Hastings Technology Metals Limited

ABN 43 122 911 399

ASX Code: Shares - HAS

Address:

Level 8, Westralia Plaza 167 St Georges Terrace Perth WA 6000

PO Box 6 Westralia Plaza 167 St Georges Terrace Perth WA 6000

info@hastingstechmetals.com

#### Board

Charles Lew (Executive Chairman)

Guy Robertson (Finance Director)

Jean Claude Steinmetz (Non-Exec Director)

Neil Hackett (Non-Exec Director and Company Secretary)

Mal Randall (Non-Exec Director)

www.hastingstechmetals.com

# DRILLING EXTENDS KNOWN MINERALISATION AT YANGIBANA

- Recent drilling along the Auer and Yangibana mineralised trends confirms that mineralisation remains open along strike and at depth beyond the current resource.
- Significant new results from Auer including;
  - 16 metres @ 1.94% TREO including 0.68%  $Nd_2O_3$ + $Pr_6O_{11}$  and
  - 15 metres @ 1.35% TREO including 0.53% Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub>
- Significant new results from Yangibana including;
  - 3 metres @ 1.28% TREO including 0.64% Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub> and
  - 7 metres @ 0.8% TREO including 0.37% Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub>
- Potential to increase Mineral Resources is clearly demonstrated as mineralised extensions outside of the existing (2,000-metre long) Yangibana Pit total more than 1,070 metres in both the easterly and westerly directions.
- Encouraging drill results hasten the Company's plan to increase its exploration expenditure for the remaining of the 2020 calendar year.

#### Introduction

٠

Hastings Technology Metals Limited (ASX: HAS) ("Hastings" or "the Company") is pleased to announce results from the 2019 Environmental drilling program implemented to study Stygofauna populations.

The drilling program was designed to facilitate environmental surveys of subterranean invertebrate fauna. Several of the holes inside and outside of defined resource areas intersected mineralised ironstone intervals which were sampled and assayed for Rare Earths.

A program of 80 vertical reverse-circulation (RC) drill holes total was completed at Auer-Auer North (37 holes), and Yangibana (43 holes) Prospects (Figures 1 - 4).

COO, Andrew Reid commented: "Whilst not designed to test mineralisation, this Stygofauna drilling program has produced positive results confirming that further increases in the Mineral Resource is possible by drilling nearsurface adjacent to existing open pits. Further drilling is warranted and planned during Q2 and Q3 2020" Several of the holes were drilled within defined mineral resource boundaries and some holes intersected the mineralised structure. Intervals of ironstone up to 16 metres in thickness were intersected in drill holes at Auer, that drilled down-dip on the mineralised sub-vertical ironstone, which is the completely oxidised portion of a carbonatite-phoscorite dyke.

	Ir	nterval (0.1	L% Nd₂O₃+P Width	Pr <sub>6</sub> O <sub>11</sub> Lower	Cut-off)	
Hole-ID	From	То	(m)	TREO %	NdPr Oxide%	NdPr%:TREO%
AURC224	25	26	1	0.52%	0.14%	28%
AURC224	28	32	4	0.78%	0.22%	28%
AURC228	4	5	1	0.29%	0.10%	34%
AURC228	7	9	2	0.47%	0.13%	28%
AURC229	25	32	7	1.13%	0.41%	37%
AURC234	21	28	7	0.79%	0.23%	29%
AURC235	44	59	15	1.35%	0.53%	39%
AURC238	12	19	7	0.60%	0.22%	36%
AURC242	26	40	14	1.06%	0.39%	37%
AURC249	1	7	6	0.89%	0.14%	16%
AURC251	15	31	16	1.94%	0.68%	35%
YARC124	9	12	3	1.28%	0.64%	50%
YARC125	25	29	4	0.62%	0.30%	48%
YARC128	19	26	7	0.67%	0.33%	50%
YARC138	68	70	2	0.88%	0.43%	48%
YARC157	22	23	1	0.92%	0.42%	46%
YARC158	24	26	2	0.74%	0.30%	40%
YARC160	25	32	7	0.80%	0.37%	47%
YARC161	16	18	2	0.78%	0.37%	47%
YARC161	33	37	4	0.46%	0.21%	45%
YARC162	11	12	1	0.31%	0.13%	43%
YARC162	19	20	1	0.63%	0.27%	42%
YARC163	35	38	3	0.36%	0.16%	46%
YARC165	31	33	2	0.52%	0.24%	47%

