

# QUARTERLY REPORT

for the period ended 31 December 2020

ASX RELEASE  
29 JANUARY 2021

ASX:MLM

## KEY EVENTS

Drilling successfully completed in December 2020 at Cape Flattery Silica Sands Project

Maiden Inferred Resource released in November 2020 for Cape Flattery Silica Sands Project

Conduct & Compensation Agreement signed by Hopevale Congress

Weipa Bauxite Project sold for cash and royalties

The company's Annual General Meeting was held on 18 November 2020, all resolutions approved

\$2.4 million in cash is available at Quarter end, with no debt

Management continues to evaluate new opportunities in the gold, copper, silica sand and other mineral commodity sectors

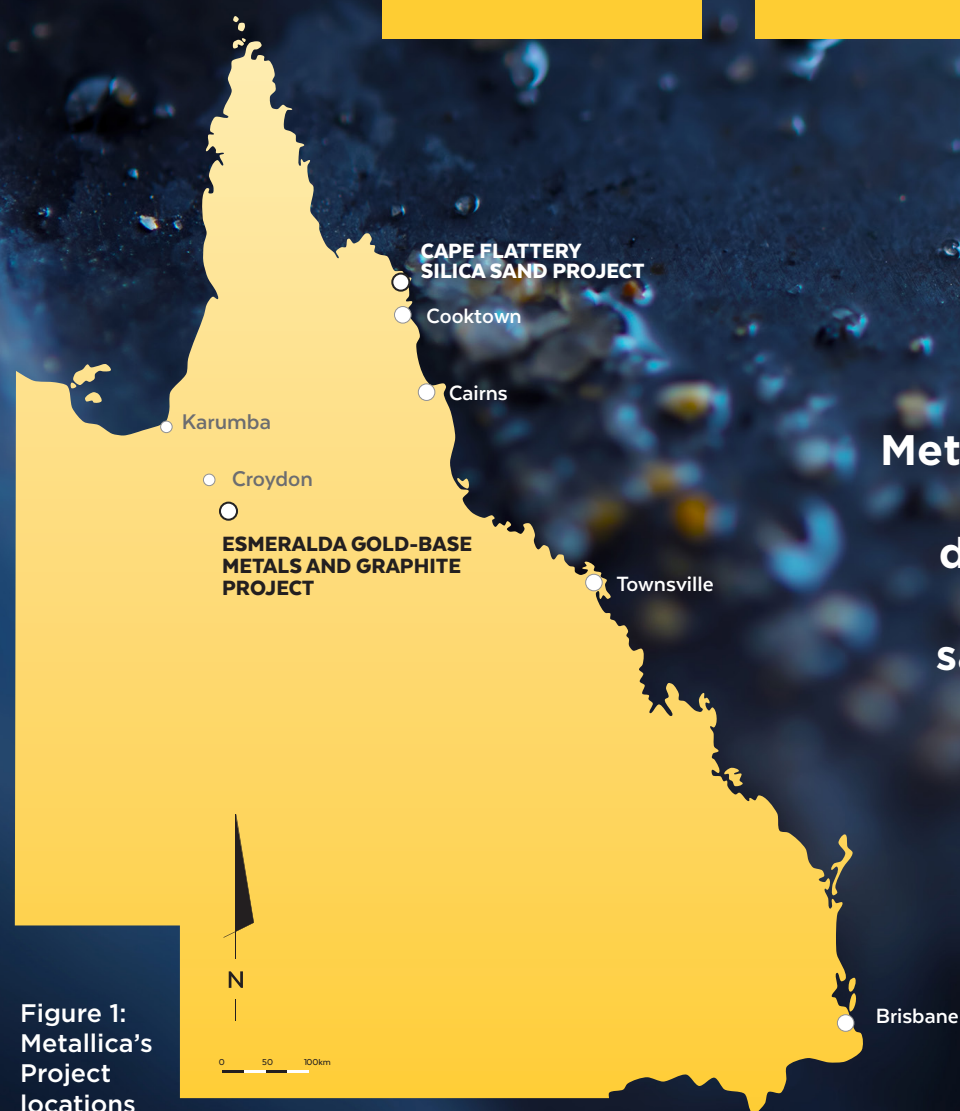


Figure 1:  
Metallica's  
Project  
locations

**Metallica Minerals Limited**  
an Australian resource  
development company,  
with interests in silica  
sands and gold-copper.





