25 February 2020

73% INCREASE IN SIMON'S FIND INDICATED MINERAL RESOURCES

- **Updated Ordinary Kriged (OK) Mineral Resource estimate has resulted in a material change to the Mineral Resource classifications of Simon's Find.**
- **Increase in Neodymium and Praseodymium Oxide (Nd_2O_3+Pr_6O_{11}) of 779 tonnes or 49% in the Indicated Mineral Resource Categories.**
- **Indicated Resource classification for Simon's Find increases by 330,000 tonnes or 73% to 784,000 tonnes.**
- **Increase in Total Rare Earths Oxide (TREO) of 1,522 tonnes or 52% to 4,428 tonnes in the Indicated Mineral Resource Categories.**

Introduction

The Directors of Hastings Technology Metals Limited (ASX: HAS) are pleased to announce a significant change to the Mineral Resource classifications for the Simon's Find deposit.

A Mineral Resource re-estimate for Simon's Find was instigated as part of a review of all Mineral Resources which commenced during 2019.

This resulted in a material change of the Mineral Resource Categories for the Indicated and Inferred portions. Indicated Resource tonnages increased by 73% with a corresponding decrease of 84% for the Inferred tonnages when compared to the Mineral Resource estimate announced in November 2018 (ASX announcement titled "INCREASE IN MEASURED AND INDICATED RESOURCES AT YANGIBANA PROJECT" 28 November 2018).

Total updated Mineral Resource now hosts approximately 5,178t of TREO and 2,719t of neodymium and praseodymium oxide.

Charles Lew, Hastings Executive Chairman, said *"this significant increase in Indicated Mineral Resources is a great result. We are confident that the increase in the Indicated Mineral Resource will lead to an expected increase in Ore Reserves and extend the mine life which underpins the project financing."*

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Summary of Mineral Resource Changes

The Simon's Find Mineral Resource as of February 2020 is shown in Table 1.

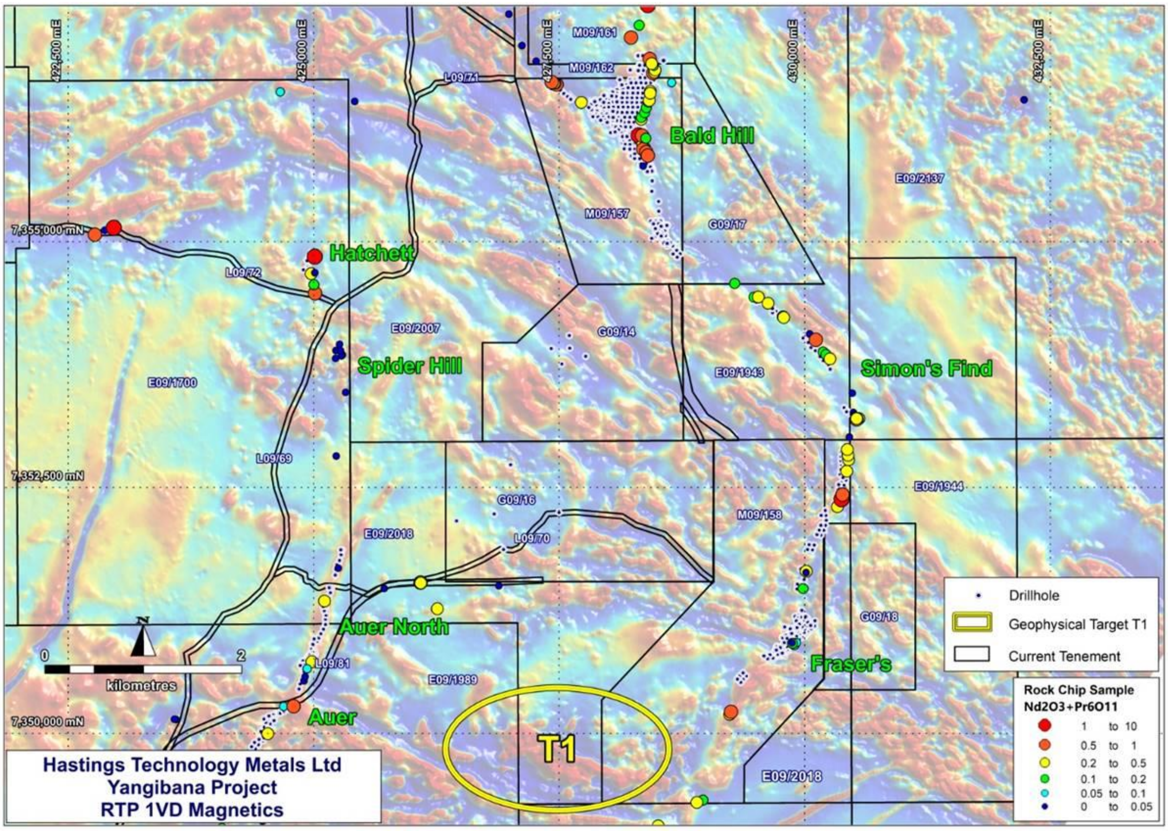
Reporting of the following Mineral Resource is at 0.2% Nd_2O_3+Pr_6O_{11} cut-off.

