



## ASX: Quarterly Activities Report

29 July 2021

### JUNE 2021 QUARTERLY REPORT

#### Highlights

- Hastings completed Tranche Two (\$43.5m before costs) of the two-tranche equity placement that raised a total of \$100.7 million (before costs), with funds to be used to advance development of the Yangibana Rare Earths Project (Yangibana).
- Hastings announced signing of a major offtake contract for the supply of 70,000 tonnes of Mixed Rare Earth Carbonate (MREC) over a 10-year period to thyssenkrupp Materials Trading GmbH.
- Yangibana Mineral Resource re-estimation work delivered a 54% increase in Measured and Indicated Resource tonnes to 16.3Mt for deposits drilled during 2020.
- Yangibana's total Mineral Resources Estimate increased significantly to 27.42Mt @ 0.97% total rare earth oxides (TREO) for 266kt of rare earth oxides.
- Measured and Indicated TREO increased to 137kt, a 32% increase for deposits drilled in 2020.
- Grade-control drilling at the Bald Hill deposit provided strong reconciliation and confirmed and exceeded the results for the same area from the Mineral Resource estimate by delivering:
  - 6% more TREO; and
  - 9% more resource tonnes
- Grade-control drilling results provide Hastings with high confidence in the target area earmarked for first Yangibana mine production and allow for more accurate delineation of ore and waste boundaries, with Bald Hill drill intercepts including:
  - 7m @ 2.73% TREO from 5m (GC0434);
  - 4m @ 3.15% TREO from 10m (GC029);
  - 5m @ 2.65% TREO from 12m (GC0268); and
  - 5m @ 2.39% TREO from 8m (GC0312).
- Metallurgical test work from the Simon's Find deposit delivered strong results:
  - 86% beneficiation recovery generating a concentrate grade of 8.9% Nd<sub>2</sub>O<sub>3</sub> from flotation test work; and
  - 98% recovery achieved through hydrometallurgical acid bake and water leach test work on flotation samples.
- Global NdPr prices have rebounded strongly and post-quarter end reached a new record high of RMB601/kg or USD92.91/kg NdPr oxide EXW China.
- Hastings had \$110.1 million in cash and equivalents as at 30 June 2021.

Australia's next rare earths producer, Hastings Technology Metals Ltd (**ASX: HAS**) (**Hastings** or the **Company**), is pleased to report on exploration and development activities for the three-month period to 30 June 2021. Most of the activity focused on the Company's Yangibana Rare Earths Project (Yangibana) in the Gascoyne region of Western Australia.

During the quarter under review, zero lost time injuries were recorded to extend the Company-wide lost time injury (LTI) free status to 1065 days.

Risk workshops were completed during the period. In total, three project wide workshops were conducted to record and evaluate all risks of high or extreme nature. Each identified risk was then developed with a set of actions to mitigate the risk to an acceptable level.

The INX suite of software was selected as the integrated Workplace Health, Safety, Environment and Quality Management Solution for Yangibana. The INX InControl product will be implemented during Q1 FY22 to increase compliance and adopt a proactive approach to health and safety in managing everything from hazards and incidents to audits and inspections.

### **Environment & Permitting**

Assessment of a Section 45C approval for relocation of the camp, access road, aerodrome and process plant at Yangibana was progressed significantly. The grant of the approval by the Environmental Protection Authority (EPA) is expected in August 2021.

The Environmental Scoping Document (ESD) for the Yangibana Expansion 1 was revised and resubmitted and is currently awaiting approval by the EPA Board. Studies are underway to satisfy the work program detailed in the ESD.

Environmental referral documentation for the preferred hydrometallurgical site location in the Pilbara is well advanced for submission to the EPA and Commonwealth Department of Agriculture, Water and the Environment (DAWE).

### **Grade-Control Drilling at Bald Hill Deposit**

A grade-control drilling campaign (Figure 1) was completed to test-drill a shallow area of mineralisation at the Bald Hill deposit, with all holes drilled to a targeted level below the natural surface. A close-spaced reverse circulation (RC) drill pattern of 5mE x 7mN was completed, with 257 holes for 5,002m being drilled.

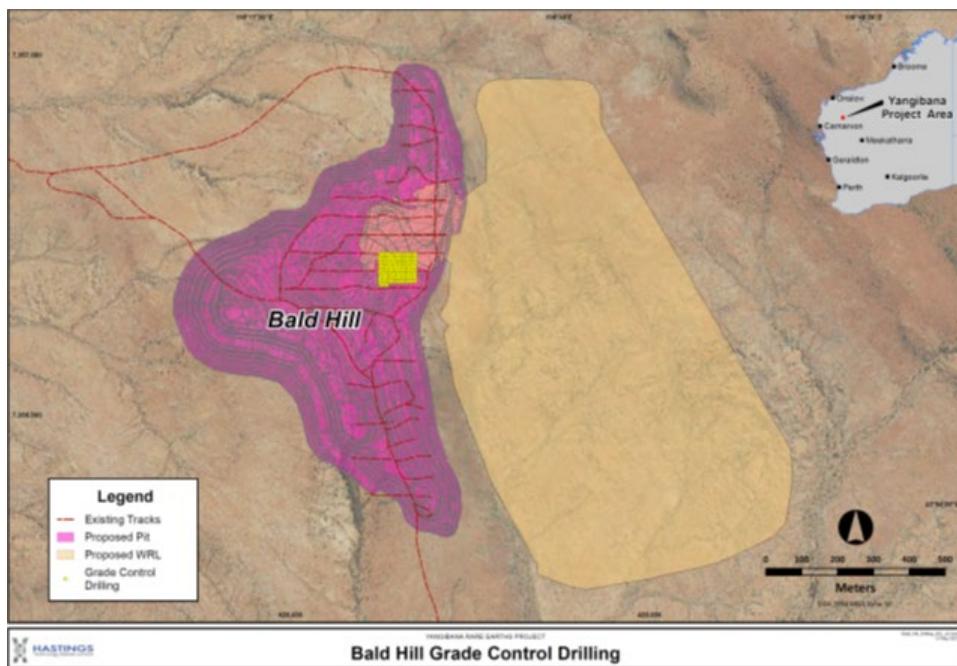
Best results are listed in Table 1 below:

