



12 October 2020

## OUTSTANDING RARE EARTH OXIDE GRADES FROM FRASERS NORTH AND SOUTH DRILLING

Hastings Technology Metals Limited

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ASX Code: Shares - HAS

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### 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)

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- Outstanding rare earth oxide grades received from 29 out of 30 drill holes from Fraser's North and South sampling.
- High-grade and shallow intersections from Fraser's North and South drilling include:
  - **3m @ 7.28% TREO from 8m,**
    - **Including 1m @ 18.57% TREO from 8m,**
  - **8m @ 3.51% TREO from 31m,**
  - **2m @ 1.67% TREO from 31m,**
  - **6m @ 1.42% TREO from 8m, and**
  - **4m @ 1.36% TREO from 17m.**
- Highest grade intersections occur south of the current Fraser's Open Pit (mineral resource of 1.32 million tonnes grading 1.35% TREO including 0.56% Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub><sup>1</sup>) and extend mineralisation up to 450m in a south easterly direction.
- Drilling results from the North now confirm contiguous new mineralisation up to 250m from the Fraser's Pit limit.
- In the South, all mineralisation remains open down dip and along strike, with surface ironstone outcrops being tracked for up to 1-kilometre past last drill locations.
- New results record highest grades to date from Yangibana project, with 1m samples returning grades of up to **18.57% TREO**.
- Results from the South come from largely untested areas, highlighting the potential for them to merge into a single large 1.4km long Fraser's Open Pit.
- Results will be included in an updated Fraser's Mineral Resource estimate scheduled for year-end completion.

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### Introduction

Hastings Technology Metals Limited, Australia's next Rare Earths producer (ASX: HAS) ("Hastings" or "the Company"), is pleased to announce further drill results as part of the 2020 Exploration Drilling Program, for the Fraser's North and South areas.

The Company has so far received assay results for 30 RC drill holes in these areas since drilling commenced in early June. Numerous significant potentially economic results have been received from 29 out of the 30 holes which include some of the highest grade results yet returned from any drilling at the Yangibana project since 2014.



The majority of drilling planned for Fraser’s North and South was designed to complete 40m x 40m drilling to extensions of the 650m long Fraser’s Open Pit Mineral Resource at shallow depths that form a critical part of the early mine schedule for the Yangibana Project.

**COO, Andrew Reid commented:** “these fantastic results have again exceeded our expectations for the Company’s 20,000m 2020 exploration drill program, with almost every drill hole announced today intersecting rare earth grades which Hastings believe could be economic and mineable.

The exceptionally high grades from Fraser’s South (up to 18.57%) gives us a lot of confidence that we are in a rare earth zone richly endowed with huge potential, particularly given how little exploration it has seen.

Hastings is now well on its way to achieving its goal of extending mine life through testing our existing geological understanding of the Fraser’s deposit. We are now intersecting consistent mineralisation over a wide area and there remains plenty of opportunity to significantly expand the Mineral Resource in the future with open mineralisation along strike and down-dip requiring further drilling in the future.

The entire Fraser’s North to South mineralised trend is emerging as a large consistent zone which is characterised by thick near surface intercepts with grades that would potentially support a large open pit operation”.

The drilling at Fraser’s South has intercepted the predicted ironstone positions and returned consistent mineralisation results, with some of the best TREO results ever received from Yangibana. Hastings remains confident that this mineralised trend will continue in a south-easterly direction based on surface mapping and points to the potential of further development of the Mineral Resource within the Fraser’s South corridor.

Additional future work will include step out exploration drilling along strike and drilling down dip, where the mineralisation to date has only been tested to 40m below the surface.

<sup>1</sup>Hastings is not aware of any new information or data that materially affects the information in this market announcement (ASX announcement 4 November 2019) and, in the case of estimates of ‘mineral resources or ‘ore reserves, that all material assumptions and technical parameters underpinning the estimates in this market announcement continue to apply and have not materially changed.

