

## ASX ANNOUNCEMENT

29 April 2022

### MRG METALS MARCH 2022 QUARTERLY ACTIVITY REPORT

#### Key Highlights

##### Corridor Projects

- Maiden JORC Mineral Resource Estimates were delivered for Nhacutse and Poiombo deposits (refer **ASX Announcement 7 February 2022, Tables 1, 2 and 3; Figures 2 and 3**). At 4% Total Heavy Mineral (THM) cut-off:
  - Nhacutse 535 Mt @ 4.9% THM (Inferred Resource)
  - Poiombo 325 Mt @ 4.8% THM (Inferred Resource)
  - Combined Nhacutse and Poiombo 860 Mt @ 4.9% THM (Inferred Resource). (Refer Table 1).
- A comprehensive mineralogical study of 27 composite samples from Nhacutse and Poiombo deposits was then completed (refer **ASX Announcement 1 April 2022, Table 4**), study returned substantially improved Valuable Heavy Mineral (VHM) results compared to the widely spaced earlier mineralogy data used in the Maiden Mineral Resource estimates.
- Updated JORC Mineral Resource Estimates were then delivered for Nhacutse and Poiombo deposits (refer **ASX Announcement 8 April 2022**) based on the new mineralogical study.

At 4% THM cut-off		
Nhacutse	Indicated	386 Mt @ 4.9% THM
	Inferred	149 Mt @ 4.8%THM (Table 2)
Poiombo	Indicated	138 Mt @ 5.0% THM
	Inferred	187 Mt @ 4.7%THM (Table 2)
Combined Nhacutse and Poiombo	Indicated and Inferred	860 Mt @ 4.9% THM (Table 1)
At 5% THM cut-off		
Nhacutse	Indicated	142 Mt @ 5.8% THM
	Inferred	31 Mt @ 6.8%THM (Table 5)
Poiombo	Indicated	44 Mt @ 6.3% THM
	Inferred	40 Mt @ 5.8%THM (Table 5)
Combined Nhacutse and Poiombo	Indicated and Inferred	257 Mt @ 6.0% THM (Table 4)

- The updated Mineral Resource estimation also delivered a combined JORC Exploration Target of between 50 and 500 Mt @ between 4.2 and 5.4% THM for a total range of contained THM of between 3 and 20 Mt.
- Both Nhacutse and Poiombo deposits demonstrate exceptional homogeneity and also good continuity of higher-grade zones of mineralisation (**refer Figure 4**).
- MRG commissioned IHC Mining for an Engineering Scoping Study and Preliminary Economic Assessment (PEA) for its Corridor Projects in Mozambique, focused on the Koko Massava, Nhacutse and Poiombo deposits (**refer ASX Announcement 17 March 2022**). The Study has commenced and will be completed in July 2022.
- The study will be augmented by metallurgical and processing test work of a 6.5t bulk sample from the Koko Massava deposit currently being done by IHC Mining.
- The world-leading independent consulting group TZ Minerals International Pty Ltd (TZMI) is currently undertaking a market study to better understand the economic potential of the different product streams of the Corridor Central and Corridor South resources (**refer ASX Announcement 27 January 2022**).
- A 2,000m aircore drilling program is underway at the Corridor Central and Corridor South tenements to test 11 targets that demonstrate high VHM content corresponding with high THM content (**refer ASX Announcement 7 April 2022, Figure 8**).
- The Nhacutse and Poiombo deposits sit adjacent, approximately 4 km apart, and a similar distance between the Nhacutse and Koko Massava deposit to the northwest (**refer Figure 1**). All three deposits are in a very close economic radius and approximately 40 km from the proposed port at Chongoene.

#### **Marao and Marruca Projects**

- Aircore drilling has begun at MRG's 3 heavy mineral sands (HMS) targets: Magonde, Mandende and Maduacua, which were identified by grid auger drilling in 2021 at the Marao Project (6842L).
- A program of 9 holes for a total of 350 to 400m is underway to test depth continuity of these 3 targets:
  - Magonde target has a surface footprint of >5 sq km of visually estimated (VIS EST) +3% total heavy minerals (THM) sand, with auger hole grades as high as VIS EST 5.1% THM over 13.5m (**refer ASX Announcement 18 March 2021**);
  - Mandende Target has a surface footprint of >9 sq km of VIS EST +3% THM, with auger hole grades as high as VIS EST 5.1% THM over 13.5m (**refer ASX Announcement 18 June 2021**); and
  - Maduacua target has a surface footprint >6 sq km of VIS EST +3% THM and a high grade VIS EST >5% THM portion of >3,5 sq km, with highest grade VIS EST of 6.9% THM over 13.5m (**refer ASX Announcement 8 July 2021**).
- The targets all demonstrate a north-south orientation, so an aircore hole will be drilled into the north, central and south sections of each of the targets (**refer Figure 11**).

## Corporate

- Successful completion of a \$1.6 million placement to facilitate Scoping Study/PEA at Corridor Sands discovery and drive further drilling programs

MRG Metals Limited (“**MRG**” or “**the Company**”) (ASX Code: MRQ) is pleased to provide a summary of the Company’s activities for the March 2022 quarter at its Heavy Mineral Sands projects in southern Mozambique.

## Activity across MRG’s Corridor Portfolio

### Maiden MRE for Nhacutse and Poiombo Includes Excellent High-Grade Result

Numerous drilling phases within the Corridor South (6621L) licence, from reconnaissance to infill drilling programs, drilled via hand auger and aircore, resulted in 273 hand auger holes (2,737.1 m of drilling) and 127 aircore holes (4,685.5 m of drilling). Drilling was initiated with hand auger drill testing (refer ASX Announcement 25 July 2019) of MRG aerial magnetic anomalies (refer ASX Announcement 13 June 2019) and continued to the final infill aircore drilling phase in mid-2021 of the Nhacutse and Poiombo deposits (refer ASX Announcement 16 June 2021).

Receipt of all analytical results, including inter-laboratory QA/QC analysis (refer ASX Announcement 8 December 2021) and results from initial mineralogical studies has facilitated the preparation of Joint Ore Reserve Committee (JORC) Mineral Resource estimates at a 4% THM cut-off for the for Nhacutse and Poiombo deposits (refer Table 1 and Figure 3):

**Table 1: Summary of the JORC Mineral Resource estimate for the Nhacutse and Poiombo deposit areas.**

Summary of Mineral Resources <sup>(1)</sup>			Mineral Assemblage												
Deposit	Mineral Resource Category	Material (Mt)	In Situ THM (Mt)	BD (gcm <sup>3</sup> )	THM (%)	SLIMES (%)	OS (%)	ILM (%)	RUT (%)	ZIR (%)	TIMAG (%)	CHRM (%)	MOTH (%)	ANDA (%)	NMOTH (%)
Nhacutse	Inferred	535	26	1.74	4.9	21	1	41	1	2	32	4	6	6	2
Poiombo	Inferred	325	16	1.74	4.8	19	1	37	1	1	29	4	9	9	3
<b>Grand Total</b>		<b>860</b>	<b>42</b>	<b>1.74</b>	<b>4.9</b>	<b>20</b>	<b>1</b>	<b>39</b>	<b>1</b>	<b>2</b>	<b>31</b>	<b>4</b>	<b>7</b>	<b>8</b>	<b>2</b>

**Notes:**

- (1) Mineral resources reported at a cut-off grade of 4% THM  
 (2) Mineral assemblage is reported as a percentage of in situ THM content.

The maiden Nhacutse Mineral Resource estimate comprises a total Mineral Resource of 535 Mt @ 4.9% THM, with 21% Slimes, containing 26 Mt of THM with an assemblage of 41% ilmenite, 32% titano-magnetite, 1% rutile and 2% zircon. The JORC categories are specifically stated as:

- **Inferred Mineral Resource of 535 Mt @ 4.9% THM and 21% Slimes containing 26 Mt of THM with an assemblage of 41% ilmenite, 32% titano-magnetite, 1% rutile and 2% zircon.**

The maiden Poiombo Mineral Resource estimate comprises a total Mineral Resource of 325 Mt @ 4.8% THM, with 19% Slimes, containing 16 Mt of THM with an assemblage of 37% ilmenite, 29% titano-magnetite, 1% rutile and 1% zircon. The JORC categories are specifically stated as:

- **Inferred Mineral Resource of 325 Mt @ 4.8% THM and 19% Slimes containing 16 Mt of THM with an assemblage of 37% ilmenite, 29% titano-magnetite, 1% rutile and 1% zircon.**

The Mineral Resource estimate at the Nhacutse and Poiombo deposits also delivered an **Exploration Target in the range of 50 and 500 Mt @ between 4.5 and 5.4% THM at cut-off grades of 3% and 5% THM (refer Table 2; Figure 3)**. This Exploration Target was predominantly located within the boundaries of the Bungane, Nhacutse and Poiombo villages.

**Table 2: Summary of Exploration Target for the Nhacutse and Poiombo areas.**

Classification	Material (Mt)	In Situ THM (Mt)	BD (gcm <sup>3</sup> )	THM (%)	SLIMES (%)	OS (%)	ILM (%)	RUT (%)	ZIR (%)	TIMAG (%)	HEMA (%)	CHRM (%)	MOTH (%)	ANDA (%)	NMOTH (%)
Exploration Target	50 - 500	3 - 20	1.74	4.2 - 5.4	18	1	37	1	1	30	6	4	9	8	3
<b>Grand Total</b>	<b>50 - 500</b>	<b>3 - 20</b>	<b>1.74</b>	<b>4.2 - 5.4</b>	<b>18</b>	<b>1</b>	<b>37</b>	<b>1</b>	<b>1</b>	<b>30</b>	<b>6</b>	<b>4</b>	<b>9</b>	<b>8</b>	<b>3</b>

**Notes:**

- (1) Exploration Target reported at a cut-off grade of 3% - 5% THM  
(2) Mineral assemblage is reported as a percentage of in situ THM content.

The infill drilled **High-Grade Zone**, falling within the total Nhacutse and Poiombo Mineral Resource estimate area, was outlined as per Figure 2 and a Mineral Resource estimate was prepared for this confined area as per Table 3. The Mineral Resource estimate was reported at a range of cut-off grades in increments of 0.5% THM and these grade tonnage curves are presented in Figure 4, with the continuity of the high grades shown in the Mineral Resource estimate to be present up to a 5.5% THM cut-off.