Table 1: Simon's Find JORC (2012) Mineral Resource February 2020

Category	*Tonnes (t)	%TREO	%Nd_2O_3+Pr_6O_{11}
Indicated	784,000	0.57	0.30
sub-total	***784,000***	***0.57***	***0.30***
Inferred	141,000	0.53	0.25
TOTAL	***925,000***	***0.56***	***0.29***

**numbers may not add up due to rounding.*

Figure 1 - Yangibana Project Layout Plan showing location of Simon's Find



Compared to the previously announced Mineral Resource in November 2018;

- Indicated Tonnes increased by 73% or 330kt
- Indicated Nd_2O_3+Pr_6O_{11} oxide tonnes increased by 49% or 779t
- Inferred Tonnes decreased by 84% or 714kt
- Indicated Nd_2O_3+Pr_6O_{11} grade decreased by 14% to 0.30% Nd_2O_3+Pr_6O_{11}
- Total Mineral Resource Tonnes decreased by 29% or 384kt
- Total TREO Grade decreased by 12% to 0.57% TREO

Total Project Mineral Resources following changes to Simon's Find, for all deposits, at 0.2% Nd_2O_3+Pr_6O_{11} now stand at

Table 2: Total JORC (2012) Mineral Resources February 2020

Category	M* Tonnes	%TREO	%Nd_2O_3+Pr_6O_{11}
Measured	4.15	1.15	0.43
Indicated	11.25	1.11	0.38
sub-total	**15.4**	***1.12***	***0.39***
Inferred	5.46	1.14	0.35
TOTAL	**20.86**	***1.12***	***0.38***

* denotes million

The work undertaken to re-estimate Simon's Find was completed by Gill Lane Consulting and incorporates all the information and data that was used in the previous Mineral Resource estimate announced on 22 November 2018. No new data was used in the re-estimation process.

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 dykes. The main rare earths-bearing mineral is monazite in association with subordinate bastnäsite and apatite and florencite.

The deposits occur as narrow but strike extensive dykes that have a range of dips from almost horizontal (10-20^o) 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 has completed multiple drilling programmes comprising both reverse circulation (RC) and diamond drilling totalling more than 1,500 holes for 80,000m. Of these, 127 holes for 7,485m are diamond holes. At the Simon's Find deposit Hastings has drilled 70 RC holes for 2,895m and 4 Diamond holes for 264m.

Holes at Simon's Find were drilled at 50m spacing along strike and down dip. Infill drilling in areas with Mineral Resource potential has been undertaken at 25m, or less spacing resulting in a staggered 25m x 50m drill pattern.

Most drillholes were angled at approximately -60^o to the east and north-east depending on the strike of the mineralisation. Drill holes were surveyed for dip and azimuth at the top and bottom of the hole by the drilling contractors using a Reflex electronic single-shot camera within a stainless-steel drill rod.

Collar surveys were carried out by the Company using a Trimble RTX R1 GNSS receiver, with accuracies of approximately 0.5m. The high-resolution Digital terrain Model commissioned by the Company has been used as the topographic control for all drillholes. A Relative Level (RL) was assigned to each drillhole collar based on the high-resolution DTM using Mapinfo Discover 3D.

RC holes have been drilled using a nominal 5¼ inch diameter face-sampling bit. Samples have been 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 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.