**Table 1. Significant Intersections: results from grade control drilling.**

Hole-ID	Depth From (m)	Depth To (m)	Intercept (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> ) % of TREO
GC0291	10	14	4	3.15	1.19	41
GC0434	5	12	7	2.73	1.06	41
GC0252	13	17	4	2.69	1.03	39
GC0311	8	12	4	2.68	1.09	44
GC0268	12	17	5	2.65	1.10	42
GC0269	12	17	5	2.40	1.03	44
GC0312	8	13	5	2.39	0.85	41
GC0267	12	16	4	2.29	0.97	42
GC0317	15	18	3	2.26	0.93	41
GC0246	12	16	4	2.25	1.02	47
GC0245	12	16	4	2.22	1.04	50

This campaign targeted a zone within the first 20m (eight mining benches) from surface, containing enough material to define short-term mine planning at the start of production for a two-month period.

Table 1 shows the comparison between the Bald Hill Mineral Resource Estimate and the grade-control model within the area of the grade-control drilling. The comparison suggests a slight increase in both tonnes and contained metal with only a minor loss of grade for both TREO and Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub>. The Mineral Resource Estimate for Bald Hill used for this comparison was previously announced by the Company (see ASX announcement dated 5 May 2021 *Yangibana Project updated Measured and Indicated Mineral Resources tonnes up by 54%*).

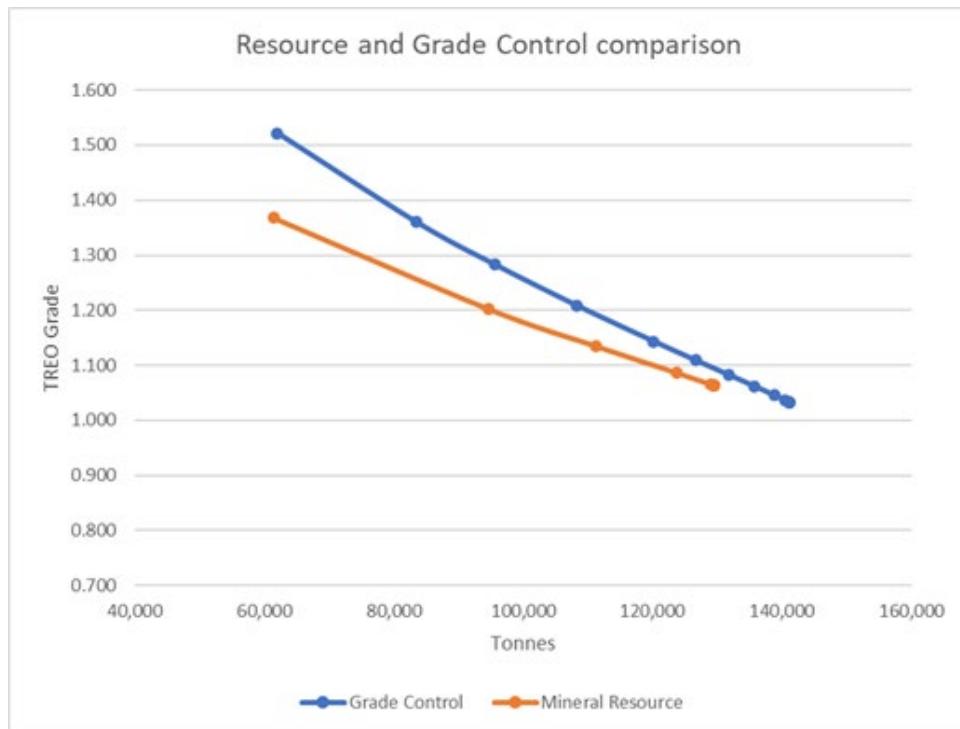


**Figure 1. Location of the grade-control drilling area within the Bald Hill open pit.**

**Table 2. Reconciliation of grade-control estimation vs Mineral Resource estimation at Bald Hill.**

Category	Tonnes	TREO %	$\text{Nd}_2\text{O}_3+\text{Pr}_6\text{O}_{11}$ %	TREO t
Grade Control	140,688	1.04	0.43	1,457
Mineral Resource	129,505	1.06	0.44	1,377
<b>Difference</b>	<b>8.6%</b>	<b>-2.6%</b>	<b>-2.4%</b>	<b>5.8%</b>

A grade-tonnage comparison between the grade-control model and the Mineral Resource Estimate is shown in Figure 1 and indicates a strong correlation between both estimates. It should be noted that because the grade-control drilling was sampled in its entirety, there is more definition in the low-grade tail than what appeared in the Mineral Resource estimate because of the selective nature of the exploration sampling.