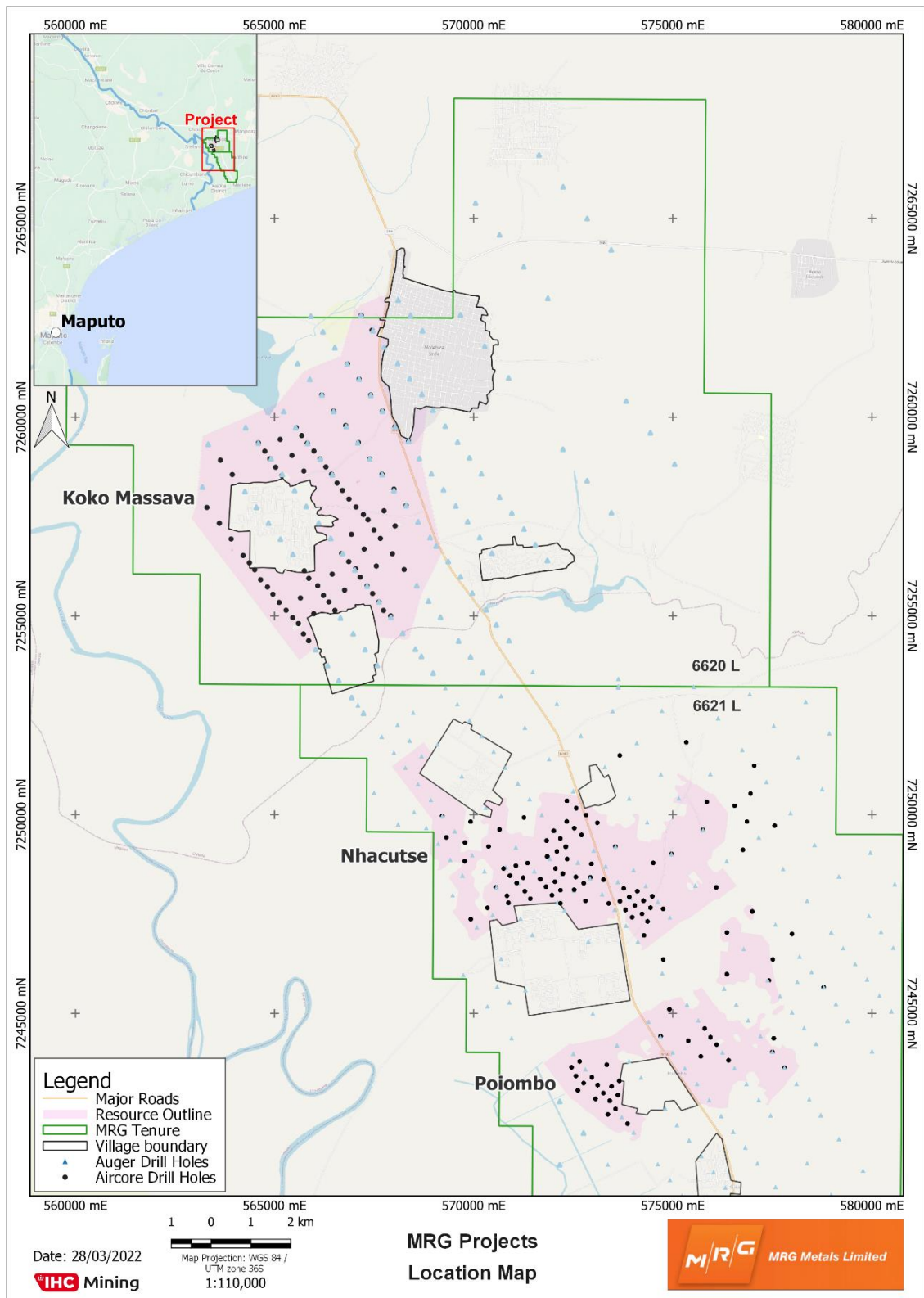
**Table 3: Summary of the JORC Mineral Resource estimate at 5% THM cut-off for the Nhacutse and Poiombo areas.**

Deposit	Mineral Resource Category	Material (Mt)	In Situ THM (Mt)	BD (gcm <sup>3</sup> )	THM (%)	SLIMES (%)	OS (%)	ILM (%)	RUT (%)	ZIR (%)	TIMAG (%)	CHRM (%)	MOTH (%)	ANDA (%)	NMOTH (%)
Nhacutse	Inferred	172	10	1.75	6.0	21	1	40	1	2	32	4	6	7	2
Poiombo	Inferred	84	5	1.75	6.1	19	1	38	1	1	30	4	8	8	2
<b>Grand Total</b>		<b>256</b>	<b>15</b>	<b>1.75</b>	<b>6.0</b>	<b>21</b>	<b>1</b>	<b>39</b>	<b>1</b>	<b>2</b>	<b>31</b>	<b>4</b>	<b>7</b>	<b>7</b>	<b>2</b>

**Notes:**

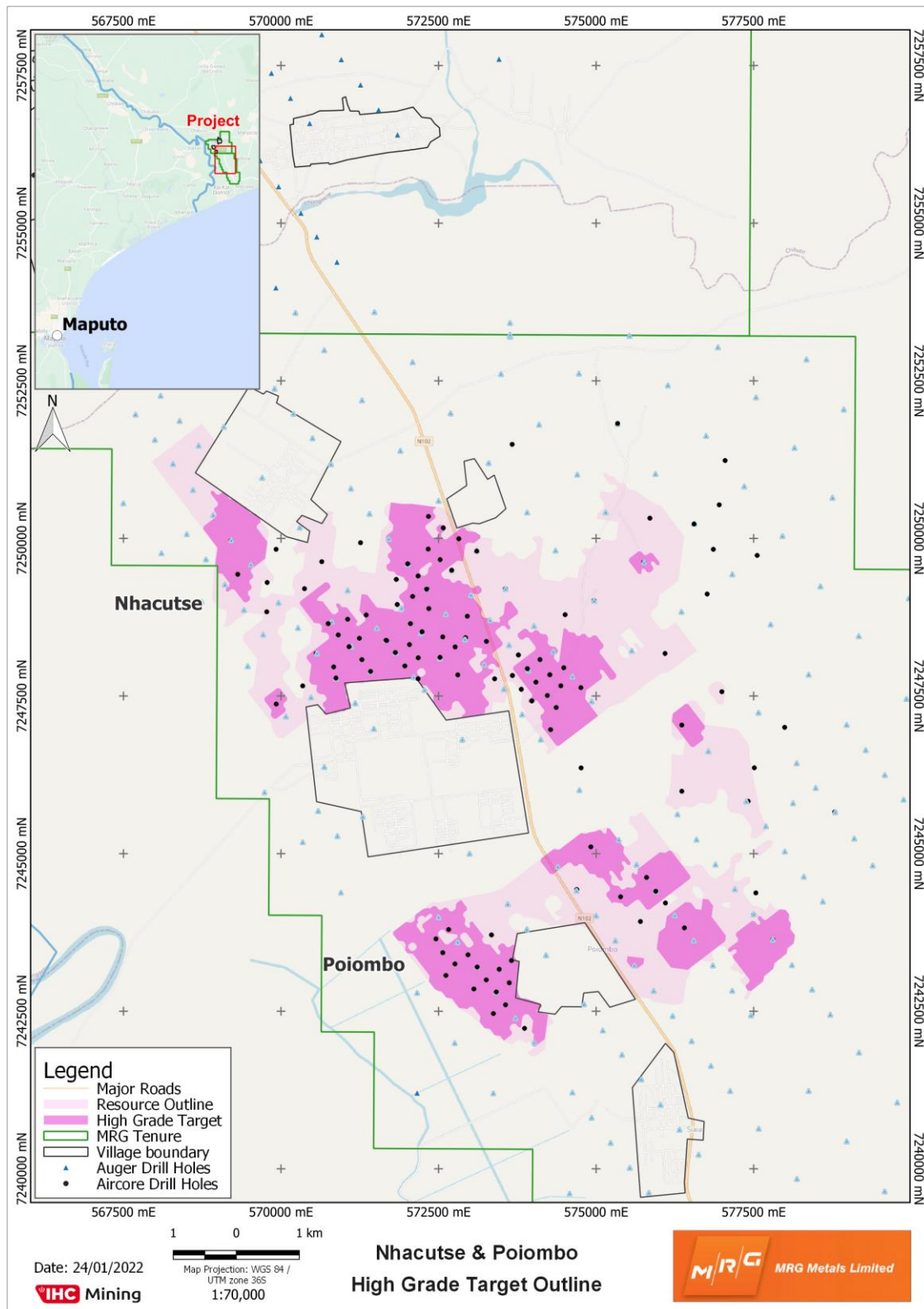
- (1) Mineral resources reported at a cut-off grade of 5% THM  
(2) Mineral assemblage is reported as a percentage of in situ THM content.

The Nhacutse and Poiombo High-Grade Zone comprises a Mineral Resource estimate of 256 Mt @ 6.0% THM, at a 5.0% cut-off grade, containing 15 Mt of THM, with 21% Slimes, and an assemblage of 39% ilmenite, 31% titano-magnetite, 1% rutile and 2% zircon.

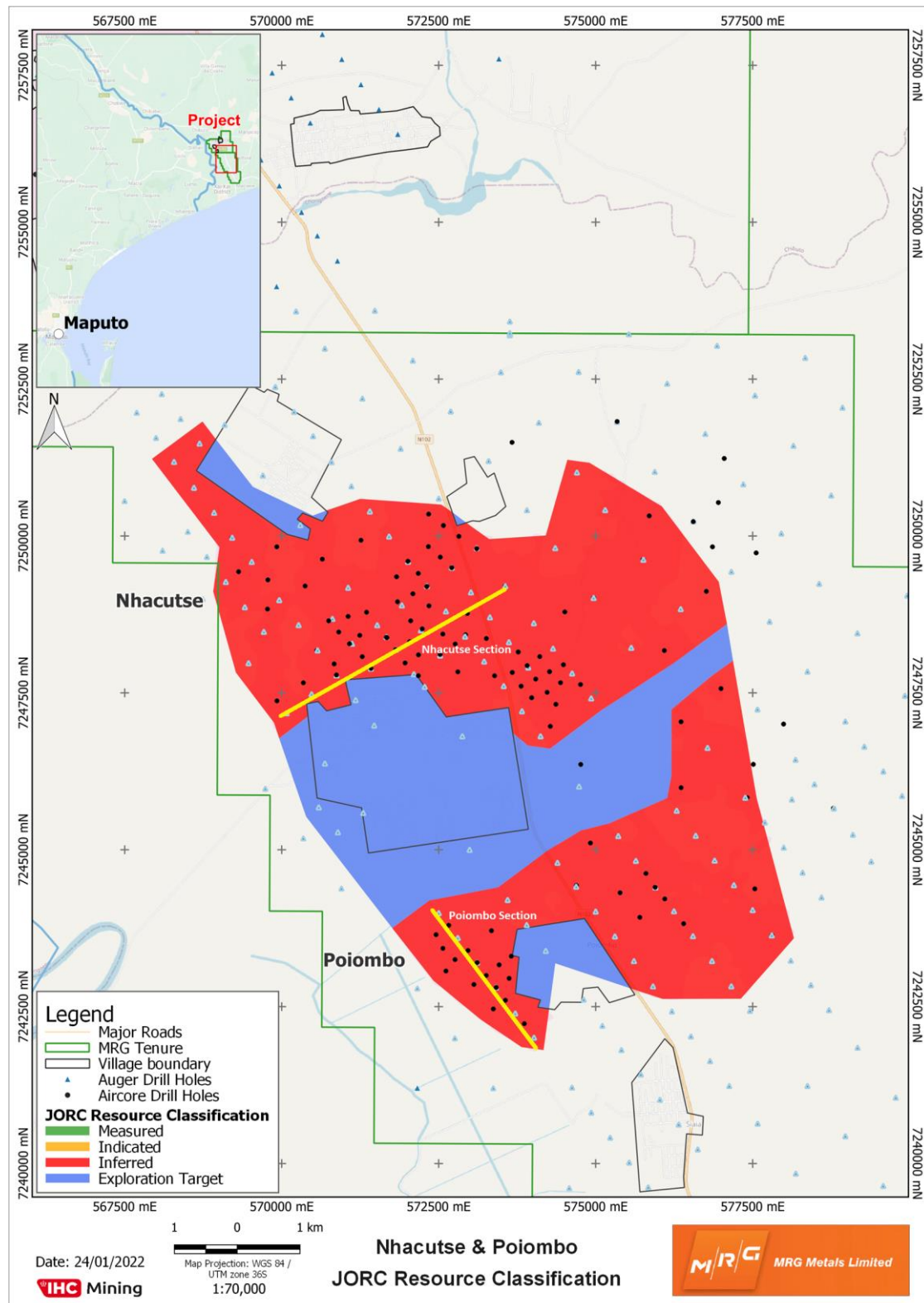


**Figure 1:** Map of the location of the Nhacutse and Poiombo Mineral Resource estimate areas within Corridor South (6621L) vs the Koko Massava MRE area within Corridor Central (6620 L).