Table 1. Significant Intersections from November 2019 drilling program.	Table 1.	Significant	Intersections fro	om November	2019 drillin	g program.
---	----------	-------------	-------------------	-------------	--------------	------------

Drilling along strike beyond the limits of previous drilling at Yangibana also returned promising intersections of mineralised ironstone. Drilling at the western end of the Yangibana ironstone has demonstrated continuity of the mineralised zone over an additional 470 metres westwards from the limits of existing drilling (see Figure 1.)

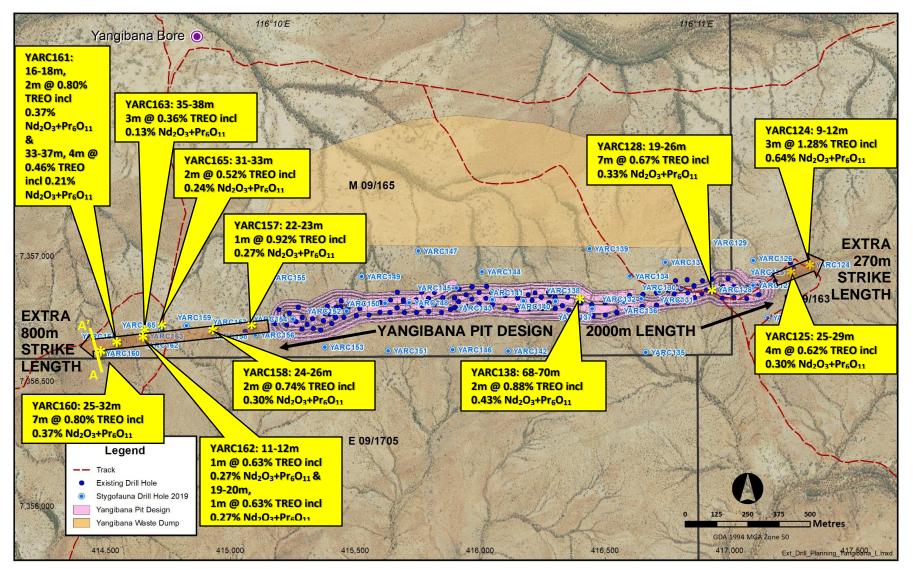


Figure 1: Yangibana Deposit Drilling Plan with recent drilling intersections. Drill section location marked by line A-A' shown in Figure 2. The current Yangibana Pit Design encompasses a pit shell approximately 2000-metres long. Drill holes from the recent drilling program intersected mineralised ironstones over an additional 1,070 metres of strike (800m west, and 270m east of defined Open Pit). Outcropping mineralised ironstones continue beyond the limits of the recent drilling program.

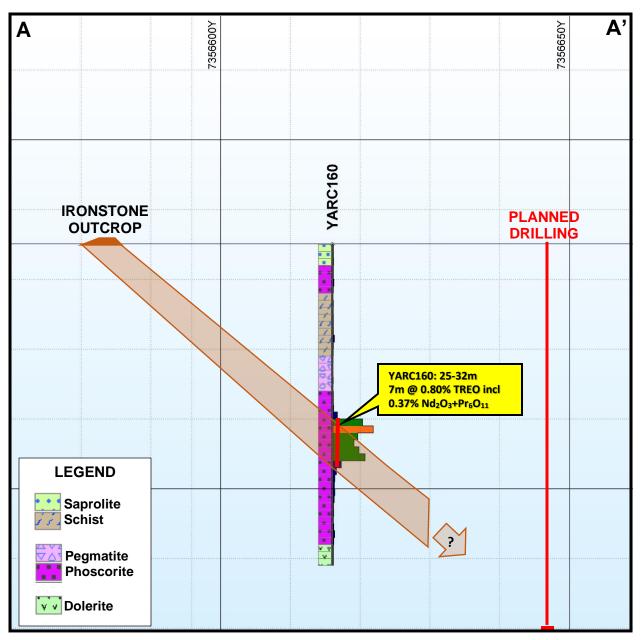


Figure 2: YARC160 Cross Section A-A' (Fig. 1). Interval of 7m @ 0.80% TREO including 0.37% Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub> Additional drill holes (example illustrated) are planned to be completed in a forthcoming drilling program to fully test and firm up additional resources in the area.

