# ASX ANNOUNCEMENT

07 January 2021

# MAJOR ZONE OF HIGH GRADE HEAVY MINERAL SAND MINERALISATION CONFIRMED AT NHACUTSE

#### **Key Highlights**

- 12 infill aircore holes intersected further high grade Heavy Mineral Sand (HMS) within an approximate 18 sq km mineralised footprint at Nhacutse, confirming previous auger and visual aircore results (refer ASX Announcements 6 October 2020 and 22 October 2020).
- Significant Total Heavy Mineral (THM) aircore drill assays include:

•	20CSAC572	0 – 30m	30m @ 5.76% THM				
	including	0 – 27m	27m @ 6.12% THM;				
•	20CSHA576	0 – 30m	30m @ 4.77% THM				
	Including	0 – 27m	27m @ 5.11% THM; and				
•	20CSHA578	0 – 30m	30m @ 5.15% THM				
	including individual 3m assays up to 8.88% THM.						

- A high grade zone of over 8 sq km has been defined by 16 holes drilled to approximately 30 metres, with drillhole assays averaging 5.3% THM within this large mineralised footprint.
- Three smaller, very high grade zones defined within the high grade zone show a combined footprint of approximately 2.5 sq km, with holes assaying an average of 6.05% THM.
- Nhacutse demonstrates strong potential for MRG to deliver on its exploration strategy of discovering a Mineral Resource of >100MT at even higher in-ground per tonne value than Koko Massava.
- The Company is further investigating the mineral assemblage within the high grade zone at Nhacutse. To date the mineralogical analyses of 6 composited samples from auger drillholes indicate a Valuable Heavy Mineral (VHM; % Rutile + Leucoxene + Altered Ilmenite + Ilmenite + Zircon) of between 33.40% to 48.05% of the Heavy Mineral Concentrate (HMC, refer ASX Announcement 31 August 2020).
- Aircore drilling also successfully linked the Nhacutse and Bungane Targets (Figure 5, section between Bungane and Nhacutse).
- 4 Aircore holes were drilled in the eastern sector of Nhacutse in close proximity to the high VHM sample CSNH03 (refer ASX Announcements 31 July 2020, 26 August 2020 and 31 August 2020). The area tested was approximately 5 sq km footprint additional mineralogical studies on HMC from these drillholes is underway.
- Within the approximate 5 sq km high VHM area, a high grade HMS zone of approximately 1.4 sq km is highlighted by the significant THM aircore drill assays below:
  - 20CSAC572 0 30m 30m @ 4.22% THM.

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MRG Metals Limited ("**MRG**" or "**the Company**") (ASX Code: MRQ) is pleased to announce the assay results from its Phase 2 aircore drilling on two priority zones of the Nhacutse Target in the Company's Corridor South Project in Mozambique (6621L, Figures 1 and 2). The Phase 2 Nhacutse drilling consisted of 12 aircore holes drilled within the Priority 1 high grade THM target (Figures 3 and 4) and 4 aircore holes drilled within Priority 2 target (Figure 6).

Assay results from Phase 2 aircore drilling on the Priority 1 target's approximately 18 sq km area has further confirmed the aircore results from the Company's Phase 1 aircore drilling at the Nhacutse Target (refer ASX Announcement 24 November 2020).

Importantly, within this larger footprint, the Company has identified a high grade THM zone with a footprint measuring approximately 5.29 sq km, from 16 aircore drillholes at 500m to 1km spacing which assayed an average of 5.29%THM to a depth of 30.18 meters (Figures 4 and 5). Furthermore, 3 even higher grade zones with a total area of approximately 2.5 sq km and an average THM grade of 6.05%THM were also identified (Figure 4).

The Phase 2 drilling also confirmed that high grade HMS mineralisation extends between and links the Bungane and Nhacutse Prospects (Figures 3 and 4).

An inter-laboratory check on analytical results was conducted using the samples from 4 drillholes during this program. Samples were analysed by Western GeoLabs in Perth, Australia and Scientific Services in Cape Town, South Africa. A very good correlation was found in the results between the two analytical laboratories.

Phase 2 aircore holes drilled in the Priority 2 target's approximately 5 sq km area confirmed the presence of an approximately 1.4 sq km high grade HMS zone and also generated additional Heavy Mineral Concentrate (**HMC**) for further mineralogical studies (Figure 6), this work has now been initiated. The studies will assist in developing further understanding to augment mineralogical studies done from auger drilling (Figure 7) around the higher percentage Valuable Heavy Mineral (**VHM**) found in the east of Corridor Central from Koko Massava drilling and the east of Corridor South from Nhacutse drilling (refer ASX Announcements 26 August and 31 August 2020).

**MRG Metals Chairman, Mr Andrew Van Der Zwan said:** *"Fantastic results at the priority 1 target add* to the previous results in the same area, confirming the potential of Nhacutse to host significant tonnage from surface (5.29 sq km footprint) of greater than 5% THM, with internal higher grade pockets (2.5 sq km footprint) of greater than 6%. Add this to the high grade THM found in Priority target 2, with potential for significantly enhanced VHM, supports both targets for follow up drilling to Mineral Resource Estimate requirements. We now have multiple zones that fit our strategy of identifying the best early mine feed stock, with further opportunities within Corridor South still to be evaluated. With auger drilling due to commence in Marao in January, the first quarter of 2021 is likely to define the priorities for 2021."

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Figure 1: Map of the location of the Corridor Central (6620L) and Corridor South (6621L) Projects.