**Figure 2. Grade-tonnage comparison, grade-control model and Mineral Resource Estimate.**

#### Yangibana Mineral Resource Update

A new Mineral Resource Estimate (Table 3) was the result of a successful 23,739m drilling campaign at Yangibana during 2020 targeting rare earth mineralisation (see ASX announcement dated 5 May 2021 *Measured and Indicated Mineral Resource Tonnes Up by 54%*).

**Table 3: Total (all 10 deposits) JORC (2012) Mineral Resources April 2021**

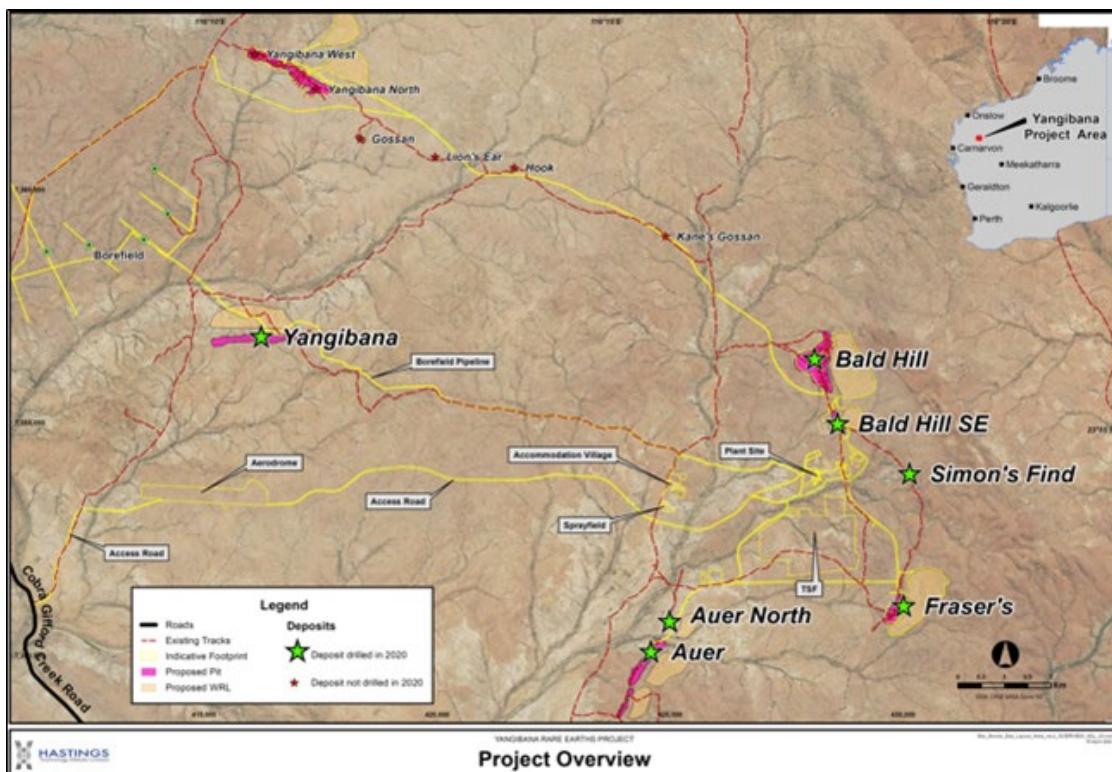
Category	M Tonnes	TREO %	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> %	TREO t
Measured	4.90	1.01	0.38	49,442
Indicated	16.24	0.95	0.33	154,750
<b>sub-total</b>	<b>21.14</b>	<b>0.97</b>	<b>0.34</b>	<b>204,192</b>
Inferred	6.27	0.99	0.31	62,225
<b>TOTAL</b>	<b>27.42</b>	<b>0.97</b>	<b>0.33</b>	<b>266,417</b>

- Measured and Indicated Mineral Resource tonnes increased by 54% to 16.3Mt for Yangibana deposits drilled during 2020.
- Measured and Indicated TREO increased to 137kt, a 32% increase for deposits drilled in 2020.
- Measured and Indicated Neodymium + Praseodymium ( $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$ ) content increased by 29% to 55.2kt of rare earth oxides for deposits drilled during 2020.
- Additional 5.8Mt of Measured and Indicated Resources added with an NdPr:TREO ratio > 40% for the deposits drilled in 2020.
- Mineral Resources confidence continues to grow with ~77% (or 21.1Mt) in the Measured or Indicated categories, suitable for mine planning and Ore Reserve estimation work that is underway.
- Simon's Find deposit increases 162% to 2.4Mt with a 165% increase in TREO oxides to 13.8kt.
- Ore Reserve optimisation work has extended Yangibana's mine life to at least 15 years.
- Yangibana's Mineral Resource estimate (all deposits) increases significantly to 27.42Mt @ 0.97% TREO for 266kt of rare earth oxides.

The updated Yangibana Mineral Resource has been applied to the Bald Hill, Simon's Find, Frasers, Auer and Yangibana deposits in addition to the previously announced (October 2019) but unchanged deposits of Yangibana North West, Kane's Gossan, Gossan, Lion's Ear and Hook (Figure 3). Total Mineral Resources at the Yangibana project now stand at 27.42Mt @ 0.97% TREO.

