

ASX Announcement / Media Release

17 October 2023

Quarterly Activities Report

FOR THE THREE MONTHS ENDING 30 SEPTEMBER 2023

Key Points

- Syrah Group Total Recordable Injury Frequency Rate (“TRIFR”) of 1.0 at quarter end
- Continued record Chinese anode production, and apparent anode inventory drawdown, with global electric vehicle (“EV”) sales growing 41% in September 2023 quarter compared to September 2022 quarter, to ~4.1 million units¹
- Higher quarter on quarter natural graphite sales and improved demand from Chinese anode customers – 23kt natural graphite sold and shipped to 3rd party customers and 4kt shipped to Vidalia in USA
- Single production campaign produced 18kt produced at 73% recovery up to quarter end
- Strong operational performance over the last two weeks of the quarter with recovery improved to 82%
- Balama C1 costs (FOB Nacala/Pemba) of US\$484 per tonne in the operating period in September 2023 and C1 fixed costs (FOB Nacala/Pemba) of US\$4 million per month in the shutdown period
- Weighted average sales price of US\$528 per tonne (CIF)² lower quarter on quarter due to significantly higher fine flake sales and lower prices during China domestic production season
- Multi-year binding offtake agreements signed with Graphex and Westwater for future natural graphite supply into USA
- Syrah signed an additional AAM supply memorandum of understanding (“MOU”) with Samsung SDI³
- Progressing second binding AAM offtake agreement with Tesla and negotiating offtake with other potential customers
- Construction of the 11.25ktpa AAM Vidalia facility (“Vidalia Initial Expansion”) nearing full completion – total installed capital cost estimate revised to US\$198 million and commencement of production in the December 2023 quarter
- Progressing transition and permitting activity for Vidalia’s expansion to a 45ktpa AAM, inclusive of 11.25ktpa AAM, production capacity (“Vidalia Further Expansion”) – FID timing in H1 2024 dependent on financing process
- Completed final ~US\$32 million advance of US\$102 million loan from US Department of Energy (“DOE”) for the Vidalia Initial Expansion project⁴ and progressing financing options with DOE for the Vidalia Further Expansion project
- US\$150 million conditional loan commitment for Balama from US International Development Finance Corporation⁵
- Quarter end cash balance of US\$81 million, including restricted cash of US\$31 million
- New convertible notes with AustralianSuper approved by shareholders⁶ – A\$50 million (US\$32 million⁷) series issued during quarter and further A\$50 million series to be issued by no later than 23 October 2023⁸.

¹ Source: GlobalData, China Passenger Car Association and CleanTechnica. September 2023 includes Syrah’s estimate for EV sales in selected countries (~290k total).

² Based on 3rd party customer sales.

³ Refer ASX release 9 August 2023.

⁴ Refer ASX release 28 July 2022.

⁵ Refer ASX release 11 September 2023.

⁶ Refer ASX releases 27 April 2023 and 28 July 2023.

⁷ A\$ amount converted into US\$ based on the USD/AUD exchange rate of 0.64 as at 16 October 2023.

⁸ Refer ASX release 9 October 2023.

Balama Graphite Operation (“Balama”) – Mozambique

Syrah Resources Limited (ASX: SYR) (“Syrah” or “Company”) recorded a TRIFR of 0.3 at quarter end for Balama.

Quarter Ending	Unit	30 September 2022	31 December 2022	31 March 2023	30 June 2023	30 September 2023
Plant Feed	Tonnes ('000)	224	214	280	95	130
Plant Feed Grade	TGC ⁹	20%	20%	20%	19%	18%
Recovery	%	80%	78%	71%	78%	73%
Graphite Produced	Tonnes ('000)	38	35	41	15	18
Fine/Coarse Mix	-	86/14	87/13	91/9	91/9	88/12
Average Fixed Carbon	%	95%	95%	95%	95%	95%

A production campaign over 32 days up to quarter end produced 18kt natural graphite. The campaign continued into October 2023 to increase finished product inventory positions given improved market conditions. Balama operations were otherwise paused earlier in the quarter, awaiting improved market demand for Balama natural graphite products. By quarter end, Syrah had implemented all measures identified for the revised Balama operating mode outlined in the June 2023 quarterly activities report.

Stable operational performance was reached within two weeks of production resumption after a four-month shutdown, and product recovery and quality improved through the campaign with uninterrupted production and greater stability in processing operations. In the last two weeks of the quarter, Balama achieved, on average, a 20kt per month daily production run-rate and 82% recovery, and strong operational performance has continued into October 2023. While operations were paused through July and August 2023, Syrah completed inspections and brought forward planned processing plant equipment maintenance with reduced operating personnel onsite.

Balama C1 costs (FOB Nacala/Pemba) for the production campaign in September 2023 were ~US\$484 per tonne, and were higher than guidance due to diesel price escalation since March 2022 (~US\$45 per tonne), lower than targeted production (~US\$33 per tonne) and lower than targeted recovery (~US\$14 per tonne). Balama C1 fixed costs (FOB Nacala/Pemba) for the shutdown period were ~US\$4 million per month, on average, with further variable mining and product logistics costs of ~US\$1m per month in preparation for the production campaign and for ongoing product sales. The wholesale diesel price set by the Mozambique Government decreased by ~17% through the quarter and was ~50% above the March 2022 price. Syrah is engaging with authorities on the Government mandated wholesale diesel pricing mechanism.