#### Assay Results Nhacutse Phase 2 Aircore Drilling, Priority 1 Target

The Phase 2 drilling at Nhacutse firstly involved the infill drilling of 12 aircore holes, 20CSAC572 to 20CSAC583 (360m of aircore drilling), focused on testing the excellent Phase 1 drilling results at the Priority 1 Target north and northeast of the town of Nhacutse (refer ASX Announcement 24 November 2020).

The Phase 2 drilling results confirms the continuity, strike and depth extensions of the Priority 1 high grade HMS mineralisation (Table 1, Figures 3 and 4). Individual 3m interval assay results as high as 8.88% THM (hole 20CSAC578) was returned, with several of the aircore holes with multiple consecutive 3m intervals with assay results of +5% THM. Most of the aircore holes (9 of the 12) were

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still in +3% THM at the final sample, two of these 20CSAC578 and '583 were still in +5% THM grades at the end of the holes.

Although the aircore drilling has already identified very significant depth extension from surface to 30m depth, significant additional potential exists for depth extension to the high grade mineralisation. The aircore drilling has also importantly confirmed the high grade HMS mineralised footprint extends between Nhacutse and Bungane as can be seen from the assay results in the holes in the cross section (Figure 4) between the two towns.

Within this large mineralised footprint, 16 aircore holes from Phase 1 and Phase 2 drilling identified a smaller, higher grade zone (Figure 4). Using a 4% THM cutoff, average grade of 5.29% THM from surface down to 30.18 meters depth. This high grade zone has a surface footprint of 8.61 sq km, but also contains 3 smaller very high grade zones (Figure 4). Using a 5% THM cutoff, the average grade for the 3 zones is 6.05% THM over 29.9m, with a combined area of 2.67 sq km. The high grades, size of the area and the fact that most of the area is open at depth demonstrates the strong potential to deliver a maiden Mineral Resource at the Nhacutse High Grade Zone to augment the Koko Masava MRE.

To date 6 composited samples (Figure 7) from auger drillholes within the high grade zone have been analysed by CSIRO Mineral Resources, with particle analyses, QemScan and Bulk Mineralogy indicating the following % VHM (VHM; Rutile + Leucoxene + Altered Ilmenite + Ilmenite + Zircon) for the samples (refer ASX Announcements 31 August 2020):

- CSNH01 @ 40.78% VHM
- CSBN02 @ 33.40% VHM
- CSNH05 @ 39.74% VHM
- CSNH06 @ 42.53% VHM
- CSNH07 @ 42.70% VHM
- CSNH08 @ 48.05% VHM

#### Assay Results Nhacutse Phase 2 Aircore Drilling, Priority 2 Target

Secondly, the Phase 2 aircore program at Nhacutse included 4 additional holes, 20CSAC584 to '587, in the eastern part of Nhacutse (Figure 6).

A composited sample from an auger drillholes within the vicinity of the 4 drillholes (sample CSNH03, Figure 7) analysed by CSIRO Mineral Resources via particle analyses, QemScan and Bulk Mineralogy indicating the following % VHM (Rutile + Leucoxene + Altered Ilmenite + Ilmenite + Zircon) shows a VHM % of between 68.82% and 73.27% (repeat vs original analyses), clearly illuminating the potential of this area for supplying high % VHM material in close proximity to the Nhacutse High Grade Zone

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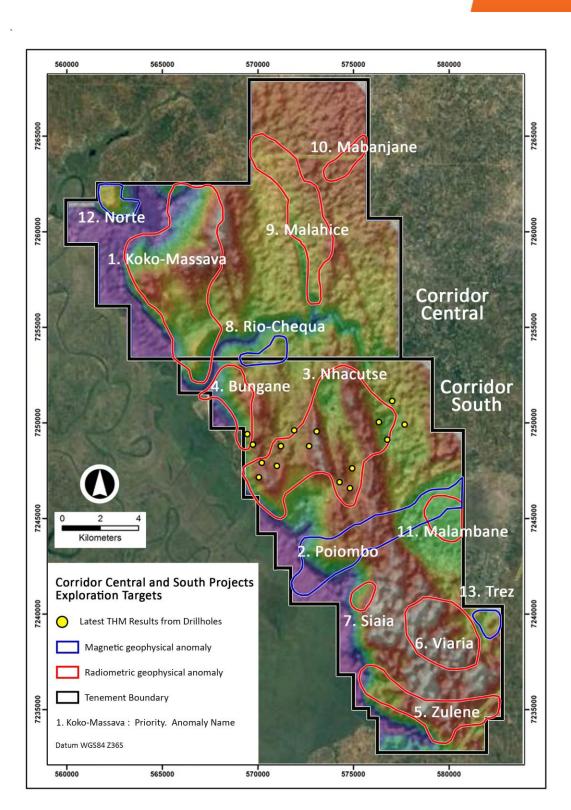
# (refer ASX Announcements 31 July 2020 for original result announcement and 31 August 2020 for

The 4 drillholes were drilled to gain further information and source additional HMC for mineralogical studies of an emerging zone of higher VHM concentration, interpreted from previous Qemscan analysis from auger drilling. The HMC is currently being used for said additional mineralogical studies, additional Qemscan and X-ray fluorescence spectroscopy (**XRF**) analysis will be conducted to better interpret this significant finding.

The high grade found in 20CSAC587 from this area (30m @ 4.22% THM) indicates potential for higher grade mineralisation to be discovered in this Priority 2 Target area (Figures 3 and 6).

repeat results announcement).