Diamond core has been drilled at HQ size. The core is logged, and prospective zones are sawn into half and one half is then quartered with one quarter sent for analysis. Assayed intervals are based on geology with a minimum length of 0.2m.

Sampling

RC 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 of which selected samples were sent for analysis, from each metre drilled. Field duplicates, and certified reference materials (Standards) and blanks were inserted at a rate of approximately 1 in 20 drilled samples.

Diamond Drill core is logged and marked for sampling. Prospective zones were sawn into half along the length of the drill core. One half was then further sawn in half. One quarter of the drill core is sent for analysis. Assayed intervals are based on geology with a minimum length of 0.2m.

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), thorium and uranium and a range of common rock-forming elements (Al, Ca, Fe, Mg, Mn, P, S, Si, Sr). Sample pulps from Intertek-Genalysis were selected at a rate of 1 in 20 and sent to SGS Laboratories for umpire laboratory analysis.

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. One standard GRE-01 that failed 11 out of the 50 certifying analyses suggested either an issue with the standard itself or that one of the certifying analytical methods was inappropriate for the material.

Bulk density has been completed 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 have been tested with results feeding into the Mineral Resource estimations based on weathering surfaces as defined by the Company.

A review of the bulk densities showed variations in density in line with the type of mineralisation that was encountered in the diamond drilling.

Interpretation of Geology - Wireframing

Simon's Find was assessed for grade and geological continuity and the mineralised wireframes were defined around a combination of TREO grades and, where TREO grades were low and mineralisation continuity was believed to exist, Fe grades were used as a substitution for mineralisation.

The drilling data was limited to selected assay intervals with large sections of the drilling unsampled in areas where no mineralisation was believed to exist. Within the Mineral Resource estimation 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.

In a limited number of cases where the assay values did not meet the TREO cut-off grade criteria for wireframing assessment of the mineralisation was undertaken using elevated Fe values. This was done to enable a consistent mineralised envelope with the low TREO (and other element) values incorporated. In general, these areas are of limited extent.

Cut-Off Grades

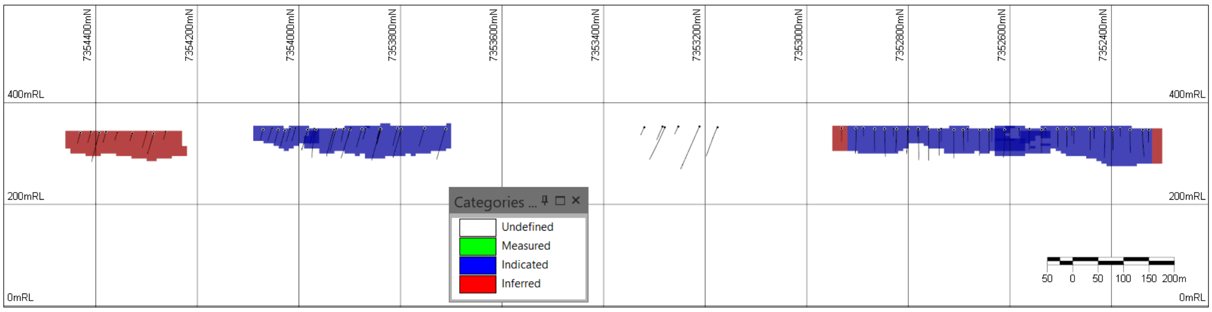
Following the review of the original Yangibana Mineral Resource estimates, based on an elevated Nd_2O_3+Pr_6O_{11} 0.2% cut off, a decision was taken to re-wireframe all of the deposits that contained Ore Reserves using a TREO cut-off grade in order to improve the geological and grade consistency of the modelled wireframes. This work was announced on the 31 October 2019 (13% Increase in Measured and Indicated Mineral Resources). Simon's Find has now been included into the deposits forming this announcement.

In this instance a TREO grade of approximately 0.18% was chosen for the wireframing value as this was considered to represent the transition between consistently mineralised and non-mineralised 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 Nd_2O_3+Pr_6O_{11} were incorporated into the wireframe than was previously the case and this is reflected in the overall reduction in Mineral Resource grades with a consequential increase in tonnage. 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. The effect of this can be seen in Figure 2.