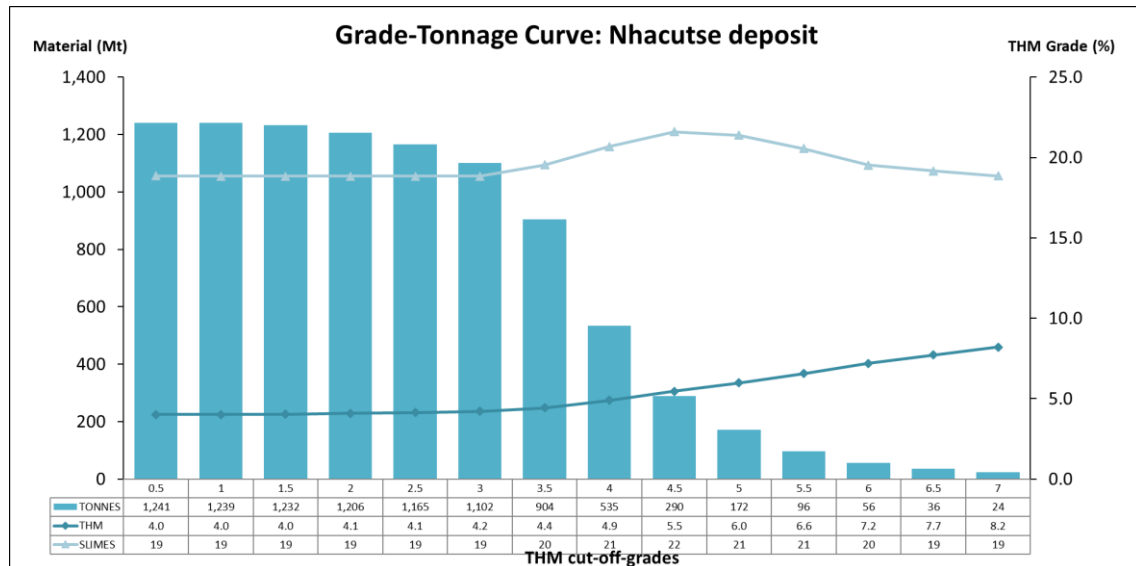




**Figure 2: Map showing the outline of Nhacutse and Poiombo Resource areas within the Corridor South (6621L) Licence.**



**Figure 3:** Map showing the JORC Classification for the Nhacutse and Poiombo Mineral Resource areas within the Corridor South (6621L) Licence.



**Figure 4:** Grade-tonnage curve showing material tonnes versus THM grade (and Slime) at various cut-off grades for the Mineral Resource at Nhacutse. Cut-off grade is shown in the top row of the table, with corresponding tonnage, average THM% grade and Slime % grade in the column below it

## Comprehensive Nhacutse and Poiombo Mineralogical Study

Excellent results were returned from a comprehensive quantitative mineralogical study (utilizing XRF, XRD, Bulk Mineralogy and QEMSCAN) within the Nhacutse and Poiombo deposits in the Corridor South (6621L) exploration license completed during Q1 of 2022 (**refer ASX Announcement 1 April 2022, Table 4**). The study involved 27 composites, 18 from Nhacutse and 9 from Poiombo, with the composites sourced from 56 aircore holes and 159 individual sample intervals. The composites were done lithologically, with composites covering the mineralized sand at surface from 0 to generally between 3 and 4.5m depth (red/red-brown sand); the red/red-brown sand to a depth of generally between 30 and 45m (depending on topography) and the deeper brown/grey sand to a maximum depth of 60m below surface.

The composites returned average Valuable Heavy Mineral (VHM; ilmenite, altered ilmenite, leucoxene, zircon and rutile) results of average 45.3% VHM for Nhacutse and 45.9% VHM at Poiombo. The average Titanomagnetite is 26.4% for Nhacutse and 26.1% for Poiombo (**refer Table 4**). The VHM results are higher compared to the widely spaced historic data used in the Inferred Maiden Nhacutse and Poiombo JORC Mineral Resource estimate (from the Inferred Mineral Resource 44% VHM at Nhacutse and 39% VHM at Poiombo, **refer ASX Announcement 2 February 2022**). The new Nhacutse and Poiombo mineralogy data is also significantly better than found within the recently updated JORC Mineral Resource estimate from the Koko Massava deposit (**refer ASX Announcement 16 December 2021**), with Koko Massava showing an average VHM for the Global resource area of 40% VHM, and 41% for an infill drilled higher grade area.



The VHM data, including the data from individual minerals in the VHM assemblage, confirmed data from previous work with an increase in the VHM component of the HMC from west to east within the red/red-brown aeolian sand (from average 45.8% VHM in the west to 47.5% VHM in the east of Nhacutse) and north to south as per previous studies (refer ASX Announcements 31 July 2020 and 11 August 2021, Figure 5).

The results from this comprehensive study, combined with all other mineralogical work done by MRG on both the Corridor Central 6620 L and Corridor South 6621 L licences (refer Figure 1), were used in planning of a recently initiated targeted aircore drilling program focusing on areas where better mineralogy (higher VHM%) meets high THM grades (refer ASX Announcement 7 April 2022).

**Table 4: Results for an 18 composite mineralogical study at Nhacutse.**

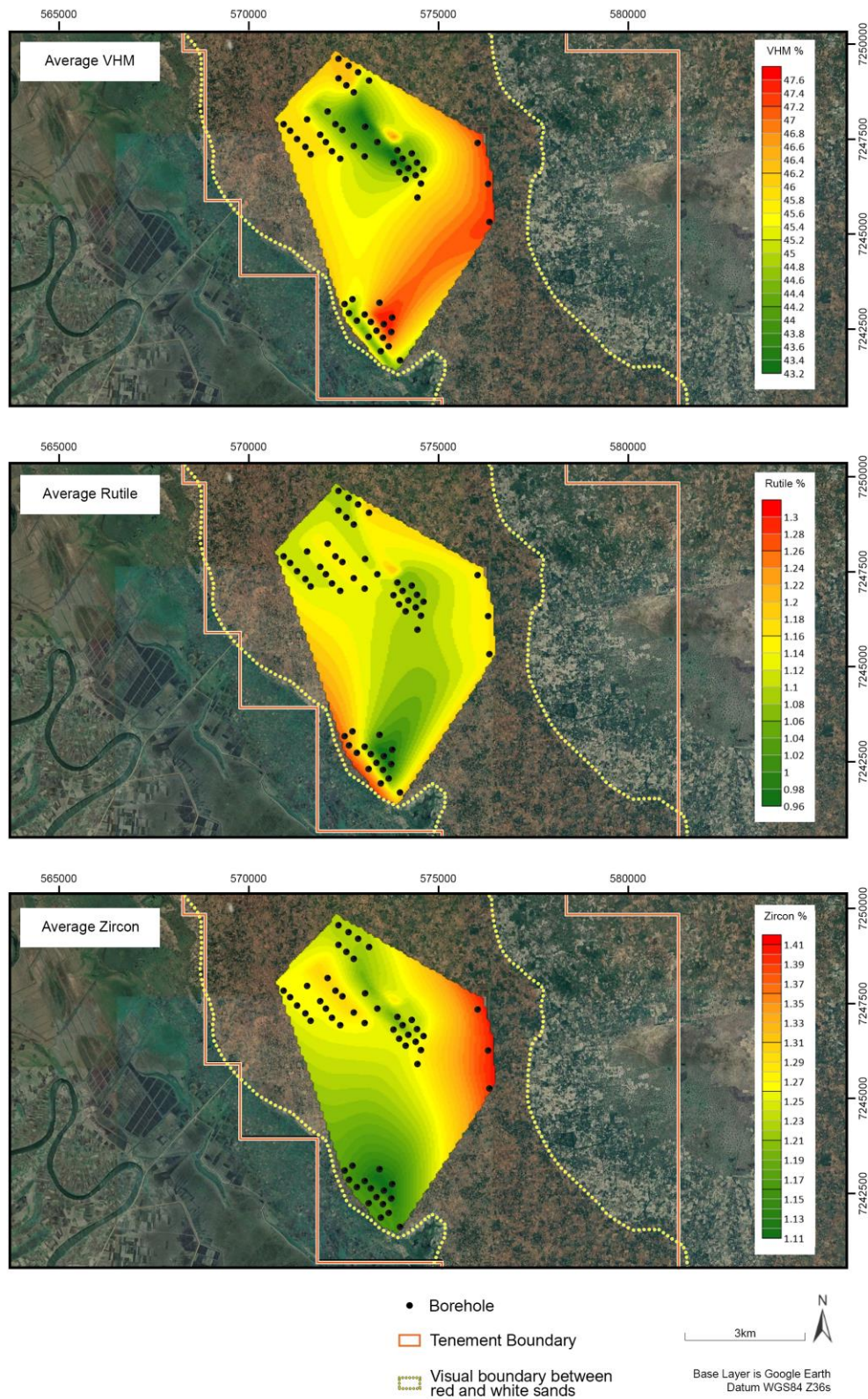
Sample	N0001	N0002	N0003	N0004	N0005	N0006	N0007	N0008	N0009	N0010	N0011	N0012
Mineral												
Zircon	1.3	1.3	1.2	1.2	1.4	1.3	1.2	1.4	1.0	1.3	1.2	1.2
Rutile	1.1	1.1	1.1	1.3	1.2	1.0	1.2	1.0	1.2	1.2	0.9	1.1
Leucoxene	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
Altered Ilmenite	2.3	3.1	2.1	2.6	2.6	2.6	3.0	2.3	2.4	2.8	2.7	2.6
Ilmenite	39.6	43.6	38.7	38.4	42.3	37.4	38.9	41.7	33.7	39.9	43.2	39.9
Titano-magnetite	27.5	26.9	28.1	28.5	26.5	27.1	24.6	28.8	30.4	25.0	26.0	24.5
Hematite	7.5	8.6	10.2	8.6	9.5	9.8	9.7	10.2	10.2	9.5	9.1	9.3
Chromite	3.6	3.4	3.4	3.4	2.8	3.6	3.4	2.7	3.1	3.4	2.9	3.1
Magnetic Others	1.6	1.6	3.4	2.2	1.7	2.4	1.8	1.5	2.3	1.8	1.6	2.9
Andalusite	11.5	7.2	7.7	10.5	8.8	9.5	11.4	7.6	11.1	11.1	8.9	9.9
Non-magnetic Others	3.7	3.0	3.7	3.2	3.1	5.1	4.7	2.7	4.3	3.7	3.2	5.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sample	N0013	N0014	N0015	N0016	N0017	N0018	Min	Max	Ave	StDev		
Mineral												
Zircon	1.2	1.4	1.1	1.4	1.6	1.3	1.0	1.6	1.3	0.1	45.3	Total VHM in HMC
Rutile	1.2	1.3	0.8	1.2	1.2	1.1	0.8	1.3	1.1	0.1		
Leucoxene	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.3	0.0		

Altered Ilmenite	2.4	3.0	2.1	3.0	2.9	2.6	2.1	3.1	2.6	0.3		
Ilmenite	41.4	42.3	34.8	43.0	42.9	39.4	33.7	43.6	40.1	2.8		
Titano-magnetite	26.2	26.8	30.1	22.2	22.6	24.1	22.2	30.4	26.4	2.3	26.4	Titano-magnetite
Hematite	8.5	9.0	9.0	7.3	7.9	7.9	7.3	10.2	9.0	0.9	28.2	Total Non-VHM in HMC
Chromite	3.4	3.3	3.4	4.2	3.4	3.2	2.7	4.2	3.3	0.3		
Magnetic Others	1.6	1.5	2.7	1.8	1.7	2.6	1.5	3.4	2.0	0.6		
Andalusite	11.0	8.5	11.2	11.8	11.8	12.9	7.2	12.9	10.1	1.7		
Non-magnetic Others	2.9	2.8	4.6	3.8	3.9	4.7	2.7	5.2	3.8	0.8		
	100.0	100.0	100.0	100.0	100.0	100.0						

