

121 Mining Investment Conference Cape Town

Natural flake graphite into anode material for the growing lithium-ion battery market

FEBRUARY 2017



Disclaimer & Competent Person Statement

Statements and material contained in this Presentation, particularly those regarding possible or assumed future performance, resources or potential growth of Metals of Africa Limited, industry growth or other trend projections are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Such forecasts and information are not a guarantee of future performance and involve unknown risk and uncertainties, as well as other factors, many of which are beyond the control of Metals of Africa Limited. Information in this presentation has already been reported to the ASX.

Cautionary Statement

The Company advises that a proportion of the production target referred to in this announcement is based on an inferred mineral resource. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised. Further detail around Concept Study included in ASX announcement dated 10 February 2016. The Company confirms that the material assumptions underpinning the production target in the Concept Study have not materially changed since first reported, pursuant to ASX listing rule 5.19.

Competent Persons Statement

The information in this report that relates to a Concept Study is based on information compiled by Ms. Cherie Leeden, who is Managing Director of the Company. Ms Leeden is a Member of the Australian Institute of Geoscientists and has the relevant experience in the Technical Assessment and Valuation of Mineral Assets of this level of Pre Development study referred Concept

Study. Ms. Cherie Leeden also has sufficient relevant experience in the style of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, Ms Leeden consents to the inclusion in this report of the matters based on information in the form and context in which it appears. The Maiden JORC Graphite Resource at Montepuez Central Project was announced by the Company 16 November 2015 and 8 December 2015 and should be referred with this report. The Maiden JORC Graphite Resource at Balama Central Project was announced by the Company on 21 March 2016 and should be referred with this report. The information pertaining to the Montepuez Central and Balama Mineral Resource is based on information compiled by Mr Robert Dennis who is a Member of Australian Institute of Geoscientists and a full time employee of RungePincockMincarco Limited. Mr Dennis has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity 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. Mr Dennis consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Montepuez Central Concept Study is based on a preliminary technical and economic assessment to test the economic viability of the Montepuez Central Mineral Resource with ±40% accuracy. It includes appropriate assessment of realistically assumed mine development, processing and transport operational factors estimated with presently defined graphite product pricing which supports realistically justified progress to a Pre-Feasibility Study. The Concept Study is not a Pre-Feasibility or Feasibility Study as further comprehensive studies are required to achieve this level of economic confidence including Resource to Ore Reserve conversion and further product testwork.

Mineral Resources

The basis of the Study was the Mineral Resource estimate for the Montepuez Project (Buffalo, Lion and Elephant prospects), which contains 61.6Mt at 10.2% TGC for 6.3Mt of contained graphite at a cut-off of 6% TGC.

RungePincockMinarco Limited ("RPM") was engaged to prepare the Mineral Resource estimate in 2015. The Mineral Resource underpinning the production target, classified as Indicated and Inferred, was prepared under the supervision of a Competent Person and reported in November and December 2015 in accordance with the requirements in Appendix 5A (the JORC Code 2012 edition). Classification of the Mineral Resource was carried out taking into account the geological understanding of the deposit, quality of the sampling and density data, and drill hole spacing. Metallurgical considerations of flake size distribution, purity of product and petrographic analyses were also given due consideration.

Vast portions of the VTEM anomalism at the Project remain undrilled. There are opportunities to delineate further Mineral Resources parallel to existing trends at Elephant and Buffalo. All prospects are open along strike and downdip. Extensional drilling is likely to add tonnes to the Mineral Resource, specifically to the south of known mineralisation at Elephant and Buffalo.



Corporate Overview

ASX: BAT

Shares on Issue: 426M

Market Cap: ~\$38M

Cash in bank: \$9.7M (1)

Share Price: \$0.09 (2)

Trading Range (12 weeks): **A\$0.09- \$0.14**

Options on issue 50.8M unlisted (various terms)

(1) 31 December 2016 (2) 31 January 2017

Corporate Presence

Head Office West Perth, Western Australia
Country Office Maputo, Mozambique
Technical and Marketing USA Tahoe California, USA



Corporate Snapshot

David Flanagan

Non Executive Chairman - BSc WASM

25 years resources industry experience in Australia, Africa and Asia Experienced ASX Director , Chairman and MD of ASX 100 company Proven capability to transition from explorer to major producer

