



## Its About Batteries – Presentation Summary



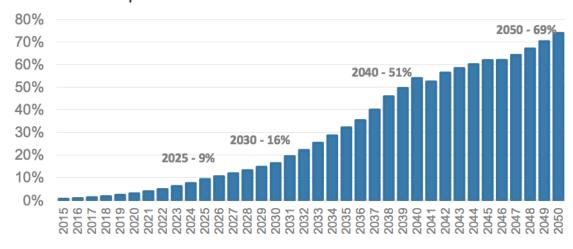
- Lithium Ion Battery Market
- Development strategy
- Project and status report
- Next Steps

## Its About Batteries



Battery electric penetration model ('000 vehicles) -9% by 2025, 16% by 2030, 51% by 2040, and 69% by 2050. Growing BEV sales mean that ICE sales may be peaking right now, and start to impact much more negatively on absolute ICE sales volumes post 2030

#### World BEV sales penetration



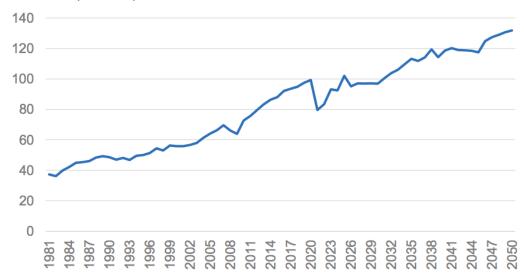
Source - Morgan Stanley Research 2017

BEV = Battery Electric Vehicle

ICE - Internal Combustion Engines

We forecast global car sales to grow from 90m in FY17 to over 130m by 2050 – we assume no downcycles beyond 2021-22

### Car sales (m units)



Source: IMF, World Bank, Morgan Stanley Research, Morgan Stanley Research estimates for global car parc (from 2017 onwards).

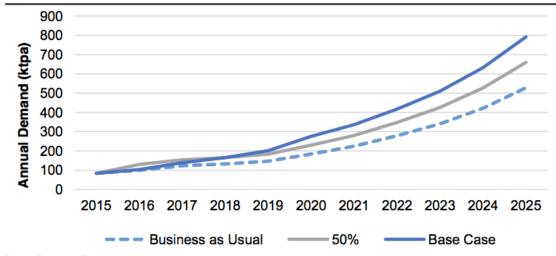
## Its About Batteries



### Use of natural graphite in Li-B's will depend on a significant shift away from synthetic

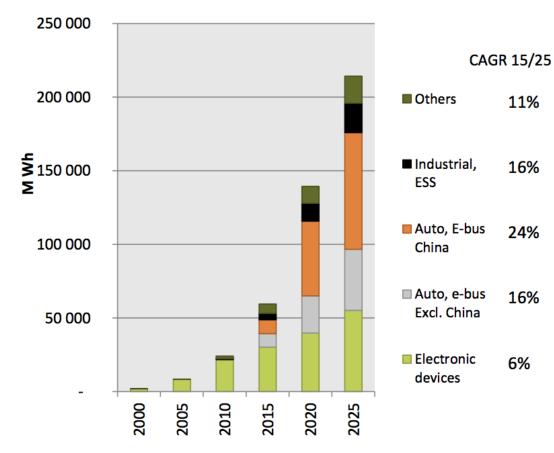
 Based upon our projections for Li-ion battery demand depending on the various cathode chemistries and graphite raw material requirements, we have estimated the required demand for natural flake graphite in Figure 39 below. This shows that demand for flake graphite from the Li-B market could grow by a CAGR of 25% from 2015 to 2025 to 792kt (from ~84kt).

Figure 39: Natural Flake Demand from the Li-ion battery market



Source: Canaccord Genuity estimates

#### Li-ion Battery sales,



Others: medical devices, power tools, gardening tools, e-bikes...

Source: AVICENNE Energy 2016

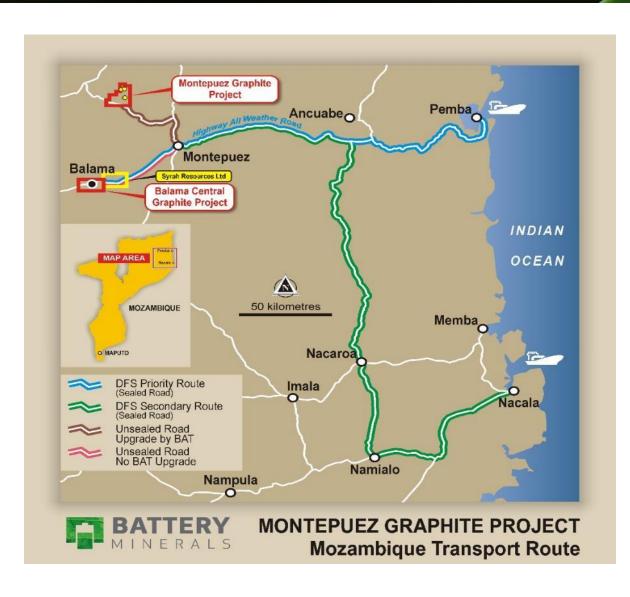
# "It is About Delivery" - The Key Pillars