**Table 2: Results for a 9 composite mineralogical study at Poiombo.**

Sample Mineral	P0001	P0002	P0003	P0004	P0005	P0006	P0007	P0008	P0009	Min	Max	Ave	StDev		
Zircon	1.1	1.2	1.2	1.1	1.5	0.9	1.2	1.2	1.1	0.9	1.5	1.2	0.1	45.9	Total VHM in HMC
Rutile	1.1	1.6	1.3	1.2	1.0	1.5	0.9	1.2	1.0	0.9	1.6	1.2	0.2		
Leucoxene	0.3	0.4	0.4	0.4	0.3	0.4	0.2	0.3	0.2	0.2	0.4	0.3	0.1		
Altered Ilmenite	2.1	2.1	6.3	4.1	5.1	5.8	6.0	6.0	5.4	2.1	6.3	4.8	1.6		
Ilmenite	39.4	41.4	39.4	36.8	36.7	36.1	36.8	39.6	39.8	36.1	41.4	38.4	1.9		
Titano-magnetite	27.5	27.6	23.0	25.0	28.6	24.9	28.4	25.0	24.7	23.0	28.6	26.1	2.0	26.1	Titano-magnetite
Hematite	8.7	9.0	6.8	8.7	9.3	7.0	10.2	8.7	8.6	6.8	10.2	8.6	1.1	28.1	Total Non-VHM in HMC
Chromite	3.5	3.6	4.0	4.0	3.2	4.0	3.4	3.7	3.1	3.1	4.0	3.6	0.4		
Magnetic Others	2.4	2.4	3.6	3.7	2.8	4.3	2.2	3.3	2.3	2.2	4.3	3.0	0.7		
Andalusite	9.7	7.4	8.7	10.1	7.8	8.5	7.1	7.0	9.9	7.0	10.1	8.5	1.2		
Non-magnetic Others	4.3	3.4	5.5	5.0	3.8	6.7	3.5	4.1	4.0	3.4	6.7	4.5	1.1		
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0						



**Figure 5: Average VHM, Zircon and Rutile from the Nhacutse and Poiombo composites.**



## Updated MRE for Nhacutse and Poiombo Includes Excellent High-Grade Result

Post quarter, MRG Metals announced the results of updated Joint Ore Reserve Committee (JORC) Mineral Resource estimates for its Nhacutse and Poiombo deposits (refer Tables 5, 6, 7, 8 and 9; Figure 6) and within the Corridor South 6620 L licence (refer Figure 1).

As per the maiden global and updated Koko Massava Mineral Resource estimates (refer ASX Announcements 22 April 2020 and 16 December 2021) and the maiden JORC Mineral Resource estimates for the Nhacutse and Poiombo deposits (refer ASX Announcement 2 February 2022), the updated Mineral Resource estimates were undertaken by IHC Mining in Perth, Australia. The updated JORC Mineral Resource estimates for the Nhacutse and Poiombo deposits are based on a comprehensive mineralogical study (refer ASX Announcement 1 April 2022) which returned significantly better results than the historical mineralogy data utilised in the maiden Nhacutse and Poiombo estimate.

Receipt of the results from the new comprehensive mineralogical studies facilitated the preparation of an updated Mineral Resource estimate at a 4% THM cut-off grade (COG) for the Nhacutse and Poiombo deposits (refer Tables 5 and 6; Figure 6):

**Table 5: Summary of the Global JORC Mineral Resource estimates for the combined Nhacutse and Poiombo deposit areas (THM>4%).**

Global Mineral Resource Estimation			4% COG												
Summary of Mineral Resources <sup>(1)</sup>															
Deposit	Mineral Resource Category	Material (Mt)	In Situ THM (Mt)	BD (gcm3)	THM (%)	SLIMES (%)	OS (%)	ILM (%)	RUT (%)	ZIR (%)	TIMAG (%)	CHRM (%)	MOTH (%)	ANDA (%)	NMOTH (%)
Global	Indicated	524	26	1.74	5.0	22	1	44	1	1	27	3	2	8	4
	Inferred	337	16	1.74	4.7	17	1	41	1	1	27	4	5	10	3
Grand Total		860	42	1.74	4.9	20	1	43	1	1	27	3	3	9	3

**Notes:**

- (1) Mineral resources reported at a cut-off grade of 4% THM  
 (2) Mineral assemblage is reported as a percentage of in situ THM content.

At a cut-off grade of 4% THM, The Global Mineral Resource estimates for the combined Nhacutse and Poiombo deposits comprise a **total Mineral Resource of 860 Mt @ 4.9% THM**, with 20% Slimes, containing 42 Mt of THM with an assemblage of 43% ilmenite, 27% titano-magnetite, 1% rutile and 1% zircon. The JORC categories are specifically stated as:

- **Indicated Mineral Resource of 524 Mt @ 5.0% THM and 22% Slimes containing 26 Mt of THM with an assemblage of 44% ilmenite, 27% titano-magnetite, 1% rutile and 1% zircon; and**
- **Inferred Mineral Resource of 337 Mt @ 4.7% THM and 17% Slimes containing 16 Mt of THM with an assemblage of 41% ilmenite, 27% titano-magnetite, 1% rutile and 1% zircon.**



**Table 6: Summary of the JORC Mineral Resource estimates for the individual Nhacutse and Poiombo deposit areas (THM>4%).**

Nhacutse Mineral Resource Estimation 4% COG

**Summary of Mineral Resources<sup>(1)</sup>**

Deposit	Mineral Resource Category	Material (Mt)	In Situ THM (Mt)	BD (gcm3)	THM (%)	SLIMES (%)	OS (%)	ILM (%)	RUT (%)	ZIR (%)	TIMAG (%)	CHRM (%)	MOTH (%)	ANDA (%)	NMOTH (%)
Nhacutse	Indicated	386	19	1.74	4.9	22	1	44	1	1	27	3	2	9	3
	Inferred	149	7	1.74	4.8	16	1	45	1	1	25	3	2	10	3
<b>Grand Total</b>		<b>535</b>	<b>26</b>	<b>1.74</b>	<b>4.9</b>	<b>21</b>	<b>1</b>	<b>44</b>	<b>1</b>	<b>1</b>	<b>27</b>	<b>3</b>	<b>2</b>	<b>9</b>	<b>3</b>

**Notes:**

- (1) Mineral resources reported at a cut-off grade of 4% THM  
(2) Mineral assemblage is reported as a percentage of in situ THM content.

Poiombo Mineral Resource Estimation 4% COG

**Summary of Mineral Resources<sup>(1)</sup>**

Deposit	Mineral Resource Category	Material (Mt)	In Situ THM (Mt)	BD (gcm3)	THM (%)	SLIMES (%)	OS (%)	ILM (%)	RUT (%)	ZIR (%)	TIMAG (%)	CHRM (%)	MOTH (%)	ANDA (%)	NMOTH (%)
Poiombo	Indicated	138	7	1.74	5.0	21	1	44	1	1	26	4	3	8	4
	Inferred	187	9	1.74	4.7	18	1	38	1	2	27	4	7	11	3
<b>Grand Total</b>		<b>325</b>	<b>16</b>	<b>1.74</b>	<b>4.8</b>	<b>19</b>	<b>1</b>	<b>41</b>	<b>1</b>	<b>1</b>	<b>27</b>	<b>4</b>	<b>5</b>	<b>10</b>	<b>3</b>

**Notes:**

- (1) Mineral resources reported at a cut-off grade of 4% THM  
(2) Mineral assemblage is reported as a percentage of in situ THM content.

At a cut-off grade of 4% THM, the **updated Nhacutse Mineral Resource estimate** (refer Table 6) **comprises a total Mineral Resource of 535 Mt @ 4.9% THM**, with 21% Slimes, containing 26 Mt of THM with an assemblage of 44% ilmenite, 27% titano-magnetite, 1% rutile and 1% zircon. The JORC categories are specifically stated as:

- **Indicated Mineral Resource of 386 Mt @ 4.9% THM and 22% Slimes containing 19 Mt of THM with an assemblage of 44% ilmenite, 27% titano-magnetite, 1% rutile and 1% zircon; and**
- **Inferred Mineral Resource of 149 Mt @ 4.8% THM and 16% Slimes containing 7 Mt of THM with an assemblage of 45% ilmenite, 25% titano-magnetite, 1% rutile and 1% zircon.**

At a cut-off grade of 4% THM, the **updated Poiombo Mineral Resource estimate** (refer Table 6) **comprises a total Mineral Resource of 325 Mt @ 4.8% THM**, with 19% Slimes, containing 16 Mt of THM with an assemblage of 41% ilmenite, 27% titano-magnetite, 1% rutile and 1% zircon. The JORC categories are specifically stated as:

- **Indicated Mineral Resource of 138 Mt @ 5.0% THM and 21% Slimes containing 7 Mt of THM with an assemblage of 44% ilmenite, 26% titano-magnetite, 1% rutile and 1% zircon and**
- **Inferred Mineral Resource of 187 Mt @ 4.7% THM and 18% Slimes containing 9 Mt of THM with an assemblage of 38% ilmenite, 27% titano-magnetite, 1% rutile and 2% zircon.**

The Mineral Resource estimate at the Nhacutse and Poiombo deposits also delivered an **Exploration Target in the range of 50 and 500 Mt @ between 4.5 and 5.4% THM at cut-off grades of 3% and 5% THM** (refer Table 7; Figure 6). This Exploration Target was predominantly located within the boundaries of the Bungane, Nhacutse and Poiombo villages.

**Table 7: Summary of Exploration Target for the Nhacutse and Poiombo areas.**

Summary of Exploration Target <sup>(1)</sup>															
Classification	Material (Mt)	In Situ THM (Mt)	BD (gcm3)	THM (%)	SLIMES (%)	OS (%)	ILM (%)	RUT (%)	ZIR (%)	TIMAG (%)	HEMA (%)	CHRM (%)	MOTH (%)	ANDA (%)	NMOTH (%)
Exploration Target	50 - 500	3 - 20	1.74	4.2 - 5.4	18	1	37	1	1	30	6	4	9	8	3
<b>Grand Total</b>	<b>50 - 500</b>	<b>3 - 20</b>	<b>1.74</b>	<b>4.2 - 5.4</b>	<b>18</b>	<b>1</b>	<b>37</b>	<b>1</b>	<b>1</b>	<b>30</b>	<b>6</b>	<b>4</b>	<b>9</b>	<b>8</b>	<b>3</b>

Notes:

- (1) Exploration Target reported at a cut-off grade of 3% - 5% THM  
(2) Mineral assemblage is reported as a percentage of in situ THM content.

As per the maiden JORC Mineral Resource estimates for the Nhacutse and Poiombo deposits (**refer ASX Announcement 2 February 2022**) the Mineral Resource estimate was reported at a range of cut-off grades in increments of 0.5% THM and the grade tonnage curves showed the continuity of the high grades shown in the Mineral Resource estimate to be present up to a 5.5% THM cut-off. The updated Mineral Resource estimate for the higher THM resource material, incorporating the new comprehensive mineralogical data, was done at a 5% THM cut-off for the Nhacutse and Poiombo deposits (**refer Tables 8 and 9; Figure 7**):

**Table 8: Summary of the JORC Mineral Resource estimate at 5% THM cut-off for the combined Nhacutse and Poiombo areas.**

Poiombo Mineral Resource Estimation 5% COG															
Summary of Mineral Resources <sup>(1)</sup>															
Deposit	Mineral Resource Category	Material (Mt)	In Situ THM (Mt)	BD (gcm3)	THM (%)	SLIMES (%)	OS (%)	ILM (%)	RUT (%)	ZIR (%)	TIMAG (%)	CHRM (%)	MOTH (%)	ANDA (%)	NMOTH (%)
Global	Indicated	186	11	1.75	5.9	22	1	43	1	1	27	3	2	8	4
	Inferred	71	4	1.75	6.2	18	1	41	1	1	27	4	5	10	3
<b>Grand Total</b>		<b>257</b>	<b>15</b>	<b>1.75</b>	<b>6.0</b>	<b>21</b>	<b>1</b>	<b>43</b>	<b>1</b>	<b>1</b>	<b>27</b>	<b>4</b>	<b>3</b>	<b>9</b>	<b>4</b>

Notes:

- (1) Mineral resources reported at a cut-off grade of 5% THM  
(2) Mineral assemblage is reported as a percentage of in situ THM content.