Syrah will continue to operate Balama in campaign operating mode in the December 2023 quarter, with further ~30-day high-capacity utilisation production campaigns followed by curtailment periods determined by inventory levels and new sales demand. The decision on when to undertake further production campaigns will be dependent on sales from inventory and new sales orders at production volumes averaging at least 10kt per month, in line with the revised Balama operating mode. If improved demand is sustained, the Company expects to undertake one ~20kt production campaign in the December 2023 quarter. Syrah has the capability to return to higher capacity utilisation quickly should natural graphite demand increase further. The Company is focussed on strengthening plant reliability and identifying and implementing operational efficiencies during the shutdown periods to ensure strong operational performance in future production periods.

Balama C1 cost (FOB Nacala/Pemba) guidance under the revised operating mode remains US\$580-620 per tonne at a 10kt per month average production rate, with the lower end of the range assuming a lower than current diesel price. This guidance assumes C1 costs of US\$378-426 per tonne at 20kt production rate during 30-day production campaigns, with the lower end of the range again assuming the lower diesel price, and ~US\$4 million per month in fixed costs during the shutdown periods. Balama C1 cost (FOB Nacala/Pemba) medium-term guidance remains US\$430-480 per tonne at a 20kt per month production rate, with the lower end of the range assuming a normalisation of diesel price to historical levels and

⁹ TGC = Total Graphitic Carbon.

the Solar & Battery System operating at full capacity. Balama’s operating costs are expected to reduce as the production rate increases with maximum capacity utilisation targeting C1 costs (FOB Nacala/Pemba) of US\$350-390 per tonne.

Solar & Battery System Completion

Syrah commenced full operations of the 11.25 MWp solar photovoltaic (“PV”) array combined with an 8.5 MW/MWh battery energy storage system (“BESS”) (together the “Solar & Battery Hybrid System”) at Balama¹⁰. The entire PV array, incorporating 20,832 solar modules with a surface area of ~53,800sqm (~5.4 hectares), is fully integrated to the BESS, and the PV array operated and generated power to its intended design capacity and profile over duration to achieve full operations.

The Solar & Battery System will contribute at least 35% of Balama’s average site power requirements, significantly reducing diesel consumption and product carbon equivalent emissions at Balama and yielding associated cost savings¹¹. During peak daylight times with plant operations underway or paused plant operations, the system can solely supply Balama’s operating power requirements. Balama’s diesel power generation plant (“Diesel Gensets”) will provide baseload power requirements overnight and incremental power requirements during daylight hours dependent on solar irradiation, power availability from the Solar & Battery Hybrid System and overall site power demand. A new automated power management system is in place to optimise the Solar & Battery Hybrid System and Diesel Gensets.



Figure 1: Balama PV array.



Figure 2: Balama BESS and Diesel Gensets.

¹⁰ Refer ASX release 11 October 2023.

¹¹ Costs saving during the 10-year operating lease term with CBE’s project company, including fixed costs payable to CBE’s project company. Cost savings from the Solar & Battery Hybrid System are expected to increase following the 10-year operating lease term.

The Solar & Battery Hybrid System has been implemented under a build-own-operate-transfer (“BOOT”) arrangement, comprising a 10-year operating lease and an operating and maintenance contract with a Mozambique incorporated project company wholly-owned by CrossBoundary Energy (“CBE”), the project financier. Operations and ownership of the Solar & Battery Hybrid System will be transferred to Syrah at nil cost at the end of the operating lease term.

Syrah is progressing the evaluation of options to further optimise Balama’s power generation solution to reduce operating costs, lower the Global Warming Potential (“GWP”)¹³ of Balama products and ensure reliable power supply with high plant capacity utilisation.

Community and Security

Rates of Mozambican national employment, local host community and female employment were 96%, 39% and 18%, respectively, of Balama’s total labour contingent excluding contractors. Value accruing to local employees, Mozambican contractors and suppliers, and the eight local host communities from Balama operations is significant, and having a positive impact on local stakeholders remains a key priority for the Company.

There were no security issues that affected operations, employees or contractors at Balama during the quarter and the security environment in Cabo Delgado province has remained stable since the start of the December 2022 quarter. Total Energies has signalled restarting construction activities later this year for its US\$20 billion Mozambique LNG project in the Afungi peninsula. The Mozambique LNG project was put on hold by TotalEnergies in April 2021 due the security situation in the north of Cabo Delgado province.

Market Update

EV sales and penetration strengthened in the September 2023 quarter, compared with the June 2023 quarter. Global EV sales grew 41% in the September 2023 quarter versus the September 2022 quarter, to approximately 4.1 million units¹ with strong demand growth in China and ex-China consumer markets. Global EV sales were a record ~1.5 million units in September 2023¹. Industry participants and analysts report that inventory of lithium-ion battery cells has reduced considerably since the beginning of 2022. Chinese anode production increased 32% in the September 2023 quarter, compared to the June 2023 quarter, and increased 37%, compared with the September 2022 quarter, with significant additional synthetic graphite AAM production¹⁴.

Natural graphite fines demand and spot prices were weak in the first half of the quarter due to continued consumption of anode material inventory positions, and aggressive production volumes with price discounting from synthetic graphite AAM suppliers in China. Recent sales volumes and further purchase bids indicate that fines market demand in China is improving ahead of the winter period of lower Chinese natural graphite production. Coarse flake prices ex-China remained strong due to stable demand and supply disruptions from Ukraine, Russia and Madagascar (implementation of export tariff). Chinese natural graphite production in 2023 year to date is marginally higher than 2022 and significantly lower than prior years’ seasonal peak production levels.

In the high growth lithium-ion battery cell and electric vehicle supply chain that Syrah supplies, short-term demand and supply imbalances can occur, driven by downstream demand order levels, competing supply volumes, and the volume of domestic natural graphite production. With minimal visibility of AAM inventory levels in China, the impact of such imbalances on demand can be sudden. Though the supply chain has taken time to rebalance, given the overhang of AAM inventory and increased synthetic graphite AAM production volumes in the first half of the year, demand for natural graphite into the Chinese anode market improved during the September 2023 quarter.

