

Q2 2019 Quarterly Activities Report

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Introduction – Syrah's investment case

Upstream

- ❑ Balama Graphite Mine, Mozambique

Downstream

- ❑ Battery Anode Material Project, Louisiana



Investment highlights (as at June 2019)

Balama: A Tier 1 asset	<ul style="list-style-type: none"> ❑ Long life asset, with over 50 years of mine life⁽¹⁾ and 350kt per year of graphite concentrate production capability⁽²⁾ ❑ <u>Balama is the largest integrated natural graphite mine and processing plant globally</u> as measured by annual flake concentrate production capacity ❑ High grade concentrate relative to current industry standards provides Syrah with the opportunity for development of a price premium advantage, over time ❑ Balama's large Reserve and Resource⁽³⁾ allows for future plant expansion, potentially representing a low capital intensity option to meet incremental future graphite demand
Exposure to High Growth Lithium-ion Battery Markets	<ul style="list-style-type: none"> ❑ <u>Graphite is a key component of lithium-ion batteries used in electric vehicles and energy storage, both rapidly growing markets</u> ❑ Balama graphite product mix and specifications are suited for use in these markets
First Mover Advantage	<ul style="list-style-type: none"> ❑ The ongoing ramp-up of Balama is establishing the asset as a base-load supplier of graphite globally ❑ <u>Syrah's strategy to produce and qualify Battery Anode Material (BAM) is intended to establish a core ex-Asia battery supply chain position</u>
Competitive Advantage in the BAM Value Chain	<ul style="list-style-type: none"> ❑ Balama's scale, quality and low production costs at full production capacity are key competitive advantage enablers in the delivery of Syrah's BAM strategy ❑ Syrah's BAM strategy provides the opportunity to: <ul style="list-style-type: none"> • Produce value-added products compared to flake graphite and capture additional cash margin by establishing a core position in the battery supply chain • Provide an alternative source of BAM supply • Review potential for strategic operating or technical partnership in the project
Vanadium Optionality at Balama	<ul style="list-style-type: none"> ❑ Balama contains a significant vanadium Resource which presents a potential value-accretive opportunity that Syrah will advance through Pre Feasibility Study ❑ Vanadium, a by-product which is liberated during the graphite production process, could potentially be refined into a saleable product (V₂O₅)⁽⁴⁾ via processing of material currently reporting to tailings at Balama

(1) Life of mine based on current 113.3Mt Graphite Ore Reserves being depleted at 2Mt of mill throughput per annum

(2) Refer to ASX announcements dated 29 May 2015, 15 November 2016 and 29 March 2019

(3) Refer to ASX announcement dated 29 March 2019

(4) Scoping study on potential to refine vanadium as per the ASX announcement dated 30 July 2014



Balama Graphite Operation – a Tier 1 producing asset/largest integrated natural graphite mine/processing plant in the world (as at June 2019)

Location	<ul style="list-style-type: none"> ❑ Mozambique (Cabo Delgado Province)
Reserves and Resources⁽¹⁾	<ul style="list-style-type: none"> ❑ Graphite Reserves: 113.3Mt at 16.4% Total Graphitic Carbon (TGC) – 18.5Mt of contained graphite ❑ Graphite Resources: 1,423Mt at 10% TGC – 147Mt of contained graphite
Mining	<ul style="list-style-type: none"> ❑ Simple, open pit mining operation with low stripping ratio
Processing method	<ul style="list-style-type: none"> ❑ Conventional process that includes crushing, grinding, flotation, filtration, drying, screening and bagging
Processing plant capacity	<ul style="list-style-type: none"> ❑ 2 million tonnes ore per annum
Product	<ul style="list-style-type: none"> ❑ 94% to 98% Fixed Carbon (FC) concentrate to be produced across a range of flake sizes
Production	<ul style="list-style-type: none"> ❑ Production capability of 350kt of graphite concentrate per year ❑ Targeting 2019 production 205 - 245kt⁽¹⁾, dependent on (i) ongoing assessment of sales volume against price⁽²⁾, and (ii) production performance and quality performance
C1 cash operating cost⁽⁴⁾	<ul style="list-style-type: none"> ❑ Targeting a C1 cash operating cost towards ~US\$400 per tonne by end 2019, subject to recovery and production outcomes that will be driven by market conditions⁽³⁾ ❑ Expected to reduce towards US\$330 per tonne as the plant is optimised and ramps up to full capacity
Life of mine	<ul style="list-style-type: none"> ❑ Over 50 years⁽⁵⁾
Optionality	<ul style="list-style-type: none"> ❑ Balama's large Reserve and Resource allows for future plant expansion, potentially representing a low capital intensity option to meet incremental future graphite demand ❑ Vanadium, a by-product which is liberated during the graphite production process, could potentially be refined into a saleable product (V₂O₅)⁽⁶⁾ and presents a medium term, high value opportunity