**Table 9: Summary of the JORC Mineral Resource estimate at 5% THM cut-off for the individual Nhacutse and Poiombo areas.**

Nhacutse Mineral Resource Estimation 5% COG															
Summary of Mineral Resources <sup>(1)</sup>															
Deposit	Mineral Resource Category	Material (Mt)	In Situ THM (Mt)	BD (gcm3)	THM (%)	SLIMES (%)	OS (%)	ILM (%)	RUT (%)	ZIR (%)	TIMAG (%)	CHRM (%)	MOTH (%)	ANDA (%)	NMOTH (%)
Nhacutse	Indicated	142	8	1.75	5.8	22	1	43	1	1	27	3	2	9	4
	Inferred	31	2	1.76	6.8	17	1	45	1	1	27	3	2	8	3
<b>Grand Total</b>		<b>173</b>	<b>10</b>	<b>1.75</b>	<b>6.0</b>	<b>21</b>	<b>1</b>	<b>44</b>	<b>1</b>	<b>1</b>	<b>27</b>	<b>3</b>	<b>2</b>	<b>9</b>	<b>4</b>

Notes:

- (1) Mineral resources reported at a cut-off grade of 5% THM  
(2) Mineral assemblage is reported as a percentage of in situ THM content.

Poiombo Mineral Resource Estimation 5% COG															
Summary of Mineral Resources <sup>(1)</sup>															
Deposit	Mineral Resource Category	Material (Mt)	In Situ THM (Mt)	BD (gcm3)	THM (%)	SLIMES (%)	OS (%)	ILM (%)	RUT (%)	ZIR (%)	TIMAG (%)	CHRM (%)	MOTH (%)	ANDA (%)	NMOTH (%)
Poiombo	Indicated	44	3	1.75	6.3	19	1	44	1	1	26	4	3	8	5
	Inferred	40	2	1.75	5.8	19	1	38	1	2	27	4	8	11	2
<b>Grand Total</b>		<b>84</b>	<b>5</b>	<b>1.75</b>	<b>6.1</b>	<b>19</b>	<b>1</b>	<b>41</b>	<b>1</b>	<b>1</b>	<b>26</b>	<b>4</b>	<b>6</b>	<b>9</b>	<b>4</b>

Notes:

- (1) Mineral resources reported at a cut-off grade of 5% THM  
(2) Mineral assemblage is reported as a percentage of in situ THM content.

At a cut-off grade of 5% THM, the High-Grade Zone Mineral Resource estimates for the combined Nhacutse and Poiombo deposits (refer Figure 7) comprise a total Mineral Resource of 257 Mt @ 6.0% THM, with 21% Slimes, containing 15 Mt of THM with an assemblage of 43% ilmenite, 27% titano-magnetite, 1% rutile and 1% zircon. The JORC categories are specifically stated as:

- **Indicated Mineral Resource of 186 Mt @ 5.9% THM and 22% Slimes containing 11 Mt of THM with an assemblage of 43% ilmenite, 27% titano-magnetite, 1% rutile and 1% zircon; and**
- **Inferred Mineral Resource of 71 Mt @ 6.2% THM and 18% Slimes containing 4 Mt of THM with an assemblage of 41% ilmenite, 27% titano-magnetite, 1% rutile and 1% zircon.**

At a cut-off grade of 5% THM, the updated High-Grade Zone Nhacutse Mineral Resource estimate comprises a total Indicated and Inferred Mineral Resource of 173 Mt @ 6.0% THM, with 21% Slimes, containing 10 Mt of THM with an assemblage of 44% ilmenite, 27% titano-magnetite, 1% rutile and 1% zircon. The JORC categories are specifically stated as:

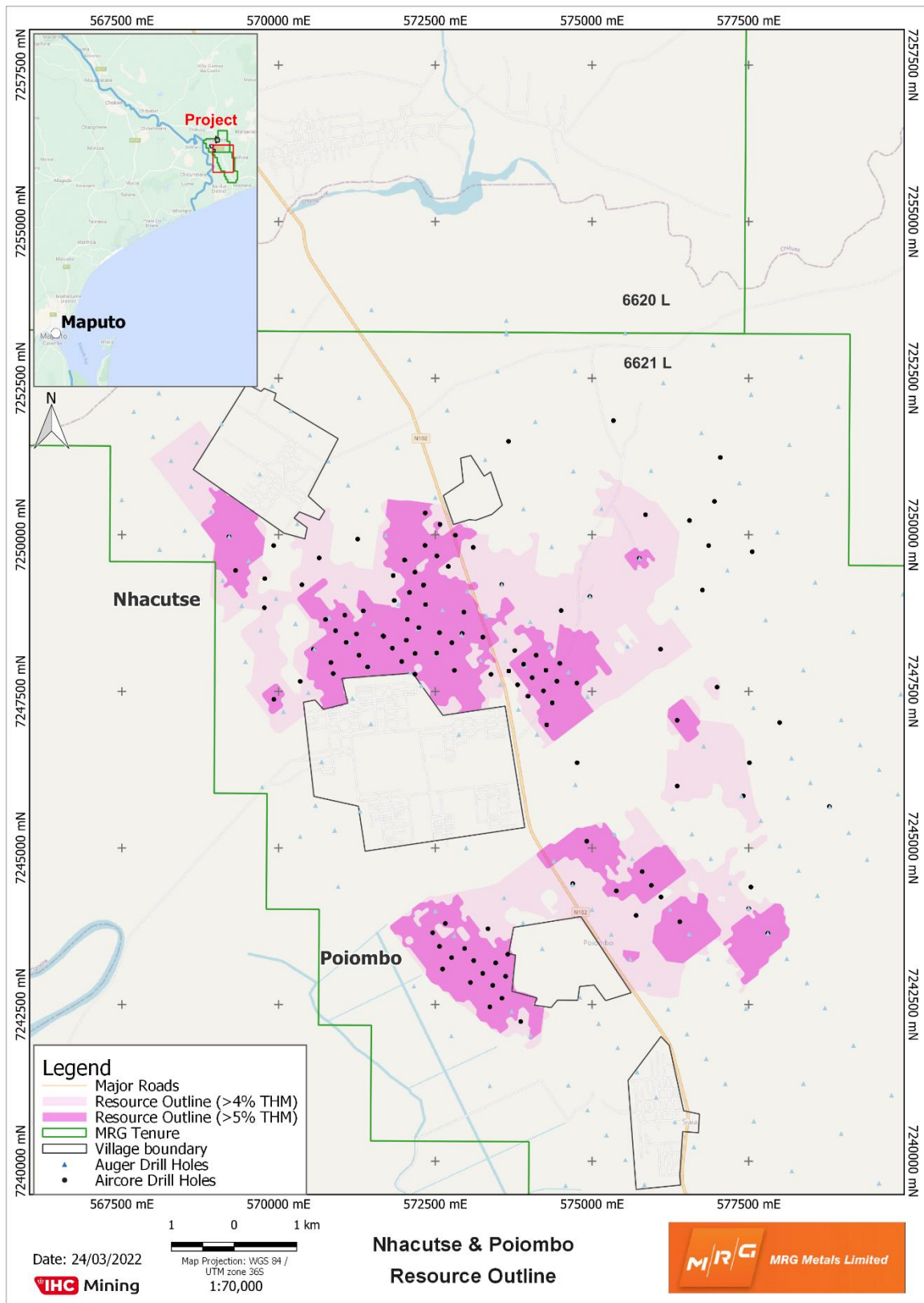
- **Indicated Mineral Resource of 142 Mt @ 5.8% THM and 22% Slimes containing 8 Mt of THM with an assemblage of 43% ilmenite, 27% titano-magnetite, 1% rutile and 1% zircon; and**
- **Inferred Mineral Resource of 31 Mt @ 6.8% THM and 17% Slimes containing 2 Mt of THM with an assemblage of 45% ilmenite, 27% titano-magnetite, 1% rutile and 1% zircon.**

At a cut-off grade of 5% THM, the updated High-Grade Zone Poiombo Mineral Resource estimate comprises a total Indicated and Inferred Mineral Resource of 84 Mt @ 6.1% THM, with 19% Slimes, containing 5 Mt of THM with an assemblage of 41% ilmenite, 26% titano-magnetite, 1% rutile and 1% zircon. The JORC categories are specifically stated as:

- **Indicated Mineral Resource of 44 Mt @ 6.3% THM and 19% Slimes containing 3 Mt of THM with an assemblage of 44% ilmenite, 26% titano-magnetite, 1% rutile and 1% zircon; and**
- **Inferred Mineral Resource of 40 Mt @ 5.8% THM and 19% Slimes containing 2 Mt of THM with an assemblage of 38% ilmenite, 27% titano-magnetite, 1% rutile and 2% zircon.**







**Figure 7: >4% THM and >5% THM Mineral Resource outlines within the Nhacutse and Poiombo deposits.**

## **Summary of Resource Estimate and Reporting Criteria**

A summary of the material information used to compile this Mineral Resource estimate is outlined in the sections below. More detailed information is presented in the JORC Table 1 attached.

### **Geology and geological interpretation**

The coastal region of southern Mozambique forms part of the Mozambique basin, which is comprised of a complex succession of Cretaceous to Quaternary age sedimentary rocks and unconsolidated sand deposits which rest unconformably on Karoo Supergroup sediments and volcanics.

The Cenozoic deposits of the Mozambique basin are distinguished by shallow-marine facies typical of a passive continental margin with two main sedimentary cycles; a Palaeocene-Eocene cycle and Oligocene – Neogene cycle, separated by an unconformity.

The coastline of Mozambique is well known for massive dunal systems such as those developed near Inhambane, Xai Xai and in Nampula Province. Buried strandlines are likely in areas where palaeo-shorelines can be defined along coastal zones. The larger lower grade deposits are related to windblown strands while the thin high-grade strandlines could be related to marine or fluvial influences.

The heavy mineral sands at the Corridor Sands deposit are hosted by the palaeodunes in the Chongoene - Chibuto area. The palaeodunes are known to host significant HMS mineralisation. Recent drilling at Koko Massava has intersected high THM grades from surface extending to a depth of up to 57 m over a strike of 7.8 km for Nhacutse and 5.7 km for Poiombo. The mineralisation is hosted within red to brownish medium grained sand units. The mineralisation is geologically continuous along strike, with grades varying along and across strike. The Nhacutse and Poiombo deposits are predominantly ilmenite enriched.

### **Drilling techniques and holes spacing**

Hand auger and aircore drilling took place within the Nhacutse and Poiombo deposits. The hand auger drilling is a 62 mm open hole drilling technique via Dormer auger drills (Engineering in Australia) with 1 m long drill rods and drill bits. Aircore drilling was completed by Bamboo Rock Drilling Limitada utilising a purpose-built Thor Reverse Circulation aircore drill rig with 76mm diameter rods and 80 mm diameter (NQ) Harlsan aircore bits. Aircore is considered a standard mineral sands industry technique for evaluating HM mineralisation where the sample is collected at the drill bit face and returned inside an inner tube. All holes were drilled vertically.

During reconnaissance and numerous infill drilling programs, 273 hand auger and 127 aircore holes were drilled within the Corridor South (6621L) licence (**refer Figure 1**). Currently the drill spacing within the Nhacutse and Poiombo resource areas is ~250 m between hole stations and ~500 m between drill lines; with some holes at ~250 m spacing between the ~500 m spaced drill lines as well (**refer Figure 1**).

### **Sampling and sub-sampling methodology**

Hand auger samples were collected at 1.5 m intervals and generated approximately 4 kg of drill spoil, while aircore drill samples were collected at between 1.5 m and 3.0 m intervals and generated between approximately 10 and 20 kg of drill spoil respectively. The entire samples were collected at the rig and dispatched to the sample preparation facility. Each sample was air dried and then split down to between 400 g and 600 g using a three-tier riffle splitter for export to the primary laboratory.

