# ASX ANNOUNCEMENT

31 July 2023

# JUNE 2023 QUARTERLY ACTIVITY REPORT

Key Highlights

- Work has continued on programs designed to significantly improve on the NPV to be generated in updated Preliminary Economic Assessment (PEA)
- A highly successful metallurgical testwork program was completed on non-magnetic concentrate from Koko Massava that had previously been assigned a low value in existing PEA:
  - The metallurgical testwork results expected to significantly and positively impact the economic model to be associated with the update PEA.
  - TZMI calculated value for combined Zircon and Rutile non-magnetic products are now more than USD\$900 per ton, up from approximately USD\$350 per ton used in the PEA, with additional work to be done, including on the Monazite in the magnetic rejects, to determine value.
- Sighter metallurgical testwork completed on heavy mineral concentrates from drilling at Azaria Target (72.4% VHM and 9.1% Titanomagnetite) and Malambane Target (61.6% VHM and 21.0% Titanomagnetite):
  - Grade of the primary composites closely resemble the results to date from mineralogical studies at Azaria and Malambane, confirming the higher VHM content of these 2 targets.
  - Azaria and Malambane clearly shown as high value targets, owing to high mass recoveries from the sighter metallurgical testwork, especially zircon compared to the Koko Massava bulk sample used in the PEA study.
- All metallurgic testwork results favourably impact future economic assessments of the Corridor Sands Projects as a compelling investment opportunity.

MRG Metals Limited ("**MRG**" or "**the Company**") (ASX Code: MRQ) provides a summary of the Company's activities for the June 2023 quarter.

# **CORRIDOR SANDS PROJECT**

## PROGRAMS TO IMPROVE THE NPV OF THE CORRIDOR SANDS PROJECT

MRG Metals continues with its activities to significantly improve the NPV that will be generated from an updated Preliminary Economic Assessment (PEA).

#### **METALLURGICAL TESTWORK – KOKO MASSAVA**

During the quarter, MRG completed highly successful metallurgical testwork on non-magnetic (nonmag) concentrate that had been assigned a low value in the existing PEA. These metallurgy results are expected to significantly and positively impact the economic model to be associated with an updated PEA.

Previous Scoping and PEA testwork conducted at IHC Mining on a bulk sample generated from the Koko Massava deposit produced a non-magnetic concentrate as a potential product stream. The valuable mineral in the concentrate was predominantly zircon, with rutile as a secondary product. The concentrate was degraded by high grades of U and Th associated with monazite and with aluminosilicates.

The objective of the sighter testwork was to investigate potential product grades in the concentrate and to identify potential issues that would impact the grade and recoveries of those products. The sample used for the sighter testwork (Figure 1) was a composite of processing streams reconstituted to a non-magnetic concentrate by IHC Mining (Table 1).

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Oxide		Reported (IHC)	Received					
Grades								
TiO <sub>2</sub>	%	16.7	15.35					
Fe <sub>2</sub> O <sub>3</sub>	%	14.3	14.1					
$AI_2O_3$	%	5.98	6.21					
SiO <sub>2</sub>	%	23.5	23.2					
$Cr_2O_3$	%	1.42	1.64					
$ZrO_2$ + $HfO_2$	%	29.5	30.0					
CaO	%	0.05	0.59					
MgO	%	0.47	0.53					
MnO	%	0.25	0.27					
CeO <sub>2</sub>	%	1.65	1.85					
Th XRF	ppm	4634	4840					
U XRF	ppm	464	453					
K₂O	%	0.06	0.06					
$Nb_2O_5$	%	0.09	0.08					
$P_2O_5$	%	1.79	1.99					
SO₃	%	0.51	0.05					
$V_2O_5$	%	0.11	0.09					
LOI @1000°C	%	N/R	0.47					

#### Table 1: Sighter test head grade

The sighter metallurgical testing involved single stage RER magnetic separation on the non-magnetic concentrate, followed by primary stage of electrostatic separation on the nonmag stream to further isolate potential zircon and rutile products by to separate the TiO2 bearing minerals from the zircon. The two streams were then processed through stages of gravity, electrostatic and magnetic separation to isolate potential zircon and rutile products.

The RER magnetic separation work resulted in upgrading the nonmag by a significant reduction in mass of the nonmag concentrate by removing deleterious minerals such as aluminosilicates and Monazite, as well as significant reductions in  $Fe_2O_3$  and  $Cr_2O_3$ . The electrostatic separation, followed by gravity, electrostatic and magnetic separation, resulted in a number of near Zircon and Rutile product streams. Further optimised testing will result in upgrading the Zircon and Rutile streams further. Testwork to optimise a Monazite product from the reject magnetic stream needs to still take place.