# CORPORATE INFORMATION

As at 31 December 2020

## CASH BALANCE

As at 31 December 2020, MLM's cash balance was approximately \$2.4m

## ISSUED CAPITAL

324,377,408  
Ordinary Shares

11,000,000  
Unlisted Options

## SHAREHOLDERS

1,930  
Total Shareholders

Top 20 shareholders  
hold 47.98%

## LARGEST SHAREHOLDERS

Jien Mining P/L - 12.38%  
Osmosis Holdings P/L - 5.39%  
Plan 1 P/L - 4.10%

## DIRECTORS

Theo Psaros  
Executive Chairman

Andrew Gillies  
Non-Executive Director

Scott Waddell  
Executive Director &  
Chief Financial Officer

## SENIOR MANAGEMENT

Scott Waddell  
Company Secretary



Figure 2: Sand samples from December drilling programme laid out at IHC Robbins in preparation for Metallurgical testwork to commence

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# DEVELOPMENT AND EXPLORATION

Metallica Minerals (ASX: MLM) ("Metallica", "the Company") is pleased to present its Quarterly activities report for the period ended 31 December 2020.

## CAPE FLATTERY

### SILICA SANDS MLM INTEREST 100%

The Cape Flattery Silica Sands Project is adjacent to the world class Cape Flattery Silica Sand mining and shipping operation owned by Mitsubishi. During the December 2020 Quarter, the Company continued to progress its evaluation and development of this project.

On 30 November 2020, Metallica advised the ASX that it had achieved a Maiden JORC Inferred Resource of 12.85 million tonnes @ 99.28% SiO<sub>2</sub> for its 100% owned Cape Flattery Silica Sand Project (CFS). This result had been based on hand auger work completed in previous programs (see Table 1).

The independent assessment of this auger hole exploration was conducted by consultants Ausrocks Pty Ltd. The final marketable product being sought is a high silica (SiO<sub>2</sub>) grade sand, the SiO<sub>2</sub> content by percentage would be used to quantify insitu material as a resource. Cut-off grades were adopted based on analysis of raw assay data and grade tonnage plots completed on the block model to optimise the average SiO<sub>2</sub> grade and quantity of the resource at varied reporting levels.

From the 8 auger holes that were used in the resource

Table 1: Cape Flattery Resource Estimate

Classification	Silica Sand (Mt)	Silica Sand (Mm <sup>3</sup> )	Density (t/m <sup>3</sup> )	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %
Inferred Resource	12.85	8.03	1.6	99.28	0.201	0.161	0.226

estimate the SiO<sub>2</sub> percentage ranged from 95.01% – 99.70%:

- Inferred Resource in accordance with the JORC Code 2012 – A cut-off grade 98.4% has been defined based on the surrounding data.

These results show there is potential to produce a premium grade silica product using standard processing techniques.

The Cape Flattery Silica Eastern Inferred Resource Estimate (see Table 1) and further details are in the ASX Release on 30 November 2020 titled "Maiden Silica Sand Resource for Cape Flattery Project".

The target areas within the Metallica EPM 25734 form the basis of an Exploration Target\* of 20-100Mt of high purity silica sands, with the insitu quality ranging between 96.9% and 99.6% SiO<sub>2</sub>.

Following on from the Maiden Resource based on auger hole exploration, in December 2020 Metallica successfully completed its maiden drilling program; a total of twenty-two (22) holes were drilled within Target Area 1, (see Figure 3).

