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KASIYA - OPTIMISED PFS RESULTS

OPTIMISED PFS COMPLETED WITH OVERSIGHT FROM SOVEREIGN-RIO TINTO TECHNICAL COMMITTEE

LARGEST AND LOWEST-COST STRATEGIC CRITICAL MINERALS PRODUCER POTENTIAL REAFFIRMED

SUPERIOR PROJECT DELIVERY, OPERATIONAL FLEXIBILITY, PERMITTING, ENVIRONMENTAL AND SOCIAL OUTCOMES

US 2.3Bn NPV (pre-tax)	**US 16.4Bn** Total Revenue	**US 423/t** Operating Cost
27% IRR (pre-tax)	**US 409M** Ave. Annual EBITDA	**US 665M** Capital Expenditure (to 1st Production)

"The level of accuracy and confidence in the economic and technical fundamentals of Kasiya have taken a massive step forward. The successful completion of large-scale field trials, in particular for dry mining, the high degree of technical rigour by our enhanced owner's team, and Rio Tinto's technical support have all contributed to confirming Kasiya's potential to become a long-life, low-cost, secure source of two genuine critical and globally strategic minerals."

- Frank Eagar, Managing Director and CEO

Sovereign Metals Limited (ASX:SVM; AIM:SVML; OTCQX: SVMLF) (**Sovereign** or **the Company**) is pleased to announce the results of an Optimised Pre-feasibility Study (**OPFS**) for its Kasiya Rutile-Graphite Project (**Kasiya** or **the Project**) undertaken following a strategic investment by Rio Tinto Mining and Exploration Limited (**Rio Tinto**) in 2023, which established a joint Technical Committee to advance the development of Kasiya.

Following input from various organisations, including world-class consultancies, the Company's owner's team, and subject matter experts from Rio Tinto, the OPFS has reconfirmed Kasiya as a leading global future supplier of strategic critical minerals outside of China.

The OPFS proposes a large-scale, long-life operation to deliver substantial volumes of natural rutile and graphite while generating significant returns.

Table 1 summarises the key findings from the OPFS and includes a comparison to the Pre-Feasibility Study (**PFS**) results released 16 months ago, in September 2023. **It is important to note that the results for the 2023 PFS in Table 1 have not been updated or adjusted for inflation since their release in September 2023.**

TABLE 1: KEY OPFS METRICS

	Units	**OPFS Results** Jan-25	*2023 PFS* Sep-23

		Jan 25	Sep 23
Production			
Initial Mine Life	*Years*	**25**	*25*
Plant Throughput (Stage 1: Years 1-4)	*Mtpa*	**12**	*12*
Plant Throughput (Stage 2: Years 5-25)	*Mtpa*	**24**	*24*
Average Annual Rutile Produced (95%+TiO_2)	*ktpa*	**222**	*222*
Annual Average Graphite Produced (96% TGC)*	*ktpa*	**233**	*244*
Operating and Capital Expenditure			
Capex to First Production (Stage 1)	*US M*	**665**	*597*
Total LOM Development Capex	*US M*	**1,127**	*1,250*
Total LOM Sustaining Capex	*US M*	**397**	*470*
Operating Costs (FOB Nacala)	*US /t product*	**423**	*404*
Financial Performance			
Total Revenue*	*US M*	**16,367**	*16,121*
Annual Revenue (Average LOM)	*US M*	**640**	*645*
Annual EBITDA (Average LOM)	*US M*	**409**	*415*
NPV_8 (real, pre-tax)	*US M*	**2,322**	*2,419*
IRR (pre-tax)	*%*	**27%**	*32%*
Revenue to Cost Ratio	*x*	**2.8**	*2.8*

*Annual average graphite produced includes 292kt of graphite processed and sold in two years post cessation of active are mining. Average graphite produced during the 25-year initial mine life only is 240ktpa; total revenue during the same period is US 15,990 million. All rutile is produced and sold during the 25-year initial mine life. Note: All cashflows and costs are presented in US real January 2025 terms unless otherwise stated. Operating costs exclude mineral royalties and community development support costs.

SUMMARY OF OPTIMISATIONS

The OPFS optimises seven key areas compared to the 2023 PFS as summarised below.

Mining Method

The PFS proposed a 25-year initial LOM based on a hydraulic mining process where slurry material would be screened and pumped overland to processing plants.

Based on findings from the mining trials undertaken as part of the Pilot Mining and Land Rehabilitation (**Pilot Phase**), the **OPFS proposes a large-scale open-pit dry mining operation using draglines** and trucking of material to the processing plants. The change in mining method has not changed the initial mine life of 25 years.

Operating Model

The 2023 PFS envisaged mining would take place on a contractor basis.

During the OPFS, Sovereign undertook a trade-off analysis between the following operating options:

- Fully owner-operated mine with draglines and trucks purchased by the owner
- Owner-operated mine with draglines and trucks leased by the owner
- Mining contractor operation using excavators and trucks

Due to the preference for draglines and maintaining flexibility, an **owner-operated mine with leased equipment** is selected as the preferred operating model.

Plant Configuration

Dry mining Kasiya means the material received at the plant is not pre-wet and pre-scrubbed. Therefore, the OPFS proposes a **process plant front end consisting of two scrubbers and two oversize screens** per 12Mt plant. No further changes are proposed to the processing plant flowsheet.

Plant Location

Per the 2023 PFS, mining would commence in the southern area of the Kasiya deposit, ramping up to 12Mt per annum and then scaling up to 24Mt per annum in Year 5 by constructing a second plant module in the same area, reaching nameplate capacity by the end of the year.

In Year 10 of production, another new 12Mt per annum plant module would be built and commissioned in the northern area of Kasiya, supported by the relocation to the north of one of the southern plants to maintain a steady state of 24Mt per annum.

However, the OPFS has determined the most efficient plant locations to be an **initial 12Mtpa South Kasiya plant followed by the construction of another 12Mtpa North Kasiya plant in year 5** of production, negating any relocation requirements in later years.

The OPFS maintains the ROM schedule with operations commencing with 12Mt per annum of throughput during the first four years of production (**Stage 1**) and expanding to 24Mt per annum in year 5, with full capacity reached by end of year 5 (**Stage 2**).

Tailings Management

Per the PFS, a conventional process would be used to produce rutile and graphite concentrate with tailings in separate sand and fines streams being pumped to a conventional TSF. Mined out pit areas would be backfilled as part of a rehabilitation process.

The OPFS proposes **maximising backfilling of pits** as undertaken during the Pilot Phase and the **introduction of mud farming on the TSF** to accelerate dewatering. This approach has reduced tailings volumes in the TSF by 44% from 187 Mm^3 to 105 Mm^3.

Mud farming is a technique used by Rio Tinto at operations such as its 100%-owned Weipa bauxite operations in Queensland, Australia, which has been in production since 1963 and produced 35.1Mt of bauxite in 2023.

Water Management

The PFS proposed that the primary water supply for the Kasiya mining complex would be created by building a dam and collecting run-off water from the greater catchment area. Following the introduction of dry mining and mud farming, the size of the water dam proposed in the PFS has been significantly reduced, with less process water required and more process water recovered.

The OPFS mining trials and material deposition tests indicated a water demand of 10.2 Mm^3 per annum, almost a **40% decrease in water requirement** from the PFS (16.7 Mm^3). The effect on the raw water dam wall could be a reduction in volume from 0.79 Mm^3 to 0.57 Mm^3 and a reduction in dam wall height from 20 metres to 17 metres.

Power

The 2023 PFS envisaged a hybrid hydro-generated grid power plus solar power system solution.

The Malawi grid reliability has improved since completion of the PFS and is expected to further improve considerably with the commissioning of the country's first HV transmission interconnector to Mozambique in Q2 2025.

This will provide the Project with sufficient power and therefore the OPFS proposes to connect the Project's power system to the **hydro-sourced grid network only**. This mitigates any risks associated with commissioning a new solar power project and reducing the overall power tariff by eliminating the need for an Independent Power Producer as per the 2023 PFS.

Figure 1: Pilot Phase test pit during mining trials (left) and subsequently backfilled (right)

OPTIMISATION MAINTAINS KASIYA'S GLOBAL LEADER POTENTIAL

Kasiya, located in central Malawi, is the **world's largest known natural rutile deposit and**

second-largest flake graphite deposit.

Natural Rutile is the purest, highest-grade form of naturally occurring titanium feedstock.

Natural Graphite is required for various technological and industrial applications.

Both titanium and graphite have been designated "Critical Minerals" by the USA and the EU. In December 2024, NATO designated both titanium and graphite as defence-critical, strategic minerals essential for the Allied defence industry.

Over the 25-year LOM, Kasiya is set to produce an average of 222kt of natural rutile and 233kt of natural flake graphite per annum. At steady state throughput of 24 million tonnes of ore per annum the Project is anticipated to produce approximately 246kt of natural rutile and 265kt of natural graphite per annum, positioning Sovereign as potentially the **world's largest producer of natural rutile and natural flake graphite**.

Further, the depletion of rutile reserves at Lenoil Company Limited's Area 1 Mine[1] in the coming 2-3 years and the recent cessation of mining activities at Energy Fuels Inc.'s Kwale Operations[2] in Kenya means that Sovereign could potentially become the **world's only primary natural rutile producer** of scale (see Appendix 2).

The incremental cost of producing a tonne of graphite from Kasiya under the OPFS is US 241/t[3]. Based on public disclosures by listed graphite companies that have undertaken project studies up to a pre-feasibility stage or later, an incremental graphite cost of production of US 241/t would make Sovereign the **world's lowest-cost graphite producer outside of China** (see Appendix 3).

The rutile-graphite-rich mineralisation will be extracted from surface and trucked to the process plant front end to scrub and screen ROM before it enters a Wet Concentration Plant (**WCP**) where a low-energy requirement, chemical-free process using gravity spirals produces a Heavy Mineral Concentrate (**HMC**). The HMC is transferred to the dry Mineral Separation Plant (**MSP**) where premium quality rutile (+95% TiO_2) is produced via electrostatic and magnetic separation.

The high quality Kasiya rutile product will be amenable for use in high-end titanium products including aerospace and defence applications.

Graphite rich concentrate is collected from the gravity spirals and processed in a separate graphite flotation plant, producing a high purity, high crystallinity and high value coarse-flake graphite product.

[1] In 2024, the previous owner of the Area 1 Mine, Sierra Rutlie Limited, was acquired by Lenoil Company Limited, a private company based in Sierra Leone.

[2] In 2024, the previous owner of the Kwale Operations, Base Resources Limited was acquired by Energy Fuels Inc., a US-based uranium and critical minerals company.

[3] Incremental cost of graphite production is calculated with the following costs attributed to rutile production: all mining costs, all G&A, all material handling costs except for graphitic fines reclamation and graphite concentrate transport, and approximately half of total processing costs. Incremental cost of graphite production therefore includes only those costs incurred on top of primary rutile production to produce an incremental tonne from the process plant and transport the graphite to market. Unit cost of rutile production under this scenario would be US 628/t (FOB Nacala)).

