complications. The CHMP was developed in consultation with the Kalkadoon # 4 People. In 2023 site undertook a comprehensive survey and salvage of the mining tenements, to look for potential additional tangible and intangible cultural heritage. This included 6 cultural heritage walks involving Kalkadoon People representatives. While no new significant cultural heritage artefacts or sites were identified, Dugald River will continue to liaise with the Kalkadoon People. Regarding Social and Community support, MMG has a commitment to align all social development programs, sponsorship and community contributions with Goals 1-6 of the United Nations Sustainable Development Goals (SDG's). Over \$140k was spent targeting Good Heath & Wellbeing, Education and Equality, with 697 (non MMG) people beneficiaries of education and skills programs. Local relationships remained healthy throughout 20232 with no grievances received 		



Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
	 Dugald River Mine has supported several events in the Cloncurry Community recently; examples include Movie Nights, School Stationary Fundraisers, Breakfast Clubs, Sporting Events, Formal Training with residents, Careers Days and MINEX Mount Isa. Further, there is heightened support for local businesses with additional procurement of materials and services from vendors in the NW Qld Region. Over \$12.5M near-mine expenditure of business services from Dugald River Mine were conducted in 2023, with \$141M spent inside the state of Queensland, and a further \$142M spent within Australia. 		
	 Dugald River Mine is also committed to minimising its impact. The site monitors ambient air quality around the mine daily and monitors for PM10 size particulates and arsenic, cadmium, copper and lead surrounding the residence of our nearest sensitive receptor. The site also uses tailings in backfill to reduce the requirement for storage of tailings on surface, and also supplements its mine backfill requirements with mined waste rock to reduce the requirement for potentially acid forming waste rock to be stored on surface. A Progressive Rehabilitation and Closure Plan (PRCP) was submitted to the Qld Government in 2022 with a PRCP Schedule approved in Feb 2023. 		
	 The site has an office in the town of Cloncurry that is occupied by team members with dedicated roles in community and administration and maintaining a positive working relationship with the local community, the region and broader stakeholders and parties remains a very high priority. 		
Other	 There is no identified material naturally occurring risks. The legal agreements are in place. There are no outstanding material legal agreements. The grade of the zinc concentrate is dependent on the Fe and Mn content of the second se		
	sphalerite, but this dependence is considered by the algorithms presented earlier.		
	 The government agreements and approvals are in place. There are no unresolved material matters on which the extraction of the Ore Reserves is contingent. 		
Tailings	 The tailings storage facility is constructed within a valley of the Knapdale Range, enclosed by a 37m high embankment dam wall constructed with rock, clay fill and an elastomeric BGM (bituminous geomembrane) liner on the upstream side. The dam was designed and constructed in accordance with ANCOLD (Australian National Committee on Large Dams) guidelines and the requirements of the site's Environmental Authority. 		
	 The dam contains a return water system to enable recycling of the water deposited with the tailings as well as rainfall run-off back to the processing plant. 		
	 It is proposed that the peak operational throughput of the processing plant now be 2.0 Mtpa, with an average of 40% of the tailings being sent to paste and the remaining 60% thickened to a solids density of 55% solids. 		
	 Based on current production plans the tailings dam capacity will need to be increased by 2027, achievable by raising the embankment wall. 		
Classification	 Ore Reserves are reported as Proved and Probable. 		



Section 4 Estimation and Reporting of Ore Reserves			
Criteria	Commentary		
	Only Measured (24%) and Indicated (15%) material of the Mineral Resources has been used to inform the Proved and Probable Ore Reserves. No Inferred Mineral Resources are included in the Ore Reserves.		
Audits or reviews	 An External Review and Audit was last carried out for the 2021 Ore Reserves by AMC Consultants. AMC considered the 2021 ORE to be reasonable and supported by the data supplied by MMG and complies to internal MMG standards. An external audit is to be conducted on the 2024 ORE as per MMG standard. 		
Discussion of relative accuracy /confidence	 The 2024 Reserve has been based on local estimates with diamond drilling assays informing tonnes and grade to define stopes and associated detailed development design. In addition, modifying factors have been based on the results of the operating mine with comparison of actual production data and reconciliations. Therefore, there is high level confidence in the accuracy of the reserve estimate to within +/- 10%. 		
	The key risks that could materially change or affect the Ore Reserve estimated for Dugald River include:		
	Geotechnical Parameters and Mining Dilution:		
	 Modelled dilution, mining recovery factors are compared during stope reconciliation allowing for high confidence in factors used for ELOS, mining method and fill type used. Good understanding and high confidence of recovery factors from reconciliation data ensures dilution estimation is appropriately considered and applied to stoping areas. Cut Off Grade: 		
	 Cut off values are calculated with consideration of ground support and haulage at depth, fill type and power requirements for refrigeration for defined mining areas. This has ensured greater confidence in the cutoff value instead of applying global value for the whole orebody and a low risk in the reserve estimation process. 		
	Ore Reserve Classification:		
	 Resource Delineation & Reserve Definition drilling informs Proved and Probable tonnage and grades before mining. Ore Reserves are based on all available relevant information. Identification and confirmation through diamond drilling of potential Nexus zones, along strike, may present localised additional material. The Ore Reserve estimate confidence is high as modifying factors are compared with actual production data and historical reconciliations. 		
	Immastructure:		
	 All major intrastructure has been installed at Dugald and maintained to a high standard. A refrigeration plant was commissioned during November 2021. Future development and diamond drilling activities would have been impacted during the summer months if this piece of infrastructure were not installed. There is high confidence that further refrigeration expansions planned for 2025 and use of ventilation on demand infrastructure will ensure airflow requirements are met in pre-production areas. Processing: 		
	 Increase in diluents, carbon and manganese have potential to impact recoveries and payable penalties. However, blending of high manganese parcels of zinc concentrate will mitigate any such potential. 		



Section 4 Estimation and Reporting of Ore Reserves		
Criteria	Commentary	
	Site Operating and Capital Costs:	
	 Having been in production for several years, the mine's operating and capital costs are understood in detail. It should be noted, however, that with the transition to owner operator, capital and operating costs are projections and not aligned to historical costs. 	
	 Allowance for additional support requirements at depth and rehabilitation of development drives have been made to mitigate any under estimation of support costs. Significant change in costs is considered a low risk. Whilst the industry is in a high inflation environment, the net present value of the reserves remains positive within a reasonable range of movement of operating costs. 	
	Revenue Factors:	
	 Metal prices are dependent on market sentiment, and it is accepted that the zinc price cycle is uncontrollable and therefore is a moderate risk. Long term forecasts are made in consultation with market analysts and the corporate finance team to establish the most likely future positions. 	
	Transition to Owner Operator:	
	 Mining may be interrupted or below current rates through 2nd phase (development) (6 month period forecast for 2028). 	
	 A standalone transition project management team has been assembled. 	
	 The total forecast period of disruption is 12 months over a 11 year LOM plan, and any lost production is deferred, and not lost in its entirety. 	



6.3.3 Expert Input Table

In addition to the Competent Persons, the following individuals have contributed vital inputs to the Ore Reserves determination. These are listed below in Table 20.

In compiling the Ore Reserves, the Competent Person has reviewed the supplied information for reasonableness but has relied on this advice and information to be correct.

Table 20: Contributing Experts – Dugald River Ore Reserves	5
	•

EXPERT PERSON / COMPANY	AREA OF EXPERTISE
Maree Angus, Principal Consultant, ERM Australia Consultants Pty Ltd (Brisbane)	Geological Mineral Resources
Claire Beresford Senior Analyst Business Evaluation, MMG Ltd (Melbourne)	Economic Evaluations
Simon Ashenbrenner, Manager Zinc/Lead Marketing, MMG Ltd (Melbourne)	Marketing, Sea freight and TC/RC
Rohan Webster, Senior Metallurgist - Projects, MMG Ltd (Dugald River)	Metallurgy
Matt Holman – Senior Business Analyst, MMG Ltd (Dugald River)	Mining capital and Operating Costs
Biswachetan Saha, Senior Geotechnical Engineer, MMG Ltd (Dugald River)	Geotechnical
Peter Willcox, Principal Mining Engineer, MMG Ltd (Dugald River)	Mining Parameters, Cut-off estimation, Mine Design and Scheduling



6.3.4 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Ore Reserves statement has been compiled by the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

6.3.4.1 Competent Person Statement

I, Peter James Willcox, confirm that I am the Competent Person for the Dugald River Ore Reserves section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having more than five years experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member and Chartered Professional (Mining) of The Australasian Institute of Mining and Metallurgy.
- I am a Registered Professional Engineer of Queensland (RPEQ)
- I have reviewed the relevant Dugald River Ore Reserves section of this Report, to which this Consent Statement applies.

I have been employed by MMG – Dugald River since February 2014 and at the time of this estimate am the Principal Mining Engineer (Dugald River).

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Dugald River Ore Reserves section of this Report is based on and reasonably and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Dugald River Ore Reserves.

6.3.4.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code, 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Dugald River Ore Reserve – I consent to the release of the 2024 Mineral Resources and Ore Reserves Statement as at 30 June 2024 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author' s approval. Any other use is not authorised.

Peter James Willcox MAusIMM (CP) (112608); RPEQ (28936)

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Signature of Witness:

Date:

lain Goode (Townsville, QLD)

Witness Name and Residents: (eg, town/suburb)



7. Rosebery

7.1 Introduction and Setting

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The Rosebery base and precious metals mining operation is held by MMG Limited and is located within Lease ML 28M/1993 (4,906ha), on the West Coast of Tasmania, approximately 120km south of the port city of Burnie (Figure 7-1). The main access route to the Rosebery mine from Burnie is via the Ridgley Highway (B18) and the Murchison Highway (A10).



Figure 7-1 Rosebery Mine location

The Rosebery Operation consists of an underground mine and surface mineral processing plant. The mining method uses mechanised long-hole open-stoping with footwall ramp access. Mineral processing applies sequential flotation and filtration to produce separate concentrates for zinc, lead and copper. In addition, the operation produces gold/silver doré bullion. The mine has been operating continuously since 1936. Rosebery milled approximately 995 kt of ore for the year ending 30 June 2024.



7.2 Mineral Resources – Rosebery

7.2.1 Results

The 2024 Rosebery Mineral Resources are summarised in Table 21. The Rosebery Mineral Resources are inclusive of the Ore Reserves.

Table 21, 2024 Deceber	V Minaral Descurees	toppogo and area	de (ee et 20 june 200	۱۸ (
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Rosebery N	lineral Reso	ources									
							Contained Metal				
Rosebery	Tonnes (Mt)	Zinc (% Zn)	Lead (% Pb)	Copper (% Cu)	Silver (g/t Ag)	Gold (g/t Au)	Zinc ('000 t)	Lead ('000 t)	Copper ('000 t)	Silver (Moz)	Gold (Moz)
Measured	8.0	6.6	2.3	0.25	100	1.1	520	180	20	27	0.29
Indicated	7.7	5.9	1.8	0.25	77	1.2	460	140	19	19	0.29
Inferred	8.8	6.8	2.0	0.28	76	1.0	600	170	25	21	0.29
Total	25	6.5	2.0	0.26	86	1.1	1600	500	64	67	0.88
Stockpiles											
Measured	0.01	6.6	2.4	0.20	100	1.2	0.83	0.3	0.03	0.04	0
Total	0.01	6.6	2.4	0.20	100	1.2	0.83	0.3	0.03	0.04	0
Total Rosebery	25	6.5	2.0	0.26	86	1.1	1,600	500	64	67	0.88

Notes

 Cut-off grade is based on Net Smelter Return (NSR), expressed as a dollar value of AU\$191/t. 2024 metal prices used in NSR calculation are US\$1.14/lb for Pb, US\$1.58/lb for Zn, US\$2066/oz for Au, US\$26.13/oz for Ag and US\$4.90/lb for Cu.

- 2. Figures are rounded according to JORC Code guidelines and may show apparent addition errors.
- 3. Contained metal does not imply recoverable metal.

The Rosebery Mine Mineral Resource has increased by 5.93Mt (517 kt zinc equivalent (ZnEq) metal) since last reported in 2023. Changes affecting the final reporting number include the following:

- Depletion of 720 kt (143 kt ZnEq metal) against the 2023MR model for the reporting period.
- 991 kt (138 kt ZnEq metal) mining depletion in the Lower Mine between 1 July 2023 and 30 June 2024.
- The updated NSR script includes internal improvements to better account for the contributions of silver (Ag), gold (Au), and copper (Cu). Although metal prices have increased, rising costs largely offset these gains.
- Updates to the trend surfaces used in the grade estimations to achieve increased grade continuity in some areas.
- New drilling, mapping and modelling increased the reported Mineral Resource by 1.9 Mt but is offset by increased grades resulting in an additional 52.4 kt ZnEq metal adding to the Lower Mine and U lens.
- Updates to metal prices in 2024 and an increase in the NSR cut-off from AU\$177 in 2023 to AU\$191.



7.2.2 Mineral Resources JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 22 complies with the 2012 JORC Code requirements specified by "Table-1 Section 1-3" of the Code.

Table 22: JORC 2012 Code Table 1 Assessment and Reporting Criteria for Rosebery Mineral Resources 2024

Section 1 Sampling Techniques and Data		
Criteria	Commentary	
Sampling techniques	 All samples included in the Rosebery Mineral Resources estimate are from diamond drill core. The standard sampling length is 1m with a minimum of 0.4m and maximum of 1.5m. Samples are half core split (>90% of samples) or whole core, crushed and pulverised to produce a pulp sample (>85% passing 75µm). 	
	 Diamond drill core is selected by geologists relative to geological contacts, then marked and ID tagged for sampling. Sample details and IDs are stored in a database for correlation with laboratory assay results. 	
	 Measures taken to ensure sample representivity include sizing analysis and insertion of field duplicates. 	
	• There are no inherent sampling problems recognised. The sampling techniques applied to Rosebery drill core are considered appropriate for the style of mineralisation.	
Drilling techniques	 The drilling type is diamond core drilling from underground using single, or in select cases double tube coring techniques. 	
	 From 2021 all underground drill holes are orientated using a Boart Longyear TruCore orientation system. Between 2014 and 2020, drill core was oriented on an ad hoc basis. 	
	 Drilling undertaken from 2012 is a mixture of LTK48, LTK60, NQ, NQ2, NQTK, BQTK and BQ in size with most of the drilling being NQ2 (>60%). 	
	 Historical drilling (pre-2012) is a mixture of sizes ranging from LTK, TT, BQ, NQ, HQ to PQ. 	
Drill sample recovery	• Diamond drill core recoveries average 98.8% for all data. Drill crews mark and define lost core intervals with blocks. Sample recovery is measured and recorded in the drill hole database.	
	• The drilling process is controlled by the drill crew and geological supervision provides support for maximising sample recovery and ensuring appropriate core presentation. No other measures are taken to maximise core recovery.	
	There is no demonstrative correlation between recovery and grade.	
	• Preferential loss/gain of fine or coarse material is not significant and does not result in sample bias. However, broken ground is typically encountered at geological contacts away from mineralisation or close to footwall/hanging wall rather than within mineralised zones.	
	• If more than 2% core loss occurs in a mineralised zone, the hole is re-drilled.	
Logging	 All diamond drill core has been geologically logged by geologists to support Mineral Resource estimation as well as mining and metallurgy studies. Geotechnical logging is limited to RQD measurements (rock quality designation). 	
	 Geological logging is mostly qualitative, focusing on classifying stratigraphy, lithology and alteration but quantitative data is also captured, for example mineral percentages and structural measurements. 	



Section 1 Sampling Techniques and Data			
Criteria	Commentary		
	 The total length of drill holes is geologically logged and entered directly into the database using laptop computers. 		
	 Drill core is photographed, wet only, prior to sampling. Photography records are comprehensive from 2013 to present but core photos for historic drilling are sporadic, incomplete or lost. 		
Sub- sampling techniques and sample preparation	 Prior to May 2016, pulps were delivered to ALS Burnie laboratory for XRF analysis. Since May 2016, core samples are delivered to ALS Burnie for sample preparation and XRF analysis only. Full suite analysis is completed at ALS Townsville laboratory from October 2016 onward. During 2021, due to congestion at ALS laboratories, 3,000 samples were sent to ALS Adelaide for preparation and forwarded to ALS Brisbane for analysis. 		
	 From 2018, samples are being processed in the following manner: Dried, primary crushed to 6mm then secondary crushed to 3.15mm, pulverised to 85% passing 75µm. Sizing analysis is carried out on 1:20 pulps. Samples are generally not split prior to pulverisation provided they weigh less than 3.5kg. The resulting pulps are bagged, labelled and boxed for despatch to ALS Brisbane and ALS Townsville. 		
	 Prior to 2018, samples were processed in the following manner: 		
	 Between 2005 and 2010: Dried, crushed and pulverised to 80% passing 75µm. Sizing analysis is carried out on 1:20 pulps. 		
	 Between 2010 and 2016: Dried, crushed to 2mm; cone split to give primary and duplicate samples with the remainder rejected. Pulverised to 80% passing 75µm. Sizing analysis is carried out on 1:20 pulps. Samples despatched to ALS Burnie. 		
	 Between 2016 and 2018: Dried, crushed to 25mm, pulverised to 85% passing 75µm. Sizing analysis is carried out on 1:20 pulps. Samples are generally not split prior to pulverisation provided they weigh less than 3.5kg. The resulting pulps are bagged, labelled and boxed for despatch to ALS Brisbane and ALS Townsville. 		
	 From late 2019, whole core was sampled for selected infill drilling (less than 30m spacing). Exploration and Resource Testing (60m spacing) drilling continued to be half core sampled, as well as drilling in areas of known complex geology. Whole core sampling is conducted with approval from Mineral Resources Tasmania (MRT) to assist with the lack of core storage space available at Rosebery. 		
	 Disposal of non-sampled sections only occurs after verification of laboratory results and after consultation with the Competent Person, Senior Resource Geologist and Senior Mine Geologist. 		
	 Sample representivity is checked by sizing analysis and field duplicates at the crush stage. 		
	 The sample types, nature, quality and sample preparation techniques are considered appropriate for the style of the Rosebery mineralisation. 		
Quality of assay data	 From 2016 the assay methods undertaken by ALS Brisbane and ALS Townsville for Rosebery core samples were as follows: 		
and laboratory tests	 Analysis of Ag, Zn, Pb, Cu and Fe by four acid ore grade digests, ICPAES finish with extended upper reporting limits (ALS Brisbane). In addition to these main elements, another 29 elements are reported as a part of this method. Analysis of Au by fire assay, three acid digest and flame assay AAS (30g sub-sample charge) (ALS Townsville). 		



Section 1 Sampling Techniques and Data			
Criteria	Commentary		
	 Prior to 2016, the assay methods undertaken by ALS Burnie for Rosebery core samples were as follows: 		
	 Between 2005 and 2010: 3-Acid Partial Digest (considered suitable for base metal sulphides). Analysis of Pb, Zn, Cu, Ag, Fe by Atomic Absorption Spectrometry (AAS). Au values were determined by fire assay. 		
	 Between 2010 and 2016: Dried, crushed to 2mm; cone split to give primary and duplicate samples with the remainder rejected. Pulverised to 80% passing 75µm. Despatch to ALS Burnie. Analysis of Pb, Zn, Cu and Fe by X-Ray Fluorescence (XRF) applying a lithium borate oxidative fusion (0.2g sub- sample charge). Analysis of Ag by aqua regia digest and Atomic Absorption Spectrometry (AAS) (0.4g sub-sample charge). Analysis of Au by fire assay, three acid digest and flame assay AAS (30g sub-sample charge). 		
	 The methods above are considered effectively total digestion and are suitable for Mineral Resource estimation at Rosebery. 		
	 The following items are included in all sample batches to assess the quality and precision of laboratory results: 		
	 Matrix-matched certified reference material (CRM) or OREAS certified CRMs and field duplicates are inserted at a ratio of 1:20 to routine samples and dolerite blanks at a ratio of 1:50. Duplicates are taken as either coarse crush or pulp repeats. 		
	 CRMs (LBM-20, MBM-20 and HBM-20) were routinely used from early 2020, with small contributions from the "18" series matrix-matched standards and the newly available LBM-22. OREAS-620 and OREAS-622 were also used. 		
	 All standards are photographed with their sample bags and IDs at the time of sampling to verify laboratory results and ensure sample lists are in the correct order. 		
	 Quartz flushes are inserted immediately after high grade sample groups to check laboratory crush and pulverisation performance. 		
	 QAQC analysis during the reporting period showed the following: 		
	 Insertion rates for standards and duplicates were 1:20 to routine samples and blanks were 1:50 to routine samples, conforming to MMG's work quality requirements. 		
	Standards: Determination issues continued for the low base metal standard (LBM-22) with approximately 1.4% failing for Au. For the high-grade standard (HBM-22), 1.6% of samples failed for Au, while the OREAS-620 standard saw a failure rate of 4.4% for Au. One cause of the failure rate is thought to be due to differences in precision of the analytical method used by the assaying laboratory (AA method; reported to 2 decimal places), compared to the precision of the method used to certify the CRM (Peroxide fusion ICP method; reported to 3 decimal places). This means the QAQC analysis undertaken by MMG assesses the assay results compared to the CRM to a degree of precision that the AA method in unable to achieve. All failures occurring within the target mineralised zone were re-assayed.		
	 Blanks: Eleven batches contained blank failures for Zn when the failure threshold was set at 10 times the detection limit (DL). These failures were nearly evenly distributed between the Adelaide and Burnie laboratories. Investigations by ALS revealed that all these failures were within the acceptable tolerances set by ALS. It was noted that the mass of the blank standards was approximately 500g, while the average core sample weighs 		



Section 1 Sampling Techniques and Data			
Criteria	Commentary		
	around 2-3kg. As a result, the mass of the blank samples has been increased to at least 1kg to enhance their performance.		
	 Sizing: A total of 2,481 samples underwent sizing tests; the 85% passing 3mm primary crush test and 15 samples failed the secondary test (85% passing 75 microns) there were no failures recorded. 		
	 Duplicates: Both crush duplicates and pulp duplicates performed well for the reporting period. Repeatability is consistent for all pulp and crush duplicates with mean percentage differences for the Zn, Pb, Cu and Ag elements falling within 5% relative difference from their original samples. The percentage difference for Au in pulp duplicates was slightly higher at 7.2%. The average coefficient of variation (CV) of all duplicates are below the reference CV outlined in internal MMG guidelines. The CV for the gold duplicates was less than 25% which is acceptable. R2 values indicate that Au crush and pulp duplicates show the least amount of correlation, and this is expected given the nuggetty nature of Au. 		
	 Quartz flushes: There were three batches that incurred Quartz Flush failures (x10DL) for the reporting period. 		
	• ALS Brisbane and Townsville release QAQC data to MMG for analysis of internal ALS standard performance. The performance of ALS internal standards appears to be satisfactory.		
	• Batches that fail quality control criteria (such as standards reporting outside set limits) are entirely re-assayed.		
	• An umpire laboratory (Intertek Perth) is used to re-assay 5% of pulps returned from the ALS laboratory. Analysis of routine sample results and control sample performance is reported quarterly.		
	 No data from geophysical tools, spectrometers or handheld XRF instruments have been used in estimation of the Mineral Resource. 		
	• The abovementioned assay methods are considered effectively total and suitable for Mineral Resource estimation at Rosebery.		
Verification of sampling	• All mineralised intersections are reviewed and verified by numerous geologists by comparing assay results to core photos and logging.		
and assaying	 Intentional twinning of mineralised intersections has occurred only in select cases where confirmation of historical drilling results was required, for example where old drillhole traces could have been affected by magnetics. In 2020, a drill program aiming to twin 5% of historic drillholes in the Middle Mine area was completed to verify previous assay results and confirm spatial location of mineralised intersections. 		
	• Unintentional close spaced drilling can occur from underground drill patterns due to rapid changes in lithological competencies, but generally follow-up drilling is completed to achieve the appropriate drill spacing needed to support Mineral Resource estimation.		
	• Lab results are received as batches (a batch per drillhole) and imported into the database by geologists. The performance of duplicates, blanks and standards is assessed for each batch by Project and Senior Geologists. Batches with failed standards are flagged and re-assay is requested for relevant sample sets.		
	• Returned re-assayed data is reviewed to determine which batch is to be used for Mineral Resource data exports. Batch status is recorded in the database for audit purposes.		