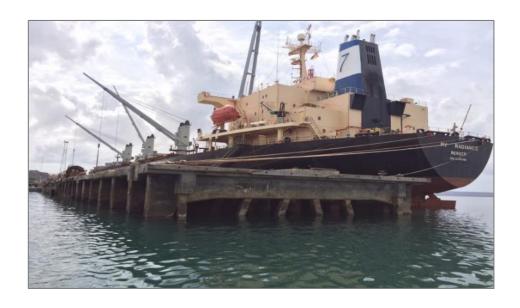
Strategic Pillar	Description
Deliver the project	Achieve approvals, recruitment, plant procurement, construction, commissioning and ramp up. Mine, process and sell.
Marketing and Offtake	Conclude high quality sales agreements for flake and spherical graphite production. Maximise revenues and strategic benefit
Financial Strength	Deliver optimum funding solution to benefit shareholders. Maintain sufficiently strong balance sheet to deliver corporate objectives.
Growth	Continued investment in downstream value adding initiatives, exploration and strategic acquisitions

### Mine Location & Infrastructure Benefits





- Two graphite projects located in the Cabo Delgado province of Mozambique in East Africa
- Significant graphite export operations/ capacity
- Excellent logistics: only 260km to Pemba port via existing roads
- Modern mining act and pro-mining government
- Stable multi-party democracy since 1994



## Progress Report



ITEM	Status
Cell Battery	Complete
18650 Battery	Complete
Pilot SPG Plant JV in USA co	Successfully operated and delivered spherical graphite
Definitive Feasibility Study on Flake	Complete
Prefeasibility on Spherical Graphite	Complete
Bulk Sample Stage 1 2,000t Mining/Processing/Procurement (spherical DFS)	Extraction, Haulage and Crushing complete Toll treatment and plant selection ongoing. On schedule
Mining Approvals	Application lodged
Key appointments	On Schedule
Off take agreements Stage 2	Ongoing