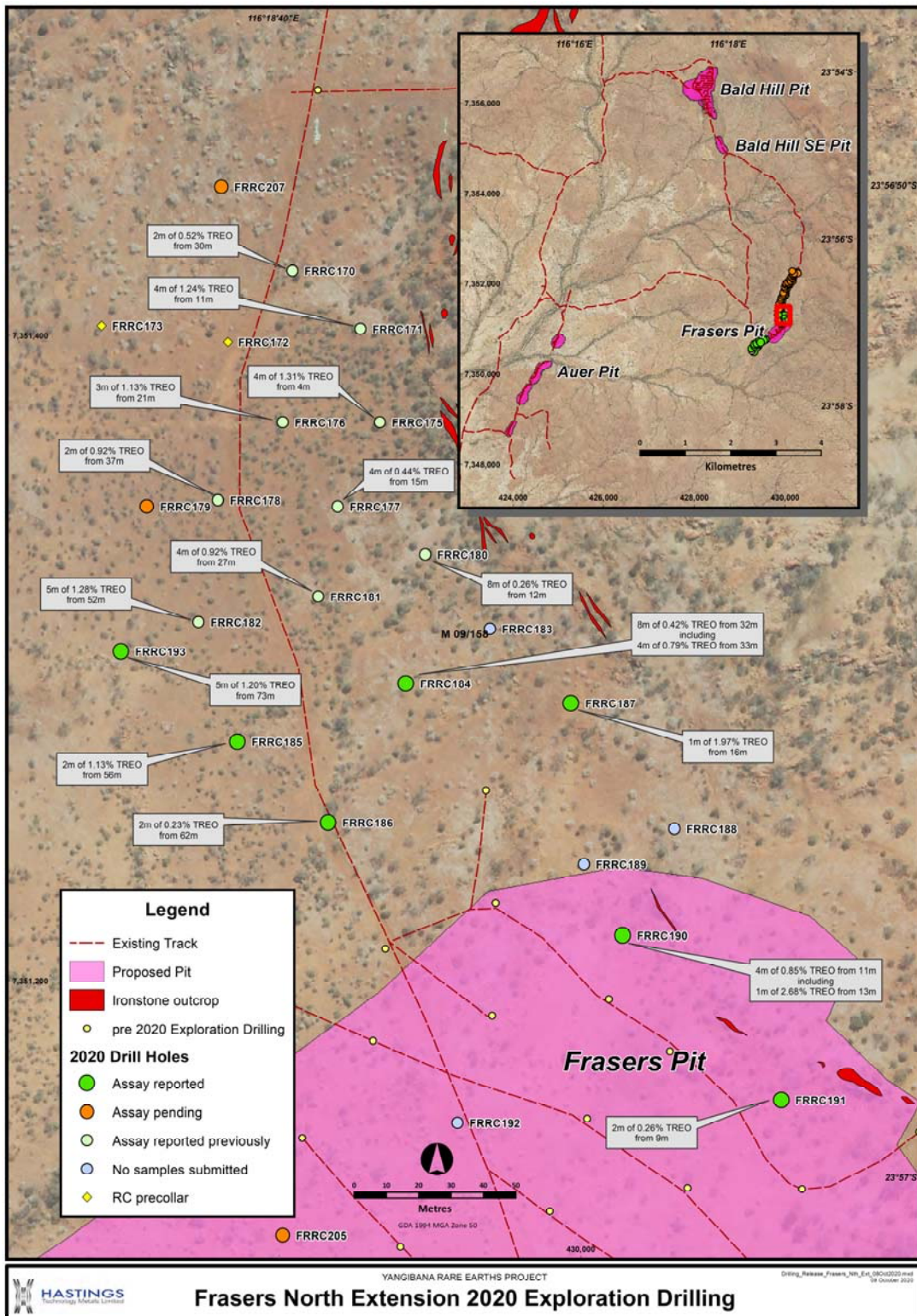


Fig 1. Exploration Drilling results from Fraser's North and results received.