Section 1 Sampling Techniques and Data		
Criteria	Commentary	
	 Database validation algorithms are run to check data integrity before being used for interpretation and Mineral Resource estimation. Unreliable data (e.g. unverifiable assay data) is permanently flagged in the database and excluded from data exports used in Mineral Resource estimation. 	
	 Since August 2014, all data below detection limit is replaced by half detection limit values. Prior to this date, the full detection limit was used. 	
	 No adjustments have been made to assay data – if there is any doubt about the data quality or location of a drillhole, it is excluded from data exports used for Mineral Resource estimation 	
Location of data points	• Drillhole collars are surveyed by licenced Mine Surveyors. Geologists request underground drill sites to be marked up with a collar pin drilled into the wall at the drill site coordinates. After a hole is drilled, the collar point is tagged with a metal label (of its hole ID).	
	 Collar positions of underground drillholes are picked up by surveyors using Leica TS16, TS15 and MS60 total stations. Collar positions of surface drillholes are picked up using differential GPS. Historic surface drillhole collars were surveyed using a theodolite or handheld GPS but many of those collars have been resurveyed and updated in the drillhole database. 	
	 Diamond drillers align drill rigs underground and on surface using a Downhole Surveys DeviAligner tool to setup on drillhole orientations, as directed by geologists. 	
	 Since March 2018, north seeking gyro tools (Reflex Gyro Sprint-IQ and Axis Champ Gyro) have permanently replaced all other downhole survey instruments underground, because they are unaffected by magnetics, quick to use and highly accurate. Selected historic surface exploration drillholes have been surveyed using a Stockholm Precision Tools Gyro Tracer north seeking gyro (parent holes only). 	
	 Prior to March 2018, all diamond drillholes were surveyed using a magnetic single-shot Reflex Ezi-shot tool at 30m intervals to monitor drillhole progression. A full downhole gyro survey was then completed after a drillhole reached end of hole. Where a gyro downhole survey was not practicable due to equipment limitations, a multi-shot survey was completed at 6m intervals. 	
	• The coordinate system used is referred to as the Cartesian Rosebery Mine Grid, offset from Magnetic North by 23°52'47" (as at 1 July 2020) with mine grid origin at MGA94 E=378981.981, N=5374364.125; mine grid relative level (RL) equals AHD+1.490m+3048.000m and is based on the surface datum point Z110.	
	 Topographic data derived from LiDAR overflights have been carried out and correlated with surface field checks to confirm relativity to MGA and Rosebery Mine Grid. 	
Data spacing and distribution	 The Rosebery mineralised zones are drilled on variable spacing dependent on lens characteristics and safe access to drill platforms. Drill density ranges from 10-25m to 40-60m along strike and up and down dip of mineralised zones. Wider spaced drilling exists in various areas of the deposit but is only adequate for establishing geological continuity, not defining grade continuity. 	
	 Core samples are not composited prior to being sent to the laboratory, however, the nominal sample length is generally 1m. 	



Section 1 Sampling Techniques and Data		
Criteria	Commentary	
	Observations of small-scale mineralisation geometry and structural characteristics were traditionally made by manual geological mapping, scanning and digitising to establish geological continuity.	
	 Since 2016, high quality photogrammetry (ADAM Tech) has replaced mapping in production areas of the mine. Most development faces are captured, and full coverage of walls and backs are obtained by trimming overlapping sections of adjoining captures. Geological observations are digitised, and this data is integrated into construction of the mineralisation domains (wireframes). 	
	 Drillhole spacing in combination with level and face mapping is satisfactory to establish the degree of geological and grade continuity appropriate for Mineral Resource and Ore Reserve estimation and the classifications applied. 	
Orientation of data in relation to geological structure	• Drilling orientation is designed perpendicular to lens strike, typically in the form of radial fans. Mineralised lenses of the Rosebery deposit strike roughly north-south and dip east (45° on average). Fans are generally drilled from footwall drives (from west to east). Alternatively, some holes are drilled from hanging wall drives (from east to west).	
	• Drill fan spacing and orientation is designed to provide evenly spaced, high angle intercepts of the mineralised zones where possible, aiming to minimise sampling bias related to intersection orientation. Some drill intersections are at low angle to the dipping mineralisation due to limitations of available drill platforms.	
	 Where historic drillholes from surface or older holes longer than 400m exist, attempts may be made to confirm mineralised intercepts by repeat drilling from newly developed drives. Deep drill intersections are excluded from Mineral Resources modelling where duplicated by new underground drillholes. 	
	Drilling orientation is not considered to have introduced any sampling bias.	
Sample security	 Personnel cutting and organising samples are adequately trained and supervised. Samples are stored in a locked compound with restricted access during preparation and storage. 	
	• Whole and half core samples for despatch to ALS Burnie are stored in sealed containers with security personnel at the Rosebery Mine entry gate overseeing collection by ALS couriers.	
	 Receipt of samples are acknowledged by ALS via email and checked against expected submission lists. 	
	 Assay data is returned via email as .sif files for direct importation to the drillhole database and archived online as a backup. 	
Audit and reviews	The most recent audit of the ALS Burnie facilities by MMG representatives was in June 2023 with no material issues reported.	
	 Pre-Covid restrictions, both ALS Mount Isa and Brisbane laboratories were audited on an annual basis by MMG personnel. Most recently, the ALS Townsville and ALS Brisbane laboratories were audited by MMG representatives on 20 July 2023 and 21 July 2023 respectively. No issues were reported. 	
	 Meetings between MMG and ALS occur to discuss any issues and concerns. An increase in dust at the Burnie Lab where samples are prepared was noted during an audit in late 2020, posing a minor risk to sample cross contamination and to sample preparation staff. ALS Burnie have addressed this issue by 	



Section 1 Sampling Techniques and Data		
Criteria	Commentary	
	building a new sample preparation shed with an appropriate dust extraction system.	
	• Any issues identified during audits and reviews in the past have been rectified.	

Section 2 Reporting of Exploration Results		
Criteria	Commentary	
Mineral tenement	 Rosebery Mine Lease ML 28M/1993 includes the Rosebery, Hercules and South Hercules polymetallic mines. It covers an area of 4,906ha. 	
and land tenure status	 ML28M/93 was granted to Pasminco Australia Limited by the State Government of Tasmania in May 1994. This lease represents the consolidation of 32 individual leases that previously covered the same area. 	
	• Tenure is held by MMG Australia Ltd for 30 years from 1 May 1994. The lease expiry date is 1 May 2024. The renewal process has commenced in line with MRT processes and is ongoing.	
	 The consolidated current mine lease includes two leases; (consolidated mining leases 32M/89 and 33M/89). These were explored in a joint venture with AngloGold Australia under the Rosebery Extension Joint Venture Heads of Agreement. This agreement covered two areas, one at the northern and one at the southern end of the Rosebery Mine Lease, covering a total of 16.07km². 	
	 There are no known impediments to operating in the area. 	
Exploration done by other parties	 Tom McDonald discovered the first indication of mineralisation in 1893 when he traced alluvial gold and zinc-lead sulphide boulders up Rosebery Creek. Twelve months later an expedition led by Tom McDonald discovered the main lode through trenching operations, on what is now the 4 Level open cut. 	
	 The Rosebery deposit was operated by several different operations until 1921 when the Electrolytic Zinc Company purchased both the Rosebery and Hercules Mines. 	
	 Drilling from surface and underground over time by current and previous owners has supported the discovery and delineation of mineralised lenses at Rosebery. 	
Geology	• The Rosebery volcanic-hosted massive sulphide (VHMS) deposit is hosted within the world-class Mt Read Volcanics. This Cambrian volcanic belt is an assemblage of lavas, volcaniclastics and sediments deposited in the Dundas Trough between the Proterozoic Rocky Cape Group and the Tyennan Block.	
	 Mineralisation occurs as stacked stratabound massive to semi-massive base metal sulphide lenses. The host lithology lies between the Rosebery Thrust Fault and the Mt Black Thrust Fault which all dip approximately 45° east. Ore mineralogy consists predominantly of sphalerite, galena, chalcopyrite with electrum and minor tetrahedrite. 	
	• The orebody has experienced numerous events of folding, shearing and thrusting particularly in the late Cambrian and early Devonian. Lenses in the southern portions of the deposit have experienced metasomatism and replacement by a deep Devonian granitoid resulting in variation of the mineralogy, structure and alteration in these lenses.	



Section 2 Reporting of Exploration Results				
Criteria	Commentary			
	Image: constrained and constrained properties with source materies to the source and properties with source and the source materies to the source and the			
Drillhole information	 The Rosebery database consists of 14,599 diamond drillholes, totaling 2,209,994 m. This Mineral Resource update comprises two models, one for the Lower mine, and another for the middle mine area. For this update, a single database was used for both models. No individual drillhole is material to the Mineral Resource estimate and therefore a geological database is not supplied. 			
Data aggregation methods	 This is a Mineral Resource Statement and is not a report on exploration results, therefore no additional information is provided for this section. No metal equivalents were used in the Mineral Resource estimate. 			
Relationship between mineralisation width and intercept lengths	 Mineralisation true widths are defined by modelled 3D wireframes based on mineralised intercepts. Typical drilling angles, relative to the geometry of mineralisation, are subperpendicular to perpendicular allowing true width of mineralisation to be determined. Most drillholes intersect the ore zone at angles between 40° and 90°. 			







Section 2 Reporting of Exploration Results		
Criteria	Commentary	
Balanced reporting	 This is a Mineral Resources Statement and is not a report on exploration results, therefore no additional information is provided for this section. 	
Other substantive exploration data	 This is a Mineral Resources Statement and is not a report on exploration results, therefore no additional information is provided for this section. 	
Further work	• Underground diamond drilling is continually active in several areas of the mine with the intent to better define known mineralised areas (Mineral Resource to Ore Reserve conversion) as well as to further extend the Mineral Resource into areas potentially hosting additional economic mineralisation.	

Section 3 Estimating and Reporting of Mineral Resources				
Criteria	Commentary			
Database	 The following measures are in place to ensure database integrity: 			
integrity	 All drillhole data is stored in an SQL database that is backed up at regular intervals. Database integrity is managed by the Database Administration team. 			
	 Geological logging is entered directly into the database using laptop computers by site personnel. 			
	 Assays are imported directly into the database by site personnel from official data files provided by the laboratory. 			
	Data validation procedures include:			
	 Bulk data is imported into database buffer tables and validated prior to being uploaded as final records. 			
	 Validation routines are set up within the database to check for common data entry errors such as overlapping sample, lithological and alteration intervals. 			
	 Unreliable data is permanently flagged in the database and excluded from data exports used in Mineral Resource estimation. 504 drillholes (3.8%) have been excluded from the Rosebery database (e.g. due to unverifiable assay data or collar survey). 			
	 Random comparisons of raw data to recorded database data are undertaken prior to reporting for 5% of the additional drillholes added in any one year. No fatal flaws have been observed from this random data review 			
Site visits	 The Competent Person for Mineral Resources visited the Rosebery Mine in early 2024. No site visit was completed in 2023 due to the timing of staff changeovers. The 2024 site visit included: 			
	 Review of the geological controls, wireframe construction and methodology as applied in the 2024 Mineral Resource estimate. 			
	 Review of modelling and estimation advancements. 			
	 Inspection of underground workings and ore deposit familiarisation. 			
	 Inspection of drillholes and mineralisation intercepts, density measurement and sampling techniques. 			
	 Inspection of geological data collection, and data management systems. 			
	 Regular video meetings were held between the Competent Person and site and corporate personnel throughout the reporting period. 			



Section 3 Estimating and Reporting of Mineral Resources						
Criteria	Commentary					
Geological interpretation	 Economic Zn-Pb-Cu-Ag-Au mineralisation occurs as massive, semi massive and disseminated base metal sulphide lenses within the Rosebery host sequence. Economic and near-economic mineralisation is visually identifiable in drill core and underground mine development. Drill core is routinely sampled across zones of visible sulphide mineralisation or across zones of expected mineralisation 					
	 intercepts. The method used for defining mineralisation domains for the 2024 Mineral Resource estimate is described below: 					
	 Peer reviewed exploratory data analysis undertaken for each metal to determine apportionment of a low and a high-grade domain. For example, in the Lower Mine (current production area), the low-grade zinc domain ranges from 2% to 7% Zn. 					
	 3D wireframe models are constructed for each metal and each grade domain individually, using an Indicator interpolation method like kriging (Radial Basis Function) in combination with vein modelling, where possible, using Leapfrog Geo software. Key data inputs include composited assay data and mineralisation guidelines digitised from geological mapping and photogrammetry of development drives. 					
	 Spheroidal interpolants are used with a standard sill of 1, range between 50 and 80 and a nugget of zero to ensure close snapping to data points. Maximum extrapolation used to generate the domains in Leapfrog was set to an ellipsoid ratio of 7, 7, 1 (max, int, min). The Radial Basis Function (RBF) interpolation method uses a model 					
	representing the spatial variability of each metal and is based on directional experimental semi-variograms and drill spacing. The interpolation search directions are determined by a structural trend model created using mineralisation trend triangulations obtained from interpretations looking down the axis of regional stress.					
	 Resultant wireframe models are visually compared to mapped or recorded mineralisation contacts from traditional geological mapping and photogrammetry. A close correlation between the models and points of observation is noted in most areas where data is available. Differences occur due to the 5m resolution of wireframes and when compared to more detailed mapping. Where major differences occur, guideline strings are 					
	 used to modify the wireframes to reflect the mapping where appropriate. The wireframe models are broadly consistent with logged and mapped observations of the main lithology units present at mine scale, namely black slate, porphyry and the hanging wall and footwall contacts within the host sequence. 					
Dimensions	 The Rosebery Mineral Resource extends from -200mE to 1750mE, -1000mN to 3325mN, 1650mRL to 3500mRL (Rosebery Mine Grid coordinates) and is currently open to the north, south and at depth. 					
	 Individual lenses vary in size from a few hundred metres up to 1,000m along strike and/or down-dip, with a total strike length of mineralisation reaching approximately 4,000m. 					
	 The mineralised lenses range from a minimum of 0.2-0.3m, maximum of 12-36m with an average true thickness of 3-6m. 					



Section 3 Estimating and Reporting of Mineral Resources							
Criteria	Commentary						
	The current deepest production drive is approximately 1,700m below surface and the deepest economic drill intersection is approximately 2,000m below surface.						
Estimation and modelling techniques	 Grade estimation used Ordinary Kriging (OK) as implemented in Maptek Vulcan v2022.1 Geostatistical analysis used Snowden Supervisor v8 and wireframes (grade domains) were constructed in Leapfrog Geo v2023.2.1. This MR update includes 159 new drillholes (47,230 m) in the Lower Mine and 164 new drillholes in the Middle mine (41,325 m). The main inputs and parameters for the grade domains and block construction 						
	 are as follows: Two grade domains (high and low) were created for each metal - Zn, Pb, Cu, Ag, Au, and Fe using a combination of RBF interpolants and vein models. Two domains were also generated for dry bulk density (DBD) in the Lower mine area. Log probability plots and histogram distributions were used to determine 						
	 the optimal grade ranges for each domain and lens. Spheroidal interpolants are used with a standard sill of 1, range between 50 and 80 and a nugget of zero to ensure close snapping to data points. Domain boundaries were constrained by digitised contacts from photogrammetry and mapping of mine development. Im composites were created from the drillhole database, then flagged by domain and lens variables and estimated individually: 						
	 Declustering was applied, typically at 20m cell size (average stope size) with 5m offsets. Grade caps and spatial restrictions were applied to domains containing extreme values in the dataset. Log probability plots, histograms and cumulative frequency plots were used to determine the optimal caps for each composite. Grade capping was applied to Au, Ag, and Cu domains in some lenses based on individual statistical analysis. Capping was not applied to Zn, Pb and Fe domains. High yield restrictions are used to limit the influence of extreme high-grade samples within the low and high grade domains. High yield restrictions were mostly applied to the Lower Mine to limit extreme Ag, Au and Zn samples. 						
	 Variograms (with caps applied) were individually modelled from the 1m composites for each domain and lens. The resulting search parameters were used in OK grade estimation. The Local Varying Anisotropy (LVA) method was used to align and optimise the search direction of the estimate to the mineralisation geometry. The mineralisation trends are based on digitised elements from photogrammetry and mapping. Block discretisation was applied at 2 x 4 x 2 (x, y, z) for a total of 16 points per block. Octant search methods were not used. Blocks require a minimum of three drillholes to be estimated and a maximum of four samples from any drillhole. The minimum/maximum sample search number is based on Kriging 						



Section 3 Estimating and Reporting of Mineral Resources					
Criteria	Commentary				
	The estimation was run over two passes. A first pass estimates most blocks using the major orientation search distances determined from modelled variograms. This varies depending on the domain and variable, with first pass searches in the major direction ranging from 31m to 100m. The search distances are doubled for the second pass to ensure remaining unestimated blocks are estimated. Maximum extrapolation used to generate the domains in Leapfrog was set to an ellipsoid ratio of 7, 7, 1 (max, int, min).				
	 All recoverable metals of economic interest (Zn, Pb, Cu, Ag, Au and Fe) were estimated. No deleterious elements or other non-grade variables of economic significance have been identified or estimated. 				
	 Parent block size was set to 2m x 7.5m x 5m (x, y, z) within the grade domains. The block size approximates one half of drillhole spacing in northing and RL and is consistent with the primary sampling interval in easting (1m). Sub-blocks set to 1m x 2.5m x 1m (x, y, z) were used to define the resolution necessary to effectively represent the grade domain boundaries. Super-blocks set to 50m x 52.5m x 50m (x, y, z) were used outside of the grade domains to reduce the model file size. No rotation is applied to the block models. 				
	• No external dilution or recovery factors were considered during the estimation of the Mineral Resource. These are addressed in the Ore Reserve statement.				
	 Each variable was independently estimated and informed, and no correlation between metals was assumed or used for estimation purposes. 				
	 Block model validation process is summarised as follows: Visual inspections for true fit with the high- and low-grade domains (to check for correct placement of blocks) on cross sections and plans. Visual comparison of grade shells with previous block models. Comparison of block model grades with composite grades and a global statistical comparison of the block model grades with the declustered composite statistics and raw length-weighted data. Visual inspection of kriging quality statistics such as kriging variance, slope of regression, kriging efficiency, sum of positive weights, number of samples average distance to samples and pass. Swath and Drift plots were generated and checked for all lenses to confirm overall consistency between data and estimates with a reasonable degree of smoothing. Change of Support analysis was undertaken on all elements on a lens by lens basis. Contact plots were used to compare with previous block models. Reconciliation of block model grade estimates with actual Mill data from active mining areas showed block model performance within ±10% variance for Zn, Pb and Ag metal on a quarterly basis. Au reconciliation results are influenced by locally high grades in quartz-tourmaline veining, with the possibility of low-level Au in hanging wall dilution. Cu capping and estimation parameters will be reviewed for the next mineral resource (MR) 				



Section 3 Estimating and Reporting of Mineral Resources					
Criteria	Commentary				
	 Reconciliation with Mill data was also used in the process of selecting appropriate caps and high yield restrictions to calibrate block model performance. 				
Moisture	 Tonnes have been calculated on a dry basis, consistent with laboratory grade determinations. No moisture calculations or assumptions are made in the modelling or estimation process. 				
Cut-off parameters	 A Net Smelter Return (NSR) cut-off value defines the limit at which material is prospective for future economic extraction. Factors for MMG's long-term economic assumptions include metal prices, exchange rates, metallurgical recoveries, smelter terms and conditions and off-site costs, and was last updated in May 2024. The Mineral Resource is reported above a A\$191/t NSR block grade cut-off, a increase of A\$14/t NSR from the previous year following reclassification of the Resource cut-off grade (RCOG) to align with the stope cut-off grade (SCOG) used for Ore Reserve estimation. An example of average grades across the Lower Mine at the cut-off is as follows: 6.01% Zn, 2.12% Pb, 98 g/t Ag, 1.0 g/t Au, 0.2% Cu. 				
Mining factors or assumptions	 Mineral Resource block models are used as the basis for detailed mine design and scheduling and to calculate derived NPV for the life of asset (LoA). Full consideration is made of the reasonable prospect of eventual economic extraction in relation to current and future economic parameters. All assumptions including minimum mining width, dilution and proximity to surface are included in the mine design process. Mined voids (stope and development drives) are depleted from the final Mineral Resource estimate as at 30 June 2024. For Mineral Resources in the Lower Mine (active mining area), actual mined voids were removed including an additional 5m across strike. This is to ensure removal of near-void skins and pillars as these are considered not to have reasonable prospects for extraction. For Mineral Resources in the Upper Mine, due to lack of confidence in completion in the void model, only resources away from outside edges of known stoping and development have been reported. 				
Metallurgical factors or assumptions	 Metallurgical processing of ore from the Rosebery deposit involves crushing and grinding followed by flotation and filtration to produce saleable concentrates of zinc, lead and copper. In addition, doré bars are produced at site from partial recovery of gold and silver by a Knelson gravity concentrator. Metallurgical recovery parameters for all metals are included in the NSR calculation, which is used as the cut-off grade for the Mineral Resource estimate. The metallurgical recovery function is based on recorded recoveries from the Rosebery concentrator and monitored in monthly reconciliation reports. 				



Section 3 Estimating and Reporting of Mineral Resources							
Criteria	Commentary						
Environmental factors or	 Environmental factors are considered in the Rosebery life of asset (LoA) work, which is updated annually and include provisions for mine closure. 						
assumptions	 Potentially acid forming (PAF) studies have been completed for sulphide-rich waste at Rosebery Mine in 2014. Determination of surface treatable and untreatable waste is currently determined by visual assessment guided by geological modelling and is not estimated or included in the 2024 Mineral Resource block models. 						
	 Only mineralised material intended for processing is brought to surface. 						
Bulk density	 Bulk density is measured with a weight in air and water method using a Dynamix G-Ex Auto SG station. The machines (2) are calibrated after every drillhole using three different standards (stainless steel 8.00g/cm3, aluminium alloy 2.85g/cm³, titanium 4.51g/cm³). 						
	 In the Lower Mine only, dry bulk density (DBD) calculations are based on an OK estimation method using a combination of actual DBD measurements and predicted values assigned by a machine learning algorithm. 						
	 Since introducing this DBD estimation method in the Lower Mine, reconciliation has improved in tonnes and metal for all elements. 						
	 The machine learning algorithm (CatBoost Regressor) was trained with over 85,444 DBD measurements using the associated multi-element assay results as predictor features. The algorithm consistently gives an average K-folds test r² results of 0.93, indicating a strong improvement over the bulk density formula used before 2018, which was based off metal/mineral percentages. 						
	 In the Upper Mine, and Middle Mine areas where few actual DBD measurements are available, an empirical formula is used to determine the dry bulk density (DBD) based on Zn, Pb, Cu and Fe assays and assuming a fixed partition of the Fe species between chalcopyrite and pyrite. This formula is applied to the block model estimations after interpolation has been completed using a constant 2.65g/cm³ for the non-mineralised component of the rock. 						
	 DBD = 2.65g/cm³ + 0.0560 Pb% + 0.0181 Zn% + 0.0005 Cu% + 0.0504 Fe% DBD measurements are being collected for new drilling in the Middle Mine and Upper Mine areas. When enough data is available, a machine learning algorithm will be implemented to predict DBD values for historic drilling. 						
	 Significant voids or porosity are not characteristic of the Rosebery ore deposit and the DBD formula does not attempt to account for porosity. 						
Classification	 The Mineral Resource classification at Rosebery is based on geological continuity and understanding of the mineralisation, as well as drillhole spacing. A minimum of three drillholes are required to ensure that any interpolated block was informed by enough samples to establish adequate confidence in the modelled grade continuity. 						
	 Uncertainty guidelines determined from an internal drillhole spacing study (2017) are used for classification. Results from the study indicate the following general parameters: 						
	 Measured Mineral Resources (90% confidence and <15% uncertainty quarterly): 15m x 15m drillhole spacing. 						
	 Indicated Mineral Resources (90% confidence and <15% uncertainty annually: 30m x 30m drillhole spacing. 						



