

# Annual General Meeting

Shaun Verner – Managing Director & CEO  
24 May 2019

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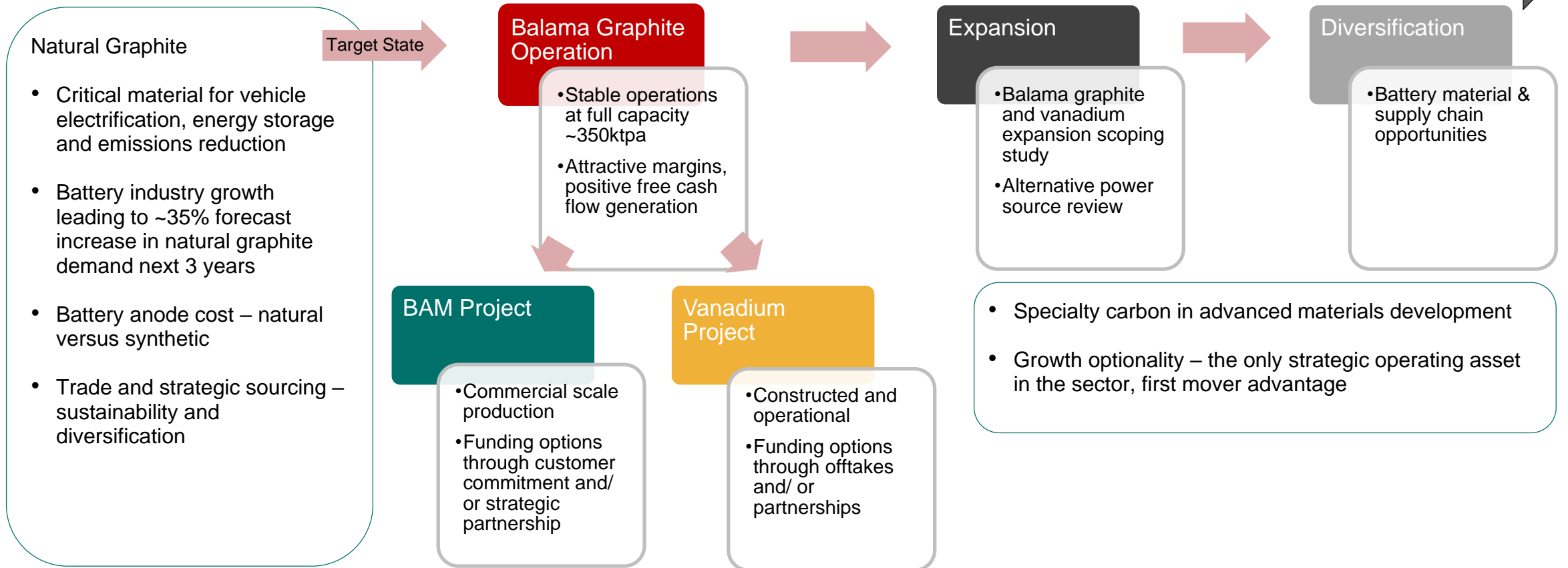
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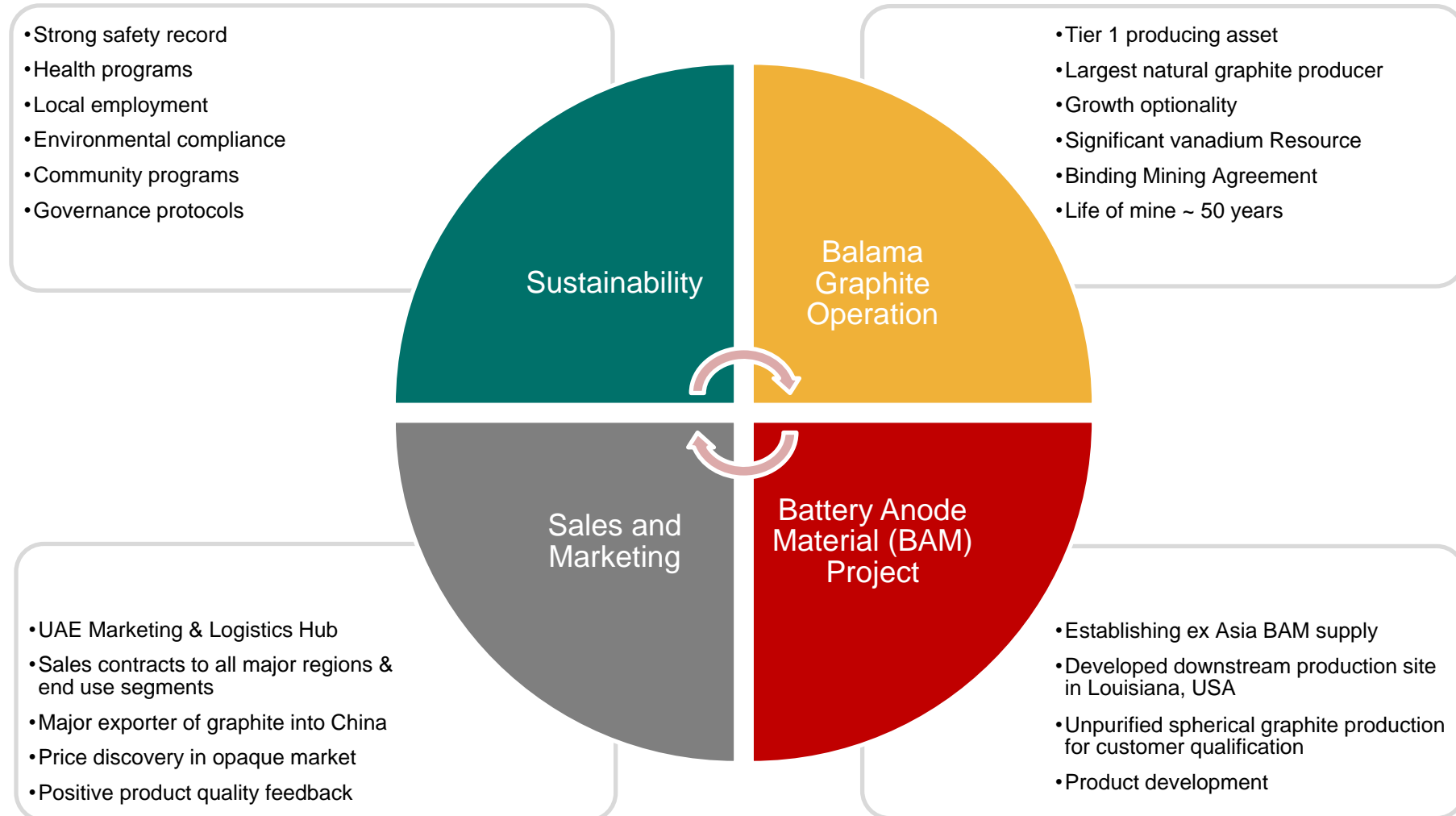
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# Syrah at early stage of attractive 5 year strategic growth plan