**Table 1. Significant Intersections: results from Fraser’s North and South drilling.**

Hole-ID	Interval (0.18% TREO Lower Cut-off)					
	Depth From	Depth To	Interval (m)	TREO %	Nd <sub>2</sub> O <sub>3</sub> + Pr <sub>6</sub> O <sub>11</sub> %	Nd <sub>2</sub> O <sub>3</sub> + Pr <sub>6</sub> O <sub>11</sub> As % of TREO
FRRC182	52	60	8	0.85	0.37	43%
<b>including</b>	<b>52</b>	<b>57</b>	<b>5</b>	<b>1.29</b>	<b>0.56</b>	<b>44%</b>
FRRC184	32	40	8	0.42	0.19	44%
including	33	37	4	0.79	0.36	45%
<b>FRRC185</b>	<b>56</b>	<b>58</b>	<b>2</b>	<b>1.13</b>	<b>0.47</b>	<b>42%</b>
FRRC186	62	64	2	0.23	0.12	50%
<b>FRRC187</b>	<b>16</b>	<b>17</b>	<b>1</b>	<b>1.97</b>	<b>0.8</b>	<b>41%</b>
FRRC190	11	15	4	0.85	0.38	45%
<b>including</b>	<b>13</b>	<b>14</b>	<b>1</b>	<b>2.68</b>	<b>1.19</b>	<b>44%</b>
FRRC191	9	11	2	0.26	0.13	49%
<i>*further sampling in progress</i>						
<b>FRRC193</b>	<b>73</b>	<b>78</b>	<b>5</b>	<b>1.2</b>	<b>0.51</b>	<b>42%</b>
FRRC195	18	19	1	0.26	0.12	46%
and	24	25	1	0.42	0.16	38%
<b>FRRC197</b>	<b>31</b>	<b>39</b>	<b>8</b>	<b>3.51</b>	<b>1.17</b>	<b>33%</b>
<b>FRRC199</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>1.27</b>	<b>0.22</b>	<b>17%</b>
<b>FRRC200</b>	<b>31</b>	<b>33</b>	<b>2</b>	<b>1.67</b>	<b>0.58</b>	<b>35%</b>
FRRC201	4	9	5	0.62	0.22	35%
<b>including</b>	<b>4</b>	<b>5</b>	<b>1</b>	<b>1.13</b>	<b>0.32</b>	<b>28%</b>
FRRC202	19	20	3	0.91	0.28	31%
FRRC203	54	56	2	0.42	0.14	33%
<b>FRRC243*</b>	<b>8</b>	<b>14</b>	<b>6</b>	<b>1.42</b>	<b>0.66</b>	<b>47%</b>
<b>and:</b>	<b>22</b>	<b>26</b>	<b>4</b>	<b>1.28</b>	<b>0.51</b>	<b>40%</b>
<i>*further sampling in progress</i>						
FRRC244	15	16	1	0.87	0.3	35%
FRRC245	1	9	8	0.59	0.31	53%
<b>including</b>	<b>3</b>	<b>5</b>	<b>2</b>	<b>1.51</b>	<b>0.73</b>	<b>48%</b>
<b>FRRC247</b>	<b>59</b>	<b>60</b>	<b>1</b>	<b>1.19</b>	<b>0.39</b>	<b>33%</b>
<b>FRRC248</b>	<b>17</b>	<b>21</b>	<b>4</b>	<b>1.36</b>	<b>0.51</b>	<b>37%</b>
FRRC249	45	48	3	0.46	0.16	35%
and:	52	53	1	0.24	0.11	44%
<b>FRRC250</b>	<b>9</b>	<b>12</b>	<b>3</b>	<b>1.66</b>	<b>0.6</b>	<b>36%</b>
FRRC251	36	42	6	0.58	0.17	30%
FRRC252	58	65	7	0.37	0.14	38%
FRRC253	40	44	4	0.97	0.36	37%
FRRC254	66	73	7	0.73	0.25	34%
FRRC256	7	8	1	0.23	0.11	49%
FRRC256	32	40	8	0.54	0.19	35%
<b>FRRC257</b>	<b>8</b>	<b>11</b>	<b>3</b>	<b>7.28</b>	<b>2.11</b>	<b>29%</b>
<b>including</b>	<b>8</b>	<b>9</b>	<b>1</b>	<b>18.57</b>	<b>5.24</b>	<b>28%</b>

Additional Holes:

- FRRC183 No samples submitted
- FRRC188 No samples submitted
- FRRC189 No samples submitted
- FRRC192 No samples submitted
- FRRC194 No samples submitted
- FRRC196 No samples submitted
- FRRC198 No samples submitted
- FRRC246 No significant intersection