Kasiya's graphite has been confirmed to produce outstanding anode materials suitable for battery production as well as demonstrating suitability for traditional industrial uses such as the production of refractory materials.

The Project has excellent surrounding infrastructure including sealed roads, a high-quality rail line connecting to the deep-water port of Nacala on the Indian Ocean and hydro-sourced grid power. For the duration of the operation, Kasiya's highly sought-after rutile and graphite products will be railed directly from a purpose-built rail dry port at the mine site eastward via the Nacala Logistics Corridor (**NLC**) to the port of Nacala. The southern part of Beira, connecting Kasiya via the recently refurbished Sena Rail Line, offers a secondary export route.

Enquiries

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DISCLOSURES & DISCLAIMERS

Competent Person Statements

The information in this announcement that relates to Production Targets and Ore Reserves is based on and fairly represents information provided by Mr Frikkie Fourie, a Competent Person, who is an Associate Member of The South African Institute of Mining and Metallurgy and a Registered Professional Engineer with the Engineering Council of South Africa, a Recognised Professional Organisation' (**RPO**) included in a list promulgated by ASX from time to time. Mr Fourie is employed by Moletech Consulting Pty Ltd, an independent consulting company. Mr Fourie has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the to the activities 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 Fourie consents to the inclusion in the Announcement of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Infrastructure, Capital and Operating Costs and process engineering fairly represents information compiled or reviewed by Mr James Gemmel, a Competent Person, who is a who is a Registered Professional Engineer with the Engineering Council of South Africa, a RPO included in a list promulgated by ASX from time to time. Mr Gemmel is employed by DRA Limited, an independent consulting company. Mr Gemmal has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activities 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 Gemmel consents to the inclusion in the Announcement of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Metallurgy - rutile and graphite is extracted from announcements dated 28 September 2023, 8 May 2024, 15 May 2024 and 4 September 2024, which are available to view at www.sovereignmetals.com.au. Sovereign confirms that a) it is not aware of any new information or data that materially affects the information included in the original announcement; b) all material assumptions included in the original announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this report have not been materially changed from the announcement.

The information in this announcement that relates to the Mineral Resource Estimate is extracted from Sovereign's 2024 Annual Report and is based on, and fairly represents information compiled by Mr Richard Stockwell, a Competent Person, who is a fellow of the Australian Institute of Geoscientists (AIG). Mr Stockwell is a principal of Placer Consulting Pty Ltd, an independent consulting company. Sovereign confirms that a) it is not aware of any new information or data that materially affects the information included in the original announcement; b) all material assumptions included in the 2024 Annual Report continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in 2024 Annual Report have not been materially changed from the disclosure in the 2024 Annual Report.

Qualified Person

Information disclosed in this announcement has been reviewed by Dr Julian Stephens (B.Sc (Hons), PhD, MAIG), Director, a Qualified Person for the purposes of the AIM Rules for Companies.

Forward Looking Statement

This release may include forward-looking statements, which may be identified by words such as "expects", "anticipates", "believes", "projects", "plans", and similar expressions. These forward-looking statements are based on Sovereign's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Sovereign, which could cause actual results to differ materially from such statements. There can be no assurance that forward-looking statements will prove to be correct. Sovereign makes no undertaking to subsequently update or revise the forward-looking statements made in this release, to reflect the circumstances or events after the date of that release.

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014 as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 ('MAR'). Upon the publication of this announcement via Regulatory Information Service ('RIS'), this inside information is now considered to be in the public domain.

To view this announcement in full, including the summary section of the OPFS and all images and figures, please refer to https://api.investi.com.au/api/announcements/svm/3b41394f-65e.pdf.

SUMMARY OF MATERIAL ASSUMPTIONS

Material assumptions used in the estimation of the production target and associated financial information are set out in the following table.

TABLE 13: ASSUMPTIONS

Assumption	Inputs
Maximum accuracy variation - Capital costs	-20%/+25%
Maximum accuracy variation - Operating costs	-20%/+25%
Minimum Life of Mine	25 years
Annual average throughput (tonnes) - Stage 1	12,000,000
Annual average throughput (tonnes) - Stage 2	24,000,000
Head grade - rutile	1.03%
Recovery - rutile	100%
Product grade (TiO_2) - rutile	96%
Head grade - graphite	1.66%
Recovery - graphite	67.5%
Product grade (TGC) - graphite	96%
Annual production (average LoM) - rutile (tonnes)	222,000
Annual production (average LoM) - graphite (tonnes)	233,000
Sales Price - rutile (average LoM)	US 1,490/t
Sales Price - graphite (average LoM)	US 1,290/t
Government Royalty	5% of gross revenue
Vendor Royalty	2% of gross profit
Community Development Fund	0.45% of gross revenue
Stage 1 Capital (12Mtpa South Plant)	US 665m
Stage 2 Capital (12Mtpa North Plant)	US 462m
Sustaining Capital	US 397m
Operating Costs excluding royalties (LoM) - FOB Nacala	US 423/t
Operating Costs including royalties (LoM) - FOB Nacala	US 493/t
Discount Rate	8%

ORE RESERVE STATEMENT

As part of the PFS, an initial Probable Ore Reserve of 538Mt was declared at Kasiya, in accordance with the guidelines of the JORC Code 2012.

As part of the OPFS, a review of the Ore Reserve was completed, taking into account the optimised sections of the OPFS including mining method, operating model, plant configuration and locations, capital and operating costs, and updated financial model. The findings and learning during the Pilot Phase were also considered. As a result of this review, the Ore Reserve at Kasiya remains unchanged.

The current Kasiya MRE was used as the basis for the OPFS Ore Reserve estimate. Mineral Resources were converted to Ore Reserves in line with the material classifications which reflect the level of confidence within the resource estimate. The Ore Reserve reflects that portion of the Mineral Resource which can be economically extracted by open pits utilising dry mining methodologies. The Ore Reserve considers the Modifying Factors and other parameters detailed in the relevant sections of the OPFS report, including but not limited to the mining, metallurgical, social, environmental, approvals, tenure, statutory and financial aspects of the Project.

In line with the JORC 2012 guidelines, the Kasiya Probable Ore Reserve is based on Indicated classified Mineral Resources. There is no Measured classified Mineral Resource at Kasiya and consequently no Proved Ore Reserve.

The reported MRE is inclusive of the Ore Reserve.

The Ore Reserve includes an allowance for mining dilution and ore loss on the basis that all material within the shell is classified and extracted as ore.

The open pit geometries developed for the purposes of mine planning, and which define the subsequent Ore Reserve, are based on Whittle pit shells edited to comply with practical mining requirements and identified exclusion zones.

The information that relates to Ore Reserves for the OPFS was reviewed and compiled by Mr Frikkie Fourie who takes overall responsibility for the Ore Reserve as Competent Person (see Competent Persons Statement above). Mr Fourie is Associate Member of The South African Institute of Mining and Metallurgy and a Registered Professional Engineer with the Engineering Council of South Africa, and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as Competent Person in terms of the JORC (2012 Edition).

A site visit has been undertaken by Mr Fourie who also oversaw excavation of the trial mining pit as part of the Pilot Phase.

The Ore Reserve estimate is summarised in Table 14 below, along with the associated cut-off grade used to define the shell.

Table 14: Ore Reserve for the Kasiya Deposit

Classification	Tonnes (Mt)	Rutile Grade (%)	Contained Rutile (Mt)	Graphite Grade (TGC, %)	Contained Graphite (Mt)
Proved	-	-	-	-	-
Probable	538	1.03%	5.5	1.66%	8.9
Total	**538**	**1.03%**	**5.5**	**1.66%**	**8.9**

Pit Optimisation

An open pit optimisation utilising Whittle™ software was carried out on the Kasiya deposit using Indicated Mineral Resources only (in line with the JORC 2012 guidelines). The latest parameters available were used to determine the economic extent of the open pit excavation. The process plant production parameters were supplied by Sovereign with an initial rate of 12Mtpa and a ramp up in production in year 5 to annual rate of 24Mtpa by the beginning of year 6.

Whilst dry mining lends itself to a selective mining approach, the basis of the OPFS is a bulk mining operation and therefore, all material within the "shell" will be extracted and fed to the plant as ore and any interstitial waste and/or sub-economic grade material will be likewise treated as diluent material. However, due to the relatively homogenous and continuous nature the orebody, the quantities of this material will be relatively small and therefore a

nature the orebody, the quantities of this material will be relatively small and therefore a simple 5% dilution was applied within the Whittle™ tool to approximate this assumption.

For the production schedule on which the Ore Reserve is based all material within the shell was treated as "ore" to ensure the appropriate dilution was captured.

Mineable Pit Geometries

Based on the cut-off grades applied the mining areas was further interrogated to determine the potential recoverable mining inventory. The interrogation process applied the following constraints to determine the bulk mining boundaries:

- A minimum depth of 5m.
- Pit extents limited to mineable areas and to remain outside of identified exclusion areas wherever reasonably possible. Sovereign identified all local village areas and areas of cultural or environmental significance within the potential mining envelope that should not be disturbed during the mining phase of the Project.

MODIFYING FACTORS

The Modifying Factors included in the JORC Code (2012) have been assessed as part of the Optimised Pre-Feasibility Study (**OPFS**), including mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and government factors. The Company has received advice from appropriate experts when assessing each Modifying Factor.

A summary assessment of each relevant Modifying Factor is provided below.

Mining - refer to section entitled 'Mining' in the Announcement.

For The OPFS, the Company engaged independent consultants, DRA Limited, Fraser Alexander and Moletech to carry out and determine the pit optimisations, mine design, scheduling, mining cost estimation, updated production schedules and Ore Reserves.

During the second half of 2024, trial mining was successfully completed as part of Pilot Phase at Kasiya. As part of the Pilot Phase, a dry mining trial confirmed Kasiya can be efficiently mined to depth using standard mobile excavators and trucks. Following completion and results of the Pilot Phase and dry mining trial, the proposed mining method for the Study is dry mining using draglines. The Pilot Phase provided significant insight and real mining data as the test pit, which was excavated using conventional dry mining techniques and a simple mobile excavator fleet, covered an area of 120 metres by 110 metres, was mined to a depth of 20 metres through the weathered ore at Kasiya. Dry mining is considered appropriate, safe, low-risk and operationally flexible for this style of shallow, soft and friable saprolite-hosted rutile and graphite mineralisation. Dry mining is used across numerous at-surface mining operations globally and is well suited for the Kasiya style of mineralisation, as evidenced in the Pilot Phase dry mining trial.

Metallurgy and Processing - refer to section entitled 'Processing and Metallurgy' in the Announcement.

Rutile

The Company completed bulk rutile testwork programs at the globally recognised AML in Perth, Australia. Testwork programs are supervised by Sovereign's Head of Development, Paul Marcos. Mr Marcos is a metallurgist and process engineer and a mineral sands industry veteran. Bulk test-work programs have confirmed premium grade rutile can be produced via a simple and conventional process flow sheet.

All the Rutile metallurgical and processing design and performance assumptions of the PFS were carried through to the OPFS and remained unchanged.