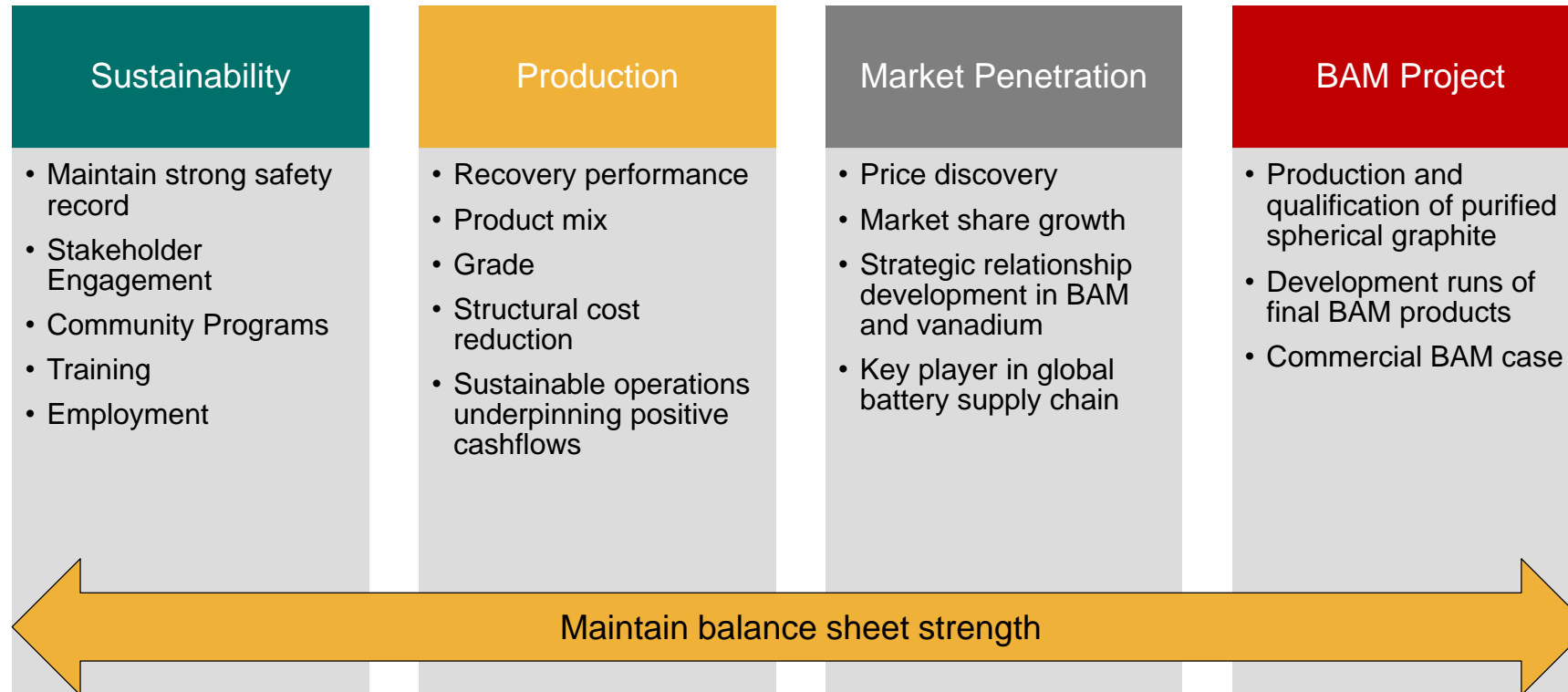
Syrah's 5 year strategic plan targets significant shareholder value creation