Measured and Indicated tonnes for deposits drilled during 2020 increased by 54% to 16.3Mt with a corresponding 32% increase in TREO to 137kt.

The increase in Mineral Resources is a combination of drilling completed during 2020 and application of a cut-off grade at 0.24% TREO following evaluation of processing costs and forward rare earth pricing assumptions, which was released in the Ore Reserve statement made on 27 July 2021.



**Figure 3. Map showing location of Yangibana deposits.**

### Re-Estimated (JORC 2012) Mineral Resources – by Deposit

The following tables represent those deposits that have been re-estimated and updated from the October 2019 Mineral Resource estimate. Numbers may not add up due to rounding and are reported at a 0.24% TREO cut-off grade.

**Table 4: Bald Hill Re-Estimated Mineral Resource, 100% Hastings**

Category	M Tonnes	TREO %	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> %	TREO t
Measured	3.51	0.86	0.35	30,369
Indicated	3.78	0.83	0.32	31,172
<i>sub-total</i>	<b>7.29</b>	<b>0.84</b>	<b>0.33</b>	<b>61,541</b>
Inferred	1.17	0.63	0.26	7,446
<b>TOTAL</b>	<b>8.46</b>	<b>0.82</b>	<b>0.32</b>	<b>68,986</b>

**Table 5: Frasers Re-Estimated Mineral Resource, 100% Hastings**

Category	M Tonnes	TREO %	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> %	TREO t
Measured	0.73	1.36	0.58	9,899
Indicated	1.01	0.77	0.34	7,797
<b><i>sub-total</i></b>	<b>1.74</b>	<b>1.02</b>	<b>0.44</b>	<b>17,695</b>
Inferred	0.25	0.9	0.36	2,255
<b>TOTAL</b>	<b>1.99</b>	<b>1.00</b>	<b>0.43</b>	<b>19,950</b>

**Table 6: Auer Re-Estimated Mineral Resource, 100% Hastings**

Category	M Tonnes	TREO %	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> %	TREO t
Measured	-	-	-	-
Indicated	3.54	0.93	0.32	32,796
<b><i>sub-total</i></b>	<b>3.54</b>	<b>0.93</b>	<b>0.32</b>	<b>32,796</b>
Inferred	1.10	0.76	0.24	8,297
<b>TOTAL</b>	<b>4.64</b>	<b>0.89</b>	<b>0.30</b>	<b>41,093</b>

**Table 7: Yangibana Re-Estimated Mineral Resource, Total**

Category	M Tonnes	TREO %	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> %	TREO t
Measured	-	-	-	-
Indicated	1.98	0.71	0.34	14,034
<i>sub-total</i>	<b>1.98</b>	<b>0.71</b>	<b>0.34</b>	<b>14,034</b>
Inferred	0.33	0.64	0.31	2,146
<b>TOTAL</b>	<b>2.31</b>	<b>0.70</b>	<b>0.33</b>	<b>16,180</b>

Comprising: Yangibana M09/165 (100% Hastings)

Category	M Tonnes	TREO %	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> %	TREO t
Measured	-	-	-	-
Indicated	1.82	0.72	0.34	13,168
<i>sub-total</i>	<b>1.82</b>	<b>0.72</b>	<b>0.34</b>	<b>13,168</b>
Inferred	0.09	0.78	0.37	714
<b>TOTAL</b>	<b>1.91</b>	<b>0.73</b>	<b>0.34</b>	<b>13,882</b>

Comprising: Yangibana M09/163 (70% Hastings)

Category	M Tonnes	TREO %	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> %	TREO t
Measured	-	-	-	-
Indicated	0.16	0.54	0.25	866
<i>sub-total</i>	<b>0.16</b>	<b>0.54</b>	<b>0.25</b>	<b>866</b>
Inferred	0.24	0.59	0.29	1,431
<b>TOTAL</b>	<b>0.40</b>	<b>0.57</b>	<b>0.28</b>	<b>2,298</b>

**Table 8: Simon's Find Mineral Resource, 100% Hastings**

Category	M Tonnes	TREO %	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> %	TREO t
Measured	-	-	-	-
Indicated	1.79	0.58	0.30	10,437
<b><i>sub-total</i></b>	<b>1.79</b>	<b>0.58</b>	<b>0.30</b>	<b>10,437</b>
Inferred	0.63	0.53	0.27	3,365
<b>TOTAL</b>	<b>2.42</b>	<b>0.57</b>	<b>0.30</b>	<b>13,802</b>

**JORC (2012) Mineral Resources, not updated – by deposit**

The following Tables represent those deposits that have not been updated or altered since the October 2019 Minerals Resource announcement. Numbers may not add up due to rounding and are reported at a 0.20% Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub> cut-off grade.