Synthetic graphite AAM production capacity growth in China over the past year has been significant. Aggressive pricing as new entrants seek market share to allow production continuity has caused intense competition amongst new and incumbent synthetic graphite AAM producers. This has in turn driven significant utilisation of higher sulfur input materials and shortened graphitisation processing cycle times leading to a decline in price for lower quality and performance synthetic graphite AAM products. The sustainability of current prices (which for low density synthetic graphite AAM are, in some cases, at or below the cost of production) appears challenging and is most prevalent in the Chinese domestic market, rather than ex-China export markets. The current convergence of prices for low-end synthetic graphite AAM and natural graphite AAM appears

¹³ GWP is defined as the cumulative radiative forcing, both direct and indirect effects, over a specified time horizon resulting from the emission of a unit mass of gas related to some reference gas [CO₂: (IPCC 1996)]. GWP are a forecast life of operation average for Balama (full natural graphite production) and include scope 1, scope 2 and scope 3 greenhouse gas emissions.

¹⁴ Source: ICCSino.

to be unsustainable, and any increase in power, graphitisation, or coke costs from present levels is expected to immediately drive higher synthetic graphite AAM prices. Syrah expects that underutilisation of expanded synthetic graphite AAM capacity and loss-making prices caused by intense competition will lead to consolidation of marginal synthetic graphite AAM supply capacity, which will ultimately support higher pricing for both synthetic graphite and natural graphite AAM beyond the near-term.

In the natural graphite markets, spherical graphite processors and natural graphite AAM producers increased production capacity utilisation in the September 2023 quarter as orders from lithium-ion battery cell producers improved. Pricing pressure caused by lower synthetic graphite AAM prices is still evident. However, the advantage of purified spherical graphite processors in China consuming lower carbon grade domestic natural graphite fines has declined, and import demand for higher carbon grade material has improved.

Domestic natural graphite production in China increased seasonally in the September 2023 quarter, resulting in reported natural graphite prices in China falling by ~20-30% since the beginning of 2023. However, increased demand has resulted in prices moving off lows observed late in the quarter. Benchmark Mineral Intelligence reports that domestic natural graphite producers are under cost pressure from a combination of lower grade ore, poorer recoveries and other factors, requiring prices to rise for profitability. Increased sales from previously warehoused stock, and the forthcoming domestic winter production shutdown are expected to improve the supply/demand position in Syrah's favour.

With cost exceeding price at a number of points across the anode supply chain, increased AAM demand, driven by recovering EV sales, will require higher prices to incentivise increased production, with higher natural graphite supply required from ex-China sources.

The medium and long-term outlook for ex-China AAM demand and Vidalia sales opportunity remains strong. Robust global EV production and sales growth is expected to result in high demand for locally-processed AAM in North America, and is ultimately expected to require significantly higher imported natural graphite into China and emerging anode supply hubs outside of China. Whilst such market conditions are expected to drive strong demand and supportive pricing from Chinese customers for Balama sales orders and from customers for Vidalia AAM over the medium to long-term, the short-term volatility of China customer demand remains challenging.

Natural graphite AAM and synthetic graphite AAM are analogous battery anode materials. However, technical characteristics, environmental impacts, structure of the supply chain and customer preferences differentiate their supply and demand fundamentals. Despite near-term volatility, Syrah's existing production capacity at Balama and forthcoming Vidalia AAM capacity growth uniquely position the Company to benefit from the medium and long-term growth outlook. Global natural graphite demand is expected to exceed supply this decade with strong growth in the AAM market, and challenging investment and operating conditions for new supply from Chinese operations. This potential supply deficit is likely to be more acute in natural graphite products suitable for the AAM market, specifically fine flake. Syrah is the only major ex-China supplier advanced and operating in both upstream natural graphite and downstream AAM markets.

Natural Graphite Sales and Marketing

Quarter Ending	Unit	30 September 2022	31 December 2022	31 March 2023	30 June 2023	30 September 2023
Graphite Sold and Shipped	kt	55	28	30	15	23
Graphite Shipped to Vidalia	kt	0	0	0	2	4
Weighted Average Price (CIF) ²	US\$ per tonne	688	716	636	688	528
Finished Product Inventory ¹⁵	kt	14	20	30	28	20

¹⁵ Finished product inventory includes saleable inventory at Balama, Nacala, Pemba, China and USA (excluding Vidalia).

Natural graphite sales to 3rd party customers for the quarter totalled 23kt. Sales increased from the June 2023 quarter, with increased sales to Chinese anode customers as AAM inventory rebalanced and spherical graphite producers increased capacity utilisation. Coarse flake demand was strong, but given available inventory and campaigned production, Syrah prioritised fines sales into increased anode material demand. Approximately 20kt of finished product inventory remained at quarter end¹⁵. Low demand into Chinese anode customers in the first half of the quarter limited overall natural graphite sales during the quarter. Syrah also shipped 4kt of fines to Vidalia during the quarter for internal AAM production and to build stockpiles. A breakbulk shipment from Pemba was completed in September 2023 and container shipping capacity at Nacala was sufficient.

The weighted average sales price of natural graphite sales to 3rd party customers for the quarter was US\$528 per tonne (CIF), lower compared to the June 2023 quarter due to significantly higher fine flake sales volumes into the anode supply chain, and lower prices during China domestic production season despite improved demand. Fines sales accounted for approximately 87% of product sales to 3rd party customers in the quarter compared with 19% in the June 2023 quarter and above the historical average of 85%.