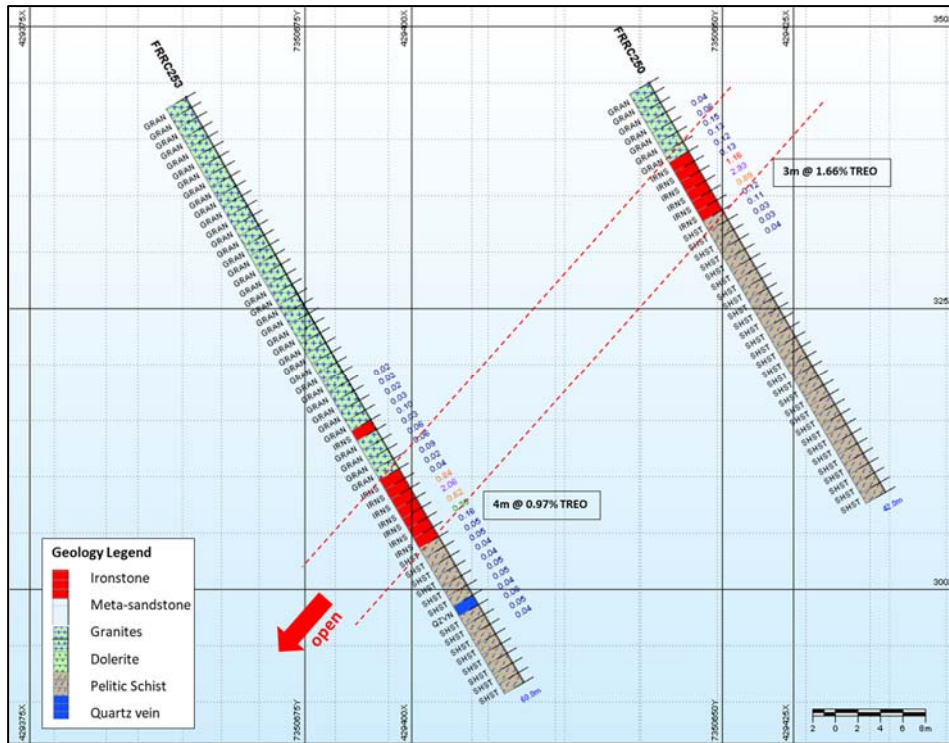


Fig 3. Section A-A', Cross-section (see plan) looking south east through Fraser's South mineralisation.



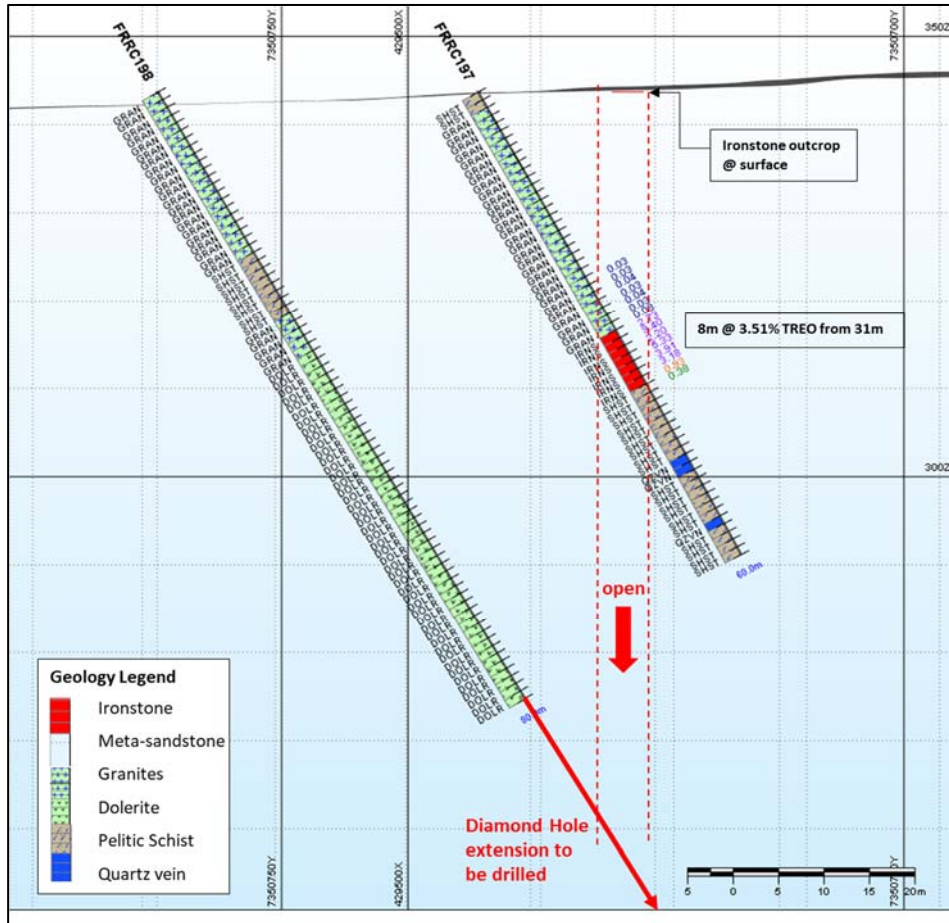


Fig 4. Section B-B', Cross-section (see plan) looking south east through Fraser's South mineralisation.