**Table 9: Yangibana North Mineral Resource, Total**

Category	M Tonnes	TREO %	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> %	TREO t
Measured	0.66	1.39	0.36	9,179
Indicated	4.15	1.41	0.36	58,609
<b><i>sub-total</i></b>	<b>4.81</b>	<b>1.41</b>	<b>0.36</b>	<b>67,788</b>
Inferred	0.97	1.43	0.37	13,914
<b>TOTAL</b>	<b>5.78</b>	<b>1.41</b>	<b>0.36</b>	<b>81,702</b>

Comprising: Yangibana North M09/160 (100% Hastings)

Category	M Tonnes	TREO %	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> %	TREO t
Measured	0.29	1.35	0.35	3,862
Indicated	1.66	1.43	0.37	23,824
<b><i>sub-total</i></b>	<b>1.95</b>	<b>1.42</b>	<b>0.37</b>	<b>27,686</b>
Inferred	0.60	1.43	0.37	8,548
<b>TOTAL</b>	<b>2.55</b>	<b>1.42</b>	<b>0.37</b>	<b>36,234</b>

Comprising: Yangibana North M09/159 (JV Tenement 70% of Total to Hastings)

Category	M Tonnes	TREO %	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> %	TREO t
Measured	0.38	1.42	0.36	5,317
Indicated	2.49	1.40	0.36	34,785
<b><i>sub-total</i></b>	<b>2.87</b>	<b>1.40</b>	<b>0.36</b>	<b>40,101</b>
Inferred	0.37	1.45	0.37	5,366
<b>TOTAL</b>	<b>3.24</b>	<b>1.41</b>	<b>0.36</b>	<b>45,467</b>

Table 10: Mineral Resources not updated, 100% Hastings, all Mineral Resources are Inferred Only

Category	M Tonnes	TREO %	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> %	TREO t
Gossan	0.25	1.43	0.35	3,518
Lion's Ear	0.71	1.54	0.39	10,934
Hook	0.29	1.52	0.33	4,393
Kane's Gossan	0.57	1.04	0.29	5,970
<b>TOTAL</b>	<b>1.82</b>	<b>1.39</b>	<b>0.34</b>	<b>24,814</b>

## Yangibana Project Development

Project development, associated engineering efforts and execution readiness tasks continue to accelerate during the quarter to deliver an updated control budget and schedule. This will allow more rapid progress of detailed engineering to finalise the control budget and schedule for the de-coupled processing plan arrangement.

Kiln, scrubber and SAG mill packages continue to progress. To assist with these works, the Hastings engineering team has been bolstered with the appointments of an experienced contracts manager and a project cost controller. Both appointments are integral as Hastings proceeds towards early infrastructure construction over the coming months.

A comprehensive geotechnical program for the TSF along with access road, airstrip, accommodation village has been designed and will be completed during the Q3 this year. On the completion of the geotechnical program enabling works onsite will commence, this includes packages such as bore fields water supply, access road construction, airfield construction and the communications to site.

The beneficiation plant site layouts and design continue to be progressed. DRA is continuing with detailed Material Take-offs (MTOs) for both the beneficiation and hydrometallurgical plant locations with detailed engineering to allow quantities of earthworks, concrete, steel, piping and electrical to be estimated ready for tendering process.

The 300-bed village tender process is well advanced with a preferred contractor decision to be made in Q1 FY22. Plans to reopen the fly camp, to enable early works packages to restart, are well established with a refurbishment contract being issued to Mallard contracting. This will include installation and commissioning of site power, re-establishment of the water supply and wastewater treatment plants.

Designs for the site access road are complete and the encompassing airstrip design is nearing completion, with both packages part of the initial on the ground works to be activated upon start-up. Bulk earth work quantities for both these packages are now known and being priced.

IT infrastructure is well progressed and includes the finalised design for radio link towers from a Telstra exchange to site.

Negotiations with respect to a long-term land access/rental agreement continue with DevelopmentWA and the Department of Jobs, Tourism, Science and Innovation (JTSI) around Hastings' preferred Pilbara coastal site location for its hydrometallurgical plant. Site layouts including for the evaporation ponds have been completed and capital and operating costs for hydrometallurgical services including gas, power and water are now developed.

There have been large increases in construction costs in WA in recent months. This is in part because of higher energy costs, material shortages and acute skilled labour shortages. Sustained iron ore prices above \$200/t are raising the price of structural steel in the order of 10-15% while diesel prices have returned to pre-pandemic rates. These inputs are placing the current capital and operating cost estimates under significant pressure. During Q1 and Q2 FY22 Hastings will evaluate the impacts of these increases and any project scope remediation that may be required as a result.

## Simon's Find Metallurgical Results

The Simon's Find deposit is part of the 8km-long Bald Hill-Simon's Find-Fraser's mineralised trend and strategically located close to the site of Yangibana's proposed process plant and infrastructure.

The mineralisation at Simon's Find contains the highest level of  $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$  to TREO – 52% – across all deposits at Yangibana. In fact, they are the highest NdPr levels of any known rare earths project in the world. The average of samples tested reported  $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$  oxide accounting for 54% of TREO. Values as high as 57% were recorded in individual samples.

Simon's Find has, on average, a much lower TREO head grade than the other Yangibana deposits. However, its industry high NdPr levels and an amenability to producing a clean monazite concentrate mean Simon's Find is able to deliver the same outstanding final results as the other deposits at Yangibana.