Syrah's near-term sales strategy continues to be to sell from inventory and, subject to customer demand and price levels, undertake Balama production campaigns to achieve a production volume of at least 10kt per month, on average, over a quarter.

Medium-term natural graphite sales strategy

Syrah commenced its natural graphite sales diversification strategy, executing multi-year binding offtake agreements for Balama natural graphite supply into the USA with a wholly-owned subsidiary of Graphex Group Limited (NYSE American: GRFX | HKSE: 6128) ("Graphex") and Westwater Resources, Inc. (NYSE American: WWR) ("Westwater"). Graphex and Westwater are developing commercial scale AAM processing facilities in the USA. The offtake agreements incorporate a market-based pricing mechanism and options for escalating volumes from 2024 subject to achievement of project and operational milestones. Supplying Balama natural graphite to both integrated and third-party AAM processing facilities in the USA is expected to provide optimal commercial outcomes for Syrah and to not impact the Company's downstream value position as well as its first mover advantage.

USA and European demand for diversification of AAM sourcing to mitigate geopolitical risk, reduce sole reliance on China, and achieve financial incentives from Government policy programs is accelerating. To meet such demand there is a growing pipeline of ex-China merchant (non-integrated) natural graphite AAM facilities seeking long-term supply of ex-China natural graphite feed to underpin investment in capital intensive development. Beyond the offtake agreements already signed, Syrah is engaged commercially with four additional ex-China natural graphite anode projects for long-term natural graphite supply from Balama, illustrating that ex-China natural graphite fines demand is expected to grow significantly in coming years. AAM facility projects are in various stages of progress in the US, Canada, South Korea, Europe, Indonesia, India and Africa. Furthermore, there is increasing interest from battery manufacturers and auto OEMs in directly contracting sustainable upstream supply of ex-China natural graphite to direct through anode processing partners.

Syrah's medium-term natural graphite sales strategy will balance integrated consumption through Vidalia, with an increasing proportion of sales volume ex-China, and residual sales volumes to China.

Shipping market

The global container shipping market was stable, quarter on quarter, following the rapid correction to pre-Covid normalised conditions in the second half of 2022 and the March 2023 quarter. East Africa vessel services and container availability has improved significantly with exports from Nacala up ~40% calendar year to date compared with 2022. Global container freight rates are generally in line with pre-Covid levels. The average freight rate for Syrah's cargoes from Nacala and Pemba for the quarter approached the long-term average, benefiting from a lower freight rate on the breakbulk shipment.

A ~US\$280 million rehabilitation of Nacala port, including upgraded cargo handling equipment and storage, a 400m quay extension and deeper berth depths, is expected to be fully completed in the December 2023 quarter. The upgrade enables greater vessel sizes to berth, separation of container and bulk vessels easing congestion and a significant improvement in cargo handling productivity, which is already evident at the port. Annual cargo handling capacity is expected to increase by more than two times and average container loading time is expected to reduce by more than eight times with the installation of shore cranes.

Vidalia Active Anode Material Facility (“Vidalia”) – USA

Syrah recorded a TRIFR of 4.2 at quarter end for Vidalia and no lost time injuries were sustained through the quarter, with peak construction hours completed on the Vidalia Initial Expansion project.

The Company continues to progress toward becoming a vertically integrated natural graphite AAM supply alternative for USA and European battery supply chain participants and OEM customers.

Natural graphite AAM customer arrangements

Syrah executed an offtake agreement with Tesla, Inc. (“Tesla”) to supply natural graphite AAM from the 11.25ktpa AAM Vidalia facility in December 2021¹⁶. Qualification processes will start following commencement of operations of the 11.25ktpa AAM Vidalia facility. Offtake sales timing will be determined by a combination of achievement of production rates being and completion of product qualification testing to ensure product from the 11.25ktpa AAM Vidalia facility meets specification targets achieved from the Vidalia qualification facility as well as contractual requirements. The Company has planned carefully for working capital funding to be available through 2024 to facilitate production ramp-up and the qualification process.

Further to the 8ktpa AAM offtake obligation from the 11.25ktpa AAM Vidalia facility, Tesla exercised an option in December 2022 to offtake an additional 17ktpa AAM from Vidalia at a fixed price and for an initial term of no less than four years, subject to the further expansion of Vidalia’s production capacity to 45ktpa AAM¹⁷. The Company is working towards finalising a second binding offtake agreement with Tesla for this option volume, concurrent with offtake negotiations with other major battery manufacturers and auto OEMs. The financing process to prepare a final investment decision (“FID”) proposal on the Vidalia Further Expansion is progressing in line with commercial and project activity.

During the quarter, Syrah announced a non-binding MOU with Samsung SDI Co., Ltd. (KRX: 006400) (“SDI”) to evaluate AAM supply from Vidalia³. Under the MOU, Syrah and SDI is progressing testing and qualification of Vidalia AAM, and will use commercially reasonable efforts to finalise, by no later than 10 July 2024, a binding offtake agreement for up to 10ktpa AAM from Vidalia commencing from 2026, utilising a floating price mechanism, upon Vidalia’s expansion to 45ktpa AAM production capacity. Syrah also has non-binding MOUs with Ford Motor Company and SK On Ltd¹⁸ and LG Energy Solution¹⁹ to evaluate AAM supply from Vidalia. Syrah is advancing commercial and technical engagement with further customers and supply chain participants.

The Company is receiving strong engagement from target customers for uncontracted AAM from Vidalia. Syrah is focused on finalising binding offtake terms that maximise the value of Vidalia and is engaged in iterative testing programs for qualification and ongoing commercial discussions with potential customers. Market growth, sourcing diversification (e.g. localisation / ESG), policy support (e.g. US Inflation Reduction Act (“IRA”)) and Syrah’s forecast competitive cost structure are benefitting Syrah’s commercial position in customer engagement.