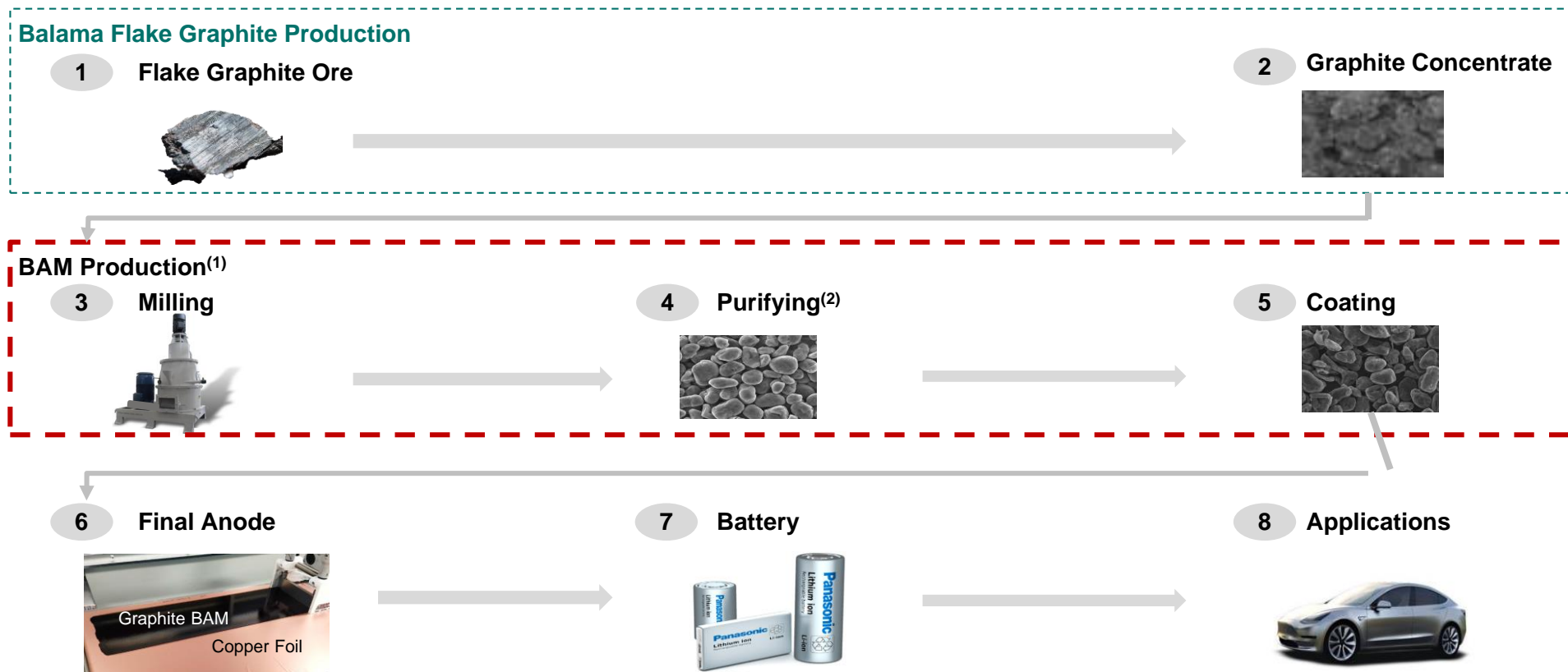
Balama Graphite Operation

(1) Refer to ASX announcements dated 29 March 2019. All material assumptions underpinning the production target continue to apply, other than as updated in subsequent ASX announcements.
(2) Production and sales strategy will reflect trade-off between unit operating cost benefits versus pricing considerations of additional incremental supply into the market
(3) Unit C1 cash operating costs achieved will be sensitive to production outcomes (which will be driven by market conditions – see footnote above)
(4) Free on Board (FOB), Port of Nacala, excluding government royalties and taxes
(5) Life of mine based on current 113.3Mt Graphite Ore Reserves being depleted at 2Mt of mill throughput per annum
(6) Scoping study on potential to refine vanadium as per the ASX announcement dated 30 July 2014



Louisiana, USA, Battery Anode Material plant – key for market progression through qualification and product development (as at June 2019)

Lithium-ion battery supply chain – Natural Graphite



- (1) Syrah's plant in Louisiana will initially have 5kt per annum of milling capacity and batch scale purification capability.
- (2) Purifying can be achieved chemically or thermally. Plan is for Syrah Battery Anode Material plant to be capable of chemical purification.