Processing engineering was completed by DRA Limited who developed the process plant design and associated cost estimate for the OPFS. An average product grade of 95% TiO_2 and 100% recovery to product factor has been applied.

Graphite

The Company has conducted graphite testwork across ALS Laboratory in Perth, SGS Lakefield in Canada and ProGraphite GmbH in Germany.

DRA's Senior Engineer, Stewart Calder and Manager Metallurgy, John Fleay supervised and

DRA's Senior Engineer, Stewart Calder and Manager Metallurgy, John Healy supervised and advised on sample selection, testwork scope and results from the latest testwork programs. Both consultants are considered to have the appropriate capabilities and similarities with the material and the early stage of the project.

Processing engineering was completed by DRA Limited who developed the process plant design and associated cost estimates for the PFS. Overall average graphite recovery applied in the model was 67.5%. Gravity recovery ranges between 73.6% to 86.2%, averaging 77.9% and flotation plant recovery ranges between 89.2% and 96.1%, averaging 91.4%. Total Graphite (TGC) recovery average is 72.5%. Overall concentrate grades average 96% C(t) with over 57% of the graphite flake product being larger than 180µm.

All the graphite metallurgical and processing design and performance assumptions of the PFS were carried through to the OPFS and remained unchanged.

Rutile & Graphite

It is acknowledged that laboratory scale test-work will not always represent actual results achieved from a production plant in terms of grade, chemistry, sizing and recovery. Further test-work will be required to gain additional confidence on specifications and recoveries that will be achieved at full-scale production.

Overall, the process flow-sheet is conventional for both rutile and graphite with no novel features or equipment incorporated.

Infrastructure - refer to sections entitled 'Infrastructure', and 'Transport and Logistics' in the Announcement.

The indicated resource for the Kasiya Rutile Project is immediately proximate to the township of Kasiya, which is approximately 30 km to the northwest of Lilongwe (direct line) and about 45 km by existing roads. The proximity to Lilongwe gives the project a number of benefits, including access to a large pool of professionals and skilled tradespeople, as well as industrial services.

Logistics cost estimates, including rail and port infrastructure and handling, were provided by Thelo DB, Nacala Logistics and Grindrod based on market data, suppliers' quotations, industry databases, industry contacts and consultants' existing knowledge of southern African transport infrastructure and freight markets. All consultants are independent with substantial experience in the management of transport logistics studies in southern Africa.

Marketing - refer to sections entitled 'Rutile Market' and Graphite Market' in the Announcement.

Rutile

During the PFS, the Company engaged TZMI to provide a bespoke marketing report to support the PFS and engaged them again for the OPFS to update the rutile price. TZMI is a global, independent consulting and publishing company which specialises in technical, strategic and commercial analyses of the opaque (non-terminal market) mineral, chemical and metal sectors.

TZMI's assessment has confirmed that global demand and supply forecasts for natural rutile, and with reference to the specific attributes of Kasiya, there is a reasonable expectation that the product will be able to be sold into existing and future rutile markets.

Since July 2023, leading global mining company Rio Tinto has made an investment in Sovereign for A 60 million resulting in a shareholding of 19.9%. Rio Tinto is a global leader in titanium feedstock production and is set to produce 1.0 to 1.2 Mt of TiO_2 products in 2025 according to company guidance, giving it a 14% market share.

Under an Investment Agreement, Rio Tinto has been providing assistance and advice on technical and marketing aspects of Kasiya as part of the Sovereign-Rio Tinto technical committee. Also, included under the Investment Agreement, Rio Tinto has the option to become the operator of Kasiya on commercial arm's-length terms.

In the event, Rio Tinto elects to become the operator of Kasiya, and for so long as Rio Tinto remain the operator, Rio Tinto shall have exclusive marketing rights to 40% of the annual production of all products from the Project as identified in the DFS on arm's-length terms.

Rio Tinto's option over operatorship and 40% marketing rights lapse if not exercised by the earlier of (i) 90 days after the Company announces its DFS results or 180 days after the announcement of the DFS if Rio Tinto's advises it needs additional time to consider the exercise of its option to become operator or (ii) Rio Tinto ceasing to hold voting power in the Company of at least 10%.

Graphite

The Company engaged Fastmarkets, a specialist international publisher and information provider for the global steel, non-ferrous and industrial minerals markets, to prepare a marketing report for graphite.

Fastmarkets' assessment has confirmed that global demand and supply forecasts for natural flake graphite, and with reference to the specific attributes of Sovereign's project, there is a reasonable expectation that the product from Sovereign's Kasiya project will be able to be sold into existing and future graphite markets. Given the extremely low-cost profile and high-quality product, it is expected that output from Kasiya will be able to fill new demand or substitute existing lower quality / higher cost supply.

Project considerations taken by Fastmarkets in forming an opinion about the marketability of product include:

- Low capital costs (incremental)
- Low operating costs
- High quality concentrate specifications

Industry participants confirm that the highest value graphite concentrates remain the large, jumbo and super-jumbo flake fractions, primarily used in industrial applications such as refractories, foundries and expandable products. These sectors currently make up the significant majority of total global natural flake graphite market by value.

Fastmarkets have formed their opinion based solely upon project information provided by Sovereign Metals to Fastmarkets and have not conducted any independent analysis or due diligence on the information provided.

As noted above, Rio Tinto have made a A 60 million investment in Sovereign and own 19.9% of the Company. Since 2023, Sovereign and Rio Tinto have been working together to qualify Kasiya's graphite product with a particular focus on supplying the spherical purified graphite segment of the lithium-ion battery anode market. Rio Tinto has set up a battery materials business in 2021, including its announced plans to set up a battery testing plant in Melbourne, Australia.

In September 2024, Sovereign announced an update on the downstream testwork which demonstrated that Coated Spherical Purified Graphite (**CSPG**) produced from Kasiya natural flake graphite has performance characteristics comparable to the leading Chinese natural graphite anode materials manufacturers such as BTR New Material Group (**BTR**). Electrochemical testing of the CSPG samples at a leading German institute achieved first cycle efficiencies (**FCE**) of 94.2% to 95.8%, with results above 95%, a key specification for highest quality natural graphite anode materials under the Chinese standard.

BTR has a 20-year track record in the production of lithium-ion battery anode materials, is a dominant player in the market and has recently concluded anode material offtake agreements with global automotive companies including Ford. BTR's highest specification CSPG materials, that have low swelling, long cycle life, good processability and outstanding electrochemical performance include their GSN17 and LSG17 products (with D50 of 17.0+/-1.5µm).

Economic - also refer to sections entitled 'Cost Estimations' and 'Financial & Economic Analysis' in the Announcement.

Capital estimates for the process plant have been prepared by PCC, together with input from DRA Limited, the Company and other contributing consultants using combinations of cost estimates from suppliers, historical data, benchmarks and other independent sources. The accuracy of the initial capital cost estimate for the Project is -20%/+25%.

Capital costs include the cost of all services, direct costs, contractor indirects, EPCM expenses, non-process infrastructure, sustaining capital and other facilities used for the mine

expenses, non-process infrastructure, sustaining capital and other facilities used for the mine. Capital costs make provision for mitigation expenses and mine closure and environmental costs.

Working capital requirements (including contingency) for plant commissioning and full ramp-up have been included in the headline capital estimate reported under construction, owner's and start-up costs.

Mining costs have been estimated by DRA Global, an independent Mining EPCM and Engineering consulting company. Mining costs have been built up from first principles based on equipment, vendor, and contractor quotations, local unit cost rates, and benchmarked costs.

Labor costs have been developed based on a first-principles build-up of staffing requirements with labour rates benchmarked in Malawi and expatriate rates benchmarked for professionals from South Africa and other jurisdictions.

A Government royalty of 5% (applied to revenue) and a vendor profit share of 2% (applied to gross profit) have been included in all project economics. A 0.45% royalty (applied to revenue) has been applied for the community development fund.

Rehabilitation and mine closure costs are included within the reported capital and operating cost figures.

A detailed financial model and discounted cash flow (**DCF**) analysis has been built and prepared by an independent specialist mining financial modelling firm, Practara (**Practara**), using inputs from various expert consultants in order to demonstrate the economic viability of the Project. The financial model and DCF were modelled with conservative inputs to provide management with a baseline valuation of the Project.

The DCF analysis demonstrated compelling economics of the prospective Project, with an NPV (ungeared, pre-tax, at an 8% discount rate) of US 2,322 million, and an (ungeared) IRR of 27%.

Sensitivity analysis was performed on all key assumptions used. The robust project economics insulate the Kasiya Project from variation in market pricing, capital expense, or operating expenses. With both rutile and graphite concentrate prices simultaneously 25% lower than the OPFS prices, the Project still displays a positive NPV (ungeared, pre-tax, 8% discount rate) of US 1,079 million and pre-tax IRR of 18%.

Sovereign estimates the total capital cost to construct the mine to be US 665m (which includes a contingency of 16% of direct and indirect costs).

Key parameters are disclosed in the body of the announcement, and include:

- Life of Mine: 25 years
- Discount rate: 8%
- Royalty rate: 5% royalty (Government), 2% of gross profit (Original Project Vendor) and 0.45% Community Development Fund.
- Pricing: Rutile average price of US 1,490 per tonne and Graphite average basket price of US 1,290 per tonne

There is uncertainty in the tax law applicable to mining companies in Malawi. The 2023 PFS assumed a 30% corporate income tax rate and a resource rent tax (**RRT**) equating to 15% of post-tax profits.

In 2024, mining companies Lotus and Mkango entered into fiscal stability agreements known as MDA with the Government of Malawi. In both the Lotus and Mkango MDAs, it was agreed that no RRT shall be payable until such time that the Government of Malawi completed a review of the relevant legislation. As such, and until such time Sovereign has sight of what actual fiscal terms would apply to the Kasiya Project, results for the OPFS have been reported on a pre-tax basis only.

Applying a 30% corporate income tax rate and a range of RRT from 15% to 0% would result in post-tax NPV at an 8% discount rate of US 1,284 million to US1,557 million.

The financial model has been built and prepared by Practara using inputs from the various expert consultants and has been reviewed by SP Angel Corporate Finance LLP, the

Company's Nominated Advisor and Corporate Broker as defined by the AIM Rules for Companies set out by the London Stock Exchange, to validate the functionality and accuracy of the model.

The Company engaged the services of advisory firm, Argonaut PCF Limited (**Argonaut**), with regards to project economics. Argonaut is a financial advisory firm that offers full-service advisory, stockbroking and research, which specialises in the resources sector. Argonaut is well regarded as a specialist capital markets service provider and has raised project development funding for companies across a range of commodities including the industrial and speciality minerals sector.

Following the assessment of a number of key criteria, Argonaut has confirmed that, on the basis of continued support from Rio Tinto, that a DFS arrives at a result that is not materially negatively different than the OPFS, all in-country government and regulatory approvals are received, commercial offtake agreements are in place for the majority of rutile and graphite production for at least the first five years of mine life, and that there has not been any material adverse change in financial condition, results of operations, or business prospects of the Company, or any material adverse changes in global financial markets in general, Sovereign should be able to secure necessary financing for the development of the Project.