Vidalia Initial Expansion (Phase 2)

In February 2022, Syrah’s Board approved the initial expansion of Vidalia to 11.25ktpa AAM production capacity²⁰. Construction of the Vidalia Initial Expansion project is progressing under the management of an integrated Syrah and Worley Group team. Project construction is nearing practical completion and commissioning is underway in some areas of the facility. Completion of piping works delayed by provisioning of materials reported last quarter is on track, and final electrical installation is the critical path to full commissioning of the 11.25ktpa AAM Vidalia facility. The commencement of production remains targeted within the December 2023 quarter, subject to construction completion, final testing processes, and successful commissioning.

¹⁶ Refer ASX releases 23 December 2021 and 29 December 2021.

¹⁷ Refer ASX release 23 December 2022.

¹⁸ Refer ASX release 22 July 2022.

¹⁹ Refer ASX release 20 October 2022.

²⁰ Refer ASX release 7 February 2022.



Figure 3: 11.25ktpa AAM Vidalia facility milling area.



Figure 4: 11.25ktpa AAM Vidalia facility purification area (left); water and neutralisation discharge tanks (right).



Figure 5: 11.25ktpa AAM Vidalia facility furnace area.



Figure 6: 11.25ktpa AAM Vidalia facility nitrogen plant (left); power distribution centre (right).

Major construction activities in the September 2023 quarter included installation of filter presses in the purification plant, completion of the second power distribution centre, substantial completion of the furnace equipment, and completion of the nitrogen plant. Peak construction resourcing onsite was achieved during the quarter with a strong safety focus, and major contractors have worked well with the Syrah and Worley construction management team to ensure successful delivery of this first of a kind facility outside of China. Operational readiness for the 11.25ktpa AAM Vidalia facility, which includes preparing business and maintenance systems and operating teams to move from commissioning to operations, progressed very well during the September 2023 quarter to support the planned commissioning schedule and activities. Total Vidalia employees were 94 at quarter end, with the team largely ready for the start of production. Syrah updated Vidalia's operating budget as part of operational readiness, and the steady state operating cost estimate for the 11.25ktpa AAM Vidalia facility once producing at capacity was revised to US\$3.64/kg AAM²¹, representing a 17% increase to the estimate at FID.

Syrah revised the total installed capital cost estimate of the Vidalia Initial Expansion project following quarter end to US\$198 million with full utilisation of the project contingency, representing a 4% increase from the previous total installed capital cost estimate of US\$190 million and a 13% increase from the total installed capital cost estimate at FID²². Capital cost escalation is associated with unanticipated labour-intensive construction costs to maintain the project schedule and for mechanical corrections. At quarter end, installed capital costs, excluding Syrah owner's team costs, operational readiness costs and DOE loan related costs, of US\$161 million had been spent on the Vidalia Initial Expansion project.

Vidalia Further Expansion (Phase 3)

In April 2023, Syrah announced the completion of the Definitive Feasibility Study on the expansion of Vidalia's production capacity to 45ktpa AAM, inclusive of 11.25ktpa AAM facility³²³, which confirmed that the project is technically viable, financially robust and is expected to deliver significant value for Syrah shareholders and other stakeholders. Syrah is progressing transition engineering and optimisation activities, permitting and other long lead procurement activities ahead of a FID proposal on the Vidalia Further Expansion project to be considered by the Syrah Board. The Company is progressing operational and customer commitment activities to underpin readiness for a FID as quickly as possible. However, Syrah now expects to finalise a FID during the first half of 2024 given the need to further progress funding options appropriate to the Company's overall financial position and equity market conditions. Detailed engineering, long-lead items and other procurement, and construction activities will follow a Syrah Board approved FID sequentially.

Vidalia qualification facility (Phase 1)

Syrah's wholly-owned and integrated spherical, purification and furnace operation at Vidalia, utilising product from Balama, is the only vertically integrated and commercial scale natural graphite AAM supply source outside China. The facility produces 18-micron and 12-micron AAM as required for customer testing and qualification processes.

Syrah believes it is the most progressed vertically integrated natural graphite AAM supply alternative for US and European markets. Auto OEMs and battery manufacturers are currently highly reliant on China for their supply of anode products. Progress at Vidalia and its vertical integration with Balama is a unique value proposition to Governments, and battery supply chain participants, specifically: scale; independence and co-location with North American battery production; critical mineral security; qualification for clean vehicle tax credits under the US IRA; and ESG auditability back to the source.

Government policy and tax support

Government and private sector recognition of the strategic importance of battery raw material supply chains is significant. Government policy in the US is supporting ex-China sources of supply for natural graphite, which is designated as a critical mineral. Syrah's engagement with key stakeholders continues to increase, bilaterally and via industry group participation, highlighting the relevance of Vidalia in achieving policy objectives and building support for Vidalia's potential further expansion to 45ktpa AAM capacity, with offtake negotiations progressing strongly.

The US IRA offers significant tax credits and financial support to mobilise the development of domestic battery and critical mineral supply chains and to accelerate the adoption of EVs in the US. In March 2023, the US Department of Treasury ("DOT") released further guidance on the requirements for sourcing of critical minerals, such as graphite, in batteries to

²¹ Includes cost of US\$425/t (FOB Nacala) for Balama natural graphite, reflecting an approximate all-in cost of production at Balama at full plant utilisation. Includes costs of transporting Balama natural graphite from Nacala to Vidalia and maintenance costs.