All drilling was undertaken with permission from the Aboriginal Corporations.

The samples have now been sent to ALS and IHC Robbins for interpretation and analysis of the results is expected during the March 2021 Quarter.

#### The focus for the March 2021 Quarter is to progress non field activities including:

- Commence planning for environmental studies and water monitoring bores;
- Resume discussions with the Traditional Land Owners to work towards completion of cultural heritage and other Native Title agreements;
- Complete an initial internal high-level options study of the project, including:
  - to assess the silica sand deposit size and quality;
  - explore options on how to most efficiently develop the potential white silica sand mine; and
  - investigate the associated necessary logistics to deliver the sand to nearby ships.

#### (\*) Exploration Target

Refer ASX Release dated 18 April 2018. Cautionary Statement: An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade (or quality), relates to mineralisation for which there has been insufficient exploration to estimate a Mineral Resource. The potential quality and grade of the Cape Flattery Silica Sand deposits are conceptual in nature. There is insufficient information at this time to define a mineral resource and there is no certainty that further exploration will result in the determination of a mineral resource in these areas.



# DEVELOPMENT AND EXPLORATION

According to industry research firm IMARC Group, high-purity silica sands are becoming more sought after, with the global market growing at a compound annual growth rate (CAGR) of around 6% between 2010 and 2017. In 2017, a total of 188 Mt of silica sand was produced globally.

This growth has been driven by silica sand's applications across a broad range of industries including glass-making, foundry casting, water filtration, chemicals and metals, hydraulic fracturing and an increasing number of hi-tech products, including solar panels. For example, in the global glass-making industry, one of the major consumers of high-purity silica has experienced significant growth recently from the construction and automotive industries. IMARC also estimated the global silica sand market could grow from US\$7 billion to US\$20 billion in 2024.