Since July 2023, leading global mining company Rio Tinto has made an investment in Sovereign for A 60 million resulting in a shareholding of 19.9%. The investment proceeds are being used to advance Kasiya and represent a significant step towards unlocking the Project as a major new supplier of natural rutile and flake graphite. Under the Investment Agreement with Rio Tinto, it has been agreed with Rio Tinto that if Sovereign is raising debt finance for the development of the Project, Sovereign and Rio Tinto will negotiate, in good faith, financing arrangements in order to put in place an acceptable mine construction funding package. Further, Rio Tinto has a right of first refusal on equity raisings that if the Company undertakes equity raisings (other than pursuant to a pro rata entitlement offer), Rio Tinto has a right to be consulted and a right of first refusal to participate in the equity raisings up to a level where Rio Tinto's aggregate voting power does not exceed 19.9%.

Since initial exploration of the Kasiya Project in November 2019, the Company has completed extensive drilling, sampling, metallurgical test-work, geological modelling and defined an Indicated and Inferred Mineral Resource Estimate which was converted to Ore Reserves as part of the September 2023 PFS and underpins this OPFS. Over this period, with these key milestones being attained and the Project de-risked, the Company's market capitalisation has increased from approximately A 18m to over A 450m. As the Project continues to achieve key milestones, which can also be significant de-risking events, the Company's share price could be anticipated to increase.

The Company has an uncomplicated, clean corporate and capital structure, is debt free and is in a strong financial position, with approximately A 34 million cash on hand (31 December 2024(unaudited)). The current financial position means the Company is soundly funded to continue into a DFS phase to further develop and de-risk the Project.

The Company's shares are listed on the ASX and AIM which are premier markets for growth companies and provide increased access to capital from institutional and retail investors in Australia and the UK. The Company's shares are also quoted on the OTCQX and Frankfurt Stock Exchange.

Sovereign has a strong track record of successfully raising equity funds for Kasiya plus it has an experienced and high-quality Board and management team comprising highly respected resource executives with extensive technical, financial, commercial and capital markets experience. The directors have previously raised more than A 2.5 billion from capital markets for a number of exploration and development companies.

As a result, the Board has a high level of confidence that the Project will be able to secure funding in due course, having particular regard to:

1. Required capital expenditure;
2. Sovereign's strategic partner relationship with Rio Tinto;
3. Sovereign's market capitalisation;
4. Recent funding activities by directors in respect of other resource projects;

5. Recently completed funding arrangements;
6. The range of potential funding options available;
7. The favourable key metrics generated by the Kasiya Project;
8. Ongoing discussions for potential offtake agreements;
9. Investor interest to date;
10. the Company owns 100% of Kasiya which is highly attractive to potential financiers;
11. the OPFS demonstrates that the Project is commercially viable and provides justification to progress to DFS stage.

Environmental, Social, Legal and Governmental - refer to section entitled 'Environmental and Social Impact' in the Announcement.

Sovereign is committed to conduct its activities in full compliance to the requirements of national regulations, its obligations under international conventions and treaties and giving due consideration to international best practices and policies. The Company has appointed an experienced environmental consultant to manage the ESIA process, and environmental and social baseline studies have commenced with appropriately qualified independent experts.

The Company has also completed a high-level risk assessment to identify major environmental and social risks which could affect the development of the Project, along with mitigating strategies to allow identified risks to be addressed early in the project design phase.

The Company has embarked on several community engagement exercises in the area and there is a general positive acceptance of the Project. Social responsibility/RAP costs totalling US 97m have been included in this OPFS, as well as a 0.45% revenue royalty for the community development fund.

Based on the current assessments and commenced ESIA, the Company believes there are no environmental issues currently identified that cannot be appropriately mitigated in accordance with standard practices adopted for the development of mining projects.

Subject to further positive technical studies, Sovereign intends to apply for a Mining Licence (**ML**) to secure mineral deposits for mining. Under the Mines Act there are certain requirements, milestones and approvals required prior to submission of a ML application. At this point of Kasiya's development, the Company notes no known issues or impediments obtaining a ML under normal course of business.

Under the Mines and Minerals Act (2023)(**Mines Act**), the Government of Malawi has a right to equity ownership for large-scale mining licences (>5Mt mined per annum or >US 250m Capex) with the right a negotiation matter, likely as part of any future MDA. The Mkango and Lotus MDAs included a 10% non-diluting equity interest to the Malawi Government.

In a Press Release issued on 20 July 2023, the Government of Malawi publicly applauded the timely investment by Rio Tinto and marked it as a milestone towards realising the country's aspirations of growing the mining industry as promoted in the Malawi Vision 2063, which identifies mining as a priority industry. The Malawi Mines department has also set up a technical working group, with resources dedicated to the Kasiya Project to ensure its continual progress and development.

The Government's statement and actions confirms its commitment to ensuring the growth of the mining sector through deliberate initiatives aiming at establishing a conducive investment environment in the sector.

Following successful completion of the mining trials stage at the Pilot Phase, the test pit mined at Kasiya has been successfully backfilled which has allowed Sovereign to commence with on-site soil remediation and land rehabilitation activities, testing our proposed rehabilitation approach and demonstrating that the mined land can support sustainable farming post-closure.

During the Pilot Phase mining trials, 170,000m^3 was mined using a conventional excavator fleet. The fleet was then used to place mined material back into the pit, filling the pit to the oriainal around level in less than two months and ahead of schedule.

The rehabilitation approach has been based on agronomic principles, including promoting sustainable farming practices and providing various end-land uses. Rehabilitation is underway through a five-step process:

Step 1: Introduce Lime

The land rehabilitation demonstration commenced with the application and incorporation of locally sourced dolomitic lime (calcium and calcium-magnesium-carbonate) to improve naturally low PH levels.

Step 2: Introduce Carbon and Basic Nutrients

Sovereign is augmenting the mined area with organic carbon and basic nutrients to support post-closure farming. The Company is testing the application of biochar (to provide carbon) and fertiliser (in the form of potash (**MOP**), phosphate (**MAP**) and a blend of nitrogen, potash, and sulphur (**NPK**) 15:23:16).

Step 3: Grading, Ripping and Discing

Lime, biochar, and fertiliser are incorporated into the soil through grading, ripping, and discing using graders and locally sourced farming equipment. This ensures the land is level and safe and that essential inputs are incorporated into the soil.

Step 4: Planting of Rehabilitation Crops

In December 2024 and January 2025, Sovereign has planted rehabilitation crops to maximise the benefit of the coming summer rainfall. Giant bamboo has been introduced in 4 by 8-metre blocks and will act as the primary crop to enhance carbon and bioactivity in the remediated soils. To return the land to farmers, maize and other cover crops will be intercropped between the giant bamboo in formalised farm blocks.

Step 5: Monitoring and Evaluation

Sovereign will monitor soil remediation, plant growth and crop yields. As part of stakeholder engagement, the Company will work with local farmers to improve results through conservation farming, composting operations, testing new seed varieties and establishing an indigenous, fruit and farming nursery. This will serve as a live demonstration of rehabilitation and timely return of land to pre-mining use.

APPENDIX 1 - JORC CODE, 2012 EDITION - TABLE 1

Section 1 - Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling Techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	Hand Auger (**HA**) samples are composited based on regolith boundaries and sample chemistry generated by hand-held XRF (**pXRF**). Each 1m of sample is dried and riffle-split to generate a total sample weight of 3kg for analysis, generally at 2 - 5m intervals. This primary sample is then split again to create a 3kg composite to provide a 1.5kg sample for both rutile and graphite analyses. Infill Push-Tube (**PT**) core drilling is sampled routinely at 2m intervals by compositing dried and riffle-split half core. A consistent, 1.5kg sample is generated for both the rutile and graphite determination. Air-Core (**AC**) samples are composited based on expertly logged regolith boundaries. Each 1m of sample is dried and riffle-split to generate a total sample weight of 3kg for analysis, generally at 2m intervals. This primary sample is then split again to provide a 1.5kg sample for both rutile and graphite analyses.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Drilling and sampling activities are supervised by a suitably qualified company geologist who is present at all times. All drill samples are geologically logged by the geologist at the drill site/core yard. Each sample is sun dried and homogenised. Sub-samples are carefully riffle split to ensure representivity. The 1.5kg composite samples are then processed. An equivalent mass is taken from each sample to make up the composite. A calibration schedule is in place for laboratory scales, sieves and field XRF equipment. Placer Consulting Pty Ltd (**Placer**) Resource Geologists have reviewed Standard Operating Procedures (**SOPs**) for the collection and processing of drill samples and found them to be fit for purpose and support the resource classifications as applied to theMRE. The primary composite sample is considered representative for this style of rutile

Criteria	JORC Code explanation	mineralisation. Commentary
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Logged mineralogy percentages, lithology/regolith information and TiO_2% obtained from pXRF are used to assist in determining compositing intervals. Care is taken to ensure that only samples with similar geological characteristics are composited together.
Drilling Techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	A total of 1,357 HA holes for 12,643m have been drilled to date at the Kasiya Rutile Deposit to obtain samples for quantitative determination of recoverable rutile and Total Graphitic Carbon (**TGC**). A PT infill drilling programme, designed to support the resource estimate, was completed. An additional 234 core holes for 2,368.5m were included in the updated MRE. The total PT holes contributing to the updated MRE are 488 for 4,669m. A total of 182 AC holes for 4,404m were completed in six locations across the Kasiya deposit deemed likely to fall into mining pit areas. The results are included in this updated MRE. Placer has reviewed SOPs for HA, PT and AC drilling and found them to be fit for purpose and support the resource classifications as applied to the MRE. Sample handling and preparation techniques are consistent for PT and coring samples. Two similar designs of HA drilling equipment are employed. HA drilling with 75mm diameter enclosed spiral bits (**SOS**) with 1m long steel rods and with 62mm diameter open spiral bits (**SP**) with 1m long steel rods. Drilling is oriented vertically by eye. Each 1m of drill sample is collected into separate sample bags and set aside. The auger bits and flights are cleaned between each metre of sampling to avoid contamination. Core-drilling is undertaken using a drop hammer, Dando Terrier MK1. The drilling generated 1m runs of 83mm PQ core in the first 2m and then transitioned to 72mm core for the remainder of the hole. Core drilling is oriented vertically by spirit level. AC drilling was completed by Thompson Drilling utilising a Smith Capital 10R3H compact track-mounted drill. The drilling is vertical and generates 1m samples with care taken in the top metres to ensure good recoveries of the high-grade surface material. Each 1m sample bag is immediately transported back to Sovereign's field laydown yard where they await processing.
Drill Sample Recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Samples are assessed visually for recoveries. The configuration of drilling and nature of materials encountered results in negligible sample loss or contamination. HA and PT drilling is ceased when recoveries become poor once the water table has been reached. Water table and recovery information is included in lithological logs. Core drilling samples are actively assessed by the driller and geologist onsite for recoveries and contamination. AC drilling recovery in the top few metres are moderate to good. Extra care is taken to ensure sample is recovered best as possible in these metres. Recoveries are recorded on the rig at the time of drilling by the geologist. Drilling is ceased when recoveries become poor or once Saprock or refusal has been reached.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The Company's trained geologists supervise drilling on a 1 team 1 geologist basis and are responsible for monitoring all aspects of the drilling and sampling process. For PT drilling, core is extruded into core trays; slough is actively removed by the driller at the drilling rig and core recovery and quality is recorded by the geologist. AC samples are recovered in large plastic bags. The bags are clearly labelled and delivered back to sovereign's laydown yard at the end of shift for processing.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse	No relationship is believed to exist between grade and sample recovery. The high percentage of silt and absence of hydraulic inflow from groundwater at this deposit results in a sample size that is well within the expected size range.