Cherie Leeden **Managing Director - BSc Hons**

Founder, Geologist, successful explorer and developer of mineral resources Extensive experience working for majors/juniors Predominantly African based and focussed for past 5 years

Gilbert George Non Executive Director - MEc

Experienced public company director >30 years international business experience, particularly Japan Involved in +\$1bn worth of transactions funding resources projects

Brett Smith Non Executive Director - BSc Hons

Geologist

25 years experience in exploration and resource definition Experienced public company director

Management Team with strong track record

David Riekie

General Manager - Corporate

Tony Walsh

General Manager - Special Projects

Jackie Rose

Administration Manager

Regina Molloy

DFS Project Manager

Steven Cancio-Newton

Exploration Manager



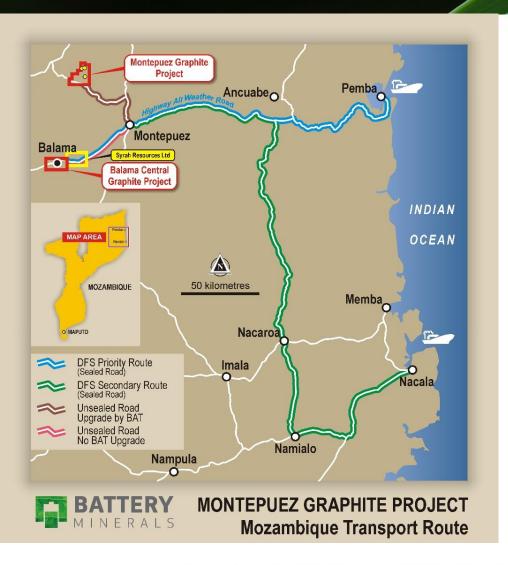
Recent Progress

- Highly-regarded mining executive and industry leader Mr David Flanagan appointed as non-executive Chairman
- \$9 million oversubscribed placement successfully completed to advance battery graphite operations
- Company name change from Metals of Africa Limited to Battery Minerals Limited to reflect focus on graphite anode ready material for development and sales
- Groundbreaking Spherical Graphite Test Facility begins operations in USA

- Flagship Montepuez project Definitive Feasibility Study (DFS) enhanced to include Spherical Graphite Prefeasibility Study (PFS), due to be released in February 2017
- Additional high-grade graphite deposit, Elephant, confirmed in Mozambique
- Option agreement signed with ASX-listed Trek Metals to advance Kroussou Lead-Zinc Project, Gabon. Trek have commenced reconnaissance drill program.



Location and Country Benefits



- 2 graphite projects: Balama Central and Montepuez
- Located in the Cabo Delgado province of Mozambique in East Africa
- Cabo Delgado is the richest graphite province on earth
- Excellent logistics, only 260km to Pemba port via existing roads
- Modern mining act and pro mining government
- Stable multi-party democracy since 1994





Projects Offer Largest Flake Graphite In Mozambique

Montepuez and Balama project - classification and flake distribution

Classification	Sieve Size (µm)	Balama Central (%)	Montepuez Project (%)	Sieve size (~US Mesh)
Jumbo	>300	21.8	8.0	-50
Large	180-300	29.1	20.2	80- 50
Medium	150-180	10.5	10.9	80-100
Fine	75-150	25.1	33.8	100-200
Very Fine/Amorphous	<75	13.5	27.1	200+

- Two world class projects provide optionality of product and development options
- Flake size, creates opportunity for price premium Natural Flake products

- Chemical structure and easy liberation attributes (low impurities) offers unique opportunities:
 - ✓ Capacity to use concentrates for Lithium ion battery uses
 - ✓ Favourable characteristics exist "across the classification" or all size grades (flexibility)
 - ✓ Emerging expandable graphite applications



Metallurgical Results-Exceptional and No Chemicals

- Flotation testwork achieved 99.2% TGC purity without the use of any chemicals
- High graphite recovery achieved with coarse primary grind size
- Beneficial flotation parameters create scope to reduce plant capital and operating cost