### Sampling

Samples were sent to Genalysis Intertek 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).

Substantial delays are currently being experienced by commercial laboratories in Perth with respect to assay turnaround. Greater than 5-week turnaround time is currently expected.

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



Hole ID	Type	Easting (m)	Northing (m)	RL (m)	Dip	Az	Depth (m)	Survey Type	Assay Status
FRRC170	RC	429911	7351420	350	-90	90	50	GPS	Reported
FRRC171	RC	429932	7351402	357	-90	0	30	GPS	Reported
FRRC172	RC (Pre-collar)	429891	7351398	354	-90	0	40	GPS	Not Assayed
FRRC173	RC (Pre-collar)	429852	7351403	352	-90	0	60	GPS	Not Assayed
FRRC174	RC (Pre-collar)	429809	7351404	352	-90	0	80	GPS	Not Assayed
FRRC175	RC	429938	7351373	356	-90	0	30	GPS	Reported
FRRC176	RC	429908	7351373	354	-90	90	60	GPS	Reported
FRRC177	RC	429925	7351347	352	-90	0	40	GPS	Reported
FRRC178	RC	429888	7351349	352	-90	135	70	GPS	Reported
FRRC179	RC	429866	7351347	352	-90	0	80	GPS	Reported
FRRC180	RC	429952	7351332	355	-90	0	40	GPS	Reported
FRRC181	RC	429919	7351319	352	-90	0	60	GPS	Reported
FRRC182	RC	429882	7351311	352	-90	0	70	GPS	reported
FRRC183	RC	429972	7351309	352	-90	0	20	GPS	No assayed
FRRC184	RC	429946	7351292	353	-90	135	60	GPS	Reported
FRRC185	RC	429894	7351274	351	-90	0	80	GPS	reported
FRRC186	RC	429922	7351249	351	-90	0	80	GPS	reported
FRRC187	RC	429997	7351286	352	-90	0	30	GPS	reported
FRRC188	RC	430029	7351247	352	-90	0	20	GPS	Not Assayed
FRRC189	RC	430001	7351236	352	-90	0	40	GPS	Not Assayed
FRRC190	RC	430013	7351214	350	-90	0	20	GPS	reported
FRRC191	RC	430062	7351163	350	-90	0	12	GPS	reported
FRRC192	RC	429962	7351156	352	-90	0	70	GPS	Not Assayed
FRRC193	RC	429858	7351302	351	-90	0	90	GPS	reported
FRRC194	RC	429879	7351147	349	-90	0	100	GPS	Pending
FRRC195	RC	429570	7350760	350	-60	135	40	GPS	reported
FRRC196	RC	429536	7350790	344	-60	135	80	GPS	Not Assayed
FRRC197	RC	429504	7350733	344	-60	135	60	GPS	reported
FRRC198	RC (Pre-collar)	429477	7350756	344	-60	135	80	GPS	Not Assayed
FRRC199	RC	429444	7350681	344	-60	135	40	GPS	reported
FRRC200	RC	429416	7350706	344	-60	135	80	GPS	reported
FRRC201	RC	429408	7350621	340	-60	135	25	GPS	reported
FRRC202	RC	429346	7350555	345	-60	135	35	GPS	reported
FRRC203	RC	429305	7350593	346	-60	135	70	GPS	reported
FRRC204	RC	429924	7351103	349	-90	0	75	GPS	Pending
FRRC205	RC	429908	7351121	349	-90	0	85	GPS	Pending
FRRC206	RC	429852	7351174	349	-90	0	105	GPS	Pending
FRRC207	RC	429889	7351446	355	-60	90	50	GPS	Pending
FRRC208	RC	429933	7351551	361	-60	90	42	GPS	Pending
FRRC209	RC	429883	7351551	356	-60	90	66	GPS	Pending
FRRC210	RC	429956	7351630	361	-60	90	70	GPS	Pending
FRRC211	RC	429912	7351632	361	-60	90	70	GPS	Pending





