4 September 2024

Maiden Niobium Measured and Indicated Mineral Resource at the Yangibana Rare Earth and Niobium Project

HIGHLIGHTS

Hastings Technology Metals Ltd (**ASX: HAS**) (**Hastings** or the **Company**), is pleased to announce a Maiden Niobium Measured and Indicated Mineral Resource at the Yangibana project, located in Western Australia's Gascoyne region; herein referred to as the Yangibana Rare Earth and Niobium Project (the "Yangibana Project").

- Maiden Niobium Measured and Indicated Mineral Resource estimated at the Yangibana Project within Bald Hill and Simon's Find deposits.
- **Niobium Pentoxide Measured and Indicated Mineral Resource now 6.7Mt at 2,305ppm for 15,501t Nb_2O_5.**
- **Niobium present within the existing footprint of the Yangibana Project.**
- **Niobium (Nb_2O_5) concentrations occur in the form of mineral ferro-columbite at the Yangibana Project over a 4-kilometre strike at the existing Simon's Find and Bald Hill deposits.**
- A Bald Hill sample generated from process development test work reported XRF assays 1.35% Zr and 0.08% Hf. Subsequent standardless semi-quantitative analysis reported that zircon in the sample was the source of the reported zirconium and hafnium, contained at a ratio of 13 to 1 (49.0% / 3.8%). **The Hf-enriched zircons from Bald Hill thus contain 3.8 times the HfO_2 content compared to the benchmark of 50:1[1].**
- Studies underway to incorporate the ferro-columbite estimate value into an updated Ore Reserve.
- **Besides this reported maiden Niobium MRE, an updated Mineral Resource Estimate is expected to be available by November 2024,** including the potential of associated Critical Minerals ZrO_2 and HfO_2 after conclusion of metallurgical testing of the recovery of zircon, (and associated hafnium) in addition to TREO and ferrocolumbite[2].
- The additional Critical Metals will provide a multi-commodity recovery process stream and by-product credit income.
- Niobium is a technology-Critical Metal with major uses in making steel lighter and stronger, high-tech alloys and faster recharging of Li-ion batteries. Global production is centred on Brazil (about 90%, with new supply chains being sought).

Analysis of previous drilling at Bald Hill and Simon's Find trend (Figures 1 and 2) and the completion of additional Niobium assays has allowed for the completion of an initial Niobium Mineral Resource estimate for these deposits (Table 1). Importantly, this area is near the planned process plant and vital for the feed required upon project commissioning in Q4 2026.

[1] *ASX Announcement 26 August 2024 "High-grade Niobium, Rare earth and Hafnium-rich Zircon Rock Chip Results at Hastings Yangibana Project".*

[2] *ASX Announcement 26 August 2024 "High-grade Niobium, Rare earth and Hafnium-rich Zircon Rock Chip Results at Hastings Yangibana Project".*

Hastings Chief Geologist, Dr Louis Schürmann, said: *"The maiden Niobium Mineral Resource Estimate is an important step towards providing a multi-commodity recovery process stream and by-product credit income. The Yangibana Project hosts the Gifford Creek Carbonatite which is an important depository's of REE and Critical Metals, while the designed beneficiation plant will be capable of producing ferrocolumbite, Hf-rich zircon and monazite concentrates. Yangibana's multi-commodity potential is being expanded through further exploration and ongoing metallurgical testing of hafnium-enriched zircon."*

Table 1: Total JORC (2012) Niobium Mineral Resources September 2024.

Category	M Tonnes	Nb_2O_5 ppm	Nb_2O_5 t
Measured	2.37	1,035	2,451
Indicated	4.36	2,995	13,050
sub-total	6.73	2,305	15,501
Inferred	0.01	1,435	20
TOTAL	***6.74***	***2,305***	***15,521***

- *Numbers may not add up due to rounding. Includes JV tenement contributions.*
- Reporting of Mineral Resources for Bald Hill and Simon's Find is at a cut-off grade of 0.24% total rare earth oxides (TREO) within the existing pit design.

Summary

The initial Niobium Mineral Resource Estimate has been applied to defined at Bald Hill and Simon's Find. Total Niobium Mineral Resources at the Yangibana project now stand at 6.74Mt @ 2,305ppm Nb_2O_5.

The most recent drilling program conducted from November 2021 to February 2022 was targeting remaining areas of Inferred Mineral Resource category material along the 8km long Bald Hill, Simon's Find, Fraser's trend. Holes were also drilled to extend mineralised trends outside of the current Mineral Resource down dip.

All Yangibana project deposits start from surface and contain large coherent domains comprising mostly high-value rare earths dominated mineral assemblage. Hastings is planning additional drilling programs across all Yangibana deposits. The work undertaken to estimate the Niobium Mineral Resource was completed by David Princep of Gill Lane Consulting and incorporates all the information and data that was used in the previous Mineral Resource estimates plus the 2021-2022 drill program data which was released to the ASX on the following dates: 9 June 2022 and 25 July 2022 with the previous REE estimates being released to the ASX on 11 October 2022.

Hastings is focussed on progressing further metallurgical testing of Niobium bearing mineralisation to ensure that the maximum value is returned from the deposits. Additional mine planning studies will be undertaken based on this initial Niobium Mineral Resource to maximise the extraction of material from the Bald Hill and Simon's Find pits.

Impact on Yangibana Project

Recent geological, mineralogical, and metallurgical studies have revealed a promising pathway for extracting high-grade Niobium concentrate from the Bald Hill and Simons Find deposits.

Key findings include:

- **High-Grade Niobium Occurrence:** The majority of Niobium in the ore is present in ferrocolumbite, a mineral with a high Niobium content.
- **Liberation Potential:** A substantial portion of Niobium is liberated at a particle size of 90µm, indicating excellent potential for concentration.
- **Tailings Recovery:** Opportunities identified to recover Niobium from the tailings stream of the existing rare earth flotation process by implementing specific chemical conditions and additional processing steps.

These findings have identified the unit processes that would enable the niobium to be recovered from the existing beneficiation flowsheet with modifications that incorporate:

- **Ore Dressing:** A preliminary stage to separate high-density minerals, including Niobium-bearing minerals, from the ore.
- **Magnetic Separation:** The use of high-intensity magnetic separators to further concentrate Niobium-rich materials.
- **Flotation Optimisation:** Tailored flotation conditions to selectively recover Niobium from the concentrate.

Hastings is confident that these additional unit processes will enable Yangibana to produce a high-quality Niobium concentrate, significantly enhancing the value of the Bald Hill and Simons Find deposits.

Hastings Chief Operating Officer, Tim Gilbert, said:

"*Hastings have been working closely with its partners to optimise the Yangibana process plant for rare earth recovery. Hastings see another opportunity at Yangibana to include an additional Niobium recovery circuit. Initial test work indicates a relatively simple circuit comprising magnetic separation and float circuit, positioned after and in series with the rare earths circuit, to recover Niobium and Zircon/hafnium concentrates in two streams. Additional test work is required to confirm the final circuit, with process design, detailed engineering and capital cost estimation to follow. Hastings is confident that the additional magnetic separation and flotation circuit can be effectively and quickly designed and implemented at Yangibana."*

GR Engineering Services Manager – Projects, Antonio Cinanni, said:

"GRES has been working with Hastings on the Yangibana Rare Earths beneficiation plant for over 12 months. During the time, GRES have undertaken detailed process engineering and design of the benefaction plant. With the presence of niobium in the existing permitted Yangibana ore bodies, Hastings has initiated discussions with GRES to modify the current process plant to also include the recovery of niobium. Hasting's intention is to work with GRES to complete test work and implement the Niobium recovery circuit."

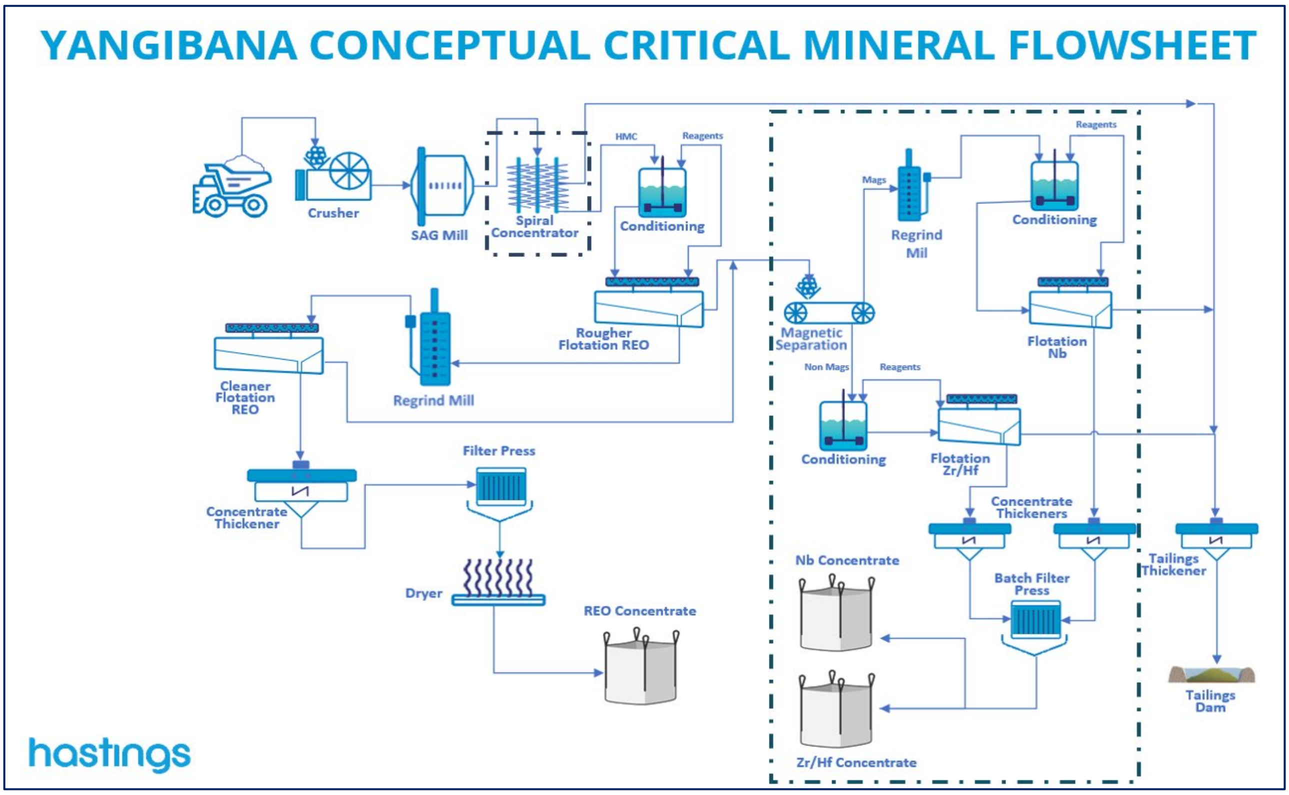

Figure 1: Yangibana Conceptual Critical Mineral Flowsheet – additional unit processes required boxed with black dashed line.