This interpretation differed from the previous Mineral Resource estimate which was undertaken using a sectional methodology combining logged geology and a nominal 0.2% Nd_2O_3+Pr_6O_{11} cut-off to define the mineralisation envelope with extrapolation of mineralisation down dip.

Figure 2: Wireframing results of the Simon Find Deposit, with outline of 2018 limits



Block Modelling Parameters

Due the limited number of data points available within the wireframes a Multi Indicator Kriged (MIK) estimate could not be completed and a conventional OK estimate was undertaken. The block model was constructed in a similar manner to those of the other deposits within the Yangibana project in that the Mineral Resource is based on mineralised proportions within larger (10m x 10m x 5m) blocks. One metre down hole compositing based on the assay data was used to regularise the assayed intervals. Summary statistics for each deposit were used to identify the presence of outliers. Due to the benign nature of the grade population within the mineralised areas only a single value was capped within the dataset used for the estimate.

Variograms of the primary elements 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.

Mineral Resources were created with a panel size of 10m x 10m x 5m. This size was chosen as a compromise between the average drill spacing (generally 25m x 50m in most areas), size of the mineralisation wireframes (in order to limit resulting low mineralised proportions), orientation of mineralisation (ideally the panels would have been orientated with the mineralisation however this results in a model that is unusable for pit optimisation purposes) and the models' ultimate use for mine planning.

The Mineral Resources have been classified in the 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 has been considered in determining the classification including geological and grade continuity, data quality, drill hole spacing, and modelling technique and kriging output parameters.

As a general rule, the following spacings characterise the Mineral Resource classification.

- Drill spacing up to 50m by 50m – Indicated Category
- Drill spacing 100m by 50m to 100m by 100m – Inferred Category

It should be noted that the estimation classifications were modified to account for the limited bulk density and downhole survey information available for the deposit with the highest category being limited to Indicated.

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 is a member of the Australasian Institute of Mining and Metallurgy (AusIMM). 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 they are 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").

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), erbium (Er), thulium (Tm), ytterbium (Yb), lutetium (Lu), and yttrium (Y).

About Hastings Technology Metals Limited

Yangibana Project

Hastings Technology Metals Limited (ASX:HAS, Hastings or the Company) is advancing its Yangibana Rare Earths Project in the Upper Gascoyne Region of Western Australia towards production. The proposed beneficiation and hydro metallurgy processing plant will treat rare earths deposits, predominantly monazite, hosting high neodymium and praseodymium contents to produce a mixed rare earths carbonate that will be further refined into individual rare earth oxides at processing plants overseas.

Neodymium and praseodymium are vital components in the manufacture of permanent magnets which is used in a wide and expanding range of advanced and high-tech products including electric vehicles, wind turbines, robotics, medical applications and others. Hastings aims to become the next significant producer of neodymium and praseodymium outside of China.

Hastings holds 100% interest in the most significant deposits within the overall project, and 70% interest in additional deposits that will be developed at a later date, all held under Mining Leases. Numerous prospects have been identified warranting detailed exploration to further extend the life of the project.

Brockman Project

The Brockman deposit, near Halls Creek in Western Australia, contains JORC Indicated and Inferred Mineral Resources, estimated using the guidelines of JORC Code (2012 Edition).

The Company is also progressing a Mining Lease application over the Brockman Rare Earths and Rare Metals Project.

Hastings aims to capitalise on the strong demand for critical rare earths created by the expanding demand for new technology products.

For further information on the Company and its projects visit www.hastingstechmetals.com

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JORC Code, 2012 Edition – Yangibana project deposits 2019

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 Simon's Find deposit of the Yangibana Project have been derived from reverse circulation (RC) and diamond drilling. • 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. Diamond Drill core is logged and marked for sampling. Prospective zones are sawn into half along the length of the drill core. One half is then further sawn in half. One quarter of the drill core is sent for analysis. Assayed intervals are based on geology with a minimum length of 0.2m. 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.
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 other type, whether core is oriented and if so, by what method, etc.).	• 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.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	• Recoveries are recorded by the geologist in the field at the time of drilling/logging.

Criteria	JORC Code explanation	Commentary
	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.	• 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. A cyclone and splitter 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.
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 is considered to be semi-quantitative given the nature of reverse circulation drill chips. • All RC drill holes in the previous programme were logged in full. • Diamond drill core is marked up using the drillers reported measurements of each coring run. Lengths of core are measured and compared to reported and where any loss has occurred. Recoveries are calculated as a percentage of the drilled interval.
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. 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.	• 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. • 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.