²² Includes all actual and estimated engineering, equipment, materials, construction, construction-related capitalised costs from 1 December 2020 to commissioning of the 11.25ktpa AAM Vidalia facility and excludes Syrah owner's team costs, operational readiness costs and DOE loan related costs.

²³ Refer ASX release 27 April 2023.

qualify EVs for a tax credit under Section 30D of the IRA. This guidance substantiates Syrah’s view that Vidalia AAM using Balama natural graphite is a qualified critical mineral, which will contribute towards the critical minerals requirement for the Section 30D clean vehicle credit. Further guidance from DOT on the definition and boundaries of foreign entities of concern, including thresholds of Chinese ownership in critical minerals suppliers outside of China, is expected to be released before the end of 2023. Syrah is evaluating the direct tax credits that are available to Syrah Technologies LLC (“Syrah Technologies”), Syrah’s wholly-owned US subsidiary, under the IRA, as a supplier of critical minerals. Syrah Technologies is qualified to claim the Advanced Manufacturing Production Credit (Section 45X). Syrah Technologies is also applying to claim the Manufacturers’ Tax Credit (Section 48C). Either Section 48C or Section 45X may be claimed by Syrah Technologies but not both.

Syrah is undertaking varied environmental, social and governance initiatives to meet internal improvement and compliance objectives and to significantly differentiate its production from Chinese natural graphite and AAM production. These initiatives provide assurance to customers and stakeholders that Syrah’s natural graphite and AAM products, are being produced in a responsible manner targeting compliance with key international frameworks. The Company is working towards improving customer understanding of the incremental costs of these initiatives and the corresponding price premiums required to achieve ESG assurances being sought.

ESG element	Syrah	Major Chinese producers
Responsible Mining Assurance	IRMA certification assessment underway	No published commitments
Tailings Storage Assurance	ICMM GISTM commitment underway	No published commitments
Audited Lifecycle Assessment (“LCA”)	LCA completed with Minviro and independently reviewed; GWP of ~7.2kg CO2 equivalent per kg AAM	No published company assessments
Human Rights and Modern Slavery analysis	Published Modern Slavery Statement and action plan	No published commitments

Syrah will continue to engage customer, government and stakeholder to communicate the importance and value of key ESG elements, relative to competing products.

Finance and Corporate

Syrah’s cash balance at 30 September 2023 was US\$81 million. This amount included restricted cash of US\$31 million for reserves associated with the DOE loan and proceeds in Syrah restricted project and operating accounts, which will be used to fund operational and construction costs. Net cash flows from operating activities for the quarter was weighed down by the Balama production pause in July and August 2023 and fixed costs. Net cash outflows from investing activities of US\$37 million was principally for the Vidalia Initial Expansion project and expansion of the tailings storage facility at Balama. Net cash inflows from financing activities of US\$32 million was associated with the issue of a new convertible note series.

AustralianSuper convertible notes

Syrah announced a new convertible note deed with AustralianSuper Pty Ltd as trustee for AustralianSuper (“AustralianSuper”) for up to A\$150 million in convertible notes issuable to AustralianSuper in three equal series⁶. Syrah issued the first A\$50 million series of the new convertible notes (“Series 4 Note”) on 12 May 2023 and issued the second A\$50 million of the new convertible notes (“Series 5 Note”) on 11 August 2023 following shareholder approval of the issuance of all the new convertible notes. The Company elected to issue the third A\$50 million (US\$32 million⁷) series of the new convertible notes (“Series 6 Note”) on 9 October 2023 and the Series 6 Note is expected to be issued by no later than 23 October 2023⁸.

US DOE debt financing for the Vidalia Initial Expansion project

Syrah signed binding documentation for a loan facility up to US\$102 million from the DOE to Syrah Technologies to support the financing of the Vidalia Initial Expansion project⁴. The DOE loan is under DOE’s Advanced Technology Vehicles Manufacturing (“ATVM”) loan program, which is a loan authority to support the manufacture of eligible advanced technology vehicles including EVs, and qualifying components and materials, in the USA. The DOE loan closed in December 2022, and the final advance of US\$32 million was completed after quarter end. Syrah cash is deposited in restricted project

accounts to satisfy reserve requirements for the DOE loan and for cash disbursements for the Vidalia Initial Expansion project.

US DOE financing for the Vidalia Further Expansion project

Syrah Technologies was selected for a Bipartisan Infrastructure Law Battery Materials Processing and Battery Manufacturing grant of approximately US\$220 million from DOE to fund a significant proportion of capital costs of the Vidalia Further Expansion project (“DOE Grant”)²⁴. Syrah has engaged with DOE on alternative funding for the Vidalia Further Expansion project and has been invited into a due diligence process for a further DOE loan, of significantly higher amount than the DOE Grant, under the ATVM loan program. While there are benefits associated with a DOE Grant, debt funding options are expected to provide higher cash proceeds compared with a DOE Grant. The Company is also evaluating other funding options for the Vidalia Further Expansion project including commercial bank funding and equity partnerships.

US DFC debt financing

During the quarter, the United States International Development Finance Corporation (“DFC”) Board of Directors approved a US\$150 million conditional loan commitment to the Company’s subsidiary, Twigg Exploration and Mining Limitada (“Twigg”) to fund: (i) feasibility studies for the development of Balama’s vanadium resource; (ii) current and future expansion of Balama’s tailings storage facility (“TSF”); and (iii) working and sustaining capital in Balama operations⁵. Subsequently, United States Congressional notification of the conditional loan commitment was completed and a conditional commitment letter from DFC was signed by Syrah. The DFC loan is subject to the completion of due diligence, negotiation of detailed terms and legal documentation, DFC management approval and Syrah and Twigg Board approvals.