## Bulk Sample Mining at Montepuez Project

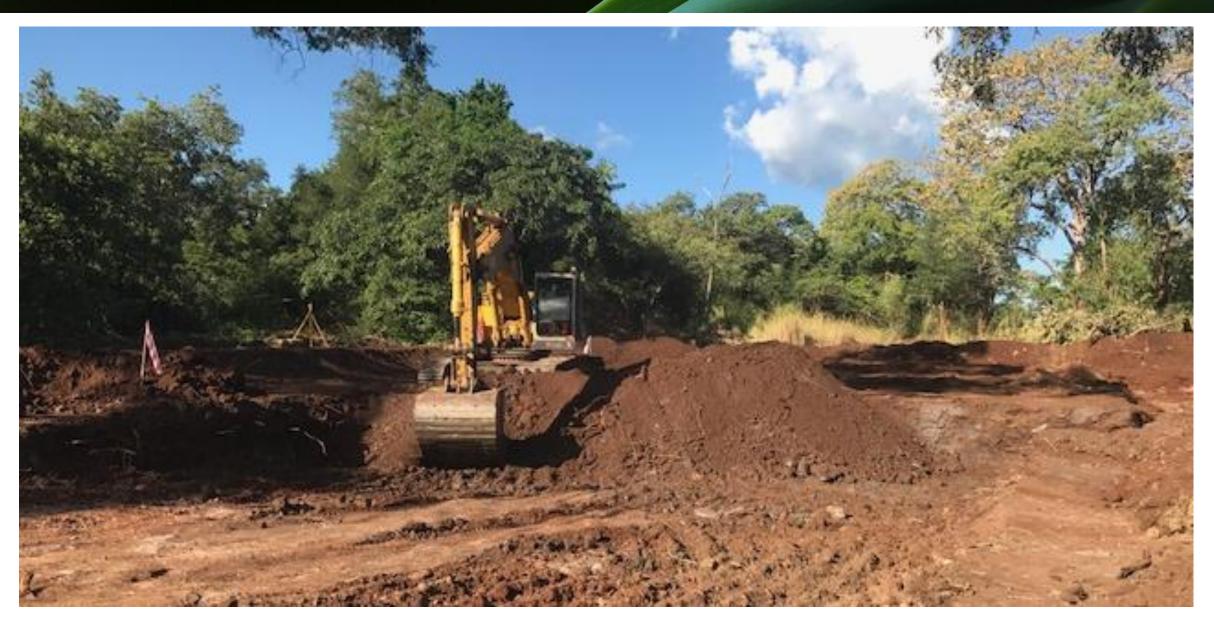






















# Bulk Sample Haulage Montepuez Project to Pemba





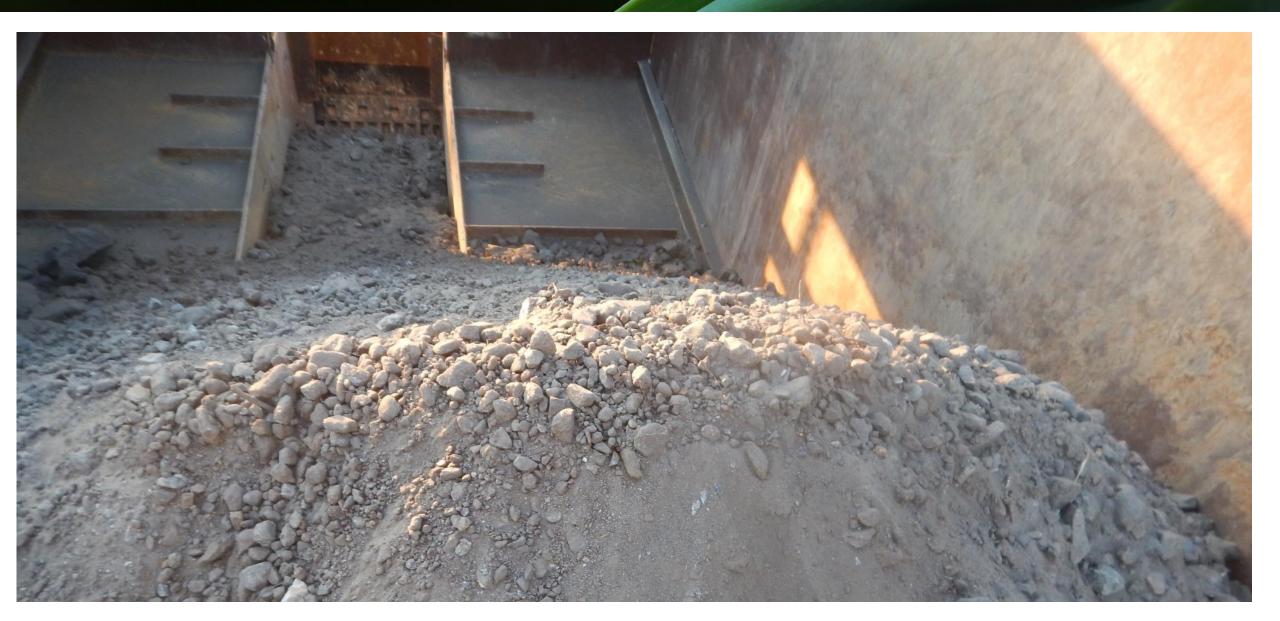




















## Stage 2 – What is



Stage 2 – Early stage works for Project Development Target Parameters	First Commercial Phase production – target early cash flow
Mining rate	250 to 300,000 tpa
Flake Production Capacity	20,000t at 97 to 99% TGC
Purified Spherical Graphite Capacity	10,000 tpa
Capital Cost with contingency (Extracted from DFS/PFS)	USD \$57 to \$67M
Flake Operating cost	USD \$450 to 500/t
Purified and Coated Spherical graphite operating cost	USD \$5,000 to 6,000/t
Site Works commence	Q1 2018
Production Commences	Q2 2019

### Next 12 Months



- Mozambique mining license approved, 2H 2017
- Stage 1 spherical graphite DFS bulk sample
- Dry season exploration activity May 2017 to November 2017
- Detailed Engineering & procurement for Stage 2, 2H 2017
- Choose preferred funding option for Stage 2
- Commence Stage 2 construction, Q1 2018
- Targeted exploration activity



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- Any references to Ore Reserve and Mineral Resource

- estimations should be read in conjunction with the competent person statements included in the ASX announcements referenced in this presentation as well as Battery Minerals' other periodic and continuous disclosure announcements lodged with the ASX, which are available on the Battery Minerals' website.
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- The information in this Presentation that relates to Mineral Resources and Ore Reserves is extracted from the ASX Announcement titled 'Montepuez Graphite Project Mineral Resource and Ore Reserve Estimate' dated 15 February 2017 and DFS and PFS information is extracted from the ASX announcement entitled 'Lithium Ion Battery anode PFS and Montepuez Graphite DFS confirm robust economics' dated 15 February 2017, both of which are available at Battery Minerals website at http://www.batteryminerals.com.au in the ASX announcement page.
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