Hastings continues to progress work on the fully permitted project at Yangibana. Yangibana has a 17-year mine life and will create significant employment via construction and operations jobs in the Gascoyne region as well as making a strong economic contribution at each of Commonwealth, State and local levels (including Native Title royalties).

The ability to recover niobium within the current mine life, coupled with the project cost reductions announced in June 2024[3], with the current ongoing exploration and updated Mineral Resource estimates (this announcement), has the potential for life of mine and product extensions.

Substantial progress at Yangibana has been made with early infrastructure (accommodation village, airstrip, access roads etc) having been completed, an EPC contract with GR Engineering Services for Beneficiation Plant construction in place, and long lead equipment having been secured and ready for deployment. Timing remains on track for first production in 2026, subject to FID / Project Funding.

[3] *ASX Announcement 13 June 2024 "Yangibana Rare Earths Project Cost Reduction".*

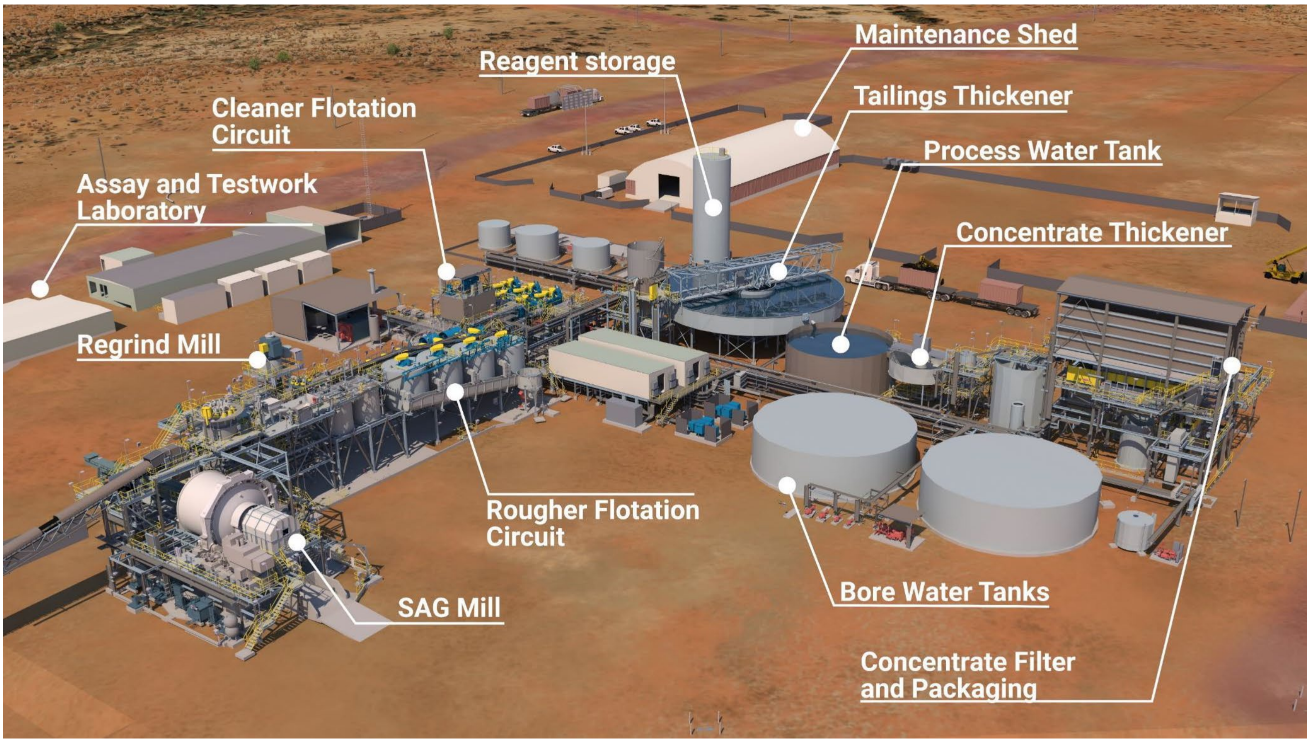

Figure 2: Current designed beneficiation plant for the Yangibana Project.

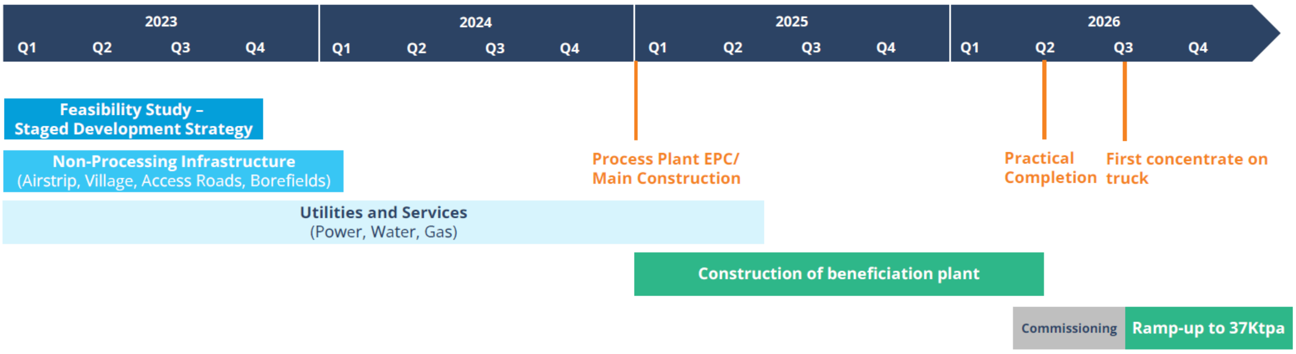

Figure 3: Planned timeline for the Yangibana Project from Q1 20230 to Q4 2026 (reference to ASX Announcement 31 May 2023 "Yangibana Project Update – Staged development strategy to reduce project delivery risk and enable further pathway to cash flow").

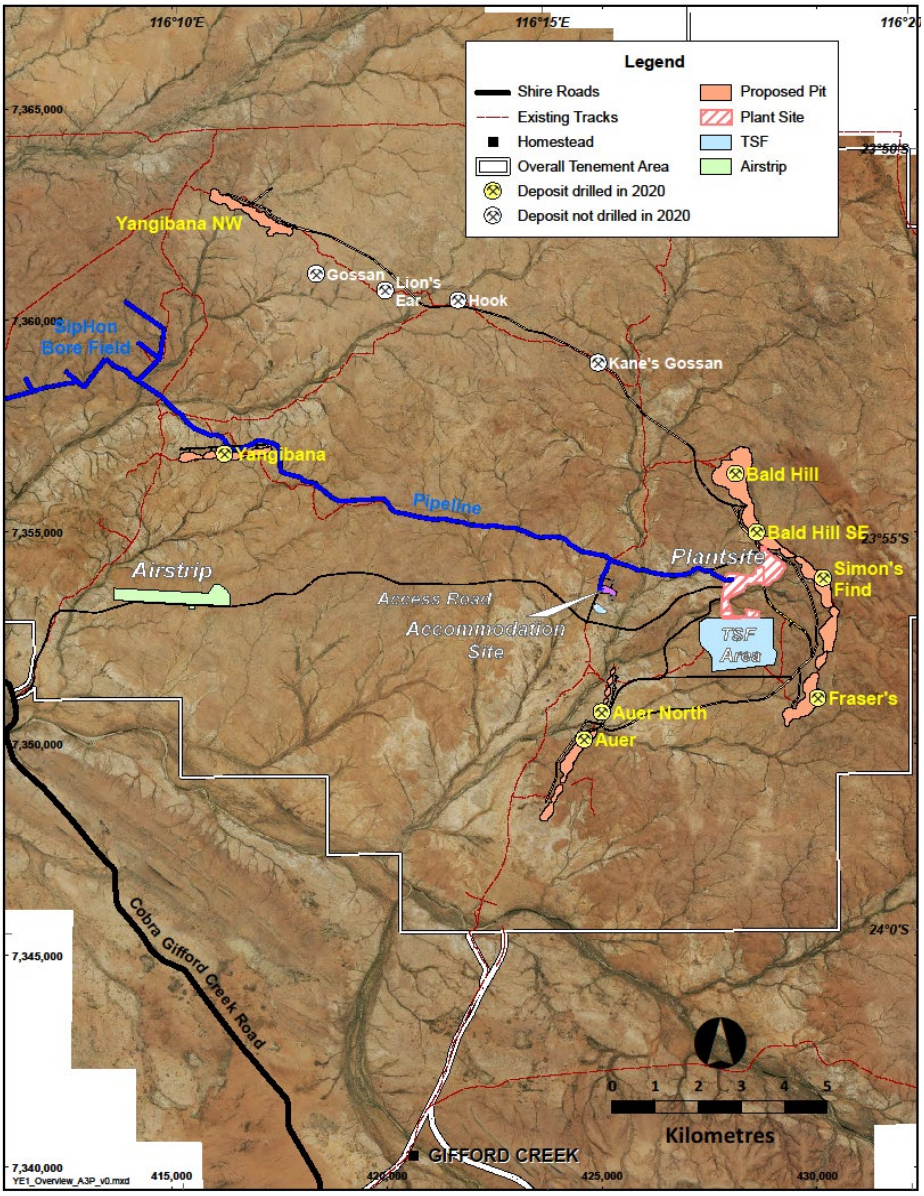

Figure 4: Map showing location of Yangibana deposits and planned site infrastructure.

