



## Syrah increases Balama Ore Reserves and awards Laboratory Contract

### Balama Ore Reserves

Syrah Resources (ASX.SYR) is pleased to announce that it has finalised a Mineral Resource and Ore Reserve upgrade for the Mualia Zone, Balama West, which was completed in accordance with the guidelines of the JORC Code (2012).

The Probable Ore Reserve estimated by The MSA Group Pty Ltd (MSA Group) is based on the optimised open pit mine plan for the Mualia Zone, whilst taking into consideration the same mine planning parameters used for the Balama East and West open pits in the Feasibility Study completed by Snowden Mining Industry Consultants in May 2015. Since Inferred Mineral Resources are not used in Ore Reserve estimates, the Probable Ore Reserve is based on, and inclusive of, Indicated Mineral Resources only.

The Mualia Probable Reserve estimation, based on the Resource of the same zone (Table 2), is displayed in Table 1. The open pit containing this reserve is 450m wide, 800m long and an average of 100m deep, with a stripping ratio of 1.24:1.

**Table 1 – Mualia, Balama West Ore Reserve estimate at 9% TGC<sup>1</sup> cut-off grade**

Classification	Tonnes (Mt)	TGC (%)	Contained Graphite (Mt)
Probable	33.1	17.5	5.4
<b>TOTAL</b>	<b>33.1</b>	<b>17.5</b>	<b>5.4</b>

Note 1: TGC = Total graphitic carbon

**Table 2 – Mualia, Balama West Mineral Resource estimate at 5% TGC cut-off grade**

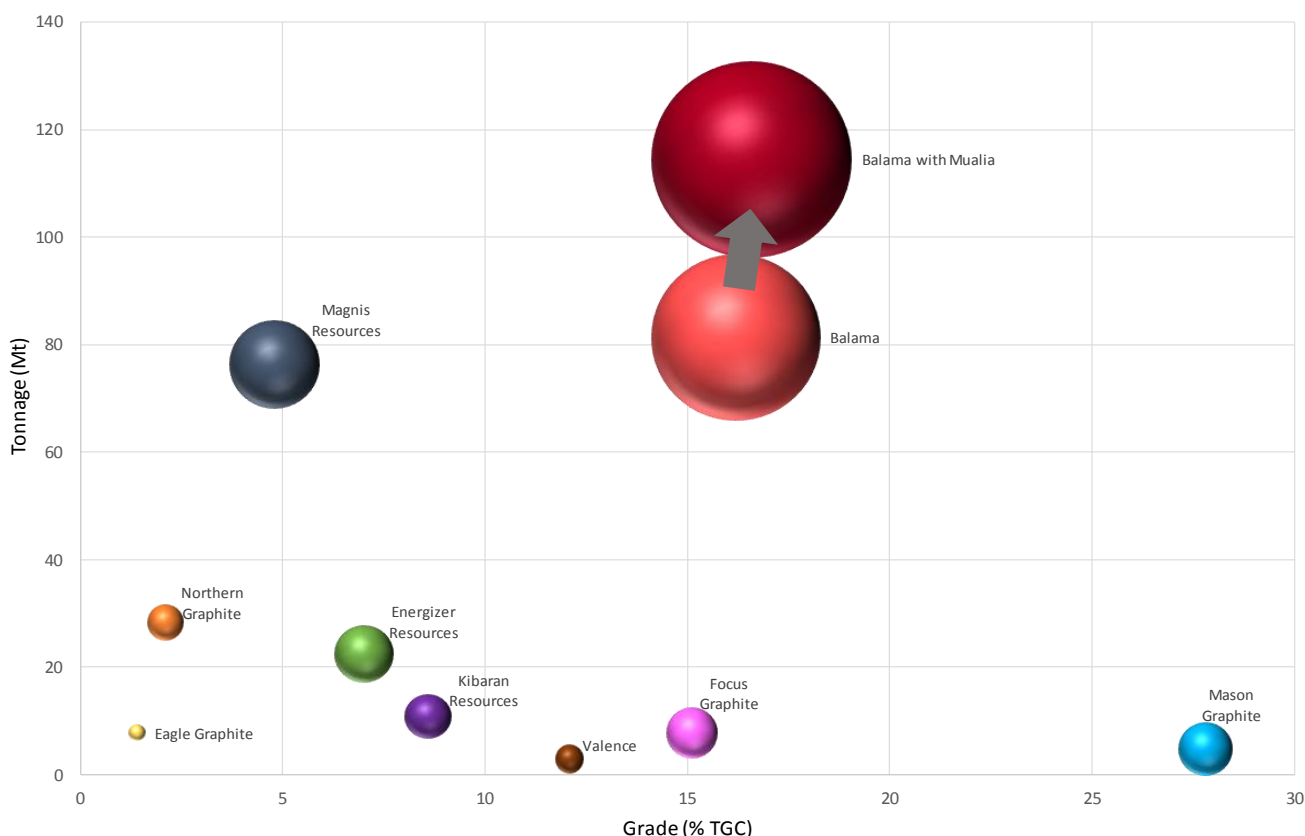
Classification	Tonnes (Mt)	TGC (%)	Contained Graphite (Mt)
Indicated	42.1	18.0	7.6
Inferred	87.5	17.1	14.9
<b>TOTAL</b>	<b>129.6</b>	<b>17.4</b>	<b>22.5</b>

