

# Bass Metals Ltd.

Building an international industrial minerals business.

### Strategic Overview\_



### BUILDING AN INTERNATIONAL INDUSTRIAL MINERALS BUSINESS

- Bass continues to progress the optimisation of its flagship asset: the Graphmada large flake graphite mine, with the aim of establishing a cash flow positive 6000 tpa run-rate at the lowest capital intensity in 2017.
- Bass intends to use this cash flow from Graphmada as a financial platform to accelerate its establishment as a mid tier producer and supplier of industrial mineral concentrates, through increasing production to 20,000 tpa at the lowest achievable C1 cash cost.
- In addition, the Company continues to materially grow its resource inventory, aggressively explore its permits and strategically assess potential acquisitions in order to meet growing demand in traditional and future technology markets.
- Through aggressive exploration and strategic acquisition, using its in-country producer status, Bass has recently discovered the Andapa large flake graphite deposit and acquired the highly prospective Millie's Reward lithium project.
- Underpinning all of this is a dedicated focus to continue to be a valued and responsible corporate citizen contributing to Madagascar and its people, specifically through its Graphmada Care Program, which seeks to positively impact communities through supplying cleaner water, better schools and further economic opportunities.

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### Value Drivers\_



#### In production with concentrate sales

Bass is currently the only listed Graphite producer on ASX. As opposed to nearly all of its peers Bass offers investors direct exposure to graphite production, selling a range of graphite concentrates into multiple market segments, to customers in India, the United States and Europe.

#### Targeting production of high value graphite concentrates

Bass has spent the last ten months at Graphmada trialing different processing improvements aimed at optimising production, which has subsequently delivered increased recoveries and final concentrate grades, albeit at a reduced production run-rate to accommodate trials. This experience combined with extensive metallurgical testing targeting high value concentrates, will see the Company, on re-commissioning, targeting steady state production of 6,000 tpa at 75% recovery and 94% Fixed Carbon.

#### Low capital expenditure

Bass assumed 100% control of Graphmada in August 2016 and renegotiated terms with the vendor for future milestone payments in December 2016. This effectively delivered the mine and all associated infrastructure for circa A\$5.5m. The infrastructure including tailings dams, processing facilities, camp, mining fleet, etc. has effectively been obtained at a fraction of its establishment or replacement cost. Inclusive of the Optimisation Program capital, Bass will have delivered an operating graphite mine with material scope for scalable production and inclusive of substantial upgrades for under \$A15m.



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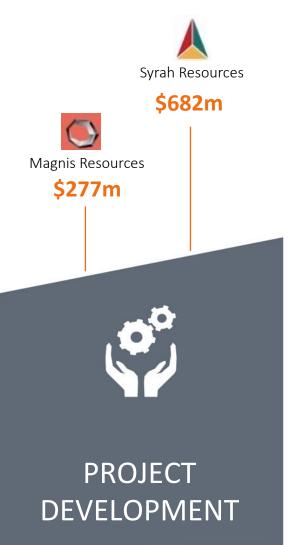
### Our Potential

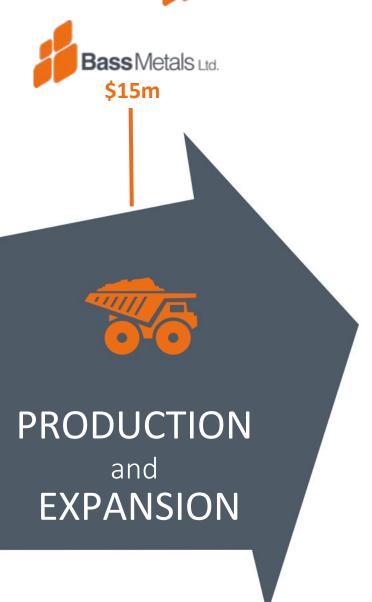


Market Capitalisations in A\$ as at 25 May 2017









Pathway to production

### Board of Directors\_





Rick Anthon – Non-Executive Chairman

Mr. Anthon is a practicing lawyer with over 30 years' experience in both corporate and commercial law. Mr. Anthon also has extensive experience in the resource sector, as a director of a number of resource companies and as legal adviser, including project acquisition and development, capital raising and corporate governance. Mr. Anthon is currently General Counsel and Joint Company Secretary at Orocobre Ltd, Australia's premier Lithium producer.