FRRC212	RC	429921	7351681	359	-60	90	72	GPS	Pending
FRRC213	RC	429996	7351716	359	-60	90	35	GPS	Pending
FRRC214	RC	429946	7351716	358	-60	90	60	GPS	Pending
FRRC215	RC	430020	7351755	356	-60	90	40	GPS	Pending
FRRC216	RC	429970	7351755	356	-60	90	66	GPS	Pending
FRRC217	RC	430020	7351800	356	-60	90	40	GPS	Pending
FRRC218	RC	430029	7351840	352	-60	90	30	GPS	Pending
FRRC219	RC	429990	7351840	353	-60	90	50	GPS	Pending
FRRC220	RC	429970	7351800	356	-60	90	50	GPS	Pending
FRRC221	RC	430056	7351901	351	-60	90	50	GPS	Pending
FRRC222	RC	430010	7351895	352	-60	90	90	GPS	Pending
FRRC223	RC	430000	7351926	351	-60	90	100	GPS	Pending
FRRC224	RC	430102	7351966	351	-60	90	25	GPS	Pending
FRRC225	RC	430066	7351966	351	-60	90	60	GPS	Pending
FRRC226	RC	430028	7351966	351	-60	90	114	GPS	Pending
FRRC227	RC	430035	7352001	351	-60	90	100	GPS	Pending
FRRC228	RC	430131	7352001	350	-60	90	40	GPS	Pending
FRRC229	RC	430083	7352001	350	-60	90	80	GPS	Pending
FRRC230	RC	430071	7352029	351	-60	90	100	GPS	Pending
FRRC231	RC	430105	7352075	351	-60	90	100	GPS	Pending
FRRC232	RC	430177	7352049	352	-60	90	25	GPS	Pending
FRRC233	RC	430127	7352052	350	-60	90	70	GPS	Pending
FRRC234	RC	430170	7352101	349	-60	90	40	GPS	Pending
FRRC235	RC	430200	7352151	349	-60	90	20	GPS	Pending
FRRC236	RC	430150	7352151	348	-60	90	77	GPS	Pending
FRRC237	RC	430184	7352172	350	-60	90	60	GPS	Pending
FRRC240	RC	430184	7352201	348	-60	90	40	GPS	Pending
FRRC243	PL	429314	7350524	344	-60	135	35	GPS	reported
FRRC244	RC	429316	7350490	344	-60	135	20	GPS	reported
FRRC245	RC	429279	7350524	344	-60	135	33	GPS	reported
FRRC246	RC	429274	7350490	344	-60	135	30	GPS	No significant results
FRRC247	PL	429277	7350561	344	-60	135	70	GPS	reported
FRRC248	PL	429375	7350586	343	-60	135	30	GPS	reported
FRRC249	PL	429338	7350623	343	-60	135	65	GPS	reported
FRRC250	RC	429417	7350656	344	-60	135	42	GPS	reported
FRRC251	PL	429372	7350656	342	-60	135	55	GPS	reported
FRRC252	RC	429338	7350659	344	-60	135	80	GPS	reported
FRRC253	RC	429386	7350683	344	-60	135	60	GPS	reported
FRRC254	RC	429447	7350736	344	-60	135	80	GPS	reported
FRRC255	RC	429502	7350774	344	-60	135	80	GPS	Pending
FRRC256	RC	429536	7350743	344	-60	135	40	GPS	reported
FRRC257	RC	429468	7350703	344	-60	135	40	GPS	reported

## **2020 Exploration Program**

Hastings commenced the 2020 drilling program with a Reverse-Circulation (RC) drilling rig mobilised to site in mid-June. The program will continue until 4Q 2020 and has been designed to achieve three goals:

- Validate the existing Bald Hill Mineral Resource Estimates with close spaced grade control drilling;
- Increase the Yangibana Project's Measured and Indicated Mineral Resource; and
- Obtain core samples for additional metallurgical test work and ore characterization studies.

The Company's geological interpretation suggests that there is substantial opportunity to add additional Mineral Resource tonnages in the area Bald Hill - Simon's Find – Fraser's trend. This trend presents the highest opportunity to add Mineral Resources within close proximity to the Processing Plant.

Existing results support and warrant additional drilling, where near-surface extensions to known mineralisation can be traced and identified. Observations from field mapping continue to provide new insights into the local geology and its structural settings, which conceptually offer the greatest opportunity to host additional resources.