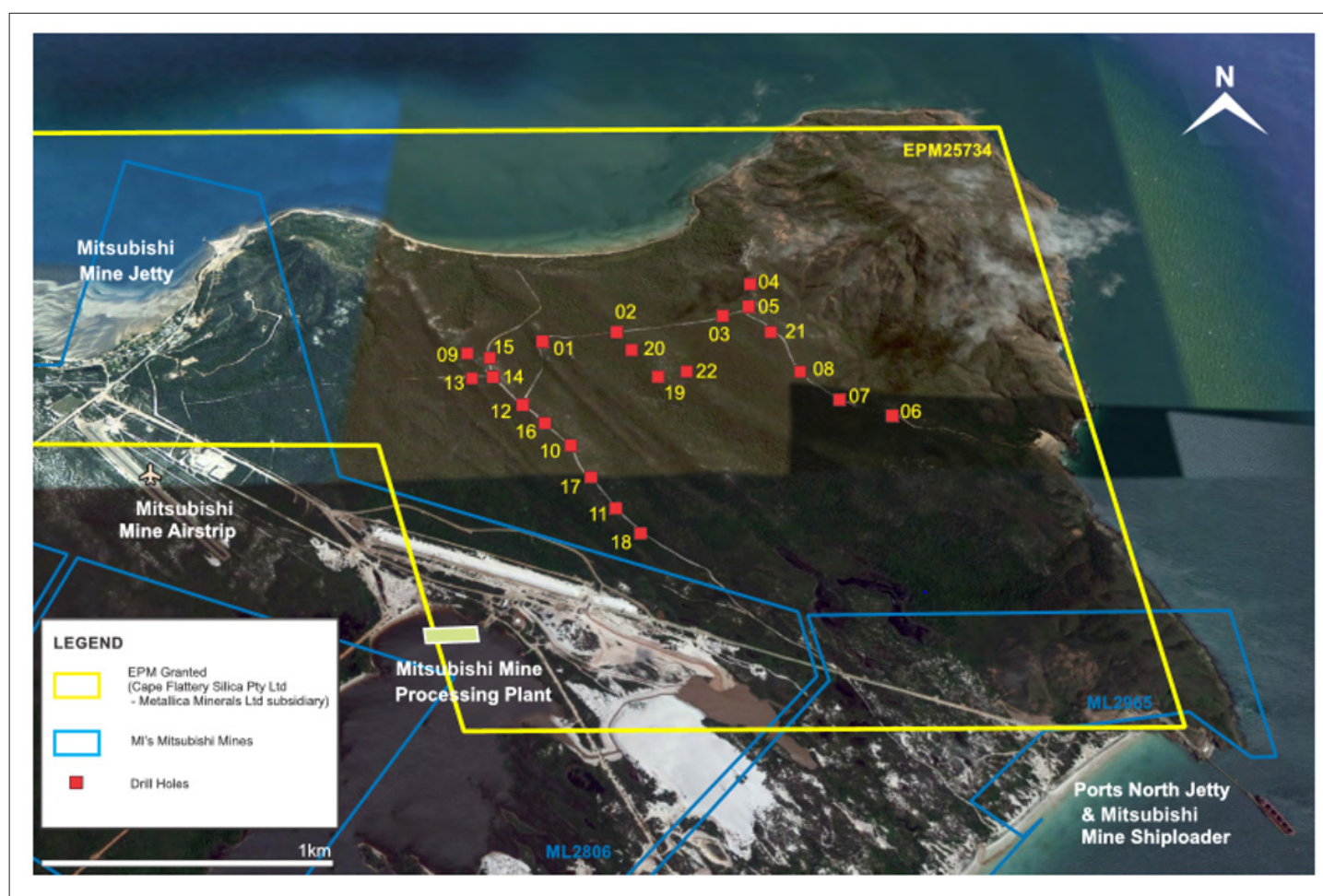


Figure 3: Cape Flattery Silica drill hole locations (Dec 2020)

# DEVELOPMENT AND EXPLORATION

## URQUHART BAUXITE

### BAUXITE MLM INTEREST 50%

The Urquhart Bauxite Project is located 5km southwest of Weipa on the western coast of the Cape York Peninsula. On 3 November 2020 Metallica announced the sale of subsidiary company Oresome Australia Pty Ltd the 50% Joint Venture holder in the Urquhart Bauxite Project.

The purchaser is a private company, Clear Logistics Australia Pty Ltd, who has experience in bauxite, heavy mineral sand and industrial sand and gravel operations.

The key terms of the sale are:

- First installment of \$50,000 was received on the signing of the agreement;
- A further \$50,000 was payable within 30 days of the signing of the Share Sale Agreement; however, this payment is currently overdue and outstanding as at the date of this report. Metallica has been following up the outstanding invoice and is exploring options to pursue this payment;
- A milestone payment of \$100,000 upon the shipment of the first 1 million dry tonnes and an additional \$100,000 upon shipment of the second 1 million dry tonnes of bauxite from the Tenement (i.e. \$200,000 combined);
- Bauxite royalties to be paid as follows:
  - i. \$0.75/t shipped if the CBIX Bauxite Index price is less than USD\$60/t; or

- ii. \$1.50/t shipped if the CBIX Bauxite Index price is between USD\$60.01 and USD\$70/t; or
- iii. \$2/t shipped if the CBIX Bauxite Index price is more than USD\$70.01/t,
  - a. Sand royalties to be paid as follows:
    - i. \$0.25/t shipped if the price received is between USD\$30.01 and USD\$40/t CIF Singapore; or
    - ii. \$1/t shipped if the price received is more than USD\$40.01/t CIF Singapore.
- Subsequent Sale. If at any time Clear Logistics transfers or disposes of the shares in Oresome, the profit (if any) on that sale will be shared 50% with Metallica.