Section 3 Estimating and Reporting of Mineral Resources							
Criteria	Commentary						
	 Inferred Mineral Resources are defined as twice the spacing of Indicated Mineral Resources, provided reasonable geological continuity exists. 						
	 As a final step, a set of Resource Category wireframes were constructed and used to ensure spatial continuity of the assigned classification. 						
	 The Mineral Resource classification reflects the Competent Persons view on the confidence and uncertainty of the Rosebery Mineral Resource. 						
Audits or reviews	 A Mineral Resources audit of the 2021 Lower Mine block model was completed in November 2021 by AMC Consultants Pty Ltd (AMC). AMC acknowledged that the 2021 Mineral Resource was compiled using usual industry practices and reported in accordance with the JORC Code (2012) and endorsed the processes, systems and results employed by MMG in estimation of the Rosebery Mineral Resource. 						
	 No fatal flaws were identified in the audit and eight recommendations were made for improvements. Seven of those were implemented in the 2022 and 2023 Mineral Resource estimates with the final recommendation undergoing further examination. 						
	 The 2024 Mineral Resource estimate was peer reviewed internally with no material issues identified. 						
	 Mining Plus completed an audit of the 2024 Mineral Resource and Ore Reserve models. No fatal flaws were identified. The review covered both the modelling inputs and outputs and found the processes used to be consistent with usual industry practice. The main recommendations relating to the MR modelling are to review the wireframing methodology and update the lens boundaries to incorporate geological context. Recommendations were also made regarding the review of treatment of null values and updating of the QKNA and drillhole spacing study. All identified issues are currently being addressed and will be implemented in the next update. 						
Discussion of relative accuracy/ confidence	 Geological confidence is high in the spatial location, continuity and estimated grades of the modelled domains that comprise the Rosebery Mineral Resource. The remaining Mineral Resource is expected to exhibit the same stacked, lensoidal mineralisation geometry that has been described to date in mined areas at the development drive and lens scale. 						
	 Minor local variations are observed at a sub-20m scale, and it is recognised that the short scale variation cannot be accurately captured by drillhole data alone, even at close drill spacing. It is necessary to incorporate additional geological data to define local variations and this is achieved with the use of high-resolution digital photogrammetry (mapping). 						
	 Short scale geometry variation is often related to the preferential strain around more competent units in the mine sequence. 						
	• Twelve month rolling reconciliation figures between the Mineral Resource model and the Mill treatment reports are within 10% for all metals, indicating that the Rosebery Mineral Resource estimation process is creditable.						
	 Mining and development images (including traditional mapping and photogrammetry) show good spatial correlation between modelled domain boundaries and actual geological observations and contacts. 						



Section 3 Estimating and Reporting of Mineral Resources				
Criteria	Commentary			
	• The combination of the Mineral Resource model, mapping, stope commentaries and face inspections provides reasonably accurate grade estimations for the mill feed to be tracked on a rolling weekly basis, end of month reports, as well as a quarterly and annual basis.			
	 Remnant mineralisation near voids in the upper and lower levels has been removed from the reported Mineral Resources. 			
	• The accuracy and confidence of this Mineral Resources estimate is considered suitable for public reporting by the Competent Person.			

7.2.3 Expert Input Table

Contributor	Position	Nature of Contribution			
Helber Holquino	Senior Resource Geologist (MMG Ros)	Resource modelling and reporting			
Marshall Baadjies Project Resource Geologist (MMG Ros)		Geological interpretation; Leapfrog domain development			
Raul Hollinger	Senior Geologist Technical Compliance (MMG Ros)	QAQC and mine reconciliation			
Forrest Pennington	Principal Resource Geologist (MMG Ros)	Contribution overview and contribution supervision; domain modelling			
Corey Jago	Superintendent Geology (MMG Ros)	Contribution overview and contribution supervision			
Maree Angus	Principal Consultant Resource Geology (ERM)	Resource modelling, peer review and JORC (2012) MRE Competent Person			



7.2.4 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Mineral Resource statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

7.2.4.1 Competent Person Statement

This Mineral Resources statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("2012 JORC Code").

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having more than five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member of The Australasian Institute of Mining and Metallurgy hold Chartered Professional accreditation in the field of Geology.
- I have reviewed the relevant Rosebery Mineral Resources section of this Report, to which this Consent Statement applies.

I am a full-time employee of ERM Consultants Australia Pty Ltd at the time of the estimation.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Rosebery Mineral Resources section of this Report is based on, and fairly and accurately reflects the form and context in which it appears the information in my supporting documentation relating to Mineral Resources. I confirm that I have reviewed the relevant Rosebery Mineral Resources section of this Report to which this Consent Statement applies.

7.2.4.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Rosebery Mineral Resources – I consent to the release of the Mineral Resources and Ore Reserves Statement as at 30 June 2024 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Maree Angus MAusIMM CP (Geo) #108282

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Signature of Witness:

Date:

Aaron Meakin (Brisbane, Australia)

Witness Name and Residents: (eg, town/suburb)



7.3 Ore Reserves – Rosebery

7.3.1 Results

The 2024 Rosebery Ore Reserves are summarised in Table 23.

Rosebery Ore	Reserves										
							Contained Metal				
Rosebery	Tonnes (Mt)	Zinc (% Zn)	Lead (% Pb)	Copper (% Cu)	Silver (g/t Ag)	Gold (g/t Au)	Zinc ('000 t)	Lead ('000 t)	Copper ('000 t)	Silver (Moz)	Gold (Moz)
Proved	4.3	6.0	2.4	0.18	110	1.1	260	100	7.8	15	0.15
Probable	2.4	5.6	2.1	0.17	91	1.1	130	51	4.1	7.0	0.09
Total	6.7	5.9	2.3	0.18	100	1.1	390	150	12	23	0.24
Stockpile											
Proved	0.01	6.6	2.4	0.23	100	1.2	0.8	0.31	0.03	0.04	0.001
Total	6.7	5.9	2.3	0.18	100	1.1	390	150	12	23	0.24

Notes:

1. Cut-off grade is based on Net Smelter Return (NSR) after Royalties, expressed as a dollar value of A\$191/t.

2. Contained metal does not imply recoverable metal.

3. The figures are rounded according to JORC Code guidelines and may show apparent addition errors.

The 2024 Ore Reserves have increased in comparison to 2023 by approximately 2.2Mt which was contributed to by multiple factors, including the below:

- Rosebery's 2024 Ore Reserves are located in Lower Mine, Middle Mine with the inclusion
 of a new Ore Reserve Estimate for the previously mined V Lens and U lens while the 2023
 Ore Reserve Estimate is located in the Lower Mine region and the U Lens located to the
 south of the Upper Mine. A maiden Ore Reserve estimate for Z Lens which is to the north
 of X Lens in the lower mine has also been declared.
- Mining depletion since 30 June 2023 has decreased the 2024 Ore Reserves estimate by (1.0Mt). This depletion is primarily offset by an increase in Ore Reserves due to the maiden Ore Reserve estimate in Z Lens of 0.56Mt, the addition of a new Ore Reserve estimate in V Lens of 0.62Mt and an increase in the U Lens Ore Reserve estimate by 0.53Mt.
- All other lenses had increases to the Ore Reserve estimate from 2023. This was partly due to the exploration drilling program that has been in operation for the past year and also a review of the NSR script which recognised the value of high by-product credits that were previously not valued correctly.
- The 2024 Ore Reserve estimate is not constrained by the limit of the existing planned TSF capacity. This is due to the completion of the Bobadil Heights Dry Stack Tails PSF and ongoing work on conventional lifts to the Bobadil TSF.



7.3.2 Ore Reserves JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 24 complies with the 2012 JORC Code requirements specified by "Table-1 Section 4" of the Code.

Section 4 Estimation and Reporting of Ore Reserves						
Criteria	Commentary					
Mineral Resources estimate for conversion to Ore Reserves	 The Mineral Resource estimate as reported is inclusive of the Ore Reserve estimate. The Mineral Resource estimate is based on the MMG March 2024 Mineral Resource block model, (ros_knpwxyz_grm_2403_v4.bmf, ros_jmrstv_gmr_2403_v5.bmf). There is high geological confidence in the spatial location, continuity and 					
	estimated grades of the modelled domains within the Rosebery Mineral Resources. The sheet-like, lenticular nature of mineralisation exhibited historically is expected to be present in the remaining Mineral Resources at a global scale.					
Site visits	Andrew Robertson is the Competent Person for the Rosebery Ore Reserves and has travelled regularly to Rosebery in 2023-2024. Andrew is currently the Studies Manager on site.					
Study status	• The mine is an operating site with an on-going detailed Life of Mine planning process. Mining studies of the Upper Mine, Middle Mine and U Lens are in progress. U lens has increased the tonnage of Ore Reserves as a result of these studies. Z Lens in the lower mine has also had a study completed on the high confidence Mineral Resource to identify additional Ore Reserves.					
Cut-off parameters	• The 2024 Mineral Resource and Ore Reserve estimates rely on cut-off grades/values which are based on corporate guidance on metal prices and exchange rates. The site capital and operating costs, production profile, royalties and selling costs are based on MMG's 2024 Budget. Processing recoveries are based on historical performance.					
	• The Breakeven Cut-off Grade (BCOG) has been calculated using MMG's 2024 Budget costs. Cost and production profiles are over a three-year mine plan period (2024-2026) to smooth any cost volatility and produce a longer-term cost basis.					
	 The BCOG was used to evaluate the economic profitability (Level by Level) of mining during the Life of Asset planning process. The Stope Cut-off Grade (SCOG) which does not include development costs was used to define the stope shapes including estimated planned dilution as the operation is mine constrained. Resultant stope shapes that were below the BCOG value but above SCOG were evaluated for mining on an individual basis. Accordingly, some material that is below the BCOG is included in the Ore Reserve estimate, as it is considered profitable as incremental feed and/or necessary to be mined for other reasons. 					
	The Development Cut Off Grade (DCOG) is used to separate ore and waste in planned development. This cost includes all downstream costs following the loading of the material into haulage trucks. Development material that is above DCOG, classified as Measured or Indicated Mineral Resource and must be moved to extract stoping ore is included in the Ore Reserve Estimate.					



Section 4 Estimation and Reporting of Ore Reserves							
Criteria	Commentary						
	 The operating costs, both fixed and variable, have been attributed on a per mined tonne basis using the planned mine production rate of circa 0.95mtpa 						
	 The Net Si exchange governmer 	The Net Smelter Return (NSR) values are based on forecast metal prices, exchange rates, current treatment charges and refinery charges (TCs & RCs), government royalties and metallurgical recoveries.					
	 The cut of operating of the NSR care 	The cut off values include costs estimated to the mine gate. All off-site operating costs including shipping, TCs and RCs and royalties are included in the NSR calculation.					
	 Exploration 2024 COV to existing drilling, Re 	Exploration drilling was classed as an operating expense and was excluded from 2024 COV calculations, in accordance with company policy as it was not related to existing Mineral Resources. The guidelines distinguish between exploration drilling, Resource delineation drilling, and Resource definition drilling.					
	 Resource of Sustaining Growth ca Definition 	Resource delineation drilling is classified as CAPEX and was not classified as Sustaining Capital for the development of cut off grades as it is considered Growth capital, and therefore did not influence the BCOG value. Resource Definition drilling is an operational expense and included in the COV calculation.					
	Cotogony	of Cut off	2024-2026	2023-2025			
	Calegory	AL	u\$/t processed	Au\$/t processed	DΠΙ ΑΟφη		
	SCOG		191 230	177	14		
	DCOG		65	78	-13		
	The remain and planners	The remaining Ore Reserves can be contained within the remaining approved and planned existing Tailing Storage facilities at Bobadil and 2/5.					
Mining factors or assumptions	 Mining production is carried out by long-hole open stoping with decline access. Stoping is conducted through both longitudinal retreat and transverse methods. Mining lenses are divided into panels and are usually mined using a bottom-up sequence with a number of levels being retreated simultaneously, either towards or away from level access drives. The nature of this mining sequence causes fluctuations in the grade profile in the short-term. Top-down sequencing is used on occasion where circumstances such as ground conditions require this option. Backfilling of stope voids is carried out using two methods; cemented rock fill (CRF), and rock fill (RF). Up-hole (Crown) retreat stopes are left as an open void due to lack of access for fill placement. These open voids do not result in regional instability due to the small openings and low frequency. The current mine closure plan identifies approximately 500kt of waste rock that has been stockpiled on the surface that is available for use as backfill when development material becomes insufficient to meet demands. Long-term stope shapes are generated using the Mineable Stope Optimizer (MSO) process within the Deswik Software package with a specific framework optimised for the Rosebery Orebody. The Net Smelter Return (NSR) is utilised at the artificient access (NISC) with a specific framework optimiset for the Rosebery Orebody. The Net Smelter Return (NSR) is utilised at the artificient is available for use the Smelter Return (NSR) is utilised at the artificient is available for the Rosebery Orebody. 						
	 the optimisation parameter set to SCOG (NSR \$191) as the cut-off grad which fall between SCOG (\$191/t) and BCOG (\$230/t) are assuprofitability on a case-by-case basis in regards to input costs and outp Stope shapes are manually optimised for ore recovery and practical twelve months out from Production as part of the medium-term process. A Mining Tonnage Recovery factor of 100-121% and Grade Recovery 84-95% are applied to mined ore tonnes, depending on the mining zo on historic reconciliations. These factors average 111% and 88% respet the combined mining areas based on the 2024 Ore Reserve Estimate. 					e. Stopes ssed for t returns. xtraction planning factor of he, based ctively for Remnant	



Section 4 Estimation and Reporting of Ore Reserves					
Criteria	Commentary				
	 mining areas have now had sufficient stopes recovered to develop statistically supported Tonnage and Recovery factors. These are a Tonnage Factor of 154% and a Recovery Factor of 86%. Rib pillars that have been left in Lower Mine lenses have only been mined in a limited manner. As a result, there is no robust historical performance to benchmark the mining factors against. An assessment of the mining performance of neighbouring stopes and the small number of pillar extractions determined that it can be assumed that the pillars will incur the same dilution as the primary stopes in each lens but only 50% of the design material will be recovered at the diluted grade. This is a conservative assumption that will be reviewed as more actual performance information becomes available. Access to the orebody is through a decline 5.5m H x 5.5m W at a 1:7 gradient. The approximate horizontal standoff distance between the stoping footwall and major infrastructure; ie - stockpiles, vent rises, escape-ways and declines is 65-70m 				
	 70m. For Ore Reserve estimating, only Measured and Indicated Resource material is included for design purposes. Inferred Resource material is included as unavoidable inclusion to a maximum of 15% of any stope before the stope is excluded from the Ore Reserve Estimate. Production of ore is contained entirely within Measured and Indicated Mineral Resources. Resource definition drilling programs are scheduled to convert Indicated Mineral Resources to Measured Mineral Resources before development or stoping activities commence in those areas. All mine development is under survey control. Geological development control is currently not implemented at Rosebery, apart from estimating the ore grades in development headings and distinguishing between ore and waste material. The primary ventilation system supplies approximately 660 m³/s (measured at the three primary ventilation fans) of air to the underground mine, which is sufficient to allow extraction of the current mine production rate from multiple ore lenses as described in the mine plan. TARP Systems are in place to manage activities in each Lens in the event of major fan outages. Refrigeration of the mine air is considered unlikely to be required to extract the current Ore Reserves due to the average temperatures of surface intake air. As a result, no refrigeration system has been allowed for in the Ore Reserve Mine Plan. The mine has an established dewatering circuit and other services, including electrical ring main, leaky feeder radio system, compressed air, production water and potable water. This circuit is capable of being extended as the mine expands. 				
	stations, which provide a means of secondary egress from all major production fronts. This network is extended as the mine expands. From 17 Level, the No.2 shaft acts as the second means of egress to duplicate the main decline. Where required, mobile self-contained rescue chambers are installed.				
Geotechnical	 Rosebery is one of the deepest and oldest mines in Australia with challenging ground conditions that result in the closure (squeezing) of development drives and mining induced seismicity around production fronts in the lower levels. Mining induced seismicity at Rosebery is usually related to the proximity of production to geological structures or contrasting lithological contacts. A geological structural model that includes the known major intrusions, contact zones and lithological features has been developed and is routinely updated to guide mine planning and operations. 				



Section 4 Estimation and Reporting of Ore Reserves							
Criteria	Commentary						
	 Seismicity can also be attributed to production near highly stressed abutment and close-out pillars. Permanent infrastructure (declines, stores, substations, etc.), that sit within these abutments/pillars, are managed with appropriate ground support for the possible conditions experienced. Seismic monitoring, seismic re-entry exclusion periods (following production) 						
	 firings) and seismic TARPs (mine wide and high-risk area specific) are used to control personnel access into potentially high seismic hazard locations. High displacement ground support (dynamic support) is selected in locations where increased seismic risk has been determined by the geotechnical department during the development design process. 						
	 Rock fabric anisotropy results in p North-South compared to drives t striking drives often require highe rehabilitation costs. 	ck fabric anisotropy results in poorer rock mass quality for drives that strike orth-South compared to drives that strike East-West. As a result, North-South iking drives often require higher capacity support requirements and increased mabilitation costs.					
	 Just-in-time development, prefere ground support capacity designs rehabilitation to establish and mai 	ust-in-time development, preferential drive orientations and condition specific round support capacity designs are combined with multiple stages of ehabilitation to establish and maintain serviceability of development.					
	 Rosebery mine uses three main ex the presence of mined voids. The of mining best suited to the expect 	Rosebery mine uses three main extraction methods based on depth, stress and the presence of mined voids. The table below can be used to select the method of mining best suited to the expected conditions.					
	Method	Diagram					
	Benching – longitudinal retreat along a single OD (Ore Drive). Ideally used in Iow Stress, Iow yielding rock masses, where there is a reduced seismic risk. In some cases, where higher than expected deformation and seismic hazard are encountered, additional ground support is applied; in this case, a change of extraction sequence may also be considered	DHS/UHS Longitudinal Retreat OD Plan View					
	Transverse Slashing – longitudinal retreat, extracted from the XC (Cross-cut) with minimal equipment or personnel access into the OD required. This extraction method may be selected based on drill and blast requirements (wider ore zone, requiring greater drilling ability) or to reduce seismic hazard exposure, where the seismic hazard is present in the OD. With this method, personnel and equipment are not exposed to the high seismic risk, if present in the OD, as most production activities occur in the XC and FWD (Foot	Standard transverse slashing					


	Section 4 Estimation and Rep	orting of Ore Reserves
Criteria	Commentary	
	Wall Drive). In the case where this method has been selected and a seismic risk has later been identified in the FWD, higher capacity support is required as well as just in time development. This case, where the higher seismic hazard is present in the FWD, has occurred in several active lenses and personnel exposure to this seismic hazard is being controlled with increased ground support requirements, just in time mining and restricted personnel access ahead of the stoping front, in already mined development. Where a near field seismic hazard has been identified the need to reduce personnel exposure to the hazardous conditions is paramount (highest hazard conditions are determined by non-linear elastic modelling and underground observations). Various tiers of just in time mining and ground support installation requirements are available, based on the level of hazard that exists. This extraction method is typically selected in high stress, high yielding rock masses, where an increased seismic risk is present.	Just in time transverse slashing
	 Pillar recovery – Extraction of intermediate pillars (between previously mined stopes), this method is a transverse retreat from the crosscut, slashed from the FWD. Assessment of fill material (above, below and adjacent) and surrounding open voids is required prior to extraction. This is a common method used in remnant mining; stress state and seismic risk do not dictate the mining method (the previous extraction of surrounding stope will determine mining method required). Linear elastic and non-linear elast personnel and consultants to asseminimica/control potential saismic 	Filled Stope Filled
	are identified due to a damaging s	seismic event or unfavourable conditions, a



	Section 4 Estimation and Reporting of Ore Reserves
Criteria	Commentary
	calibrated and detailed non-linear model is created for that location to test and verify the extraction method and sequence.
Metallurgical factors or assumptions	 Rosebery is a poly-metallic underground mine with all ore processed through an on-site mill and concentrator. The Rosebery Concentrator operates a traditional and proven set of unit operations that are designed to target the mineralisation of the Rosebery ore. The process has been operating for many years, and the ore body is largely consistent over space and time. The processing plant has been in continuous operation for over 85 years in various configurations. Traditional froth flotation has been used to float sulphur bearing minerals successfully for decades. The addition of a gravity gold recovery circuit allows for additional value to be recovered to the gold doré product. This is proven technology in the gold industry and has been operating successfully in this configuration at Rosebery for some time. The saleable products from this plant in its current configuration are doré, copper concentrate, zinc concentrate, and lead concentrate as shown in the flow chart below.
	Process Product Payable Metal Ore Crushing & Grinding Dore Circuit Dore Circuit Dore Circuit Dore Copper Flotation Copper Flotation Lead Flotation Concentrate
	 The Metallurgical Model is used to predict the recovery of each payable metal to each product through a series of regression coefficients based on normal operation of the plant. The data from a selected time period is carefully cleaned and analysed. The relationships between feed grade, throughput rate and feed grade metal ratios are established, and the Metallurgical Model is generated. The output of this process is documented and circulated for review and approval. All forecasting and reporting spreadsheets reference these parameters to generate predicted processing products. Test work has been performed at varying frequencies across the life of the Rosebery mine. The ore body that is currently being mined is defined by several discrete ore lenses. The blending of ore from these different lenses provides a robust response to processing through the Rosebery Concentrator. The ore body contains ore of varying metal grades and grade ratios, and these are all accounted for within the metallurgical model. New areas of the mine are tested metallurgically with the intent of providing assurance to the budgets that are produced from the metallurgical modelling of the feed ore.