Peter Wright - Non-Executive Director

Mr. Wright has 20 years experience advising on capital markets, investor relations, acquisitions and divestments, particularly in industrial minerals and metals markets. Mr. Wright is also currently Executive Director of Bizzell Capital Partners, a Brisbane based corporate advisory and funds management firm.



Jeffrey Marvin – Non-Executive Director

Mr. Marvin has 20 years global experience in mineral resource project origination, financing and development. Mr. Marvin has international management and corporate governance experience with projects located in diverse international business climates. Prior to joining Bass, Mr. Marvin was a founding executive director of an Australian energy technology company and has experience working across a range of projects including gold, coal, mineral sands and coal seam gas.

### Management





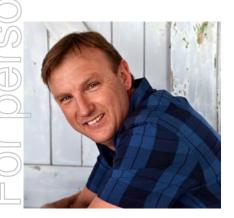
Tim McManus – Chief Executive Officer

Mr. McManus has 25 years as a mining professional with significant experience at senior management level across all facets of project assessment, development and operations. Previous roles include CEO of ASX listed Elementos Ltd, Chief Geologist for Xstrata, and Partner — Barclays Natural Resource Investments: Metallurgical Coal Management Team.



David Round – Chief Financial Officer & Company Secretary

With over 25 years experience, Mr. Round is a qualified accountant with extensive resource sector experience at senior management level. As Chief Financial Officer and Company Secretary to a number of resource companies, he has been integral to the commercial success of a number of companies both in Australia and internationally.



Wilhelm Reitz – General Manager

Mr. Reitz has over 20 years experience as a mining professional, working in operations and project development roles across Africa and Europe. He has extensive experience in mine management of gold, diamond and graphite operations, with previous roles including Production Manager for Afrigold, and Mine Manager for Stellar Diamonds and West African Diamonds.



Mamison Randriananatenaina – Corporate Affairs Manager and Gerant

Trained in Economics and currently studying commercial law, Mr. Randriananatenaina has extensive experience in administration, logistics and management in the mining sector. He was an integral part of the team that delivered the US\$5.5 billion Ambatovy Nickel Project for Sherritt International in Madagascar.

## Capital Market Summary\_

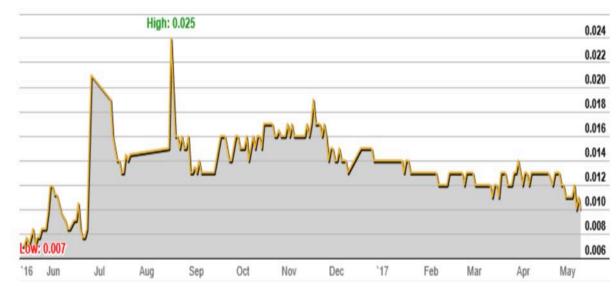


#### CAPITAL STRUCTURE (ASX: BSM)

(as at 15 May 2017)

(us ut 15 May 2017)	
Shares Outstanding	1,368 million
Options Outstanding	471 million <sup>1</sup>
Cash & Receivables	A\$1.5 million
Share Price (ASX)	A\$0.010
Market Capitalisation	A\$15 million
No Debt	

#### SHARE PRICE CHART



#### SHAREHOLDERS

Executives and Directors	8%
Top 20	46%

<sup>&</sup>lt;sup>1</sup> Excludes 126,394,220 unlisted options – see Appendix 3B released to the ASX on the 1st of September 2016 for further detail.

### Flagship Project: Graphmada Mine\_



The Graphmada mine has 40 year mining permits in place, containing premium quality, large flake, graphite deposits hosted in weathered graphitic gneiss, a soft, easily minable rock that incurs low mining costs.