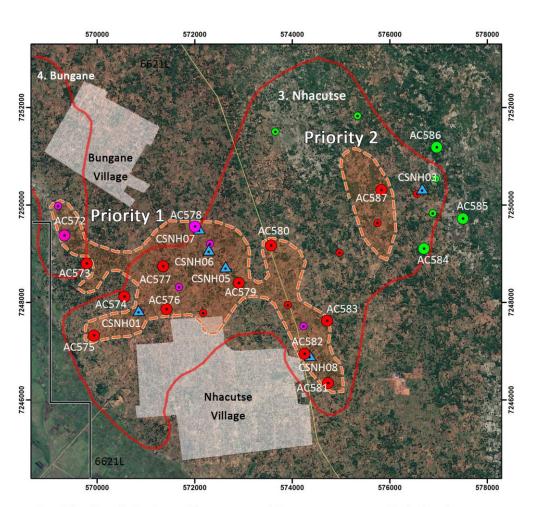
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*Figure 2:* Map of the Corridor Central (6620L) and Corridor South (6621L) Projects showing the locations of the various Prospects.

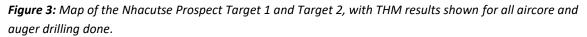
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Corridor South Project, Nhacutse and Bungane targets, High Grade Priority Zone 1 and 2, aircore and hand auger drillhole locations

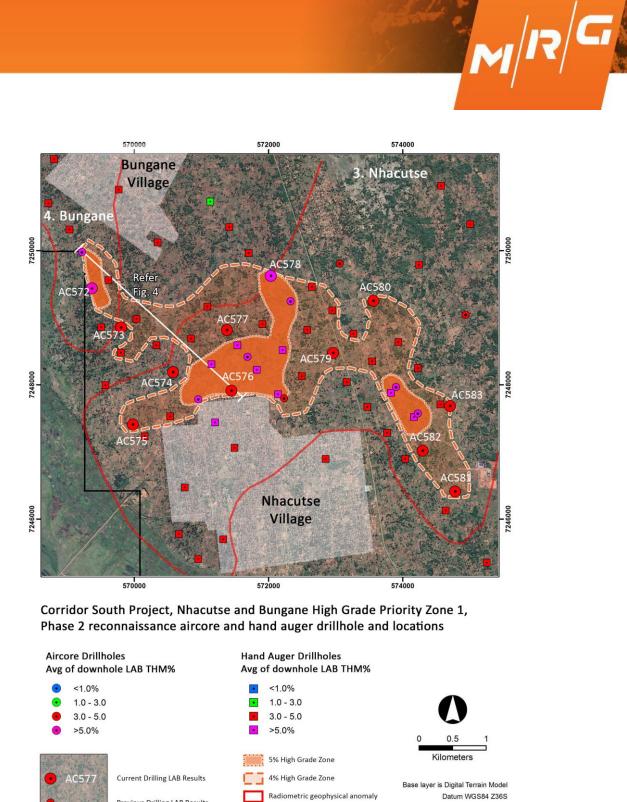




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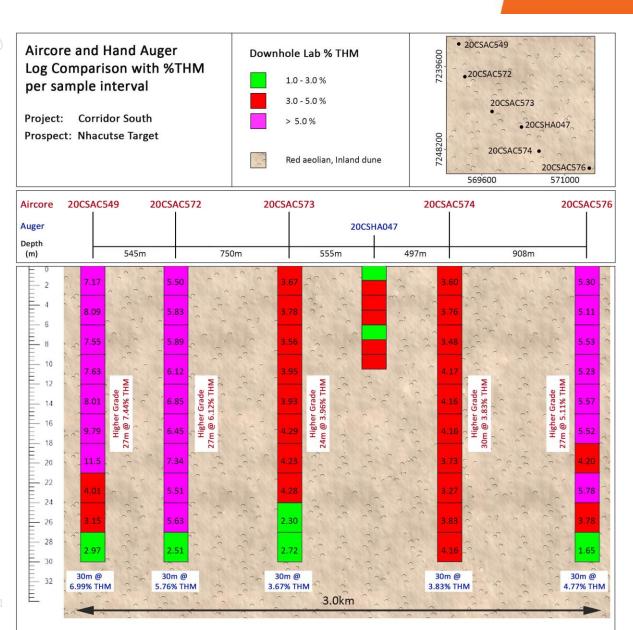
3. Nhacutse = Target Name Figure 4: Map of the Nhacutse Target – Priority 1 drilling and THM results for aircore and auger drillholes, high

grade zone, with 3 internal very high grade zones shown.

Previous Drilling LAB Results

Tenement Boundary

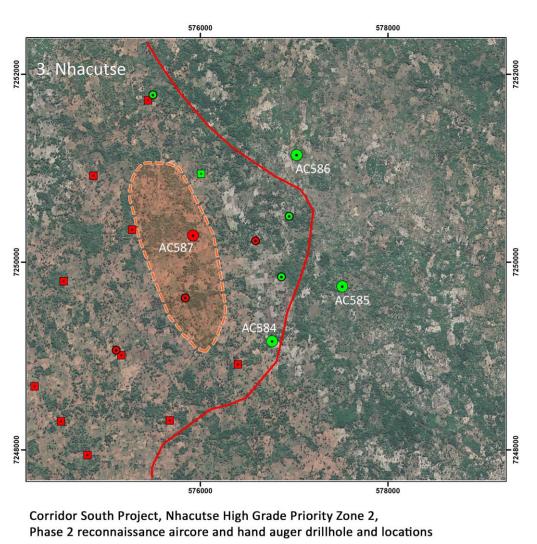
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**Figure 5:** Cross section showing aircore and hand auger holes drilled between the towns of Nhacutse and Bungane, sections shows the link in grades, as well as the high THM grades in the Nhacutse High Grade zone. Section shows % THM results for each sample intersection, the average of the entire drillhole as well as where applicable a higher grade cut (using a lower cut-off of 3% THM) is shown. Note: The focus of this section is to show sample by sample downhole assays. Due to the vertical exaggeration required to do this, the surface profile is not shown.