The mineralised dyke at Yangibana (see Figure 2.) dips more gently than at Auer, (approximately 40° north), resulting in a more optimal intersection of the vertical drill holes (a requirement for the Environmental surveys) with the mineralised zone. Drill holes at Yangibana therefore provide a closer approximation to the true thickness of the mineralised zones than at Auer (Figure 4).

Furthermore, field reconnaissance and geological mapping shows that the zone of mineralised ironstone outcrops continues for an additional 1.2 kilometres in a westerly to southerly arcuate zone connecting Yangibana to the Tongue Prospect. Three short scout RC holes were drilled at Tongue prospect prior to 1991 (historical holes). Few samples were assayed, and samples returned anomalous results of 0.11-0.2% Nd (elemental assay).

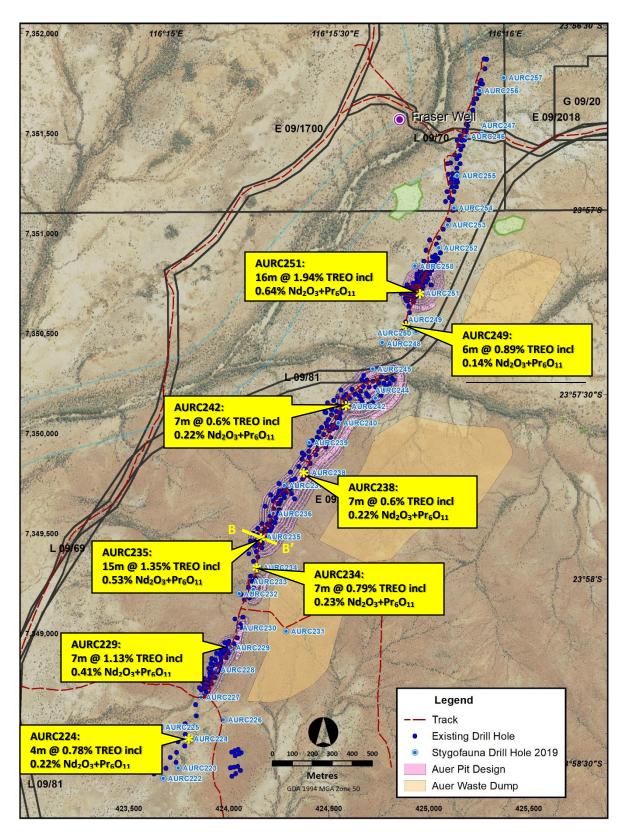


Figure 3. Auer Deposit Drilling Plan and recent intersections from November 2019 Drilling Program. Drill section location marked by line B-B' shown in Figure 4.