With all associated mining infrastructure and logistics in place, the mine currently produces and sells a range of graphite concentrates into multiple market segments, to customers in India, the United States and Europe.

Graphmada has significant potential for low capital intensity optimisation and expansion. Bass is investing capital to expand production to 6000 tpa through to 20,000 tpa of graphite concentrate sales by 2020.

CURRENT MINERAL RESOURCE <sup>1</sup>	TONNAGE	GRADE (CUTOFF 2%)	CONTAINED GRAPHITE
Indicated	0.4 Mt	5.1 %	22 Kt
Inferred	5.3 Mt	4.0 %	213 Kt
Total Resources <sup>1</sup>	5.7 Mt	4.1 %	235 Kt

BASS HAS ALL THE PORTENTS TO CREATE MEANINGFUL SHAREHOLDER VALUE



Table contains rounded figures

<sup>&</sup>lt;sup>1</sup> These estimates were prepared and first disclosed by Stratmin under the JORC Code 2004. The estimates have not been updated to JORC Code 2012 on the basis that the information has not materially changed since it was last reported. Reference is made to the Company's announcement of 2 September 2015 which provides further detail regarding this information.

## Mahefedok Deposit\_

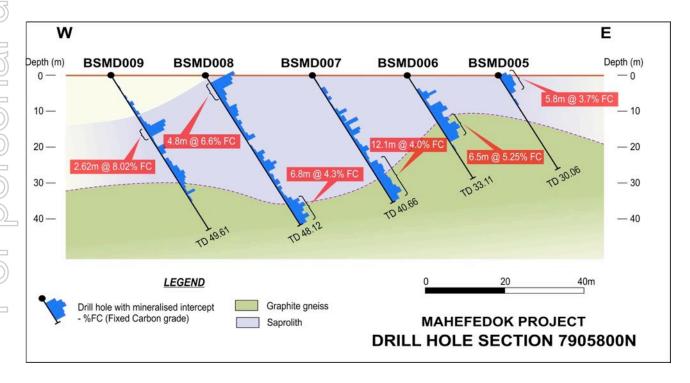


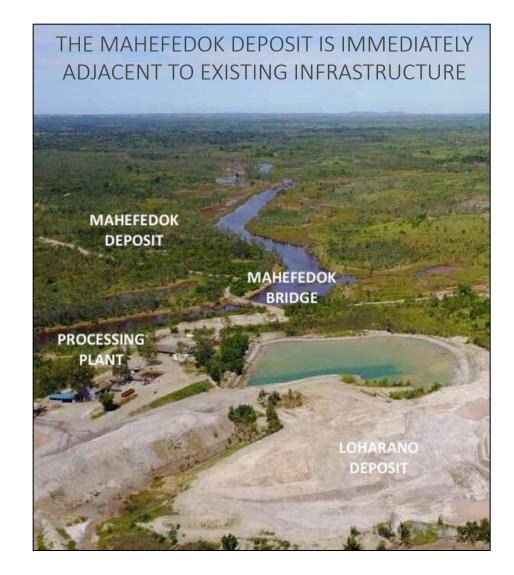
2,300m drilling completed with significant intercepts of soft easily mineable saprolite<sup>1</sup> mineralisation.

Maiden Mineral Resource due this quarter.

#### Significant intercepts<sup>2</sup> include:

- 24.4m @ 4.4% FC
- 16m @ 5.1% FC
- 13.2m @ 5.6% FC
- 7.8m @ 6.6% FC





<sup>&</sup>lt;sup>1</sup> Soft, thoroughly decomposed and porous rock, formed by the in-place chemical weathering of igneous, metamorphic, or sedimentary rocks.

<sup>&</sup>lt;sup>2</sup> Only the down hole lengths are reported - true width has not been estimated. FC - Fixed Carbon.

### Site Tour\_











## Production Tour\_\_\_\_\_

















## Sales & Logistics



Graphmada has excellent and straighforward logistics to reach established graphite concentrate markets, with the mine being adjacent to the main National Highway and only 110 km to the country's main export port at Toamasina.