Criteria	JORC Code explanation	Commentary
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.	• Genalysis (Perth) was used for all analysis work carried out on the 1m drill chip samples and the rock chip samples. 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 were collected at a rate of approximately 1 duplicate for every 20 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 completed firstly on to paper logs before being transferred to Microsoft Excel spreadsheets and subsequently a Microsoft Access database. Physical logs and sampling data are returned to the Hastings head office for scanning and storage. 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 workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.	• Final drillhole collars completed during 2014 were collected by MHR Surveyors using DGPS utilising a locally established control point. Accuracies of the drillhole collar locations collected by MHR Surveyors is better than 0.1m. Drillhole collar positions from 2015 onwards were collected using a Trimble RTX R1 GNSS receiver, with accuracy of approximately 50cm. • Elevation data was recorded by both MHR Surveyors and the Trimble receiver, but the topographic control for all drillholes is based on the high-resolution DTM undertaken by the Company, with Relative Level (RL) assigned to each borehole based on the DTM using Mapinfo Discover 3D. • Down hole surveys are conducted by the drill contractors using a Reflex electronic single-shot camera with readings for dip and magnetic azimuth nominally taken at the top and bottom of drill holes. The instrument is positioned within a stainless steel drill rod so as not to affect the magnetic azimuth.

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Criteria	JORC Code explanation	Commentary
		• 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 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 in order 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 -70° in order to appropriately intersect the mineralization. Orientation is towards the east for the southernmost area within the Mineral Resource and towards to northeast in the remaining two areas.
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 • Samples were delivered by Hastings personnel to the Nexus Logistics base in order to be loaded on the next available truck for delivery to 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 is in the final stages of completion. Additional umpire sampling is underway. A new source of standards is being used to cross-check data from existing standards and assayed

Criteria	JORC Code explanation	Commentary
		samples that were acquired in the drilling programs comprising the resource.

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.	• Drilling has been undertaken on numerous tenements within the Yangibana Project. • All Yangibana tenements are in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	• Ten of the Yangibana prospects were previously drilled to a limited extent by Hurlston Pty Limited in joint venture with Challenger Pty Limited in the late 1980s. Auer and Auer North were first drilled by Hastings in 2016.
Geology	Deposit type, geological setting and style of mineralisation.	• The Yangibana ironstones within the Yangibana Project are part of an extensive REE-mineralised system associated with the Gifford Creek Carbonatite Complex. The lenses have a total strike length of at least 12km. • These ironstone lenses have been explored previously for base metals, manganese, uranium, diamonds and rare earths. • The ironstones are considered by GSWA to be coeval with the numerous carbonatite sills that occur within Hastings tenements, or at least part of the same magmatic/hydrothermal system.
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 down hole length and interception depth hole length.	• Not applicable as no exploration results are being announced

Criteria	JORC Code explanation	Commentary
	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.	
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. 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').	• Not applicable as no exploration results are being announced
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 views.	• Appropriate maps and sections are available in the body of this ASX announcement.
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 to avoid misleading reporting of Exploration Results.	• Not applicable as no exploration results are being announced

Criteria	JORC Code explanation	Commentary
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.	• Geological mapping has continued in the vicinity of the drilling as the programme proceeds.
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.	• Numerous targets exist for expansion of the current JORC Mineral Resources within the Yangibana Project, as extensions to defined deposits, new targets identified from the Company's various remote sensing surveys, and conceptual as yet untested targets at depth.

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 validated Access 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 Resource 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. Mr Lyn Widenbar who completed the Mineral Resources that were not updated was the Competent Person who visited site from 15-16th December 2016 and reviewed geology, drilling etc.
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 considered to be 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.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and	• Simon's Find mineralisation dips shallowly (variably between 30° and 40°) to the west and southwest and ranges from 2m to 11m thick.

