

## SEPTEMBER 2022 QUARTERLY REPORT

Sovereign Metals Limited (**Company or Sovereign**) (ASX:SVM & AIM:SVML) is pleased to provide its quarterly report for the period ended 30 September 2022.

### HIGHLIGHTS

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#### Kasiya Rutile Project PFS well underway with all major programs commenced

- Sovereign is progressing the Pre-Feasibility Study (PFS) on the Kasiya Rutile Project (Kasiya), an industry-leading major source of critical raw materials in Malawi.
- The PFS will build on the Expanded Scoping Study (ESS) which confirmed Kasiya as **one of the world's largest and potentially lowest cost** producers of **natural rutile and natural graphite** with a carbon-footprint substantially lower than other current and planned producers.
- The PFS is on track to be completed in H1 2023 with all major works packages now well underway.

#### Air-core drilling identified high-grade mineralisation at depth

- Drilling results from the Company's deeper air-core (AC) program confirmed rutile-graphite mineralisation extends at depth beneath previously designed ESS mining pit shells.
- Substantial zones of high-grade rutile mineralisation to depth beneath initial planned open pit shells (main areas averaging ~15m depth).
- These newly defined high-grade rutile and graphite mineralisation at depths >15m is consistent and occurs in coherent blocks.
- Identification of high-grade mineralisation at depth is expected to contribute to the Mineral Resource Estimate (MRE) update targeted for Q1 2023.

#### Offtake MoU and Market Alliance with major Japanese trader

- In July 2022, Memorandum of Understanding (MoU) (non-binding) signed with Mitsui & Co Ltd (Mitsui), one of the largest global trading and investment companies in Japan.
- The MoU establishes a marketing alliance and offtake for 30,000 tonnes of natural rutile per annum. The alliance will allow Sovereign to leverage off Mitsui's extensive network and their market-leading understanding of the titanium industry and global logistics.

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### ENQUIRIES

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## KASIYA – THE LARGEST RUTILE DEPOSIT IN THE WORLD

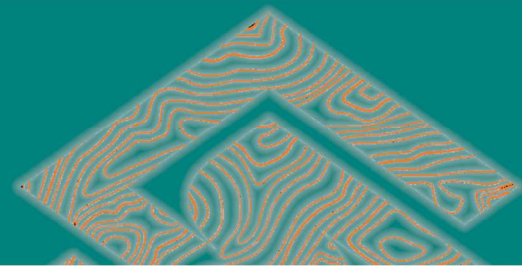
Kasiya, located in central Malawi, is the **largest natural rutile deposit and one of the largest flake graphite deposits in the world**. Sovereign is aiming to develop an **environmentally and sustainable operation** to supply highly sought-after natural rutile and graphite to global markets.

Kasiya is planned to be a conventional operation using traditional and well-developed processes used across the globe on numerous mineral sands and graphite operations.

The proposed large-scale operation will process soft, friable mineralisation that occurs from surface in an area with excellent access and water availability. Kasiya has high quality surrounding infrastructure including hydro-sourced grid power, bitumen roads and recently upgraded rail lines connecting to the deep water of ports of Nacala and Beira on the Indian Ocean.



Figure 1: Sovereign's project area showing its position in South-East Africa and Nacala and Beira ports.



Sovereign is progressing the PFS which will build on the on the ESS, released in June 2022, with targeted completion in H1 2023.

The ESS confirmed Kasiya as potentially **one of the world's largest and lowest cost** producers of **natural rutile and natural graphite** with a carbon-footprint substantially lower than current alternatives. The ESS showed outstanding results including:

- a two-stage development (stage 2 self-funded) with full production at **24Mtpa throughput producing 265kt rutile and 170kt graphite** per annum with a **25 year mine life**
- exceptional economics including a post-tax **NPV<sub>8</sub> of US\$1,537m** and post-tax **IRR of 36%**
- a **large-scale operation with a low-cost profile** resulting from the deposit's near surface nature, high-grade, conventional processing flowsheet and excellent existing infrastructure
- conservative assumptions applied with long-term prices used discounted against current spot prices

The natural rutile market is in structural deficit with **current global supply estimated to decline 45%** in the next three years. Graphite **demand set to soar** as electric vehicle production is forecast to increase 12-fold by 2040<sup>1</sup>.