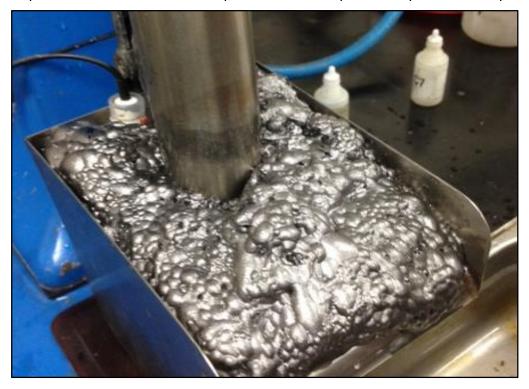


Image: GS03 Weathered Composite Rougher Flotation without Collector; Chemical free production from BAT's graphite



Montepuez Resource for Definitive Feasibility Study

Montepuez Central Project 61.6 Mt @ 10.3% TGC and 0.26% V2O5 6.3 Mt of contained graphite at a 6% TGC cut-off (see note below)

- The Company has developed its strategy around quality as opposed to scale, that also offers scope for future expansion but driven by offtake
- Current Resource has been delineated over 5 % of known mineralisation occurrence

Montepuez Graphite Project Maiden Mineral Resource Estimate (6% TGC Cut-off)						
Class	Tonnes	TGC	V ₂ O ₅	Cont. Graphite	Cont. V ₂ O ₅	
	Mt	%	%	Mt	Kt	
Indicated	27.6	10.4	0.23	2.9	62	
Inferred	34.1	10.2	0.30	3.5	101	
Total	61.6	10.3	0.26	6.3	163	

- Totals may differ due to rounding, Mineral Resources reported on a dry in-situ basis.
- 2. Flake sizes for the Mineral Resource are tabulated in the Appendix to the presentation
- 3. The Statement of Estimates of Mineral Resources has been compiled under the supervision of Mr. Robert Dennis who is a full-time employee of RPM and a Member of the AusIMM and AIG. Mr. Dennis has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the
- 4. All Mineral Resources figures reported in the table above represent estimates at 21 March 2016. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.
- 5. Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code JORC 2012 Edition).
- TGC = total graphitic carbon.
- 7. Full details regarding the resource were released to ASX on 16 November 2015.

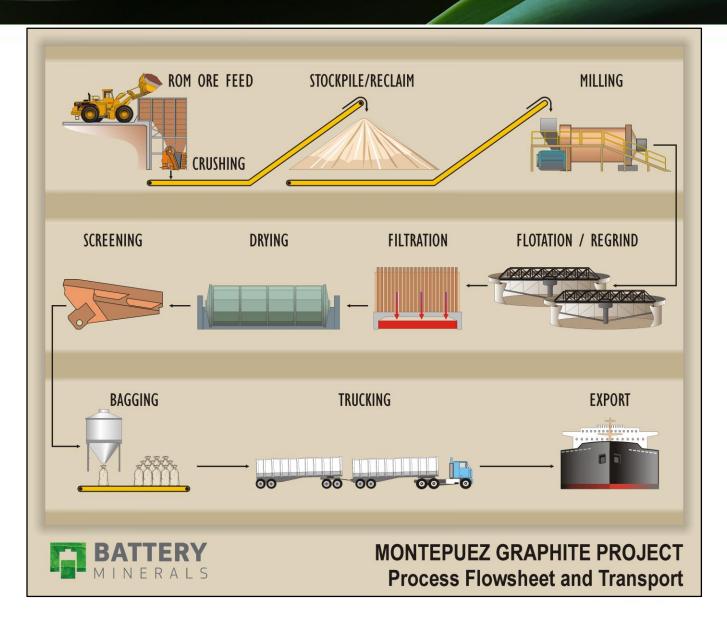


Mine Design Complete (as part of DFS)