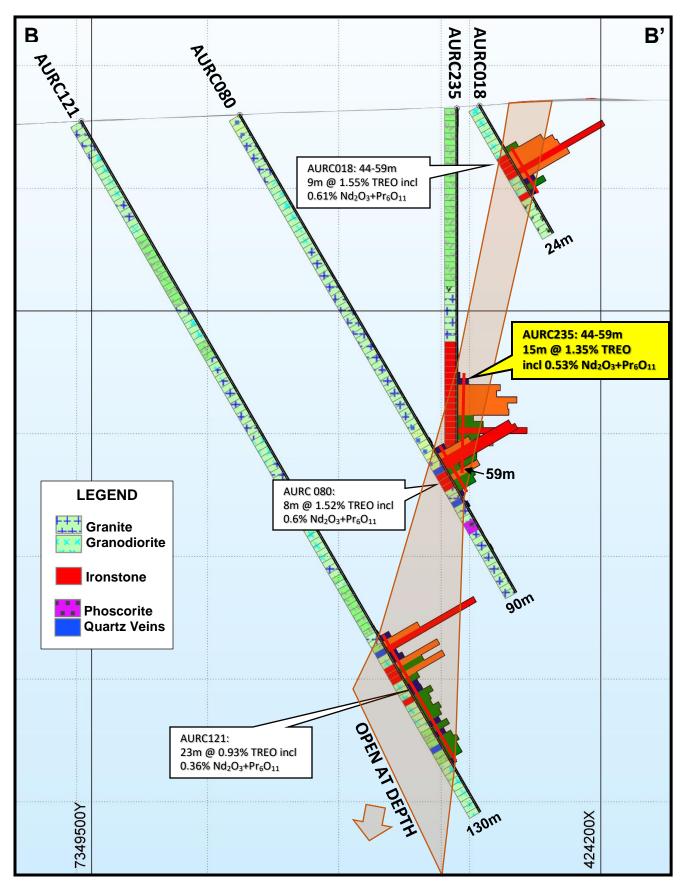


Figure 4: AURC235 Cross Section B-B' (Fig. 3). Interval of 15m @ 1.35% TREO including 0.53% Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub> (yellow box). Intersections from previous drilling are also shown. AURC235 was stopped in mineralised ironstone due to drilling difficulties and ground water and having achieved a depth suitable for the environmental survey.



### Sampling

Samples were sent to 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).

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

#### **New Exploration Program**

In light of these new results, Hastings is intending to increase its overall Exploration expenditure for the remaining of the 2020 calendar year. The results support and warrant additional drilling, where near-surface extensions to known mineralisation have been traced and identified. Surface mapping undertaken previously also confirms known positions of mineralised extensions.

This new phase of drilling is aimed at significantly extending mineralisation strike length at Simon's Find, Bald Hill, Frasers and Yangibana and testing down-dip extensions recorded to date. A new phase of drilling is subject to availability of sufficient working capital.

Simon's Find, Bald Hill and Yangibana offer the most advanced and immediate opportunities to grow the resource inventory and extend the mine life of the Yangibana Project.

The Company's geological interpretation suggests that there is substantial opportunity to add additional Mineral Resource tonnes in the area called Simon's Find. Simon's Find is located between the Bald Hill and Frasers Open Pits and is proximal to the Processing Plant Layout (Figure 5).

Planning for this program has commenced and it is anticipated that all drilling will be substantially completed by Q4 2020.

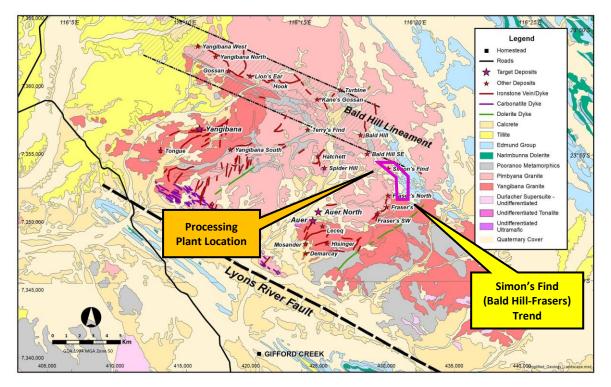


Figure 5. Geology and Prospect map of the Yangibana Project. Simon's Find Prospect, on the Bald Hill-Frasers trend is highlighted.



#### **Competent Persons and Qualifying Persons Statement**

The information in this announcement that relates to Exploration Results in relation to the Yangibana Project is based on information compiled by Mr. Benjamin Nicolson BSc (Hons), a Competent Person, who is a Member of the Australian Institute of Geoscientists. Mr. Nicolson is a full-time employee of the company and has sufficient experience that is relevant to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. The Qualified Person has verified the data disclosed in this release, including sampling, analytical and test data underlying the information contained in this release. Mr. Nicolson consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears

### 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 <u>www.hastingstechmetals.com</u>

#### For further information please contact:

Charles Lew, Chairman: +65 6220 9220 / +61 8 6117 6118 Andrew Reid, Chief Operations Officer, +61 487 888 787