Section 4 Estimation and Reporting of Ore Reserves				
Criteria	Commentary			
	 The payability terms for each product produced by the Rosebery Concentrator are defined in the NSR model. This model accounts for the penalties for deleterious metals as well as the payability for each metal in each product. This allows for optimisation of the plant or planning for altered revenue. The Rosebery Concentrator and orebodies are considered as well understood and established entities. Bulk Sample test work is undertaken as the process changes, capital alterations are considered for justification or new lenses with different mineralogy are assessed 			
	 Arsenic is a penalty element in copper concentrates. This element is usually controlled by blending of processing feed but can incur penalties on occasion. 			
Environmental	 Currently, the 2/5 Dam Stage 2 Subaerial has reached Practical Completion. Dust suppression strategies to mitigate any possible dust events to the surrounding community are in place and Rosebery has proactively been conducting dust monitoring at the 2/5 Dam TSF since the start of construction of Stage 1. The wastewater management at Rosebery involves collecting all potentially contaminated water, including storm water, mine water and mill tailings at the Effluent Treatment Plant (ETP), where lime is added prior to pumping the whole volume of treated water to the Bobadil TSF via the Flume (an open concrete channel flowing under gravity to the TSF). After the final polishing stage, water is subsequently discharged to Lake Pieman. The Effluent Treatment Plant hydraulic capacity is approximately 600 l/sec and the plant can receive 335 l/sec of site mine water with remaining limited spare capacity of approximately 265 l/sec to treat the site contact rain or storm water. When the inflow approaches ETP capacity, additional storage is available in an interim storage dam for later treatment and underground dewatering can be slowed. The historic Hercules Mine is the most significant "legacy site" for Rosebery 			
	 management. Smaller historic legacy features are also found on the lease including ore passes, open pits, adits, shafts, costeans etc. In 2021 MMG completed a legacy site audit on the lease and these now number 177 features. Waste rock is characterised as either NAF, PAF or High PAF. To-date most of the waste rock produced has been retained underground and used for stope filling, either as RF or CRF. Previously, surplus waste rock was trucked to the surface and unloaded at the 3 or 4 Level waste rock dumps and was treated by adding a layer of lime on top and below every layer of waste rock. Recent Life of Mine (LoM) planning suggests there will be no further requirement for waste rock to be trucked to surface and that material from the existing surface waste dumps will be used underground for additional fill requirements. The Stage 11 and 12 embankment raises at the Bobadil TSF have completed Feasibility Studies and are now either in or entering the Detailed Design stage. These raises will ultimately require regulatory approvals and are required to provide adequate storage for the tailings produced by the reported Ore Reserves. 			
	 Several alternative tailings storage solutions are being assessed for the operation post 2027. These include filtered tailings,pyrite concentrates and additional traditional storage facilities. Two of the options have completed the Prefeasibility stage. These options will be suitable to accommodate the Ore Reserves post 2027. 			
Infrastructure	 MMG Limited holds title to the Rosebery Mine Lease (ML 28M/1993 – 4,906ha) which covers an area that includes the Rosebery, Hercules and South Hercules base and precious metal mines. This Mine Lease expired in 2024 and is in the process of renewal through normal regulatory processes. A historical NSR 			



Section 4 Estimation and Reporting of Ore Reserves				
Criteria	Commentary			
	royalty agreement covers a small section to the north of the lease which impacts the northern end of the X North and Y lenses and Z Lens. This royalty is included in the financial assessment.			
	 Electric power to the site feeds in through No. 1 Substation located adjacent to the Mill Car Park. There is a contract for the supply to the site with the Electrical Supply Authority for the region. This system has redundancy to ensure continuity of supply and has the potential for expansion if required. 			
	 Raw water for the site is currently sourced from Lake Pieman and Stitt River, with allotments of 5,500 ML and 1,647 ML respectively. 			
	 In total, the Rosebery Mine operation employs 399 permanent staff and an additional 220 contractors, covering all aspects of the operation. 			
	 Primary communication from the Rosebery Mine site is by phone along with surface mobile phone coverage, provided by Telstra and Orange. Phones are available throughout the surface buildings. There is also an extension of the phone system underground. Along with the phone system, there is also email and internet services associated with the lines. This is available throughout the office area by a wireless system. Significant redundancy is being built into this system to ensure business continuity. 			
	 The main system for communication underground is through radio via a leaky feeder and fibre system. The radio system operates on multiple channels with general, extended discussion, and emergency channels. A wifi network is being extended throughout the underground workings to allow improved communications and operational management. 			
	 With all mining activity taking place underground at Rosebery, access to the operating areas is by the main decline, this route is used to access the upper-mid area of K Lens. From this point, access splits between two declines to the K/N/P Lens area and the W/X/Y Lenses. Other declines are used to direct primary airflow and for cross mine access. The ore is hauled out of the mine in a fleet of 45-60 tonne haul trucks. 			
	 The Rosebery primary ventilation circuit consists of airflow circuits in series which accumulate airborne contaminants and heat as pumped air progresses deeper into the mine. At the 46K Level fresh air is introduced into the circuit via the North Downcast (NDC) shaft, diluting the contaminated air, which finally reports to the return airways and exhausts to the surface. The current primary ventilation system supplies approximately 690 m³/s of air throughout the mine. 			
	• There is a crib room and workshop facility at the 46K Level which is close to the current and ongoing production areas. This area is used for regular maintenance of machines and rest breaks. An additional crib room is located at the 17L plat for personnel working in the upper levels.			
	• Concentrate is transported from site by Tasrail, which is the only rail service that connects the West Coast area to the port in Burnie. All other logistical support is via road on the Murchison Highway.			
	 Until April 2018, tailings from the ore treatment were only placed into the Bobadil TSF located to the north of Rosebery. Tailings have subsequently been discharged into 2/5 Dam TSF, and sporadically into Bobadil TSF. The new Stage 10 raise construction at Bobadil TSF was completed in March 2022, providing 			



Section 4 Estimation and Reporting of Ore Reserves						
Criteria	Commentary					
	Rosebery Mine with ar 2022. Feasibility Study of the 2025 with ongoing de	Rosebery Mine with an alternative facility for the storage of tailings from May 2022. Feasibility Study of the Stage 3 raise of the 2/5 Dam will be completed in Q1				
	 The table below outlin March 2024 at Bobadi Stage 2 Raise has read construction was com between the two TSFs 	The table below outlines the expected tailing storage capacities available from March 2024 at Bobadil and 2/5 Dam TSFs. The construction of the 2/5 Dam Stage 2 Raise has reached Practical Completion. Bobadil TSF Stage 10 Raise construction was completed in March 2022 allowing for tailings to be distributed between the two TSFs.				
	Location	Tailings Capacity (mt)	Comment			
	Bobadil TSF – Stage 10 Bobadil TSF – Stage 11	0.31 0.92	Operational Feasibility study completed.			
	Bobadil TSF – Stage 12 2/5 Dam TSF – Stage 2 2/5 Dam TSF – Stage 3	1.10 1.62 1.31	Feasibility Study completed Operational Currently in Feasibility Study			
	 Bobadil Stage 11 Feasi design has commence 	Bobadil Stage 11 Feasibility Study (FS) was completed in Jan 2024. Detailed design has commenced.				
	 The 2/5 Dam TSF Stag 2020. A Feasibility stu Q4 2024. 	The 2/5 Dam TSF Stage 3 Raise Pre-Feasibility Study (PFS) was completed in 2020. A Feasibility study is currently in progress and scheduled for completion Q4 2024.				
	 The current LOM is a c projects with a total ca estimated placement r until mid-2031. This ca base. 	collection of the app apacity of 6.5mt of t ate of 0.8 Mtpa, pro apacity is adequate t	roved, completed, PFS and ailings as at March 2024, a oviding Rosebery with tailin to accommodate the existi	d FS at an gs capacity ng Reserve		
Costs	 Costs used in determi were based on the 20 and Sustaining Capital 	ning the cut-off valu 24 Budget. Costs w I.	ies for the Ore Reserves es rere inclusive of Operating	stimation Expenses		
	 Costs are in Australian exchange rate. 	dollars and are con	verted to US dollars at the	applicable		
	 MMG Group Commerce rate assumptions. The which the ore is sched 	ial supplies the long ese price assumption luled to be produced	eterm commodity price and ns are then applied to the p d to determine the extracted	d exchange period in ed NSR.		
	 All applicable exchang penalties for failure to the NSR calculations e model to estimate pro- 	e rates, transportati meet specification a evaluated against the jected value.	on charges, smelting & refi and royalties are included a e annually released geolog	ining costs, as part of y block		
	 Penalties deducting from higher percentage of use 	om revenue may be unwanted minerals.	applied where concentrate	es contain a		
	 A cash flow model was previously mentioned 	s produced based of costs to determine t	n the detailed mine schedu the NPV.	le and the		



Section 4 Estimation and Reporting of Ore Reserves				
Criteria	Commentary			
	The Ore Reserves estimation has been based on these costs.			
Revenue factors	 Commodity prices and the exchange rate assumptions are as reported in the cut-off parameters section. These are provided by MMG Group Commercial, approved by the MMG Board, and are based on external company broker consensus and internal MMG analysis. Treatment and refining charges, royalties and transportation costs for different. 			
	commodities were supplied by MMG Group Commercial and have been included in the NSR calculation. These costs are based on existing agreements or market estimates.			
	 The formulas, regression values and assumptions used in the NSR calculation are based on the historical data provided by the Rosebery Metallurgy Department. 			
	 Economic evaluations are carried out to verify that mining areas are profitable. The cost assumptions were applied to the mining physicals, and the revenue was calculated by multiplying the recovered ore tonnes by the appropriate NSR value. All economic stopes containing Measured and Indicated Resources were included in the Ore Reserves. 			
Market assessment	 MMG's market assessment is developed by the internal MMG Marketing and Business Evaluation Departments and is supported by external analyst information which informs the MMG Board of Directors. The zinc concentrate market has tightened considerably in the last year. A combination of mine closures for commercial reasons, (low metal prices and higher costs), strikes, mine operational issues and new project slippage, saw global zinc mine production fall 2.7% in 2023 compared with 2022. Smelter demand continued to be strong and global refined zinc metal production increased 1.3% in 2023 compared with 2022. Chinese smelter zinc metal production grew steadily (+4.6%) in 2023 whilst output shrank (-1.7%) in the rest of the world, particularly in Europe. European smelter metal output in 2023 continued to be impacted by high power prices and the closures of several major zinc mines in Europe (Tara in Ireland and Aljustrel in Portugal) which limited concentrate supply in Europe. Over the medium terms, most analysts forecast that the concentrate market tightness will ease during late 2024 and into 2025 as the higher zinc metal price encourages several major mines currently on care and maintenance to restart plus several new zinc mine projects commence production. Mines currently on care and maintenance with restarts announced include Tara in Ireland (100ktpa of zinc) forecast to restart in Q4 2024 and Aljustrel in Portugal (100ktpa zinc) forecast to restart in Q4 2024 and Aljustrel in Portugal (100ktpa zinc) forecast to restart in mid-2025. Major new zinc mine projects include the Kipushi mine in the Congo (250ktpa zinc) which commenced production in March 2024. Rosebery has life of mine agreements in place with Nyrstar_Trafigura covering 100% of zinc and lead concentrate production, which is delivered to their Australian smelters on international terms. Currently, Rosebery's precious metals concentrate is sold to China Minmetals for use by Chinese smelters			
Economic	Rosebery is an established operating mine. Costs used in the NPV calculation are based on historical data and existing supply contracts. Revenues are			



Section 4 Estimation and Reporting of Ore Reserves				
Criteria	Commentary			
	calculated based on historical and contracted realisation costs and realistic long-term metal prices.			
	• The mine is profitable, and life-of-mine economic modelling of the Ore Reserve schedule shows that the Ore Reserves are economic. The Life of Mine (LOM) financial model demonstrates the mine has a positive NPV at assumed commodity prices. MMG uses a discount rate that is appropriate to the size and nature of the organisation, deposit life and macroeconomic conditions.			
Social	 The West Coast area of Tasmania has a long history of mining. There are a large number of people employed by the mine from the town of Rosebery and the local government area. Community issues and feedback associated with the Rosebery mine are received through the MMG Community Liaison Office. All issues are reported on a Community Assistant for action, per the Site Complaints Procedure. The Superintendent - Environment and Community, makes direct contact with the complainant to discuss the issue and once details are understood, communicates with the department concerned to resolve the matter. During the 2023/2024 reporting period eleven community complaints were received across a range of issues including land maintenance and noise from the PSF3 fan and contractors in community areas. This does not include nine complaints from one resident between September 2023 and February 2024 regarding works at the 2/5 dam construction. In the 2022/2023 reporting period, twelve community complaints were received across a range of issues. MMG is currently investigating a new TSF to support further mining of the ore reserves beyond 2028. MMG has gained the necessary legal approvals to conduct intrusive investigations at two potential TSF sites. MMG has conducted extensive community & stakeholder engagement during these activities. One non-governmental environmental organisation is currently objecting to investigative works at one of the sites. The MMG Rosebery Mine – Underground Agreement 2024 labour agreement was approved by the Fair Work Commission on 8 May 2024 and operates for three years expiring on 30 April 2027. Rosebery continues to undertake a range of social performance activities including conducting mine closure and Community Visioning workshops with the community and opening a new community information centre to improve the access with the local community. A successful MMG Pop-up Shop was trialled in the Main Street of Rose			
Classification	 Ore Reserve classifications comply with the JORC Mineral Resource and Ore Reserve classifications where Proved Ore Reserves are only derived from Measured Mineral Resources, and Probable Ore Reserves are only derived from Indicated Mineral Resources or Measured Mineral Resources with increased uncertainty on modifying factors. 			
	 Portions of Inferred Mineral Resources have been included in the Ore Reserves which unavoidably reside within the stope shapes but are minor inclusions (less than 1% by mass). These may be classified as either Proved or Probable Reserves. 			



	Section 4 Estimation and Reporting of Ore Reserves
Criteria	Commentary
	 Individual blocks have been reported as either Proved or Probable depending on Measured or Inferred Mineral Resource classification.
	• The Competent Person deems this approach is aligned with the JORC Code and is appropriate for the classification of the Rosebery Ore Reserves.
	• Where stopes contain more than one Mineral Resource category, then the individual classification components have been treated and reported as outlined above.
Audit or Reviews	• The Processing, Planning and Mineral Resources expert persons at Rosebery reviewed the NSR script. It was identified that blocks with low zinc grades but high copper or precious metal content were not being valued correctly. This resulted in significant modifications to the recovery values for these ore types to ensure correct operation for each model. The 2024 NSR script was processed in the Vulcan software. The script execution was then cross checked against an Excel version to ensure that it was correctly populating all blocks. This modification was reviewed by an external consultant prior to its use for Mineral Resource and Ore Reserve generation.
	 Mineral Resources block models were validated during the design and evaluation process.
	 There has been an external audit carried out on the Ore Reserves process during 2024 for the 2024 Ore Reserve estimation. (Mining Plus August 2024). Mining Plus "reviewed Section 4 of JORC Table 1 and consider it a detailed and accurate description of the Ore Reserve estimate." Mining Plus did recommend that the treatment of the dilution and recovery modifying factors be reviewed. This was completed and the difference between the two treatments was not considered material to the Ore Reserve estimate.
	• In February 2021, Mining Plus completed a review of the Rosebery Mine reconciliation process. While areas for improvement were identified, the saleable products reconciled within acceptable ranges for the mine schedule and Resource Model. A new audit is required in 2024 by internal MMG processes.
Discussion of relative accuracy/confi dence	• The key risks that could materially change or affect the Ore Reserves estimate for Rosebery include:
	 Seismicity: The Rosebery mine has had several significant seismic events in the past. Potential exists for future seismic events to occur that may impact on the overall recovery of the Ore Reserves. As more Ore Reserves are identified closer to the surface such as U Lens, this risk will be mitigated to a degree.
	 Induced stress: the depth of mining at Rosebery leads to drive closure and difficult mining conditions. This may impact the ability of Rosebery to extract the ore reserves contained within sill pillars in the lower parts of the mine.
	 Tailings storage: There is currently a clear planning and approvals process to ensure that there is sufficient tailings storage capacity for the current Ore Reserve material. If there are significant delays in this schedule, this may impact the deliverability of the remainder of the Ore Reserve in the last year of production.
	• Resource Delineation & Reserve Definition drilling is applied to define tonnage and grade before mining locally. Ore Reserves are based on all available relevant information.



Section 4 Estimation and Reporting of Ore Reserves				
Criteria	Commentary			
	 The Proved Ore Reserve estimate is based on local scale exploration drilling and mining exposure and is suitable as a local estimate. 			
	 The Probable Ore Reserve estimate is based on local and global scale exploration drilling and mining exposure. 			
	• Ore Reserve estimate accuracy and confidence that may have a material change in modifying factors is as discussed throughout this table.			
	• The Ore Reserve estimate is based on the results of the operating mine. There is confidence in the estimate compared with actual production data and historical production reconciliations.			



7.3.3 Expert Input Table

A number of persons have contributed key inputs to the Ore Reserves determination. These are listed below in Table 25.

In compiling the Ore Reserves, the Competent Person has reviewed the supplied information for reasonableness but has relied on this advice and information to be correct.

EXPERT PERSON / COMPANY	AREA OF EXPERTISE
Helber Holguino, Senior Resources Geologist, MMG Ltd	Mineral Resources
Maree Angus, ERM Australia Consultants Pty Ltd	Mineral Resources
Lewis Baird, Principal-Strategic Planning, MMG Ltd	Mine Parameters, design/scheduling
Michael Burns, Senior Geotechnical Engineering, MMG Ltd	Geotechnical
Steven Pickford, Superintendent Metallurgy, MMG Ltd	Metallurgy
Pamela Soto, Principal Tailings & Water Engineer, MMG Ltd	Tailings Facilities
Claire Beresford, Senior Business Analyst, MMG Ltd	Financial assessment
Simon McKinnon, Senior Business Analyst, MMG Ltd	Operating costs
Jarod Esam, Head of Business Evaluation & Investor Relations, MMG Ltd	Evaluation parameters
Simon Ashenbrenner, Manager – Zinc/Lead Marketing, MMG Ltd	Marketing and market assessment
Adam Pandelis, Senior SHEC Advisor, MMG Ltd	Environmental and Closure
Roscoe Sewell, Senior HR Business Partner, MMG Ltd	Human Resources
Chris Winskill, Community Liaison, MMG Ltd	Community

Table 25: Contributing Experts – Rosebery Ore Reserves



7.3.4 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Ore Reserve statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

7.3.4.1 Competent Person Statement

I, Andrew Robertson, confirm that I am the Competent Person for the Rosebery Ore Reserve section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having more than five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Fellow of The Australasian Institute of Mining and Metallurgy
- I have reviewed the relevant Rosebery Ore Reserve section of this Report, to which this Consent Statement applies.

I am an MMG employee at the time of the estimation.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Rosebery Ore Reserve section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to the Rosebery Ore Reserve.

7.3.4.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Rosebery Ore Reserves – I consent to the release of the 2024 Ore Reserves Statement as at 30 June 2024 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Andrew Robertson FAusIMM (#100858)

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Signature of Witness:

Date:

Elizabeth Robertson (Bridgewater SA)

Witness Name and Residents: (eg, town/suburb)



8. Sokoroshe 2

8.1 Introduction and Setting

The Sokoroshe 2 Project is located on the license PE538 in Democratic Republic of Congo, DRC. The PE538 tenement belongs to the DRC state owned mining company Gécamines and is part of a package of 8 tenements granted to MMG under an Amodiation agreement which became effective on 13 May 2014. The project is situated in the southeast part of the Congolese Copperbelt, located approximately 43Km northwest of Lubumbashi and is approximately 25Km west of the Kinsevere mine (See Figure 8-1).

Kinsevere — Democratic Republic of Congo



Figure 8-1: Sokoroshe 2 project location

Development of the Sokoroshe project commenced in the second quarter of 2023. The project, which is divided into the East and West pits has contributed significantly to the 2023 and 2024 copper and cobalt production.

Two independent contractors are engaged to mine the waste and ore to the designated dumps, while one contractor hauls all the ore intended to be processed to Kinsevere using 40 to 50 tonne highway trucks. Mining is done by conventional drilling, blasting, loading and hauling.



8.2 Mineral Resources – Sokoroshe 2

8.2.1 Results

The 2023 Sokoroshe 2 Mineral Resources are summarised in Table 26.

Table 26: 2023 Sokoroshe 2 Mineral Resources tonnage and grade (as at 30 June 2024)

Sokoroshe 2 Mineral Resources					Contained Metal			
Oxide Copper ²	Tonnes (Mt)	Copper (% Cu)	Copper AS ¹ (% Cu)	Cobalt (% Co)	Copper (kt)	Copper AS ¹ (kt)	Cobalt (kt)	
Measured	-	-	-	-	-	-	-	
Indicated	1.7	2.1	1.9	0.30	35	31	5.0	
Inferred	0.54	1.6	1.4	0.13	8.6	7.3	0.69	
Total	2.2	2.0	1.8	0.26	44	39	5.6	
Transition Mixed Ore (TMO) Copper ³							
Measured	-	-	-	-	-	-	-	
Indicated	0.29	1.3	0.43	0.36	3.9	1.2	1.0	
Inferred	0.11	1.4	0.25	0.27	1.5	0.3	0.29	
Total	0.40	1.4	0.38	0.33	5.4	1.5	1.3	
Primary Copper ⁴								
Measured	-	-	-	-	-	-	-	
Indicated	0.51	1.7	0.13	0.42	8.6	0.68	2.1	
Inferred	0.30	1.52	0.09	0.22	4.62	0.27	0.66	
Total	0.81	1.6	0.12	0.34	13	0.95	2.8	
Stockpiles								
Indicated	1.1	1.3	1.1	0.30	14	11	3.2	
Sokoroshe Copper Total	4.5	1.7	1.2	0.29	76	53	13	
Oxide-TMO Cobalt⁵								
Measured								
Indicated	0.18	0.79	0.33	0.38	1.4	0.57	0.7	
Inferred	0.08	1.5	0.14	0.14	1.2	0.10	0.10	
Total	0.25	1.0	0.27	0.31	2.5	0.67	0.78	
Primary Cobalt ⁶								
Measured	-	-	-	-	-	-	-	
Indicated	0.05	0.61	0.06	1.16	0.3	0.03	0.6	
Inferred	0.004	0.51	0.06	0.90	0.02	0.00	0.03	
Total	0.06	0.61	0.06	1.14	0.36	0.04	0.67	
Sokoroshe Cobalt Total	0.31	0.07	0.93	0.23	2.9	0.71	1.45	
Combined Total	4.8	1.7	1.1	0.30	79	53	14	

¹ AS stands for Acid Soluble

² 0.5% Acid soluble Cu cut-off grade and Net Value Script positive

³ 0.6% Total Cu cut-off grade and Net Value Script positive

⁴ 0.8% Total Cu cut-off grade and Net Value Script positive

⁵ Net Value Script positive and not Cu Mineral Resource

⁶ Net Value Script positive and not Cu Mineral Resource

All Mineral Resources except stockpiles are contained within a US\$4.90/lb Cu and \$29.79/lb Co pit shell

Contained metal does not imply recoverable metal.

Figures are rounded according to JORC Code guidelines and may show apparent addition errors.

The cut-off criteria applied to report the Mineral Resource is a combination of a Net Value Script (NVS) and copper cut-offs. The NVS is run to determine if a blocks value is positive, based on applied Mineral Resource criteria, and if so, flagged as a Mineral Resource. A copper cut-off is then applied to classify blocks as either a copper or cobalt Mineral Resources.

If a block is flagged as a Mineral Resource by running the NVS then copper Mineral Resources use a 0.5% acid soluble copper (CuAS) for Oxide Mineral Resource, 0.6% total copper (CuT) for the Transitional Mixed (TMO) Mineral Resource and 0.8% total copper (CuT) for the Primary Sulphide Mineral Resource. The Oxide Mineral Resource is defined as having a Ratio (CuAS/CuT) greater than 0.5. The TMO Mineral Resource is defined as having a Ratio greater than or equal to 0.2 and less than 0.5. The Primary Sulphide Mineral Resource is defined as having a Ratio less than 0.2.

Cobalt Mineral Resources are reported as blocks that have been flagged as a Mineral Resource by the NVS and do not classify as copper Mineral Resources as defined above. The cobalt Oxide-TMO Mineral Resource is defined as having a Ratio greater than or equal to 0.2. The cobalt Primary Mineral resource is defined having a Ratio less than 0.2. Cobalt Mineral Resources are exclusive of copper Mineral Resources. All reported Mineral resources a constrained with a reasonable prospects pit shell.



8.2.2 Mineral Resources JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 27 complies with the 2012 JORC Code requirements specified by "Table-1 Section 1-3" of the Code.