# Underpinned today by foundations for sustainable growth



## 2019 focus to ensure long term success





# Syrah is committed to making a long term positive impact in Mozambique

## Supporting the Economy

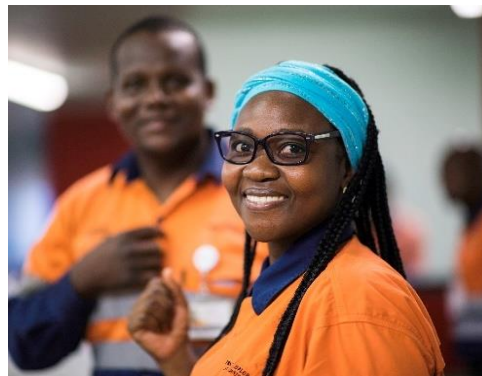
>US\$41m paid in salaries in Mozambique to date



*96% Mozambican employment*

## Employment

Direct and contract roles for Mozambicans



*Local jobs*

## Health & Community

Programs to improve education, health and skills training facilities



*Balama Professional Training Centre*

## Environment

World class environmental protection plan with zero non-compliances



*Environmental Monitoring Program*



# Sustainability Highlights 2018

## Health & Safety

- Strong health and safety record with TRIFR of 0.3 as at 31 December 2018
- Syrah achieved accreditation in ISO 14001:2015 & OHSAS 18001:2007 in May 2018
- Malaria screening program proving effective with over 6,000 screening tests with 444 averted cases since program commenced in September 2018
- Emergency Preparedness training ongoing with internationally certified Advance Firefighting and Command & Control training provided to all Emergency Response Team members
- Occupational hygiene monitoring results remain well controlled



Health screening



Water boreholes in local communities

## Environment

- Environmental Monitoring Program continuing to meet over 200 license conditions
- Native seedlings from the Balama Nursery donated to local stakeholders as part of Syrah's Reforestation Project and Livelihood Development Program
- Additional groundwater boreholes installed across local Host Communities
- Review of the Balama Tailings Storage Facility (TSF) over past 12 months for potential transition from wet deposition to dry stacking as part of Syrah's TSF Governance Framework



Balama Nursery



Cashew seedlings provided to local schools



# Sustainability Highlights 2018

## People

- Syrah's Mozambique workforce comprises of 96% Mozambican nationals with 55% from the 8 local Host Communities
- Female employment at Balama ~19%, versus 2018 target of 15%
- Achieved 99.6% mandatory training compliance (such as Business Conduct and Risk & Hazard Management) by year end across Balama employees and contractors
- Zero industrial disputes



*Employees at Balama*

## Government and Community

- Binding Mining Agreement finalised with Government of Mozambique
- Balama Graphite Operation was officially opened by the President of Mozambique, His Excellency Mr Filipe Nyusi at the onsite event
- Local Development Committee established consisting of key stakeholders from the Community, Company and District Government
- Balama Professional Training Centre opened in December
- Livelihood Development Program commenced with agricultural training



*Balama Graphite Operation update provided to the President of Mozambique, Minister of Mineral Resources and the District Governor*



# Balama – the world’s major producer in first year of operations

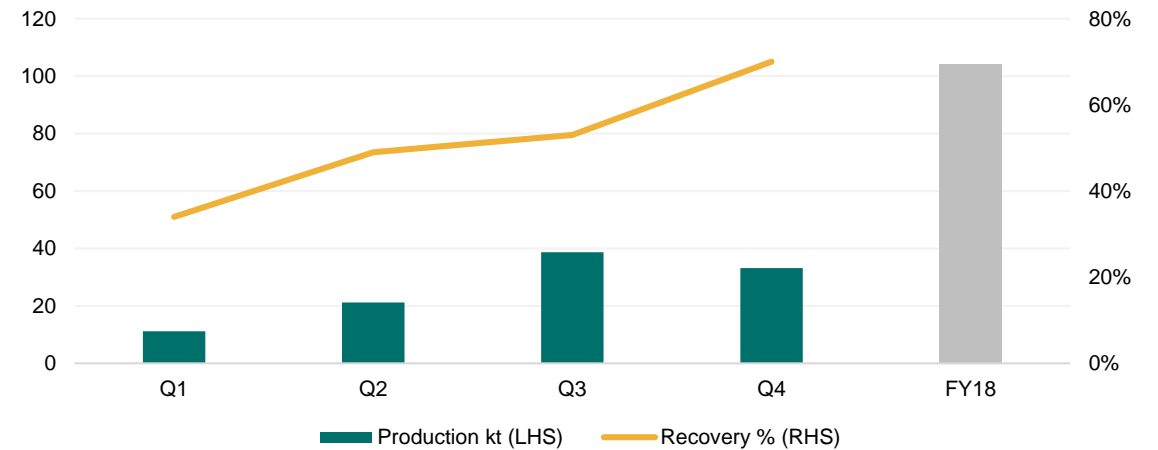
Production Summary		FY2018
Material Mined (>9% TGC <sup>1</sup> )	Tonnes ('000)	1,356
Material Mined (>2% to <9% TGC <sup>1</sup> )	Tonnes ('000)	478
Waste Mined	Tonnes ('000)	205
Total Material Moved	Tonnes ('000)	2,039
Plant Feed	Tonnes ('000)	1,120
Plant Feed Grade	TGC <sup>1</sup>	17%
Recovery		53%
<b>Graphite Produced</b>	<b>Tonnes ('000)</b>	<b>104.2</b>
Average Fixed Carbon		95%