## Graphite Market & Applications\_





### AGRICULTURE

Seed lubricants.



#### **PORTABLE ENERGY**

Alkaline, Carbon zinc and Lithium ion batteries, Fuel cells.



#### PARTS AND COMPONENTS

Carbon brushes, Brake pads and friction linings, Foils and Pencils.



#### **METALLURGY**

Carbon additives and Carbon raiser for ductile and grey irons.



#### REFRACTORY

Monolithic, Magnesia and Alumina carbon, Crucible, Casting parts.



#### LUBRICANTS

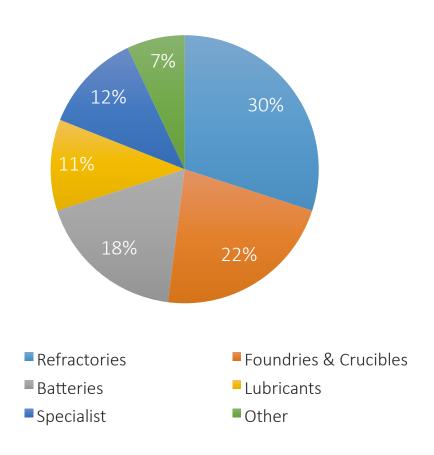
Forging, Hot metal forming, Powders for lubricants.



#### **POLIMETERS**

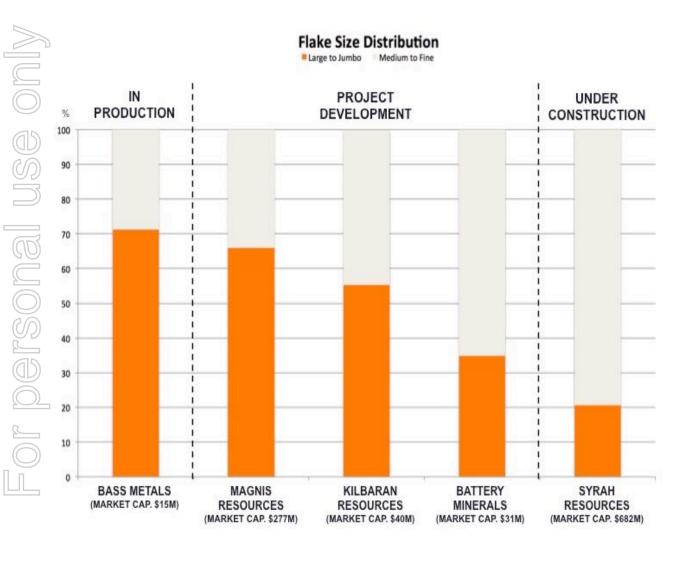
Plastics, Flame retardants, Rubbers.

#### THE GRAPHITE MARKET BY SEGMENT



### Benchmark for Traditional Markets





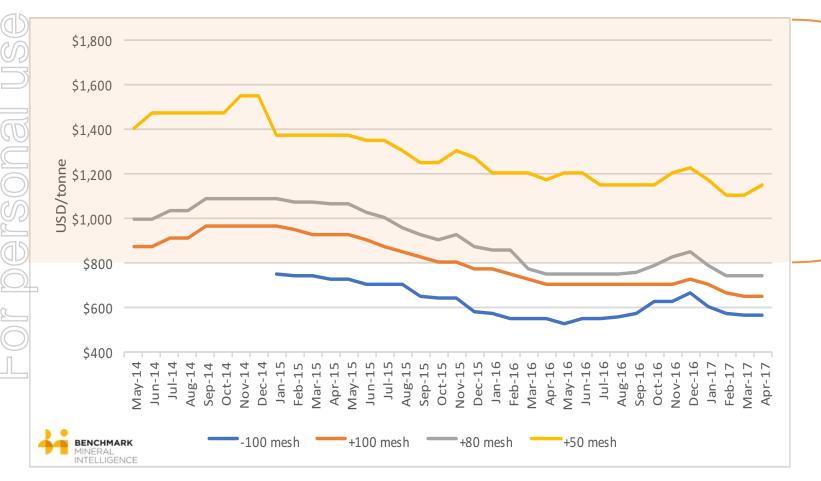
Graphmada concentrates are the benchmark for foundries, crucible and refractory applications due to:

- ✓ Exceptional flake size.
- ✓ A high resistance against oxidation.
- ✓ A low LOI at 420°C
- ✓ No carbonates such as calcite and dolomite being identified, along with no other fluxes being discovered.
- A very low Sulphur (SO3) content, at 0.02 wt.
   %.
- Exhibiting favorable flake ash melting temperatures.