- Metallurgical test work from Simon's Find deposit, part of the Yangibana Rare Earths Project, has delivered strong results:
  - 86% beneficiation recovery generating a concentrate grade of 8.9%  $\text{Nd}_2\text{O}_3$  from flotation test work; and
  - 98% recovery through hydrometallurgical acid bake and water leach test work on flotation samples.
- Beneficiation concentrate results from Simon's Find are comparable to other Yangibana deposits, which have much higher mined TREO grades.
- Results show an average beneficiation  $\text{Nd}_2\text{O}_3$  upgrade factor of 28 times from the calculated head grade, equivalent to a concentrate grade of 19% TREO.
  - Upgrade factors up to 50 times the calculated head grade, producing a concentrate grade up to 29% TREO were reported in many samples.
- Up to 57% of Simon Find's TREO is neodymium and praseodymium ( $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$ ) – a ratio unrivalled for any known rare earths deposit worldwide.
- Ore sorting variability test results indicated that the head grade of Simon's Find can be upgraded from an average grade of 0.58% to 0.84% TREO, an increase of 45%.
  - Simon's Find samples that were ore sorted upgraded faster in flotation with superior TREO recoveries when compared to the unsorted feedstock.
- These results are being fed into the Yangibana Project updated Ore Reserves estimate, for which a maiden ore reserve estimate was defined for Simon's Find in the announcement made on 27 July 2021.

## Project Finance

During the quarter under review, Hastings and its financial adviser KPMG Corporate Finance (KPMG) continued to engage with interested financiers with regards to the Yangibana project debt financing. This work was being carried out in parallel to the updates to the Mineral Resources and Ore Reserves and mine schedule optimisation work. Accordingly, Hastings is actively engaged with leading project finance banks in Australia and Europe as well as specialist mining funds interested in committing debt funding to Hastings alongside the Commonwealth's Northern Australia Infrastructure Facility (NAIF), Finland's export credit agency Finnvera and Germany's state bank KFW.

Updated due-diligence workstreams have been progressed pending the finalisation of Yangibana's mine schedule and revised NPV. These revised financials and the long-term offtake contracts will influence the ongoing negotiations on the final terms for the debt package with lenders.

Hastings is finalising submission of credit applications to interested financiers during Q1 FY22 for the project finance required to construct Yangibana. Subject to receipt of firm, credit-approved commitments, Hastings expects financial close to be achieved by the end of Q3 FY22. This aligns with Hastings' proposal to commence Yangibana's construction using cash at hand.

During the quarter, Hastings closed a two-tranche \$100.7 million placement (before costs) to institutional and sophisticated investors. Hastings had \$110.1 million in cash and equivalents as at 30 June 2021. The Company also has 126.7 million listed options on issue (ASX: HASO), which have an expiry date of 12 April 2022. If all HASO are exercised, the Company's cash balance will be supplemented by a further \$31.6 million.

As previously announced to the ASX, the equity component of Yangibana's capital costs is estimated to be \$124 million. Since the commencement of Yangibana project work in 2014, the Company has raised approximately \$233 million in equity capital, which will underpin a senior debt facility required for the project of approximately \$350 million to \$400 million.

Hastings remains focused on building on the strong fundamentals of Yangibana. Against the background of a favourable EV thematic and a world-class leading NdPr:TREO ratio orebody, the Company aims to secure an optimal debt/equity structure with the objective of delivering long-term value to all stakeholders.

## Commercial

Hastings announced on 20 April that it had signed a major binding offtake contract with thyssenkrupp Materials Trading GmbH. This binding offtake requires Hastings to supply thyssenkrupp with 9,000 tonnes per annum of MREC – equivalent to 60% of Yangibana's annual production – for the first five years; and for the subsequent five years, 5,000 tonnes per annum of MREC (equivalent to 33% of Yangibana's annual production). Over a 10-year period, the total MREC volume committed by thyssenkrupp amounts to 70,000 tonnes. MREC pricing is referenced to Asian Metals average 90-days Ex Works price or at an agreed price between the parties.

In the long term, this contract strategically positions Hastings to supply its high-grade NdPr:TREO product to an emerging mine-to-magnets supply chain in Europe and North America. thyssenkrupp's global reach in raw material trading will strengthen Hastings's product marketing in the current pandemic environment where border closures and travel restrictions make it inconvenient and challenging to develop end-user customer relationships.

Hastings has previously signed an offtake contract with China based, Baotou Skyrock (see ASX announcement dated 28 November 2018) and a Master Supply Agreement with Schaeffler Technologies AG (see ASX announcement dated 3 June 2020). Any uncommitted Yangibana volume will be sold in the spot market.

Salaries and fees paid to Directors during the quarter amounted to \$239,000.

The Company spent \$1.0 million on exploration during the quarter, substantially related to the drilling programs referred to above.

### Rare Earths Market Overview

NdPr pricing in 2021 continued the positive price trend established in the second half of 2020. In the first quarter of this calendar year, prices continued to climb upwards as the economies of China, Europe, Japan and the US recovered from the initial impact of the COVID-19 pandemic. This resulted in a draw-down of inventories of rare earth oxides and metal, which amplified the already tight supply situation seen in Q4 CY20. In anticipation of demand, traders moved aggressively to stockpile and this created a strong upward momentum in NdPr prices early this year. By March 2021 prices started to soften as stockpiles were being worked through. This coincided with new variants of the coronavirus, which again raised economic concerns and caused a pandemic-induced drop in global consumption. This lasted approximately two months before the NdPr prices recovered, fuelled by strong global economic data and positive news that the COVID-19 vaccine was gaining traction in the major economies of US, Europe and China.

From the beginning of June, the NdPr price was heading for a decade high and on July 22 reached a new record of RMB601/kg or USD92.91/kg NdPr oxide EXW China.

