

31 July 2020

## JUNE 2020 QUARTERLY REPORT

Hasting's 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@Hasting'stechmetals.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.Hasting'stechmetals.com

- Hasting's signs long term binding Master Agreement with German Automotive Tier 1 supplier, Schaeffler technologies AG
- Hasting's obligation is to supply a substantial volume of MREC over an initial period of 10 years
- Schaeffler continues its support for German government's untied loan guarantee (UFK) scheme for Hasting's debt financing
- Hasting's to pursue a decoupled processing strategy and relocate Yangibana's Hydrometallurgical plant to the Pilbara region of Western Australia
- Total Yangibana Project CAPEX revised to A\$449m from A\$517m resulting in 13% or \$68M reduction in CAPEX based on Hydrometallurgical Plant relocation to the Pilbara:
  - Removal of gas pipeline and resizing of the powerstation eliminates \$79m
  - Revised site access road re-alignments eliminate \$10m
- Hasting's commences major drilling program at Yangibana
- The Western Australian Government Department of Water and Environmental Regulation has granted a works permit to construct the process plant at the Yangibana Rare Earths Project.

### Health and Safety

In the June quarter, zero lost time injuries were recorded with the company-wide lost time injury (LTI) free status being 696 days.

The execution of COVID-19 systems and protocols has been a focus during the quarter providing support to our employees at Yangibana, Perth and Singapore offices.

The Hasting's annual Radiation Report was submitted to Department of Mines, Industry, Regulation and Safety (DMIRS) as required under the Mines Safety and Inspection Act.

Health and safety management plans were reviewed with the chosen exploration drill company prior to commencement of drilling activities in June.

Personal hygiene dust monitoring as well as environmental monitoring is planned during the drilling program to measure possible exposure to naturally occurring radiation material (NORM). Potential radiation exposures to drillers and exploration personnel formed part of the independent 3<sup>rd</sup> party health and safety audit completed during July.

### **Environment**

Secondary approvals for the Yangibana Project are progressing with receipt of a Works Approval on 17 June 2020 for prescribed facilities including:

- Category 5: Process or beneficiation of metallic or non-metallic ore
- Category 6: Mine dewatering
- Category 52: Electric power generation
- Category 64: Class II or III putrescible landfill site
- Category 73: Bulk storage of chemicals etc
- Category 85: Sewage facility

Environmental permit update actions for the Yangibana Project are currently being evaluated for:

- Yangibana proposed site layout revisions; and
- Decoupling of the process plant and relocating the hydrometallurgical process to a potential coastal location.

Environmental and approvals considerations for the above have been assessed by Hasting's. The approvals timeframe for the relocation of the hydrometallurgical plant can be attained within a suitable timeframe due to the designated land use of the area and previous completion of the majority of environmental assessments. Additionally, preliminary discussions with key stakeholders including government, port and community groups has been very positive with support provided in favour of the coastal location.

### **2020 Resource Definition Program**

Hasting's commenced the 2020 drilling program with a Reverse-Circulation (RC) drilling rig mobilised to site in mid-June. The program will continue until 4Q2020 and has been designed to achieve three goals:

- Validate the existing Mineral Resource Estimates with close spaced grade control drilling;
- Increase the Yangibana Project 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.

As of the end of the quarter we have completed 3,455m of close space grade control drilling over the Bald Hill deposit (see Figure 1.). Geological logging of these holes has confirmed ore zones correlate well with existing geological interpretations. Samples have been submitted but no assay results have been received as of quarter end.

Post 2Q2020, an additional 4,745m of Resource Definition drilling within the Bald-Simon's Find – Frasers trend has been completed.



Figure 1. Close space Grade Control Drilling at Bald Hill

### **Metallurgy**

Continued development on an alternative flotation collector reagent selected from the initial screening testwork completed last quarter. The latest test results indicated the new collector can deliver the same or similar performance as the existing collector but at a lower dose rate. Results show that recovery drops with decreasing temperature, however this can be offset by increasing reagent addition.

The testwork with the new collector has produced a much cleaner rougher concentrate and indicated faster kinetics and good selectivity on the recovered minerals. The next step is to understand the kinetics in detail and optimise the flotation performance with a lower collector dose rate at a lower temperature.