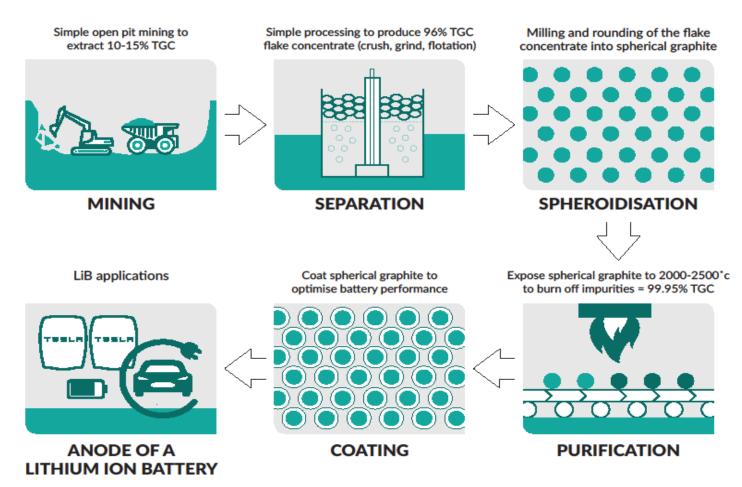
Flake Graphite Mining Flow Sheet



Simple, low technical risk mining and processing operations



Flake Graphite to Spherical Graphite Process



Commentary here on stratifying (1) Ore to flake process and (2) flake to SG process



Spherical Graphite Mill Commissioned - USA

Spherical graphite is critical for production of anode-ready material for LiB's

- BAT is now capable of producing next generation spherical graphite from its coowned pilot plant facility located in the USA
 - ✓ BAT has acquired a micronizing and spheronizing mill with a consortium
 - ✓ Strategically located in the USA (refer to announcement 30 March 2016 for project partner details)
- Pilot mill aiming to demonstrate production of high yield battery grade spherical graphite
 - ✓ Offers significant cost savings and reduce environmental impact; best practise processes
 - ✓ Designed to produce and test Coated Spherical Purified Graphite ("C-SPG")

- The specific processes being advanced in conjunction with Coulometrics LLC
 - ✓ Coulometrics process/IP developed under stewardship of Dr. Edward Buiel
 - ✓ Process involves <u>no chemicals/acids</u> as per traditional spherical graphite production
- Processes designed to supply of LiB manufacturers as a fully qualified product
 - ✓ That can be traced 100% back to its source
 - Providing vital technical verification on the material
 - ✓ Environmentally friendly
- "Best-practice processes" are currently being legislated in the US and Europe



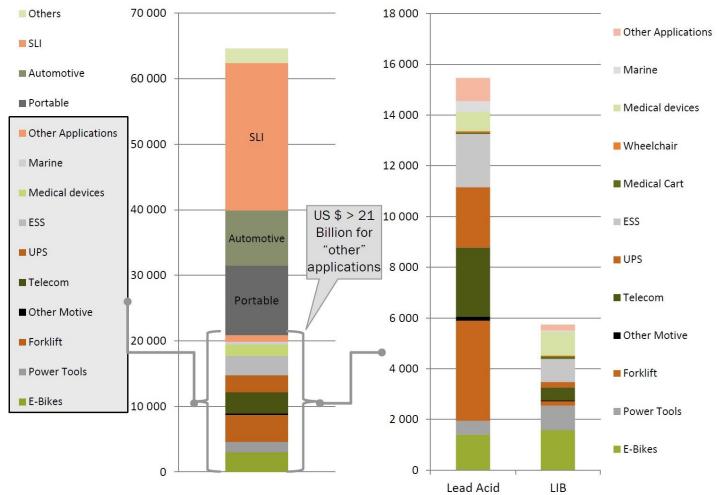
Spherical Graphite Pilot Plant Operational (USA)



Image: Managing Director, Cherie Leeden with the pilot plant mill in USA; being used for production of high quality spherical graphite, used for the testing of anode material used in Lithium Ion Batteries.

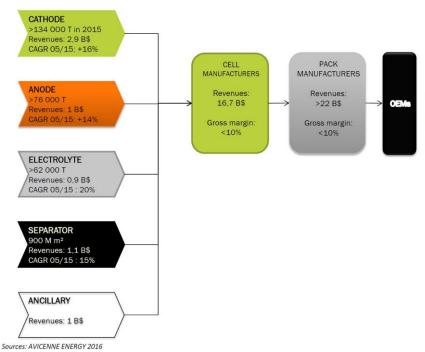


Size of the prize -\$65 billion world wide battery market (2015)



1- Pack level: Pack including cells, cells assembly, BMS, connectors – Power electronics (DC DC converters, invertors...) not included Source: AVICENNE ENERGY, 2016