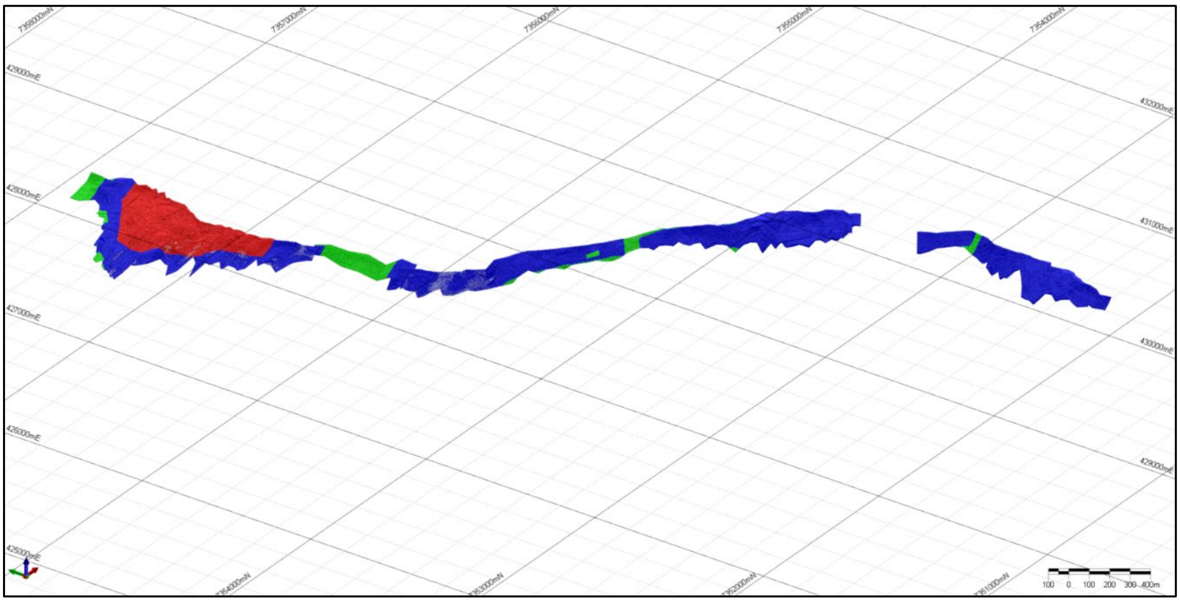

Figure 5: Oblique Bald Hill to Simon's Find Long Section (looking east) showing Resource Classifications originally from the 2022 TREO block model which underpins the MRE outlined in this announcement (Red = Measured Resource; Blue = Indicated Resource; Green = Inferred Resource).

Geology

The near surface mineralisation throughout the Yangibana Project is hosted by iron oxides and hydroxides termed ironstone, being the alteration products of the primary hosts ferro-carbonatite and phoscorite intrusive veins. The main rare earths-bearing mineral is monazite which has locally undergone alteration at shallow depths (to 25m depth) to its hydrous equivalent rhabdophane and to rare earths-bearing aluminium-phosphates such as florencite.

The deposits occur as narrow but strike extensive veins that have a range of dips from almost horizontal (10-20o) to sub-vertical. Average true thickness varies from 2.2m to 3.5m throughout the Yangibana deposits although locally true thicknesses in excess of 20m occur.

Drilling

Hastings completed an extensive drill program between November 2021 and February 2022 comprising 170 holes for 13,334m of reverse circulation (RC) drilling. The results from the program successfully extended known mineralisation down dip within the mineralised Bald Hill – Simon's Find – Fraser's trend as well as infilling near-surface portions which previously had insufficient drilling and were subsequently classified as Inferred Mineral Resources (>50m by 50m drill spacing). This drilling also improved the distribution of Niobium assays throughout the Bald Hill and Simon's Find deposits.

Drillholes were a mix of vertical and inclined (between 50-70 degrees) to optimise the mineralised zone intersection angle as close to true thickness as possible. Internal downhole surveys were carried out at 30m intervals downhole by the drilling contractors using a Reflex electronic multi-shot survey tool.

Collar surveys were carried out and collected by Survey Group using DGPS utilising a locally established control point. Accuracies of the drillhole collar locations collected by Survey Group is better than 0.1m.

Downhole density data was collected on a large suite of holes utilising a *Geovista* FDSB-4620 downhole density tool on a continuous basis giving 1cm data resolution.

RC holes were drilled using a nominal 5¼ inch diameter face-sampling bit. Samples were collected through a built-in cyclone with a triple-tier riffle-splitting system providing a large sample of approximately 25kg and a sub-sample of 2-4kg from each metre drilled, of which selected samples were sent for analysis, from each metre drilled. Field duplicates, blanks and Reference Standards were inserted at a rate of approximately 1 in 20.

Sampling

Samples were routinely sent to Intertek Genalysis in Perth for analysis using techniques considered appropriate for the style of mineralisation. Samples were analysed for the range of rare earths, rare metals (Nb, Ta, Zr, Hf), thorium and a range of common rock-forming elements (Al, Ca, Fe, Mg, Mn, P, S, Si, Sr).

Once assay data were returned, the elemental values were converted to oxides using standard factors.

Quality Control

In total, the quality control regime executed has provided reasonable support for the accuracy and precision of the assay results underpinning the Mineral Resource estimate. The vast majority of results for standards remain within the normal control limits of 2 standard deviations.

Bulk densities were completed previously by either the Company or at independent laboratories on core from each of the main deposits. Samples from each of the oxidised, partially oxidised, and fresh mineralisation zones were tested with results feeding into the Mineral Resource estimations based on weathering surfaces as defined by the Company.

During the 2020 and the more recent 2021-2022 drilling program 191 drill holes were downhole logged using a gamma – gamma density probe in order to provide additional bulk density values. The geophysically derived density values were compared to existing and new physically measured density values as well as to known geology (quartz veining in particular) and was found to be a reliable indication of in-situ bulk density. A review of the total bulk density dataset showed variations in density in line with the type of mineralisation that was encountered in the diamond drilling. The incorporation of a significant amount of downhole density data into the Mineral Resource estimate dataset has allowed for the derivation of density factors with respect to vertical depth for both mineralised and non-mineralised intervals. These have been used in the updated Mineral Resource estimate.

Interpretation of Geology

The mineralisation at Bald Hill and Simon's Find comprises a series of narrow, high grade TREO zones, associated with fenitised hanging and footwall country rock with strike extents up to several kilometres. Individual mineralised zones are 1 to 15m wide and extend down dip for at least 125m with dips varying from sub-horizontal to sub-vertical.

Confidence in the geological interpretation is good. The interpretation is based on drilling that ranges from a 25 m by 25 m spacing to 50 m by 50 m spacing. The interpretation also incorporates data gathered from surface mapping of exposures. The mapping has assisted in understanding the controls on mineralisation to improve the confidence in the geological interpretation. All available data from drilling and mapping is used in the geological interpretation. An iterative process has been adopted with respect to the geological interpretation to ensure that it reflects the current understanding of the geology and controls on mineralisation.

Each of the two deposits was assessed for grade and geological continuity and the mineralised wireframes were defined around a nominal 250ppm Niobium (**Nb**) value.

The drilling data was limited to selected assay intervals with several sections of the drilling unsampled in areas where no mineralisation was believed to exist. In some areas these wireframes were reasonably coincident with the previously estimated TREO wireframes however the correlations between the two were not universal with areas where the Nb wireframe were partially or wholly outside of the TREO wireframe. It is expected that, with additional metallurgical test work, these areas may be able to be included within the Niobium mineral resource estimate and therefore constitute a potential upside to the two deposits. Within the Mineral Resource estimate data set the unsampled zones within the drilling were replaced with zero values. In a limited number of instances, for geological consistency, the mineralised envelopes were carried through areas within drill holes that had not been sampled. In these cases, the minimum thickness of intercept was assumed to be 2m and, in common with the rest of the drilling, these intervals were assumed to be at zero grade.

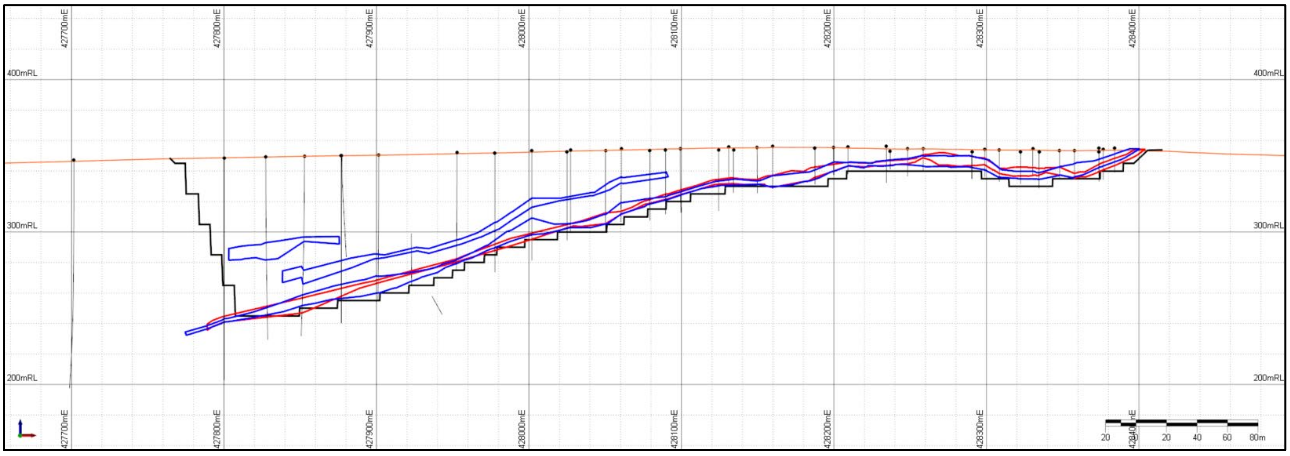

Figure 6: Bald Hill section, TREO wireframe in blue, Nb wireframe in red.