Table 27: JORC 2012 Code Table 1 Assessment and Reporting Criteria for Sokoroshe 2 Mineral Resource 2024

Section 1 Sampling Techniques and Data				
Criteria	Commentary			
Sampling techniques	 A combination of reverse circulation drilling (RC) and diamond drilling (DD) were completed in the Project area. 			
	 Mineralised zones within the drill core were identified based on combined parameters, including lithological and alteration logging, mineralogical logging and systematic spot pXRF readings. 			
	 DD core was sampled nominally at 1m intervals within mineralised zones while unmineralised zones were sampled generally at 2m intervals and as much as 5.3m. Sampling was carried out by longitudinally cutting PQ and HQ drill core using an Almonte automatic diamond saw and sampling half-core, with half-core retained for future reference. PQ drill core was quartered and sampled, and three-quarters of the PQ core was retained for future reference. 			
	 RC drill cuttings were collected in 1m bulk samples from a rig mounted cyclone. Lithological and mineralogical logging, supported by systematic spot pXRF readings, were used to identify mineralised and unmineralised zones in the RC chips. Samples from mineralized zones were riffle split every 1m to obtain a representative (~2.5kg) sample. Samples from unmineralised zones were riffle split and composited to 2m intervals. Wet samples were sun dried in ambient air before splitting and compositing. Overall, 81% of the samples were less than 2m, with mineralised samples taken at nominal 1m intervals. 			
	 Samples were crushed (>70% passing 2mm), split and pulverised (>85% passing 75µm) at an on-site laboratory at the MMG core yard facility in Lubumbashi. 100 grams of pulp material was sent to the SANAS ISO 17025 accredited laboratories (ALS in Johannesburg and SSM in Kolwezi). 			
	 The sample types, nature, quality and sample preparation techniques are considered appropriate for the nature of mineralisation within the Project (sediment hosted base metal mineralisation) by the Competent Person. 			
Drilling techniques	 Diamond drilling: PQ and HQ sizes, with triple tube to maximise recovery except for 13 holes drilled in 2021. At the end of each drilling run, the core was marked with an orientation mark by using a REFLEX ACE tool. An orientation line was then drawn along the axis of the core if two consecutive orientations marks could be aligned by docking core pieces. 			
	 Reverse circulation drilling: A hammer bit was used for drilling a 5.25-inch (133mm) diameter hole. The cyclone was manually cleaned at the start of each shift, after any wet samples, and after each hole. Compressed air from the drilling machine was used to clean/blow out material from the RC rods, hoses, and cyclone after each rod. 			
	 Grade Control Drilling has been undertaken since May 2023. RAB Drilling was initially used until August 2023 when RC drilling commenced using a a 5.25-inch hammer. Grade control samples were used to guide grade shell interpretations however were not used for estimation purposes. 			



Section 1 Sampling Techniques and Data						
Criteria	Commentary					
Drill sample recovery	 DD core recovery was measured using tape measure, measuring actual core recovered between the core block versus drilled interval at 1 cm precision. Overall DD core recovery averaged 85% across the Project area. 					
	 RC chip recovery was measured by weighing each 1m sample bag immediately following collection from the cyclone. Sample returns for RC drilling has been calculated at 72% 					
	 Sample recovery during diamond drilling was maximised using the following methods: 					
	 Using drilling additives, muds and chemicals to improve broken ground conditions. 					
	 Using triple tube core barrels. 					
	Reducing water pressure to prevent washout of friable material.Sample recovery during RC drilling was maximized using the following methods:					
	 Adjusting air pressures to the prevailing ground condition. 					
	 Using new hammer bits and replacing when showing signs of wear. 					
	 No relationship between sample recovery and grade was demonstrated in diamond drilling drill results. 					
Logging	• DD core and RC chips have been geologically logged and entered into the MMG database (Geobank). The level of detail supports the estimation of Mineral Resources.					
	 Qualitative logging includes lithology, mineralisation type, oxidation type, weathering type, colour and alteration types. Quantitative logging includes mineralisation mineral percentage, alteration mineral percentage and, in the case of core, RQD and structural data have been recorded. 					
	All core and chip samples have been photographed (wet and dry).					
	 100% of core and chips have been logged. 					
Sub-sampling techniques and sample preparation	• DD core was split in half longitudinally (HQ size) or quartered (PQ size) using an Almonte automatic diamond saw. Sample lengths were cut as close to nominal 1m intervals as possible while also respecting geological contacts. Samples were generally ~2.5kg in weight.					
	 RC samples were collected from a cyclone every metre by a trained driller's assistant. If the sample was dry the sample was passed through a riffle splitter and a ~2.5kg split was collected into a pre-numbered clear plastic bag. Residual material was sampled and sieved for collection into chip trays for logging and the remainder returned to the larger poly-weave bag (bulk reject). The splitter was cleaned using compressed air or a clean brush and tapped using a rubber mallet. If the sample was wet, the sample was sun and air dried before being split according to the above procedure. Field duplicates were inserted at a rate of approximately 5% to ensure sampling precision was measured. 					
	 Samples from individual drillholes were sent in a single dispatch to the onsite MMG laboratory at the MMG core yard facility in Lubumbashi. 					
	 The drill core and drill chip samples were received, recorded on the sample sheet, weighed, and dried at average temperature of 105°C for 8 hours (or more depending on wetness) at the sample preparation laboratory. 					



Section 1 Sampling Techniques and Data					
Criteria	Commentary				
	 Samples were crushed and homogenised in a jaw crusher to >70% passing 2mm. The jaw crusher was cleaned with a barren quartz blank after every crushed sample. The sample size was reduced to 1000g in a riffle splitter and pulverised in an LM2 pulveriser to >85% passing 75 microns. QC grind checks were carried out using wet sieving at 75µm on 1 in 10 samples. 100 grams of pulp material were sent to the SANAS accredited ALS Chemex Laboratory in Johannesburg and SSM Laboratory in Kolwezi. Crush and pulp duplicates were submitted for QAQC purposes. Certified reference material was also inserted and submitted to ALS for analysis at a rate of 1 of each high, medium, and low copper grade per 30 samples. The sample size is appropriate for the grain size and distribution of the minerals of interest. 				
Quality of assay data	 MMG preparation laboratory used the ALS Chemex Laboratory preparation protocol PREP-31B for drill core and drill chin samples 				
and laboratory tests	 ALS Chemex Laboratory provides 48 multi-element geochemistry by HF-HNO₃-HCIO₄ acid digestion, HCI leach followed by ICP-AES and ICP-MS analysis. SSM laboratory provided 44 multi-element geochemistry by HF-HNO₃-HCIO₄ acid digestion, HCI leach followed by ICP-OES finish. Four-acid digest is considered a total digestion. Acid soluble copper was analysed using the H₂SO₄-Na₂SO₃ leach with AAS finish for samples with total copper greater than 1,000 ppm. 				
	 No geophysical tools, spectrometers (apart from those used in the assay laboratory) or handheld XRF instruments have been used for data included in the estimation of the Sokoroshe 2 Mineral Resource. 				
	 ~15% QAQC samples were incorporated, including blanks, duplicates (field, crush, and pulp) and certified reference material per sample analysis batch. Second laboratory duplicates were selected and analysed at Intertek Genalysis using similar methods as ALS Chemex. Results indicate that assay analysis has been undertaken to an acceptable level of accuracy and precision. No significant QAQC issues have been found. CRMs show less than 2% relative bias. Duplicate results show very good correlation against original results. 				
Verification of sampling and assaying	 Significant intercepts have been verified by comparison against the geological log, which has been checked by several MMG personnel. 				
	 5 RC holes were twinned with diamond drilling to check for quality and 3 diamond drillholes were twinned to extend the intersection of the holes that previously stopped in mineralisation. The RC holes compared poorly to some of the DD holes, while the DD-DD twinning compared well. The RC and twinned DD holes in the northern mineralisation were drilled in deeply weathered areas and these were reviewed individually for use in grade estimation. 				
	 Primary data is stored in a Geobank[®] database, which is maintained according to MMG database protocols. Data is logged, entered, and verified in the process of data management. The database is stored on an MMG server and routinely backed up. 				
	• RC Grade control (GC) holes have been drilled since August 2023. The Competent Person has reviewed the sample collection process on the drill rigs and there were some concerns with the quality of the sample particularly in the early phases of drilling. It was decided to not use this data in the estimation				



Section 1 Sampling Techniques and Data					
Criteria	Commentary				
	however the data has been used to support grade shell interpretations and improve the understanding of short-range grade variability.				
	 No adjustment has been made to assay data. 				
Location of data points	 Planned collar positions for both DD and RC drilling were located using handheld GPS devices to ±5m accuracy. Post drilling, actual collar positions were surveyed using DGPS (Geomax Zenith 25 Pro and Topcon Hiper II) and are considered to be of high accuracy. Sokoroshe 2 uses the projected coordinate system WGS84 Universal Transverse Mercator (UTM), ellipsoid 35 south. A TN14 GYROCOMPASS[™] was used to align the drill rig to the correct azimuth and dip angles. Downhole surveys were done using the REFLEX EZ-TRAC survey instrument. Downhole surveys were not carried out on RC drillholes. Azimuth and dip were extrapolated from measurements taken from the surface using compass and clinometer. The surface Digital Terrain Model (DTM) for the Project was generated from the Airborne Geophysics Xcalibur surveys carried out in 2015. The dataset was found to be adequate with topographic control to ±3m accuracy. High resolution DTM for the Sokoroshe 2 pit area was surveyed with LiDAR technology on 02 August 2017. Monthly topographic pit surfaces are surveyed by site surveyors since mining commenced in the second quarter of 2023. 				
Data spacing and distribution	 DD and RC drillholes were predominantly drilled at inclinations of between 50° and 60° to intersect generally steeply dipping mineralisation. Drilling azimuths were as close as practical to orthogonal to the mineralised trend. Drillhole data were spaced on approximately 50m (N-S oriented) drill sections with holes on section spaced 40m to 70m apart. No additional sample compositing has been applied in the data, aside from that used in the estimation process. 				
Orientation of data in relation to geological structure	 The orientation of sampling is across the mineral deposit and is considered to represent unbiased sampling of the deposit. However, alternate drilling orientations have not been undertaken to a significant amount to confirm this. No sampling bias is thought to have been introduced by the relationship of drilling orientation to key mineralised structures. 				
Sample security	 Samples were transported from the field and delivered to the sample processing facility in Lubumbashi for cutting and preparation. Polyethylene foam, tarpaulins, and cargo nets were used to secure the load in the pick-up vehicle tray and to avoid possible shifting of core during transport. RC chip sampling was conducted in the field. Chip samples were packed in labelled plastic bags along with a labelled plastic ID tag. The plastic bags were tied with cable ties to secure the sample and to prevent contamination. A set of 15 plastic sample bags were packed into labelled poly-weave bags, ready to be shipped from the field to the sample preparation laboratory in Lubumbashi. 				



Section 1 Sampling Techniques and Data									
Criteria	Commentary								
	 Field packing documents and sample sheets were prepared and sent together with the core trays and poly-weave bags to the sample preparation laboratory in Lubumbashi. 								
	 After sample preparation, bar-coded envelopes of 100-200g of pulp for each sample were inserted into boxes of ~35 envelopes each, labelled with dispatch ID and laboratory destination to be sent by DHL courier to ALS Chemex in Johannesburg and to SSM in Kolwezi. 								
	 Two sets of duplicate pulps of 100-200g were inserted into labelled boxes of ~35 envelopes each to be stored on site in storage containers. 								
Audit and reviews	 No external audits or reviews of sampling techniques and data have been conducted for the Sokoroshe 2 project. 								
	 Data and sampling/assaying process have been reviewed by the Competent Person. No significant issues were identified for data used in the estimation. 								

Section 2 Reporting of Exploration Results								
Criteria	Commentary							
Mineral tenement and land tenure status	 The Sokoroshe 2 project consists of one mining tenement or Permis d'Exploitation, PE538, with an area of 6 cadastral units (about 5.1 km²). The mineral rights of PE538 are held by La Générale des Carrierés et des Mines (Gécamines), the DRC state-owned mining company. MMG has a Contrat d'Amodiation (Lease Agreement) with Gécamines to mine and process ore from the Sokoroshe 2 project until 2039. 							
	 On 1 July 2022, MMG personnel conducting works at the Sokoroshe 2 lease were removed by armed forces who claimed Gécamines had signed two research contracts for the area with third parties. MMG was denied access to the Sokoroshe 2 lease and it became aware that a third party had commenced pre-stripping works at the site, which contravenes DRC law. On 21 October 2022, MMG filed arbitral proceedings against La Générale des Carrières et des Mines S.A. (Gécamines) before the International Chamber of Commerce. 							
	 Following a successful preliminary ruling by the ICC Court of Arbitration, and engagement with Gécamines, the armed forces that occupied Kinsevere's Sokoroshe II lease left the site on 20 December 2022. MMG commenced preparatory works at Sokoroshe II pit in the second quarter of 2023, including pre-stripping. 							
Exploration done by other parties	 Soil sampling on 120m by 120m grid and geology mapping were done in 1976 by Gécamines. No data is available for this work. 							
partico	 Ruashi Holdings/Metorex carried out unknown exploration work in 2005 at Sokoroshe 2. No data is available for this work. 							
Geology	 Sediment-hosted copper deposit, hosted in the lower part of the Neoproterozoic Katanga Supergroup in the Roan Group. 							
	 Copper mineralisation occurs mainly as oxide fill and replacement, veins and disseminations in variably weathered, laminated dolomites and carbonaceous siltstones. 							



Section 2 Reporting of Exploration Results							
Criteria	Commentary						
	 Primary copper mineralogy comprises chalcopyrite, bornite, and chalcocite in decreasing abundance. Oxide copper mineralogy comprises primarily malachite with trace amounts of chrysocolla. 						
Drill hole information	• The Sokoroshe 2 database consists of 50 DD (7,413m) and 77 RC (8,673m) holes. 1,249 GC RC holes for 40,528m have been drilled in 2023 and 2024, since the previous estimate, and these holes have been used for interpretation purposes only. No individual drillhole is material to the Mineral Resource estimate and therefore a geological database is not supplied.						
Data aggregation methods	This is a Mineral Resource Statement and is not a report on exploration results, therefore no additional information is provided for this section.						
Relationship between mineralisation width and intercept lengths	 Mineralisation true widths are defined by modelled 3D wireframes based on mineralised intercepts. Drilling orientations, relative to the geometry of mineralisation, are designed to be as perpendicular as practicably achievable. 						
Balanced reporting	 All drill holes and assay results have been considered in the construction of low- and high-grade domains for the Sokoroshe 2 Mineral Resource estimate. 						
Diagrams	<figure><caption></caption></figure>						
Other	Airborne Geophysics – TEMPEST survey						
substantive exploration data	 Airborne EM, magnetic, and radiometric surveys were flown at the end of 2013. A channel 7 EM conductor was identified to the east of the Sokoroshe 2 occurrence. Geological mapping was conducted in 2014. Mapping results indicated lithologies from the Roan Group, the main host rock to the mineralization. Younger lithologies were also noted from the Nguba and Kundelungu Groups. 						
Surface geochemistry:							



Section 2 Reporting of Exploration Results					
Criteria	Commentary				
	 Termite mound sampling on 100m by 100m grid was completed in 2014, which effectively identified copper anomalous zones within the tenement. 				
	 Airborne Geophysics – Xcalibur survey, flown in 2015 				
	 Magnetics – effective at mapping structural and stratigraphic domains 				
	 Radiometrics – effective at mapping lithological contrasts and regolith domains. 				
Further work	 Infill drilling is required to potentially upgrade Inferred to Indicated. 				
	 A review of the quality of the recent GC drilling is required and this data should be used in future estimation updates if suitable. Pit mapping should be undertaken to validate the current interpretations. 				
	Further work may be required to better inform groundwater management.				

Section 3 Estimating and Reporting of Mineral Resources					
Criteria	Commentary				
Database integrity	 The MMG Exploration database systems are SQL server and Geobank[®] management software. All geological and analytical data are managed in MMG's Corporate Geoscience Database. GIS data are stored in secure shared folders on the Lubumbashi server. 				
	 All data capture via GM logging profiles having strong internal validation criteria. The technician/geologist conducts first validation steps by checking intervals, description and accuracy of records using their "tough books". 				
	• Validation rules are predefined in each of the database tables. Only valid codes get imported into the database.				
	 The sampling and geochemical data are stored in a local version of SQL database that gets replicated to a similar version on the Head Office server with daily, weekly and monthly backups. 				
Site visits	 The Competent Person has visited the Sokoroshe 2 site several times in 2023 and early 2024. The Competent Person has worked on the Kinsevere deposit for over 10 years which can be compared to the Sokoroshe 2 mineral deposit. 				
Geological interpretation	 There is a reasonable level of confidence in the lithological model and geological setting. All the major lithological units have been interpreted and modelled in Leapfrog Software. 				
	 Geological interpretation of the deposit is based on available drilling and observed geology and structure at surface including pit exposures. 				
	 Geology maps were generated based on integration of data from ground mapping, geochemistry, airborne and ground geophysics. 				
	• Alternative interpretations of the mineralisation controls exist and there may be more structural control in addition to the stratigraphic control. These are unlikely to significantly affect the total quantity of Mineral Resources relative to the Classification.				
Dimensions	• The Sokoroshe 2 northern mineralisation is interpreted to occur over a distance of 760m along strike, 190m down dip and is 30m thick and the southern mineralisation has a strike length of up to 300m, 195m down dip and is 70m thick.				



Section 3 Estimating and Reporting of Mineral Resources					
Criteria	Commentary				
Estimation and modelling techniques	 Mineralisation and other wireframes were modelled in Leapfrog Geo, the statistical work was completed using Snowden Supervisor V8 software and grade estimation was completed using Maptek's Vulcan Software. 				
	 Copper mineralisation wireframes were modelled at 0.3%. Low and a high- grade cobalt domains were modelled at 0.02% and 0.2% thresholds respectively. A domain for acid soluble to total copper ratio (Ratio) was constructed using a 0.7 threshold. In addition, surfaces were modelled at 1.0% Ca, indicating a calcium leached zone, 9% for Mg and and 0.1% for Sulphur. All determined thresholds were based on statistical analysis followed by sectional observations to support the chosen value. 				
	• An Inverse Distance cubed estimation was used to estimate all elements. This was based on observation of mineralisation in pit exposures and assay results in GC data that displayed high variability over a short range and therefore would influence the impact of grade smoothing in the estimation process.				
	 All variables were estimated into the parent cell of 10m x 5m x 5m using their respective grade shell domains as hard boundaries. The grades were estimated using a minimum of 6 and a maximum of 12 composites, with a maximum of 6 per hole. The composite length used was 2m. A three-pass strategy was used with the first search ellipse of 25m by 25m by 12.5m, the second search was two times the first search and the third search was used where required to allow all blocks to have estimated grades. The Vulcan "Dynamic Anisotropy" was used to align the search ellipse to the mineralisation wireframes. 				
	 High Grade outliers were managed, where required, by search restrictions using the Vulcan "high-yield" function with thresholds based on statistical analysis. 				
Moisture	Estimated tonnes are on a dry basis.				
Cut-off parameters	 The cut-off criteria applied to report the Mineral Resource is a combination of a Net Value Script (NVS) and copper cut-offs. The NVS is run to determine if a blocks value is positive. A copper cut-off is then applied to classify blocks as either a copper or cobalt Mineral Resources. The NVS assigns a value on a block-by-block basis based on Mineral 				
	Resources reasonable prospects for eventual economic extraction (RPEEE). Parameters considered, but not limited to, are the following:				
	 Commodity Price Assumptions (Cu-US\$4.90/lb, Co-US\$29.79/lb) Processing Costs, excluding G&A as assumed this is covered by Kinsevere Operations 				
	 Transport of processing feed from the site to Kinsevere operations. Metal Recovery's 				
	 Product Payability, Royalty and Selling costs. 				
	• Based on the above, it a block is calculated to have a positive value it is flagged as a Mineral Resource.				
	 If a block is flagged as a Mineral Resource by running the NVS then copper Mineral Resources use a 0.5% acid soluble copper (CuAS) for Oxide Mineral Resource, 0.6% total copper (CuT) for the Transitional Mixed (TMO) Mineral Resource and 0.8% total copper (CuT) for the Primary Sulphide Mineral Resource. The Oxide Mineral Resource is defined as having a Ratio (CuAS/CuT) 				



Section 3 Estimating and Reporting of Mineral Resources					
Criteria	Commentary				
	greater than 0.5. The TMO Mineral Resource is defined as having a Ratio greater than or equal to 0.2 and less than 0.5. The Primary Sulphide Mineral Resource is defined as having a Ratio less than 0.2.				
	 Cobalt Mineral Resources are reported as blocks that have been flagged as a Mineral Resource by the NVS and do not classify as copper Mineral Resources as defined above. The cobalt Oxide-TMO Mineral Resource is defined as having a Ratio greater than or equal to 0.2. The cobalt Primary Mineral resource is defined having a Ratio less than 0.2. Cobalt Mineral Resources are exclusive of copper Mineral Resources. 				
	 Comparatively, cut-off grades have remained similar to the 2023 Mineral Resource. 				
	 The reported Mineral Resources have been constrained within a US\$4.90/lb Cu and US\$29.79/lb Co optimized pit shell using Whittle software. The reported cut-off grade and the pit-shell price assumptions are in line with MMG's policy for reporting of Mineral Resources based on reasonable prospects for eventual economic extraction. 				
Mining factors or assumptions	 Mining at Sokoroshe commenced in the second quarter of 2023 and consists of open pit mining with trucks and excavators. 				
Metallurgical factors or assumptions	 Mined ore at Sokoroshe is trucked approximately 25km to Kinsevere for processing. The metallurgical process applied at the current Kinsevere Operation includes H₂SO₄ acid leaching followed by solvent extraction and electro-winning (SXEW) to produce copper cathode. This enables processing of oxide ores only. Kinsevere's expansion project phase, to allow the beneficiation of elemental Cobalt, was commissioned as planned in October 2023 and has fully ramped up with a capacity to go up to 6kt per annum. The Kinsevere Expansion Project (KEP) is close to commissioning (late 2024) and sulphide ores will be processed using flotation followed by roasting and fed into the SXEW plant to produce copper cathode. TMO tails from the flotation circuit will be sent to the oxide leach for further processing. The main deleterious components of the ore are carbonaceous (black) shales, which increase solution losses in the washing circuit, and dolomite which increases acid consumption in the leaching process. This is managed by stockpiles and blending. No metallurgical factors have been applied to the Mineral Resource estimate aside from oxide state. Metallurgical factors have been utilised in the NVS. 				
Environmental factors or	 Environmental factors are considered as part of the Kinsevere life of asset work, which is updated annually and includes provisions for mine closure. 				
	There are no known environmental impediments to operating in the area.				
Bulk density	 Bulk density measurements have been undertaken using weight in air and weight in water. Measurement technique included wax immersion to prevent over estimation due to the porous nature of oxide samples. Wet samples are oven dried prior to measurement. A total of 367 density values were included in the data. 				



Section 3 Estimating and Reporting of Mineral Resources				
Criteria	Commentary			
	 Due to a limited number of density values, mean density values were applied to stratigraphic units sub-divided by the calcium grade domain boundary surface. 			
Classification	 Grade continuity has been demonstrated by previous variograms modelled for the southern and main northern zone and by observation of RC GC samples. Indicated Mineral Resources have been classified where drill spacing in approximately equal to or less than 50m by 50m and supported by geological continuity. Inferred Mineral Resources have been classified where drill spacing is up to 75m by 75m and is extrapolated 75m past the last sample down dip where there is no geological or structural evidence not to support this. 			
Audits or reviews	 No external audits or reviews of this Mineral Resource estimate have been undertaken. 			
Discussion of relative accuracy/ confidence	 All mineralised zones that have been classified as Indicated have been drilled at approximately 50m spacing and recently drilled RC grade control holes support the grade continuity on this spacing. Some concerns on the sample quality of this initial GC drilling has prevented this data from being used in the estimation process. Controls have been implemented to address this issue and it is recommended that GC data collected in 2024, if validated, should be used in future estimations allowing for variogram modelling over short ranges. This drilling should also be used to update grade shells together with pit mapping to confirm the current interpretations. The transition from oxide to sulphide mineralisation is reasonably complex. Further drilling is required to improve the confidence in this interpretation and local variations will exist between actual and the current interpretation. Inferred Resources are generally in the deeper, down-dip zones of the deposit. Further drilling is required to understand the groundwater impacts of mining towards the base of the reportable pit-shell. Currently groundwater ingress does impact mining at Sokoroshe. The northern mineralised zones were predominantly drilled using RC. Twinning of the RC was completed specifically on areas of concern due to deep weathering. Diamond twin drilling of the RC holes in the eastern part of the main northern mineralisation showed discrepancies between the drillhole types. A review of the RC and the twin holes was completed, and holes of poorer quality were discarded from estimation. 			