Q2 2019 Activities Report

Q2 2019 Headlines

Safety	<ul style="list-style-type: none"> Strong safety record with Total Recordable Injury Frequency Rate (TRIFR) of 0.3 as at end of quarter
Balama Graphite Operation	<ul style="list-style-type: none"> Q2 2019 produced 44kt vs 48kt Q1 2019 - minor equipment issues H1 2019 C1 operating cash cost¹ US\$567/t - lower than planned production
Sales and Marketing	<ul style="list-style-type: none"> Strong volume demand evident, sold and shipped 53kt in Q2 2019 vs 48kt in Q1 Weighted average graphite price achieved of US\$457/t (CIF) vs US\$469/t (CIF) in Q1 - Chinese fines pricing and lower coarse flake production Sales agreement signed with Gredmann Group (June 2019) for 279kt (9kt / month)
Battery Anode Material (BAM) Project	<ul style="list-style-type: none"> Unpurified spherical graphite customer qualification continues First dispatch of purified spherical graphite planned in Q3 2019 (previously Q2) - extension in piping installation and cashflow management Preliminary Feasibility Study of commercial scale plant providing attractive economics
Finance	<ul style="list-style-type: none"> Announced convertible note deed and underwritten entitlement offer, to raise A\$111.6M (US\$76.3M), in June. A\$25M (US\$17.6M) received from Institutional entitlement offer in June Cash at end Q2 was US\$64.7 M, including net proceeds of Institutional Entitlement Offer (excluding Retail Entitlement Offer proceeds of A\$30.8M (US\$21.2M)) Net cash outflow, excluding Institutional Entitlement Offer, was US\$14.8M vs plan of US\$20M Evaluating debt options through 120 day window, in conjunction with shareholder approval sought for Convertible Note Deed at General Meeting on 1 August 2019

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

Q2 2019 Sustainability Highlights

Health, Safety and Environment

- ❑ Strong safety record with TRIFR per million hours worked of 0.3 at quarter end
- ❑ ISO:45001 Occupational Health and Safety Management Systems certification and ISO:14001 Environmental Management Systems re-certification achieved
- ❑ Malaria screening program continued with 3,178 employees and contractors checked with 355 malaria cases treated and averted
- ❑ Environmental Monitoring Program continued in line with over 200 licence conditions with zero significant environmental incidents
- ❑ Activities significantly progressed for the renewal of the Company's Environmental Licence in April 2020
- ❑ Tailing Storage Facility (TSF) Governance Framework implemented in line with industry leading practice



People and Community

- ❑ As at the end of the quarter over 96% of Balama's direct employees are Mozambican nationals, 55% are from the local Host Communities and 20% are female
- ❑ Balama Professional Training Centre (BPTC) inaugurated with an official ceremony attended by the Governor of Cabo Delgado, the Director of the Mozambique's Institute of Professional Training & Labour Studies (IFPELAC), Host Communities and Company representatives
- ❑ Mozambique Minister of Labour commended Company efforts on establishing the facility in partnership with IFPELAC as per its commitments under the BPTC Memorandum of Understanding
- ❑ World Environmental Day celebrated with tree planting events held at local primary schools with all seedlings grown in the Company's nursery
- ❑ African Children's Day celebrated with food donated to a local Primary School in partnership with our key catering contractor



Balama - substantial progress on plant equipment management to deliver improved performance

Production Summary		Q2 2019 30 Jun 2019	Q1 2019 31 Mar 2019	Q2 2018 30 Jun 2018	Q2 2019 vs Q1 2019
Ore Mined (>9% TGC ¹)	kt	306	295	249	4%
Ore Mined (>2% to <9% TGC ¹)	kt	131	161	114	(19%)
Waste Mined	kt	455	1	85	>100%
Total Material Moved	kt	891	457	447	95%
Plant Feed	kt	335	378	258	(11%)
Plant Feed Grade	TGC ⁽¹⁾	19%	18%	16%	6%
Recovery		66%	69%	49%	(4%)
Graphite Produced	kt	44	48	21	(8%)
- Fine Flake		88%	86%	86%	2%
- Coarse Flake		12%	14%	14%	(14%)
Average Fixed Carbon		95%	95%	95%	-