There is no certainty that DOE financing for the Vidalia Further Expansion or DFC financing for Balama will be extended to Syrah or in Syrah’s targeted timeframe. These matters remain subject to ongoing negotiation and/or conditions.

Licences

The following table lists the current licences held by Syrah Resources Limited and its subsidiaries at 30 September 2023:

Project	Licence Number	Licence Type	Country	Interest acquired/ farm-in during the quarter	Interest disposed/ farm-out during the quarter	Interest held as at 30 September 2023
Balama	6432C	Mining Concession	Mozambique	-	-	95%

Notes in relation to Appendix 5B

Payments to related parties and their associates during the quarter as outlined in Section 6 of the accompanying Appendix 5B to this quarter’s activities report were US\$165,739. These payments are related to salaries, superannuation, advisory and consultancy fees paid to directors and/or director related entities during the quarter ended 30 September 2023, including amounts paid to Sal & Caldeira Advogados, a related party of José Caldeira (Non-Executive Director).

This release was authorised on behalf of the Syrah Board by

Shaun Verner, Managing Director

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²⁴ Refer ASX release 20 October 2022.

About Syrah

Syrah (ASX code: SYR) is an Australian Securities Exchange listed industrial minerals and technology company with its flagship Balama Graphite Operation in Mozambique and a downstream Active Anode Material Facility in the United States. Syrah's vision is to be the world's leading supplier of superior quality graphite and anode material products, working closely with customers and the supply chain to add value in battery and industrial markets.

Forward Looking Statement

This document contains certain forward looking statements. The words "expect", "anticipate", "estimate", "intend", "believe", "guidance", "should", "could", "may", "will", "predict", "plan", "targets" and other similar expressions are intended to identify forward looking statements. Indications of, and guidance on, future earnings and financial position and performance are also forward looking statements. Forward looking statements, opinions and estimates provided in this document are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions.

Forward looking statements, including projections, guidance on future earnings and estimates are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. This document contains such statements that are subject to risk factors associated with the mineral and resources exploration, development and production industry. It is believed that the expectations reflected in these statements are reasonable, but they may be affected by a range of variables which could cause actual results or trends to differ materially, including but not limited to the following risks: dependence on commodity prices, availability of funding, impact of inflation on costs, exploration risks, including the risks of obtaining necessary licences and diminishing quantities or grades of reserves, risks associated with remoteness, environmental regulation risk, currency and exchange rate risk, political risk, war and terrorism and global economic conditions, as well as earnings, capital expenditure, cash flow and capital structure risks and general business risks. No representation, warranty or assurance (express or implied) is given or made in relation to any forward looking statement by any person (including the Company). In particular, no representation, warranty or assurance (express or implied) is given that the occurrence of the events expressed or implied in any forward looking statements in this document will actually occur. Actual results, performance or achievement may vary materially from any projections and forward looking statements and the assumptions on which those statements are based. The forward looking statements in this document speak only as of the date of this document. Subject to any continuing obligations under applicable law or any relevant ASX listing rules, the Company disclaims any obligation or undertaking to provide any updates or revisions to any forward looking statements in this document to reflect any change in expectations in relation to any forward looking statements or any change in events, conditions or circumstances on which any such statement is based. Nothing in this document will under any circumstances create an implication that there has been no change in the affairs of Syrah since the date of this document. About Syrah Resources Syrah Resources (ASX code: SYR) is an Australian Securities Exchange listed industrial minerals and technology company with its flagship Balama Graphite Operation in Mozambique and a downstream Active Anode Material Facility in the United States. Syrah's vision is to be the world's leading supplier of superior quality graphite and anode material products, working closely with customers and the supply chain to add value in battery and industrial markets.

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

SYRAH RESOURCES LIMITED

ABN

77 125 242 284

Quarter ended ("current quarter")

30 SEPTEMBER 2023

Consolidated statement of cash flows	Current quarter US\$'000	Year to date (9 months) US\$'000
1. Cash flows from operating activities		
1.1 Receipts from customers	14,898	50,116
1.2 Payments for		
(a) exploration & evaluation		
(b) development		
(c) production	(20,670)	(78,210)
(d) staff costs ⁽¹⁾	(7,275)	(20,365)
(e) administration and corporate costs	(1,475)	(3,186)
1.3 Dividends received (see note 3)		
1.4 Interest received	700	1,989
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Government grants and tax incentives		
1.8 Other – VAT recoveries	-	315
1.9 Net cash from / (used in) operating activities	(13,822)	(49,341)

(1) Includes staff costs in relation to Balama Graphite Operation, Vidalia and Corporate & Administration functions

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) Entities	-	-
(b) Tenements	-	-
(c) property, plant and equipment	(37,208)	(97,021)
(d) exploration & evaluation	-	-
(e) investments	-	-
(f) other non-current assets	-	-

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter US\$'000	Year to date (9 months) US\$'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other – Receipts from environmental bond deposit release	-	8,431
2.6	Other – Payment for environmental bond deposit release	-	-
2.7	Other – Payment for security deposit	-	-
2.8	Other – Release of security deposit		
2.9	Net cash from / (used in) investing activities	(37,208)	(88,590)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible notes	32,290	65,440
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	65,807
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other – payment for interest and principal on lease liabilities	(710)	(2,397)
3.10	Net cash from / (used in) financing activities	31,580	128,850

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	100,638	90,376
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(13,822)	(49,341)

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter US\$'000	Year to date (9 months) US\$'000
4.3	Net cash from / (used in) investing activities (item 2.8 above)	(37,208)	(88,590)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	31,580	128,850
4.5	Effect of movement in exchange rates on cash held	(302)	(409)
4.6	Cash and cash equivalents at end of period	80,886	80,886