TZMI calculated value for combined Zircon and Rutile non-magnetic products are now more than USD\$900 per ton, up from approximately USD\$350 per ton used in the PEA, with additional work to be done, including on the Monazite in the magnetic rejects, to determine value.

TZMI estimated the unit prices of  $ZrO_2$  and  $TiO_2$  at US\$15.95 per % and US\$8.12 per % respectively, multiply the values against the  $ZrO_2$  (47.9%) and  $TiO_2$  (15.4%) content of the non-magnetic concentrate, to a total value of more than USD1,000 per ton.

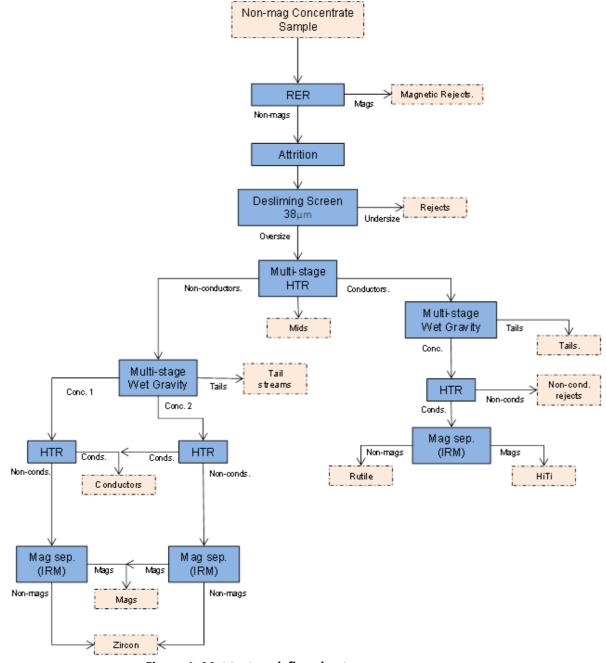
Further metallurgy results are expected shortly from sighter testwork at newly discovered Azaria and Malambane deposits, where substantially higher VHM mineralogy has been discovered and is being progressed in anticipation of providing further upside into an updated PEA.

## Summary of testwork and results

The following comments are made based on the results of the initial sighter testwork on the non-magnetic concentrate:

- The grade of the reconstituted non-magnetic sample closely matched the results from IHC Mining for the same sample (Table 2). The exception to this is the CaO grade of 0.59% compared to the 0.05% in the Reported (IHC) assay. While this may warrant further investigation, the distribution of CaO in the primary separation stage was 85% reporting to mag rejects, therefore did not adversely affect the grades of products in the context of this sighter.
- The non-magnetic concentrate had a ZrO<sub>2</sub>+HfO<sub>2</sub> grade of 30%, equating to an approximate zircon content of 45.5%. The grade of TiO<sub>2</sub> in the sample was 16.7% and the grade of Fe<sub>2</sub>O<sub>3</sub> was 14.1% (Refer ASX Announcement 31 August 2022).
- The principle contaminant minerals in the concentrate were aluminosilicates, both paramagnetic and non-magnetic with the associated oxides Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub> and Fe<sub>2</sub>O<sub>3</sub>. Additionally, the sample had a high grade of monazite, associated with the oxides CeO<sub>2</sub>, P<sub>2</sub>O<sub>5</sub> and Th. A calculation of the monazite content based on an approximate CeO<sub>2</sub> content of 26% in monazite was 7.1%. The combined grades of U and Th in the was 5,293 ppm.

 The primary process tested in the sighter metallurgical testwork was a single stage of magnetic separation using an RER magnetic separator (Figure 1). The process sought to reduce the grades of U and Th through the rejection of monazite to a magnetic reject. Additionally, this process would reduce the mass and increase the grades of zircon in rutile in the concentrate through the rejection of para-magnetic gangue mineral.