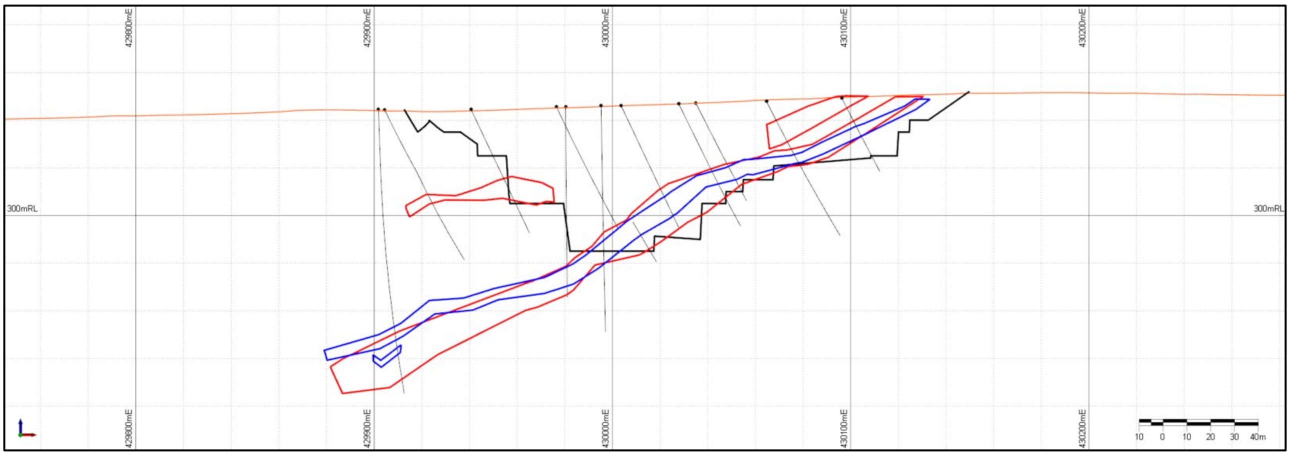

Figure 7: Simon's Find section, TREO wireframe in blue, Nb wireframe in red.

Cut-Off Grades

Wireframing of the two deposits was conducted using a Nb cut-off grade to improve the geological and grade consistency of the modelled wireframes. In this instance a Nb grade of approximately 250ppm was chosen for the wireframing value as this was considered to represent the transition between consistently mineralised and unmineralized material. In cases where a lower grade was adjacent to significantly higher grades, the lower grade interval was incorporated into the wireframe as these were constructed around the final 1m composites rather than the original selective sampling.

This process created a level of conservatism whereby lower grades of Nb were incorporated into the wireframe. Additional conservatism was added by only allowing the wireframes to be extrapolated down dip below the last drill hole, using the geological convention of 50% of the local drill hole spacing.

Following mine planning studies a reporting cut-off grade of 0.24% TREO has been defined. This value was initially based on a net smelter return (NSR) calculation using all the component elements making up the TREO value, with additional work allowing this to be simplified to a singular TREO value. The cut-off grade is based on Hastings' view on the individual prices for the various rare earth elements, individual processing recoveries and overall processing costs. As the recovery of Niobium is currently expected to be as a direct byproduct value the TREO cut-off grade has been retained for the reporting of Nb mineral resource grades. The Nb mineralisation has also been limited to the existing Ore Reserve pit designs to reflect its byproduct status. It should be noted that Nb mineralisation is present outside of the TREO wireframes which has the potential to add additional value to the project should additional metallurgical testing and process costing prove successful.

Sample Data

The population distributions for Nb for Bald Hill and Simon's Find show significant differences with the Bald Hill mineralisation being generally lower in tenor and biased very much towards the lower grades. In contrast Simon's Find mineralisation is significantly higher in grade with a much more pronounced high-grade tail. The mineralisation is also more consistent, potentially because of revised sampling protocols, providing for more infill assays.

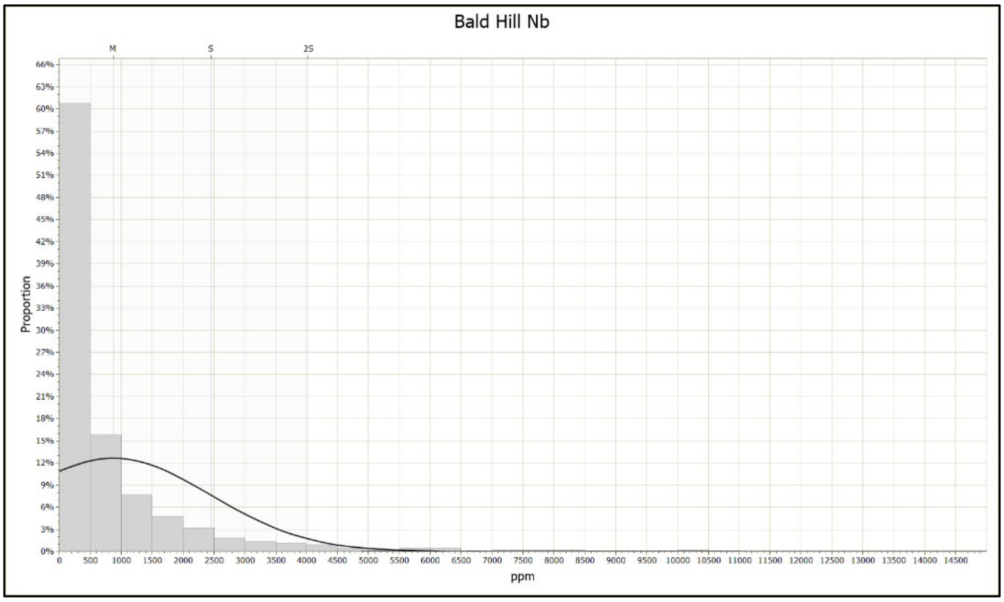

Figure 8: Distribution of Nb grades for the Bald Hill deposit.

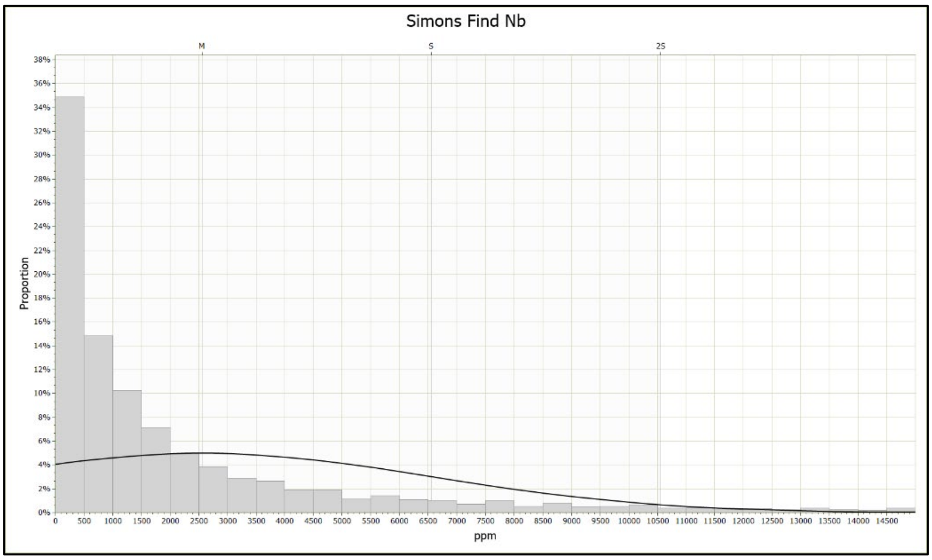

Figure 9: Distribution of Nb grades for Simon's Find deposit.

The coordinated dataset was intersected with the mineralisation wireframes with the resulting domain allocated data being used for the estimation. To limit the impact of extreme grades a top cut of 15,000ppm was applied. This resulted in a reduction in the mean value from 1,627 to 1,506ppm with 77 out of a total of 7,026 samples being cut; more importantly the coefficient of variation for the dataset was reduced from 2.23 down to 1.75 making the dataset more appropriate for an ordinary kriged (OK) estimate.

Table 2: Statistics for both un-cut and cut datasets.

	Un-cut Nb	Cut Nb
Minimum	0	0
Maximum	82,229	15,000
Mean	1,627	1,506
Median	487	487
Standard Deviation	3,624	2,643
Coefficient of Variation	2.227	1.754
Samples	5,823	5,823

Comparison with Previous Mineral Resource Estimate

The mineral resource estimate outlined in this announcement represents an initial mineral resource for both deposits and therefore no comparison to any previous estimate is presented.

Block Modelling Parameters – Bald Hill and Simon's Find Mineral Resources only

Due to the complexity and generally narrow nature of the mineralisation the Mineral Resource estimates were undertaken on 'flattened' block models following the allocation of block proportions from the updated mineralisation wireframes. This flattening process allowed for the use of Ordinary Kriging estimation techniques. One metre down hole compositing based on the assay data and wireframes was used to regularise the assayed intervals. Summary statistics for each deposit were used to identify the presence of outliers.

For each deposit, variograms of Nb were defined and used in the mineral resource estimate. In all instances the directional trends evident in the variogram maps are evident to some extent in plan views of the sample data, and they normally conform to the orientation of the mineralisation within the wireframes. As expected, variogram model ranges in the vertical direction are relatively short due to the predominantly thin nature of the mineralisation. The majority of variograms display reasonable structure, with anisotropies reflecting those observed in the variogram maps.