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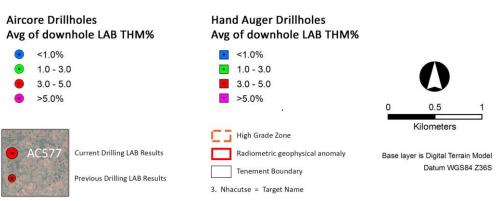
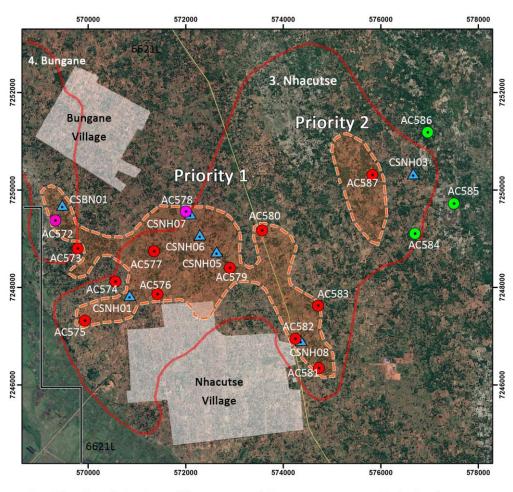


Figure 6: Map of the Nhacutse Prospect Priority Zone 2 drilling and THM results.

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Corridor South Project, Nhacutse and Bungane targets, High Grade Priority Zone 1 and 2, Recent Aircore Results and Mineralogical Studies



Figure 7: Mineralogical samples in relation to Phase 2 aircore drillholes and the high grade zones.

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#### Visual estimated THM grades versus assay results

A comparison of the reported visible (VIS) % THM grades from the 16 aircore drillholes in this program (**refer ASX Announcement 22 October 2020**) to the actual assay results on averages per drillholes basis from this announcement shows a good correlation, with on average, an underestimation on the VIS vs actual assay results of only 0.45% THM on the average drillhole grades.

On individual drillholes, 5 of the 16 drillholes have VIS estimates within 0.5% THM of the actual assay results, 9 of the 16 drillholes have VIS estimates within 1.0% THM of the actual assay results; with only 2 holes at a difference +1% THM, in both cases the VIS grades underestimated the actual grades. The estimations on higher grades of +4.5% THM are less accurate, with the higher differences nearly all falling in the higher grade range.

The correlation in this batch of results is good and supports the use of VIS estimated THM grades for reporting and planning.

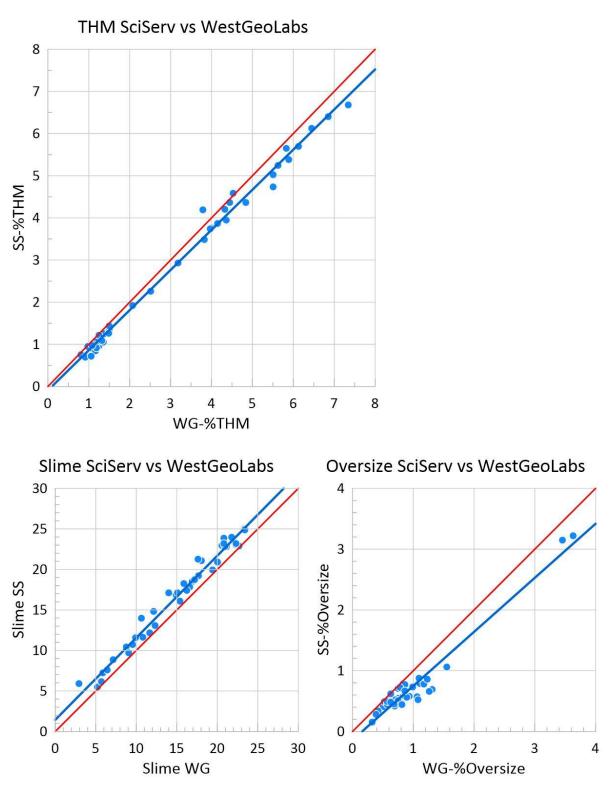
#### Inter-laboratory check analyses

The individual 3m samples from 4 drillholes (20CSAC572, '585, '586 and '587) were sent for analyses to Western GeoLabs (WG, the routine analytical laboratory used by MRG), in Perth, Australia, and Scientific Services in Cape Town (SS), South Africa (Table 2). A total of 40 samples, ranging in the lower grades drillholes 20CSAC585 and '586 (0.81 to max 3.18% THM grades) to higher grades drillholes 20CSAC572 and '587 (2.51 to max 7.34% THM grades) were checked. The same procedures were followed by both labs, only difference being that SS uses a larger sample size (+/- 600g in this case vs the 100g by WG) for the analytical work. A very good correlation (Figure 8) was found in the results between the 2 analytical laboratories, but with a slight shift in results on each of the three sets of results. An average of actual grade of 0.24% THM lower reported by SS on the 40 samples (approximately 5% statistical difference), the maximum difference on an individual sample is 0.78% actual grade lower THM from Scientific Services. On the Silt % Scientific Services had an average higher % Silt content of 1.63% and a slightly lower % Oversize of 0.25%.