## JORC Code, 2012 Edition – Yangibana project deposits 2019

Hole	Easting	Northing	Elevation	Azimuth	Dip	EOH	
ID	(mE)	(mN)	(m)	(°)	(°)	(m)	Comments
AURC222	423670.92	7348274.67	317	-90	0	48	
AURC223	423745.93	7348327.11	318	-90	0	37	
AURC224	423800.3	7348473	319	-90	0	32	Abandoned, lost outside return
AURC225	423658.26	7348531.26	318	-90	0	43	
AURC226	423971.63	7348568.35	318	-90	0	36	
AURC227	423861.05	7348680.92	319	-90	0	40	
AURC228	423935.11	7348817.95	304	-90	0	36	
AURC229	424010.42	7348928.3	328	-90	0	40	
AURC230	424044.28	7349028.13	313	-90	0	40	
AURC231	424285.81	7349011.24	327	-90	0	34	
AURC232	424050.5	7349198.56	325	-90	0	32	
AURC233	424121.82	7349219.98	331	-90	0	40	
AURC234	424147.49	7349329.62	333	-90	0	37	
AURC235	424164.58	7349484.06	321	-90	0	59	Abandoned, significant water
AURC236	424221.96	7349599.62	331	-90	0	40	Abandoned, significant water
AURC230	424276.37	7349740.08	331	-90	0	40	
AURC238	424389.99	7349804.35	330	-90	0	40	
AURC230	424309.99	7349954.77	327	-90	0	40	
AURC240	424547.51	7350053.08	322	-90	0	40	
AURC240	424338.63	7350205.67	316	-90	0	40	
AURC241	424589.2	7350136.68	316	-90	0	40	Ended in mineralisation
AURC242	424489.64	7350261.82	321	-90	0	40	Ended in mineralisation
AURC243 AURC244	424755.61	7350166.67	322	-90	0	40	
AURC244 AURC245	424755.01	7350322.6	322	-90 -90	0	40 40	
AURC243 AURC246	425186.88	7351487.08	319	-90	0	40 17	
AURC240 AURC247	425328.45	7351502.21	321	-90	0	25	
AURC247 AURC248	424766.41	7350455.6	305	-90	0	25	
AURC248 AURC249	424700.41	7350531.25	305	-90 -90	0	20 40	
AURC249 AURC250	424959.13	7350495.48	319	-90	0	40	
AURC250 AURC251	424959.13	7350701.98	318	-90	0	40	
AURC251	425050.48	7350928.66	322	-90	0	31	
AURC252 AURC253	425092.51	7351044.03	325	-90	0	40	
AURC253	425125.55	7351128.46	323	-90	0	40	
AURC254 AURC255	425125.55	7351289.97	317	-90	0	40	
AURC255	425254.48	7351715.18	319	-90	0	40	
AURC250 AURC257	425375.24	7351780.25	319	-90	0	40	
AURC257 AURC258	423375.24	7350837.49	319	-90 -90	0	40 40	
YARC123							
YARC123	417151.8 417324.25	7356752.86 7356965.77	336 340	-90 -90	0 0	18 31	
YARC124	417239.32	7356935.94	340	-90	0	40	
YARC125	417239.32	7356981.61	333	-90	0	37	
YARC120	417094.29	7356882.4	337	-90	0	40	
YARC127	416932.89	7356866.08	334	-90	0	40	
YARC120	416912.17	7357052.64		-90		32	
YARC129 YARC130	416912.17	7356874.43	330 337	-90 -90	0	32 25	
YARC130 YARC131	416718.65	7356857.76		-90 -90	0	25 31	
YARC131 YARC132	416718.65 416645.01	7356828.32	337 337	-90 -90	0 0	27	
YARC132 YARC133	416645.01	7356828.32	337	-90 -90			
YARC133 YARC134	416742.1	7356974.82	335	-90 -90	0	25 31	
					0		
YARC135	416657.18	7356607.39	327 337	-90	0	26 37	
YARC136	416574.34 416449	7356813.52	337 340	-90	0	37 40	
YARC137		7356789	340 335	-90	0	40 70	Ended in mineralization
YARC138	416401	7356829	335	-90	0	70	Ended in mineralisation