Note 1: Mineral Resources are reported inclusive of Mineral Reserves



The updated Proved and Probable Ore Reserve for the overall Balama Project now totals **114.5 Mt at 16.6% TGC for 18.6 Mt of contained flake graphite**. This comprises a 40% increase in the Proven and Probable Reserves of 81.4Mt @ 16.2% TGC previously reported (ASX release dated 29 May 2015).

Figure 1 shows a comparison of the Balama Ore Reserves against the published reserves of Australian and Canadian listed graphite companies.



**Figure 1: Balama Ore Reserves compared to Australian and Canadian listed companies**

Executive Chairman Jim Askew commented: *“The significant increase in reserves at Balama adds to what is already a Tier 1 scale graphite deposit. The high grade, simple metallurgy and quality of graphite concentrate it will produce assures that this orebody will have a presence on the world stage for many decades. When Syrah selected an initial scale of production at some 350,000 tonnes per annum of 95% to 99% graphite concentrate and began construction last year, the project design allowed for future expansion capability. Any consideration of future expansion will have to take*



account of product demand and pricing, thus our present focus will remain to deliver Balama into commissioning Q2 2017 and review expansion possibilities subsequently.

The reserves of the three open pits at Balama are each calculated to an average depth below surface of some 100m. Drilling beneath each of these pits indicates that these deposits all continue at depth to at least 300m below surface, thus an additional prospectivity exists below the current designed pits.

The scale and quality of the deposit is at the core of our considering downstream production of Battery Anode Materials (BAM), initially in the form of spherical graphite. Syrah will be providing details of our downstream strategy on Thursday this week."\*

\* Refer end of announcement for call details

## Laboratory services contract

The Company has also awarded the contract for the supply of on-site laboratory services for the Balama Graphite Project in Mozambique to Bureau Veritas Mozambique (Bureau Veritas), a global leader in testing, inspection and certification, with a strong presence in Mozambique across seven existing locations.

The contract term with Bureau Veritas is for a five year period, providing the following:

- All specialist equipment and graphite analysis methodologies
- Experienced senior management and technical team
- 24 hour analysis for processing plant grade control and product certification
- Accreditation of the on-site laboratory to ISO standards.

The onsite laboratory will be ready to commence operations in Q1 2017, ramping up to a 24/7 operation with more than 30 employees. At full production, nearly 1,700 assays of various types are expected to be analysed daily.