Criteria	JORC Code explanation	Commentary
	material.	No bias related to preferential loss or gain of different materials is observed.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation mining studies and metallurgical studies.*	Geologically, data is collected in detail, sufficient to aid in Mineral Resource estimation. All individual 1m HA intervals are geologically logged, recording relevant data to a set log-chief template using company codes. A small representative sample is collected for each 1m interval and placed in appropriately labelled chip trays for future reference. All individual 1m PT core intervals are geologically logged, recording relevant data to a set log-chief template using company codes. Half core remains in the trays and is securely stored in the company warehouse. All individual AC 1-metre intervals are geologically logged, recording relevant features. data to a set log-chief template using company codes. A small representative sample is collected for each 1-metre interval and placed in appropriately labelled chip trays for future reference.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	All logging includes lithological features and estimates of basic mineralogy. Logging is generally qualitative. The PT core is photographed dry, after logging and sampling is completed.
	The total length and percentage of the relevant intersection logged	100% of samples are geologically logged.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Due to the soft nature of the material, core samples are carefully cut in half by hand tools.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	HA, PT and AC hole samples are dried, riffle split and composited. Samples are collected and homogenised prior to splitting to ensure sample representivity. ~1.5kg composite samples are processed. An equivalent mass is taken from each primary sample to make up the composite. The primary composite sample is considered representative for this style of mineralisation and is consistent with industry standard practice.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Techniques for sample preparation are detailed on SOP documents verified by Placer Resource Geologists. Sample preparation is recorded on a standard flow sheet and detailed QA/QC is undertaken on all samples. Sample preparation techniques and QA/QC protocols are appropriate for mineral determination and support the resource classifications as stated.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	The sampling equipment is cleaned after each sub-sample is taken. Field duplicate, laboratory replicate and standard sample geostatistical analysis is employed to manage sample precision and analysis accuracy.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Sample size analysis is completed to verify sampling accuracy. Field duplicates are collected for precision analysis of riffle splitting. SOPs consider sample representivity. Results indicate a sufficient level of precision for the resource classification.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample size is considered appropriate for the material sampled.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	<u>Rutile</u> The Malawi onsite laboratory sample preparation methods are considered quantitative to the point where a heavy mineral concentrate (**HMC**) is generated. Final results generated are for recovered rutile i.e, the % mass of the sample that is rutile that can be recovered to the non-magnetic component of a HMC. Heavy liquid separation (**HLS**) of the HM is no longer required and a

Criteria	JORC Code explanation	Commentary
		HM result is not reported in the updated MRE. The HMC prepared via wet-table, gravity separation at the Lilongwe Laboratory provides an ideal sample for subsequent magnetic separation and XRF. All 8,855 samples (not ind. QA) included in the MRE update received the following workflow undertaken on-site in Malawi; • Dry sample in oven for 1 hour at 105°C • Soak in water and lightly agitate • Wet screen at 5mm, 600µm and 45µm to remove oversize and slimes material • Dry +45µm -600mm (sand fraction) in oven for 1 hour at 105°C 7,904 of the 8,855 samples received the following workflow undertaken on-site in Malawi • Pass +45µm -600mm (sand fraction) across wet table to generate a HMC. • Dry HMC in oven for 30 minutes at 105°C Bag HMC fraction and send to Perth, Australia for quantitative chemical and mineralogical determination. 951 of the 8,855 samples received the following workflow undertaken at Perth based Laboratories (superseded). • Split ~150g of sand fraction for HLS using Tetrabromoethane (**TBE**, SG 2.96g/cc) as the liquid heavy media to generate HMC. Work undertaken at Diamantina Laboratories. 4,738 of the 8,855 samples received magnetic separation undertaken at Allied Mineral Laboratories in Perth, Western Australia. • Magnetic separation of the HMC by Carpco magnet @ 16,800G (2.9Amps) into a magnetic (**M**) and non-magnetic (**NM**) fraction. 4,117 of the 8,855 samples received magnetic separation undertaken on-site in Malawi. • Magnetic separation of the HMC by Mineral Technologies Reading Pilot IRM (Induced Roll Magnetic) @ 16,800G (2.9Amps) into a magnetic (**M**) and non-magnetic (**NM**) fraction. All 8,855 routine samples received the following chemical analysis in Perth, Western Australia. • The routine NM fractions are sent to ALS Metallurgy Perth for quantitative XRF analysis. Samples receive XRF_MS and are analysed for: TiO_2, Al_2O_3, CaO, Cr_2O_3, Fe_2O_3, K_2O, MgO, MnO, SiO_2, V_2O_5, ZrO_2 HfO_2 <u>Graphite</u> 8,078 graphite samples are processed at Intertek-Genalysis Johannesburg and Perth via method C72/CSA. A portion of each test sample is dissolved in dilute hydrochloric acid to liberate carbonate carbon. The solution is filtered using a filter paper and the collected residue is the dried to 425°C in a muffle oven to drive off organic carbon. The dried sample is then combusted in a Carbon/ Sulphur analyser to yield total graphitic or TGC. An Eltra CS-800 induction furnace infra-red CS analyser is then used to determine the remaining carbon which is reported as TGC as a percentage.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Acceptable levels of accuracy and precision have been established. No pXRF methods are used for quantitative determination.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicate, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Sovereign uses internal and externally sourced wet screening reference material inserted into samples batches at a rate of 1 in 20. The externally sourced, certified standard reference material for HM and Slimes assessment is provided by Placer Consulting. An external laboratory raw sample duplicate is sent to laboratories in Perth, Australia as an external check of the full workflow. These duplicates are produced at a rate of 1 in 20.

Criteria	JORC Code explanation	Commentary
		Accuracy monitoring is achieved through submission of certified reference materials (**CRM's**). ALS and Intertek both use internal CRMs and duplicates on XRF analyses. Sovereign also inserts CRMs into the sample batches at a rate of 1 in 20. Three Rutile CRMs are used by Sovereign and range from 35% - 95% TiO_2. Three Graphite CRMs are used by Sovereign and range from 3% - 25% TGC. Analysis of sample duplicates is undertaken by standard geostatistical methodologies (Scatter, Pair Difference and QQ Plots) to test for bias and to ensure that sample splitting is representative. Standards determine assay accuracy performance, monitored on control charts, where failure (beyond 3SD from the mean) may trigger re-assay of the affected batch. Examination of the QA/QC sample data indicates satisfactory performance of field sampling protocols and assay laboratories providing acceptable levels of precision and accuracy. Acceptable levels of accuracy and precision are displayed in geostatistical analyses to support the resource classifications as applied to the estimate.
Verification of sampling & assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Results are reviewed in cross-section using Datamine Studio RM software and any spurious results are investigated. The deposit type and consistency of mineralisation leaves little room for unexplained variance. Extreme high grades are not encountered.
	The use of twinned holes.	Twinned holes are drilled across a geographically dispersed area to determine short-range geological and assay field variability for the resource estimation. Twin drilling is applied at a rate of 1 in 20 routine holes. Twin paired data in all drill methods represent ~4% of the database included in the updated MRE. Substantial comparative data between different drilling types and test pit results are also available but not referenced in the MRE.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All data are collected electronically using coded templates and logging software. This data is then imported to a cloud hosted Database and validated automatically and manually. A transition to electronic field and laboratory data capture has been achieved.
	Discuss any adjustment to assay data.	Assay data adjustments are made to convert laboratory collected weights to assay field percentages and to account for moisture. QEMSCAN of the NM fraction shows dominantly clean and liberated rutile grains and confirms rutile is the only titanium species in the NM fraction. Recovered rutile is defined and reported here as: TiO_2 recovered in the +45 to -600um range to the NM concentrate fraction as a % of the total primary, dry, raw sample mass divided by 95% (to represent an approximation of final product specifications). i.e recoverable rutile within the whole sample.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	A Trimble R2 Differential GPS is used to pick up the collars. Daily capture at a registered reference marker ensures equipment remains in calibration. No downhole surveying of any holes is completed. Given the vertical nature and shallow depths of the holes, drill hole deviation is not considered to significantly affect the downhole location of samples.
	Specification of the grid system used.	WGS84 UTM Zone 36 South.
	Quality and adequacy of topographic control.	The digital terrane model (**DTM**) was generated by wireframing a 20m-by-20m lidar drone survey point array, commissioned by SVM in March 2022. Major cultural features were removed from the survey points file prior to generating the topographical wireframe for resource model construction. The ultra-high resolution 3D drone aerial survey was executed utilising a RTK GPS equipped Zenith aircraft with accuracy of <10cm ground sampling distance (GSD). Post-processing includes the removal of cultural features that do not reflect material movements (pits, mounds, etc) The DTM is suitable for the classification of the resources as stated.

Criteria	JORC Code explanation	Commentary
Data spacing & distribution	*Data spacing for reporting of Exploration Results.*	The HA collars are spaced at nominally 400m along the 400m spaced drill-lines with the PT holes similarly spaced at an offset, infill grid. The resultant 200m-by-200m drill spacing (to the strike orientation of the deposit) is deemed to adequately define the mineralisation in the MRE. The AC collars are spaced on a 200m x 200m grid which is deemed to adequately define the mineralisation. The PT twin and density sample holes are selectively placed throughout the deposit to ensure a broad geographical and lithological spread for the analysis.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The drill spacing and distribution is considered to be sufficient to establish a degree of geological and grade continuity appropriate for the Mineral Resource estimation. Kriging neighbourhood analysis completed using Supervisor software informs the optimal drill and sample spacing for the MRE. Based on these results and the experience of the Competent Person, the data spacing and distribution is considered adequate for the definition of mineralisation and adequate for Mineral Resource Estimation.
	Whether sample compositing has been applied.	Individual 1m auger intervals have been composited, based on lithology, at 2 - 5m sample intervals for the 1,357 HA holes. 488 PT core holes have been sampled at a regular 2m interval to provide greater control on mineralisation for the Indicated Resource. Individual 1m intervals have been composited, based on lithology, at a max 2m sample interval for the 182 AC holes. The DH Compositing tool was utilised in Supervisor software to define the optimal sample compositing length. A 2m interval is applied to the MRE.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known considering the deposit type*	Sample orientation is vertical and approximately perpendicular to the orientation of the mineralisation, which results in true thickness estimates, limited by the sampling interval as applied. Drilling and sampling are carried out on a regular square grid. There is no apparent bias arising from the orientation of the drill holes with respect to the orientation of the deposit.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	There is no apparent bias arising from the orientation of the drill holes with respect to the orientation of the deposit.
Sample security	*The measures taken to ensure sample security*	Samples are stored in secure storage from the time of drilling, through gathering, compositing and analysis. The samples are sealed as soon as site preparation is complete. A reputable international transport company with shipment tracking enables a chain of custody to be maintained while the samples move from Malawi to Australia. Samples are again securely stored once they arrive and are processed at Australian laboratories. A reputable domestic courier company manages the movement of samples within Perth, Australia. At each point of the sample workflow the samples are inspected by a company representative to monitor sample condition. Each laboratory confirms the integrity of the samples upon receipt.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data*	The CP Richard Stockwell has reviewed and advised on all stages of data collection, sample processing, QA protocol and Mineral Resource Estimation. Methods employed are considered industry best-practice. Perth Laboratory visits have been completed by Mr Stockwell. Field and in-country lab visits have been completed by Mr Stockwell. A high standard of operation, procedure and personnel was observed and reported.