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*Figure 8:* Interlaboratory check analyses, plots for THM%, Silt% and Oversize%. Correlation generally very good on all three sets of results.

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HOLE ID	UTM NORTH WGS84	UTM EAST WGS84	ELEV'N (M)	EOH (M)	TARGET	DRILL TYPE	VIS DOWNHOLE AVG % THM FOR ENTIRE HOLE	DOWNHOLE AVG % THM FOR ENTIRE HOLE	HIGH GRADED AVG % THM	INTERSECTION (M)	MIN % THM	MAX % THM
20CSAC572	7249432	569313	51	30	Nhacutse High Grade	AIRCORE	5.2	5.76	6.12	0-30 <u>0-27</u>	2.51	7.34
							3.4	3.67	0.12	<u>0 27</u>	2.30	4.29
20CSAC573	7248837	569773	69	30	Nhacutse High Grade	AIRCORE			3.96	<u>0-24</u>		
20CSAC574	7248175	570556	76	30	Nhacutse High Grade	AIRCORE	3.4	3.83			3.27	4.17
20CSAC575	7247375	569924	78	30	Nhacutse High Grade	AIRCORE	3.9	4.24			2.37	7.50
20CSAC576	7247892	571420	74	30	Nhacutse High Grade	AIRCORE	3.5	4.77			1.65	5.78
200340370	7247052	571420	,4	30	Milacutse mgn Grade	AIRCORE			5.11	<u>0-27</u>		
20CSAC577	7248787	571351	72	30	Nhacutse High Grade	AIRCORE	4.6	4.79			3.32	5.53
20CSAC578	7249595	572015	71	30	Nhacutse High Grade	AIRCORE	4.3	5.15			3.89	8.88
20CSAC579	7248427	572927	86	30	Nhacutse High Grade	AIRCORE	3.2	4.15			3.23	4.67
20CSAC580	7249205	573558	79	30	Nhacutse High Grade	AIRCORE	3.4	4.02			3.43	4.30
20CSAC581	7246362	574761	78	30	Nhacutse High Grade	AIRCORE	3.4	4.31			3.55	4.73
20CSAC582	7246968	574276	74	30	Nhacutse High Grade	AIRCORE	3.8	4.63			3.57	6.67
20CSAC583	7247635	574757	77	30	Nhacutse High Grade	AIRCORE	3.5	4.63			3.72	5.60
20CSAC584	7249119	576760	56	30	Nhacutse High VHM %	AIRCORE	2.1	1.81			0.39	2.80
20CSAC585	7249731	577554	57	30	Nhacutse High VHM %	AIRCORE	2.0	1.47			0.98	3.18
20CSAC586	7251236	577045	67	30	Nhacutse High VHM %	AIRCORE	2.0	1.22			0.81	2.07
20CSAC587	7250322	575852	82	30	Nhacutse High VHM %	AIRCORE	3.7	4.22			3.79	4.84

**Table 1:** Summary collar and assay THM% results for aircore drill data for the Phase 2 Nhacutse target completed during October, 2020.

Note: VIS EST= visual estimated; All data averages are grade weighted and uncut from surface. Dip for all holes if -90° and azimuth is 360°.

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**Table 2:** Inter-laboratory results from Western GeoLabs (WG) and Scientific Services (SS) for 40 samples, results for %THM, %Silt and %Oversize shown from each lab, with the actual difference in grade for the 3 results also shown.