8.2.3 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Mineral Resource statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

8.2.3.1 Competent Person Statement

I, Mark Burdett, confirm that I am the Competent Person for the Sokoroshe 2 Mineral Resource section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I have reviewed the relevant Sokoroshe 2 Mineral Resource section of this Report to which this Consent Statement applies.
- I am a Member of The Australasian Institute of Mining and Metallurgy.
- I am a full-time employee of MMG Limited.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Sokoroshe 2 Mineral Resource section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in the supporting documentation relating to the Sokoroshe 2 Mineral Resources.

8.2.3.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Sokoroshe 2 Mineral Resources – I consent to the release of the 2024 Mineral Resources and Ore Reserves Statement as at 30 June 2024 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Mark Burdett, BSc Hons (Geology), MAusIMM CP (Geo) #224519

Date:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Signature of Witness:

Witness Name and Residents:

Dean Basile (Melbourne, Australia)

(eg, town/suburb)



8.3 Ore Reserves – Sokoroshe 2

8.3.1 Results

The 2024 Sokoroshe Ore Reserves is based on the 2024 Mineral Resources model as describe in Section 7, 2 and 3 above.

The 2024 Sokoroshe Ore Reserves are summarised in Table 28.

Table 28: Sokoroshe Ore Reserves tonnage and grade (as at 30 June 2024)

Sokorosne Ore Reserve							
Contained				Contained Metal			
Oxide/TMO Copper	Tonnes (Mt)	Copper (% Cu)	Copper (AS % Cu)	Cobalt (% Co)	Copper ('000) t	Cobalt ('000) t	
Probable	1.0	1.8	1.6	0.30	19	3.0	
Primary Copper					-		
Probable	0.13	1.0	0.12	0.58	1.3	0.7	
Stockpiles							
Probable	1.1	1.3	1.1	0.30	14	3.2	
Sokoroshe Copper Total	2.2	1.5	1.3	0.32	34	6.9	

Figures are rounded according to the JORC code guidelines and may show apparent addition errors. Contained metal does not imply recoverable metal

Cut-off grades were calculated at a US\$4.08/Ib copper price and \$21.28/Ib Cobalt. They are based on a Net Value Script considering following:

- Gangue acid consumption
- Oxide Flotation Recovery
- Sulphide Flotation Recovery
- Roaster Recovery for Copper and Cobalt
- Cobalt Solution Recovery
- Cobalt Hydroxide Payables
- Oxide Leach Recovery

The cut-off grade approximates 0.70% CuAS for Oxide, 0.88% CuT for Transitional ex-pit material and 1.10% CuT for Primary Material. Sokoroshe Ore Reserves are incremental to Kinsevere existing operations; therefore, overhead costs are predominately carried by Kinsevere.

- Modelled planned dilution and ore loss of approximately 7% and 11%, respectively. Mining practices are aligned with Kinsevere, which is the basis of the unplanned dilution and ore loss.
- Additional unplanned dilution and ore loss has been modelled at 5% respectively.
- Projected cash flows from Ore Reserves do not consider any existing (30 June 2024) rehabilitation liability.



8.3.2 Ore Reserves JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 14 complies with the 2012 JORC Code requirements specified by "Table-1 Section 4" of the Code. Each of the items in this table has been summarised as the basis for the assessment of overall Ore Reserves risk in the table below, with each of the risks related to confidence and/or accuracy of the various inputs into the Ore Reserves qualitatively assessed.

 Table 29: JORC 2012 Code Table 1 Assessment and Reporting Criteria for Sokoroshe Ore Reserves 2024

Section 4 Estimation and Reporting of Ore Reserves				
Criteria	Commentary			
Mineral Resource estimates for conversion to Ore Reserves	 The Mineral Resources are reported inclusive of the Ore Reserves. The sub-celled Mineral Resources block model named "sok2_gc_model_rank_1_2_update_SDP.bmf" which was updated in Q2 2024 was used for dilution and ore loss modelling. The pit optimisation and designs were generated from the Diluted Mining Model "sok2_gc_sdp_24dbm1". Mineral Resources block model based on Inverse Distance interpolation has been applied for the estimation of all elements. It has a parent block size of 10m x 5m x 5m with sub blocking. The mining dilution model simulates a mining panel of 10m x (8-15)m x 5m introducing localised dilution and ore loss. An unplanned dilution and ore loss are introduced at 5% respectively. All existing stockpiles have been considered for economic inclusion in the Mineral Resources and Reserves and outlined in the Kinsevere table on section 5. 			
Site visits	 The Competent Person is a current employee of MMG and is based at the Kinsevere Mine Site. Several visits and to the Sokoroshe deposit have been conducted. There are also continuous interactions and discussions with relevant people associated with Ore Reserves modifying factors, including geology, grade control, mine-to-mill reconciliation, mine dilution and mining recovery, geotechnical parameters, mine planning, mining operations, metallurgy, tailings and waste storage, and environmental and social disciplines. 			
Study status	 After commencing operations in 2023, several studies in the form of sensitivities have been tested to ascertain the future of the deposit. It is recommended that further studies be conducted beyond the current mine life as the mineral resource estimate demonstrates potential for future expansion. Reserve Estimates were produced as part of the MMG planning cycle. This Estimate informs the Ore Reserves – it demonstrates it is technically achievable and economically viable, while incorporating identified material Modifying Factors. 			
Cut-off parameters	 Breakeven cut-off grades (COG) were calculated at a US\$4.08/lb copper price, \$21.28/lb Co considering all known Copper and Cobalt mineral species. A variable gangue acid consumption is estimated using the equation GAC (kg/t) = 33.823 x %Ca + 2.713 x %Mg + 2.8. The following approximate COG's are applied: 0.70% CuAS for ex-pit Oxide 0.88% CuT for Transitional material 1.10% CuT for Primary material 			



Section 4 Estimation and Reporting of Ore Reserves						
Criteria	Commentary					
	 The ex-pit COG estimates are based on a Net Value Script (NVS) calculation that incorporates commodity price assumptions, gangue acid consumption, recoveries and estimated payables; and costs associated with current and projected operating conditions. The NVS routine identifies material that is both suitable and potentially economic for processing in the Diluted Mining Model. This material is then considered for inclusion in the Ore Reserves process. For the cost assumptions please see the "Costs" section. 					
	 For the price assumptions please see the "Revenue factors" section. 					
Mining factors or assumptions	 The method for Ore Reserves estimation included: mine dilution modelling, pit optimisation, final pit designs, consideration of mine and mill schedule, all identified modifying factors and economic valuation. Sokoroshe mine is an open pit operation that is mining and transporting 					
	predominantly oxide copper ore. The operation uses two separate contract mining fleet of excavators and articulated dump trucks along with a fleet of ancillary equipment.					
	This mining method is appropriate for the style and size of the mineralisation.					
	 The pit optimisation was based on a 2024 updated mining model based on updated drilling information acquired since the start of the operation. 					
	 Although the Revenue factor 1 shell is larger than the 2023 Whittle shell, the CP recommends that further drilling is done to better understand the lateral continuity of the ore body before any further expansion is considered for Ore Reserves. In this light, the pit design conforms to the 2023 Whittle shells and demonstrates further opportunity for pit expansion. The study will examine the feasibility of the mining widths for the expansion. 					
	 Mining dilution is based on localised mining dilution modelling with an additional unplanned dilution and ore loss of 5% respectively (unplanned dilution and ore loss was 5% in the 2023 Ore Reserves). The dilution and ore loss modelling are a reflection Kinsevere operating practises and are considered reflective of current and future mining at Sokoroshe. 					
	 Minimum mining width (bench size) is typically in excess of 30m considering the small sized equipment adopted at the Sokoroshe operation. 					
	 No Inferred Mineral Resources material have been included in the Ore Reserve reporting. 					
	 All required infrastructure is in place for processing Sokoroshe Oxide Copper bearing minerals at Kinsevere. 					
	 Mining rates are planned to stay relatively constant and is within the capacity of the proposed mining contractor capability. 					
	 The slope guidelines used for the 2024 Sokoroshe Ore Reserves are similar to that of the 2023 guidelines and are as follows: 					



Section 4 Estimation and Reporting of Ore Reserves									
Criteria	Commenta	ary							
	Domain	Weathering Zone	BFA (Max ⁰)	Bench Height (m)	Berm Width (m)		BSA (⁰)	Stack Height (m)	
	Domain	Completely Weathered	50	10	7.8	31.7	35	40	
	Northwest	Highly Weathered	70	10	5.1	48.8	52	65	
		Moderately Weathered	70	10	5.1	48.8	52	65	
	Southwest	Completely Weathered	50 65	10	7.8	31.7	35	40	
	Southwest	Moderately Weathered	65	10	6.7	41.3	44	65	
		Completely Weathered	50	10	6.3	34.2	41	10	
	Northeast	Highly Weathered Moderately Weathered	50 65	10	5.0	36.8	36	90 20	
		Completely Weathered	50	10	9.75	28.9	37	20	
	Southeast	Highly Weathered Moderately Weathered	65 65	10 10	5.1	46 47.2	48	50 50	
	- The dec	ian agatara hiak	aliabtad	in the table			in the	figuro	
	 The design of the second second	sign sectors nigi	liigiiteu		abuve ca	ii be seen	in the	ngule	
	- These exponded being	e guidelines tak soures at Sokord ch, inter-ramp ar	te into ad oshe and overa	ccount obset l potential fa all slope sca	erved perfailure mod le at Soko	ormance of that corroshe.	Lege	end kundulungu Pat TimN OB Dipeta Dipeta Current current cur at	
Metallurgical Sokoroshe Processing at Kinsevere									
factors or									
assumptions	Ine existing metallurgical process at Kinsevere is a hydrometallurgical process								
assumptions	involving grinding, tank leaching, counter-current decantation (CCD) washing,								
	solvent extraction and electrowinning.								
	The acid leach process has been operating successfully since start-up in								
	September 2011.								
	 Copper recovery is determined by the equation: 								
				(0 0	$963 \times CuAS$.)			
			Cu _{recove}	$ery_{(\%)} = \frac{(0.5)}{(.5)}$		<u> </u>			
					<i>u1</i>				
	 where CuAS refers to the acid soluble copper content of the ore which is determined according to a standard test. The CuAS value has historically been around 80 to 90% of the total copper value though the exact percentage varies with the ore type. Much of the non-acid soluble copper is present in sulphides which are not effectively leached in the tank leaching stage. The reconciliation between expected and actual recovery is checked each 								
month. The following table summarizes the out					rizes the outcomes for the last eight quarters.				



Section 4 Estimation and Reporting of Ore Reserves					
Criteria	Commentary				
		Doriod	Recovery of Acid Solu		
	Period		Predicted	Actual	
		Q3 2023	96.3	97.0	
		Q4 2023	96.3	96.9	
		Q1 2024	96.3	96.1	
		Q2 2024	96.3	96.3	
	•	There are no kn	own deleterious compone	ents of the ore at Sc	- okoroshe.
	 Total gangue acid consumption has been estimated based on the following equation GAC (kg/t) = 33.823 x %Ca + 2.713 x %Mg + 2.8. 				
	 For Ore Reserves, an Oxide processing capacity of approximately 2.4Mtpa of ore (Maximum of 2.3 Mtpa when the Sulphide plant is operating) and an electrowinning capacity of 80ktpa of copper cathode has been assumed. Both mill throughput and cathode production rates have been demonstrated as sustainable. 				
	Kinsevere Expansion Project (KEP)				
	 The KEP study aimed to expand the current acid leach process to treat sulphide, transition and oxide ore, as well as recover cobalt. The first phase to recover cobalt from the current process was completed and commissioned in October 2023. Commissioning of some components of the Sulphide circuit is in progress and is expected to be in full operation in October 2024. 				
	•	Sokoroshe ore i Kinsevere plant (SMBS) which v	ore is predominantly Oxide with some significant Cobalt grades. The plant was modified to employ the addition of Sodium Metabisulfite nich will ensure cobalt recovery targets are achieved.		



Section 4 Estimation and Reporting of Ore Reserves					
Criteria	Commentary				
	The block flowsheet for Kinsevere is given below:				
	Oxide/TMO Ore Sulphide Oxide/Comminution Sulphide Oxide/Comminution Sulphide Desci Sulphide Floation Protation Floation Roasting Acid Leach Fall Ho Thickening CCD's Ho Thickening CCD's Ho SX Fig 2 Ecclim Id Free Exed Fig 2 Ecclim Exed Fooduction Interstore Organize Cobalt Freductive Interstore Organize Cobalt Freduction Interstore Organize Interstore Organize Interstore Organize Interstore Organize Interstore Organize				
	Recovery Description Unit Comment				
	Sulphide Circuit Flot Copper Recovery % Calc >10% ASCu/Tcu; the recovery = 96 - 94 * ASCu/TCU (Bation 4 (0.2 plan (target)) < (0.4 F7 * ASCu/Tcu))				
	Sulphide Circuit Flot Cobalt Recovery % Calc >10% ASCu/Tcu; the recovery = 96 - 94 * ASCu/TcU - 2%				
	(Ratio<0.4 / 0.2 - plan / target) <10% ASCu/Tcu; the recovery = 94 - 57 * ASCu/Tcu - 2% Oxide Circuit Elotation Conner Recovery % Calc 72% * (CuT - ASCu)				
	(Ratio<0.4 / 0.2 - plan / target)				
	Leach Copper Recovery % 98 Less Soluble Losses (Includes Recovery Losses)				
	(Oxide Feed) Leach Cobalt Recovery % 35 (70% Cobalt / Oxide only - i.e. 12 months prior to commissioning of the Sulphide plant) (Less Soluble Losses) commissioning of the Sulphide plant)				
	Roaster Recovery - Cu Conversion%95Roaster Recovery - Co Conversion%92.5				
	 There is the potential for plant misallocations. Due to this, continuous monitoring of CuAS and CuT ratios are paramount to ensure that oxide material does not report and eventually go through the Sulphide plant, as these materials will be lost to the tailings. Targets are as below: Sulphide Circuit where the Ratio CuAS / Cu < 0.2 Oxide Circuit where the Ratio CuAS / Cu >= 0.2 				
Environmentel	\sim Coophamical analysis of mino waste material for Calvarasha has been completed.				
Environmental	• Geochemical analysis of mine waste material for Sokorosne has been completed in 2024. A prudent definition for PAF has been adopted whereby material with a				



Section 4 Estimation and Reporting of Ore Reserves					
Criteria	Commentary				
	Sulphur grade greater than 0.2% and not in the CMN is classified as PAF waste. This material is properly encapsulated when encountered to ensure minimal effect on the environment. Non Potential Acid forming waste (NAF) is preserved for construction and rehabilitation requirements.				
	Surface water management plans for the short and medium term have been completed. Maintenance of infrastructure will continue throughout the 2024 dry season.				
	 Material from the Sokoroshe deposit is transported to Kinsevere for processing. There is sufficient tailings storage at Kinsevere to accommodate tailings generated from processing Sokoroshe Ore. 				
Infrastructure	The Kinsevere mine site is well established with the following infrastructure in place:				
	 The Oxide processing plant is operational. 				
	 Labour is mostly sourced from Lubumbashi and surrounding villages with some expatriate support. There is an existing accommodation facility onsite. 				
	 There is sufficient water for the processing. 				
	 Copper cathode is transported off-site by truck. 				
	 Site has an access road that is partially sealed. 				
	 There is power supply from the national grid and from onsite generators. 				
	 The Ore Reserves do not require any additional land for expansion. 				
	 Tailings Storage Facility in place and future lifts are planned for. 				
	 Grid power in country can be intermittent; mitigation management is through diesel-based power generation. Future grid power availability is forecast to improve. 				
	 Timely dewatering of the mining areas is an important aspect of mining operations. 				
	Kinsevere Expansion Project (KEP)				
	Tailings storage facility (sulphide tailings) including tailings and decant pipelines				
	 Reagents storage and utilities; power, water, air, sewerage, etc. have all been designed and in the process of being re-established. 				
	Operational buildings and services relocations				
	Roads and drainage upgrades				
Costs	 Processing costs for Kinsevere is based on historic and forecast costs, with the exception of the contract mining costs and the Sulphide Processing Plant costs. 				
	 Mining costs are based on existing contract mining costs, tendered in early 2023. 				
	Ore haulage costs from Sokoroshe to Kinsevere are based on contract haulage rates.				
	• Transportation charges used in the valuation are based on the actual invoice costs that MMG are charged by the commodity trading company per an existing agreement.				
	Royalties' charges have been considered, approximating 6% per pound of the Copper revenue and 12.5% per pound of the Cobalt revenue.				
	The processing costs include calculated gangue acid consumption.				



Section 4 Estimation and Reporting of Ore Reserves					
Criteria	eria Commentary				
	The final product contains no deleterious elements.				
	 US dollars have been used thus no exchange rates have been applied. 				
	 Weathering profiles have been used to model in-pit blasting costs. 				
	 Since the final Copper product is copper cathode (Grade A non-LME registered) there are no additional treatment, refining or similar charges. The final product for Cobalt, is Cobalt Hydroxide, payability, transport, export duty, customs clearance, agency fees and freight have been estimated and incorporated. 				
	 Sustaining capital costs have been included in the pit optimisation. The sustaining capital costs are mainly related to the tailings storage facility lift construction and the process plant(s). The inclusion or exclusion of these costs in the Ore Reserves estimation is based on accepted industry practice. These costs are derived from the approved Strategic Life of Mine Plan to simulate the look ahead costs. 				
	 A cash flow model was produced based on the mine and processing schedule and the aforementioned costs. 				
	 The Ore Reserve estimation has been based on the aforementioned costs. 				
Revenue	 For cost assumptions see section above – "Costs" 				
factors	 The assumed long-term copper and cobalt price is US\$4.08/lb and US\$21.28/lb respectively. These prices are used to inform the cut-off parameters (see cut-off section above). These prices are provided by MMG corporate, approved by the MMG Board, and are based on external company broker consensus and internal MMG analysis. 				
Market assessment	 MMG considers that the outlook for the copper and cobalt price over the medium and longer term is positive, supported by further steady demand growth. 				
	 Global copper consumption growth will continue to be underpinned by rising consumption in China and the developing countries in Asia as these nations invest in infrastructure such as power grids, commercial and residential property, motor vehicles and transportation networks and consumer appliances such as air conditioners. 				
	 Cobalt has received considerable attention in the past decade or so due to its importance in the rechargeable battery industry, most notably with the increase in the electric vehicle and related industries. 				
	 Global copper and cobalt demand will also rise as efforts are made to reduce greenhouse gas emissions through increased adoption of renewable energy sources for electricity generation and electric vehicles for transportation. 				
	 Supply growth is expected to be constrained by a lack of new mine projects ready for development and the requirement for significant investment to maintain existing production levels at some operations. 				
	 There is a life of mine off-take agreement with a trading company in place for all Kinsevere's copper cathode production. The off-take arrangement has been in place since the commencement of cathode production at site and has operated effectively. There is no reason to expect any change to this in future. Cobalt Hydroxide sales will be conducted by the MMG Sales and Marketing team. 				



Section 4 Estimation and Reporting of Ore Reserves				
Criteria	Commentary			
Economic	The costs are based on historic actuals and estimated Sulphide Plant feasibility study operating costs, with adjustments to reflect the current economic parameters, the 2024 Kinsevere MYF and tendered contractor mining costs.			
	 Revenues are based on forecasted Cu cathode and Co hydroxide to be produced and sold. Copper and Cobalt prices are based on MMG's Corporate Economic Assumptions long-term pricing forecast of \$4.08/lb Copper and \$21.28/lb Cobalt. 			
	 Other non-production costs are based on historic rates adjusted for current economic parameters and MYF pricing assumptions. 			
	 The Ore Reserves financial model demonstrates the mine has a positive NPV (US\$465.6M) 			
	• The discount rate is in line with MMG's Corporate Economic Assumptions and is considered to be appropriate for the location, type and style of operation.			
	 Standard sensitivity analyses were undertaken for the Ore Reserve work and support that the Ore Reserve estimate is robust. 			
Social	 Together with a local NGO, the social development team collected the community needs which were ranked and expressed as community projects to be funded by a cahier de charge to be launched before end of 2024. 			
Other	 Sokoroshe consists of one mining tenement or Permis d'Exploitation, PE538, with an area of 6 cadastral units (about 5.1 km²). The mineral rights of PE538 are held by La Générale des Carrierés et des Mines (Gécamines), the DRC state-owned mining company. MMG rights to the tenement are granted under the terms of the Mutoshi Swap Framework Agreement. 			
Classification	 The Ore Reserves classification is based on the JORC 2012 Code. The basis for the classification was the Mineral Resources classification and Net Value cut-off grade. The ex-pit material is classified as Measured and Indicated Mineral Resources, has a cut-off value calculated using a Net Value Script (NVS). It is demonstrated to be economic to process and is classified as Proved and Probable Ore Reserves respectively. 			
	The Ore Reserves do not include any Inferred Mineral Resources.			
Audit or Reviews	An external audit was completed in 2020 on the 2020 feasibility study. The work was carried out by AMC Consultants and subsequently by Nerin Institute of Technical Design. Whilst some minor improvements were suggested, no material issues were identified.			
	 Another external Ore Reserves audit has been conducted on the 2023 Ore Reserves. The result of the audit did not identify any fatal flaw in the estimation process. However, suggestions for improvement were recommended, and these will be implemented fully in the next cycle of Ore Reserve estimation. 			
Discussion of	The most significant factors affecting confidence in the Ore Reserves are:			
relative accuracy/ confidence	 Mining Dilution and Ore Loss. 			
	 Existence of karst features and impacts to mining Dilution and Ore Loss. 			
	Increase in operating costs for mining Costachnical risk related to slope stability			
	 Geolechnical fisk related to slope stability. Effective management of surface water 			
	- Enective management of sufface water.			



8.3.3 Expert Input Table

A number of persons have contributed key inputs to the Ore Reserves determination. These are listed below in Table 30.

In compiling the Ore Reserves the Competent Person has reviewed the supplied information for reasonableness but has relied on this advice and information to be correct.

Table 30: Contributing experts – Sokoroshe Mine Ore Reserves

EXPERT PERSON / COMPANY	AREA OF EXPERTISE		
Mark Burdett, Principal Resource Geologist, MMG Ltd (Melbourne)	Mineral Resource Estimation Resource Block Models Production Reconciliations Stockpile Tonnes and Grade		
Andrew Goulsbra, Head of Metallurgy, MMG Ltd (Melbourne) Jean Bilali, Processing Manager, MMG Kinsevere SARL (Lubumbashi)	Metallurgical and Processing Parameters		
Dr. Jeff Price, Head of Geotechnical Engineering, MMG Ltd (Melbourne) Ebenezer Conduah, Specialist Geotechnical Engineer, MMG Kinsevere SARL (Lubumbashi)	Geotechnical parameters		
Dean Basil – Principal Mining Engineer, Mining One PTY	Cut-off Grade Calculations Block Model Dilution		
Papa K. A. Empeh, Manager - Mine Technical Services, MMG Kinsevere SARL (Lubumbashi) Obed Kofi Addo, Senior Long Term Planning Engineer, MMG Kinsevere SARL (Lubumbashi)	Whittle Optimisations Pit Designs Mine and Mill Schedules		
Gerard Venter, Tailings and Water Manager, MMG Kinsevere SARL (Lubumbashi) Knight Piésold	Tailings Dam Design and Capacity		
Ben Qian, Deputy General Manager Commercial, MMG Kinsevere SARL (Lubumbashi) Jason Duffin, Business Evaluations and Business Improvement Superintendent, MMG Kinsevere SARL (Lubumbashi)	Economic Assumptions and Evaluation		
Charles Kyona, Stakeholder Relations Manager, MMG Kinsevere SARL (Lubumbashi)	Environment and Social		
Hong Yu, Head of Marketing, MMG Ltd (Beijing)	Marketing		



8.3.4 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Ore Reserve statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

8.3.4.1 Competent Person Statement

I, Papa K. A. Empeh, confirm that I am the Competent Person for the Kinsevere Ore Reserves section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member of The Australasian Institute of Mining and Metallurgy
- I have reviewed the relevant Kinsevere Ore Reserves section of this Report to which this Consent Statement applies.