### **Ore Sorting**

Progress focused on the initial engineering for ore sorting and completion of the process design criteria, mass balance and evaluations on how to incorporate the ore sorting facilities into the existing flowsheet to maximise the benefits to the project.

2020 drilling program will provide additional samples from different deposits for the planned variability testwork to validate the process design criteria.

### **COVID-19 Impact**

The company continues with the majority of its workforce on a reduction in working hours for the period till September.

Engineering and design work with DRA Global have not re-commenced, however other technical packages including the gas scrubber and the commenced drilling program continue as per normal.

### **Project Development Update**

The Hasting's engineering team continues to progress work fronts in several areas without the support of its key engineering consultant DRA Global.

The Covid-19 delay has allowed the team to rapidly progress an internal project review process, which has been undertaken at a desktop level targeting opportunity around decoupling the plant and internal site layout optimisation.

The concept of decoupling the Hydrometallurgical portion from the beneficiation plant and relocating the Hydrometallurgical plant to a coastal location has resulted in a potentially significant CAPEX reduction. The relocated acid-baked kiln inside the Hydrometallurgical plant to a fully serviced coastal location would remove the requirement for the gas pipeline and place the Hydrometallurgical plant closer to ports for export of the mixed rare earth carbonate (MREC) and imported reagents.

The Yangibana site layout as per the definitive feasibility study contained opportunities to realise operational improvements by relocating the camp and slightly re-arranging the process plant and Tailings Storage Facilities to a more central and customised location. Benefits of the re-arrangement include:

- reduction in internal haul road length and construction cost; and
- a much-reduced main access road length.

To support these proposed changes additional Flora and Fauna surveys have been undertaken.

Technical engagement through 3<sup>rd</sup> party specialists continues to solidify these concepts as a pre-cursor prior to re-starting engineering engagement. FLSmidth has been placed on hold for the past quarter and no further progress has been made on the kiln package in this area. TAPC (Kiln Off Gas Scrubber) engineering works are now at 96% complete, with the delivery of the last of the off-gas scrubber engineering around the filter press requirements.

### **Commercial**

In June, Hasting's signed a 10-year binding Master Agreement with Schaeffler Technologies AG (Schaeffler) for the supply of its MREC. This Master Agreement governs the purchasing, scheduling, quality compliance and regulations, and ethical business conduct between Hasting's and Schaeffler. Hasting's and Schaeffler are currently in discussions on the logistics, product delivery timeline and floor price formula to be agreed with its lenders.

With the signing of this agreement, Schaeffler continues to commit support towards Hasting's in its eligibility for the German Government's untied loan guarantee scheme (known as UFK) in its project financing for the construction of its mine and processing plant. Since the announcement of the MOU in June 2019, Schaeffler and Hasting's have expressed their joint commitment to work together on a long term partnership to enable Schaeffler to develop an independent supply chain for its e-motor business for the emerging Electric Vehicle industry.

Hasting's continues to have advanced discussions with several other European offtake customers, which Hasting's believe could lead to contracted offtakes in the future.

Discussions were initiated with customers in the US and Japan for long term sales opportunities, which are ongoing and complex due to the different demands of each customer in the supply chain. The combined volume from these offtake contracts will further support the project finance loan terms.

### **Project Finance**

Following Hasting's commitment to purchase a significant value of equipment for its processing plant from Metso-Outotec, a Tier 1 globally recognised processing equipment supplier, Finnvera Oyj, Finnish state-owned export credit financing company has confirmed Hasting's' eligibility for concessionary financing terms. The inclusion of Finnvera to the financing group (along with KFW/Euler Hermes and NAIF) reaffirms the Yangibana project's financing credentials.

With the recent announcement of the decoupling of the beneficiation from the hydrometallurgy plant to a coastal location in the Pilbara and the \$68m capex savings arising from this plant relocation, work is also underway to identify operational cost savings associated with this strategic move.

The recently commenced drill program expected to be completed later this year will potentially add additional mine life thereby extending loan tenures and reducing monthly repayment amounts.

Samples collected from the drilling program will be utilised to finalise work on the flotation collector reagents and ore sorting technology to be incorporated into the financial modelling further strengthen the mine economics. The results of the activities, when combined, should have a major influence in the negotiations on the financing terms and covenants for the senior debt facility with the three lenders.

Management remains focussed on the objective of delivering long term value to its stakeholders during the final stages of debt negotiations for optimal commercial and financing loan terms.