YARC139	416437.7	7357028.42	359	-90	0	40
YARC140	416301.9	7356818.25	340	-90	0	40
YARC141	416174.12	7356820.61	336	-90	0	40
YARC142	416111.87	7356619.17	333	-90	0	40
YARC143	416048.37	7356824.41	338	-90	0	38
YARC144	416007.4	7356937	324	-90	0	40
YARC145	415905.17	7356872.08	347	-90	0	49
YARC146	415878.31	7356571.63	328	-90	0	40
YARC147	415752.72	7357019.66	328	-90	0	40
YARC148	415715.75	7356813.28	324	-90	0	40
YARC149	415524.67	7356917.57	325	-90	0	40
YARC150	415619.46	7356810.28	340	-90	0	40
YARC151	415632.18	7356620.68	358	-90	0	40
YARC152	415464.5	7356779.25	325	-90	0	40
YARC153	415378	7356635.25	383	-90	0	40
YARC154	415249.78	7356747.54	326	-90	0	40
YARC155	415144.97	7356913.79	325	-90	0	40
YARC156	415100.1	7356683.88	335	-90	0	43
YARC157	415085.35	7356716.24	330	-90	0	40
YARC158	414932.78	7356712.57	328	-90	0	40
YARC159	414823.49	7356720.89	331	-90	0	40
YARC160	414480.64	7356615.55	335	-90	0	46
YARC161	414541.54	7356646.47	336	-90	0	40
YARC162	414656.09	7356676.27	328	-90	0	25
YARC163	414656.16	7356699.08	334	-90	0	50
YARC164	414724.66	7356701.26	336	-90	0	40
YARC165	414722.31	7356719.85	333	-90	0	50

**Table 3.** Significant drill intercepts ( $\geq 2m @ 0.1\% Nd_2O_3 + Pr_6O_{11}$  lower cut-off grade). Higher grade sub-intervals of $\geq 1m 0.18\% Nd_2O_3 + Pr_6O_{11}$  are detailed. Yangibana and Auer deposits, Yangibana Project.

Hole ID	EOH (m)	From (m)	To (m)	Width (m)	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> %	TREO %
AURC224	32	25	26	1	0.14%	0.52%
AURC224	32	28	32	4	0.22%	0.78%
including		29	32	3	0.25%	0.90%
AURC228	36	4	5	1	0.10%	0.29%
AURC228	36	7	9	2	0.13%	0.47%
AURC229	40	25	32	7	0.41%	1.13%
including		25	31	6	0.45%	1.24%
AURC234	37	21	28	7	0.23%	0.79%
including		22	28	6	0.27%	0.90%
AURC235	59	44	59	15	0.53%	1.35%
including		45	50	5	0.80%	2.03%
AURC238	40	12	19	7	0.22%	0.60%
including		13	18	5	0.25%	0.69%
AURC242	40	26	40	14	0.39%	1.06%
AURC249	40	1	7	6	0.14%	0.89%
including		4	6	2	0.23%	1.50%
AURC251	40	15	31	16	0.68%	1.94%
YARC124	40	9	12	3	0.64%	1.28%
including		9	10	1	1.06%	2.12%
YARC125	31	25	29	4	0.30%	0.62%



1						
YARC128	40	19	26	7	0.33%	0.67%
including		20	24	4	0.49%	0.98%
YARC138	70	68	70	2	0.43%	0.88%
YARC157	40	22	23	1	0.42%	0.92%
YARC158	40	24	26	2	0.30%	0.74%
including		25	26	1	0.46%	1.17%
YARC160	46	25	32	7	0.37%	0.80%
including		25	31	6	0.41%	0.89%
YARC161	40	16	18	2	0.37%	0.78%
YARC161	40	33	37	4	0.21%	0.46%
including		33	34	1	0.55%	1.22%
YARC162	25	11	12	1	0.13%	0.31%
YARC162	25	19	20	1	0.27%	0.63%
YARC163	50	35	38	3	0.16%	0.36%
including		37	38	1	0.22%	0.46%
YARC165	50	31	33	2	0.24%	0.52%
including		31	32	1	0.35%	0.73%

# 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	<ul> <li>Samples used to assess the mineralised intersections obtained during the latest drilling program at the Yangibana Project have been derived from reverse circulation (RC) and diamond drilling.</li> <li>Samples from reverse circulation drilling were collected from each metre from a rig mounted cyclone and conical splitter from which 2-4kg samples were collected. Reference Standards were inserted at a rate of approximately 1 in 25 samples.</li> <li>No diamond drilling was performed in the last drilling program.</li> <li>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. Reference Standards were inserted at a rate of approximately 1 per 25 samples.</li> </ul>