## Graphite Concentrate Pricing.



Bass aims to increase sales revenues through production volume growth of higher value concentrates. This is to be achieved through increasing throughput of higher margin ore and optimising processing for higher grade and larger flake final concentrates.



CONCENTRATE SALES		
+35 (>500 micron)	90%-98% FC	
+50 (>300 micron)	90%-98% FC	
+80 (>180 micron)	90%-98% FC	
-80 (<180 micron)	90%-98% FC	
To Order		

Bass is focusing on achieving the lowest capital intensity to consistently produce and sell a 94% Fixed Carbon (FC) concentrate to traditional markets.

### Industry Leading Expandability\_



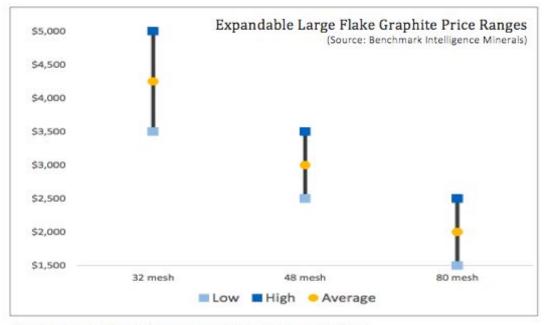
Expandability tests across all flake sizes delivered excellent results, with the maximum expansion volume of 510 cm3/g achieved with extremely large flakes > 400 microns. These results exceed typical concentrates currently available.

Expandable graphite receives a price premium and is in significant demand due to regulatory pressures forcing higher adoption as fire retardants and there being only a few suppliers in the world today.

(10)	
$\alpha$	

Size Fraction (micron)	800°C (cm³/g)	1000°C (cm³/g)
> 400	500	510
300 – 500	420	430
180 – 300	380	390
106 – 180	270	310
75 – 106	-	200
< 75	727	85

Expandability test results by size distribution.



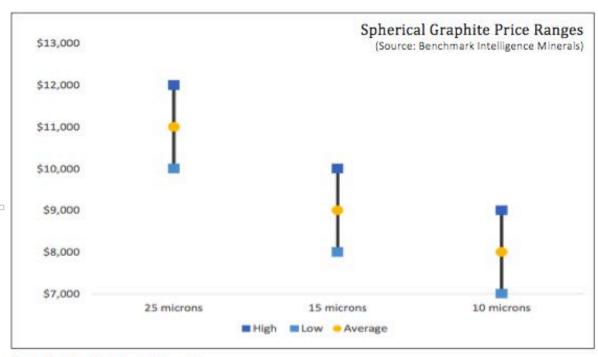
Current prices for large to jumbo expandable graphite concentrates.

## Suitable for Battery Applications\_\_\_

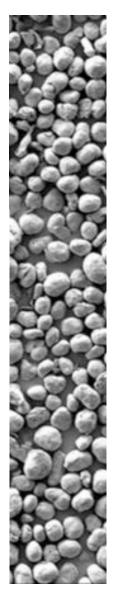


Graphmada graphite concentrates are highly suitable for lithium-ion battery applications with a very high purity of 99.99 wt.% carbon achieved.

Parameters meet leading battery anode manufacturer specifications.



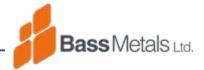
Current prices for spherical graphite.