Variography was performed on the flattened dataset with the following results. Three component models were constructed with the nugget being 303,335, sill 1 150,000, Sill 2 1,023,264 and Sill 3 9,786,987 for a target total sill of 11,259,019.

Table 3: Variogram direction parameters.

Direction	1	2	3
0	22.2	62.4	963.8
90	10.0	45.0	1,664.0
0/-90	1.6	3.9	6.8

Table 4: A six-pass search process was employed to fully populate the block model; the search parameters are detailed.

Pass	Distance	Octants	Minimum Samples	Thickness
1	25	2	8	1
2	50	2	8	2
3	80	2	8	4
4	120	2	4	6
5	200	1	4	10
6	200	1	4	20

The mineral resources were created with the same original block size of 2m x 2m x 1m. This size was chosen as a compromise between the average drill spacing (up to 40m x 40m in some areas), size of the mineralisation wireframes (in order to limit resulting low mineralised proportions), orientation of mineralisation (ideally, the blocks would have been orientated with the mineralisation however this results in a model that is unusable for pit optimisation purposes), grade distribution within the mineralisation and the models' ultimate use for mine planning purposes. A re-blocked (to 4m x 4m x 2m) model was provided for mine planning purposes to reduce the overall size of the Mineral Resource models, this resulted in the addition of minor amounts of dilution being incorporated into these models. The reporting within this announcement is based on the re-blocked models to provide a more direct comparison to any future ore reserve estimates.

In order to confirm the impact of the cutting of the sample dataset both the cut and un-cut values were estimated in conjunction with a check, nearest neighbour estimate. Validation of the resulting model was undertaken both visually, by comparing the local block model grades and by completing swath plots of the model estimated grades and underlying samples. The various swath plots are shown in Figure 10 to 13.

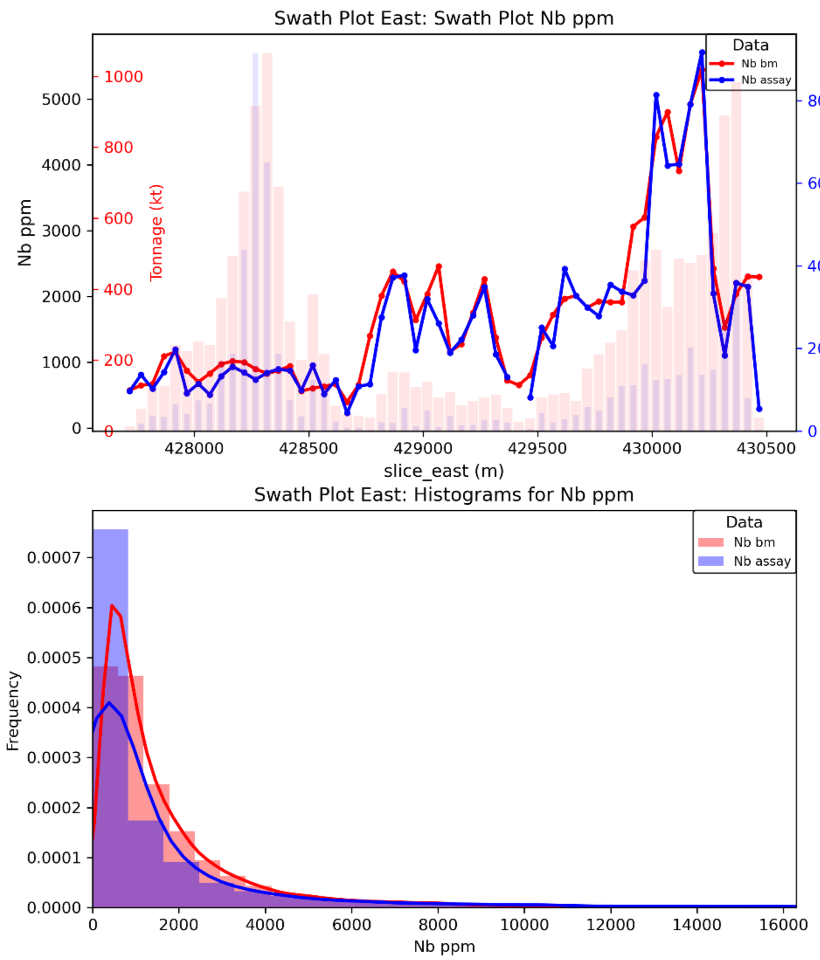

Figure 10: East Swath Plot.

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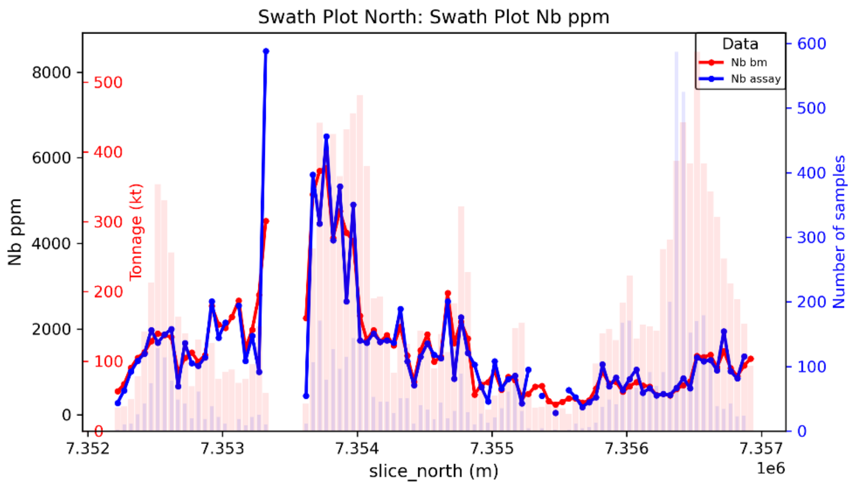

Figure 11: North Swath Plot.

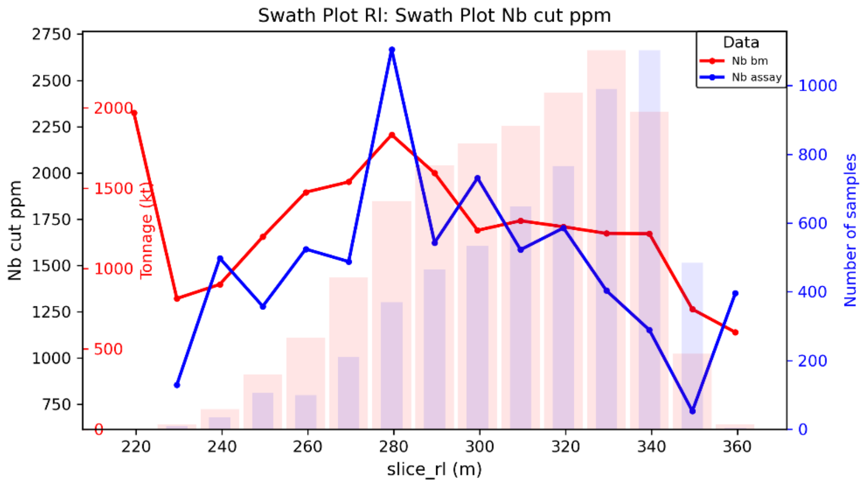

Figure 12: RL Swath Plot.

To detail the relationship between the cut, uncut and nearest neighbour estimates swath plots of the three values were completed with the north section plot presented.

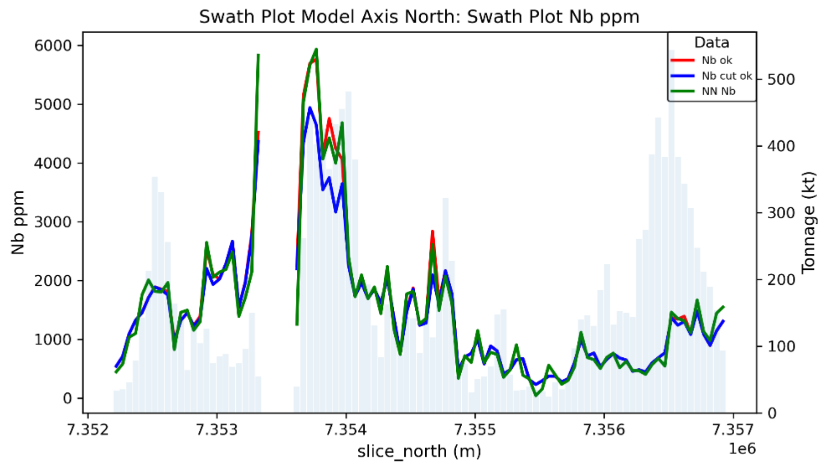

Figure 13: North Block Model Swath Plot.

The swath plot shown in Figure 13 indicates the areas where the extreme grades occur within the deposits, particularly at the southern end of the main, continuous Simon's Find – Bald Hill trend.

The Mineral Resources have been classified in the Measured, Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC) by the Competent Person. A range of criteria was considered in determining the classification including geological and grade continuity, data quality, drill hole spacing, and modelling technique and kriging output parameters.

As a rule, the following spacings characterise the Mineral Resource classification:

- Infill drilling between 20m by 20m and 35m by 35m – Measured Category
- Drill spacing up to 50m by 50m – Indicated Category
- Drill spacing 100m by 50m to 100m by 100m – Inferred Category.

Estimated (JORC 2012) Mineral Resources – by Deposit

The following tables represent those deposits that have been re-estimated and updated from the May 2021 Mineral Resource estimate. Numbers may not add up due to rounding and are reported at a 0.24% TREO cut-off grade within the Ore Reserve pit shell.

Table 5: Bald Hill Nb Estimated Mineral Resource, 100% Hastings Technical Metals Ltd.