Executive Chairman Jim Askew commented: *"This contract demonstrates our commitment to maintaining the highest product quality standards. We are partnering with an internationally recognised leader in this field. Quality control from a grade and variability perspective are crucial from mine through to end product, particularly in the graphite market, where many customers have stringent quality control requirements."*



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**Downstream Strategy Update conference call, Thursday 17 November at 10:30am AEDT**

Australian Toll Free Number: 1800 175 864

Hong Kong Toll Free Number: 800 963 435

UK Toll Free Number: 080 8234 1368

US Toll Free Number: 185 5823 0291

Please join the meeting 10 minutes prior to the start time and enter the participant passcode 20514708 followed by hash (#).

**About Syrah Resources**

*Syrah Resources Limited (ASX code: SYR) is an Australian-based industrial minerals and technology company. Syrah is currently constructing the Balama graphite project (Balama) in Mozambique, with commissioning scheduled to commence in Q2 2017. Balama will be the leading global producer of high purity graphite. Balama production is targeted to supply traditional industrial graphite markets and emerging technology markets. Syrah has successfully completed extensive product certification test work with several major battery producers for the use of Balama spherical graphite in the anode of lithium ion batteries.*

**Competent Person Statements**

*The information in this report as it relates to geology, QAQC and Mineral Resource estimation was compiled under the supervision of Mr Jeremy Witley Pr. Sci. Nat., Principal Consultant at The MSA Group (Pty) Ltd. Mr Witley is registered with the South African Council for Natural Scientific Professions (SACNASP) and is a Fellow of the Geological Society of South Africa (GSSA, both are a "Recognised Professional Organisation" by the ASX). He has more than 5 years of experience in the activities being reported on and has sufficient expertise which is relevant to the style of mineralisation and type of deposit under consideration and to the activity undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Witley consents to the inclusion of this information in the form and context in which it appears in this report.*

*The information in this report that relates to Syrah Balama Ore Reserves is based on information reviewed or work undertaken by Mr Anton Ferdinand von Wielligh Pr Eng, registered with the Engineering Council for South Africa and a Member of the Southern African Institute of Mining and Metallurgy, both are a "Recognised Professional Organisation" by the ASX. Mr von Wielligh is a consultant working for The MSA Group (Pty) Ltd. Mr von Wielligh has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the preparation of mining studies to qualify as a competent person as defined by the JORC Code (2012). Mr von Wielligh consents to the inclusion of this information in the form and context in which it appears in this report.*



Section 1	Sampling Techniques and Data
Criteria	Commentary
Sampling Techniques	Core samples were collected continuously through the mineralised zone. The average sample length is 2m in the drill holes, ranging from 0.40m to 10.00m, and an average of 1.97m in the trenches ranging between 0.60m to 2.90m. The sample data from the trenches were not used in the estimation. Half core samples cut with a diamond saw were prepared and bagged at the site core yard. The routine sampling methods were performed according to documented set of Standard Operating Procedures (SOPs) and were periodically audited. The sampling methods were of a high standard and suitable for evaluation purposes.
Drilling techniques	NQ diameter inclined diamond cored drill holes.
Drill sample recovery	Recoveries were documented in drill hole logs for all 96 drill holes. The average core recovery in all drill holes used in the Mineral Resource estimate was 92.5%.
Logging	All drill holes were geologically logged by qualified geologists. The logging was of an appropriate standard for Mineral Resource estimation using a standardised set of lithological codes. A litho-stratigraphic sequence has not been compiled for this area, and correlation between drill holes is based on lithological and grade continuity.
Subsampling techniques and sample preparation	The sampling method was deemed appropriate to the type of mineralisation and results of duplicate samples support this. Half-core samples were submitted. Where metallurgical sampling was undertaken, quarter core samples were taken.
Quality of assay data and laboratory tests	<p>Total Graphitic Carbon (TGC) was analysed by Bureau Veritas (Rustenburg) after a weak acid wash to remove carbonates. Calcining at 420°C was undertaken to remove organic carbon. Analysis for Total Carbon in a LECO sulphur/carbon analyser was conducted to determine graphitic carbon. The level of detection was 0.01%. Vanadium was analysed by ICP following a sodium peroxide fusion, with a detection limit of 0.005%. Both methods are considered appropriate for the two elements concerned. Other elements were analysed for information purposes by different ICP analytical methods.</p> <p>The assay database displays industry standard levels of precision and accuracy and meets the requirements for use in estimating the Mineral Resource. The quality of the assay work was assessed by means of inserting approximately 5% CRMs, 5% Blanks and 5% field duplicates into the sample stream. Re-assay was conducted where necessary to confirm anomalous analyses. These measures were applicable to the drill hole samples only, the trench data having been discarded from the Mineral Resource estimation data due to grade inconsistencies between the two data sets (possibly due to near surface weathering of the rock in the trenches).</p>