- The processing rejected 39.8% of the mass, 97.5% of the Fe<sub>2</sub>O<sub>3</sub>, 95.1% of the CeO<sub>2</sub> and 75.6% of the Al<sub>2</sub>O<sub>3</sub> to the magnetic stream with a loss of 4% of the ZrO<sub>2</sub> (Table 2). The non-magnetic stream had a ZrO<sub>2</sub>+HfO<sub>2</sub> grade of 47.87% equating to an approximate zircon content of 72.5%.
- There was a recovery of 60.3% of the TiO<sub>2</sub> to the non-magnetic stream (Table 2). The ratio of TiO<sub>2</sub> to Fe<sub>2</sub>O<sub>3</sub> in the non-magnetic stream indicates that this is associated with high TiO2 and low Fe<sub>2</sub>O<sub>3</sub> mineral, rutile and HiTi/leucoxene. The TiO<sub>2</sub> reporting to the magnetic fraction is likely secondary type ilmenite although this could be further investigated in future testwork. The grades and distributions of the Cr<sub>2</sub>O<sub>3</sub> are notable in regard to this with 98.3% of the Cr<sub>2</sub>O<sub>3</sub> reporting to the magnetics at a grade of 4.05% (Table 2).
- The distributions of CeO<sub>2</sub> and P<sub>2</sub>O<sub>5</sub> indicate that greater than 90% of the monazite has reported to the magnetic rejects (Table 2). The combined grades of U and Th in the nonmagnetic concentrate are reduced from 5,293ppm in the pre-RER concentrate (Figure 2) to 1,212ppm in the post RER concentrate (Figure 3). While this grade exceeds a typical target for shipping the results do indicate the potential to greatly reduce the U and Th through a stage of magnetic separation.
- Further sighter tests were conducted on a sub-split of the RER non-magnetic concentrate using an IRM (Figure 1). The results of these tests indicate that magnetic separation can be used to reduce the grades of U and Th in the non-magnetic concentrate with the additional benefit of increasing the grade of zircon (Figures 3 and 4). However, the recovery of zircon is likely to be impacted as lower grades are targeted.
- Post RER separation, the non-magnetic stream was processed to isolate potential zircon and rutile products (Figure 3). The processing involved a primary stage of electrostatic separation to separate the TiO<sub>2</sub> bearing minerals from the zircon. The two streams were then processed through stages of gravity, electrostatic and magnetic separation.
- The processing recovered a high-grade zircon product with a ZrO<sub>2</sub>+HfO<sub>2</sub> grade of 66.2% (Table 3). The grades of TiO<sub>2</sub> and Fe<sub>2</sub>O<sub>3</sub> in this were less than 0.1% and the grade of Al2O3 was 0.12%. The combined grade of U and Th was 398ppm (Table 3).
- A number of near zircon product grade streams were generated in the processing (Tables 3 and 4). These were degraded by varying grades of TiO<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub>, Al<sub>2</sub>O<sub>3</sub> and U and Th. This initial processing indicates that aluminosilicates, notably kyanite, are likely to have the greatest impact on zircon recovery. The un-optimised wet gravity processing conducted in this initial sighter does however indicate that much of the Al<sub>2</sub>O<sub>3</sub> should be rejectable through an optimised processing.
- The impact of monazite on the zircon product grade and recovery will likely be reduced with an optimised rejection of this mineral in the primary magnetic separation of the non-magnetic concentrate. It is not possible to comment on the potential to reduce the TiO<sub>2</sub> and Fe<sub>2</sub>O<sub>3</sub> grades in the near zircon product grade streams in this stage of testwork, however it is notable that the final zircon stream recovered had grades of less than 0.1% without the inclusion of acid leaching.

The processing recovered a high-grade rutile product with a TiO<sub>2</sub> grade of 95.5% and Fe<sub>2</sub>O<sub>3</sub> grade of 0.49% (Table 5). The product had a SiO<sub>2</sub> grade of 1.26% and a ZrO<sub>2</sub> grade of 0.5%. Other contaminants were V<sub>2</sub>O<sub>5</sub> at 0.39% and Cr<sub>2</sub>O<sub>3</sub> at 0.23%. The combined grade of U and Th was 60ppm (Figure 4).

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A number of near rutile product grade streams were generated in the processing (Table 5). These
were degraded by varying grades of SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub> and ZrO<sub>2</sub> associated with misreporting nonconductors from the primary electrostatic separation. It is likely that an optimised separation in
this stage of separation will reduce the impact of these non-conductors on the grade and
recoveries of rutile.