Category	M Tonnes	Nb_2O_5 ppm	Nb_2O_5 t
Measured	2.37	1,035	2,451
Indicated	2.20	1,635	3,594
Inferred	0.007	735	6
TOTAL	**4.57**	**1,325**	**6,6051**

Table 6: Simon's Find Nb Mineral Resource, 100% Hastings Technology Metals Ltd.

Category	M Tonnes	Nb_2O_5 ppm	Nb_2O_5 t
Measured	-	-	-
Indicated	2.16	4,375	9,455
Inferred	0.006	2,290	14
TOTAL	**2.17**	**4,370**	**9,469**

Authorised by the Board for the release to the ASX.

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ABOUT HASTINGS TECHNOLOGY METALS LIMITED

Hastings Technology Metals Limited is a Perth-based rare earths company focused on the development of its 100% owned Yangibana Rare Earths Project. Located in the Gascoyne region of Western Australia, the Yangibana Project contains one of the most highly valued deposits of NdPr in the world with an NdPr to Total Rare Earth Oxide ratio of up to 52% in some areas of the orebody.

With an initial mine life of 17 years, the Yangibana Project will become a globally significant source of NdPr, a critical component in the manufacture of permanent magnets used in advanced technology products including electric vehicles, renewable energy, humanoid robotics, and digital devices.

The Yangibana Project is fully permitted for immediate development and is well-timed to meet the forecast supply gap for rare earth elements accelerated by the growth in electric vehicles and wind turbines, both vital for the global energy transition. It will be developed in two stages with an initial focus on the construction of the mine and beneficiation plant to produce 37,000 tonnes per annum of mixed rare earth concentrate.

Hastings continues to assess downstream processing opportunities including the development of a hydrometallurgical plant to capture more of the rare earth value chain. The Company holds a strategic 21.5% shareholding in TSX-listed Neo Performance Materials, a leading global rare earth processing and advanced permanent magnets producer, providing future optionality to explore the creation of a mine to magnet supply chain.

Hastings recognises in its geological model and mine plan the potential of a multi-commodity recovery process stream which underpins the economic recovery of REM and associated critical minerals like ferro-columbite, and hafnium-enriched zircon.

For more information, please visit www.hastingstechmetals.com

Competent Person Statements

The information in this announcement that relates to Mineral Resources is based on information compiled by David Princep. Mr Princep is an independent consultant to the Company and member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Princep has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this announcement and to the activity which he is undertaking 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' ("JORC Code"). Mr. Princep consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The scientific and technical information that relates to process metallurgy is based on information reviewed by Mr Scott Atkinson (Principal Metallurgist – Process Development). Scott Atkinson is an employee of the Company and a member of the Australasian Institute of Mining and Metallurgy (MAusIMM). He has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined by the JORC (2012) Code. Mr Scott Atkinson consents to the inclusion in this announcement of the matters based on their information in the form and context in which it appears.

The information that relates to Exploration Results is based on information reviewed and compiled by Louis Schürmann. Dr Schürmann is an employee of the Company and is a Fellow of the Australian

Institute of Mining and Metallurgy (FAusIMM). Dr Schürmann has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this report and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC (2012) Code. Dr Schürmann consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

TERMINOLOGY USED IN THIS REPORT

Total Rare Earths Oxides, TREO: is the sum of the oxides of the light rare earth elements lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd), and samarium (Sm) and the heavy rare earth elements europium (Eu), gadolinium (Gd), terbium (Tb), dysprosium (Dy), holmium (Ho), terbium (Er), thulium (Tm), ytterbium (Yb), lutetium (Lu), and yttrium (Y).

Critical Metals: Niobium (Nb_2O_5), Ferro-columbite ($FeNb_2O_6$), Zirconium ($ZrSiO_4$), Hafnium (HfO_2).

SCHEDULE 1: SUMMARY OF METALLURGICAL TESTWORK

Mineralogy Foundation

Mineralogy data obtained by Hastings demonstrates that niobium occurs primarily in ferrocolumbite at Simons Find. Deportment of niobium in the Simon's Find variability samples in ALS mineralogy report MIN4952, are as follows:

- 89.7% of the niobium present held by ferrocolumbite ($FeNb_2O_6$) with an average grade of 75.4% Nb_2O_5.
- 9.7% of the niobium present held by the mineral Ilmenorutile ($(Ti,Nb,Fe)O_2$) with an average grade of 30.7% Nb_2O_5.
- 0.6% of the niobium present is held by Nb rutile and rutile ($(Ti,Nb,Fe)O_2$) which has an average grade of 3.0% Nb_2O_5.

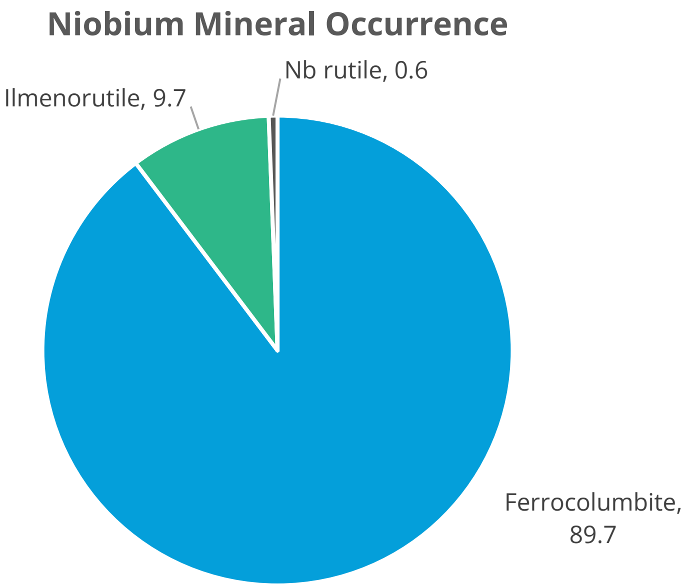

Figure 14: Diagram depicting Niobium occurrence in Ilmenorutile, Nb-rutile and ferrocolumbite.

At P80 of 90µm, the liberation data indicates:

- 48% of the Nb is classified as liberated, (>90% Nb mineral observed on particle).
- 21.4% of the Nb is classified as high-grade middling's, (60 to 90% Nb minerals observed on particle).
- 13.5% of the Nb is classified as low-grade middling's of Nb bearing minerals, (30 to 60% Nb minerals observed on particle).
- 17% of the Nb is classified as locked (<30% Nb minerals observed on particle).

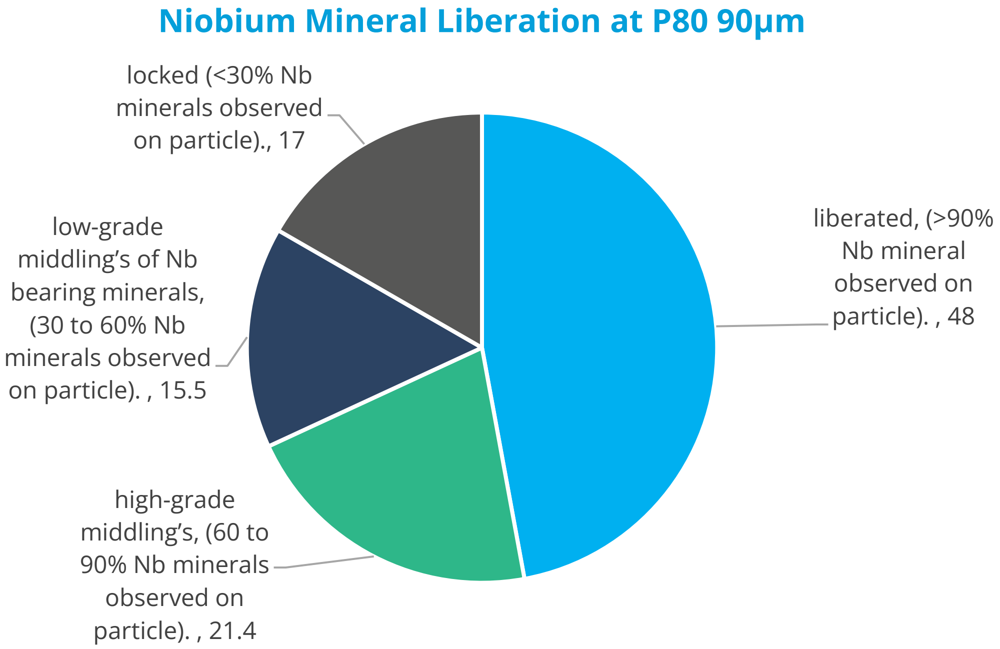

Figure 15: Diagram depicting Niobium Mineral liberation types at P_{80} of 90µm.

From the mineralogical data it is possible to infer that at particle size P80 90µm a theoretical concentrate grade of 48.0% Nb_2O_5 could be produced from the combined Niobium minerals in the Simon's Find samples detailed in MIN4952. It is reasonable to expect that a finer particle size, higher grade concentrate would be produced, and Hastings will be able to make a concentrate grading 50% Nb_2O_5 from this ore.

Niobium response in standard Yangibana monazite flotation flowsheet

Test work completed on Simon's Find samples containing >0.4% Nb_2O_5 demonstrate that ferrocolumbite reports to the flotation tailings using the standard Yangibana flotation flowsheet in 9 out of 14 variability flotation tests completed on samples with mineralogical data.

Table 7: Niobium recovery in variability samples with > 0.4% Nb_2O_5 using monazite flotation conditions.