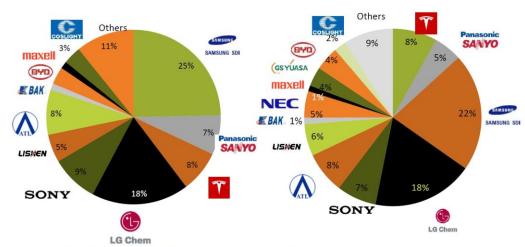
The Focus - LiB >\$16 billion market share and value chain



The worldwide Li-ion battery market Company market share market Company market share in 2015 in volume: 5600 M cells

Source: AVICENNE ENERGY Analyses 2016

The worldwide Li-ion battery in 2015 in value(1) - 16.7 B\$

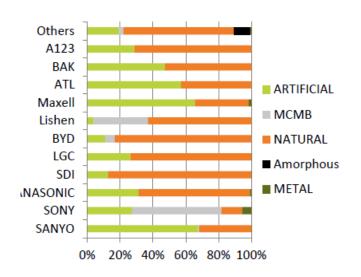


(1) Cell level. LIB battery pack market: > 22 B\$

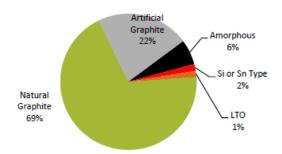


The price disruption – natural graphite the commodity

ANODE FOR LIB IN 2015



Carbon for LIB anodes by type (2013)



	Hard Carbon	Soft Carbon	Graphite
Capacity (/g)	400 mAh/g	250 mAh/g	325-375 mAh/g
Capacity (/cc)	++	0	+
Power	++	+	0
Stability	++	+	0
Cyclability	++	+	0
Precursors	Petroleum Pitch, Resin, cellulose, wood, coconuts	Petroleum coke	Natural or petroleum coke
COST 2012- >2020	30 -> 25 \$/kg	25->20 \$/kg	15 -> 10 \$/kg
SUPPLIERS	KUREHA	HITACHI	HITACHI BTR & many others



Recent Market Intelligence and Product Considerations

- Asian and USA based offtake meetings confirms:
 - ✓ Markets seeking, "best products at best/most competitive price point"
 - ✓ Product profile needs to match market needs (which remains dynamic)
 - ✓ Operations/methods must align with "green" graphite product uses
- Pressure on aspiring Graphite producers to perform:
 - ✓ Lowest Capex/Opex can assist within this cost competitive landscape
 - ✓ 100% traceable graphite ethical, sustainable and environmental best practise operations
 - ✓ Flexible processing capabilities to respond to changing market needs
 - ✓ Vertically integrated processes for "optionality" and higher value products
 - ✓ Environmental traceability from mine site to battery and socially responsible with local engagement.
- BAT off-take status:
 - ✓ Bulk material concentrates samples prepared and dispatched for offtake parties product assessment and testing
 - ✓ Focus remains on Binding Off-take, not MOUs
 - ✓ Spherical graphite pilot plant test work to commence in November to end-users with anode ready material

BAT positioning itself as one of the lowest cost sources of high quality graphite, supplying a diverse range of customers



Committed and making a continuing positive difference

Local initiatives

- ✓ Opening and repair of water bores/wells
- ✓ Local school and education programs
- ✓ Repair of roads and schools
- ✓ Commitment to ongoing training of local labour and staff
- ✓ Government geologists training program
- ✓ Proud sponsor of a local soccer team
- ✓ Hygiene education program







Defining Attributes of BAT

Strong Board and Management team

- ✓ Board and management skillset team transitioning from exploration to mining/production focus
- ✓ All staff and management will be strongly incentivised to control costs and generate sustaining cash flows

Resource of Demonstrated Quality and Flexibility

- ✓ Definition of Resources: Large/Jumbo flake. high TGC confirmed - Reserve estimation underway
- ✓ Spherical graphite, ideally suited for "green" energy" EV battery applications

Positive Concept Study Metrics allowing progress to DFS (Potential for low cost production)

- ✓ Compelling concept study outcomes achieved for both projects
- ✓ Optionality, scalability and scope for capital expenditure refinements during DFS which is nearing completion