Evidently this price pattern in the past 12 months indicates that the market demand-supply dynamics are being recalibrated and beginning to reflect the emergence of new markets, in particular the electric vehicles market where demand for rare earth magnets is driving up the demand for NdPr. This fundamental shift in the global automotive sector to EV as well as the climate change agenda propelling wind energy will see the electrification of our society for generations to come.

The latest annual report by the US Geological Survey states that China's official production quota for 2020 of rare-earth oxide equivalent is 140,000 tonnes (132,000 tonnes in 2019), almost 60% of the global total. The country is also the largest importer of rare-earth ores and concentrates, especially for heavy rare earths such as dysprosium and terbium, both used in very small quantities as a power boost in high end permanent magnets. China relies on imports from Myanmar for more than half of its domestic supplies of heavy rare earths. The military coup in Myanmar, which erupted on February 1, and the resurgence of the Delta variant of the coronavirus have been limiting the exports of rare earths to China and therefore caused the strong resurgence in the magnet rare earth prices.

In January this year, the Chinese Government issued its draft Regulations on Rare Earth Management, which when in force will impact on its production quotas, illegal mining and exports of rare earths-derived products as the country continues its drive up the value chain. According to the data provided by the General Administration of

Customs in 2020, China's total export volume of rare earths reached 35,447 tonnes, down by 23.5% year-on-year and the lowest figure in the past five years. China's exports of rare earths have been decreasing in recent years – in 2019, the total export volume was down 12.6% year-on-year.

This structural change in supply-demand dynamics and the lack of new significant investments in rare earths production outside of China in the past decade have created a rush to develop new sources of supply even as the European and US Governments push to develop a mine-to-magnets supply chain independent of China. In Europe with the European Raw Materials Alliance initiative and in the US with President Biden's Critical Minerals and Materials 100-Day Supply Chain Review, governments are now addressing the importance of decentralising the raw material supply chain and reducing dependence on China.

In April, Hastings signed a 10 year offtake contract with leading German raw materials trading company, Thyssenkrupp and also signed a Master Supply Agreement with Schaeffler in July last year, is well positioned to take advantage of the opportunities over in the next 5 to 10 years.

This announcement has been approved by the Board for release to the ASX.

**For further information, please contact:**

*Charles Lew*  
Executive Chairman  
+65 6220 9220

*Matthew Allen*  
Chief Financial Officer  
+61 8 6117 8634

*Andrew Reid*  
Chief Operating Officer  
+61 8 6117 8621

**For media and investor queries, please contact:**

*Peter Klinger*  
Cannings Purple  
+61 411 251 540  
[pklinger@canningspurple.com.au](mailto:pklinger@canningspurple.com.au)

*Peter Kermode*  
Cannings Purple  
+61 411 209 459  
[pkermode@canningspurple.com.au](mailto:pkermode@canningspurple.com.au)

**About Hastings Technology Metals Limited**

Hastings Technology Metals Limited (ASX: HAS) is a well-managed Perth based rare earths company primed to become the world's next producer of neodymium and praseodymium concentrate (NdPr). NdPr are vital components used to manufacture permanent magnets used every day in advanced technology products ranging from electric vehicles to wind turbines, robotics, medical applications, digital devices, etc.

Hastings' flagship Yangibana project, in the Gascoyne region of Western Australia, contains one of the most highly valued NdPr deposits in the world with NdPr:TREO ratio of up to 52%. The site is permitted for long-life production and with offtake contracts signed and debt finance in advanced stage targeted for completion in 3Q2021. Construction is scheduled to start in mid-2021 ahead of first production in late 2023.

Hastings also owns and operates the Brockman project, Australia's largest heavy rare earths deposit, near Halls Creek in the Kimberley. Brockman hosts a JORC compliant Mineral Resource hosting Total Rare Earths Oxides (TREO).

For further information on the Company and its projects visit [www.hastingstechmetals.com](http://www.hastingstechmetals.com)

**Competent Person Statements**

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.

**APPENDIX – MINING TENEMENTS HELD AS AT 30 JUNE 2021**

<b>YANGIBANA PROJECT</b>			
<b>All tenements are in Western Australia</b>			
<b>Gascoyne Metals Pty Ltd (100% subsidiary)</b>			
<b>Tenement</b>	<b>Locality</b>	<b>Status</b>	<b>Holder/s</b>
E09/1989	WA	Granted	Gascoyne Metals Pty Ltd
E09/2007	WA	Granted	Gascoyne Metals Pty Ltd
E09/2084	WA	Granted	Gascoyne Metals Pty Ltd
E09/2086	WA	Granted	Gascoyne Metals Pty Ltd
E09/2095	WA	Granted	Gascoyne Metals Pty Ltd
E09/2129	WA	Granted	Gascoyne Metals Pty Ltd
E09/2137	WA	Granted	Gascoyne Metals Pty Ltd
E09/2334	WA	Granted	Gascoyne Metals Pty Ltd
E09/2364	WA	Granted	Gascoyne Metals Pty Ltd
E09/2403	WA	Granted	Gascoyne Metals Pty Ltd
E09/2404	WA	Granted	Gascoyne Metals Pty Ltd
G09/10	WA	Granted	Gascoyne Metals Pty Ltd
G09/14	WA	Granted	Gascoyne Metals Pty Ltd
G09/23	WA	Application	Gascoyne Metals Pty Ltd
G09/24	WA	Application	Gascoyne Metals Pty Ltd
G09/25	WA	Application	Gascoyne Metals Pty Ltd
L09/66	WA	Granted	Gascoyne Metals Pty Ltd
L09/67	WA	Granted	Gascoyne Metals Pty Ltd
L09/68	WA	Granted	Gascoyne Metals Pty Ltd
L09/69	WA	Granted	Gascoyne Metals Pty Ltd
L09/70	WA	Granted	Gascoyne Metals Pty Ltd
L09/71	WA	Granted	Gascoyne Metals Pty Ltd
L09/72	WA	Granted	Gascoyne Metals Pty Ltd
L09/74	WA	Granted	Gascoyne Metals Pty Ltd
L09/75	WA	Granted	Gascoyne Metals Pty Ltd
L09/80	WA	Granted	Gascoyne Metals Pty Ltd
L09/81	WA	Granted	Gascoyne Metals Pty Ltd
L09/82	WA	Granted	Gascoyne Metals Pty Ltd
L09/83	WA	Granted	Gascoyne Metals Pty Ltd
L09/85	WA	Granted	Gascoyne Metals Pty Ltd
L09/86	WA	Granted	Gascoyne Metals Pty Ltd
L09/87	WA	Granted	Gascoyne Metals Pty Ltd
L09/89	WA	Granted	Gascoyne Metals Pty Ltd
L09/91	WA	Granted	Gascoyne Metals Pty Ltd
M09/157	WA	Granted	Gascoyne Metals Pty Ltd
M09/160	WA	Granted	Gascoyne Metals Pty Ltd