Verification of sampling and assaying	<p>A subset of 5% of the total samples covering the majority of the grade range of carbon assay results were analysed by a second laboratory (SGS Lakefield, Toronto). The results of the 2<sup>nd</sup> lab assays validated the primary laboratory results.</p> <p>Data was audited against a set of standard measures to ensure the integrity of the database prior to use in the Mineral Resource estimation process.</p> <p>No twin drilling was conducted.</p>
Location of data points	All of the drill hole collars were surveyed by a qualified surveyor on a UTM grid with a WGS84 datum. Downhole surveys were conducted by the drilling contractor and this data was included in the database for the project.
Data spacing and distribution	The drill holes were spaced between 60 and 120 m apart in the plane of mineralisation. This spacing was considered appropriate to estimate Mineral Resources in the Indicated and Inferred categories, depending on the drill hole frequency in each domain.
Orientation of data in relation to geological structure	The drill holes were inclined to the southeast at approximately -60 degrees with the objective of intersecting the lithologies close to perpendicular to their dip, thereby approximating true thickness intersections. It is considered that no sampling bias has been created by this drilling orientation. One vertical drill hole was also drilled (BMDD0119).
Sample security	Once bagged, samples were sealed in plastic bags and inserted into large polyweave bags for transport to the laboratory. The polyweave bags were dispatched to the laboratory by courier. The remaining core was securely stored at the exploration camp at the project site.
Audits or reviews	<p>The following audit and review work was completed by MSA:</p> <ul style="list-style-type: none"> <li>▪ Site visits to review adherence to the Standard Operating Procedures;</li> <li>▪ a review of the database;</li> <li>▪ a review of drill hole data collection protocols and QA/QC procedures; and</li> <li>▪ interrogation of the QA/QC data.</li> </ul>
<b>Section 2</b>	<b>Reporting of Exploration Results</b>
Mineral tenement and land tenure status	The Balama West project area comprises 10 640 ha in a combined license, also covering the Balama West project area and is valid until 20 July 2015, renewable for a further 5 years.
Exploration done by other parties	All exploration data used for the Mineral Resource reported was generated by Syrah Resources Limited and its appointed contractors.
Geology	The geology of the project area comprises metamorphic rocks of the Xixano Complex, dated at 735Ma. Lithologies include schists, mica-schists and psammites, of granulite metamorphic grade.
Drill hole information	In total, 96 drill holes are contained in the database for the project area (as well as ten trenches). All drill hole collars were surveyed and all drill holes were surveyed down the hole. All core was geologically logged by qualified geologists according to a set of SOPs.