Section 2 - Reporting of Exploration Results

Criteria	Explanation	Commentary
Mineral tenement & land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and*	The Company owns 100% of the following Exploration Licences (**ELs**) issued under the 2019 Mines Act, held in the Company's wholly-owned, Malawi-registered subsidiaries: EL0609, EL0582, EL0492, EL0528, EL0545, EL0561, EL0657 and EL0710. A 5% royalty is payable to the government upon mining and a 2% of net profit royalty is payable to the original project vendor.

Criteria	Explanation	Commentary
	environment settings.	profit royalty is payable to the original project vendor.
		No significant native vegetation or reserves exist in the area. The region is intensively cultivated for agricultural crops.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The tenements are in good standing and no known impediments to exploration or mining exist.
Exploration done by other parties	*Acknowledgement and appraisal of exploration by other parties.*	Sovereign is a first-mover in the discovery and definition of residual rutile and graphite resources in Malawi. No other parties are, or have been, involved in exploration.
Geology	*Deposit type, geological setting and style of mineralisation*	The rutile deposit type is considered a residual placer formed by the intense weathering of rutile-rich basement paragneisses and variable enrichment by elluvial processes. Rutile occurs in a mostly topographically flat area west of Malawi's capital, known as the Lilongwe Plain, where a deep tropical weathering profile is preserved. A typical profile from top to base is generally soil ("SOIL" 0-1m) ferruginous pedolith ("FERP", 1-4m), mottled zone ("MOTT", 4-7m), pallid saprolite ("PSAP", 7-9m), saprolite ("SAPL", 9-25m), saprock ("SAPR", 25-35m) and fresh rock ("FRESH" >35m). The low-grade graphite mineralisation occurs as multiple bands of graphite gneisses, hosted within a broader Proterozoic paragneiss package. In the Kasiya areas specifically, the preserved weathering profile hosts significant vertical thicknesses, from near surface, of graphite mineralisation.
Drill hole information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northings of the drill hole collar; elevation or RL (Reduced Level-elevation above sea level in metres of the drill hole collar); dip and azimuth of the hole; down hole length and interception depth; and hole length*	All intercepts relating to the Kasiya Deposit have been included in public releases during each phase of exploration and in this report. Releases included all collar and composite data and these can be viewed on the Company website. There are no further drill hole results that are considered material to the understanding of the exploration results. Identification of the broad zone of mineralisation is made via multiple intersections of drill holes and to list them all would not give the reader any further clarification of the distribution of mineralisation throughout the deposit.
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case	No information has been excluded.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high-grades) and cut-off grades are usually Material and should be stated.*	All results reported are of a length-weighted average of in-situ grades. The resource is reported at a range of bottom cut-off grades in recognition that optimisation and financial assessment is outstanding. A nominal bottom cut of 0.7% rutile is offered, based on preliminary assessment of resource product value and anticipated cost of operations.
	Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	No data aggregation was required.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	**Rutile Equivalent (RutEq) - where applicable** *Formula*: ((Rutile Grade x Recovery (100%) x Rutile Price (US 1,484/t) + Graphite Grade x Recovery (67.5%) x Graphite Price (US 1,290/t)) / Rutile Price (US 1,484/t)). ***Commodity Prices:*** • Rutile price: US 1,484/t • Graphite price: US 1,290/t ***Metallurgical Recovery to Product:*** • Rutile Recovery: 100% • Graphite Recovery: 67.5% All assumptions taken from this Study and with discussion and Modifying Factors included in this document.
Relationship between mineralisation widths & intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	The mineralisation has been released by weathering of the underlying, layered gneissic bedrock that broadly trends NE-SW at Kasiya North and N-S at Kasiya South. It lies in a laterally extensive superficial blanket with high-grade zones reflecting the broad bedrock strike orientation of ~045° in the North of Kasiya and 360° in the South of Kasiya.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The mineralisation is laterally extensive where the entire weathering profile is preserved and not significantly eroded. Minor removal of the mineralised profile has occurred in alluvial channels. These areas are adequately defined by the drilling pattern and topographical control for the resource estimate.

Criteria	Explanation	Commentary
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'.	Downhole widths approximate true widths limited to the sample intervals applied. Mineralisation remains open at depth and in areas coincident with high-rutile grade lithologies in basement rocks, is increasing with depth. Graphite results are approximate true width as defined by the sample interval and typically increase with depth.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of the drill collar locations and appropriate sectional views.*	Refer to figures in this report and in previous releases. These are accessible on the Company's webpage.
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high-grades and/or widths should be practiced to avoid misleading reporting of exploration results.*	All results are included in this report and in previous releases. These are accessible on the Company's webpage.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to: geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Limited lateritic duricrust has been variably developed at Kasiya, as is customary in tropical highland areas subjected to seasonal wet/dry cycles. Lithological logs record drilling refusal in just under 2% of the HA/PT drill database. No drilling refusal was recorded above the saprock interface by AC drilling. Slimes (-45 µm) averages 46wt% in the Indicated Resource at a 0.7% rutile bottom cut. Separation test work conducted at AML demonstrates the success in applying a contemporary mineral sands flowsheet in treating this material and achieving excellent rutile recovery. Sample quality (representivity) is established by geostatistical analysis of comparable sample intervals. Several generations of QEMSCAN analysis of the NM performed at ALS Metallurgy fraction shows dominantly clean and liberated rutile grains and confirms rutile is the only titanium species in the NM fraction.
Further work	The nature and scale of planned further work (e.g. test for lateral extensions or depth extensions or large-scale step-out drilling).	Further AC drilling will allow the definition of a more extensive saprock-interface basement and should continue to deliver additional resources below the HA/PT-drilled regions. A greater understanding of the lithological character and extent of those basement units, where high-grade (>1%) rutile persists at the saprock interface, may assist in focussing further resource definition and exploration targeting. Further metallurgical assessment is suggested to characterise rutile quality and establish whether any chemical variability is inherent across the deposit. Trialling drill definition at a 100m spacing is suggested for Measured Resource assessment.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Refer to diagrams in the body of this report and in previous releases. These are accessible on the Company's webiste.

Section 3 - Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*	Data are manually entered into database tables according to SOPs and conforming to company field names and classifications. These are then migrated to Datashed5 cloud-hosted database managed internally by the Company with validation and quarantine capability. Relevant tables from the database are exported to csv format and forwarded to Placer for independent review.
	Data validation procedures used.	Validation of the primary data include checks for overlapping intervals, missing survey data, missing assay data, missing lithological data, missing and mis-matched (to Lithology) collars. Statistical, out-of-range, distribution, error and missing data validation is completed by Placer on data sets before being compiled into a de-surveyed drill hole file and interrogated in 3D using Datamine Studio RM software. All questions relating to the input data are forwarded to the client for review and resolution prior to resource estimation.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	Perth Laboratory visits have been completed by the Competent Person, Mr Richard Stockwell. Field and in-country lab visits were complete over a 1-week period in May 2022. A high standard of operation, procedure and personnel was observed and reported.
	If no site visits have been undertaken indicate why this is the case.	Not applicable

Criteria	JORC Code explanation	Commentary
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	There is a high degree of repeatability and uniformity in the geological character of the Kasiya Deposit demonstrated by lithological logging of AC, PT core and HA samples. Satellite imagery and airborne geophysical data provided guidance for interpreting the strike continuity of the deposit. Drill hole intercept logging and assay results (AC, PT and HA), stratigraphic interpretations from drill core and geological logs of drill data have formed the basis for the geological interpretation. The drilling exclusively targeted the SOIL, FERP, MOTT and SAPL weathering horizons, with no sampling of the SAPR and below the upper level of the fresh rock (**FRESH**) domain.
	Nature of the data used and of any assumptions made.	No assumptions were made.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	No alternative interpretations on Mineral Resource Estimation are offered.
	The use of geology in guiding and controlling Mineral Resource estimation.	The mineral resource is constrained by the drill array plus one interval in each of the X, Y and Z axes. The topographical DTM constrains the vertical extent of the resource. Rutile, enriched at surface by deflation and elluvial processes, is constrained internally by a hard boundary at the base of the SOIL and FERP horizons that overly the (generally less-mineralised) MOTT and SAPL horizons. In this way, continuity of rutile, observed in surface drilling results, is honoured between drill lines rather than being diluted by averaging with underlying, lower-grade material. The base to mineralisation is arbitrarily designated at effective drill depth plus one (average sample width) interval in the Z orientation in HA/PT drilling. The effective drill depth is where HA drilling intersects the static water table, rather than being a true depth to un-mineralised basement. Deeper drilling using the AC method has shown rutile enrichment persists to bedrock and a material resource increase is anticipated upon application of this method to a broader area. A base to mineralisation of BOH plus 2.7m (-2.7 RL) is retained for this estimate, where drilled by HA/PT methods. This basement horizon is interpreted on 200m north sections and accounts for artifacts of ineffective drilling terminating in soil or ferp horizons. It is applied consistently to both Indicated and Inferred resource areas. AC drilling has accurately defined depth to basement at the saprock interface, which has been modelled where intersected in the updated MRE.
	The factors affecting continuity both of grade and geology.	Rutile grade is generally concentrated in surface regolith horizons. Deposit stratigraphy and weathering is consistent along and across strike. Rutile grade trend is oriented at 45 degrees at Kasiya North and 360 degrees at Kasiya South, which mimics the underlying basement source rocks and residual topography. Rutile varies across strike as a result of the layering of mineralised and non-mineralised basement rocks.
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The Kasiya mineralised footprint strikes NE - SW and currently occupies an area of about 201km^2. Depth to basement is described previously.
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	Datamine Studio RM and Supervisor software are used for the data analysis, variography, geological interpretation and resource estimation. Key fields are interpolated into the volume model using a range of parameters and interpolation methods to establish best fit for the deposit. For the Kasiya MRE update, the Inverse Distance weighting (power 4) method was seen to perform a superior interpolation of informing data and replication of the high-value and thin, surface (SOIL/FERP) grade distribution. This was assisted by the (customary) application of a Dynamic Anisotropy search, informed by the results of variography, Suitable limitations on the number of samples and the impact of those samples, was maintained. Extreme grade values were not identified by statistical analysis, nor were they anticipated in this style of deposit. No top cut is applied to the resource estimation. Interpolation was constrained by hard boundaries (domains) that result from the geological interpretation.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	This is the fourth MRE for the Kasiya Deposit. Bulk-scale test work has been completed and results support the view of the Competent Person that an economic deposit of readily separable, high-quality rutile is anticipated from the Kasiya Deposit. The recovery of a coarse-flake graphite by-product was achieved by the test work.
	The assumptions made regarding recovery of by-products.	A graphite co-product was modelled as recoverable TGC.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	No significant deleterious elements are identified. A selection of assay, magnetic separation and XRF results are modelled and are reported.
	In the case of block model	The average parent cell size used is equivalent to the average drill hole