Graphite Mineral Resources and Ore Reserves as at 31 December 2018 <sup>2</sup>			
Classification	Tonnes (Mt)	TGC <sup>1</sup> (%)	Graphite (Mt)
<b>Mineral Resource</b>	<b>1,423</b>	<b>10</b>	<b>146.7</b>
- Measured	24.3	17.6	4.3
- Indicated	379	11.2	42.4
- Inferred	1,020	9.8	100.0
<b>Ore Reserve</b>	<b>113.29</b>	<b>16.36</b>	<b>18.5</b>
- Proved	5.39	17.20	0.9
- Probable	107.9	16.32	17.6

(1) TGC = Total Graphitic Carbon

(2) Refer to ASX Announcement "Graphite Mineral Resources and Ore Reserves Update" 29 March 2019, all material assumptions continue to apply and have not materially changed

2018 Production and Recovery



- Plant peak daily throughput capacity achieved ~ pro-rata 2Mt per annum feed
- Average graphite recovery improved to 70% in Q4, peak daily recovery of 90% achieved
- Successfully produced 98% fixed carbon graphite in coarse flake circuit using standard flotation processes
- FY18 product mix ~ 80% fines : 20% coarse flake



**SYRAH RESOURCES**

# Balama production improvement plan

## Maximise Recovery and Optimise Throughput

- Graphite liberation – feed size adjustment and grinding media optimisation
- Crusher availability – stable ore feed and feed rate
- Increase concentrate pump capacity
- Secondary grinding performance
- Continuous improvement in flotation and process control

## Optimise Product Mix and Grade

- Use of proven capability to produce high grade
- Increase coarse flake product mix via:
  - Run of mine plan and ore blend strategy
  - Continue to optimise dry screening
  - Reduce flake destruction and cross contamination through milling and wet screening

## Critical Equipment Management

- Ownership and Expertise: Back to back dedicated senior specialists
- Performance gap analysis and specific improvement program
- Daily, weekly and monthly Key Performance Indicators (KPIs)
- Integrate operators in equipment care, training, accountabilities, KPIs
- Review of processes such as conditioning monitoring, shutdown process and critical spares management

## Product Handling and Logistics

- New customs clearance process
- Trucking control and dispatch for cycle time efficiency
- Improve systems integration and planning
- Night loading at Balama

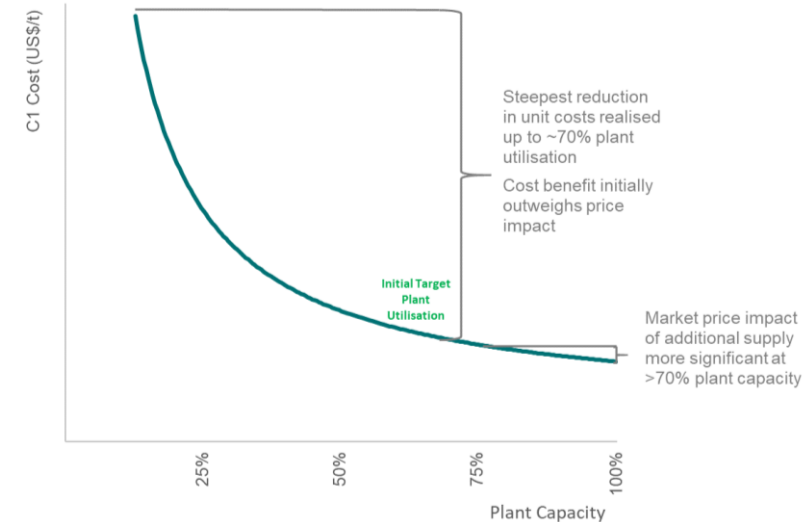


# Sales and Operations Planning – the current unit cost / price trade off, and driver for 2019 production target

## 2019 production strategy driven by unit cost reduction and price increase

- Drive unit cost decrease through increased production volume
- Plant design and cost base optimised @ > 70% capacity utilisation
- Price realisation driven by product mix, grade, regional split
- Potential price decline risk if production volume increase unconstrained
- Production volume increase therefore pursued in two steps:
  - Pursuing cashflow positive operations (unit cost decrease)
  - Additional high quality supply driven by incentive pricing (price realisation increase)
- Production volume profile continues to build incrementally on 2018 performance
- Reduce risk of price decline, and maximises incentive signals
- 2019 production target<sup>1</sup> ~ 250kt subject to market conditions

## Unit Cost vs Price tradeoff



## Guidance Consideration

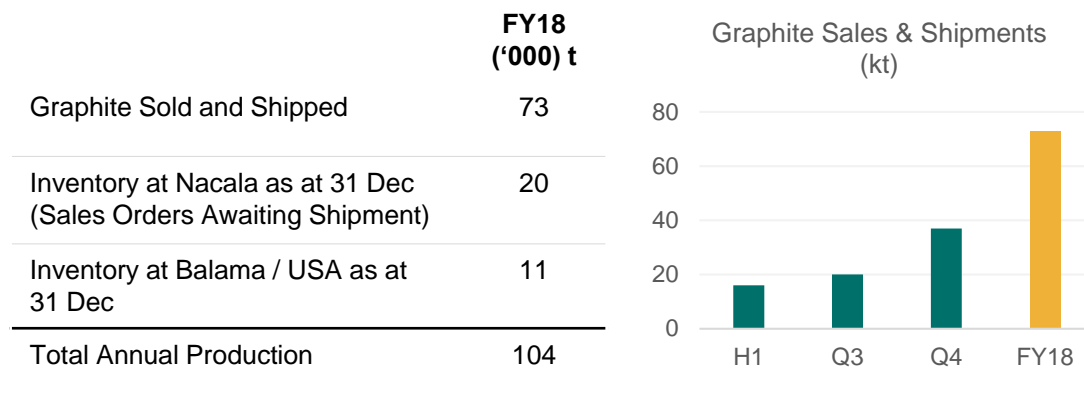
- Syrah production is the global Supply / Demand balance swing factor
- Manage tension between market guidance and commercial negotiation
- Production targeted to increase to >20kt per month, in line with supportive market demand and pricing conditions