I am a full-time employee of MMG Kinsevere SARL.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Kinsevere Ore Reserves section of this Report is based on and fairly and accurately reflects in the form and context in which it appears the information in my supporting documentation relating to the Kinsevere Ore Reserves.

8.3.4.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Kinsevere Ore Reserves - I consent to the release of the 2024 Mineral Resources and Ore Reserves Statement as at 30 June 2024 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Papa K. A. Empeh BSc (Hons) Mining Engineering, MSc Minerals Economics MAusIMM(CP) (#226250)

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

Signature of Witness:

Date:

Patrick Nkulu. (Lubumbashi, Democratic Republic of Congo)

Witness Name and Residents: (eg, town/suburb)



9. DRC Satellite Deposits

9.1 Introduction and Setting

The Nambulwa, Diazenza (DZ) and Kimbwe-Kafubu Projects are located on the license PE539 in Democratic Republic of Congo, DRC. The tenement was acquired by MMG as part of the Anvil Mining acquisition in 2012. From the Kinsevere copper (Cu) mine, the Projects are located some 30km to the NNW (Figure 9-1). MMG begun exploring the area in 2014 with regional to semi-regional exploration work including geological mapping, surface geochemistry, airborne geophysical survey (magnetics, radiometrics, and EM).



Figure 9-1 Nambulwa and DZ project location

The Nambulwa, DZ and Kimbwe-Kafubu projects (the Project or Projects) are located within lease PE539 (100% Gécamines) in the DRC. MMG has a Contrat d'Amodiation (Lease Agreement) with Gécamines to mine and process ore from the Project until 2039.

On 16 September 2022 the site was occupied by armed forces who claimed that the governmentowned mining company Gécamines has signed a research contract for the area with a third party even though MMG has a registered interest over the lease. MMG's employees and contractors were evacuated from the site on 23 September 2022. With the support of local authorities, MMG people were able to return to the site and continue work from 28 September 2022, however the armed forces remained at the site. On 21 October 2022, MMG filed arbitral proceedings against La Générale des Carrières et des Mines S.A. (Gécamines) before the International Chamber of Commerce. These arbitral proceedings are ongoing however likely to be closed out in the in the near future.


9.2 Mineral Resources – Nambulwa / DZ / Kimbwe-Kafubu

9.2.1 Results

The 2024 Nambulwa, Diazenza (DZ) and Kimbwe-Kafubu Mineral Resources are summarised in Table 31. There are no Ore Reserves for these deposits.

Table 31: Nambulwa Mineral Resources tonnage and grade (as at 30 June 2024)

Nambulwa Mineral Resources							
Nambulwa Oxide Copper²	Tonnes (Mt)	Copper (% Cu)	Copper AS ¹ (% Cu)	Cobalt (% Co)	Copper (kt)	Contained N Copper AS ¹ (kt)	<mark>letal</mark> Cobalt (kt)
Measured	-	-	-	-	-	-	-
Indicated	1.2	2.1	2.0	0.1	26	24	1.3
Inferred	0.1	1.7	1.5	0.1	1.9	1.7	0.1
Total	1.3	2.1	1.9	0.1	28	25	1.4
Transition Mixed Ore (T	MO) Copper ³						
Measured	-	-	-	-	-	-	-
Indicated	0.02	3.2	1.3	0.18	0.55	0.22	0.03
Inferred	-	-	-	-	-	-	-
Total	0.02	3.2	1.3	0.18	0.55	0.22	0.03
Nambulwa Oxide-TMO	Nambulwa Oxide-TMO Cobalt ⁴						
Measured	-	-	-	-	-	-	-
Indicated	0.01	0.53	0.44	0.20	0.05	0.04	0.02
Inferred	-	-	-	-	-	-	-
Total	0.01	0.53	0.44	0.20	0.05	0.04	0.02
Combined Total	1.3	2.1	1.9	0.11	28	26	1.5

¹ AS stands for Acid Soluble

 2 0.5% Acid soluble Cu cut-off grade and Net Value Script positive

³ 0.6% Total Cu cut-off grade and Net Value Script positive

⁴Net Value Script positive and not Cu Mineral Resource

All Mineral Resources except stockpiles are contained within a US\$4.90/lb Cu and US\$29.79/lb Co pit shell Contained metal does not imply recoverable metal.

Figures are rounded according to JORC Code guidelines and may show apparent addition errors.



Diazenza Mineral R	Diazenza Mineral Resources						
						Contained Meta	al
Oxide Copper ²	Tonnes (Mt)	Copper (% Cu)	Copper AS ¹ (% Cu)	Cobalt (% Co)	Copper (kt)	Copper AS ¹ (kt)	Cobalt (kt)
Measured	-	-	-	-	-	-	-
Indicated	1.0	1.8	1.5	0.13	18	16	1.3
Inferred	0.1	1.8	1.6	0.10	1.0	0.87	0.06
Total	1.1	1.8	1.5	0.12	19	17	1.4
Transition Mixed Or	re (TMO) Copp	er ³					
Measured	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-
Inferred	0.01	1.8	0.72	0.05	0.18	0.07	0.005
Total	0.01	1.8	0.7	0.05	0.18	0.07	0.005
Oxide-TMO Cobalt	4						
Measured	-	-	-	-	-	-	-
Indicated	0.06	0.58	0.43	0.22	0.33	0.25	0.13
Inferred	0.005	0.64	0.46	0.09	0.03	0.025	0.005
Total	0.06	0.58	0.43	0.21	0.37	0.27	0.13
Combined Total	1.2	1.7	1.5	0.1	20	17	1.5

Table 32 - Diazenza Mineral Resources tonnage and grade (as at 30 June 2024)

¹ AS stands for Acid Soluble

 2 0.5% Acid soluble Cu cut-off grade and Net Value Script positive

³ 0.6% Total Cu cut-off grade and Net Value Script positive

⁴Net Value Script positive and not Cu Mineral Resource

All Mineral Resources except stockpiles are contained within a US\$4.90/lb Cu and US\$29.79/lb Co pit shell

Contained metal does not imply recoverable metal.

Figures are rounded according to JORC Code guidelines and may show apparent addition errors.



Kimbwe-Kafubu Mineral Resource							
					Contained Metal		
Ovide Copper ²		Copper	Copper AS ¹	Cobalt	Copper	Copper AS ¹	Cobalt
Mongurod	(1011)	(% Cu)	(% Cu)	(% 00)	(KI)	(KL)	
Indicated	0.85	18	12	0.13	16	10	1.1
Inferred	0.07	1.9	1.2	0.15	1.3	0.8	0.10
Total	0.92	1.8	1.2	0.13	17	11	1.2
Transition Mixed Ore	(TMO) Coppe	er ³					
Measured	-	-	-	-	-	-	-
Indicated	1.3	2.6	0.89	0.02	33	11	0.31
Inferred	0.42	2.3	1.0	0.05	9.7	4.1	0.21
Total	1.7	2.5	0.91	0.03	43	15	0.52
Primary Copper ⁴							
Measured	-	-	-	-	-	-	-
Indicated	0.12	3.2	0.54	0.11	3.9	0.66	0.13
Inferred	-	-	-	-	-	-	-
Total	0.12	3.2	0.54	0.11	3.9	0.66	0.13
Oxide-TMO Cobalt ⁵							
Measured	-	-	-	-	-	-	-
Indicated	0.09	0.58	0.37	0.36	0.53	0.34	0.33
Inferred	0.01	0.60	0.27	0.43	0.05	0.02	0.03
Total	0.10	0.59	0.36	0.36	0.58	0.36	0.36
Combined Total	2.8	2.3	1.0	0.08	64	27	2.2

¹ AS stands for Acid Soluble

² 0.5% Acid soluble Cu cut-off grade and Net Value Script positive

³ 0.6% Total Cu cut-off grade and Net Value Script positive

⁴0.8% Total Cu cut-off grade and Net Value Script positive

⁵ Net Value Script positive and not Cu Mineral Resource

All Mineral Resources except stockpiles are contained within a US\$4.90/lb Cu and US\$29.79/lb Co pit shell

Contained metal does not imply recoverable metal.

Figures are rounded according to JORC Code guidelines and may show apparent addition errors.

The cut-off criteria applied to report the Mineral Resource is a combination of a Net Value Script (NVS) and copper cut-offs. The NVS is run to determine if a blocks value is positive, based on applied Mineral Resource criteria, and if so, flagged as a Mineral Resource. A copper cut-off is then applied to classify blocks as either a copper or cobalt Mineral Resources.

If a block is flagged as a Mineral Resource by running the NVS then copper Mineral Resources use a 0.5% acid soluble copper (CuAS) for Oxide Mineral Resource, 0.6% total copper (CuT) for the Transitional Mixed (TMO) Mineral Resource and 0.8% total copper (CuT) for the Primary Sulphide Mineral Resource. The Oxide Mineral Resource is defined as having a Ratio (CuAS/CuT) greater than 0.5. The TMO Mineral Resource is defined as having a Ratio greater than or equal to 0.2 and less than 0.5. The Primary Sulphide Mineral Resource is defined as having a Ratio less than 0.2.

Cobalt Mineral Resources are reported as blocks that have been flagged as a Mineral Resource by the NVS and do not classify as copper Mineral Resources as defined above. The cobalt Oxide-TMO Mineral Resource is defined as having a Ratio greater than or equal to 0.2. The cobalt Primary Mineral resource is defined having a Ratio less than 0.2. Cobalt Mineral Resources are exclusive of copper Mineral Resources. All reported Mineral resources a constrained with a reasonable prospects pit shell.



9.2.2 Mineral Resources JORC 2012 Assessment and Reporting Criteria

The following information provided in Table 33 complies with the 2012 JORC Code requirements specified by "Table-1 Section 1-3" of the Code.

 Table 33: JORC 2012 Code Table 1 Assessment and Reporting Criteria for Kimbwe-Kafubu/Nambulwa/DZ Mineral Resources

 2024

Section 1 Sampling Techniques and Data				
Criteria	Explanation			
Sampling techniques	 The Mineral Resources uses a combination of reverse circulation (RC) and diamond drilling (DD) to inform the estimates. At DZ, aircore drilling was used to help define near surface Cu-oxide but the data from aircore drillholes were not used in estimation. Mineralised zones within the drill core were identified, to define assay intervals, based on combined parameters including lithological and alteration logging, mineralogical logging and systematic spot pXRF readings. DD core was sampled nominally at 1m intervals within mineralised zones while unmineralised zones were sampled at 2m or 4m intervals. Sampling was carried out by longitudinally cutting PQ and HQ drill core using an Almonte automatic diamond saw and sampling half-core, with half-core retained for future reference. PQ drill core was quartered and sampled. Three-quarters of the core was retained for future reference. 			
	 RC drill cuttings were collected in 1m bulk samples from a rig mounted cyclone. Lithological and mineralogical logging, supported by systematic spot pXRF readings, were used to identify mineralised and unmineralised zones in the RC chips. Samples from mineralised zones were riffle split every 1m to obtain a representative (~2.5kg) sample. Samples from unmineralised zones were riffle split and composited to 2m intervals. Wet samples were dried in ambient air before splitting and compositing. 			
	 Air core (AC) drill cuttings were collected in 1m bulk samples from a rig mounted cyclone. Samples from zones of mineralisation were riffle split to obtain a representative (~2.5kg sample). Samples from visually unmineralised, lithologically similar zones were riffle split and composited to 3m sample intervals (~2.5kg weight). Wet samples were dried in ambient air before splitting and compositing. Overall, 54% of the samples were less than 2m, with mineralised samples taken at nominal 1m intervals. 			
	 Samples were crushed, split and pulverised (>85% passing 75 µm) at an onsite MMG laboratory at the MMG core yard facility in Lubumbashi. 100 grams of pulp material was sent to the SANAS accredited ALS Laboratories in Johannesburg. The sample types nature quality and sample preparation techniques are 			
	considered appropriate for the nature of mineralisation within the Project (sediment hosted base metal mineralisation) by the Competent Person.			
Drilling techniques	• DD: PQ and HQ sizes, with triple tube core barrel to maximise recovery. At the end of each drilling run the core was marked with an orientation mark by using a REFLEX ACE tool. An orientation line was then drawn along the axis of the core if two consecutive orientations marks could be aligned by docking core pieces.			



Section 1 Sampling Techniques and Data				
Criteria	Explanation			
	 AC drilling: A blade bit was used for drilling a 3.23-inch (82mm) hole. The cyclone was manually cleaned at the start of each shift, after any wet samples, and after each hole. Compressed air from the drilling machine was used to clean/blow out material from the AC rods, hoses, and cyclone after each rod. RC drilling: A hammer bit was used for drilling a 5.25-inch (133mm) diameter hole. The cyclone was manually cleaned at the start of each shift, after any wet samples, and after each hole. Compressed air from the drilling machine was used to clean/blow out material from the RC rods, hoses, and cyclone after each rod. 			
Drill sample recovery	 As expected, the recovery dropped in unconsolidated/highly weathered ground. Above 50m, core recovery averaged 85%, and below 100m, core recovery averaged 89%. At Kimbwe-Kafubu the recovery averaged 80% and was influenced by the intersection of small cavities. Actual versus recovered drilling lengths were captured by the driller and an onsite rig technician using a tape measure. Measured accuracy was to 1cm. The core recoveries were calculated with the database based on the above measurements. Sample recovery during diamond drilling was maximised using the following methods: Using drilling additives, muds and chemicals to improve broken ground conditions. Using the triple tube core barrels. Reducing water pressure to prevent washout of friable material. Drilling rates varied depending on the actual and forecast ground conditions. Core loss was recorded and assigned to intersections where visible loss occurred. Cavities were noted. Bias due to core loss based on comparing copper grades to recovery was determined and considered immaterial. RC and AC cuttings recovery was measured by weighing each 1m sample bag immediately following collection from the cyclone. Sample returns for RC and AC drilling have been calculated at 62% and 63% respectively strongly influenced by drilling in weathered oxide material close to the ground surface. Sample recovery during RC drilling was maximized using the following methods: Adjusting air pressures to the prevailing ground condition. Using new hammer bits and replacing when showing signs of wear. 			
	DD core RC chips and AC chips have been deplodically logged and entered			
Logging	into the MMG database (Geobank®). The level of detail supports the estimation of Mineral Resources. Additional geotechnical logging is required for further studies of the deposits. Logging for weathering and oxidation type was not considered consistent so assay data was used to support this.			
	 Qualitative logging includes lithology, mineralisation type, oxidation type, weathering type, colour and alteration types. Quantitative logging includes mineralisation mineral percentage, alteration mineral percentage and in the case of core, RQD and structural data have been recorded. 			



Section 1 Sampling Techniques and Data				
Criteria	Explanation			
	All the core and chip samples were photographed both wet and dry.			
	 100% of core and chips have been logged with the above information. 			
Sub-sampling techniques and sample preparation	 100% of core and chips have been logged with the above information. DD core was split in half longitudinally (HQ size) or quartered (PQ size) using an Almonte automatic diamond saw. Sample lengths were cut as close to nominal 1m intervals as possible while also respecting geological contacts. Samples were generally ~2.5kg in weight. RC and AC samples were collected from a cyclone every metre by a trained driller's assistant. If the sample was dry the sample was passed through a riffle splitter and a ~2.5kg split was collected into a pre-numbered calico bag. Residual material was sampled and sieved for collection into chip trays for logging and the remainder returned to the larger poly-weave bag (bulk reject). The splitter was cleaned using compressed air or a clean brush and tapped using a rubber mallet. If the sample was wet, the sample was air dried before being split according to the above procedure. For RC and AC methods, field duplicates were inserted at a rate of approximately 5% to ensure sampling precision was measured. Samples from individual drillholes were sent in a single dispatch to the MMG laboratory at the MMG core yard facility in Lubumbashi. Samples were received, recorded on the sample sheet, weighed, and dried at 105°C for 4 to 8 hours (or more) depending on dampness at the sample preparation laboratory. Samples were crushed and homogenised in a jaw crusher to >70% passing 2mm. The jaw crusher was cleaned with a barren quartz blank after every crushed sample. QC crush checks were carried out using a 2 mm sieve every 1 in 20 samples. The sample size was reduced to 1000g in a riffle splitter and pulverised in an LM2 pulveriser to >8% passing 75µm. QC grind checks were carried out using wet sieving at 75µm on every 1 in 10 samples. 100 grams of pulp material were sent to the SANAS accredited ALS Laboratories in Johannesburg exclusively for Nambulwa and DZ samples. The analytical laboratories used f			
	• The sample size is appropriate for the grain size and distribution of the minerals of interest.			
Quality of assay data and laboratory tests	 All samples were sent to ALS Chemex Laboratory in Johannesburg for Nambulwa and DZ samples. Three primary laboratories (83% at ALS Johannesburg, 13% at Robinson International in Lubumbashi and 4% at SSM SARL in Kolwezi) were utilised for analysis of the Kimbwe-Kafubu samples. 			



Section 1 Sampling Techniques and Data				
Criteria	Explanation			
	 Samples were analysed using a 4-acid digest with ICP-MS/OES finish. 48 elements were analysed in total. 			
	 Acid soluble copper assays were only performed when the total copper assay was greater than 1,000 ppm. At Kimbwe-Kafubu and acid-soluble cobalt assays were only performed when total cobalt was greater than 500 ppm. 			
	 ~15% QAQC samples were incorporated, including blanks, duplicates (field, crush, and pulp) and certified reference material per sample analysis batch. 			
	 QAQC data has been interrogated with no significant biases or precision issues. 			
	 No geophysical tools, spectrometers, or portable XRF instruments have been used for estimation purposes. 			
Verification of	Significant intersections have been reviewed by competent MMG employees.			
sampling and	 No twin drilling was completed. 			
assaying	 For Kimbwe-Kafubu a comparison was undertaken between RC and DD samples. A slight positive bias was noted towards the RC for copper and cobalt however is considered immaterial. 			
	 Primary data is stored in a Geobank[®] database, which is maintained according to MMG database protocols. Data is logged, entered and verified in the process of data management. Database is stored on a MMG server and routinely backed up. 			
	 No adjustment has been made to assay data. 			
Location of data points	 Planned collar positions for both diamond drilling and RC drilling were located using handheld GPS devices to ±5m accuracy. 			
	 Post drilling, actual collar positions were surveyed using DGPS (Geomax Zenith 25 Pro and Topcon Hiper II) and are of high accuracy. 70 collars had not been surveyed by DGPS at Kimbwe-Kafubu at the time of estimation and therefore collar positions are based on hand-held GPS. 			
	• At Kimbwe-Kafubu all collars were projected to the topographic surface as there was some discrepancy between surveyed collar RL's (up to 11.8M) and the topographic surface. An updated topographic surface is planned to be undertaken in late 2024 to further understand this discrepancy.			
	 Grid system is in WGS84/UTM35S 			
	 Topographic control was by a detailed aerial drone survey. 			
	 The TN14 GYROCOMPASS[™] was used to align the drill rig to the correct azimuth and dip angles. 			
	 Downhole surveys were done using the REFLEX EZ-TRAC survey instrument. Downhole surveys were not carried out on RC & AC drillholes. Azimuth and dip were extrapolated from measurements taken from the surface using the TN14 GYROCOMPASS[™] and clinometer. 			
Data spacing and distribution	 89 drillholes were completed in the Mineral Resource area at Nambulwa (60 DD, including 4 redrills and 29 RC). 			
	 At DZ, 36 DD (including 2 redrills), 81 AC and 42 RC drillholes were completed in the Mineral Resource area. 			



Section 1 Sampling Techniques and Data					
Criteria	Explanation				
	 A combination of 106 reverse circulation (RC) and 133 diamond (DD) drill-holes were completed at the Kimbwe-Kafubu Project. 				
	• At Nambulwa, the drillholes were drilled on northeast oriented sections approximately 25m to 50m apart and there are between one and three holes approximately 25m apart on each section.				
	• At DZ, the drillholes were drilled on northeast oriented sections approximately 25m apart in the mineralised area and 50m to 100m apart in the barren areas.				
	 At Kimbwe-Kafubu the drillholes are spaced on approximately 50 m spaced (NW – SE, SW - NE and E-W oriented depending on target) drill sections with holes on section spaced 50 m to apart. 				
	• DD core was sampled nominally at 1m intervals within mineralised zones while unmineralised zones were sampled at 2m or 4m intervals.				
	• RC samples were collected from the entire 1 m sample from a rig mounted cyclone within mineralised zones. Samples from unmineralised zones were riffle split and composited to 2 m intervals.				
	No other sample compositing has occurred.				
Orientation of data in relation to geological structure	 DD and RC drillholes were predominantly drilled at inclinations of between 45° and 60° to the northeast at both Nambulwa and DZ to intersect generally steeply dipping mineralisation. Drilling azimuths were as close as practical to orthogonal to the mineralised trend. The AC drillholes were drilled vertically. 				
	 At Kimbwe-Kafubu the drillholes were predominantly drilled with dips of between 50° and 60°. 				
	 Drilling azimuths were as close as practical to orthogonal to the mineralised trend. The AC drillholes were drilled vertically. 				
	 In the view of the Competent Person, no material bias has been introduced by the drilling direction for the RC and DD holes, however the vertical dip of AC drilling renders these holes unsuitable for Mineral Resource estimation. 				
Sample security	 Samples were transported from the field and delivered to the MMG sample processing facility in Lubumbashi for cutting and preparation. Polyethylene foam, tarpaulins, and cargo nets were used to secure the load to the pick-up tray and to avoid possible shifting of core during transport. 				
	 RC chip sampling was conducted in the field. Chip samples were packed in labelled plastic bags along with a labelled plastic ID tag. 				
	• The plastic bags were tied with cable ties to secure the sample and to prevent contamination.				
	 A set of 15 plastic sample bags were packed into labelled poly-weave bags, ready to be shipped from the field to the sample preparation laboratory in Lubumbashi. 				
	• Field packing documents and sample sheets were prepared and sent together with the core trays and poly-weave bags to the sample preparation laboratory in Lubumbashi.				
	• After sample preparation, bar-coded envelopes of 100-200g of pulp for each sample were inserted into boxes of ~40 envelopes each, labelled with dispatch ID and laboratory destination to be sent by DHL courier to ALS Chemex in				



Section 1 Sampling Techniques and Data			
Criteria	Explanation		
	Johannesburg. Pulp samples analysed by SSM and Robinson laboratories were delivered by the MMG single cab pick-up.		
	 Two sets of duplicate pulps of 100-200g were inserted into labelled boxes of ~40 envelopes each to be stored on-site in storage containers. 		
	 The shipment of pulps from Lubumbashi to ALS laboratories was done using DHL Courier services with waybill number for tracking. 		
	• The Lubumbashi sample preparation laboratory utilizes the ALS-Chemex LIM System installed at Kinsevere mine site, generating a unique lab workorder for each batch sample in the analytical chain.		
Audit and reviews	 No external audits or reviews of sampling techniques and data have been conducted. 		
	• Data that informed the Mineral Resource model has been reviewed by previous Competent Persons. No significant issues were identified.		
	• The Competent Person has revied analogous sample techniques and assay protocols at MMG's Kinsevere deposit and no significant issues have been identified.		