Data aggregation methods	Drill hole samples were composited by length weighting into 2 metre intervals for use in grade estimation. All sample lengths were included and there were no residuals.
Relationship between mineralisation widths and intercept lengths	Samples were taken at a nominal 2 metre length, which was varied where zones of waste occurred or geological boundaries were crossed. The drilling pattern and inclination yielded close to true width intersections of the mineralised zones in all areas but the northeast, where the strike of the layering is affected by structural effects associated with the emplacement of a granite intrusion.
Diagrams	Relevant diagrams including plans and sections were utilised to assist with the generation of the geological model.
Balanced reporting	This Mineral Resource estimate is based on all drilling data on the project. Trench samples were not utilised. The results of the Mineral Resource estimation have been peer reviewed to ensure their quality and integrity, and that they represent a fair and reasonable assessment of the mineralisation.
Other substantive exploration data	Surface geological maps, along with topographic survey data were used to assist in the formulation of the geological model of the Mineral Resource.
Further work	No further work to extend the Mineral Resource is planned at Balama West. The mineralisation is open in the west and east directions, and at depth.
<b>Section 3</b>	<b>Estimation and Reporting of Mineral Resources</b>
Database integrity	Data were provided in an Access database. MSA has checked the integrity of the database for use in Mineral Resource estimation processes and considers that the database is an accurate representation of the original data collected.
Site visits	Site visits were undertaken by MSA during both phases of exploration. Messrs R Barnett and M Lynn of MSA undertook one site visit during Phase 1 and one during Phase 2. Mr M Hall of MSA undertook a site visit during the Phase 2 exploration. Mr Witley has not undertaken a site visit to the project, he being reliant on information from his colleagues in this respect.
Geological interpretation	The Mineral Resource is stratiform. Geological continuity has been confirmed by the diamond drilling and trenching and outcrops of mineralisation are seen to occur throughout the area of the Mineral Resource estimate.
Dimensions	The Mineral Resource at Mualia in Balama West extends over a strike length of 740 m and appears to be open to the west, east and north. The Mineral Resource occurs from surface and has been constrained at depth by limiting down-dip extensions to 100 m vertically below the termination of each drill hole. The high grade mineralised zones have not been fully penetrated and dip at between 45 and 50 degrees to the north-west.





Estimation and modelling techniques	<p>The Mualia Zone was divided into the Mualia West, Mualia West Medium Grade and Mualia East Zones. Mineralisation grades and density were estimated into a 20mN by 20mE by 10mRL three dimensional block model. The block model was split into sub cells of 4mN by 4mE by exact fitting in RL in order to accurately represent the volume of the mineralised bodies.</p> <p>Mineralisation grades and density were estimated using Inverse Distance weighting (to the power of 2). The sample search ellipse was aligned parallel to the strike and dip direction, using Datamine Studio 3 software's dynamic anisotropy function. The nominal drill hole spacing of 100 m +10% (110m x 110m) was assigned as the along-strike and down-dip sample search distance. The minimum number of composites required for an estimate was 5 and the maximum number was 24.</p> <p>Extreme outliers do not occur in the domained data, which have a low coefficient of variation (&lt;1) and as a result no grade cutting or capping was applied.</p>
Moisture	Loss on Ignition (LOI) analyses are available for all drill holes used in the Mineral Resource estimate. Estimates are on a dry basis.
Cut off parameters	A range of cut-off grades have been selected for the purposes of illustrating the grade and tonnage potential of the mineralisation. The Mineral Resources have been reported using a base case of 5%TGC.
Mining factors or assumptions	No mining factors or assumptions have been applied.
Metallurgical factors or assumptions	<p>An initial scoping level metallurgical test on a trench sample from the Balama West section showed that a crushing and flotation circuit could upgrade the mineralised rock to +90% graphitic carbon (Cg).</p> <p>Further test work on (i) a composite drill hole sample, and (ii) a surface bulk sample, both from Balama West and East indicated that a +95% Cg for +150µ flake graphite could be achieved by a crushing and multiple flotation and milling circuit.</p> <p>A process for recovering vanadium from the graphite process tails has been finalised with recoveries of vanadium from both ferro-vanadium magnetite and roscoelite/silicate phases. Two qualities produced of 98.5% and 99.5% V<sub>2</sub>O<sub>5</sub>.</p> <p>Syrah has submitted a number of graphite samples to potential customers who have conducted tests and confirmed that the graphite is of commercial interest.</p>
Environmental factors or assumptions	The Balama Project is the subject of a Feasibility Study and environmental studies are ongoing. No environmental issues which would preclude the development of a mine have been found, or are expected to be found.
Bulk density	An appropriate number of relative density measurements are contained in the project database for the Mineral Resource estimation. The data were derived using the Archimedes method of weighing drill core in air and water, which is considered appropriate for the rock type. No density data were collected for the trench samples
Classification	The classification considered the quality of the drill hole data, the data distribution, geological and grade continuity. The Mineral Resources are classified as Indicated when drilled within 100 m spacing and Inferred to a maximum extrapolation of 100 m.
Audits or reviews	The Mineral Resource estimate has been internally reviewed at MSA.