#### Table 2: RER separation results

Stream	Mass	TiO₂	(%)	Fe <sub>2</sub> O	3 (%)	+ZrO <sub>2</sub> (%	-	Al <sub>2</sub> O	3 (%)	SiO <sub>2</sub>	(%)
Sueam	(%)	Grade	Distr.	Grade	Distr.	Grade	Distr.	Grad e	Distr.	Grad e	Distr
Mag	39.8	15.30	39.7	34.50	97.5	3.03	4.0	11.8	75.6	11.4	19.5
Non-mag	60.2	15.35	60.3	0.58	2.5	47.87	96.0	2.52	24.4	31.1	80.5
Calc. Total	100.0	15.33	100.0	14.07	100.0	30.04	100.0	6.21	100.0	23.2	100.0

CeO <sub>2</sub> (	%)	P20	5 (%)	Th (µ	opm)	U (p	pm)	Cr₂O	3 (%)
Grade	Distr	Grad e	Distr.	Grad e	Distr.	Grad e	Distr.	Grad e	Distr.
4.42	95.1	4.63	92.5	11000	90.4	470	41.3	4.05	98.3
0.15	4.9	0.25	7.5	770	9.6	442	58.7	0.05	1.7
1.85	100.0	1.99	100.0	4839	100.0	453	100.0	1.64	100.0

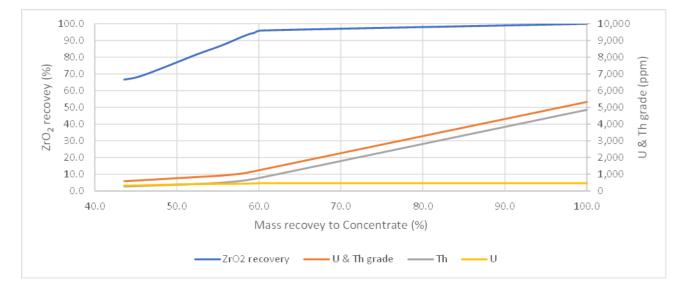


Figure 2: Magnetic separation of Concentrate: zircon recovery vs grades of U & Th

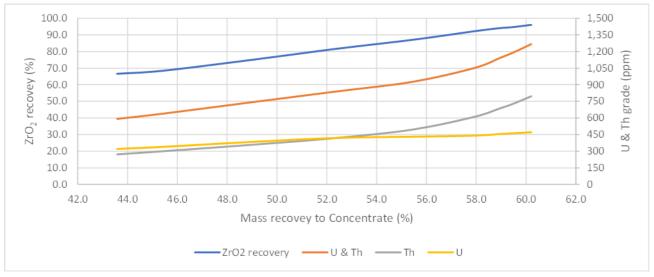


Figure 3: Post Primary RER magnetic separation of Concentrate: zircon recovery vs grades of U & Th

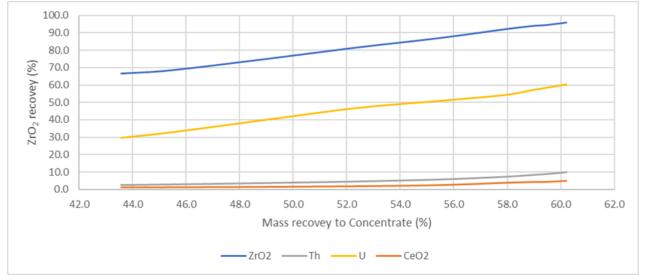


Figure 4: Post Primary RER magnetic separation of Concentrate: recovery ZrO2, CeO2, U & Th

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Oxide		Zircon	Zircon Conductors	Zircon Gravity Tail 1	Zircon Mags	Zircon Gravity Tail 2
		R	Recoveries			
Mass	% N/M conc.	7.46	1.60	2.49	13.93	13.80
$ZrO_2$ + $HfO_2$	%	16.4	3.45	5.1	29.26	27.5
			Grades			
TiO <sub>2</sub>	%	0.07	0.6	0.11	0.1	0.22
$Fe_2O_3$	%	0.09	0.25	0.41	0.34	0.42
$AI_2O_3$	%	0.12	0.21	0.42	1.41	2.69
SiO <sub>2</sub>	%	32.8	32.3	31.4	32.7	34.2
$Cr_2O_3$	%	0.00	0.01	0.01	0.01	0.01
$ZrO_2$ + $HfO_2$	%	66.2	64.6	61.9	63.1	59.9
CaO	%	0.04	0.10	0.20	0.15	0.19
MgO	%	0.00	0.0	0.02	0.0	0.02
MnO	%	0.01	0.02	0.02	0.02	0.03
CeO <sub>2</sub>	%	0.02	0.2	1.01	0.1	0.12
Th XRF	ppm	152	893	3188	793	750
U XRF	ppm	246	373	657	527	580
K <sub>2</sub> O	%	0.01	0.01	0.02	0.02	0.03
$Nb_2O_5$	%	0.00	0.01	0.01	0.01	<0.01

#### **Table 3:** Initial sighter zircon processing; individual stream grades and recoveries

MRG Metals Limited ABN: 83 148 938 532 / ASX Code: MRQ

12 Anderson Street West, Ballarat VIC 3350 / PO Box 237 Ballarat VIC 3353

Phone: +61 3 5330 5800 / Fax: +61 3 5330 5890 www.mrgmetals.com.au / info@mrgmetals.com.au