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter US\$'000	Previous quarter US\$'000
5.1	Bank balances	49,366	8,551
5.2	Call deposits	132	37,435
5.3	Bank overdrafts	-	-
5.4	Other – Restricted cash	31,388	54,652
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	80,886	100,638

6.	Payments to related parties of the entity and their associates	Current quarter US\$'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	166
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments		

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

7. Financing facilities	Total facility amount at quarter end US\$'000	Amount drawn at quarter end US\$'000
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities	67,009	67,009
7.2 Credit standby arrangements		
7.3 Other - convertible notes	171,228	138,938
7.4 Total financing facilities	238,237	205,947
7.5 Unused financing facilities available at quarter end		64,483
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

With reference to item 7.1, Syrah completed the first two advances from the US Department of Energy loan facility (DOE Loan) on 15 February 2023 and 25 April 2023, and completed the final advance from the DOE Loan after quarter end. Syrah signed binding documentation for a loan from the US Department of Energy to Syrah Technologies LLC, Syrah's wholly owned subsidiary, to support the financing of the initial expansion of the Vidalia active anode material facility in Louisiana, USA. The DOE Loan is for up to US\$102 million including US\$98 million in loan advances and approximately US\$4 million in maximum capitalised interest. Interest is fixed from the date of each loan advance at applicable long-dated US Treasury rates and is capitalised in arrears prior to 20 October 2024 up to the maximum amount. The amount reflected in 7.1 is the loan advance plus the capitalised and accrued interest for the two advances as at end Sep-23. The DOE Loan matures on 20 April 2032 unless repaid earlier. A summary of the key terms of the DOE Loan is in Syrah's ASX release dated 28 July 2022. The DOE Loan became effective on 27 December 2022.

With reference to item 7.3, Syrah issued an unsecured convertible note to AustralianSuper Pty Ltd as trustee for AustralianSuper (AustralianSuper) in October 2019 to raise A\$55.8 million (Series 1 Convertible Note). Interest to accrue on principal outstanding at a rate of (at the Company's discretion): 8% per annum, capitalised quarterly in arrears and added to principal outstanding; or 7.5% per annum if Syrah elects to make interest payments in cash. The Series 1 Convertible Note matures on 28 October 2024 unless redeemed or converted earlier. A summary of the key terms of the Series 1 Convertible Note is in Syrah's ASX release dated 19 June 2019.

Syrah issued an unsecured convertible note to AustralianSuper in June 2021 to raise A\$28.0 million (Series 3 Convertible Note). Interest to accrue on principal outstanding at a rate of (at the Company's discretion): 8% per annum, capitalised quarterly in arrears and added to principal outstanding; or 7.5% per annum if Syrah elects to make interest payments in cash. The Series 3 Convertible Note matures on 28 October 2024 unless redeemed or converted earlier. A summary of key terms of the Series 3 Convertible Note is in Syrah's ASX release dated 10 December 2020.

Syrah announced the execution of a new convertible note deed with AustralianSuper for up to A\$150 million unsecured convertible notes, in three equal series (Series 4, 5 and 6 Convertible Notes at A\$50 million principal per series). Syrah shareholders approved the issue of the Series 5 and 6 Convertible Notes, as well as other related resolutions (Shareholder Resolutions), in a General Meeting held on 28 July 2023. The Series 4 and 5 Convertible Notes were issued in full to AustralianSuper on 12 May 2023 and 8 August 2023, respectively. On 9 October 2023, Syrah notified AustralianSuper of its intention to issue in full the Series 6 Convertible Note, and it is expected to be issued by no later than 23 October 2023.

Prior to approval of the Shareholder Resolutions, interest accrued on the Series 4 Convertible Note principal outstanding at a rate of 14% per annum, compounded daily, capitalised quarterly in arrears and added to principal outstanding. Following approval of the Shareholder Resolutions on 28 July 2023, interest has accrued and will accrue on the Series 4, 5 and 6 Convertible Notes principal outstanding at a rate of (at the Company's discretion): 11% per annum, compounded daily, capitalised quarterly in arrears and added to principal outstanding; or 10.5% per annum if Syrah elects to make interest payments in cash. The Series 4, 5 and 6 Convertible Notes matures on 12 May 2028 unless redeemed or converted earlier. A summary of key terms of the Series 4, 5 and 6 Convertible Notes is in Syrah's ASX release dated 27 April 2023.

The value provided in 7.3 includes the Series 1, Series 3, Series 4 and Series 5 Convertible Notes face value (plus Series 6 Convertible Note in total facility column), interest accrued and capitalised establishment fee. The amount is converted from Australian Dollars to United States dollars at an AUDUSD exchange rate of 0.6458 (Q2 2023: 0.6630)

With reference to item 7.5, the unused financing facility relates to the remaining DOE Loan commitment after deducting the advances described in item 7.1. It also includes the Series 6 Convertible Note principal of A\$50 million. As of the end of the quarter, the Series 6 Convertible Note was unissued.

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

8. Estimated cash available for future operating activities	US\$'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(13,822)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(13,822)
8.4 Cash and cash equivalents at quarter end (item 4.6)	80,886
8.5 Unused finance facilities available at quarter end (item 7.5)	64,483
8.6 Total available funding (item 8.4 + item 8.5)	145,369
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	10.5
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: Not applicable as item 8.7 is greater than 2.	
8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer: Not applicable as item 8.7 is greater than 2.	
8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
Answer: Not applicable as item 8.7 is greater than 2.	
<i>Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.</i>	

Compliance statement

- This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- This statement gives a true and fair view of the matters disclosed.

Date:17 October 2023.....

Authorised by:The Board.....

Notes

- This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.