Discussion of relative accuracy/confidence	The geological model and geological and grade continuity has been demonstrated to an acceptable level to support Indicated and Inferred Mineral Resources.
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Section 4	Estimation and Reporting of Ore Reserves
Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<p>A resource block model ("bmmualfx.dm"), developed by MSA was used for mine optimisation and planning purposes. NPVS Software was used for the open pit optimisation analysis. The open pit optimisation study developed a 100 % revenue factor pit shell which is the simulated economically extractable open pit envelope for the project, based upon the input economic and mining criteria. Measured and Indicated Mineral Resources were considered for Ore Reserve conversions. The resources per category within the economic open pit shell were:</p> <ul style="list-style-type: none"> <li>▪ Measured Mineral Resource (&gt;5 % TGC) = 0</li> <li>▪ Indicated Mineral Resource (&gt;5 % TGC) = 37.25 Mt</li> <li>▪ Inferred Mineral Resource (not used in the Reserve calculation, treated as waste) = 1.98 Mt</li> </ul> <p>The Ore Reserves were calculated at a 9 % TGC grade cut-off and are inclusive of the Mineral Resource.</p> <p>Inferred Mineral Resources were not included and were treated as waste.</p> <p>Low grade graphite material (above 2 % TGC) is scheduled to be placed on a low grade stockpile for potential future processing as a +2% TGC feed could pay for the processing and general and administration costs during mine rehabilitation. This material was however, not included as an Ore Reserve and no economic benefit was modelled from this material.</p>
Site Visits	The site was not visited by the Mining Engineer who has relied on information provided by MSA as per the Mineral Resource Estimate - Joubert, S. and Barnett, R., Balama Graphite and Vanadium Project – Mineral Resource Estimation Report incorporating Infill Drilling at Mualia Balama West. Dated 17 June 2015, Mineral Resource Estimate dated 31 May 2015.
Study status	A feasibility level mining study was concluded for the Mualia Balama West deposit. The planning and cost parameters used for the Balama East and West Feasibility Study (Snowden, 2015) were used for Mualia Balama West.