## **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. Andrew Reid BSc (Hons) MSc FAUSIMM, a Competent Person, who is a Fellow of the Australian Institute of Mining and Metallurgy. Mr. Reid 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. Reid 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 Australia's next Rare Earth producer and is advancing its flagship 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](http://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	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where ‘industry standard’ work has been done this would be relatively simple (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.</li> </ul>	<ul style="list-style-type: none"> <li>Samples used to assess the Fraser’s Find deposit of the Yangibana Project (reported in this announcement have been derived from reverse circulation (RC) drilling.</li> <li>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 25.</li> <li>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.</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.</li> <li>Field duplicates, blanks and Reference Standards were inserted at a rate of approximately 1 in 20.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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.).</li> </ul>	<ul style="list-style-type: none"> <li>Reverse Circulation drilling at the various targets utilised a nominal 5 ¼-inch diameter face-sampling hammer.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	<ul style="list-style-type: none"> <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</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<p>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.</p> <ul style="list-style-type: none"> <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> <li>Hole FRRC197 returned low sample weights on some 1m samples within the significant intercept most likely related to cavities.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <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 (geological) is 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> <li>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.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>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.</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> <li>Bulk samples were placed in green plastic bags, with the sub-samples collected placed in calico sample bags.</li> <li>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.</li> </ul>



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>A sample size of 2-4kg was collected and considered appropriate and representative for the grain size and style of mineralisation.</li> <li>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</li> <li>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.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>At least two company personnel verify all significant intersections.</li> <li>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.</li> <li>No adjustments of assay data are considered necessary.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>Collar positions are surveyed by RM Surveys (formerly MHR Surveys) and accuracies are better than 0.1m.</li> <li>Elevation data was recorded by both MHR Surveyors and the Trimble receiver, but the topographic control for all drillholes is based on the</li> </ul>





Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<p>high-resolution DTM undertaken by the Company, with Relative Level (RL) assigned to each borehole based on the DTM using Mapinfo Discover 3D.</p> <ul style="list-style-type: none"> <li>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.</li> <li>Grid system used is MGA 94 (Zone 50)</li> <li>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.</li> <li>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.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Most drill holes in the recent programme are angled and collared at -60o or -70o 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.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>Hastings Technology Metals Ltd</li> <li>Address of laboratory</li> <li>Sample range</li> </ul> </li> </ul>



Criteria	JORC Code explanation	Commentary
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>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</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> <li>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 samples that were acquired in the drilling programs comprising the resource.</li> </ul>

## 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	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The results are from the Hastings Technology Metals Ltd Yangibana REE Project, Frasers Area which lies within Mining Licence M09/158. This tenement is wholly owned by Yangibana Pty Ltd, a wholly entity of Hastings Technology Metals.</li> <li>The tenement is in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>All RC and Diamond Drilling on the tenement has been undertaken by Hastings Technology Metals. The discovery and delineation of Mineral Resources at Frasers is entirely the result of work performed by Hastings Technology Metals.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>REE 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.</li> <li>Economic mineralisation is hosted within in the completely weathered and oxidised portions of the carbonatite-phoscorite rocks which occur as ironstones.</li> </ul>



Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul style="list-style-type: none"> <li>• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:               <ul style="list-style-type: none"> <li>▪ easting and northing of the drill hole collar</li> <li>▪ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>▪ dip and azimuth of the hole of down hole length and</li> <li>▪ hole depth</li> </ul> </li> <li>• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• All relevant information material to the understanding of exploration results has been included within the body of the announcement or as appendices.</li> <li>• No information has been excluded.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• No top-cuts have been applied.</li> <li>• No metal equivalent values are used for reporting exploration results.</li> </ul>
Relationship between mineralisation widths and	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill</li> </ul>	<ul style="list-style-type: none"> <li>• True widths are generally estimated to be about 70% of the down-hole width.</li> </ul>





Criteria	JORC Code explanation	Commentary
intercept lengths	<p>hole angle is known, its nature should be reported.</p> <ul style="list-style-type: none"> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	
Diagrams	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional view.</li> </ul>	<ul style="list-style-type: none"> <li>See diagrams included.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>All significant intersections are reported. All drill hole locations from the Frasers 2020 drill program are reported. Additional information on assays will be reported from these holes as results become available.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>See release details.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Further work will include infill, step out and twin-hole drilling. This work will be designed to improve confidence in, and test potential extensions to the current resource estimates and to provide necessary sample material for additional and ongoing metallurgical studies</li> </ul>