					We	stern GeoLa	abs (WG)	Sci	entific Servi	ces (SS)	PCT THM WG	PCT SILT WG	PCT OVERSIZE WG
HOLE_ID	FROM	то	INTERVAL	SAMPLE_ID	PCT_THM	PCT_SLIME	PCT_OVERSIZE	PCT_THM	PCT_SLIME	PCT_OVERSIZE	MINUS SS	MINUS SS	MINUS SS
20CSAC572	0.0	3.0	3.0	2057201	5.50	8.79	0.84	5.02	10.45	0.79	0.48	-1.66	0.05
20CSAC572	3.0	6.0	3.0	2057202	5.83	12.29	0.85	5.65	13.05	0.69	0.18	-0.76	0.16
20CSAC572	6.0	9.0	3.0	2057203	5.89	14.92	0.86	5.38	16.90	0.77	0.51	-1.98	0.09
20CSAC572	9.0	12.0	3.0	2057204	6.12	17.67	0.77	5.70	19.22	0.53	0.42	-1.55	0.24
20CSAC572	12.0	15.0	3.0	2057205	6.85	16.88	0.51	6.40	18.52	0.41	0.45	-1.64	0.10
20CSAC572	15.0	18.0	3.0	2057206	6.45	16.62	0.80	6.13	17.83	0.50	0.32	-1.21	0.30
20CSAC572	18.0	21.0	3.0	2057208	7.34	19.40	0.75	6.68	19.93	0.55	0.66	-0.53	0.20
20CSAC572	21.0	24.0	3.0	2057209	5.51	11.65	0.75	4.73	12.20	0.71	0.78	-0.55	0.04
20CSAC572	24.0	27.0	3.0	2057210	5.63	15.36	3.45	5.24	16.10	3.15	0.39	-0.74	0.30
20CSAC572	27.0	30.0	3.0	2057211	2.51	10.84	3.63	2.26	11.64	3.22	0.25	-0.80	0.41
20CSAC585	0.0	3.0	3.0	2058501	1.38	5.20	1.06	1.25	5.48	0.57	0.13	-0.28	0.49
20CSAC585	3.0	6.0	3.0	2058502	1.25	9.91	1.08	0.96	11.55	0.52	0.29	-1.64	0.56
20CSAC585	6.0	9.0	3.0	2058503	0.98	15.10	1.11	0.95	17.09	0.79	0.03	-1.99	0.32
20CSAC585	9.0	12.0	3.0	2058504	1.18	21.12	0.63	1.06	22.78	0.52	0.12	-1.66	0.11
20CSAC585	12.0	15.0	3.0	2058505	1.25	20.80	0.42	1.22	23.83	0.34	0.03	-3.03	0.08
20CSAC585	15.0	18.0	3.0	2058506	1.50	23.34	0.52	1.36	25.01	0.49	0.14	-1.67	0.03
20CSAC585	18.0	21.0	3.0	2058507	1.35	22.68	1.17	1.06	22.87	0.78	0.29	-0.19	0.39
20CSAC585	21.0	24.0	3.0	2058508	1.50	21.79	0.57	1.44	23.97	0.44	0.06	-2.18	0.13
20CSAC585	24.0	27.0	3.0	2058509	3.18	22.23	0.32	2.93	23.07	0.15	0.25	-0.84	0.17
20CSAC585	27.0	30.0	3.0	2058510	1.10	20.02	0.39	0.89	20.91	0.28	0.21	-0.89	0.11
20CSAC586	0.0	3.0	3.0	2058601	1.12	2.92	1.31	1.00	5.94	0.69	0.12	-3.02	0.62
20CSAC586	3.0	6.0	3.0	2058602	1.17	5.88	1.26	0.85	7.21	0.66	0.32	-1.33	0.60
20CSAC586	6.0	9.0	3.0	2058603	1.19	6.39	1.23	0.92	7.61	0.86	0.27	-1.22	0.37
20CSAC586	9.0	12.0	3.0	2058604	1.08	10.64	0.83	0.97	13.99	0.57	0.11	-3.35	0.26
20CSAC586	12.0	15.0	3.0	2058605	0.81	5.70	0.69	0.75	6.14	0.42	0.06	-0.44	0.27
20CSAC586	15.0	18.0	3.0	2058606	0.91	7.11	0.99	0.70	8.86	0.73	0.21	-1.75	0.26
20CSAC586	18.0	21.0	3.0	2058607	1.06	9.08	1.55	0.72	9.68	1.06	0.34	-0.60	0.49
20CSAC586	21.0	24.0	3.0	2058608	1.32	14.02	1.09	1.09	17.09	0.88	0.23	-3.07	0.21
20CSAC586	24.0	27.0	3.0	2058609	1.49	16.20	0.78	1.26	17.43	0.72	0.23	-1.23	0.06
20CSAC586	27.0	30.0	3.0	2058610	2.07	22.34	0.93	1.92	23.18	0.58	0.15	-0.84	0.35
20CSAC587	0.0	3.0	3.0	2058701	3.99	9.53	0.86	3.76	10.72	0.58	0.23	-1.19	0.28
20CSAC587	3.0	6.0	3.0	2058702	3.79	12.12	0.89	4.19	14.82	0.56	-0.40	-2.70	0.33
20CSAC587	6.0	9.0	3.0	2058703	4.32	18.04	0.71	4.20	21.11	0.52	0.12	-3.07	0.19
20CSAC587	9.0	12.0	3.0	2058704	4.53	15.88	0.75	4.59	18.27	0.51	-0.06	-2.39	0.24
20CSAC587	12.0	15.0	3.0	2058705	4.36	17.61	0.63	3.95	21.28	0.62	0.41	-3.67	0.01
20CSAC587	15.0	18.0	3.0	2058706	4.45	20.58	0.81	4.37	22.96	0.44	0.08	-2.38	0.37
20CSAC587	18.0	21.0	3.0	2058707	4.84	20.93	0.68	4.36	22.82	0.45	0.48	-1.89	0.23
20CSAC587	21.0	24.0	3.0	2058708	4.15	20.83	0.86	3.87	23.17	0.67	0.28	-2.34	0.19
20CSAC587	24.0	27.0	3.0	2058709	3.97	17.20	0.57	3.74	18.74	0.49	0.23	-1.54	0.08
20CSAC587	27.0	30.0	3.0	2058710	3.83	23.37	0.63	3.48	24.86	0.48	0.35	-1.49	0.15

#### **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 employee 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.