	Samples with > 1% Nb_2O_5 in feed						
	SFRC085	**SFRC153**	**SFRC051**	**SFRC175**	**SFRC014**	**SFRC052**	**SFDD196**
Nb_2O_5 grade in feed (%)	2.0	1.8	1.5	1.5	1.3	1.2	1.8
Nb recovery to monazite flotation concentrate (%)	68.1	0.1	48.9	1.3	80.2	3.2	75.2
Nb recovery to monazite flotation tails (%)	31.9	99.9	51.1	98.7	19.8	96.8	24.8

	Samples with < 1% > 0.4% Nb_2O_5 in feed						
	SFRC030	SFRC048	SFRC139	SFRC040	SFRC177	SFRC152	SFRC074
Nb_2O_5 grade in feed (%)	0.9	0.9	0.7	0.7	0.4	0.5	0.4
Nb recovery to monazite flotation concentrate (%)	0.3	52.6	0.1	3.8	6.5	0.9	2.9
Nb recovery to monazite flotation tails (%)	99.7	47.4	99.9	96.2	93.5	99.1	97.1

The inconsistent recovery of ferrocolumbite indicate specific pulp chemistry conditions not currently understood and are available to either depress or activate ferrocolumbite under standard Yangibana flotation conditions. It is reasonable to expect that reagents and instruments will be available to facilitate either scenario. Ferrocolumbite reports to the monazite flotation tailings more frequently than the monazite flotation concentrate, so flowsheet development for the recovery of niobium from the rare earth flotation tailings stream should incorporate ferrocolumbite depressing conditions during monazite flotation.

Niobium Recovery Processing Strategy

Ore dressing:

Yangibana processing flowsheet modifications need to incorporate an ore dressing stage of the cyclone overflow stream prior to flotation. Implementing this unit process as the foundation of the Yangibana Conceptual Critical Mineral Flowsheet will exploit the high specific gravity (SG) of the valuable minerals contained in Yangibana ore. Monazite, zircon and columbite have an SG of ~4.5 and above. The separation efficiency and recovery of these species' is typically very high. The cheapest, most efficient, and most robust unit process to complete this duty will be selected, at this stage it is suggested it will be using spirals.

The mineral deportment based on SG is tabled below of the ore used in Hastings' 2018 pilot plant. Modelling simulating this material being processed using gravimetric separation techniques at the particle size of p80 90 microns indicate that up to 50% of the material that would otherwise report to the flotation circuit can be rejected with low losses of the high value minerals.

Table 8: Pilot plant 2018 ore feed mineral speciation based on SG.

Mineral type based on SG	SG cut	Mass %
Heavy	>4	34
Mid	>3<4	28

The gravimetric separation techniques being considered inherently have a desliming effect on material processed, so it is expected that costly reagent consumption in the subsequent monazite flotation circuit will be reduced, and ease of operability increased. It is noted that a ferrocolumbite depressant that does not negatively impact the recovery and concentration of rare earth in the monazite flotation circuit will need to be identified.

Magnetic separation on monazite flotation tails:

Ferrocolumbite and monazite are paramagnetic. Test work completed on rough flotation concentrates of monazite and ferrocolumbite demonstrate recovery and concentration of niobium from samples SFRC048 and SFRC051 using a wet high intensity magnetic separator at 1 tesla magnet intensity.

Table 9: Magnetic separation of niobium in Simon's Find samples.

PRODUCT	Mass	Nb_2O_5		Nd_2O_3	
	%	%	%dist	%	%dist
SFRC048 RC 1T Mags	11	8.8	84.5	2.96	60
SFRC048 RC 1T N-Mags	89	0.2	15.5	0.24	40
Calc'd Head	100	1.15	100	0.55	100
SFRC051 RC 1T Mags	30.8	8.7	82.8	1.19	47.1
SFRC051 RC 1T N-Mags	69.2	0.8	17.2	0.59	52.9
Calc'd Head	100	3.23	100	0.78	100

Flotation on the magnetic concentrate:

Sighter flotation tests indicate that flotation of the magnetic concentrates will be effective to further concentrate the ferrocolumbite to marketable grades. A sample generated from Simons Find drill core SFDD002 was tested with a metal specific collector in a series of diagnostic flotation tests using its magnetic concentrate stream at particle size p80 75 microns as the flotation feed in flotation diagnostic test 1.

Table 10: Flotation diagnostic test 1.

Product	Mass	Nb_2O_5		Fe_2O_3		SiO_2	
	(%)	(%)	dist	(%)	dist	(%)	dist
Rougher con	29	36.75	53%	37.66	26%	16.66	18%
Rougher tail	71	13.30	47%	44.21	74%	31.74	82%
Feed	100	20.19		42.29		27.31	

The Rougher con product from flotation diagnostic test 1 was used in flotation diagnostic test 2:

Table 11: Flotation diagnostic test 2.

Product	Mass	Nb_2O_5		Fe_2O_3		SiO_2	
	(%)	(%)	dist	(%)	dist	(%)	dist
Cleaner con	47	43.80	57%	34.72	44%	13.65	39%
Cleaner tail	53	30.39	43%	40.31	56%	19.38	61%
Feed	100	36.75		37.66		16.66	

Rougher tail product from flotation diagnostic test 1 was used in flotation diagnostic test 3:

Table 12: Flotation diagnostic test 3.

Product	Mass	Nb_2O_5		Fe_2O_3		SiO_2	
	(%)	(%)	dist	(%)	dist	(%)	dist
Scavenger con	32	27.54	66%	41.72	30%	21.00	21%
Scavenger tail	68	6.57	34%	45.39	70%	36.81	79%
Feed	100	13.30		44.21		31.74	

The metallurgical testing of samples from Simon's Find shows strong potential for producing a high-grade niobium concentrate. Ferrocolumbite, the primary niobium-bearing mineral, is readily liberated, and while challenges exist in recovering niobium from the monazite flotation tailings, proposed flowsheet modifications offer promising solutions. Further optimization and pilot plant testing are needed to confirm feasibility and economics, but initial results indicate Simons Find's potential as a significant niobium source.

JORC Code, 2012 Edition – Bald Hill and Simon's Find Nb Deposits

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	• Samples used to assess the numerous deposits of the Yangibana Project have been derived from both reverse circulation (RC) and diamond drilling. Fourteen drilling programmes have been completed to date with more than 2,500 holes drilled for >130,000m. • Samples from reverse circulation drilling were collected from each metre from a rig mounted cyclone and split using a 3-level riffle splitter from which 2-4kg samples were sent for analysis Field duplicates, blanks and Reference Standards were inserted at a rate of approximately 1 in 20. • Samples are prepared by drying, crushing, weighing splitting and pulverising the split samples to produce a representative sample for sodium peroxide fusion and ICP-MS, ICP-OES analysis. • Field duplicates, blanks and Reference Standards were inserted at a rate of approximately 1 in 20. • RC and diamond drilling leading to the establishment of JORC REE Mineral Resources has been carried out at Bald Hill and Simon's Find
Drilling **techniques**	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or	• Reverse Circulation drilling at the various targets utilised a nominal 5 ¼-inch diameter face-sampling hammer. • Diamond drilling at various targets has been NQ and HQ diameter.

Criteria	JORC Code explanation	Commentary
	other type, whether core is oriented and if so, by what method, etc.).	
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• Recoveries are recorded by the geologist in the field at the time of drilling/logging. • If poor sample recovery is encountered during drilling, the geologist and driller have endeavoured to rectify the problem to ensure maximum sample recovery. Visual assessment is made for moisture and contamination. An integrated cyclone and splitter system were used to ensure representative samples and were routinely cleaned. • Sample recoveries to date have generally been reasonable, and moisture in samples minimal. Insufficient data is available at present to determine if a relationship exists between recovery and grade. • Some holes returned low sample weights on some 1m samples within the significant intercept, this is thought most likely related to cavities within the rock mass.
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged.	• All drill chip samples are geologically logged at 1m intervals from surface to the bottom of each individual hole to a level that supports appropriate future Mineral Resource studies. • Logging (geological) is semi-quantitative given the nature of reverse circulation drill chips. • All RC and diamond drill holes were logged in full.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	• The RC drilling rig is equipped with an in-built cyclone and triple tier riffle splitting system, which provided one bulk sample of approximately 25kg, and a sub-sample of 2-4kg per metre drilled. • All samples were split using the system described above to maximise and maintain consistent representivity. Most samples were dry. For wet samples the cleanliness of the cyclone and splitter was constantly monitored by the geologist and maintained to avoid contamination. • Bulk samples were placed in green plastic bags, with the sub-samples collected placed in calico sample bags.

Criteria	JORC Code explanation	Commentary
	• Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• Field duplicates were collected directly from the splitter as drilling proceeded through a secondary sample chute. These duplicates were designed for lab checks as well as lab umpire analysis. • A sample size of 2-4kg was collected and considered appropriate and representative for the grain size and style of mineralisation. • Diamond core was cut in half using a diamond core saw, with half placed in a calico bag and dispatched to the assay laboratory.
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. • Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• Intertek Genalysis (Perth) was used for all analysis work carried out on the 1m drill chip samples and drill core. The laboratory techniques below are for all samples submitted to Genalysis and are considered appropriate for the style of mineralisation defined at the Yangibana REE Project: FP6/MS • Blind field duplicates of RC samples were collected at a rate of approximately 1 duplicate for every 40 samples that are to be submitted to Genalysis for laboratory analysis. Field duplicates were split directly from the splitter as drilling proceeded at the request of the supervising geologist.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• At least two company personnel verify all significant intersections. • All geological logging and sampling information is entered into OCRIS logging software in the field on a Surface Pro laptop computer and uploaded following QA/QC checks into a proprietary database managed by Expedio Services. Electronic copies of all information are backed up daily. • No adjustments of assay data are considered necessary.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine	• Final drillhole collars completed were collected by Survey Group Surveyors using DGPS utilising a locally established control point. Accuracies of the drillhole collar locations collected by Survey Group Surveyors is better than 0.1m.

Criteria	JORC Code explanation	Commentary
	workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control.	• Down hole surveys were conducted by the drill contractors using a gyro system. The instrument is not affected by magnetic lithologies. • Holes drilled in 2021-2022 were downhole surveyed by ABIM Solutions using a density probe, magnetic susceptibility probe and a natural gamma probe providing 10cm readings. • Grid system used is MGA 94 (Zone 50)
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	• Substantial areas of the Simon's Find and Bald Hill deposit have been infill drilled at a staggered 25m x 50m pattern, giving an effective 40m x 40 spacing. In general, and where allowed by the kriging parameters and data quality, this would allow portions of the deposit to be classified in the Measured category. Areas of 50m x 50m spacing are generally classified as Indicated, while zones with wider spacing or where blocks are extrapolated are generally classified as Inferred category. • No sample compositing of RC samples is used in this report, all results detailed are the product of 1m downhole sample intervals. DD holes were composited to 1m intervals to provide for equivalent samples.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• Most drill holes in the recent programme are angled and collared at -60° or -90° to appropriately intersect the mineralization.