Criteria	JORC Code explanation	Commentary
	interpolation, the block size in relation to the average sample spacing and the search employed.	spacing within the Indicated Resource (200m*200m). Cell size in the Z-axis is established to cater for the composite sample spacing and definition of the Topsoil domain. This resulted in a parent cell size of 200m x 200m x 3m for the volume model with 5 sub-cell splits available in the X and Y axes and 10 in the Z axis to smooth topographical and lithological transitions. Both parent cell and sub-cell interpolations were completed and reported. The sub-cell interpolation was again applied to this MRE as it better reflected the geological interpretation and a reasonable graduation of informing data through intermediate cell areas. A Topsoil horizon has been defined at 0.3m thickness throughout the Indicated Resource area to support anticipated ore reserve calculation and mining studies. Topsoil is disclosed separately but remains in the MRE in recognition of advanced rehabilitation studies in the PFS by Agreenco.
	Any assumptions behind modelling of selective mining units.	No assumptions were made regarding the modelling of selective mining units. The resource is reported at an Indicated level of confidence and is suitable for optimisation and the calculation of a Probable Reserve.
	Any assumptions about correlation between variables.	No assumptions were made regarding the correlation between variables.
	Description of how the geological interpretation was used to control the resource estimates.	Interpolation was constrained by hard boundaries (domains) that result from the geological interpretation.
	Discussion of basis for using or not using grade cutting or capping.	Extreme grade values were not identified by statistical analysis, nor were they anticipated in this style of deposit. No top cut is applied to the resource estimation.
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	Validation of grade interpolations was done visually In Datamine by loading model and drill hole files and annotating, colouring and using filtering to check for the appropriateness of interpolations. Statistical distributions were prepared for model zones from both drill holes and the model to compare the effectiveness of the interpolation. Distributions of section line averages (swath plots) for drill holes and models were also prepared for each zone and orientation for comparison purposes. The resource model has effectively averaged informing drill hole data and is considered suitable to support the resource classifications as applied to the estimate.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages are estimated on a dry basis. No moisture content is factored.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	The resource is reported at a range of bottom cut-off grades in recognition that optimisation and financial assessment is outstanding. A nominal bottom cut of 0.7% rutile is offered, based on preliminary assessment of resource value and anticipated operational cost.
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	Dry-mining has been determined as the optimal method of mining for the Kasiya Rutile deposit. The materials competence is loose, soft, fine and friable with no cemented sand or dense clay layers, allowing for a free dig mining method. It is considered that the strip ratio would be zero or near zero. Dilution is considered to be minimal as mineralisation commonly occurs from surface and mineralisation is generally gradational with few sharp boundaries. Recovery parameters have not been factored into the estimate. However, the valuable minerals are readily separable due to their SG differential and are expected to have a high recovery through the proposed, conventional wet concentration plant.
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	Rigorous metallurgical testwork on rutile and graphite recoverability and specifications has been completed on numerous bulk samples since 2018. Rutile recovered to product is modelled at 100% and graphite recovered to product is modelled at 67.5%. Both products have best-in-class chemical and physical specifications. Refer to text of the announcement for further details.
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential*	A large portion of the Mineral Resource is confined to the SOIL, FERP and MOTT weathering domains, and any sulphide minerals have been oxidised in the geological past. Therefore, acid mine-drainage is not anticipated to be a significant risk when mining from the oxidised domain. The Kasiya deposit is located within a farming area and has villages located along the strike of the deposit. Sovereign holds regular discussions with local landholders and community groups to keep them well informed of the status and future planned directions of the project. Sovereign has benefited from maintaining good relations with landowners and enjoys strong support from the community at large.

Criteria	JORC Code explanation	Commentary
	consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	Kasiya is in a sub-equatorial region of Malawi and is subject to heavy seasonal rainfall, with rapid growth of vegetation in season. Substantial vegetation or nature reserve is absent in the area.
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*	Density was calculated from 310 full core samples taken from geographically and lithologically-diverse sites across the deposit. Density is calculated using a cylinder volume wet and dry method performed by Sovereign in Malawi and calculations verified by Placer Consulting. Density data was loaded into an Excel file, which was flagged against weathering horizons and mineralisation domains. These results were then averaged, by domain and applied to the MRE.
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.	As above.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	An average density of 1.65 t/m^3 was determined for the total weathering profile. This incorporates and average density of 1.39 t/m^3 for the SOIL domain, 1.58 t/m^3 for the FERP domain, 1.66 t/m^3 for the MOTT domain, 1.69 t/m^3 for the PSAP domain, 1.97 t/m^3 for the SAPL domain, and 1.95 t/m^3 for the LAT domain. Density data are interpolated into the resource estimate by the nearest neighbour method.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.*	Classification of the MRE is at an Indicated and Inferred category. Minor regions of unclassified material occur in sparsely drilled, typically extraneous regions of the mineralised area. These are excluded from the resource inventory. Inferred classification is attributed to those areas with drilling spaced at 400m x 400m. Indicated classification is attributed to those areas with drilling spaced at 200m x 200m.
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	All available data were assessed and the competent person's relative confidence in the data was used to assist in the classification of the Mineral Resource.
	Whether the result appropriately reflects the Competent Person's view of the deposit	Results appropriately reflects a reasonable and conservative view of the deposit.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	Independent audit of the MRE construction was contracted to Datamine Australia by Placer prior to delivery to SVM. A third party is engaged by SVM for a further verification of the MRE.
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	Substantial additional mineralisation was expected to occur below the effective depth of HA and PT drilling. This has been confirmed by the deeper AC drilling. A high-degree of uniformity exists in the broad and contiguous lithological and grade character of the deposit. Drilling technique have been expertly applied and data collection procedures, density assessments, QA protocols and interpretations conform to industry best practice with few exceptions. Assay, mineralogical determinations and metallurgical test work conform to industry best practice and demonstrate a rigorous assessment of product and procedure. The development of a conventional processing flowsheet and marketability studies support the classification of the Kasiya Resource.
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	The estimate is global.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	No production data are available to reconcile model results.

Section 4 - Estimation and Reporting of Ore Reserves

Criteria	Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	*Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	The current identified MRE underpins the Ore Reserve. Sovereign engaged independent geological and mining consultants Placer to complete the MRE for the Kasiya deposit. The principal resource geologist Mr Richard Stockwell is highly experienced with more than 25 years in resource estimation and mine geology. Mr Richard Stockwell is a Competent Person for the purposes of the MRE as defined and in accordance with the JORC Code 2012.

Criteria	Explanation	Commentary
		defined and in accordance with the JORC Code 2012. The MRE as reported in this document is inclusive of the Ore Reserve declared in this document. The Ore Reserve does not include Inferred Mineral Resources.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	Site visits have been carried out by the following personnel: • Mr Frikkie Fourie, the Competent Person for the JORC Mineral Reserve Estimate update, has conducted multiple site visits, overseeing the excavation of the trial mining pit as part of the recent Pilot Phase. • Mr Richard Stockwell, the Competent Person for the JORC Mineral Resource Estimate and a representative of Placer Consulting Pty Ltd has conducted one site visit.
Study status	*The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	The technical and financial information in this release is at PFS-level enabling the restatement of Ore Reserves. The studies carried out have determined a mine plan that is technically achievable and economically viable with all material Modifying Factors having been considered. The Ore Reserve in this OPFS, in underpinned by a mine plan detailing mining locations, ore and waste quantities; plant feed quantities and plant head grades. Scheduling was undertaken in annual and quarterly periods. The Mine planning activities included an updated pit optimisation, development of mineable pit geometries, scheduling, mining cost estimation and financial analysis in order to confirm the ability to economically mine the Kasiya Ore Reserve. Modifying factors considered and reviewed during the OPFS mine planning process included pit slope design criteria, mining costs, mining dilution and ore loss, processing recoveries, processing costs, selling costs, general and administration costs and product price.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	Pit cut-off grades varied between 0.7% and 0.9% rutile with cut-offs selected to provide the most tonnage whilst minimising the pit footprint to have as little environmental/social impact as possible. The selected cut-off grades are above the final project breakeven cut-off grade of approximately 0.40% rutile.
Mining factors or assumptions	*The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* *The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.* *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* *The mining dilution factors used.* *The mining recovery factors used.* *Any minimum mining widths used.* *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* *The infrastructure requirements of the selected mining methods.*	The Kasiya MRE was used as the basis for the PFS Ore Reserve estimate. Mineral Resources were converted to Ore Reserves in line with the material classifications which reflect the level of confidence within the resource estimate. The Ore Reserve reflects that portion of the Mineral Resource which can be economically extracted by open pits utilising using conventional dry mining techniques and a simple mobile excavator fleet. The Ore Reserve considers the modifying factors and other parameters detailed in the relevant sections of the OPFS report, including but not limited to the mining, metallurgical, social, environmental, approvals, tenure, statutory and financial aspects of the project. In line with the JORC 2012 guidelines, the Kasiya Probable Ore Reserve is based on Indicated classified Mineral Resources. There is no Measured classified Mineral Resource at Kasiya and consequently no Proved Ore Reserve. Inferred classified material is not included in the Ore Reserve and therefore is not considered for mining. The reported MRE is inclusive of the resources converted to Ore Reserves. The Ore Reserve includes an allowance for mining dilution and ore loss on the basis that all material within the shell is classified and extracted as ore. The open pit geometries developed for the purposes of mine planning, and which define the subsequent Ore Reserve, are based on Whittle pit shells edited to comply with practical mining requirements and identified exclusion zones. **Selection of Mining method** The mining options were evaluated in detail during the OPFS to determine the best suited mining method for the operation. The criteria for selection were based not only on capital and operating cost, but ESG considerations, infrastructure requirements and operability. Sovereign performed testwork on ROM material and conducted an extensive trial mining, backfilling and rehabilitation operation. The outcomes of this work resulted in a dry mining solution, utilising draglines, shovels and trucks. The conversion to conventional dry mining methods adds significant production flexibility and lower operational risk. **Pit Optimisation** An open pit optimisation utilising Whittle™ software was carried out on the Kasiya deposit using Indicated Mineral Resources only (in line with the JORC 2012 guidelines). The latest parameters available were used to determine the economic extent of the open pit excavation. The process plant production parameters were supplied by Sovereign with an initial rate of 12mtpa and a ramp up in production in year 5 to an annual rate of 24Mtpa by the beginning of year 6. Whilst dry mining lends itself to a selective mining approach, the basis of the OPFS is a bulk mining operation and therefore, all material within the "shell" will be extracted and fed to the plant as ore and any interstitial waste and/or sub-economic grade material will be likewise treated as