DIt	Desired
	Desired
0.94 g/cm3	>0.9 g/cm3
14.7 micron	10 - 25 micron
2.6	2.6 - 2.8
6.7 m2/g	3 - 8  m2/g
47 wt.%	>30wt%
27 ppm	<45 ppm
11 ppm	<15 ppm
24 ppm	<35 ppm
<10 ppm	<10 ppm
<0.01 wt.%	<0.01 wt.%
99.99 wt.%	>99.96% wt.%
0.01 wt.%	<0.04 wt. %
	2.6 6.7 m2/g 47 wt.% 27 ppm 11 ppm 24 ppm <10 ppm

Graphmada spherical graphite test results

## Andapa Discovery\_



Discovery of three significant large flake graphite targets at surface.

The targets, from 1.3 km to 2.1 km in extent, are hosted in soft, easily mineable, weathered mineralisation, which indicates significant potential for low cost mining.

low cost mining.

The main target, known as Unit 2, revealed Graphitic Carbon (GC) grades up to 7.7% at surface<sup>1</sup>.

The Company plans to conduct a systematic exploration program over the project area, including a mapping and sampling program aimed at identifying targets for a follow up drilling program.

<sup>(5.74%)</sup> ANTS-024 (4.55%)**ANTS-031** (1.67%)ANTS-008 Tanamboa Adapa LEGEND Bass Metals permit A'nysandraketa PSD permit **ANTS-027** ANTS sample location - (% FC) (4.07%)(3.07%)Historic graphite unit (1959) Historic graphite working (1959)

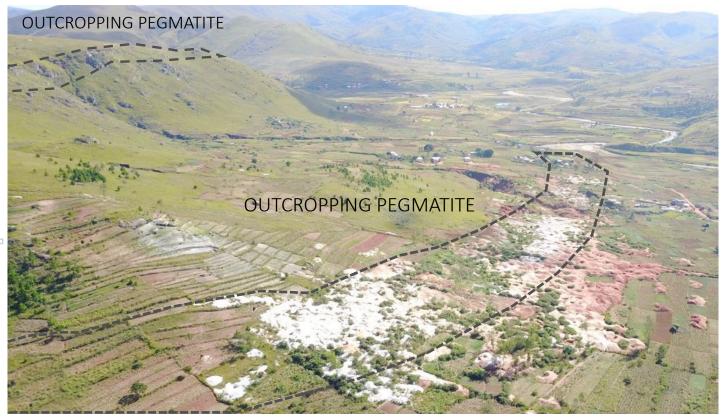
 $<sup>^{1}</sup>$  See ASX Announcement 'Outstanding assay results confirmed for Andapa discovery' released on the 2/3/17 .

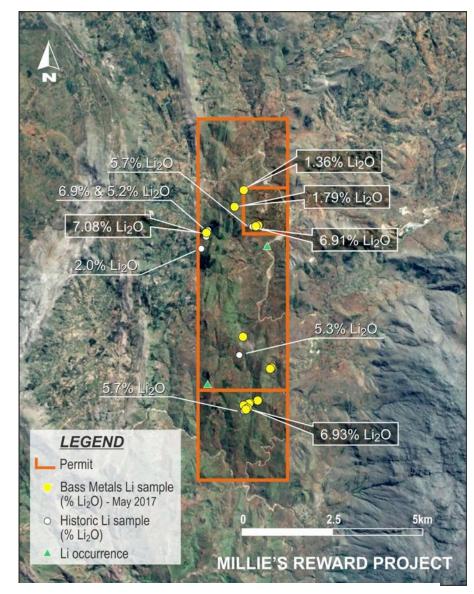
### Millie's Reward



Millie's Reward, a hard-rock lithium project, located in Madagascar.

Fieldwork has confirmed outcropping pegmatites with significant spodumene mineralization, with grades up to  $7.08\%~\text{Li}_2\text{O}$  and additional samples returning  $6.93\%~\text{AND}~6.91\%~\text{Li}_2\text{O}$ , correlating with historic data for both grade and location.





 $<sup>^{1}</sup>$  See ASX Announcement 'Exceptional lithium assay results up to 7%' released on the 29/5/17 .