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# **Appendix 1**

# JORC Code, 2012 Edition – Table 1

## **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Aircore drilling was used to obtain samples at 3.0m intervals.</li> <li>The larger 3.0m interval aircore drill samples were homogenized by rotating the sample bag prior to being grab sampled for panning.</li> <li>A sample of sand, approximately 20g, was scooped from the sample bag of each sample interval for wet panning and visual estimation.</li> <li>The same sample mass is used for every pan sample visual estimation.</li> <li>The consistent sized pan sample is to ensure visual calibration is maintained for consistency in percentage visual estimation of total heavy mineral (THM).</li> <li>Images of pan concentrate samples with associated laboratory THM results are used in the field as comparisons to further refine visual estimation of THM.</li> <li>Geologists enter the laboratory THM results for each sample on field log sheets against the visual estimation of THM to refine and further calibrate field visual estimation of THM.</li> <li>Geotagged photographs are taken of each panned sample with the corresponding sample bag to enable easy reference at a later date.</li> <li>A sample ledger is kept at the drill rig for recording samples for each hole to cross-reference with logging.</li> <li>The large 3.0m drill samples have an average of about 18kg, range 8-40kg, and are being split down in Mozambique to approximately 300-600g using a three tier riffle splitter for export to the Primary processing laboratory.</li> </ul>
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>Reverse Circulation 'Aircore' drilling with inner tubes for sample return was used.</li> <li>Aircore drilling is considered a standard industry technique for heavy mineral sand (HMS) mineralization. Aircore drilling is a form of reverse circulation drilling where the sample is collected at the face</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>and returned inside the inner tube.</li> <li>Aircore drill rods used were 3m long.</li> <li>Drill rods used were 76mm in diameter and NQ diameter (80mm) Harlsan aircore drill bits were used.</li> <li>All drill holes were drilled vertical.</li> <li>The drilling onsite is governed by an Aircore Drilling Guideline to ensure consistency in application of the method between geologists</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Drill sample recovery is monitored by measuring and recording the total mass of each 3.0m sample at the drill rig with a standard spring balance.</li> <li>While initially collaring the hole, limited sample recovery can occur in the initial 0.0m to 3.0m sample interval owing to sample and air loss into the surrounding loose soil.</li> <li>The initial 0.0m to 3.0m sample interval is drilled very slowly in order to achieve optimum sample recovery.</li> <li>The entire 3.0m sample is collected at the drill rig in large numbered plastic bags for dispatch to the onsite initial split preparation facility.</li> <li>At the end of each drill rod, the drill string is cleaned by blowing dow with air to remove any clay and silt potentially built up in the sample pipes and cyclone.</li> <li>The twin-tube aircore drilling technique is known to provide high quality samples from the face of the drill hole.</li> <li>Wet and moist samples are placed into large plastic basins to dry prior to splitting.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>The 3.0m aircore drill intervals are logged onto paper field log sheets at the drill site prior to transcribing into a Microsoft Excel spreadsheet at the field office. Field paper logs are scanned and archived digitally on a cloud storage site with the broader geological database.</li> <li>The aircore samples were logged for lithology, colour, grainsize, rounding, sorting, estimated %THM, estimated %slimes and any relevant comments, such as slope and vegetation.</li> <li>A representative portion of every sample interval is collected in a chip-tray and archived at the field base for any additional logging. A photograph is collected of the chip tray related to each hole and is digitally archived on a cloud storage site.</li> <li>Geological logging is governed by an Aircore Drilling Guideline document with predefined log codes and guidance of what to include in data fields to ensure consistency between individuals logging data</li> </ul>
	2	

Criteria	JORC Code explanation	Commentary
		<ul> <li>Data is backed-up each day at the field office to a cloud storage site.</li> <li>Data from the Microsoft Excel spreadsheets is imported into a Microsoft Access database and the data is subjected to numerous validation queries to ensure data quality.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>The sample sizes were deemed suitable to reliably capture THM, slime, and oversize characteristics, based on industry experience of</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>The wet panning of samples provides an estimate of the %THM content within the sample which is sufficient for the purpose of determining approximate concentrations of %THM.</li> <li>The field derived visual panned THM estimates are compared to a range of laboratory derived THM images of pan concentrates. This allows the field geologists to calibrate the field panned visual estimated THM with known laboratory measured THM grades.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Selected visual estimated THM field data are checked by the Chief Geologist.</li> <li>Significant visual estimated THM &gt;5% are verified by the Chief Geologist. This is done either in the field or via field photographs of the pan sample.</li> <li>The Chief Geologist has made numerous visits to the field drill sites to train and embed process and procedure with field staff.</li> <li>No twinned holes have been completed during this programme to date but twin holes are planned.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>The geologic field data is manually transcribed into a master Microsoft Excel spreadsheet which is appropriate for this stage in the exploration program.</li> <li>The raw field data is checked in the Microsoft Excel format first to identify any obvious errors or outlier data. The data is then imported into a Microsoft Access database where it is subjected to various validation queries.</li> <li>An inter-laboratory check for this batch of samples was conducted via c the analyses of 4 drillholes (40 samples) by the laboratory Scientific Services in South Africa. Avery good correlation on the THM, silt and oversize results was found.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Downhole surveys for these aircore holes are not required due to the relatively shallow nature.</li> <li>A handheld 16 channel Garmin GPS is used to record the positions of the aircore holes in the field.</li> <li>The handheld Garmin GPS has an accuracy of +/- 5m in the horizontal.</li> <li>The datum used for coordinates is WGS84 zone 36S.</li> <li>The accuracy of the drillhole locations is sufficient for this early stage exploration.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Hole spacing used in this reconnaissance drill program is variable at between 500m and 1000m spacing between aircore drillholes hole stations. The holes were located from a regular grid but are reconnaissance phase holes and were selected based on previous auger hole locations.</li> <li>The spacing between aircore holes and between lines combined with that of the previously drilled auger holes is sufficient to provide a reasonable degree of confidence in geological models and grade continuity between holes for aeolian style HMS deposits.</li> <li>Closer spaced drilling in a follow-up phase (250m x 500m and 250m x 1000m spaced holes) will provide a higher confidence in geological models and grade continuity between the holes.</li> <li>Each aircore drill sample is a single 3.0m sample of sand intersected down the hole.</li> <li>No compositing has been applied to values of THM, slime and oversize.</li> </ul>
Orientation of data in	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering</li> </ul>	The aircore drilling was located at selected sites along the interpreted strike of mineralization defined by reconnaissance auger and aircore