Criteria	Explanation	Commentary
		diluent material. However, due to the relatively homogenous and continuous nature the orebody, the quantities of this material will be relatively small and therefore a simple 5% dilution was applied within the Whittle™ tool to approximate this assumption. The OPFS uses an overall slope angle of 20 degrees has been applied within the optimisation. **Mineable Pit Geometries** Based on the cut-off grades applied, the optimization shells were further were further refined to develop a mineable geometry. The process applied the following constraints: – A minimum depth of 5m. – Pit extents limited to mineable areas and to remain outside of identified exclusion areas wherever reasonably possible. Sovereign identified all local village areas and areas of cultural or environmental significance within the potential mining envelope that should not be disturbed during the mining phase of the Project.
Metallurgical factors or assumptions	*The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* *Whether the metallurgical process is well-tested technology or novel in nature.* *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* *Any assumptions or allowances made for deleterious elements.* *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole* *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet specifications?*	**Rutile** Sovereign completed bulk rutile testwork programs at the globally recognised AML in Perth, Australia. The program was supervised by Sovereign's Head of Development, Paul Marcos. Mr Marcos is a metallurgist and process engineer and a mineral sands industry veteran. Bulk test-work programs have confirmed premium grade rutile can be produced via a simple and conventional process flow sheet. Processing engineering was completed by DRA Limited who developed the process plant design and associated cost estimate for the OPFS. An average product grade of 96% TiO_2 with 100% recovery to rutile product was assumed for the PFS. **Graphite** Sovereign has conducted graphite testwork across ALS Laboratory in Perth and SGS Lakefield in Canada. Veteran graphite metallurgist Oliver Peters, MSc, P.Eng., MBA (Consulting Metallurgist for SGS and Principal Metallurgist of Metpro Management Inc.) was engaged to supervise and consult on the testwork programs. Mr Peters has over 25 years' experience in metallurgy on graphite and other commodities. He has operated numerous graphite pilot plants and commissioned a number of full-scale processing facilities. DRA's Senior Engineer, Stewart Calder and Manager Metallurgy, John Fleay supervised and advised on sample selection, testwork scope and results from the latest testwork programs for the PFS. Both consultants are considered to have the appropriate capabilities and similarities with the material and the early stage of the project. An average product grade of 96% C^t with 67.5% recovery to product was assumed for the PFS. **Rutile & Graphite** It is acknowledged that laboratory scale test-work will not always represent actual results achieved from a production plant in terms of grade, chemistry, sizing and recovery. Further test-work will be required to gain additional confidence of specifications and recoveries that will be achieved at full-scale production. Overall, the process flow-sheet is conventional for both rutile and graphite with no novel features or equipment incorporated.
Environmental	*The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	An Environmental Impact Assessment (ESIA) is underway with reference to applicable Malawian and international environmental and social permitting and baseline requirements for the Kasiya Project. Sovereign is committed to conduct its activities in full compliance to the requirements of national regulations, its obligations under international conventions and treaties and giving due consideration to international best practices and policies. Sovereign has appointed an experienced environmental consultant to manage the ESIA process, and environmental and social baseline studies have commenced with appropriately qualified independent experts. Sovereign has also completed a high-level risk assessment to identify major environmental and social risks which could affect the development of the Project, along with mitigating strategies to allow identified risks to be addressed early in the project design phase. Sovereign has embarked on several exercises with the communities in the area and there is a general positive acceptance of the Project. Based on the current assessments and commenced ESIA, the Competent Person believes there are no environmental issues currently identified that cannot be appropriately mitigated in accordance with standard practices adopted for the development of mining projects.
Infrastructure	*The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	Kasiya is located approximately 40km northwest of Lilongwe, Malawi's capital, and boasts favourable access to services and infrastructure. The proximity to Lilongwe gives the project access to a large pool of professionals and skilled tradespeople, as well as industrial services. Logistics cost estimates, including rail and port infrastructure and handling, were provided by Thelo DB, Nkoola Logistics and Grindrod based on

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		were provided by Trade Bb, Nacala Logistics and Grindrod based on market data, suppliers' quotations, industry databases, industry contacts and the consultant's existing knowledge of southern African transport infrastructure and freight markets. The above consultants are independent with appropriate experience in the management of transport logistics studies in southern Africa.
Costs	*The derivation of, or assumptions made, regarding projected capital costs in the study.* *The methodology used to estimate operating costs.* *Allowances made for the content of deleterious elements.* *The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.* *Derivation of transportation charges.* *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* *The allowances made for royalties payable, both Government and private.*	Capital estimates for the Project have been prepared by PCC, together with input from DRA Limited, Sovereign and other contributing consultants using combinations of cost estimates from suppliers, historical data, benchmarks and other independent sources. The accuracy of the initial capital cost estimate for the Project is -20% and +25%. Capital costs include the cost of all services, direct costs, contractor indirects, EPCM expenses, non-process infrastructure, sustaining capital and other facilities used for the mine. Capital costs make provision for mitigation expenses and mine closure and environmental costs. Working capital requirements (including contingency) for plant commissioning and full ramp-up have been included in the headline capital estimate reported under construction, owner's and start-up costs. Labor costs have been developed based on a first-principles build-up of staffing requirements with labor rates benchmarked in Malawi and expatriate rates benchmarked for professionals from South Africa and other jurisdictions. A Government royalty of 5% (applied to revenue) and a vendor profit share of 2% (applied to gross profit) has been included in all project economics. A 0.45% royalty (applied to revenue) has been applied for the community development fund. Rehabilitation and mine closure costs are included within the reported operating cost and sustaining capital estimates.
Revenue factors	*The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	Sales pricing for both products is based on current market analysis conducted by independent parties (see below).
Market assessment	*The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* *A customer and competitor analysis along with the identification of likely market windows for the product.* *Price and volume forecasts and the basis for these forecasts.*	Sovereign obtained independent market assessments for both products. **<u>Rutile</u>** Sovereign engaged market leading TZMI to provide a bespoke marketing report to support the Study. TZMI is a global, independent consulting and publishing company which specialises in technical, strategic and commercial analyses of the opaque (non-terminal market) mineral, chemical and metal sectors. TZMI's assessment has confirmed that, based upon their high-level view on global demand and supply forecasts for natural rutile, and with reference to the specific attributes of Kasiya, there is a reasonable expectation that the product will be able to be sold into existing and future rutile markets. Given the premium specifications of Kasiya's natural rutile, the product should be suitable for all major natural end-use markets including TiO_2 pigment feedstock, titanium metal and welding sectors. The rutile price adopted in the OPFS is unchanged from the 2023 PFS rutile price which was based on TZMI's real 2023 price forecast and confirmed by TZMI as part of the OPFS. Using the above product mix, the LOM average "realised" price for rutile was US 1,490 per tonne FOB, Nacala **<u>Graphite</u>** Sovereign engaged Fastmarkets, a specialist international publisher and information provider for the global steel, non-ferrous and industrial minerals markets, to prepare a marketing report for graphite. Fastmarkets' assessment has confirmed that based upon their high-level view on global demand and supply forecasts for natural flake graphite, and with reference to the specific attributes of Sovereign's projects, there is a reasonable expectation that the product from Sovereign's projects will be able to be sold into existing and future graphite markets. Given the extremely low-cost profile and high-quality product, it is expected that output from Kasiya will be able to fill new demand or substitute existing lower quality / higher cost supply. Project considerations taken by Fastmarkets in forming an opinion about the marketability of product include: – Low capital costs (incremental) – Low operating costs – High quality concentrate specifications Industry participants confirm that the highest value graphite concentrates remain the large, jumbo and super-jumbo flake fractions, primarily used in

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		industrial applications such as refractories, foundries and expandable products. These sectors currently make up the significant majority of total global natural flake graphite market by value. Fastmarkets have formed their opinion based solely upon project information provided by Sovereign to Fastmarkets and have not conducted any independent analysis or due diligence on the information provided. The Company has taken conservative view on graphite pricing. The basket price used for the OPFS remains unchanged from the 2023 PFS, remaining at US 1,290/t (real) for the LOM. Price forecasts for Kasiya's graphite basket were sourced Fastmarkets as part of the OPFS. The graphite price used in the OPFS is 30% lower than Fastmarkets' long-term price forecast of US 1,846.
Economic	*The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc* *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	Key parameters are disclosed in the body of the announcement, and include: – Life of Mine: 25 years – Discount rate: 8% – Royalty rate: 5% royalty (Government), 2% of gross profit (Original Project Vendor) and 0.45% Community Development Fund. – Pricing: Rutile average price of US 1,490 per tonne and Graphite average basket price of US 1,290 per tonne The OPFS financial model has been built and prepared by Practara, an independent specialist mining financial modelling company using inputs from the various expert consultants and has been reviewed by SP Angel Corporate Finance LLP, the Company's Nominated Advisor and Corporate Broker as defined by the AIM Rules for Companies set out by by the London Stock Exchange, to validate the functionality and accuracy of the model. NPV sensitivity to costs and price were assessed utilising the Project financial model developed by Practara. As is the case for most commodity-based projects, the NPV is most sensitive to changes in price, with a +/-25% variation in both rutile and graphite price generating a +/-54% variation in project pre-tax ungeared net present value at an 8% discount. It is moderately sensitive to operating cost changes, with a +/-25% cost change producing a -/+18% fluctuation in project pre-tax ungeared net present value at an 8% discount. Approximately 3% of this value change is attributable to mining costs, 4% to logistics costs and the remaining 10% to processing/labour/G&A related costs. The project is less sensitive to capital cost changes, with a +/-25% variation in capital affecting NPV by -/+11%.
Social	*The status of agreements with key stakeholders and matters leading to social license to operate.*	Sovereign expects to enter into a Community Development Agreement ("CDA") with the surrounding communities. Significant engagement with these communities has occurred over the exploration phases and is ongoing ahead of negotiation of the CDA which is expected to be concluded during the DFS stage.
Other	*To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* *Any identified material naturally occurring risks.* *The status of material legal agreements and marketing arrangements.* *The status of government agreements and approvals critical to the viability of the project, such as mineral tenement status and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	No identifiable naturally occurring risks have been identified to impact the Kasiya Ore Reserve. Sovereign has no existing binding offtake agreement in place. Sovereign is yet to apply for a Mining Licence ("ML") covering the footprint of the project, however it is not anticipated for there to be any objections in obtaining the necessary government approvals.
Classification	The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	The Kasiya Ore Reserves comprise Indicated Mineral Resource material converted to "Probable" reserves. In line with JORC 2012 guidelines, Inferred Mineral Resource material has not been included. 100% of the Kasiya Ore Reserve is in the Probable Reserves category.
Audit or reviews	The results of any audits or reviews of Ore Reserve estimates.	No external audits or reviews have been carried out to date.

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