Conditions precedent were satisfied including the execution of a royalty deed on the above terms. A deed of security in favour of Metallica in relation to the royalty was signed by Clear Logistics and is expected to be executed once arrangements have been confirmed with Ozore Resources Pty Ltd.

Metallica had previously advised the ASX that following the completion of internal concept work on the project, these concept results had been negatively impacted by the current downturn in the bauxite market, as evidenced by the following:

- Reports of Chinese alumina refinery production reducing from 2019 levels, partly due to COVID-19 related issues;
- Metallica receiving bauxite market news and verbal reports of Guinea increasing

their share of sales of higher-quality bauxite into China; and

- Metro Mining shutting down their bauxite mining and export operations earlier than planned, partly due to the weak sales environment (see Metro's ASX Release dated 14 August 2020).

## ESMERALDA

### GOLD & BASE METALS, GRAPHITE MLM INTEREST 100%

The Esmeralda Project consists of 3 EPMs covering approximately 976km<sup>2</sup>.

An internal study for gold and base metal targets on the Esmeralda tenements was completed in the June Quarter 2019.

The study comprised of modelling public domain geophysical data over the project tenements and this resulted in a better understanding of the occurrence and distribution of the graphitic granites and the associated intrusives beneath the cover sequence. A number of copper and copper-gold intrusive-related and vein/lode related target areas have been identified from the study and Metallica is continuing to interpolate the study results and plan an exploration strategy based on these results.

An Inverse Polarisation exploration program is being planned for the March/June 2021 Quarter subject to the North Queensland wet season.

No other exploration work was undertaken on the Esmeralda tenements during the December 2020 Quarter.

# CORPORATE

The Company held its 16th Annual General Meeting (AGM) of Shareholders on Wednesday 18 November 2020 at the offices of Colin Biggers Paisley. The four resolutions were voted on and passed by a show of hands.

One of the resolutions passed at the AGM was to change the Audit firm of the Company. Following the AGM, Moore Australia has now officially been appointed as the Company's Auditor.

The Company also farewelled Mr John Haley as Company Secretary, John had been employed by the company for over 20 years and served as Founding Director, Chief Financial Officer and Company Secretary during this time. Mr Scott Waddell has added the role of Company Secretary to his existing roles of Executive Director and Chief Financial Officer.

## COVID-19

The Company continues to follow recommendations from Queensland Health and the Australian Government to provide a COVID-19 safe workplace.

Metallica remains committed to following the guidelines released by the Government which have delayed some development processes and may continue to have an impact during 2021.

## FINANCIAL UPDATE

Metallica ended the December 2020 Quarter with \$2.4 million in cash and no debt.

## MARCH 2021 QUARTER OUTLOOK

Metallica's focus for the March 2021 Quarter is to:

- Update the Resource for the Cape Flattery Silica Sand Project with December drill program results;

- Receive results from IHC Robbins who have been commissioned to undertake metallurgical testwork and studies on the silica sand samples to assess their characteristics and quality;
- Continue Cultural Heritage negotiations with the Hopevale Congress and Walmbaar Aboriginal Corporation for the Cape Flattery Silica Sands Project;
- Continue planning for initial environmental studies and water monitoring bores;
- Complete an Inverse Polarisation exploration program at the Esmeralda Project, subject to the North Queensland wet season; and
- Progress the review of several new opportunities in the gold/precious metals-copper, silica sand and other mineral commodity sectors; the Company will then update shareholders accordingly.

## COMPETENT PERSON'S STATEMENT

The information in this report that relates to Mineral Resources at the Cape Flattery Silica Sands Project is based on information and modelling carried out by Dale Brown, Senior Mining Engineer, Ausrocks Pty Ltd who is a competent person and a Member of the Australasian Institute of Mining & Metallurgy. Dale Brown is employed by Ausrocks Pty Ltd who have been engaged by Metallica Minerals Ltd to prepare this independent report, there is no conflict of interest between the parties.