$P_2O_5$	%	0.11	0.3	1.12	0.3	0.24
SO <sub>3</sub>	%	0.09	0.2	0.10	0.0	0.05
$V_2O_5$	%	0.00	0.01	0.02	0.01	0.01
LOI @1000°C	%	0.30	0.45	0.81	0.62	0.76

#### Table 4: Initial sighter zircon processing streams; cumulative grades and recoveries

Oxide		Zircon	Zircon 2	Zircon 3	Zircon 4	Zircon 5
			Recoveries			
Mass	% N/M conc.	7.46	9.06	11.55	25.48	39.29
ZrO <sub>2</sub> +HfO <sub>2</sub>	%	16.4	19.89	25.0	54.27	81.8
			Grades			
TiO <sub>2</sub>	%	0.07	0.2	0.15	0.1	0.17
Fe <sub>2</sub> O <sub>3</sub>	%	0.09	0.12	0.18	0.27	0.32
Al <sub>2</sub> O <sub>3</sub>	%	0.12	0.13	0.20	0.86	1.50
SiO <sub>2</sub>	%	33	33	32	33	33
Cr <sub>2</sub> O <sub>3</sub>	%	<0.01	<0.01	<0.01	<0.01	0.01
ZrO <sub>2</sub> +HfO <sub>2</sub>	%	66.2	65.9	65.0	63.9	62.5
CaO	%	0.04	0.05	0.08	0.12	0.14
MgO	%	<0.01	<0.01	0.01	0.01	0.01
MnO	%	0.01	0.01	0.01	0.02	0.02
CeO <sub>2</sub>	%	0.02	0.1	0.26	0.2	0.17
Th XRF	ppm	152	283	909	846	812
U XRF	ppm	246	268	352	448	494
K <sub>2</sub> O	%	0.01	0.01	0.01	0.02	0.02
$Nb_2O_5$	%	0.00	0.00	0.01	0.01	0.00
$P_2O_5$	%	0.11	0.2	0.36	0.3	0.28
SO <sub>3</sub>	%	0.09	0.1	0.10	0.1	0.06
$V_2O_5$	%	0.00	0.00	0.01	0.01	0.01
LOI @1000°C	%	0.30	0.32	0.43	0.53	0.61

Oxide		Rutile 1	Rutile 2	Rutile 3	Rutile 4	Rutile 5	Rutile 6	Rutile 7
	Recoveries							
Mass	% N/M conc.	1.0	1.7	2.1	2.2	4.7	6.6	11.8
TiO <sub>2</sub> (total)	%	6.3	10.7	12.7	13.2	25.3	35.4	57.1
TiO <sub>2</sub> (non-mag post RER)	%	10.4	17.7	21.0	21.8	42.0	58.8	94.7
			Grades					
TiO <sub>2</sub>	%	95.50	94.6	94.28	93.7	83.32	82.4	74.35
Fe <sub>2</sub> O <sub>3</sub>	%	0.49	0.75	0.78	1.20	1.04	1.13	1.40
Al <sub>2</sub> O <sub>3</sub>	%	0.26	0.35	0.37	0.39	0.49	0.62	1.39
SiO <sub>2</sub>	%	1.26	1.51	1.69	1.73	5.22	5.98	9.60
Cr <sub>2</sub> O <sub>3</sub>	%	0.23	0.23	0.23	0.25	0.22	0.21	0.19
ZrO <sub>2</sub> +HfO <sub>2</sub>	%	0.5	0.5	0.7	0.7	7.1	7.1	10.3
CaO	%	0.02	0.02	0.03	0.03	0.07	0.07	0.10
MgO	%	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
MnO	%	0.01	0.01	0.01	0.02	0.02	0.02	0.03
CeO <sub>2</sub>	%	<0.01	<0.01	<0.01	<0.01	0.05	0.06	0.07
Th XRF	ppm	30	34	41	44	289	298	378
U XRF	ppm	30	34	38	38	158	164	237
K <sub>2</sub> O	%	0.04	0.05	0.05	0.06	0.07	0.08	0.12
Nb <sub>2</sub> O <sub>5</sub>	%	0.35	0.46	0.45	0.46	0.38	0.39	0.37
P <sub>2</sub> O <sub>5</sub>	%	<0.01	0.0	0.01	0.01	0.07	0.07	0.10
SO <sub>3</sub>	%	<0.01	<0.01	<0.01	0.01	0.02	0.02	0.03
V <sub>2</sub> O <sub>5</sub>	%	0.39	0.35	0.35	0.34	0.30	0.27	0.22
LOI @1000°C	%	0.08	0.11	0.13	0.13	0.34	0.41	0.60

#### Table 5: Initial sighter rutile processing streams; cumulative grades and recoveries

For full results see ASX Announcements 31 March 2023 and 3 April 2023.