(1) Refer to ASX announcement 29 March 2019 "Graphite Mineral Resources and Ore Reserves Update". All material assumptions underpinning the production target in this announcement continue to apply, other than as updated in subsequent ASX announcements



# Sales & Marketing – Global customer and end segment base established

## Graphite Sales – Positive customer feedback on grade and quality



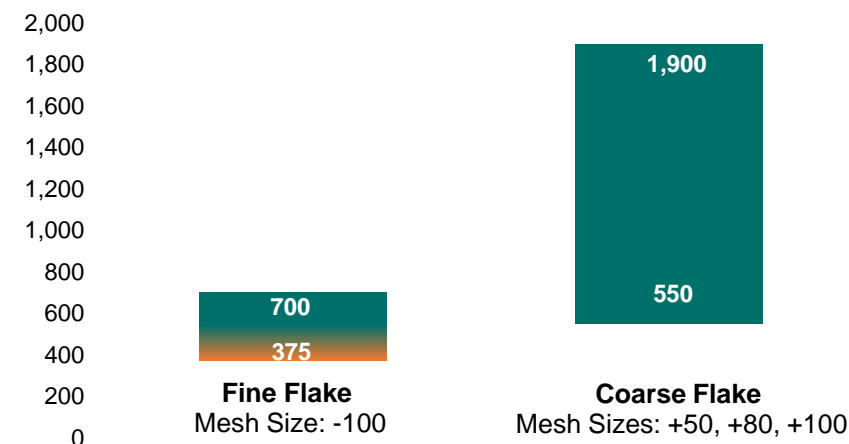
## Coarse Flake Products (+100#, +80#, +50#)

- Large flake / coarse products achieving significant penetration into Europe and India
- Premium grade products (96%-98%) in high demand in East Asia refractory markets

## Fines Products (-100#)

- Fines price ex-China driven by incentive to export marginal tonne
- Syrah exports to China entering competitive and established domestic fines market; initial pricing challenging
- Syrah carbon grade, quality / low impurities establishing differentiated position
- Syrah becoming one of the largest fines product suppliers into the global electric vehicle supply chain
- Expect positive price support as China moves to market deficit for high grade fines product

## Product Price Range Achieved 2018 US\$/t (CIF)



## Syrah's Weighted Average Price

- Influenced by product mix of flake sizes, carbon grade and delivery location
- Syrah's market entry significantly increases supply volume
- First year pricing also influenced by qualification shipments, mixed size and grade specifications
- Pricing is bespoke and bilaterally agreed and there is no centrally accepted clearing price



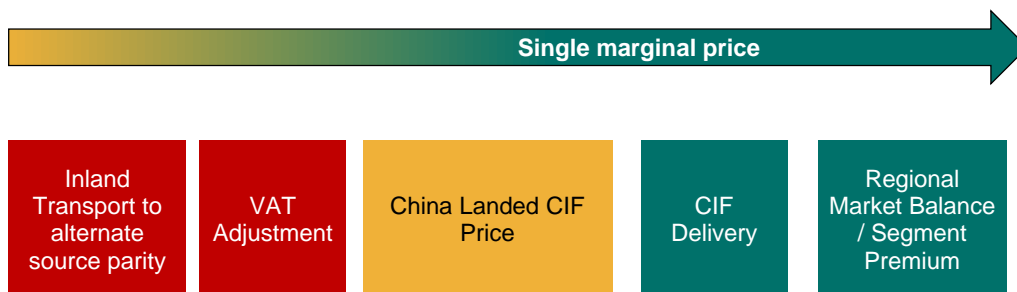
# Natural Graphite Pricing – a disaggregated market

Natural Graphite	China	Ex-China	Current global natural graphite market	Demand Growth
<b>Fines</b> (-100 mesh)	Currently net exporter therefore marginal pricing influenced by China domestic balance	Pricing reflects incentive for China to export	~600kt Balanced to slight surplus	High off large base
<b>Coarse</b> (+50, +80, +100 mesh)	In line with international markets	International market prices	~150kt Deficit to balanced	Low to medium off small base

## Differentiated pricing while China market in fines surplus



## International parity pricing as market balance shifts to deficit















## China fines pricing

- Ex-China market pricing determined by incentive price for export from China
- China is currently net exporter of natural graphite fines therefore initial imports must compete with domestic prices adjusted for VAT and inland logistic costs
- China fines pricing expected to reflect rebalancing of domestic market to net importer over next two years
- Syrah has established significant Chinese market position in preparation for that shift
- Even before the shift a pricing premium is expected as Syrah continues to demonstrate quality, performance and reliability value in use differentials
- As balance shifts, inducement of additional high quality volume into China ports drives pricing
- International pricing parity switches VAT and inland logistics absorption from seller to buyer



# Pricing Expectations – key variables of Syrah weighted average price have strong upside potential over the short and medium term