### **Brockman Project**

The Company has completed the process of preparing all the documentation to support the application of a Mining Lease on the Brockman Project.

Negotiations between the Company, the Department of Mines Industry Regulation and Safety as well as the Kimberly Land Council have been postponed due to regional access restrictions associated with COVID-19.

### **Corporate**

Payments to related parties and their associates during the quarter of \$186,000 comprise director and non-executive director salaries, fees and superannuation.

### **Competent Person Statements**

The information in this report 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 report of the matters based on his information in the form and context in which it appears

**This report has been approved by the Board.**

## **About Hasting's Technology Metals Limited**

### *Yangibana Project*

Hasting's Technology Metals Limited (ASX:HAS, Hasting's 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 (MREC) 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. Hasting's aims to become the next significant producer of neodymium and praseodymium outside of China.

Hasting's 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.

Hasting's 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.Hasting'stechmetals.com](http://www.Hasting'stechmetals.com)

### **For further information please contact:**

Charles Lew, Chairman: +65 9790 9008 / +61 8 6117 6118

Andrew Reid, Chief Operations Officer, +61 432 740 975



***YANGIBANA PROJECT 30.06.2020***

**All tenements are in Western Australia**

**Gascoyne Metals Pty Ltd (100% subsidiary)**

<b>Tenement</b>	<b>Holder/s</b>
E09/2364 (Application)	Gascoyne Metals Pty Ltd
E09/1989	Gascoyne Metals Pty Ltd
E09/2007	Gascoyne Metals Pty Ltd
E09/2084	Gascoyne Metals Pty Ltd
E09/2086	Gascoyne Metals Pty Ltd
E09/2095	Gascoyne Metals Pty Ltd
E09/2129	Gascoyne Metals Pty Ltd
E09/2137	Gascoyne Metals Pty Ltd
E09/2334	Gascoyne Metals Pty Ltd
G09/10	Gascoyne Metals Pty Ltd
G09/14	Gascoyne Metals Pty Ltd
L09/66	Gascoyne Metals Pty Ltd
L09/67	Gascoyne Metals Pty Ltd
L09/68	Gascoyne Metals Pty Ltd
L09/69	Gascoyne Metals Pty Ltd
L09/70	Gascoyne Metals Pty Ltd
L09/71	Gascoyne Metals Pty Ltd
L09/72	Gascoyne Metals Pty Ltd
L09/74	Gascoyne Metals Pty Ltd
L09/75	Gascoyne Metals Pty Ltd
L09/80	Gascoyne Metals Pty Ltd
L09/81	Gascoyne Metals Pty Ltd
L09/82	Gascoyne Metals Pty Ltd
L09/83	Gascoyne Metals Pty Ltd
L09/85	Gascoyne Metals Pty Ltd
L09/86	Gascoyne Metals Pty Ltd
L09/87	Gascoyne Metals Pty Ltd
L09/89	Gascoyne Metals Pty Ltd
L09/91	Gascoyne Metals Pty Ltd
M09/157	Gascoyne Metals Pty Ltd
M09/160	Gascoyne Metals Pty Ltd
M09/164	Gascoyne Metals Pty Ltd
M09/165	Gascoyne Metals Pty Ltd
P09/482	Gascoyne Metals Pty Ltd
P09/489	Gascoyne Metals Pty Ltd



<b>Gascoyne Metals Pty Ltd (70%) Joint Venture</b> <b>All tenements are in Western Australia</b>	
E09/1703	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/1704	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/1705	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/1706	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/2296	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/2298	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/2333	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
G09/11	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
G09/13	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
M09/159	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
M09/161	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
M09/163	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)

<b>Yangibana Pty Ltd (100% subsidiary)</b> <b>All tenements are in Western Australia</b>	
L09/92 (Application)	Yangibana Pty Ltd
E09/1700	Yangibana Pty Ltd
E09/1943	Yangibana Pty Ltd
E09/1944	Yangibana Pty Ltd
E09/2018	Yangibana Pty Ltd
G09/17	Yangibana Pty Ltd
G09/18	Yangibana Pty Ltd
G09/20	Yangibana Pty Ltd
G09/21	Yangibana Pty Ltd
M09/158	Yangibana Pty Ltd
M09/162	Yangibana Pty Ltd

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