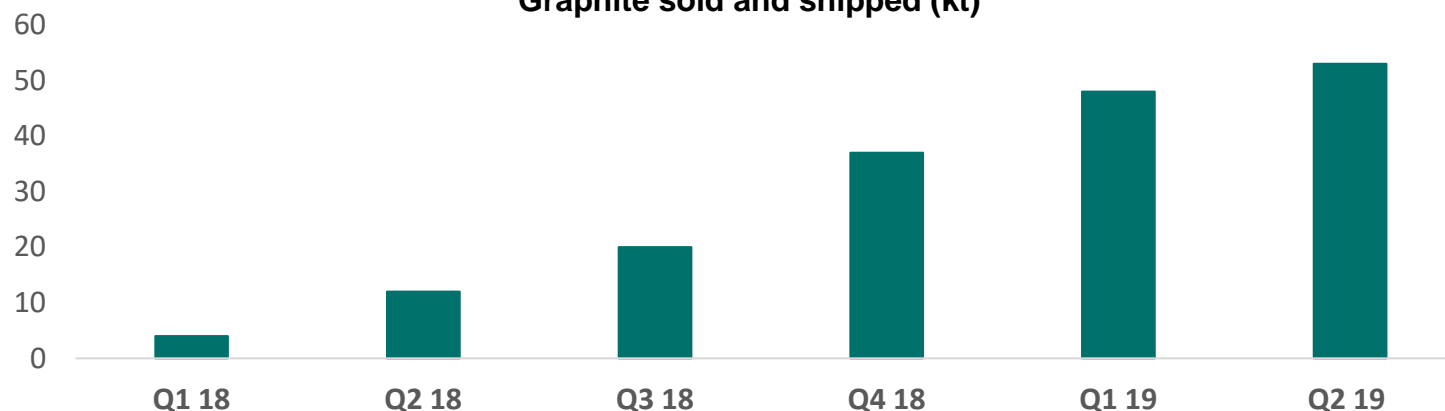
- Q2 2019 production (8%) vs Q1 - minor equipment issues
- Despite lower production, substantial progress on equipment management, and preventative maintenance programs strengthened
- Total mine material moved significantly higher than Q1 - inventory rebuild and start stage 2 Balama West (Ativa) pit
- Slightly lower recovery (66% vs Q1 69%) due to minor equipment issues (now resolved)
- Production ratio of fines to coarse flake was 88% to 12% (end 2019 target 80:20)
- H1 2019 C1 operating cash cost (US\$567/t) higher than planned – lower than planned production volumes

(1) TGC = Total Graphitic Carbon

Sales & Marketing – strong demand and ongoing improvement in logistics key drivers of sales volume growth

		Q2 2019	Q1 2019	Q2 2018	Q2 2019 vs Q1 2019
Graphite Sold and Shipped	kt	53	48	12	10%
Sales Revenue ¹	US\$m	24.4	22.5	-	8%
Weighted average selling price (CIF)	US\$/t	457	469	-	(3%)
Inventory at Nacala ^{2,3}	kt	7	18	7	(61%)
Non-standard graphite inventory at Balama for reprocessing ⁽⁴⁾	kt	(6) ⁽⁴⁾	-	-	-
Inventory at Balama/ USA ²	kt	8	12	9	(33%)

Graphite sold and shipped (kt)



- ❑ Sold and shipped 53kt natural graphite in Q2 2019, with an additional 7kt sales orders at Nacala awaiting shipment as at quarter end.
- ❑ Q2 2019 weighted average price was US\$457/t vs Q1 2019 of US\$469/t. Lower price was due to Chinese fines pricing and lower coarse flake production.
- ❑ Sales agreement signed with Gredmann Group for 279,000t (9,000t/m) for the period June 2019 to December 2021.
- ❑ Improvement in logistics debottlenecking continues

(1) Commercial production declared effective 1 January 2019, prior to this date, operating costs net of sales receipts were capitalised to the Balance Sheet (refer to ASX announcement dated 14 January 2019)

(2) As at end of period

(3) Sales orders awaiting shipment

(4) Inventories are valued at the lower of weighted average cost and estimated net realisable value. The current unit cost of production is greater than the estimated selling price which is likely to result in a write-down of inventories on hand at 30 June 2019 to net realisable value.