### SIGHTER METALLURGICAL TESTWORK AT AZARIA AND MALAMBANE

Excellent sighter metallurgical test results were released from AML Laboratories on three composite Heavy Mineral (HM) samples from the new Azaria and Malambane targets, located within the Company's Corridor Sands Projects.

These outstanding results continue to improve the Company's knowledge of the resources and will help in identifying the priority resources for early mine life economics.

The objective of the sighter testwork was to investigate potential product grades in the HMC from the two targets areas, as well as an initial comparison of the HMC of the Azaria and Malambane targets versus the Koko Massava bulk sample HM concentrate. The three samples used for the sighter testwork were 2 HMC samples from 5 aircore holes and 2 distinctly different lithologies at Malambane (upper-red sand MAL 1 HMC and lower-red/brown sand MAL 2 HMC) and 1 HMC from 3 aircore holes at Azaria.

The sighter metallurgical testing returned excellent results including:

- concentrates of ilmenite, zircon and titanomagnetite generated;
- the testwork clearly showing Azaria HMC with significantly less coatings; and
- very good potential mass recoveries of ilmenite, titanomagnetite, zircon and rutile.

Further optimised testing with larger HMC sample size will be undertaken to carry out additional work on the rutile in the non-magnetic Middling, as well as work on the monazite in the same fraction.

## Summary of testwork and results

An Orekinetics Coronastat high-tension roll (HTR) with a 300mm diameter roll was used in the electrostatic separations. A Readings induced roll magnet (IRM) set with a field strength of 15,000 Gauss was used in the magnetic separations of the HTR non-conductors and the HTR middlings (Refer Figure 5).

A Carpco lift magnet in a non-magnetic reprocess configuration at increasing field intensities was used for the detailed fractionation of the HTR conductors (Refer Figure 5).

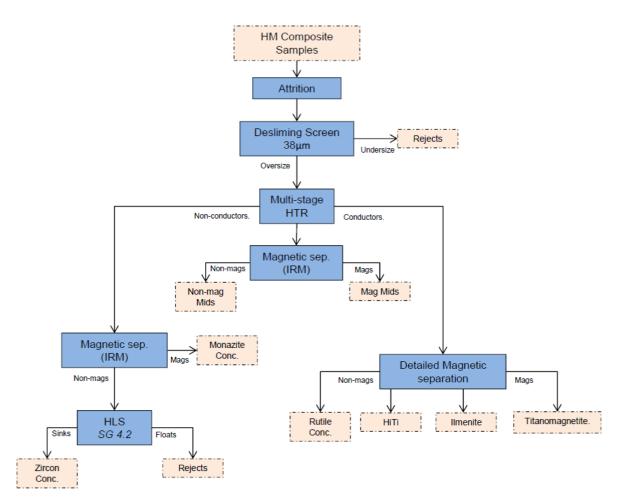


Figure 5: Initial sighter testwork flowsheet

The following comments are made based on the grades of the HM composites (Refer Table 6):

- The grades of the 2 Malambane HMCs, MAL 1 and MAL 2, are comparable. The MAL 1 composite (upper lithology) has a slightly higher TiO2 grade and slightly lower Fe2O3 grade than the MAL 2 composite (lower lithology) at 30% TiO2 compared to 28.4% TiO2 and 53.75% Fe2O3 compared to 54.93% Fe2O3. The grades of contaminant oxides are comparable in both samples.
- The Azaria HMC, AZA 1, had a higher TiO2 grade than both the MAL composites at 33.2% and a significantly lower Fe2O3 grade of 45.6%. The grades of contaminant oxides were higher in the Azaria sample than in both Malambane samples.
- The MAL 1 composite had a ZrO2 grade of 1.46% and the MAL 2 composite had a ZrO2 grade of 1.38% equating to approximate zircon contents of 2.2% and 2.1% respectively. The AZA composite had a ZrO2 grade of 2.18% equating to an approximate zircon content of 3.3%.

 A visual distinction between the MAL 1 and MAL 2 HM composites was evident when observed under the microscope. The MAL 1 HM, identified by the client as "Upper red sand" had a high number of grains coated with red material (Refer Figure 6). This material was evident in the MAL 2 sample, but at a lower level and coated grains were not observed (Refer Figure 7). The AZA 1 HM composite was free of this material (Refer Figure 8).