Criteria	JORC Code explanation	Commentary
	inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	
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.
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.	<ul> <li>Recoveries are recorded by the geologist in the field at the time of drilling/logging.</li> <li>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 conical splitter were used to ensure representative samples and were routinely cleaned.</li> <li>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.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate</li> <li>Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>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.</li> <li>Logging considered to be semi-quantitative given the nature of reverse circulation drill chips.</li> <li>All RC drill holes in the previous programme were logged in full.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	<ul> <li>The RC drilling rig is equipped with an in-built cyclone and conical splitting system, which provided one bulk sample of approximately 25kg, and a sub-sample of 2-4kg per metre drilled.</li> <li>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.</li> </ul>



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.	<ul> <li>Bulk samples were placed in green plastic bags or on the ground, with the sub-samples collected in pre-numbered calico sample bags placed on the respective bulk sample.</li> <li>Field duplicates were not collected during the last drilling program.</li> <li>A sample size of 2-4kg was collected and considered appropriate and representative for the grain size and style of mineralisation.</li> </ul>
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.	<ul> <li>Intertek (formerly Genalysis Perth) was used for all analysis work carried out on the 1m drill chip samples, diamond core and rock chip samples. The laboratory techniques below are for all samples submitted to Intertek-Genalysis and are considered appropriate for the style of mineralisation defined at the Yangibana REE Project: FP6/MS</li> <li>QAQC samples Standard reference materials- standards) were inserted at the rate of 1 every 25 samples. A subset of the sample pulps (1 every 20 assayed samples) were submitted to a second laboratory for an external laboratory check.</li> <li>Additional standards and blanks were inserted for additional QAQC on the external laboratory.</li> </ul>
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.	<ul> <li>At least two company personnel verify all significant intersections.</li> <li>All geological logging and sampling information is completed electronically on Field Logging tablet into Microsoft Excel spreadsheets and subsequently a Microsoft Access database.</li> <li>Electronic copies of all information are backed up daily.</li> <li>No adjustments of assay data are considered necessary.</li> </ul>
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.	<ul> <li>Actual drill hole collars are surveyed with handheld GPS. Survey using DGPS utilising a locally established control point have yet to be completed.</li> <li>Accuracy of the survey collars is stated at 3m (GPS), but will be resolved to 0.1m accuracy when a survey contractor is appointed to pick up the holes.</li> <li>Elevation data was recorded by hand held GPS (and is regarded as inaccurate), but detailed topographic control for surfaces is available and</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>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.</li> <li>No downhole surveys were completed as the holes are relatively shallow (nominally 40m planned depth) vertical holes</li> <li>Grid system used is MGA 94 (Zone 50)</li> </ul>
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.	<ul> <li>Spacing of the drill hole program was determined to provide for sufficient coverage inside and outside planned mine disturbance areas to satisfactorily assess whether subterranean invertebrate fauna populations are present.</li> <li>Mineralised Intersections defined in the program have not been used to calculate any additional resources at this stage.</li> <li>No sample compositing of RC samples is used in this report, all results detailed are the product of 1m downhole sample intervals</li> </ul>
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.	<ul> <li>All drill holes in the recent programme are vertical and collared at -90° in order to facilitate the setting of traps for the subterranean invertebrate (Stygofauna and Troglofauna) survey. At Auer, the mineralisation is subvertical, so intersections where mineralisation is intersected in the vertical drill holes are substantially thicker than the true width of the mineralised zone.</li> <li>At Yangibana the mineralised zone dips moderately at 30-40°. The vertical drill holes orientation is considered satisfactory (but suboptimal) when compared to angled drill holes in producing intersections that approximate true width. The requirement for vertical holes for the Environmental surveys however, precluded the drilling of angle holes in this program.</li> <li>No sampling bias is considered to have been introduced. However, the thickness of mineralised zones. The thicker intersections obtained from drilling down the mineralised zone demonstrate the down-dip continuity of grade at Auer.</li> </ul>
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



Criteria	JORC Code explanation	Commentary
		<ul> <li>placed in each sack. Each sack is clearly labelled with: <ul> <li>Hastings Technology Metals Ltd</li> <li>Address of laboratory</li> <li>Sample range</li> </ul> </li> <li>Samples were delivered by Hastings personnel to the Toll Logistics base in Carnarvon for delivery to Intertek-Genalysis</li> <li>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.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	• A QAQC process of continual review of assay results is in place in the company using internal and external consultants. A more rigorous approach to QAQC procedures is being implemented involving a new source of standards which have been used in conjunction with the previous standards, to allow statistical analysis of data from existing standards and assayed samples.