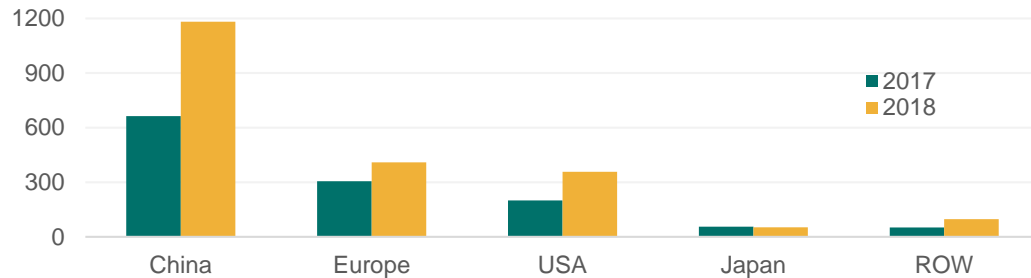
Pricing factor		Extent Currently Priced-In	Expected Forward Impact	Expected price development
Focus within next 12 months	Market entry pricing & qualification			Reduced qualification and entry pricing impact from 2019
	Product Mix			Product mix to 20% then towards 30% coarse flake
	Grade			Significant potential for 96%-98% grade premium
	Regional split & alternative supply			Ex-China market penetration upside
Volume & Reliability				Value-in-use and baseload supply premium
Market Balance				China net import expectation for high quality fines



# EV growth and battery capacity investment continues to support natural graphite demand

Graphite key end market growth data		CY 2018	CY18 vs CY17
Global Steel Production	Mt	1,809	4.6%
Global Electric Vehicle Sales <sup>1</sup>	Units ('000)	2,099	64%
- China (56% of sales)	Units ('000)	1,182	78%
- Europe (19% of sales)	Units ('000)	409	34%
- USA (17% of sales)	Units ('000)	358	79%

Geographic EV Sales (units '000)



(1) Includes all BEV and PHEV passenger car sales, light trucks in North America and light commercial vehicles in China and Europe  
Source: World Steel Organisation, EVvolumes.com

## Demand

### Lithium ion battery segment

- Graphite is anticipated to remain the key material for anodes for the foreseeable future
- EV demand growth supports Syrah's expectation of incremental 70kt – 100kt natural flake graphite demand in 2019
- China continues to dominate battery manufacturing capacity expansion
- EU and USA battery and EV manufacturing capacity developing as expected

### Steel end use segment

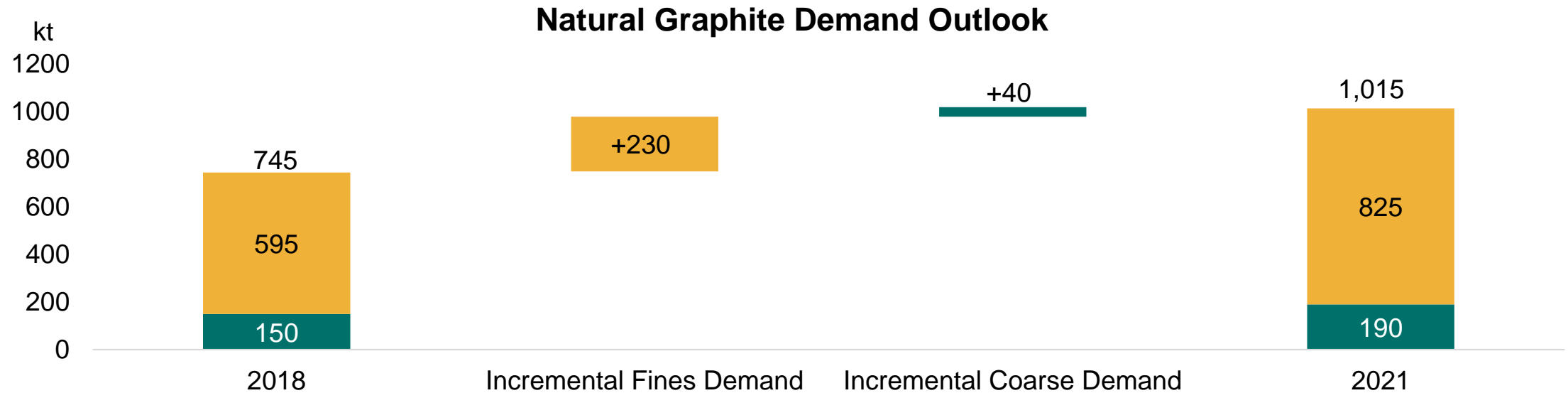
- Syrah expects flat graphite demand from steel sector as China continues to transition from an infrastructure driven to a consumption led economy
- Ex-China demand expected to improve, providing support to the refractory markets

## Supply

- Chinese natural graphite supply availability continued to be impacted by seasonal shutdowns and prior environmental restrictions
- Seasonal production restarts are expected from mid Q2 onwards



# Base case demand view supports Balama reaching full capacity; significant fines growth driven by battery anode material demand