Dale Brown has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code).

Dale Brown consents to the inclusion in the report on the matters based on their information in the form and context in which it appears.

## CAPE FLATTERY SILICA SANDS EXPLORATION TARGET

The information in this report that relates to the Exploration Targets was undertaken by Mr Neil Mackenzie-Forbes, who is a Member of the Australian Institute of Geoscientist and is a Consulting Geologist employed by Sebrof Projects Pty Ltd. Mr Neil Mackenzie-Forbes has in excess of 20 years mining and exploration experience in Australia with major mining and junior exploration companies.

Mr Mackenzie-Forbes has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and 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, Mineral Resources and Ore Reserves. Mr Neil Mackenzie-Forbes consents to the inclusion of this information in the form and context in which it appears in this release/report.

## CAUTION REGARDING FORWARD-LOOKING STATEMENTS

Certain statements made in this announcement contain or comprise certain forward-looking statements. Although Metallica believes that the estimates and expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in economic and market conditions, success of business and operating initiatives, changes in the regulatory environment and other government actions, fluctuations in commodity prices and exchange rates and business and operational risk management. Metallica undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events.

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**ASX:MLM**

## SUBSIDIARY COMPANIES

NORNICO Pty Ltd ACN 065 384 045  
Lucky Break Operations Pty Ltd ACN 126 272 580  
Phoenix Lime Pty Ltd ACN 096 355 761  
Greenvale Operations Pty Ltd ACN 139 136 708 (Subsidiary of NORNICO Pty Ltd)  
Cape Flattery Silica Pty Ltd ACN 138 608 894 (Previously Scandium Pty Ltd)  
Touchstone Resources Pty Ltd ACN 126 306 018  
PGE Minerals Pty Ltd ACN 642 538 Sw805



# APPENDIX 5B

## Mining Exploration Entity and Oil and Gas Exploration Entity Quarterly Report

**NAME OF ENTITY:** Metallica Minerals Limited

**ABN:** 45 076 696 092

**QUARTER ENDED "current Quarter":** 31 December 2020

**Rule +5.5**

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

Consolidated Statement of Cash Flows		Current Quarter \$A'000	Year to date (6 months) \$A'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation (if expensed) (includes refunds of prior tenement rental expenses)	(162)	(272)
	(b) development	(nil)	(127)
	(c) production		
	(d) staff costs	(98)	(128)
	(e) administration and corporate costs	(86)	(190)
1.3	Dividends received (see note 3)		
1.4	Interest received	2	5
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Research and development refunds		
1.8	Other (provide details if material)		
<b>1.9</b>	<b>Net cash from/(used in) operating activities</b>	<b>(344)</b>	<b>(712)</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) exploration & evaluation (if capitalised)		
	(e) investments		
	(f) other non-current assets		
2.2	Proceeds from the disposal of:		
	(a) entities	55	55
	(b) tenements		
	(c) Property, plant and equipment		280
	(c) investments		
	(d) other non-current assets		



# APPENDIX 5B

Consolidated Statement of Cash Flows		Current Quarter \$A'000	Year to date (6 months) \$A'000
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other		
<b>2.6</b>	<b>Net cash from/(used in) investing activities</b>	<b>55</b>	<b>335</b>
<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)		
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of share options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities		
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
<b>3.10</b>	<b>Net cash from/(used in) financing activities</b>	<b>0</b>	<b>0</b>
<b>4.</b>	<b>Net increase/(decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	2,695	2,783
4.2	Net cash from/(used in) operating activities (item 1.9 above)	(344)	(712)
4.3	Net cash from/(used in) investing activities (item 2.6 above)	55	335
4.4	Net cash from/(used in) financing activities (item 3.10 above)	Nil	Nil
4.5	Effect of movement in exchange rates on cash held		
	<b>Cash and cash equivalents at end of period</b>		
<b>4.6</b>	Note that Item 4.6 excludes Metallica's 50% share of the joint venture bank account	<b>2,406</b>	<b>2,406</b>
<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b>	<b>Current Quarter \$A'000</b>	<b>Previous Quarter \$A'000</b>
	at the end of the Quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts		
5.1	Bank balances	369	362
5.2	Call deposits	2,037	2,329
5.3	Bank overdrafts		
5.4	Other (provide details)		
<b>5.5</b>	<b>Cash and cash equivalents at end of Quarter (should equal item 4.6 above)</b>	<b>2,406</b>	<b>2,695</b>