Table 6: Signter test head grade								
		MAL 1	MAL 2	AZA 1				
Mass	(g)	327	220	125				
Grades								
TiO <sub>2</sub>	%	30.02	28.4	33.21				
$Fe_2O_3$	%	53.75	54.93	45.56				
$AI_2O_3$	%	6.44	6.75	8.36				
SiO <sub>2</sub>	%	5.7	6.54	8.4				
$Cr_2O_3$	%	1.89	1.73	2.11				
$ZrO_2$ + $HfO_2$	%	1.46	1.38	2.18				
CaO	%	0.02	0.02	0.02				
MgO	%	0.64	0.63	0.72				
MnO	%	0.80	0.79	0.87				
CeO <sub>2</sub>	%	0.05	0.05	0.04				
Th XRF	ppm	148	162	152				
U XRF	ppm	26	24	40				
K <sub>2</sub> O	%	0.02	0.02	0.02				
$Nb_2O_5$	%	0.04	0.04	0.05				
$P_2O_5$	%	0.06	0.06	0.06				
SO <sub>3</sub>	%	0.01	0.01	0.00				
$V_2O_5$	%	0.32	0.34	0.23				
LOI @1000°C	%	-1.71	-1.83	-1.79				

## Table 6: Sighter test head grade

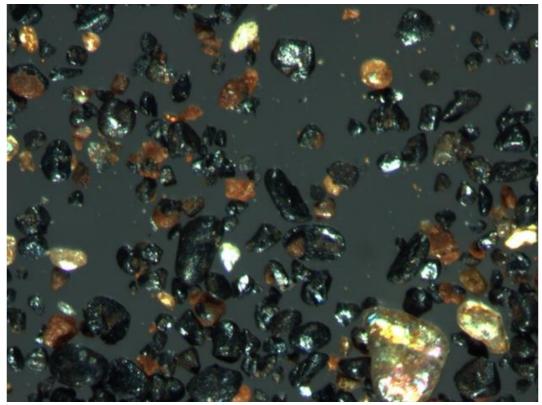


Figure 6: Malambane HMC (MAL 1)

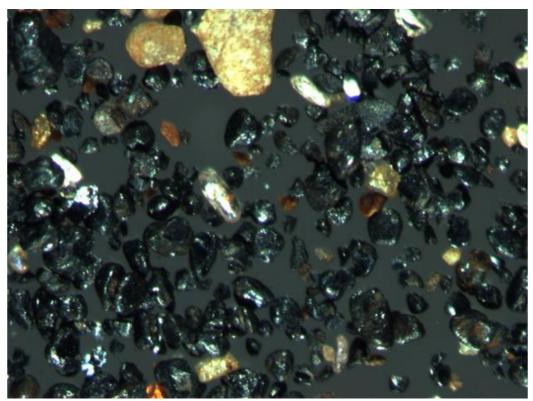


Figure 7: Malambane HMC (MAL 2)

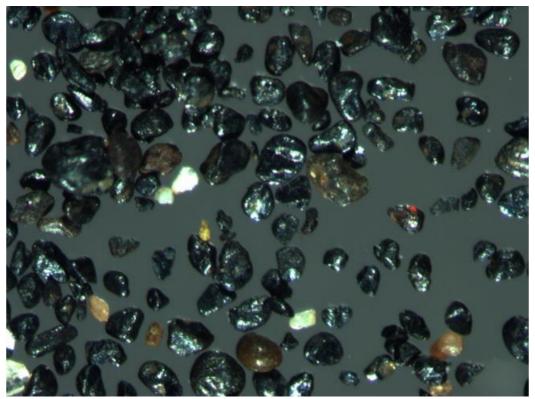


Figure 8: Azaria HMC (AZA 1)

Potential mass recoveries of HM to Product streams (Refer Table 7):

- Ilmenite: Assuming material reporting to magnetic fractions between 1,000 Gauss and 6,000 Gauss of the HTR Conductors reporting to ilmenite at a grade of 48% TiO2 in product;
- Titanomagnetite: Assuming material reporting to magnetic fractions at 500 Gauss and 1,000 Gauss Conductors reporting to product;
- Rutile: Assuming TiO2 material reporting to non-magnetic fractions of the HTR Conductors and HTR Middlings reporting to rutile at a grade of 95% TiO2 in product;
- Zircon: Assuming TiO2 material reporting to non-magnetic fractions of the HTR Middlings and Clerici sinks for the non-conductors reporting to zircon at a grade of 66% ZrO2+HfO2 in product;
- The ilmenite product quality achieved in this testwork indicates the opportunity for improvement by low temperature roasting of the ilmenite to reduce Cr2O3 levels and thereby increase the TiO2 grade of the product;
- Insufficient mass of sample was available to isolate a clean zircon product in the testwork, with approximately 5% gangue mineral in the product, predominantly aluminosilicates and monazite. Given the relatively low distribution of these minerals to the final zircon it would be anticipated that an optimised processing would reduce these contaminant levels; and