Criteria	JORC Code explanation	Commentary
relation to geological structure	<ul> <li>the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>drill data and geophysical data interpretation.</li> <li>Drill holes were vertical and the nature of the mineralisation is relatively horizontal.</li> <li>The orientation of the drilling is considered appropriate for testing the lateral and vertical extent of mineralization without any bias.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Field photographs are taken of each sample bag with corresponding sample number and panned sample in order to track numbers of samples per hole and per batch.</li> <li>Aircore samples remained in the custody of Company representatives while they were transported from the field drill site to Chibuto field camp for splitting and other processing.</li> <li>Aircore samples remain in the custody of Company representatives until they are transported to Maputo for final packaging and securing.</li> <li>The Company uses a commercial shipping company, Deugro or DHL, to ship samples from Mozambique to Perth.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul><li>Internal data and procedure reviews are undertaken.</li><li>No external audits or reviews have been undertaken.</li></ul>

## **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral</i> <i>tenement and</i> <i>land tenure</i> <i>status</i>	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The exploration work was completed on the Corridor South tenement (6621L) which is 100% owned by the Company through its 100% ownership of its subsidiary, Sofala Mining &amp; Exploration Limitada, in Mozambique.</li> <li>All granted tenements have initial 5 year terms, renewable for 3 years. An application for renewal of tenement 6621L was submitted in 23 September 2019 and is under review.</li> <li>Traditional landowners and village Chiefs within the areas of influence were consulted prior to the aircore drilling programme and were supportive of the programme.</li> <li>Representatives from the Provincial Directorate of Mineral Resources and Directorate of Lands, Environment and Rural Development, and District Planning and Infrastructure Departments are also part of the consent and consultation process.</li> <li>An Environment Management Plan was prepared by an independent consultant and submitted to the Gaza Provincial Directorate of Lands Environment and Rural Development in accordance with Mining Law and Regulations. An Environmental License has been obtained by the Company.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Historic exploration work was completed by Corridor Sands Limitada a subsidiary of Southern Mining Corporation and subsequently Western Mining Corporation, in 1999. BHP-Billiton acquired Western Mining Corporation and undertook a Bankable Feasibility Study of the Corridor Deposit 1 about 15km north of the Company's tenements.</li> <li>The Company has obtained digital data in relation to this historic information.</li> <li>The historic data comprises limited Aircore/Reverse Circulation drilling.</li> <li>The historic results are not reportable under JORC 2012.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>Two types of heavy mineral sand mineralisation styles are possible along coastal Mozambique:         <ol> <li>Thin but high grade strandlines which may be related to marine or fluvial influences, and</li> <li>Large but lower grade deposits related to windblown sands.</li> </ol> </li> </ul>

Criteria	JORC Code explanation	Commentary
		• The coastline of Mozambique is well known for massive dunal systems such as those developed near Inhambane (Rio Tinto's Mutamba deposit), near Xai Xai (Rio Tinto's Chilubane deposit) and in Nampula Province (Kenmare's Moma deposit). Buried strandlines are likely in areas where palaeoshorelines can be defined along coastal zones.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly</li> </ul>	<ul> <li>Summary drill hole information is presented within Table 1 of the ma body of text of this announcement.</li> </ul>
Data aggregation methods	<ul> <li>explain why this is the case.</li> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>A no cut-off THM% grade is shown for the entire hole; a cut-off of 3%THM was used for the "high grading" value shown.</li> <li>The visual estimated THM% averaging is grade-weighted.</li> <li>An example of data averaging is shown below.</li> <li><u>HoLE_ID</u> FROM TO PCT VIS Average visTHM visTHM 19CCAC104 0.0 3.0 6.0 19CCAC104 0.0 3.0 6.0 19CCAC104 0.0 12.0 8.0 19CCAC104 12.0 15.0 6.2 19CCAC104 15.0 18.0 6.6 19CCAC104 15.0 18.0 6.6 19CCAC104 15.0 18.0 6.6 19CCAC104 16.0 21.0 5.5 19CCAC104 16.0 21.0 5.5 19CCAC104 21.0 24.0 8.0 19CCAC104 21.0 24.0 8.0 19CCAC104 21.0 25 19CCAC104 21.0 25 19CCAC104 21.0 3.0 3.0 2.0 19CCAC104 30.0 33.0 2.0 19CCAC104 30.0 33.0 2.0 19CCAC104 30.0 33.0 2.0 19CCAC104 30.0 33.0 2.0 19CCAC104 30.0 37.5 1.5 100000000000000000000000000000000</li></ul>
Relationship between mineralisation widths and	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole</li> </ul>	<ul> <li>The nature of the mineralisation is broadly horizontal, thus vertical aircore holes are thought to represent close to true thicknesses of t mineralisation.</li> </ul>

Criteria	JORC Code explanation	Commentary
intercept lengths	<ul> <li>angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Downhole widths are reported.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Figures are displayed in the main text.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>A summary of the visual estimated THM% data is presented in Table 1 of the main part of the announcement, comprising downhole averages, intersection thickness, together with maximum and minimum estimated THM values in each hole.</li> </ul>
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No other material exploration information has been gathered by the Company.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Further work will include heavy liquid separation analysis for quantitative THM% data.</li> <li>Additional mineral assemblage and ilmenite mineral chemistry analyses will also be undertaken on suitable composite HM samples to determine valuable heavy mineral components.</li> <li>As the project advances, TiO2 and contaminant test work analyses will also be undertaken.</li> </ul>