# APPENDIX 5B

		Current Quarter \$A'000		
<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>			
6.1	Aggregate amount of payments to related parties and their associates included in item 1	67		
6.2	Aggregate amount of payments to related parties and their associates included in item 2			
Note: if any amounts are shown in items 6.1 or 6.2, your Quarterly activity report must include a description of, and an explanation for, such payments				
<b>7.</b>	<b>Financing facilities available</b> Note: the term "facility" includes all forms of financing arrangements available to the entity. <i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	<b>Total facility amount at Quarter end \$A'000</b>	<b>Amount drawn at Quarter end \$A'000</b>	
7.1	Loan facilities			
7.2	Credit standby arrangements			
7.3	Other (please specify)			
<b>7.4</b>	<b>Total financing facilities</b>			
<b>7.5</b>	<b>Unused financing facilities available at Quarter end</b>			
7.6	Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after Quarter end, include details of those facilities as well.			
<b>8.</b>	<b>Estimated cash available for future operating activities</b>		<b>\$A'000</b>	
8.1	Net cash from / (used in) operating activities (Item 1.9)		(344)	
8.2	Capitalised exploration & evaluation (Item 2.1(d))			
8.3	Total relevant outgoings (Item 8.1 + Item 8.2)		(344)	
8.4	Cash and cash equivalents at Quarter end (Item 4.6)		2,406	
8.5	Unused finance facilities available at Quarter end (Item 7.5)		0	
8.6	Total available funding (Item 8.4 + Item 8.5)		2,406	
<b>8.7</b>	<b>Estimated Quarters of funding available (Item 8.6 divided by Item 8.3)</b>		<b>7</b>	
8.8	If Item 8.7 is less than 2 Quarters, please provide answers to the following questions:			
	1. Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?			
	Answer: N/A			
	2. Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?			
	Answer: N/A			
	3. Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?			
	Answer: N/A			

# APPENDIX 5B

## COMPLIANCE STATEMENT

1. This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
2. This statement gives a true and fair view of the matters disclosed.

**Date:** 29 January 2021

**Authorised by:** the Board of Directors

## NOTES

1. This Quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past Quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this Quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this Quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – e.g. Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.



# TENEMENT TABLES

As at 31 December 2020

## CAPE FLATTERY SILICA SANDS PROJECT

Tenement	Project name	Holder	STATUS	HA	S/B
EPM25734	Cape Flattery	Cape Flattery Silica Sands Pty Ltd	Granted	0	11

## PHOENIX LIMESTONE PROJECTS

Tenement	Project name	Holder	STATUS	HA	S/B
EPM25728	Fairview	Phoenix Lime Pty Ltd	Granted	0	5
EPM25756	Fairview #1	Phoenix Lime Pty Ltd	Granted	0	1

## ESMERALDA GRAPHITE PROJECT

Tenement	Project name	Holder	STATUS	HA	S/B
EPM25779	Warrior	Touchstone Resources Pty Ltd	Granted	0	19
EPM27210	Clara	Touchstone Resources Pty Ltd	Granted	0	100
EPM27290	Momba	Touchstone Resources Pty Ltd	Granted	0	89

## NOTES

All tenements are 100% owned unless expressed otherwise

EPM – Exploration Permit for Minerals

ML – Mining Lease

S/B – Sub blocks

Ha – Hectares