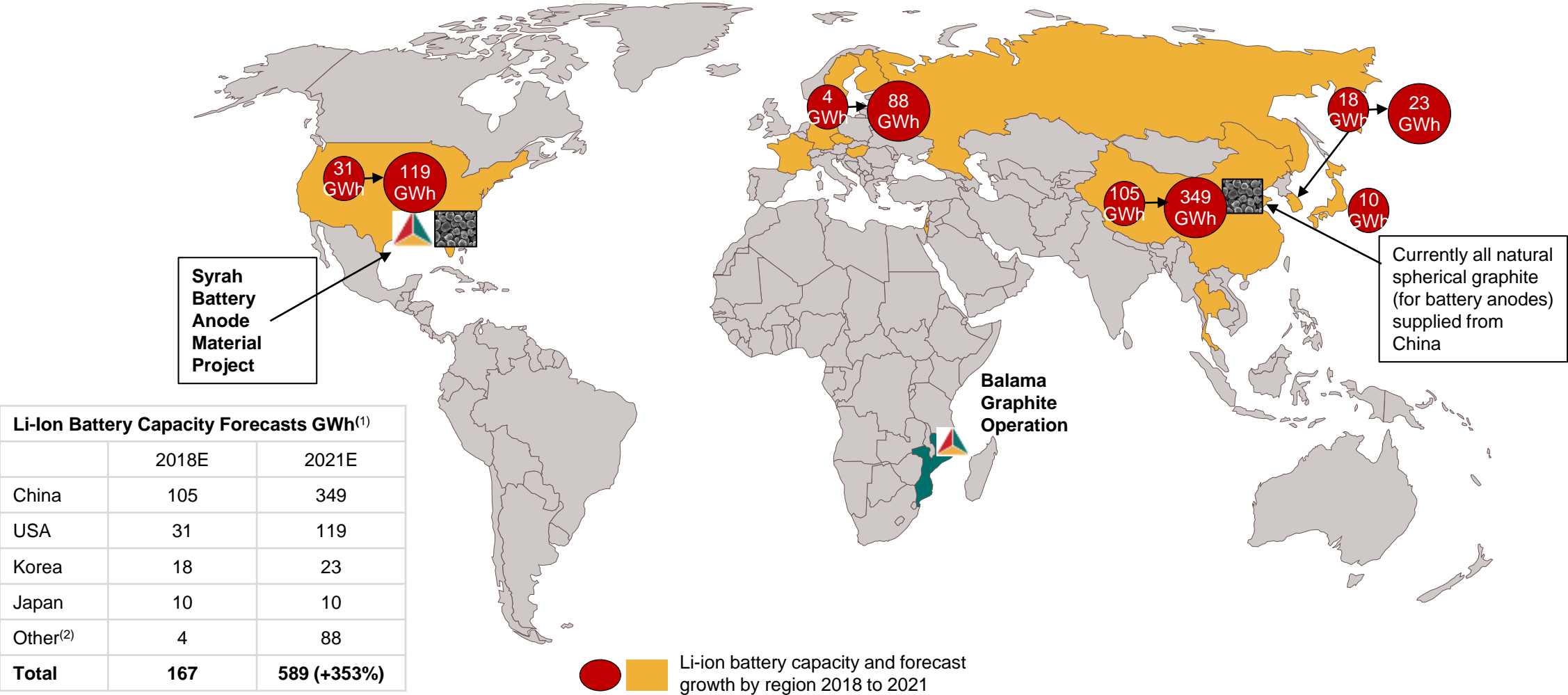


- Fines market growth driven by demand from anode producers to support the increased capacity of lithium ion factories and the objective to lower overall product costs
- Fines material remains the major natural graphite material used in anodes, coarse flake uneconomic
- Coarse flake demand growth driven by expandable / foils / insulation, from a low base

Source: Syrah Resources



# Syrah's natural spherical graphite competition is entirely Chinese; Li-ion battery capacity expanding across regions



(1) Source: Bloomberg New Energy Finance  
(2) Other: Mainly Europe

# Battery Anode Material (BAM) Project – First production achieved

Syrah precursor <sup>1</sup> testing and benchmarking completed	Vidalia BAM site purchase agreement	Vidalia BAM site purchase completed	Phase 1 Commercial scale study completed	First production unpurified spherical graphite using Balama feed	Customer qualification unpurified product dispatch	Purified spherical graphite product dispatch
Mar 2018	May 2018	Aug 2018	Sep 2018	Dec 2018	Q1 2019	Q3 2019

5ktpa milling equipment installation      Commercial scale plant major review completed, providing attractive economics

1ktpa purification equipment installation



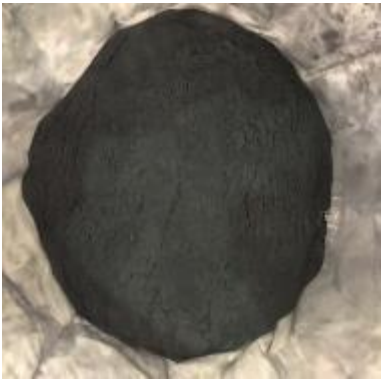
Vidalia milling equipment



Intermediate storage bins, product bagging line, leach tank and filter press



10kg sample of Unpurified Spherical Graphite from Vidalia



Milled spherical graphite for customer qualification

(1) Precursor materials refer to unpurified and purified spherical graphite

# Vanadium opportunity

Review of 2014 Scoping Study <sup>1</sup>	Review Conclusion (Using original grid power assumption)	Review Conclusion (Using diesel power assumption)
Capital costs	Higher	Higher
Operation costs	Lower <sup>2</sup>	Higher
Project Economics	Positive	Positive