Section 2 Reporting of Exploration Results					
Criteria	Status				
Mineral tenement and land tenure	 The Nambulwa, DZ and Kimbwe-Kafubu projects (the Project or Projects) are located within lease PE539 (100% Gécamines) in the DRC. MMG has a Contrat d'Amodiation (Lease Agreement) with Gécamines to mine and process ore from the Project until 2039. 				
status	 On 16 September 2022 the site was occupied by armed forces who claimed that the government-owned mining company Gécamines has signed a research contract for the area with a third party even though MMG has a registered interest over the lease. MMG's employees and contractors were evacuated from the site on 23 September 2022. With the support of local authorities, MMG people were able to return to the site and continue work from 28 September 2022, however the armed forces remained at the site. On 21 October 2022, MMG filed arbitral proceedings against La Générale des Carrières et des Mines S.A. (Gécamines) before the International Chamber of Commerce. These arbitral proceedings are ongoing however likely to be closed out in the in the near future. 				
Exploration done by other parties	 Union Miniere (UMHK) explored the Project area during the 1920s. UMHK conducted trenching, pitting and tunnelling, mainly at Nambulwa. Gécamines explored the Project during the 1990s. Work completed included mapping, pitting, and limited drilling at Nambulwa. Anvil Mining explored the Nambulwa deposit between September and December 2007 and was the first company to effectively define a resource. Anvil's initial phase of exploration included geological mapping, termite mound sampling, AC drilling (11,830m), RC drilling (6,268m), and DD drilling (668m) focussed on PE539 and the surrounding tenements. An unclassified resource of 1.1Mt of ore @ 3.3% Cu for 35,000 t of copper metal was estimated for Nambulwa. 				
Geology	The deposits are classified as sedimentary hosted copper and cobalt deposits.				



Section 2 Reporting of Exploration Results				
Criteria	Status			
	 At DZ and Nambulwa, mineralisation is hosted by the Neoproterozoic Katanga Supergroup within R2 and R1 Subgroups. Copper mineralisation mainly occurs in oxide form (malachite) in vugs, fractures and as mineral replacement. Chalcocite and minor bornite are present in veins and as fine-grained disseminations within shaley host rocks. 			
	 Mineralisation in the Kimbwe Project is mainly vein and fracture controlled. The main copper mineralisation occurs within the carbonaceous shales of the Kafubu Formation of the Mwashya Subgroup. This occurs in the proximity of a fault, which is considered to have been a conduit for copper-bearing fluids which were precipitated as replacement deposits in the carbonaceous shale reducing environment. Mineralisation also occurs the siltstone of the Kamoya formation and the carbonate lithologies of the Kansuki formation. Three smaller copper deposits are located within the Kamoya and Kansuki Formations. These are near surface and in areas where supergene processes have taken place as evidenced by calcium leaching. The cobalt mineralised zones in the Kamoya and Kansuki formations are larger and more continuous than the corresponding copper mineralised zones in this environment where the mineralisation is in an oxide state. Within the Kafubu Formation, the cobalt is less endowed. The mineralisation strikes north-east and is generally steeply dipping, especially in the proximity of the conduit fault, to the north-west. At Nambulwa and DZ, cobalt oxides tend to concentrate near surface in Fe-Mn 			
	rich clays.			
Drill hole information	 No individual drillhole is material to the Mineral Resource estimate and therefore a detailed listing of the database is not provided. 			
Data aggregation methods	 Exploration Results not being reported and therefore reporting of methods of aggregating data are not applicable. No metal equivalents were used in the Mineral Resource estimation. 			
Relationship between mineralisatio n width and intercept lengths	 DD and RC drillholes were predominantly drilled with inclinations of between 45° and 60° to intersect generally steeply dipping mineralisation. Drilling azimuths were as close as practical to orthogonal to the mineralised trend. The AC drillholes were drilled vertically. 			



	Section 2 Reporting of Exploration Results
Criteria	Status
Diagrams	Kinsevere Mine Reine veree Reine veree Reine veree Reine veree Mine Reine veree Mine Reine veree Mine
Balanced reporting	 All drill holes and assay results have been considered in the construction of Cu and Co domains for the Mineral Resource estimates. However, AC hole sample data was not used in estimation.
Other substantive exploration data	 Airborne Geophysics - TEMPEST survey, Airborne EM, magnetics, and radiometric were flown at the end of 2013. 3D inversion of the EM data identified a prominent conductor body over the western, central and eastern section of the Project area. Geological mapping was conducted in 2014 and 2017. Mapping results outlined the presence of the geologically prospective rock units that are the main host rock to the mineralisation. Younger lithologies were also noted from the Nguba and Kundelungu Formations. Surface geochemistry: Termite mound sampling on 100m by 100m grid was completed in 2014, which effectively identified copper anomalous zones within the tenement. Additional geochemical surveys include 50m by 50m soil sampling was conducted in 2017. Airborne Geophysics - Xcalibur survey, flown in 2015 Magnetics - effective at mapping structural and stratigraphic domains. Ground IP and AMT survey - helped in mapping the conductive and resistive bodies at depth.
Further work	 Further work on the Projects will focus on advancing to Pre-feasibility and Feasibility study levels. This should include drilling to convert Inferred to Indicated and Measured Mineral Resources. Inferred material, particularly at depth has been extrapolated over distances of over 70m and require further drilling to support the interpretation. Other further work includes mining design and scheduling, metallurgical testing and analysis along with all other Ore Reserve modifying factors including geotechnical and hydrological studies. Updated topographic surfaces are required to understand some noted discrepancies between collar



Section 2 Reporting of Exploration Results	
Criteria	Status
	RL's and to quantify any minor artisanal mining that may have occurred since the completion of estimations.

Section 3 Estimating and Reporting of Mineral Resources	
Criteria	Status
Database integrity	 The MMG Exploration database systems are SQL server and Geobank[®] management software. All geological and analytical data are managed in MMG's Corporate Geoscience Database. GIS data are stored in secure shared folders in the Lubumbashi server.
	 All data capture has internal validation criteria and is entered straight to Toughbooks[®].
	 Multiple data validation steps are conducted by the geologist and database team. Validation rules are predefined in each of the database tables. Only valid codes get imported into the database.
	 The sampling and geochemical data are stored in a local version of SQL database that gets replicated to a similar version on the Head Office server with daily, weekly and monthly backups.
	 A data validation process conducted prior to estimation consisted of:
	 Examining the sample assay, collar survey, downhole survey and geology data to ensure that the data were complete for all drillholes.
	 Examining the de-surveyed data in three dimensions to check for spatial errors.
	 Examination of the assay data in order to ascertain whether they are within expected ranges, including checks for acid soluble values greater than the corresponding total assay value.
	 Checks for "FROM-TO" errors, to ensure that the sample data did not overlap one another or that there were no unexplained gaps between samples.
	 Checks for excessive mineralised sample lengths.
	 Checks for unsampled drillholes.
Site visits	 The previous Competent Person visited the site in July 2022 where he inspected the geology exposed in the informal historical open-pit workings at Nambulwa and DZ and Kimbwe-Kafubu and inspected drill core form the three deposits.
	 The current Competent Person has not visited the Project area, however has regularly visited the Kinsevere deposit over the last 10 years and has worked extensively on this deposit as a Resource Geologist.
Geological interpretation	 Geology maps were generated based on integration of data from ground mapping, geochemistry, airborne and ground geophysics. There is a reasonable level of confidence in the lithological model and geological setting. All the major lithological units have been interpreted and modelled in
	Leapfrog Software.
	 Grade shells have generally been constructed aligned with the stratigraphy, although they can cross-cut stratigraphic contacts in areas of strong structural influence.
	 Alternative interpretations of the mineralisation controls exist and there may be more structural control in addition to the stratigraphic control. These are unlikely



Section 3 Estimating and Reporting of Mineral Resources	
Criteria	Status
	to significantly affect the total quantity of Mineral Resources relative to the Classification.
	 The grade shells appear to have been offset in places by faulting. Structures trending at a close angle to the mineralisation may occur.
Dimensions	Nambulwa
	Strike length is approximately 1.1km.
	The modelled copper mineralisation is between approximately 2m and 15m wide. Cobalt mineralisation reaches 40m wide.
	• Mineralisation occurs from surface along most of the strike length. In some areas drilling did not identify mineralisation near surface, despite artisanal mining, and the mineralisation extends downwards from as deep as 60m below surface.
	 The host rocks are terminated by a low angle fault at depths of between 50m and 150m.
	• The mineralisation is subvertical over most of the area but flattens to the southeast.
	DZ
	 Strike length is approximately 500m (adjacent to Nambulwa).
	• The modelled copper mineralisation is between approximately 5m and 80m wide, reaching a maximum thickness in the centre (bulge area).
	• Mineralisation occurs from surface along most of the strike length. In some areas drilling did not identify mineralisation near surface.
	• The mineralisation is subvertical over most of the area, with a bulging shape in the middle of the grade shells.
	Kimbwe-Kafubu
	 The strike lengths for the different mineralisation zones are between 140 m and 590 m.
	Thicknesses range between 3 m and 45 m.
	 Mineralisation is from surface and has been drilled to 380 m below surface in Kimbwe Main.
Estimation and modelling techniques	 Leapfrog Geo was used for wireframe modelling. Datamine Studio RM was used for block model grade estimations.
	A similar estimation strategy was used for Nambulwa and DZ and is summarised
	below:
	 A 0.4% total copper threshold was used for copper grade shells and a 0.1% total cobalt threshold was used for the cobalt grade shells. These thresholds allowed for continuity of mineralisation from one drilling section to the next and were supported by statistical analysis.
	 Grade estimation was completed using ordinary kriging for total copper and cobalt and inverse distance weighting for density, Ca, Mg and acid soluble ratios using Datamine Studio RM software. Samples were composited to 1m.
	 Top cuts were applied to statistical outliers where necessary.
	 Search distances were based on multiples of the variogram ranges.
	• The wireframe models were filled with parent cells 5m by 5m by 5m (X,Y,Z). The parent cells were split to sub-cells of a minimum of 1m by 1m by 1m (X.Y.Z). The



Section 3 Estimating and Reporting of Mineral Resources	
Criteria	Status
	drillhole spacing is approximately 25m (Nambulwa) or 50m (DZ) on strike and 25m on dip. The small block size was chosen due to the orientation of the grade shells rather than on a geostatistical basis.
	 Three passes were utilised with the first pass radius aligned with the variogram range. A minimum of 8 and a maximum of 20 samples were required for the first and second pass which had a search radius 1.5 times the variogram range.
	 Dynamic anisotropy was utilised for search ellipses orientations and variogram axis directions.
	 Each lithological and grade shell wireframe was filled and coded for zonal estimation so that the model contains lithological codes and grade shell codes. The coding included a code for the low Ca volume that represents the base of deep weathering.
	 Ca and Mg were estimated by lithology separately within volumes defining low, moderate and high levels of Ca and Mg.
	 In-situ bulk dry density was estimated within each lithology and below and above the low Ca volume, which defines the deep weathering.
	 A waste model was created that covered the area containing any elevated copper and/or cobalt grades.
	 No SMU was considered.
	 Bivariate analysis was carried out to determine relationships between the attributes of interest. All elements were estimated individually there being no discernible relationship between copper and cobalt and acid soluble values.
	 Hard boundaries were used so that estimation was within grade shells.
	The block model grade was compared to drillhole data visually and statistically.
	 No reconciliation data were available.
	 The latest estimate (completed in 2020) compares well with the previous estimate by MSA and wherever differences occur, significant deviations are justified. The block model grade was compared to drillhole data visually, statistically and by comparing average grades of the drillhole data and model in 50m slices through the deposit.
	 No formal mining occurred and therefore, no reconciliation data is available.
	The estimation strategy for Kimbwe-Kafubu is summarised below:
	 A 0.4 % total copper threshold was used for the copper grade shells and a 0.08 % total cobalt threshold was used for the cobalt grade shells. These thresholds allowed for continuity of mineralisation from one drilling section to the next.
	 The mineralisation was generally extrapolated to 25 m from the nearest drillhole intersection.
	 Data were composited to 2 m lengths for grade estimation.
	 Grade estimation was completed using ordinary kriging for total copper and cobalt grade, and acid soluble ratios for copper and cobalt. Inverse distance weighting was used for Ca, Mg, Mn and S.
	 Top caps were applied to outliers per domain.



Section 3 Estimating and Reporting of Mineral Resources	
Criteria	Status
	 The wireframe models were filled within a block model, with a parent cell of 10 mX by 10 mY by 5 mZ. The parent cells were split to sub-cells to a minimum of 1 mX by 1 mY by 1 mZ.
	 A minimum of 8 and a maximum of 16 composites, with a maximum of 3 composites from a single drillhole were found to be optimal from a kriging neighbourhood analysis.
	 Search ellipses were based on the average drillhole spacing and were aligned parallel to the relevant wireframes. The first pass search radius was approximately 70% of the total range for copper variograms.
	 A similar neighbourhood was used in the estimation of total copper and cobalt. Less composites (a minimum of 5 and a maximum of 10) were used in the estimation of the acid soluble ratios. A limit on the number of composites from a single drillhole was not applied when estimating acid soluble ratios due to lesser amounts of data.
	 Dynamic anisotropy was utilised for search ellipses orientations and variogram axis directions.
	 Each lithological and grade shell wireframe was filled and coded for zonal estimation of TCu, AsCu, TCo, AsCo, Ca, Mg, Mn and S.
	 Two calcium threshold wireframe models were created for controlling the calcium grade estimation. Mn and Mg grades were estimated into the block model without domaining.
	 Acid soluble copper and total copper show good correlation in the oxide zones. The correlation of acid soluble cobalt to total cobalt is high as most of the cobalt mineralisation is in oxide state.
	 Sulphur estimates used a sulphur wireframe constructed at a threshold of 0.05 % to domain the near surface sulphur leached zone.
	 All estimates used hard boundaries within relevant wireframe boundaries.
	 A waste model was created that extended outside the mineralisation to enable pit planning.
	 No SMU was considered.
	 The block model grade was compared to drillhole data visually, statistically and by comparing average grades of the drillhole data and model in 50 m slices through the deposit.
	 No reconciliation data were available.
Moisture	 Estimated tonnes are on a dry basis with density measurements being in-situ dry bulk densities.
Cut-off parameters	 The cut-off criteria applied to report the Mineral Resource is a combination of a Net Value Script (NVS) and copper cut-offs. The NVS is run to determine if a blocks value is positive. A copper cut-off is then applied to classify blocks as either a copper or cobalt Mineral Resources.
	 The NVS assigns a value on a block-by-block basis based on Mineral Resources reasonable prospects for eventual economic extraction (RPEEE). Parameters considered, but not limited to, are the following:
	 Commodity Price Assumptions (Cu-US\$4.90/lb, Co-US\$29.79/lb)



Section 3 Estimating and Reporting of Mineral Resources	
Criteria	Status
	 Processing Costs, excluding G&A as assumed this is covered by Kinsevere Operations
	 Transport of processing feed from the site to Kinsevere operations. Metal Recovery's
	 Product Payability, Royalty and Selling costs.
	 Based on the above, it a block is calculated to have a positive value it is flagged as a Mineral Resource.
	 If a block is flagged as a Mineral Resource by running the NVS then copper Mineral Resources use a 0.5% acid soluble copper (CuAS) for Oxide Mineral Resource, 0.6% total copper (CuT) for the Transitional Mixed (TMO) Mineral Resource and 0.8% total copper (CuT) for the Primary Sulphide Mineral Resource. The Oxide Mineral Resource is defined as having a Ratio (CuAS/CuT) greater than 0.5. The TMO Mineral Resource is defined as having a Ratio greater than or equal to 0.2 and less than 0.5. The Primary Sulphide Mineral Resource is defined as having a Ratio less than 0.2.
	 Cobalt Mineral Resources are reported as blocks that have been flagged as a Mineral Resource by the NVS and do not classify as copper Mineral Resources as defined above. The cobalt Oxide-TMO Mineral Resource is defined as having a Ratio greater than or equal to 0.2. The cobalt Primary Mineral resource is defined having a Ratio less than 0.2. Cobalt Mineral Resources are exclusive of copper Mineral Resources.
	 Comparatively, cut-off grades have remained similar to the 2023 Mineral Resource.
	 The reported Mineral Resources have been constrained within a US\$4.90/lb Cu and US\$29.79/lb Co optimized pit shell using Whittle software. The reported cut- off grade and the pit-shell price assumptions are in line with MMG's policy for reporting of Mineral Resources based on reasonable prospects for eventual economic extraction.
Mining factors or assumptions	 The mining method is assumed to be open pit with trucks and excavators.
Metallurgical factors or assumptions	 At this stage of project development, it is assumed that material suitable for processing will be transported to Kinsevere and therefore processing assumptions are based on Kinsevere Expansion Project (KEP). Metallurgical samples for the deposits have been taken and tested.
	 The metallurgical process applied at the current Kinsevere Operation includes H₂SO₄ acid leaching followed by solvent extraction and electro-winning (SXEW) to produce copper cathode. This enables processing of oxide ores only.
	 Kinsevere's expansion project phase, to allow the beneficiation of elemental Cobalt, was commissioned as planned in October 2023 and has fully ramped up with a capacity to go up to 6kt per annum.
	 The Kinsevere Expansion Project (KEP) is close to commissioning (late 2024) and sulphide ores will be processed using flotation followed by roasting and fed into the SXEW plant to produce copper cathode. TMO tails from the flotation circuit will be sent to the oxide leach for further processing.



Section 3 Estimating and Reporting of Mineral Resources	
Criteria	Status
	 The main deleterious components of the ore are carbonaceous (black) shales, which increase solution losses in the washing circuit, and dolomite which increases acid consumption in the leaching process. This is managed by stockpiles and blending. No metallurgical factors have been applied to the Mineral Resource estimate
	aside from oxide state. Metallurgical factors have been utilised in the NVS.
Environmental factors or assumptions	 Environmental factors that are required to be studied in further detail as part of future Feasibility Studies include increased land surface disturbance and the required rehabilitation for this site, including final pit excavation and waste rock storage. All ore piles are expected to be transported to Kinsevere for treatment. The Competent Person is unaware of any environmental impediments to mining at this stage.
Bulk density	• Bulk density measurements have been undertaken using weight in air and weight in water. The samples measurement also included wax immersion to prevent over estimation due to the porous nature of oxide samples. Samples were oven dried prior to measurement.
	 Density measurements were undertaken on each hole within specific lithological units and on mineralised intersections.
	 In-situ bulk density estimated into each block using inverse distance squared constrained within identified density domains.
Classification	The Classification strategy used for Nambulwa and DZ is summarised below:
	 The models were classified as Indicated and Inferred where informed by an approximately 25m grid of mineralised intersections.
	 Indicated Mineral Resources were extrapolated a maximum of 25 m from the nearest drillhole.
	 Inferred Mineral Resources were extrapolated a maximum of 60 m from the nearest drillhole.
	 Where an unmineralised intersection occurs within the drillhole grid, the Mineral Resources were constrained to a distance halfway between the nearest mineralised intersection and the unmineralised intersection.
	 The Mineral Resource was constrained above the interpreted basal fault at Nambulwa.
	 Mineralisation outside the modelled grade shells was not classified as Mineral Resource.
	 No Measured Mineral Resources were reported due to uncertain grade continuity.
	The Classification strategy used for Kimbwe-Kafubu is summarised below:
	• The copper and cobalt mineralisation at Kafubu Main in wider black shale units that are close to the conduit fault with a drillhole spacing of approximately 50 m are classified at Indicated. The near surface cobalt mineralisation at Kimbwe North was also classified at Indicated where the drillhole spacing is approximately 50 m.



Section 3 Estimating and Reporting of Mineral Resources	
Criteria	Status
	 The cobalt mineralisation at Kimbwe South was classified as Indicated. The domains are drilled at between 20 m and 50 m spacing. The associated copper mineralisation was also classified at Indicated. Areas of the cobalt mineralisation at Kimbwe North, drilled at approximately 50 m spacing, were also classified as Indicated due to continuity of the mineralisation. The rest of the copper and cobalt domains were classified at Inferred due to variability of grade and poor continuity at the current drillhole spacing. Mineralisation outside the modelled grade shells was not classified as Mineral Resource. No Measured Mineral Resources were reported due to uncertain grade continuity.
Audits or reviews	 No external audits or reviews of this Mineral Resource estimate have been undertaken. Internal audits have been undertaken by MMG Resource Geologist All of the reported Mineral Resource estimates have been completed by the MSA Group (Pty) Ltd (MSA) based in Johannesburg. The Competent Person has reviewed the estimates and identified no material concerns. MMG reviewed the estimations after completion by MSA
Discussion of relative accuracy/ confidence	 Minderleviewed the estimations after completion by MSA Artisanal mining has occurred on the Project area previous to the Mineral Resource estimations and this depletion is accounted for in the topographic surfaces used. Minor artisanal mining has taken place since the topographic surface surveys, however it is considered that this minor depletion is not material to the reported Mineral Resources. An updated topographic survey is planned for late 2024. The Indicated Mineral Resources are informed by drilling spaced 25m to 50m along strike. This drill spacing is approximately within the range of the variogram however, structural complexity may impact the relative confidence. The Inferred Mineral Resources are informed by drilling and extrapolation between drillholes is considered reasonable however, Mineral Resources informed by sparse drilling are considered to be low confidence estimates that may change significantly with additional data. It cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated Mineral Resource as a result of continued exploration. Inferred Mineral Resources are not suitable for detailed technical and economic evaluation. Although block model estimates have been carried out, local Inferred estimates are likely to be inaccurate. The Kimbwe-Kafubu Mineral Resource has shown to be sensitive to pit-wall angles. The 37 degree angle utilised for reporting is based on the current understanding of the deposit geology and structure however further work is required including dedicated geotechnical drilling. This work is planned to be



9.2.3 Statement of Compliance with JORC Code Reporting Criteria and Consent to Release

This Mineral Resource statement has been compiled in accordance with the guidelines defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code").

9.2.3.1 Competent Person Statement

I, Mark Burdett, confirm that I am the Competent Person for the Nambulwa, Diazenza (DZ) and Kimbwe-Kafubu Mineral Resources section of this Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I have reviewed the relevant Nambulwa, DZ, Kimbwe-Kafubu Mineral Resource section of this Report to which this Consent Statement applies.
- I am a Member of The Australasian Institute of Mining and Metallurgy.
- I am a full-time employee of MMG Limited.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Nambulwa-DZ Mineral Resource section of this Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in the supporting documentation relating to the Nambulwa-DZ Mineral Resources.

9.2.3.2 Competent Person Consent

Pursuant to the requirements Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

With respect to the sections of this report for which I am responsible – the Nambulwa, DZ, Kimbwe-Kafubu Mineral Resources - I consent to the release of the 2024 Mineral Resources and Ore Reserves Statement as at 30 June 2024 Executive Summary and Technical Appendix Report and this Consent Statement by the directors of MMG Limited:

This signature was scanned for the exclusive use in this document – the MMG Mineral Resources and Ore Reserves Statement as at 30 June 2024 – with the author's approval. Any other use is not authorised.

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- with the author's approval. Any other use is not

Mark Burdett, BSc Hons (Geology), MAusIMM CP (Geo) #224519

Date:

Dean Basile (Melbourne, Australia)

authorised.

Signature of Witness:

Witness Name and Residents: (eg, town/suburb)



10. Mwepu

10.1 Current Status and Setting

The Mwepu deposit is wholly contained within Tenement PE1052. The lease belongs to the DRC state owned mining company Générale des Carrières et des Mines SA (Gécamines) and was granted to MMG under an exploration agreement which became effective in March 2017. In April 2024 MMG fully relinquished PE1052 back to Gecamines and is therefore not part of the MMG portfolio and is not reported in this document.

The Mwepu deposit is located in Democratic Republic of Congo, DRC. From the Kinsevere copper (Cu) mine, the deposit is located some 40km to the SW (Figure 10-1).



Figure 10-1 Mwepu project location



11. Canada Slave Region

11.1 High Lake

This Mineral Resources remains unchanged since reporting in 2013. This information can be found in the 2013 MMG Mineral Resources and Ore Reserves Statement as at 30 June 2013 Technical Appendix.

11.2 Izok Lake

This Mineral Resources remains unchanged since reporting in 2013. This information can be found in the 2013 MMG Mineral Resources and Ore Reserves Statement as at 30 June 2013 Technical Appendix.