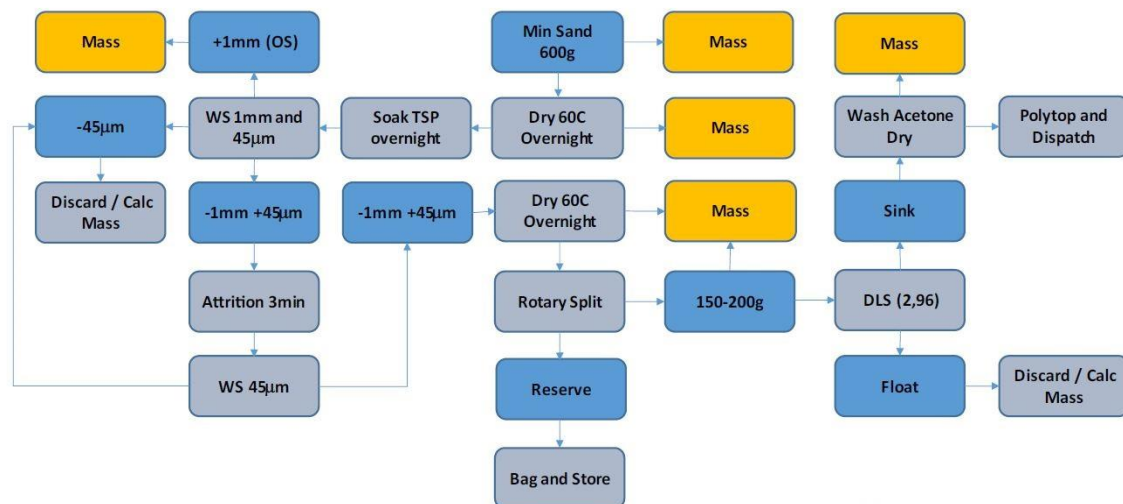
All hand auger and aircore samples were labeled and bagged for transport to the primary laboratories in South Africa or Western Australia, for processing. All sample intervals and the correlating sample mass were recorded onto log sheets and later transcribed to a master Excel spreadsheet. An access database was then constructed.

The sampling method and sample size dispatched for processing is considered appropriate and reliable based on accepted industry practices and experience.

### Sample analysis methodology

All auger and aircore samples were dispatched to either Western Geolabs in Western Australia or MAK Analytical laboratory in South Africa.

Both Western Geolabs and MAK Analytical followed the general assay process flow described as per the following flow sheet and description:



300g to 600g samples were received into the MAK Analytical check-in process, sample weighed.

The full sample were then oven dried overnight at 60 degrees Celsius until samples were completely dry, sample weighed.

Full sample is left to soak overnight.

Wet screening is undertaken on a static screen stack of the full sample with a 1mm top screen and a 45µm bottom screen. Water is added to the washing process and manual scrubbing of the sample is undertaken as the agitation process.

Every 25th sample was submitted to the same process as a laboratory repeat.

All samples were screened utilising a 1mm top screen and a 45µm bottom screen.

Material captured by the 1mm (OS) and 45µm (SAND) screens was individually captured, dried and weighed, whilst material passing through the 45µm (SLIMES) screen was lost to waste water streams.

This passing 45µm material (SLIMES) weight was then calculated by difference (SLIMES weight = sample split weight - OS - SAND).

The SAND fraction (1mm to 45µm) was split via rotary split to produce 150g to 200g, this was submitted to heavy liquid separation ('HLS') using tetrabromomethane ('TBE') as the liquid heavy media.

The settling time for HLS was 45 minutes with several stirs of the liquid to ensure adequate heavy mineral 'drop'.

Mineral assemblage composites were prepared for the Nhacutse and Poiombo deposits from THM sink concentrates and QEMSCAN analysis, supported by XRD and XRF analysis, was used to determine mineralogy for the deposit as a proportion of the THM. The QEMSCAN analyses were undertaken by the University of Cape Town (UCT) in South Africa.

All mineral assemblage composites were prepared by Solly Theron of SJMetMin in conjunction with MRG and IHC Mining and are based on geological and stratigraphic interpretation of the primary drill holes, down hole geological logging and assaying constrained by identified geological domains. **(Results in Table 4).**

### **Resource estimation methodology**

The geological grade models for Nhacutse and Poiombo were based on coding model cells below open wireframes surfaces, including topography, mineralisation and basement. The drill hole files were also flagged with the domains and used for grade estimation.

The dominant drill grid spacing for the Nhacutse and Poiombo deposits was 500 m north-south and 250 m east-west direction. However, some areas were drilled at 1000 m spacing in the north-south and 500 m spacing in the east-west direction. A parent cell dimension of 125 m x 250 m x 3 m in XYZ was selected as this represents half the distance between drill hole spacing in the easting and northing directions for most of the model area.

Sub-cell splits of 5 x 5 in the X and Y and to the nearest 20cm in the Z direction were used to control sub-cell splitting of parent cells (as dictated by the modeling routine used in Studio RM). The smaller parent cell sizes were selected to give a better estimation of the volume of the deposit. It is not anticipated that this will have an adverse effect on the overall grade estimation. The smaller parent cell sizes are also not anticipated to result in an adverse effect on the overall grade estimation.

Inverse distance cubed was used along with nearest neighbour to interpolate grades and values into the block model. Part of the rationale for using ID3 is centred on the good continuity of the mineralisation, low nugget effect displayed by the experimental variograms, the regular drill hole and assay spacing and the nature of the sampling process.

Effectively there is an averaging over the length of the sample interval down hole (in this case being 3 m). There is already a dilution effect on any potential high-grade mineralisation leading to inverse distance being a less complex and more straight forward methodology.

A bulk density (BD) was applied to the model using a standard linear formula originally described by Baxter (1977). This approach was refined in a practical application by this author using the following first principles calculations. This regression formula was then used to determine the conversion of tonnes from each cell volume and from there the estimation of material, THM and SLIMES tonnes.

The bulk density formula is described as: Bulk Density = (0.009 \* HM) + 1.698.



### **Cut-off grades**

The selection of the THM cut-off grade used for reporting was based on the experience of the Competent Person and by considering the continuity of mineralisation at that cut-off grade as well as the inflection points on the grade tonnage curves (refer Figure 3). This cut-off grade is in line with other mineral sands operations in Africa and the overall ratio of VHM to trash.

The Nhacutse and Poiombo Mineral Resource estimate is reported at cut-off grades of 4% and 5% THM for the resource model.

### **Classification criteria**

The JORC classification for the Nhacutse and Poiombo deposits has taken into consideration the drill hole spacing in plan view, as well the sample support within domains, the size, weighting and distribution of the mineral assemblage composites and the variography results.

The deposit has been assigned JORC Mineral Resource classifications of Inferred and is supported by the following criteria:

- regular drill hole spacing that defines the geology and THM mineralisation distribution and trends;
- variography for THM that supports the drill spacing for the classifications; and
- the distribution of mineral assemblage composites having broadly identified the various mineralogical domains.

The variography shows reasonable grade continuity in the across strike and downhole directions but limited sample relationship along strike, which warrants infill drilling between section lines to confidently determine the grade continuity in the north-south direction.

There has been industry standard QA/QC data supporting the assaying process, the use of a specialised and reputable mineral sands laboratory and the drilling, sampling and assaying procedures overall have fully supported the development of a Mineral Resource estimate. The use of commercially prepared standards has supported the QA/QC for the laboratory assaying and ongoing duplicates in both the field and laboratory.

The sample support and distribution of mineral assemblage composites is to an adequate level of density for the JORC Classification. Consideration of the operational mining rate and production of THM has been undertaken in order to assess whether the mineral assemblage composites are providing enough detailed coverage of potential variability in the mineral assemblage along the length of the deposit.

### **Mining and metallurgical methods and parameters**

Additional mineral species chemistry and processing analysis is required from a representative, 6.5 tonne bulk sample, currently in transit to Australia. The purpose is to understand potential process flowsheets, product recoveries and specification of products required for marketing purposes. No mining studies have yet been undertaken on the Koko Massava deposit.

## Engineering Scoping Study and Preliminary Economic Assessment Commissioned

MRG Metals announced the commencement of an Engineering Scoping Study and Preliminary Economic Assessment (PEA) in March 2022 by IHC Mining for the Corridor Central (6620L) and Corridor South (6621L) (refer **Figure 1**) Projects, specifically the Koko Massava, Nhacutse and Poiombo deposits.

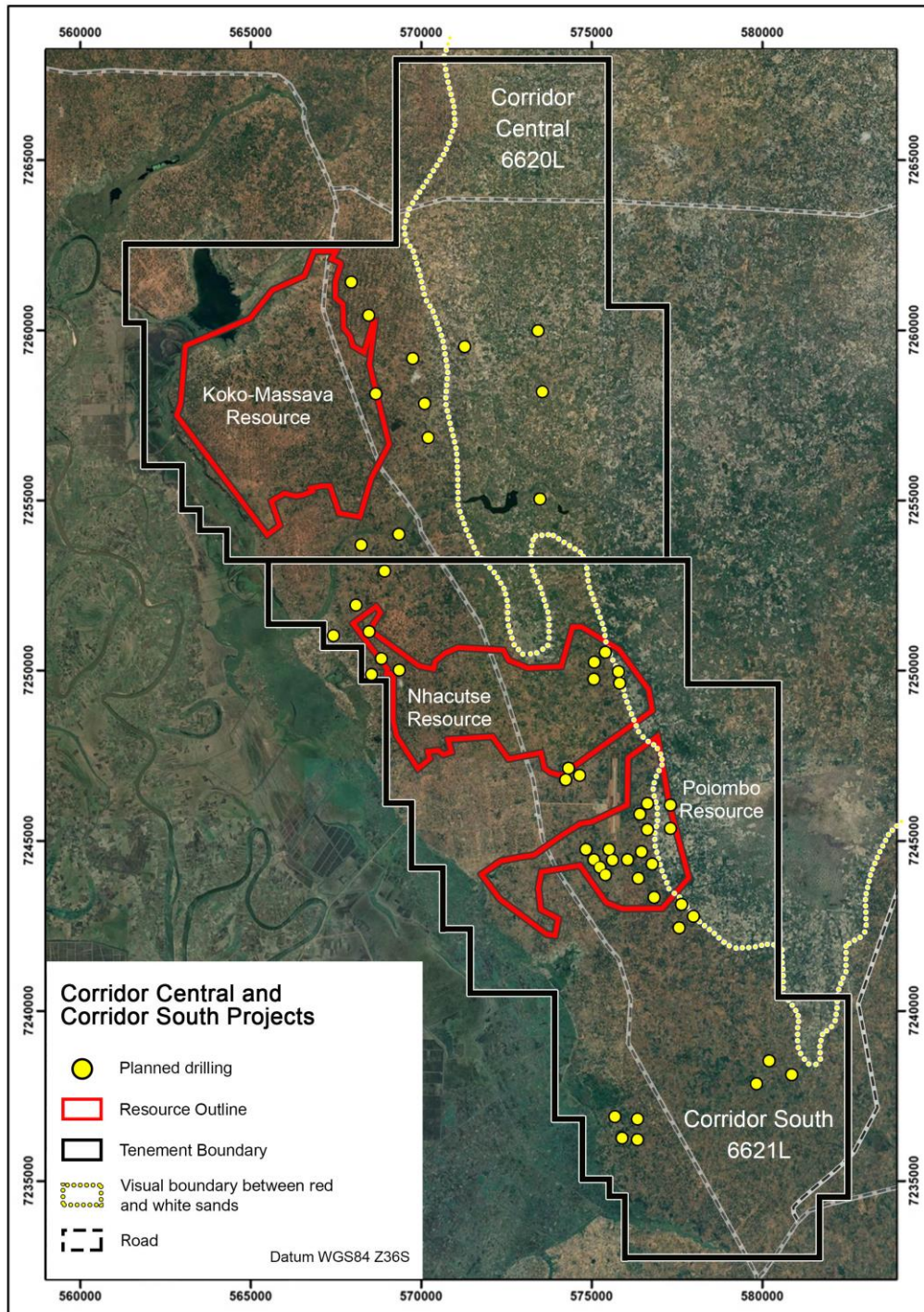
The Engineering Scoping Study and Financial Model follows up on the Scoping Level ongoing geological, mining and testwork (Bulk sample). The geological study culminated in the updated Koko Massava JORC Mineral Resource estimate (refer **Tables 5,6 and 7 for Global Area; Tables 8 and 9 for High Grade area; refer ASX Announcement 16 December 2021**) and the maiden Nhacutse and Poiombo deposits JORC Mineral Resource estimates (**Tables 1, 2, 3 and 4; refer ASX Announcement 2 February 2022**). The Bulk Sample is currently being tested by IHC Mining at their Metallurgical Test Facility, Yatala, Queensland.