Cut-off parameters	<p>Two cut-off grades were calculated prior to the open pit optimisation study. A marginal cut-off grade - this is when only loading into the crusher, processing cost and general and administration costs would apply when processing this material at end of mine life. The second cut-off grade was the Mineral Resource cut-off grade. A cut-off grade of 5 % TGC was calculated, based upon the mining cost of ore, processing and general and administration costs.</p> <p>The Ore Reserve cut-off grade varied over the pit life and depth of operations. The Balama East and West Feasibility study (Snowden, 2015) considered a 9 % TGC cut-off grade for reserves and the same was considered for Mualia Balama West. When calculating the full cut-off grade for Mualia Balama West (including rehabilitation and cost of capital) the minimum grade to be processed during the mine life is 9% TGC (in-situ grade).</p>
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<p>Mining factors or assumptions</p>	<p>Mualia Balama West is planned for a truck and excavator/shovel open pit operation. The ore deposit is fairly steep dipping (45 to 50 degree dip), wide and layered whilst outcropping on surface. The ideal mining/exploitation strategy in fairly weak host-rock conditions with an ore deposit outcropping on surface, is an open pit truck and shovel method.</p> <p>A full geotechnical study was concluded for the Balama East and West deposits during 2015. The same parameters were adopted and were deemed appropriate for Mualia Balama West (located in the same Mineral Resource area with the same rock properties). The overall slope parameters were deemed to be appropriate for these host rock conditions and mining method considered.</p> <p>A full open pit optimisation study was concluded for Mualia Balama West followed by a detailed open pit design. The reserves were reported within the detailed open pit design envelope.</p> <p>Geological loss and mine modifying factors were applied as follows:</p> <ul style="list-style-type: none"> <li>▪ 10 % Geological loss (all the designed and scheduled reserves were derived from Indicated Mineral Resources). The loss and dilution factors applied on Indicated Mineral Resources should differ to factors applied to a Measured Mineral Resource simply due to the confidence and knowledge of the modelled Mineral Resource;</li> <li>▪ A 4 % unplanned mining dilution was applied. This is waste/infill waste splays not anticipated in ore blocks. This is not a geological loss, rather an unplanned addition to tonnages that will be mined as part of the ore block. The unplanned mining dilution assumed 0 % grade;</li> <li>▪ A 7 % planned mining dilution was applied. This is additional waste that will be blasted, loaded and hauled with ore material during normal mining operations; and</li> <li>▪ The Mualia Balama West study recommended a similar grade control process to that planned for the Balama East and West deposits. A well-managed grade control process should limit/improve the planned mining dilution.</li> </ul> <p>A minimum mining width of 50 m was considered during the mine design and production scheduling.</p> <p>A maximum vertical advance rate (pit sinking rate) of 50 m per annum was also considered as another mining constraint.</p> <p>The mining infrastructure developed or planned for Balama East and West was extended to service Mualia Balama West. A waste rock dump and low grade stockpile was designed at slope ratios of 3:1 (Horizontal to Vertical) specifically for Mualia Balama's scheduled material. A swell factor of 30 % was allowed for in the dump designs which should provide for sufficient dump space and infrastructure.</p>
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Metallurgical factors or assumptions	<p>An initial scoping level metallurgical test on a trench sample from the Balama West section showed that a crushing and flotation circuit could upgrade the mineralised rock to +90 % graphitic carbon (Cg).</p> <p>Further test work on (i) a composite drillhole sample, and (ii) a surface bulk sample, both from Balama West and East indicated that a +95 % Cg for +150µ flake graphite could be achieved by a crushing and multiple flotation and milling circuit.</p> <p>Syrah has submitted a number of graphite samples to potential customers who have conducted tests and confirmed that the graphite is of commercial interest.</p> <p>An overall processing recovery of 92.5 % (Recovery of ore to concentrate product) was considered for the mine optimisation and scheduling phases of the study</p> <p>Another 5 % material or fines loss was also applied to the saleable product calculations. This is due to relatively limited flake condition modelling for Mualia Balama.</p>
Environmental	<p>The Balama Project is the subject of a Feasibility Study (Snowden, 2015) and environmental studies are ongoing. No environmental issues which would preclude the development of a mine have been found, or are expected to be found.</p>
Infrastructure	<p>The Balama Project is the subject of a Feasibility Study (Snowden, 2015) and sufficient land is available for the development of the required mining, processing and transportation infrastructure.</p>
Costs	<p>The Mualia Balama West pit is an extension of the Balama East and West mine development plan. These were developed to a Feasibility Study level and obtained contractor costs for mining and developed detailed cost calculations for processing and general and administration functions. MSA also simulated the mining costs and obtained similar unit costs than those applied (using the engineered Mualia Balama West pit and detailed mine production schedule). All cost calculations and revenue factors assumed United States Dollar currency.</p> <p>The Mualia Balama West Ore Reserves at the applied reserve cut-off grade are insensitive to variations in mining and processing costs (as concluded from simulation during an open pit optimisation sensitivity study).</p> <p>A saleable concentrate with a 95 % TGC concentrate grade was developed as product for sale. All revenue calculations were based on this assumption.</p> <p>The cost parameters are believed to be conservative, yet realistic in nature. Most of the Indicated Mineral Resource is exploited within the engineered open pit of Mualia Balama West. The reserve limitations are therefore not economic in nature but rather based on the depth of the Indicated Resource.</p>