<b>Tenement</b>	<b>Locality</b>	<b>Status</b>	<b>Holder/s</b>
M09/164	WA	Granted	Gascoyne Metals Pty Ltd
M09/165	WA	Granted	Gascoyne Metals Pty Ltd
M09/177	WA	Application	Gascoyne Metals Pty Ltd
M09/179	WA	Application	Gascoyne Metals Pty Ltd
P09/489	WA	Granted	Gascoyne Metals Pty Ltd

<b>Gascoyne Metals Pty Ltd (70%) Joint Venture</b>			
<b>Tenement</b>	<b>Locality</b>	<b>Status</b>	<b>Holder/s</b>
E09/1703	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/1704	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/1705	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/1706	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/2296	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/2298	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/2333	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
G09/11	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
G09/13	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
M09/159	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
M09/161	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
M09/163	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)

<b>Yangibana Pty Ltd (100% subsidiary)</b>			
<b>Tenement</b>	<b>Locality</b>	<b>Status</b>	<b>Holder/s</b>
E09/1700	WA	Granted	Yangibana Pty Ltd
E09/1943	WA	Granted	Yangibana Pty Ltd
E09/1944	WA	Granted	Yangibana Pty Ltd
E09/2018	WA	Granted	Yangibana Pty Ltd
G08/95	WA	Application	Yangibana Pty Ltd
G08/96	WA	Application	Yangibana Pty Ltd
G08/97	WA	Application	Yangibana Pty Ltd
G09/17	WA	Granted	Yangibana Pty Ltd
G09/18	WA	Granted	Yangibana Pty Ltd
G09/20	WA	Granted	Yangibana Pty Ltd
G09/21	WA	Granted	Yangibana Pty Ltd
G09/22	WA	Granted	Yangibana Pty Ltd
G09/26	WA	Application	Yangibana Pty Ltd
G09/27	WA	Application	Yangibana Pty Ltd
G09/28	WA	Application	Yangibana Pty Ltd
L09/93	WA	Granted	Yangibana Pty Ltd
L09/95	WA	Granted	Yangibana Pty Ltd
L09/96	WA	Application	Yangibana Pty Ltd
L09/97	WA	Application	Yangibana Pty Ltd
M09/158	WA	Granted	Yangibana Pty Ltd
M09/162	WA	Granted	Yangibana Pty Ltd
M09/176	WA	Application	Yangibana Pty Ltd
M09/178	WA	Application	Yangibana Pty Ltd

<b>BROCKMAN PROJECT</b>			
<b>All tenements are in Western Australia</b>			
<b>Brockman Project Holdings Pty Ltd (100% subsidiary)</b>			
<b>Tenement</b>	<b>Locality</b>	<b>Status</b>	<b>Holder/s</b>
E80/5248	WA	Application	Brockman Project Holdings Pty Limited
M80/636	WA	Application	Brockman Project Holdings Pty Limited
P80/1626	WA	Granted	Brockman Project Holdings Pty Limited
P80/1627	WA	Granted	Brockman Project Holdings Pty Limited
P80/1628	WA	Granted	Brockman Project Holdings Pty Limited
P80/1629	WA	Granted	Brockman Project Holdings Pty Limited
P80/1630	WA	Granted	Brockman Project Holdings Pty Limited
P80/1631	WA	Granted	Brockman Project Holdings Pty Limited
P80/1632	WA	Granted	Brockman Project Holdings Pty Limited
P80/1633	WA	Granted	Brockman Project Holdings Pty Limited
P80/1634	WA	Granted	Brockman Project Holdings Pty Limited
P80/1635	WA	Granted	Brockman Project Holdings Pty Limited

<b>OTHER</b>			
<b>All tenements are in Western Australia</b>			
<b>Ark Gold Pty Ltd (100% subsidiary)</b>			
Tenement	Locality	Status	Holder/s
E09/2385	WA	Granted	Ark Gold Pty Ltd
E09/2399	WA	Granted	Ark Gold Pty Ltd