• Clean grains of rutile were observed in the expected concentrates but at very low levels. Given the low grade of rutile in the HM and the low sample mass used, the rutile grades presented are potentially underestimated. In future testwork using larger samples it may be possible to isolate a rutile product.

		MAL 1	MAL 2	AZA 1
	ŀ	IM Mass		
Ilmenite	%	42.0	48.8	56.9
Titanomagnetite	%	26.4	24.2	11.4
Rutile	%	0.76	0.80	0.98
Zircon (recoverable)	%	1.66	1.92	2.92

Table 7: HM Composite processing: Potential mass recoveries based on sighter results

For full results see ASX Announcement 27 April 2023.

#### TENEMENTS

The Tenements held by the Company at 30 June 2023 are as follows:

Project	Tenement	% Owned	Note
Norrliden	K nr 1	10	
Malanaset	nr 100	10	
Malanaset	nr 101	10	
Corridor Central	11142C	100	Mining Right Application
Corridor South	11137C	100	Mining Right Application
Corridor North	10779L	100	Application
Linhuane	7423L	100	Application
Marao	6842L	100	
Marruca	6846L	100	
Patricio	10999L	100	Application
Adriano	11000L	100	Application
Fotinho	11002L	100	Application
Olinga	11005L	100	Application

## **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.

#### 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

Investor Relations Victoria Humphries NWR Communications

M: +61 (0) 431 151 676 E: victoria@nwrcommunications.com.au

M/IZ/G

# Appendix 5B

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

Name of entity	
MRG METALS LIMITED	
ABN	Quarter ended ("current quarter")
83 148 938 532	30 June 2023

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (12months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation		
	(b) development		
	(c) production		
	(d) staff costs	(58)	(232)
	(e) administration and corporate costs	(80)	(527)
1.3	Dividends received (see note 3)		
1.4	Interest received	3	5
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)		
1.9	Net cash from / (used in) operating activities	(135)	(754)

2.	Cas	sh flows from investing activities		
2.1	Pay	ments to acquire or for:		
	(a)	entities		
	(b)	tenements		
	(c)	property, plant and equipment	-	(5)
	(d)	exploration & evaluation	(119)	(873)
	(e)	investments		
	(f)	other non-current assets		

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12months) \$A'000
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 (provide details if material)		
2.6	Net cash from / (used in) investing activities	(119)	(878)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	1,213
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	(24)	(24)
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)		
3.10	Net cash from / (used in) financing activities	(24)	1,189

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	853	1,018
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(135)	(754)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(119)	(878)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(24)	1,189

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12months) \$A'000
4.5	Effect of movement in exchange rates on cash held		
4.6	Cash and cash equivalents at end of period	575	575

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	3	2
5.2	Call deposits	572	851
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	575	853

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	60
6.2	Aggregate amount of payments to related parties and their associates included in item 2	25
	if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must incluc nation for, such payments.	le a description of, and an

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

# Appendix 5B Mining exploration entity or oil and gas exploration entity quarterly cash flow report

7.	<b>Financing facilities</b> Note: the term "facility' includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities		
7.2	Credit standby arrangements		
7.3	Other (please specify)		
7.4	Total financing facilities	NIL	NIL
7.5	Unused financing facilities available at qu	uarter end	
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.		

8.	Estim	nated cash available for future operating activities	\$A'000	
8.1	Net ca	sh from / (used in) operating activities (item 1.9)	135	
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))		119	
8.3	Total relevant outgoings (item 8.1 + item 8.2)		254	
8.4	Cash a	and cash equivalents at quarter end (item 4.6)	575	
8.5	Unuse	d finance facilities available at quarter end (item 7.5)	0	
8.6	Total available funding (item 8.4 + item 8.5)		575	
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)		2.26	
	Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.			
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:			
	8.8.1 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?			
	Answer: N/A			
	8.8.2 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?			
	Answer: N/A			
	8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?			
	Answer: N/A			
	Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.			

# **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: 31 JULY 2023

#### Authorised by: THE BOARD OF MRG METALS LTD (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.