Revenue Factors	<p>The same price and selling cost assumptions were considered for Mualia Balama West compared to the parameters used for the Feasibility Study of Balama East and West pits.</p> <p>The estimated market selling price for the 95 % TGC concentrate exceeded 1,000 United States Dollars (USD) per tonne. A selling price limit of USD 1,000 per tonne (maximum) was therefore used.</p>
Market Assessment	<p>This project forms part of the Balama East and West Feasibility Study (Snowden, 2015). Market analysis were concluded for the saleable concentrate product (at a 95 % TGC product grade). The price and selling cost assumptions were based on the market analysis concluded during 2015.</p>
Economic	<p>All operating costs (including contractor mining costs) were used during an open pit optimisation study for Mualia Balama West. These costs were the same costs used for the Balama East and West deposits.</p> <p>The cost parameters are deemed relevant and the optimisation analyses proved that the operating costs do not pose a risk to the economic viability of this project. The open pit sensitivity analysis illustrated the small changes to the project NPV and economic material with cost increases of up to 25 %.</p> <p>The most sensitive driving factor is the selling price and selling cost of the saleable product. The flake parameter of the Mualia Balama West ore was not modelled, however, the assumed selling price was lower than those identified during the market analysis.</p>
Social	<p>This project forms part of the Balama East and West Feasibility Study (Snowden, 2015). All social impacts and implementation plans were developed per the requirements of the mineral titles.</p>
Classification	<p>Only Indicated and Inferred Mineral Resources were modelled for Mualia Balama West. Indicated Mineral Resource (modified per the appropriate modifying factors) were converted to Probable Ore Reserves.</p> <p>No Inferred Mineral Resources were considered for inclusion in the conversion as it is not allowed by JORC.</p> <p>Only Probable Ore Reserves were estimated for the Mualia Balama West Project.</p>
Audits or Reviews	<p>The Mualia Balama West mining study was internally reviewed. The internal review found no errors or irregularities. The document was sent to the Client for review and comment before finalisation.</p>



<p>Discussion of relative accuracy/ confidence</p>	<p>The Ore Reserves were estimated within an engineered open pit design. The open pit design was developed from an open pit economic perimeter obtained from a detailed open pit optimisation analysis.</p> <p>The approach is deemed appropriate for the study and Ore Reserve statement.</p> <p>Economic sensitivity analyses illustrated the relative minor impact that changes to operating costs has on the economic open pit perimeter size, location and dimensions. The project is therefore categorised as economically robust.</p> <p>The engineered design and planning approach is considered thorough and accurate (within 90 % accuracy limits) which is sufficient for the statement of Ore Reserves.</p> <p>Modifying factors applied could be deemed conservative. Additional exploration is required to convert a portion of the Inferred Resource to a Measured category. When the conversion or model updated is facilitated, it is necessary to compare the Indicated Resource to the newly classified resource for the same ore blocks. This would indicate what modifications may be considered. Bulk sampling and the mining at Balama East and West (which will precede mining at Mualia Balama West) should also inform the modifying factors.</p> <p>Variations in modifying factors (improving the factors) improves the project value but does not increase the open pit perimeter as the open pit design exploits almost all of the Indicated Mineral Resources currently modelled for Mualia Balama West.</p> <p>In order to ensure the modelling and mine plan development is not overly optimistic whilst understanding that the future mining operations and nature of the deposit could encounter some challenges, the factors applied is believed prudent for the Mualia Balama</p>
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