### Millie's Reward\_



The project is part of a license with existing mining approval<sup>1</sup> and complements Bass' presence in Madagascar as one of the country's leading industrial minerals producers.

Samples of high purity Spodumene crystals (Kunzite) have also been found in the project area.





 $^{1}$  See ASX Announcement 'Exceptional lithium assay results up to 7%' released on the 29/5/17 .

## Community Engagement







Bass Metals runs a Corporate Social Responsibility (CSR) program. The Company is committed to develop its business through strong local partnerships built on five pillars:



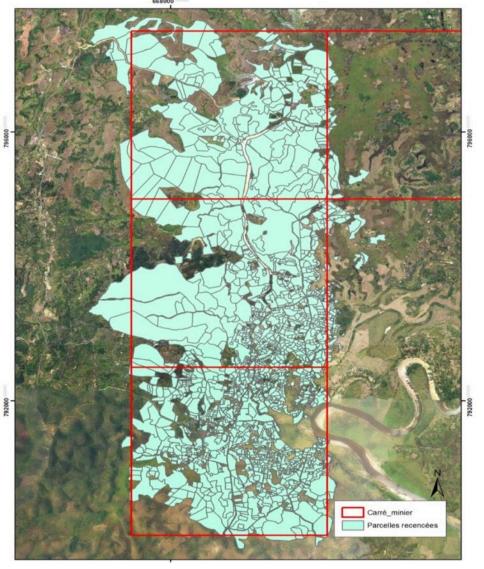
**EDUCATION** 

HEALTH

**PRODUCTION** 

**TRANSPARENCY** 

**EMPOWERMENT** 



Landholder Ownership Certificates Map: A first for Madagascar.

### Summary\_

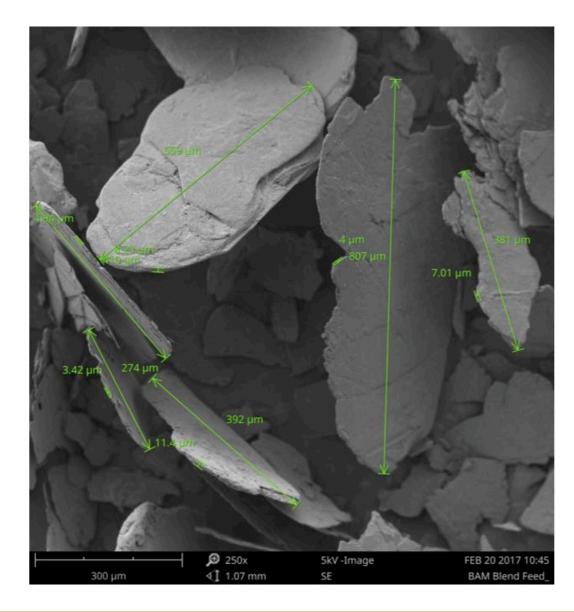


Building an international industrial minerals business utilising cash flow from the Graphmada Mine as a platform for growth.

The only ASX listed graphite producer, optimising and expanding production to 6,000 tpa, then to >20,000 tpa.

Accelerating the establishment of the Company as a mid-tier producer and supplier of industrial mineral concentrates.

Materially growing resource inventory, aggressively exploring permits and strategically assessing acquisitions.



## Upcoming Catalysts\_



Maiden Mineral Resource for the Mahefedok deposit

New customers and off-take agreements for 2018 production

Commissioning of new Dryer and Packaging Plant

Recommencement of Mining Operations

Re-commissioning of the upgraded Process Plant

Exploration and Drilling at Millie's Reward Lithium Project

Exploration and Drilling at Andapa Graphite Project



### Contacts Us

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Bass Metals Ltd



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Peter Wright

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Madagascar is an island country in the Indian Ocean, off the coast of Southeast Africa, and has been a democracy since 1960. It is governed under a French legal system and has a population of ~24m. The Corporate Tax rate is a low 20% with a low 2% Mining Royalty.





Index of Economic Freedom, an annual guide published by The Wall Street Journal and The Heritage Foundation.