Robust Operating Landscape and Logistics

✓ Logistics, power, water, mining code, corporate taxes and regulations. investment

Clear Development Pathway

- ✓ Resources defined. Definitive Feasibility Study underway for flake graphite and PFS underway for spherical graphite
- ✓ Graphite Offtake discussions and enduser test work underway

The Spherical Graphite Vertical **Integration Opportunity**

✓ Natural flake graphite to disrupt synthetically derived spherical graphite (presently dominant supply in LiB's)

Contact

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Montepuez JORC Resource Statement and Flake Size Distribution

Montepuez Graphite Project

November	2015 MII	ierai	Resource	Estimate	(6%	IGC	Cut-off)	
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		72				
Deposit	Туре	Tonnes Mt	TGC %	V ₂ O ₅	Cont. Graphite Mt	Cont. V ₂ O ₅ Kt
Duffele	Weathered	2.9	9.8	0.23	0.3	7
Buffalo	Primary	21.0	10.3	0.21	2.2	45
Lion	Weathered	0.6	11.4	0.26	0.1	1
	Primary	3.1	11.3	0.32	0.3	10
	Total	27.6	10.4	0.23	2.9	62

		Inferred Mineral Resource					
Deposit	Туре	Tonnes Mt	TGC %	V ₂ O ₅ %	Cont. Graphite Mt	Cont. V ₂ O ₅ Kt	
Buffalo	Weathered	1.1	8.2	0.19	0.1	2	
	Primary	3.4	8.8	0.20	0.3	7	
Lion	Weathered	0.1	12.6	0.34	0.0	0	
LION	Primary	0.4	12.1	0.34	0.1	1	
Elephant	Weathered	2.7	10.5	0.32	0.3	9	
	Primary	26.4	10.3	0.31	2.7	81	
	Total	34.1	10.2	0.30	3.5	101	

		0	source			
Deposit	Туре	Tonnes Mt	TGC %	V ₂ O ₅	Cont. Graphite Mt	Cont. V ₂ O ₅ Kt
D. Wala	Weathered	4.0	9.4	0.22	0.4	9
Buffalo	Primary	24.4	10.1	0.21	2.5	52
Circ.	Weathered	0.6	11.5	0.27	0.1	2
Lion Primary	Primary	3.5	11.4	0.32	0.4	11
Elephant	Weathered	2.7	10.5	0.32	0.3	9
	Primary	26.4	10.3	0.31	2.7	81
	Total	61.6	10.3	0.27	6.3	163

Table 2 Buffalo Weathered Material Type Flake Size Classification Classification | Sieve Size (µm) | % in Interval | Cumulative %

Classification	Sieve Size (µm)	% in Interval	Cumulative %
Very Fine	<75	16.0	100.0
Fine	75-150	21.6	84.0
Medium	150-180	8.1	62.4
Large	180-300	25.2	54.3
Jumbo	>300	29.0	29.0

Table 3 Buffalo Primary Material Type Flake Size Classification

Classification	Sieve Size (µm)	% in Interval	Cumulative %
Very Fine	<75	11.3	100.0
Fine	75-150	18.8	88.7
Medium	150-180	7.8	69.9
Large	180-300	24.6	62.1
Jumbo	>300	37.5	37.5

Table 4 Lion Weathered Material Type Flake Size Classification

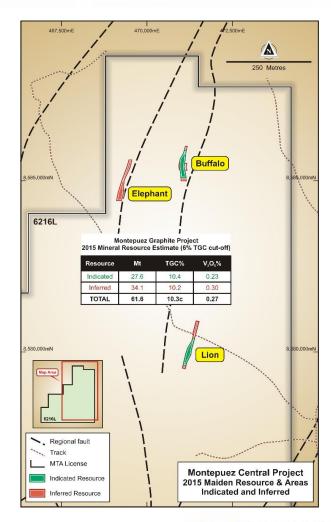
Table 4 Lion Weathered Material Type Flake Size Classification						
Classification	Sieve Size (µm)	% in Interval	Cumulative %			
Very Fine	<75	20.6	100.0			
Fine	75-150	22.8	79.4			
Medium	150-180	7.9	56.6			
Large	180-300	23.2	48.7			
Jumbo	>300	25.5	25.5			