Sample security	• The measures taken to ensure sample security.	• The chain of custody is managed by the project geologist who places calico sample bags in polyweave sacks. Up to 10 calico sample bags are placed in each sack. Each sack is clearly labelled with:
		  • Hastings Technology Metals Ltd
		  • Address of laboratory
		  • Sample range

Criteria	JORC Code explanation	Commentary
		• Samples were Transported by RM Transport from site to Perth and delivered Genalysis. • The freight provider delivers the samples directly to the laboratory. Detailed records are kept of all samples that are dispatched, including details of chain of custody.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• An audit of sampling has been completed following major drilling campaigns in 2020 and reviewed as part of the May 2021 Resource Update.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	• The updated resources are from the Hastings Technology Metals Ltd Yangibana REE Project. Simon's Find and Bald Hill Areas lie within M09/158, E09/2018, E09/1943, M09/157, and M09/162. These tenements are wholly owned by Yangibana Pty Ltd or Gascoyne Metals Pty Ltd, both wholly owned entities of Hastings Technology Metals Limited. • The tenements are in good standing and no known impediments exist.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• All RC and Diamond Drilling on the tenement has been undertaken by Hasting's Technology Metals. The discovery and delineation of Mineral Resources at Simon's Find and Bald Hill is entirely the result of work performed by Hastings Technology Metals.
Geology	• Deposit type, geological setting and style of mineralisation.	• Nb mineralisation at the Yangibana REE Project is hosted within carbonatites and associated phoscorite dykes emplaced within a variety of rock types but predominantly in granites. • Economic mineralisation is hosted within in the completely weathered and oxidised portions of the carbonatite-phoscorite rocks which occur as ironstones.

Criteria	JORC Code explanation	Commentary
		• The nature of weathering and oxidation means that all resources occur in the near surface. Transitional zones from completely weathered ironstones to primary carbonatite have rarely been intersected in drilling across the Yangibana REE Project as drilling has focused primarily on relatively shallow mineralisation.
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: ▪ easting and northing of the drill hole collar ▪ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ▪ dip and azimuth of the hole of down hole length and ▪ hole depth • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	• Not applicable as no exploration results are being announced.
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• Not applicable as no exploration results are being announced.
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results.	• True widths are generally estimated to be about 70% of the down-hole width.

Criteria	JORC Code explanation	Commentary
	• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional view.	• Not applicable as no exploration results are being announced. • Exploration results incorporated into the mineral resource estimates the subject of this announcement were previously reported to the ASX on the 25th of July 2022 titled 'Higher grades extend Bald Hill mineralisation beyond previous resource boundaries'
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.	• Not applicable as no exploration results are being announced.
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.	• Not applicable as no exploration results are being announced
Further work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Further work will include infill and step out drilling. This work will be designed to improve confidence in, and test potential extensions to the current mineral resource estimates and to provide necessary sample material for additional and ongoing metallurgical studies.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• Data was provided as a .csv data dump from an externally managed database and was digitally imported into Micromine Mining software. Micromine validation routines were run to confirm validity of all data. • Individual drill logs from site have been previously checked with the electronic database on a random basis to check for validity. • Analytical results have all been electronically merged to avoid any transcription errors.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• The Competent Person for the updated and re-estimated Mineral Resources has not yet visited the project area. The Mineral Resource estimate detailed in the announcement was undertaken as a confirmation of the Mineral Resource estimate used in the DFS and there was insufficient time to carry out a site visit. It is expected that a site visit will be undertaken in due course. • This site has been visited by various personas over the last 5 years including for ore reserves and due diligence audits
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• Confidence in the geological interpretation is high. • Detailed geological logging and surface mapping allows extrapolation of drill intersections between adjacent sections. • Alternative interpretations would result in similar tonnage and grade estimation techniques. • Geological boundaries are determined by the spatial locations of the various mineralised structures. • Continuous ironstone units comprising iron oxides and hydroxides, minor quartz rich zones, and locally carbonate and apatite host the rare earths mineralisation and are the key factors providing continuity of geology and grade. The mineralised zones may be described as visually distinctive anastomosing iron rich veins with excellent strike and down dip continuity.

Criteria	JORC Code explanation	Commentary
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• Bald Hill mineralisation dips shallowly (maximum 30º) but variably to the southwest and ranges from 1m to 10m thick. Maximum depth of the resource is to a vertical depth of 80 metres below surface. • Simon's Find mineralisation dips shallowly (variably between 30º and 40º) to the west and southwest and ranges from 2m to 11m thick. Maximum depth of the resource is to a vertical depth of 70 metres below surface.

Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.
	• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.
	• The assumptions made regarding recovery of by-products.
	• Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
	• Any assumptions behind modelling of selective mining units.
	• Any assumptions about correlation between variables.
	• Description of how the geological interpretation was used to control the resource estimates.
	• Discussion of basis for using or not using grade cutting or capping.
	• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.
		• The mineral Resources detailed in this announcement were estimated using Ordinary Kriging (OK) techniques.
		• The OK parameters used were a primary block size of 2m x 2m x 1m and an escalating search generally starting at 25m and increasing to 200m radius. Search directions were orientated to align with the main directions within the mineralised wireframes.
		• The block models and sample data were flattened in Micromine for the estimation run in order to remove the variable dips encountered in the mineralisation and preserve the local grade variability.
		• Drill hole spacing is variable, and the block sizes were chosen to reflect the best compromise between spacing and the necessity to define the geological detail of each deposit. In general, block sizes are 2 m along strike, 2m across strike and 1m vertically.
		• As a result of the mineralisation distribution within the wireframes and element populations a top cut of 15,000ppm was applied in order to limit the impact of extreme grades – this was particularly relevant to the Simon's Find deposit.
		• Following the initial estimation, the block model was re-blocked to a block size of 4m x 4m x 2m in order to limit the total size of the model for mine planning purposes. In order to maintain consistency with the mining model the re-blocked model has been reported in this announcement.
		  • Block model validation has been carried out by several methods, including:
		  • Drill Hole Plan and Section Review

Criteria	JORC Code explanation	Commentary
		• Model versus Data Statistics by Domain • Easting, Northing and RL swathe plots • All validation methods have produced acceptable results.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Tonnages are estimated on a dry basis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• A nominal downhole cut-off of 250ppm Nb has been used in conjunction with logging of ironstone to define mineralised intersections. • As Nb is currently considered to be a byproduct of existing mining a resource cut-off grade of 0.24% TREO within the Ore Reserve pit shell has been applied to reporting the mineral resource estimate. It is expected that, following metallurgical, processing and mine planning studies a separate cut-off grade for Nb will be able to be defined potentially increasing the mineral resource.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• Mining is assumed to be by conventional open pit mining methods • It is expected that conventional ore loss and dilution would be applied to the Mineral Resource estimate as a modifying factor during pit optimisation and mine planning work.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting	• The initial process flowsheet design was developed using a composite sample from the Bald Hill and Simon's Find deposits. A large composite created from RC drilling materials was used for this work. Drill core samples have also been collected for comminution testwork.

Criteria	JORC Code explanation	Commentary
	Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• Beneficiation testwork has shown that the Nb mineralisation (largely ferro-columbite) can be upgraded readily using standard metallurgical techniques and commercially available reagents to produce a saleable concentrate.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• Environmental studies have been carried out on site with Level 1 Flora and Fauna surveys and Level 2 Flora and Fauna surveys completed. No declared rare species or threatened ecological communities have been identified. • Subterranean fauna studies have located both troglofaunal and stygofauna with most species occurring both inside and outside of pit areas.
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• Bulk density/specific gravity have been measured at independent laboratories on core from Bald Hill, Bald Hill South, and Fraser's. Samples have been taken from each of oxidised, partially oxidised and fresh mineralisation with results feeding into the resource estimations. • Bulk density/specific gravity measurements have also been carried out at an independent laboratory on samples of oxidised, partially oxidised and fresh host rock, granite. In situ bulk densities for the individual deposits have ranged from 1.70 to 3.50 tonnes per cubic metre. • During the 2020 drilling some 55 drill holes were downhole logged for density using a gamma – gamma tool and in 2021-2022 121 holes were logged. The downhole gamma derived density values were validated against both logged geology and existing measured bulk densities and were found to be consistent. Data was logged at 1cm intervals and composited to 1m values and used to define bulk density factors for each of the deposits estimated. These factors were used to assign bulk density values by depth within the block models for both mineralised and un-mineralised intervals.

Criteria	JORC Code explanation	Commentary

Classification	• The basis for the classification of the Mineral Resources into varying confidence categories.
	• Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).
	• Whether the result appropriately reflects the Competent Person's view of the deposit.
		• The Mineral Resource has been classified in the Measured, Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). A range of criteria has been considered in determining this classification including:
		  • Geological and grade continuity
		  • Data quality.
		  • Drill hole spacing.
		  • Modelling technique and kriging output parameters.
		• The Competent Person is in agreement with this classification of the resource.
		• The classifications within the announced mineral resource estimate are based on those of the underlying, previously announced, REE estimate

Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• A review of previous Mineral Resource estimates has been completed as part of the DFS financing process and the updated Mineral Resource estimate incorporates feedback from the review. It is expected that the Mineral Resources outlined in this announcement will be similarly reviewed.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	• The relative accuracy of the various resource estimates is reflected in the JORC resource categories. • At the Measured and Indicated Resource classification level, the resources represent local estimates that can be used for further mining studies. • Inferred Resources are considered global in nature.

Criteria	JORC Code explanation	Commentary
	• These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	