Battery Anode Material (BAM) Project Louisiana – key for market progression through qualification and product development

Progress to Date	Mar 2018	Syrah precursor ⁽¹⁾ testing and benchmarking completed
	May 2018	Vidalia BAM site purchase agreement ⁽²⁾
	Aug 2018	Vidalia BAM site purchase completed ⁽³⁾
	Sep 2018	Phase 1 Commercial scale (10ktpa and 40ktpa) study completed - potential for attractive operating margins and opportunities for flow sheet and capital optimisation identified ⁽⁴⁾
	Dec 2018	<u>5ktpa milling capacity installed</u> – First production unpurified spherical graphite using Balama feed ⁽⁵⁾
	Q1 2019	Unpurified spherical graphite qualification samples dispatched to a range of potential customers
	Q2 2019	Utilise existing plant for product development and to establish customer base through provision of qualification samples
Forward Plan	Q3-Q4 2019	<u>Commission batch purification plant</u> and (i) dispatch purified spherical graphite samples to potential customers in Q3 (ii) produce pilot scale finished BAM products utilising Syrah purified spherical for Battery Manufacturer engagement in Q4

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

(2) Refer to ASX announcement dated 23 May 2018

(3) Refer to ASX announcement dated 16 August 2018

(4) Refer to ASX announcement dated 30 January 2019

(5) Refer to ASX announcement dated 31 December 2018

Finance – Available liquidity to facilitate ongoing production ramp-up and orderly price negotiations

	Q3 2019 (Forecast) US\$m	Q2 2019 (Actual) US\$m	Q2 2019 (Forecast) US\$m	Comments
Cash at start of period	64.7	62.4		
Group Net cash inflows/(outflows)	(1.0)	2.3	(19.5)	Q3 2019 planned net cash outflow of US\$1 million
- Net operating expenditure and sustaining capital	(14.0)	(12.1)	(12.5)	Q3 2019 forecast capital expenditure includes US\$3 million for commencement of tailings dam cell 2 construction and US\$1 million for (non-recurring) infill drilling
- BAM plant development and R&D	(7.0)	(5.7)	(6.0)	Q3 2019 concludes significant BAM capital spend at Vidalia
- Corporate & administration and other	(1.0)	(1.5)	(1.0)	-
- VAT recoveries	-	4.5	-	Q2 cash flow includes \$4.5 million in VAT recoveries. Zero VAT recovery assumption maintained for Q3, consistent with prior quarterly forecast
- Net proceeds from issues of shares	21.0	17.1	-	Funds received from Institutional Entitlement Offer in Q2 2019 and funds forecast to be received from Retail Entitlement Offer in Q3 2019 ¹
Cash at end of period	~63.7	64.7		Forecast cash balance at end of Q3 2019 of ~US\$64 million

(1) Refer ASX announcement dated 19 June 2019

2019 Outlook

Balama Graphite Operation

- ❑ 2019 target production range 205-245kt⁽¹⁾, to manage trade off between incremental production and quality performance and impact on pricing.
- ❑ Focus on greater coarse flake split and increased fixed carbon grade for price improvement
- ❑ C1 cash operating costs⁽²⁾ trending towards US\$400/t by end 2019 subject to recovery and production volume outcomes with major focus on structural cost management

BAM

- ❑ Unpurified spherical graphite customer qualification continues.
- ❑ Initial production of purified spherical graphite during Q3 2019
- ❑ Preliminary Feasibility Study of commercial scale plant providing attractive economics

Marketing

- ❑ Increases to weighted average CIF price to be achieved through
 - Improved product mix
 - Higher product grade skewed towards 96% and 97% fixed carbon
 - Further geographic diversification of sales book
- ❑ Chinese seasonal production restarts expected from beginning of Q3

Cash and Liquidity

- ❑ Q3 2019 planned net cash outflow of US\$1 million,
- ❑ Forecast cash balance at end of Q3 2019 of ~US\$64 million
- ❑ BAM capital spend substantially complete in Q3 2019.
- ❑ Syrah's ramp-up at the Balama continues and is approaching production volumes that are expected to generate positive operating cash flows
- ❑ 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