Table 5 Lion Primary Material Type Flake Size Classification

Classification	Sieve Size (µm)	% in Interval	Cumulative %
Very Fine	<75	16.0	100.0
Fine	75-150	20.6	84.0
Medium	150-180	6.6	63.3
Large	180-300	21.7	56.8
Jumbo	>300	35.1	35.1

Table 6 Combined Montepuez Project Flake Size Classification

Classification	Sieve Size (µm)	% in Interval	Cumulative %
Very Fine	<75	15.5	100.0
Fine	75-150	20.7	84.5
Medium	150-180	7.5	63.8
Large	180-300	23.5	56.3
Jumbo	>300	32.7	32.7





Montepuez JORC Resource - Cut-off grade chart

Montepuez Graphite Project November 2015 Mineral Resource Estimate

Grade Range	Incremental Resource					Cut-off	Cumulative Resource				
	Tonnes	TGC	V ₂ O ₅	Contained	Contained	Grade	Tonnes	TGC	V ₂ O ₅	Contained	Contained
TGC%	t	%	%	Graphite (t)	Vanadium (t)	TGC%	t	%	%	Graphite (t)	Vanadium (t)
1.0 - 2.0	80,302	1.97	0.05	1,582	44	1	83,527,774	8.81	0.23	7,357,009	190,620
2.0 - 3.0	1,396,495	2.55	0.06	35,639	887	2	83,447,472	8.81	0.23	7,355,427	190,576
3.0 - 4.0	2,653,909	3.69	0.09	97,805	2,466	3	82,050,977	8.92	0.23	7,319,788	189,689
4.0 - 5.0	7,529,132	4.53	0.12	340,970	9,296	4	79,397,068	9.10	0.24	7,221,983	187,223
5.0 - 6.0	10,245,400	5.50	0.14	563,119	14,849	5	71,867,936	9.57	0.25	6,881,012	177,927
6.0 - 7.0	7,146,042	6.51	0.17	465,033	12,497	6	61,622,536	10.25	0.26	6,317,894	163,079
7.0 - 8.0	7,505,020	7.54	0.20	566,217	14,861	7	54,476,494	10.74	0.28	5,852,861	150,582
8.0 - 9.0	8,431,197	8.52	0.22	718,663	18,307	8	46,971,474	11.26	0.29	5,286,644	135,721
9.0 - 10.0	10,464,986	9.53	0.23	997,611	24,367	9	38,540,277	11.85	0.30	4,567,981	117,415
10.0 - 11.0	9,586,488	10.47	0.26	1,003,564	25,024	10	28,075,291	12.72	0.33	3,570,370	93,048
11.0 - 12.0	5,790,582	11.51	0.29	666,225	16,595	11	18,488,803	13.88	0.37	2,566,806	68,024
12.0 - 13.0	3,523,078	12.38	0.31	436,144	10,973	12	12,698,221	14.97	0.41	1,900,581	51,428
13.0 - 14.0	2,104,757	13.44	0.36	282,811	7,583	13	9,175,143	15.96	0.44	1,464,437	40,455
14.0 - 15.0	2,488,293	14.81	0.46	368,471	11,403	14	7,070,386	16.71	0.46	1,181,626	32,872
15.0 - 20.0	4,101,168	17.47	0.47	716,360	19,148	15	4,582,093	17.75	0.47	813,155	21,469
> 20.0	480,925	20.13	0.48	96,796	2,321	20	480,925	20.13	0.48	96,796	2,321
Total	83,527,774	8.81	0.23	7,357,009	190,620						

Note:

- 1. Totals may differ due to rounding, Mineral Resources reported on a dry in-situ basis.
- 2. Flake sizes for the Mineral Resource are tabulated in Tables 2 to 6 below.
- 3. The Statement of Estimates of Mineral Resources has been compiled under the supervision of Mr. Robert Dennis who is a full-time employee of RPM and a Member of the AusIMM and AIG. Mr. Dennis has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code (2012).
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- 5. Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code JORC 2012 Edition).
- 6. Reporting cut-off grade selected based on other known economically viable deposits in the region. For further details, refer to grade tonnage information contained within Table 7 above.
- 7. TGC = total graphitic carbon.