## Aircore Drilling Underway at Corridor Projects to Test New Targets with High THM and Corresponding High VHM

Post quarter, MRG Metals announced the commencement of an approximate 2,000m aircore drilling program at the Corridor Central (6620L) and Corridor South (6621L) HMS projects (refer **ASX Announcement 7 April 2022; Figure 8**). The drilling is specifically targeting 11 areas with higher VHM% than found at the Koko Massava, Nhacutse and Poiombo deposits of average 41% VHM within a High Grade Zone at Koko Massava (refer **ASX Announcement 16 December 2021**), 45.3% VHM at Hancutse and 45.9% at Poiombo (refer **Table 4**), thus where higher VHM% of the HMC meets high THM grade.

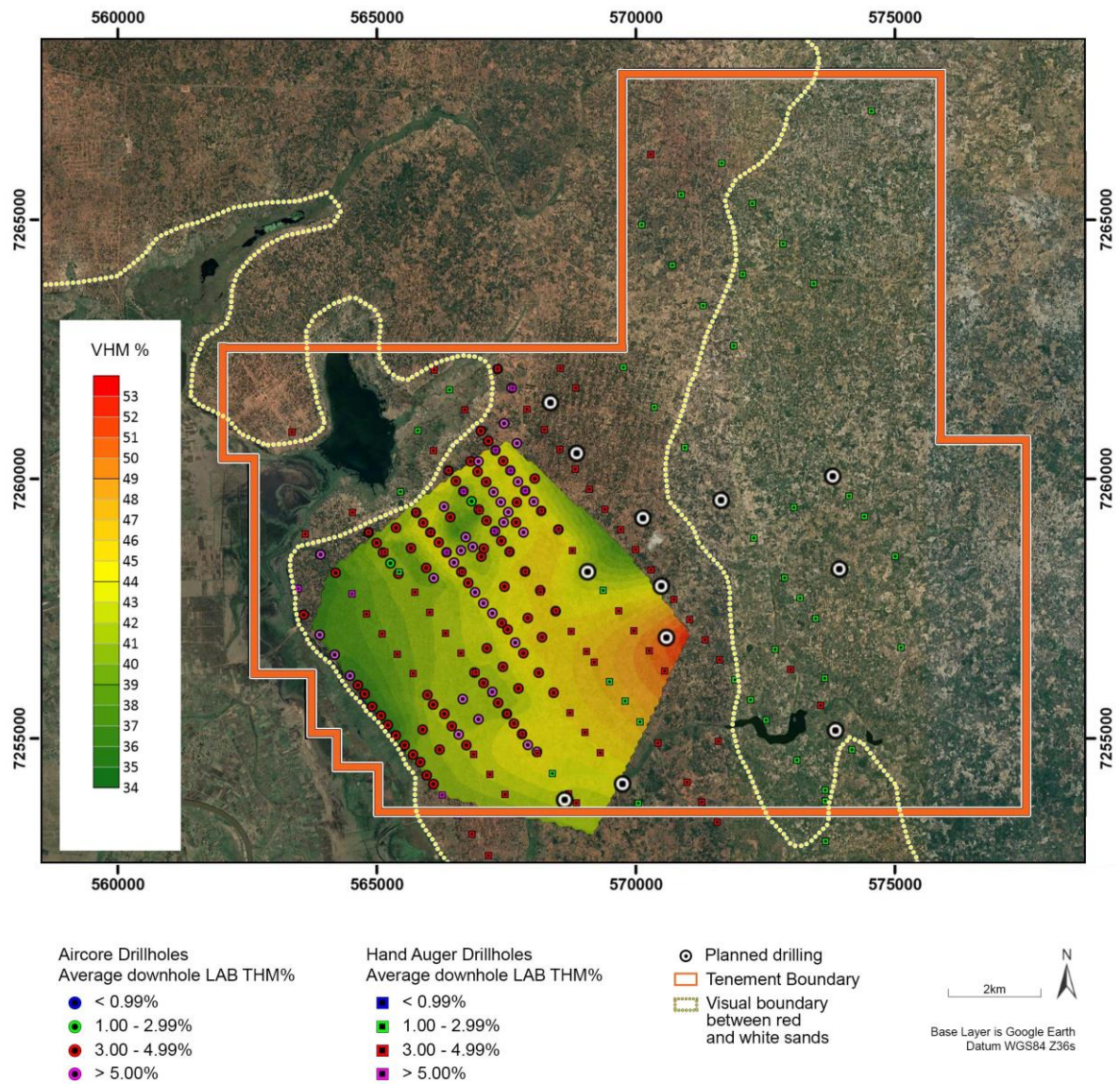
Ongoing mineralogical studies have identified a very strong lithological boundary in the eastern side of the Corridor licences (yellow dotted line, refer **Figure 8**), with red/red-brown coloured sand to the west of the boundary (Type 1 sand) and white/grey coloured sand to the east of the boundary (**Type 2 sand; refer ASX Announcements 11 August 2021 and 1 April 2022**). The VHM% in the Type 2 sand is as high as 73.37% (**Figure 4, refer ASX Announcement 31 July 2020**). A clear increase in the VHM content of the HMC has also been identified within the Type 1 sand of the HMC from west to east and from north to south in both the Corridor Central and Corridor South licences (**Figures 9 and 10**), in both cases to over 50% VHM in places (refer **ASX Announcements 11 August 2021**). This lithological boundary with the very high VHM Type 2 sand to the east and the higher than average VHM Type 1 sand directly to the west, has a strike of approximately 40km across the Corridor Projects and thus represents a significant opportunity for MRG to increase the value of the resources at the Corridor projects by adding higher VHM% HMS to the inventory.

Within the Corridor Central licence the drilling program is taking place outside the Koko Massava MRE outline (refer **Figure 8**), with the aim of obtaining mineralogical data towards the west of the Koko Massava deposit where no data is currently available but where significant THM grades are present (refer **Figure 9**). Most of the drilling will therefore be focusing on the eastern edge of the red/red-brown sand and into lighter coloured sand (**Figures 8, 9 and 10**). At the Corridor South licence some drilling is taking place within the eastern edges of the Nhacutse and Poiombo MRE outlines where limited information is available (**Figures 8 and 10**), drilling will also take place in other targets outside the Nhacutse and Poiombo resource areas.



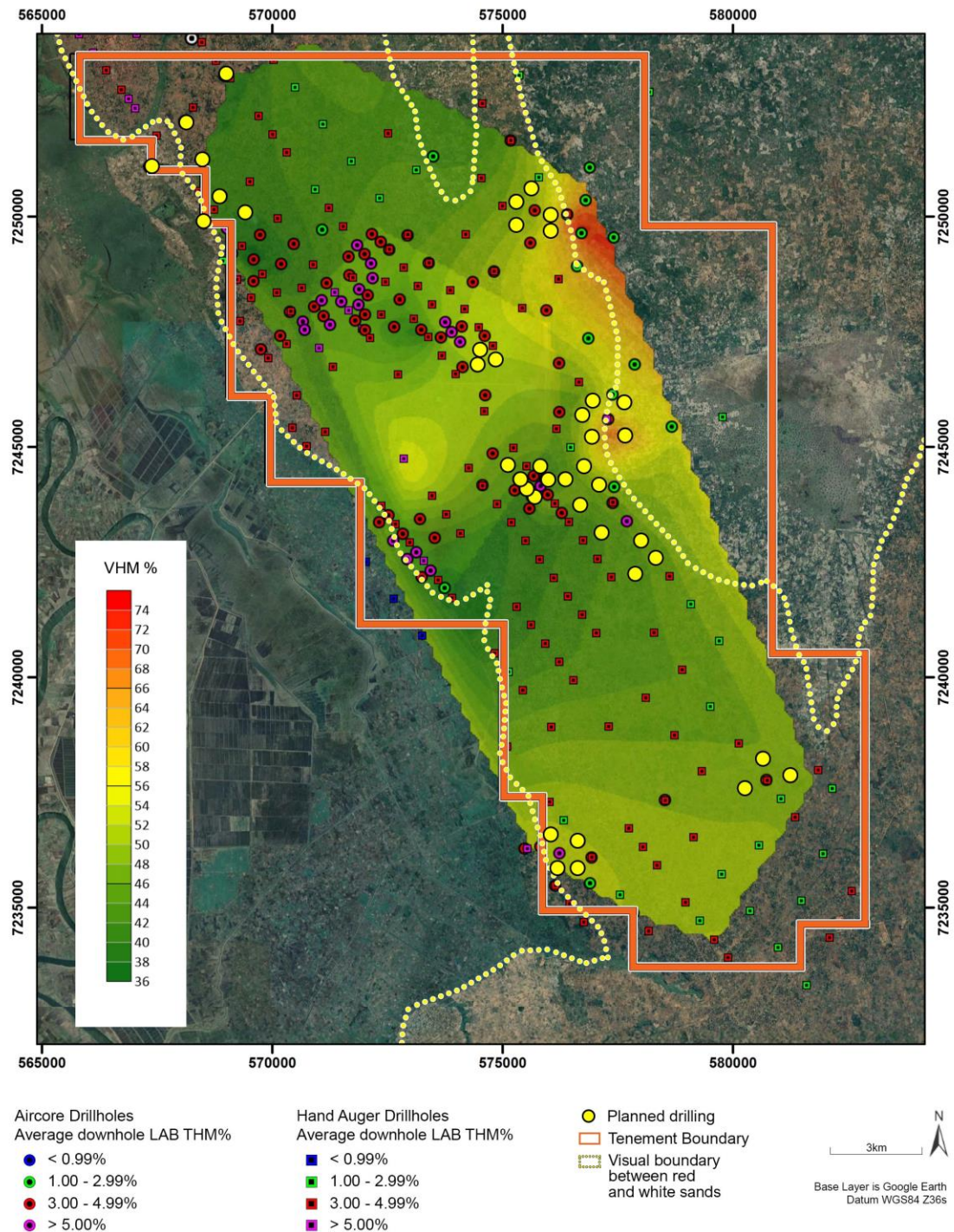
**Figure 8:** Map showing the planned aircore drillholes within the Corridor Central (6620 L) and Corridor South (6621 L) Licences, as well as the Koko Massava, Nhacutse and Poiombo JORC Mineral Resource estimate areas in relation to the strong Type 1 (red/redbrown sand) vs Type 2 (white/gray sand) lithological boundary shown in yellow.





**Figure 9:** Map of all laboratory obtained aircore and auger THM % drilling grades, the lithological boundary, the planned aircore holes and contoured VHM% data within the Corridor Central (6620L) licence.