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	depth below surface to the upper and lower limits of the Mineral Resource.	Maximum depth of the resource is to a vertical depth of 70 metres below surface. • The deposit has a total strike length of 2,500m of which 1,500m has currently been identified as mineralised.
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 (eg 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.	• As the Mineral Resource estimate was initiated as a check on the previous ordinary kriged (OK) estimate. Due to the limited number of data points available the same technique was used to re-estimate the deposit. • The OK parameters used were a primary block size of 10m x 10m x 5m and an escalating search starting at 40m and increasing to 80m radius. Search directions were orientated to align with the main directions within the mineralised wireframes. • Data analysis was conducted in order to derive element correlations to enable a reduction in the number of variogrammes required within the estimation process. • In general, variography was performed on TREO_% and Nd2O3+ Pr6O11%. • Estimation has been carried out for the following variables : CeO2_ppm, Dy2O3_ppm, Er2O3_ppm, Eu2O3_ppm, Gd2O3_ppm, Ho2O3_ppm, La2O3_ppm, Lu2O3_ppm, Nd2O3_ppm, Pr6O11_ppm, Sm2O3_ppm, Tb4O7_ppm, Tm2O3_ppm, Y2O3_ppm, Yb2O3_ppm, ThO2_ppm, U3O8_ppm, LREO_ppm, HREO_ppm,TREO_% and Nd2O3+Pr6O11_% and the following additional elements Al, Ca, Fe, Mg, Nb, P, S, Si, Sr, Ta, Zr and Mn. • 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 10 m along strike, 10m across strike and 5m vertically. • Due to the benign grade distribution grade capping was applied to a single value in the dataset used for the estimate. • Block model validation has been carried out by several methods, including: • Drill Hole Plan and Section Review

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		• Model versus Data Statistics by Domain • Easting, Northing and RL swathe plots • All validation methods have produced acceptable results. • Differences that exist between the estimate reported in this document and that of the previous mineral resource estimate are solely based on the different approach taken to wireframing the deposit. When this larger and more diluted approach is taken into account it can be taken that the previous estimates substantially validate the updated Mineral Resource estimate given that there is no change in the underlying data.
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 0.18% TREO has been used in conjunction with logging of ironstone to define mineralised intersections. This is a departure from the previous estimate and negates the need to add an encompassing dilution skin to the previous OK estimates. For reporting purposes, a 0.2% Nd_2O_3+Pr_6O_{11} cut-off has been applied. For mining studies it is likely that an NSR cut-off will be defined.
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	• Beneficiation and hydrometallurgical testwork has been carried out on samples from the Eastern Belt (comprising Bald Hill, Bald Hill Southeast, Fraser's, Auer and Auer North deposits) and from Yangibana West and Yangibana North with very encouraging

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	consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting 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.	results. A bulk sample (12 tonnes) combining RC samples from Hastings' 2015 drilling at Bald Hill, Bald Hill Southeast and Fraser's was prepared as the Eastern Belt Master Composite (EBMC) that represents mineralisation that Hastings believes will be mined over the first 4-5 years of any operation. In 2016, Hastings undertook infill drilling at Bald Hill, Bald Hill Southeast and Fraser's deposits in order to produce a bulk (17 tonnes) sample for pilot plant testing. • Test work to date has shown that the rare earths mineralisation (largely monazite) can be upgraded readily using standard froth flotation techniques and readily available reagents. Tests are ongoing to decrease the apatite, carbonate and iron content of these concentrates as these can affect hydrometallurgical recoveries. A second composite sample from Bald Hill, Bald Hill Southeast and Fraser's has been collected during 2018 and is being utilised for further pilot plant-level testwork.
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 Stage 1 Flora and Fauna surveys and Stage 2 Flora and Fauna surveys completed. No environmental issues have been identified. • Subterranean fauna studies have located both troglofaunal and stygofauna but no unique or endangered species have been encountered.
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	• Bulk density/specific gravity have been measured by the Company on core from Yangibana North, and at independent laboratories on core from Bald Hill, Bald Hill South, Fraser's, Yangibana, Auer, Auer North, Yangibana West and Simon's Find. Samples have been taken from each of oxidised, partially oxidised and fresh mineralisation with results feeding into the resource estimations.

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	(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 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 2.30 to 2.80 tonnes per cubic metre and have been assigned into the models based on weathering surfaces and assigned rock types.
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 resource classification applied to the Simon's Find deposit has been downgraded due to the limited amount of bulk density and downhole survey information available.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	• A review of both the updated and 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.
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	• 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.

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	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. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	