*Balama graphite ore body with green bearing vanadium mica*

## Engineering consultant review of 2014 Scoping Study by Chalieco

- Revised project estimates between 2014 and 2018 likely to result in a higher capital estimate, but a lower operating cost estimate than the original study (on a like for like power basis, which assumed grid connection)
- Substituting diesel power generation would lead higher operating costs than the original study estimate
- Despite the higher capital and operating estimates, financial assessment using a conservative long term price forecast provides an attractive financial case, warranting progression to a formal Pre Feasibility Study (PFS) stage
- A number of potential capital reduction and process flow sheet optimisation opportunities were identified during the review for assessment prior to PFS
- Results of initial sampling of Vanadium content through the Balama processing plant circuit show similar Vanadium content to the 2014 Scoping Study<sup>1</sup>

(1) Refer to ASX Announcement 30 July 2014

(2) Like for like power basis



# Finance – Balama operational and BAM cash draw to reduce significantly from Q3 2019

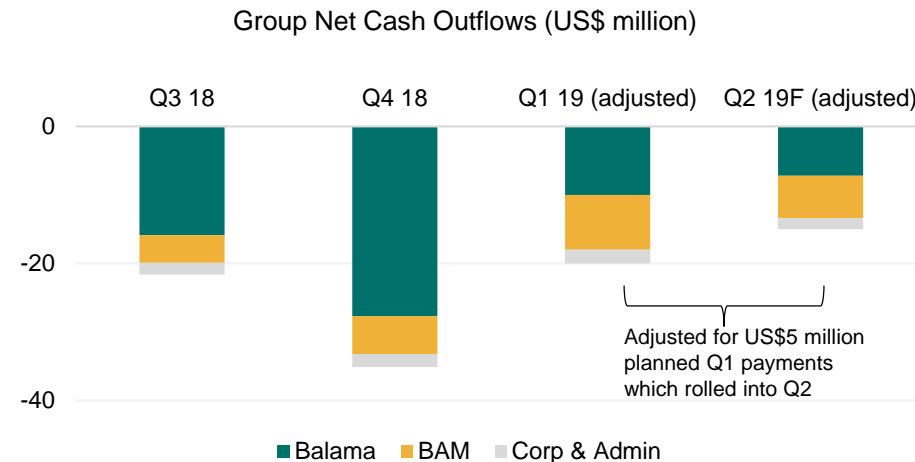
## Cash

- Balama 2018 cash flows impacted by the slower than expected realisation of working capital with improved sales volumes occurring later than planned and impact of operational performance
- Balama's overall operating cost structure developed in line with Syrah's expectations in FY18
- Syrah has undertaken more extensive engagement in the development of debt funding and continues to evaluate options
- Cash as at 31 March 2019 US\$62 million

## Net cash outflow profile

Further major reduction in Balama operational and BAM cash draw

- Q2 2019 last significant BAM capital spend at Vidalia
- Balama operational net cash position continues to improve through:
  - Increase sales volumes
  - Focus on structural cost reduction
  - Improved pricing achieved from product mix, higher fixed carbon grade



Note:

Q3 18 and Q4 18 excludes net proceeds of the Placement, Share Placement Plan and VAT refund  
 Balama includes operating and development costs net of sales receipts and sustaining capital  
 BAM includes Vidalia plant capital spend, and research and development costs





# 2019 Outlook

## Balama Graphite Operation

- Syrah will continue to review and manage the trade off between additional supply through production volume increase and realised prices to ensure that margin and cash impacts are optimised
- 2019 production target ~250kt<sup>1</sup> subject to market conditions
- Focus on greater coarse flake split and higher carbon grade content for price improvement
- C1 cash operating costs<sup>2</sup> trending towards US\$400 per tonne during 2019 via production volume increase and structural cost management

## BAM

- Purified spherical graphite customer qualification product dispatch Q3 2019
- Key elements of BAM commercial plant review to be released in Q2 2019, development timeline scenarios to be driven by funding and partnership options
- Product development in conjunction with Cadenza continues to focus on production costs and increased product performance

## Marketing

- Increased production consistency and stabilised logistics throughput provide a solid base for improved buyer confidence and a stronger negotiation position for Syrah
- Increases to weighted average CIF price to be achieved through
  - Improved product mix
  - Higher product grade skewed towards 96% and 97% fixed carbon
  - Finalisation of lower priced 2018 contracts carried over
  - Further geographic diversification of sales book ex China
- Chinese seasonal production restarts expected from mid Q2 onwards

## Cash and Liquidity

- BAM capital spend largely complete in Q2 2019, increasing production and product mix optimisation at Balama, logistics enabling sales volume growth, and structural cost management actions being implemented, cash draw from operations at Balama and BAM expected to reduce significantly from Q3 2019
- Debt options continue to be evaluated

(1) Refer to ASX announcement 29 March 2019 "Graphite Mineral Resources and Ore Reserves Update". All material assumptions underpinning the production target in this announcement continue to apply, other than as updated in subsequent ASX announcements

(2) FOB Port of Nacala, excluding government royalties and taxes

# Summary

- 2018 provided enormous learning across both production and market
- Achievable 2019 production plan developed - driving to positive operational cashflow, whilst managing market impact
- Significant positive catalysts ahead for 2019:
  - Driving production volume and structural cost elements to lower unit cost
  - Driving internally controllable production and marketing variables to increase realised price
  - Market demand evolution provides highly supportive external price drivers
  - BAM precursor production (unpurified and purified spherical graphite) initial sales targeted
  - BAM customer and industry interaction to further commercial case and strategic relationships
  - Customer-led engagement facilitating increased pace of natural graphite and BAM development
  - Vanadium opportunity progressing, industry engagement commencing
- Syrah at early stage of attractive 5 year growth plan underpinned by today's foundations