**Figure 10:** Map of all laboratory obtained aircore and auger THM % drilling grades, the lithological boundary, the planned aircore holes and contoured VHM% data within the Corridor South (6621L) licence

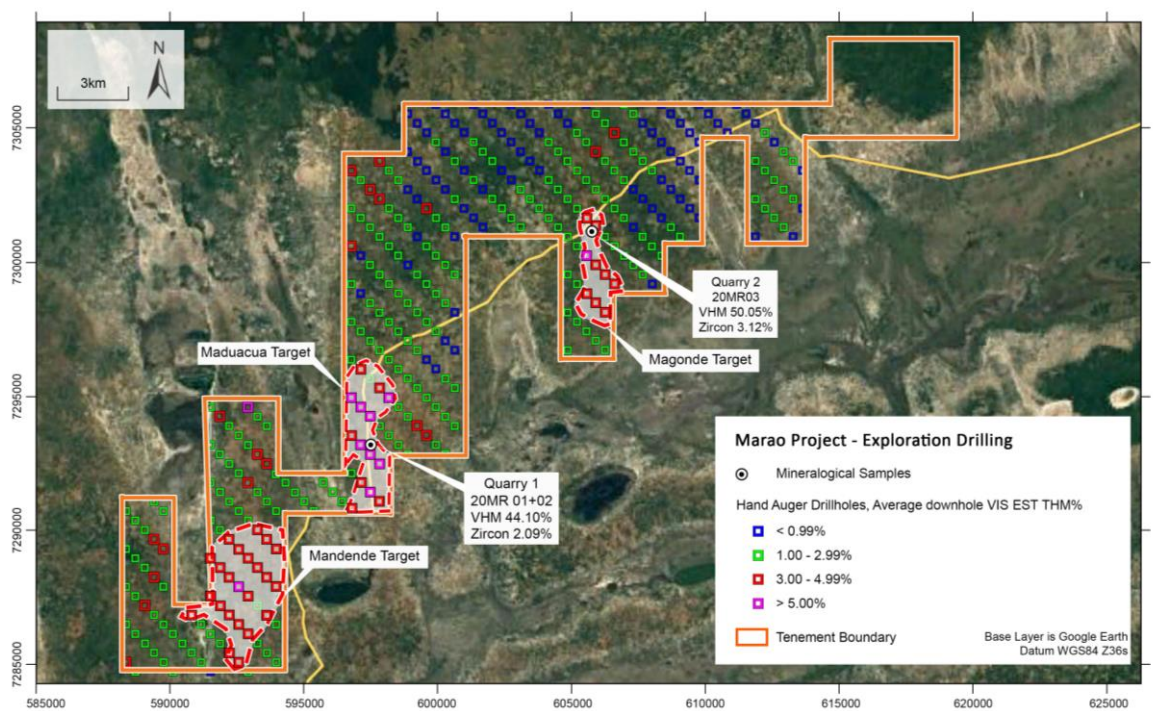
## Activity at Marao and Marruca Projects

### Aircore Drilling Underway Testing 3 Targets at Marao

MRG Metals commenced an aircore drilling project of 9 drillholes at the 3 targets (Magonde, Mandende and Maduacua targets) generated from grid auger drilling at MRG's Marao (6842L) HMS licence (refer **ASX Announcement 16 March 2022; Figure 11**). The drilling will involve 3 holes in each of the targets, to a depth of approximately 45m or where VIS EST significant THM grades goes out of mineralisation. The Company is also nearing completion of the hand auger reconnaissance grid drilling at Marao (refer **Figure 11**). When samples from the aircore drilling project are sent to Western Geolabs in Perth, Australia, samples from selected auger holes will also be sent for analyses.

Mineralogical studies from composite HMC samples will be conducted from the aircore samples. The additional mineralogical work will follow up on very encouraging initial mineralogical investigations from grab samples at two road quarry sites within the Marao licence (refer **ASX Announcement 27 April 2021**), with the samples (20MR 01+02 in quarry 1 and 20MR 03 in quarry 2, refer **Figure 11**) falling within the Maduacua and Magonde targets respectively.

The investigation showed encouraging 44.1% to 50.05% VHM content results (Ilmenite, Altered Ilmenite, Rutile and Zircon) from Scanning Electron Microscopy (SEM; refer **ASX Announcement 27 April 2021**). The VHM is higher to significantly higher than seen from the Koko Massava JORC Mineral Resource estimate of average 41% VHM of the HMC (refer **ASX Announcement 16 December 2021**) and from the maiden Nhacutse and Poiombo JORC Mineral Resource estimate at average 42% VHM of the HMC (refer **ASX Announcement 2 February 2022**). The Zircon content of 2.09% to 3.12% is also relatively high compared to MRG's Koko Massava, Nhacutse and Poiombo deposits.



**Figure 11:** Exploration hand auger drilling completed to date at Marao 6842, position of the Magonde, Mandende and Maduacua Targets.



## Market study of HMS Portfolio

MRG Metals engaged world-leading independent consulting group TZ Minerals International Pty Ltd (TZMI) to undertake a market study (Study) to better understand the economic potential of the different product streams of the Company's wholly owned Mozambique Heavy Mineral Sands ((HMS) portfolio.

TZMI specialises in all aspects of the mineral sands, titanium dioxide and coatings industries. Operating since 1994 with a worldwide presence, TZMI's strength is a result of its extensive practical experience across all elements of the titanium, zirconium, TiO<sub>2</sub> pigment and related industries.

The Study will primarily focus on the Company's Corridor Heavy Mineral Sands Project in Mozambique where the Company has released an updated Mineral Resource Estimate for the Koko Massava deposit which demonstrates the potential to become a >50 year mine. The deposit is understood to be rich in ilmenite, rutile, zircon and titanomagnetite.

Under the terms of the Study, TZMI has been engaged to carry out a work program in two phases:

### Phase 1

Complete a detailed market study incorporating TZMI's latest supply/demand projections on global sulfate ilmenite, rutile and zircon markets. The study involves:

- Introduction to the mineral sands value chain and industry structure.
- Overview of existing major producers and likely new projects that are currently under investigation.
- Review of supply of sulphate ilmenite, rutile and zircon, outlining the key producers/regions and a supply outlook to 2030.
- Demand analysis segmented by end-use markets and key customers by individual feedstock type and zircon. An overview of the global TiO<sub>2</sub> pigment sector (supply and demand) and forecasts to 2030 will be included, as this TiO<sub>2</sub> pigment is the dominant driver for consumption of titanium feedstocks.
- Review of sulfate ilmenite requirement for the beneficiation sector. This is becoming an important trend given the increasing use of sulfate ilmenite as a merchant feed for titanium slag or SR manufacture.
- Detailed analysis of global supply/demand balances and indicative outlook to 2030 for sulfate ilmenite, rutile and zircon.
- Price forecasts of individual feedstock products - sulfate ilmenite, rutile as well as zircon through to 2025 and provision of long-term inducement prices for each of the aforementioned product for the period post 2025.

## Phase 2

- Product quality assessment of planned sulfate ilmenite and non-magnetic concentrate from the company's HMS project in Mozambique based on indicative quality obtained from bulk metallurgical testwork undertaken at IHC Robbins.
- Primary research on the titanomagnetite market in China, covering market dynamics and pricing trends, market segmentation and relative size.
- Commentary on market placement, key target markets and achievable pricing of the planned products (sulfate ilmenite, titanomagnetite and non-magnetic concentrate) from the Corridor project will be provided. A co-product credit will also be provided for the monazite/xenotime contained in the non-magnetic concentrate.
- Overview of the global concentrate market, with particular focus on cross-border volumes and pricing, as well as introduction to the concentrate pricing methodology.

## **Corporate**

### **Capital Raising**

MRG successfully completed a \$1,600,000 Placement, through the issue of 200 million fully paid ordinary shares at \$0.008 per share, together with 100 million attaching options, exercisable at \$0.025 (expiring 30 June 2023) to sophisticated and professional investors.

This placement will assist the Company to complete development analysis at Corridor Central and Corridor South (collectively Corridor Sands), while expanding its exploration programs. In addition to this development work MRG will continue to leverage our exploration activities with four key areas of focus and working capital:

- Fund the necessary infill and expansion drilling needed in Corridor Sands to augment the existing and new MRE's at Koko Massava and Nhacutse / Poiombo respectively;
- Undertake Aircore drilling at Marao on the two high-grade targets already identified by previous Auger drill programs in 2021;
- Commence first-pass exploration with a focus on early scout drilling, immediately upon grant of the Corridor North Tenement; and
- Acquisition of assets in Mozambique to complement the existing portfolio and drill target inventory.



## TENEMENTS

The Tenements held by the Company at 31 March 2022 are as follows:

Project	Tenement	% Owned	Note
Norrliden	K nr 1	10	
Malanaset	nr 100	10	
Malanaset	nr 101	10	
Corridor Central	6620L	100	
Corridor South	6621L	100	
Corridor North	10779L	100	Application
Linhuane	7423L	100	Application
Marao	6842L	100	
Marruca	6846L	100	

### Competent Persons' Statement

The information in this report, as it relates to Mozambique Exploration Results is based on information compiled and/or reviewed by Mr JN Badenhorst, who is a member of the South African Council for Natural Scientific Professions (SACNASP) and the Geological Society of South Africa (GSSA). Mr Badenhorst is a contracted consultant of the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which has been undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Badenhorst consents to the inclusion in this report of the matters based on the information in the form and context in which they appear.

-ENDS-

Authorised by the Board of MRG Metals Ltd.

For more Information please contact:

#### MRG Metals

Andrew Van Der Zwan

Chairman

M: +61 (0) 400 982 987

E: [andrew@mrgmetals.com.au](mailto:andrew@mrgmetals.com.au)

#### Investor Relations

Victoria Humphries

NWR Communications

M: +61 (0) 431 151 676

E: [victoria@nwrcommunications.com.au](mailto:victoria@nwrcommunications.com.au)

## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

MRG METALS LIMITED

ABN

83 148 938 532

Quarter ended ("current quarter")

31 March 2022

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9months) \$A'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation (if expensed) (Note – reclassified to 2.1 (d))		
	(b) development		
	(c) production		
	(d) staff costs	(58)	(174)
	(e) administration and corporate costs	(101)	(422)
1.3	Dividends received (see note 3)		
1.4	Interest received		
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Government grants and tax incentives		
1.8	Other (provide details if material)		
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(159)</b>	<b>(596)</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment	-	(4)
	(d) exploration & evaluation (if capitalised)	(176)	(829)
	(e) investments		
	(f) other non-current assets		

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (9months) \$A'000</b>
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) investments		
	(e) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other		
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(176)</b>	<b>(833)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	1,600	1,600
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(63)	(63)
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>1,537</b>	<b>1,537</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	517	1,611
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(159)	(596)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(176)	(833)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	1,537	1,537

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (9months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held		
4.6	<b>Cash and cash equivalents at end of period</b>	<b>1,719</b>	<b>1,719</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	4	18
5.2	Call deposits	1,715	499
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>1,719</b>	<b>517</b>

**6. Payments to related parties of the entity and their associates**

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

<b>Current quarter \$A'000</b>
59
25

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments

Director Fees, Secretarial Fees, Consulting Fees, & Accounting Fees.



## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>7. Financing facilities</b>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity.</i>		
<i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities		
7.2 Credit standby arrangements		
7.3 Other (please specify)		
7.4 <b>Total financing facilities</b>	Nil	Nil
7.5 <b>Unused financing facilities available at quarter end</b>	Nil	
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (Item 1.9)	159
8.2 Capitalised exploration & evaluation (Item 2.1(d))	176
8.3 Total relevant outgoings (Item 8.1 + Item 8.2)	335
8.4 Cash and cash equivalents at quarter end (Item 4.6)	1,719
8.5 Unused finance facilities available at quarter end (Item 7.5)	0
8.6 Total available funding (Item 8.4 + Item 8.5)	1,719
8.7 <b>Estimated quarters of funding available (Item 8.6 divided by Item 8.3)</b>	5.13
8.8 If Item 8.7 is less than 2 quarters, please provide answers to the following questions:	
1. Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
2. Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
3. Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	

**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 29 April 2022

Authorised by: By the board  
(Name of body or officer authorising release – see note 4)

**Notes**

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.