Kasiya is considered to be a highly strategic project and a potential major source of raw materials deemed critical to the decarbonisation of the global economy while significantly contributing to the social and economic development of Malawi.

During the quarter, Kasiya received a special mention by His Excellency Dr Lazarus McCarthy Chakwera, President of the Republic of Malawi, during his address at the 77th session of The United Nations General Assembly in New York endorsing the global significance of the Project.



Figure 2: Wet-tabling (background) and magnetic separation (foreground) at the Company's established laboratory in Malawi

1. TZMI and Benchmark Minerals



## KASIYA AIR-CORE DRILLING

A 191-hole AC drilling program at the Kasiya rutile deposit was completed in two phases from May to August 2022. The program was divided into an initial 32-hole sighter phase and a second more expansive 159-hole phase. To date, the results for the first 32 holes and a further 61 holes of the second phased have been reported.

The drilling was completed on a nominal 200m x 200m grid spacing targeting upgrading of mineralisation into the Indicated category which could convert to Probable Reserves as part of the forthcoming PFS.

A total of 91 drill-holes for 2,112m were reported (Figure 3) with results from the remaining 98 holes for 2,548m pending.

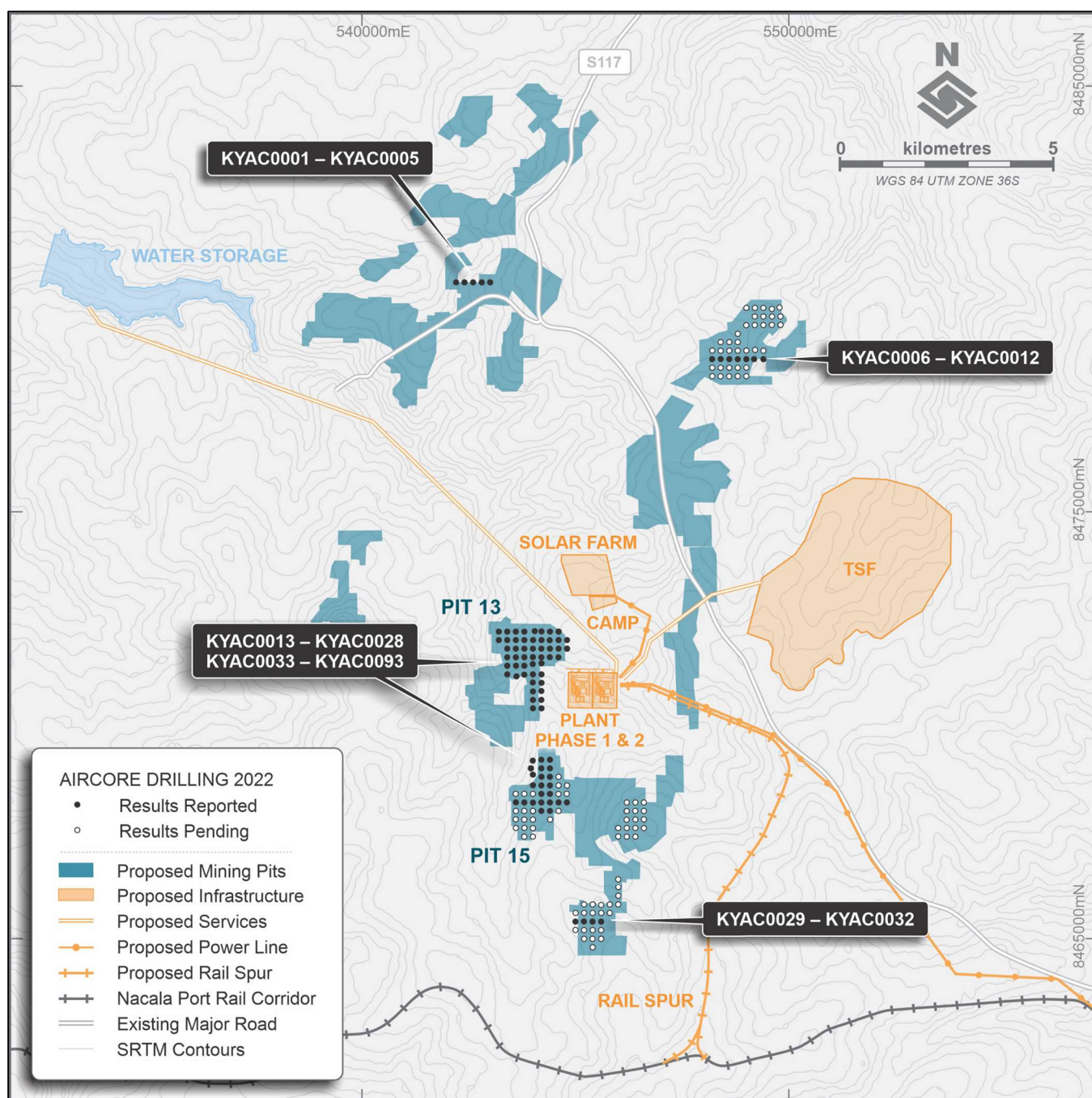


Figure 3: Kasiya AC drilling location map showing the drilling concentrated within within proposed mining pits.

The AC results reported to date confirm that rutile mineralisation is continuous in many pit areas from surface down to the top of saprock, normally between 20m and 30m from surface (Figure 5). Results reveal the potential for mining pits to be extended at depth to the top of saprock in numerous areas.

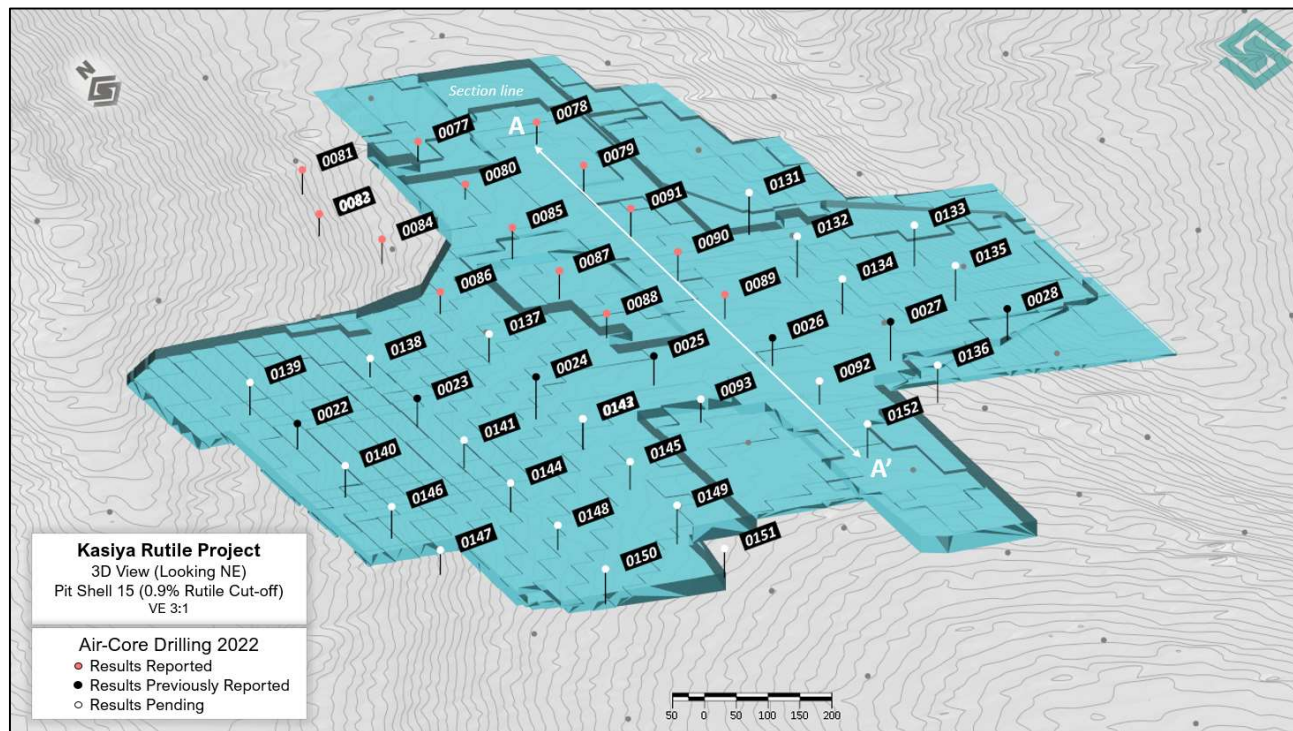


Figure 4: Kasiya Pit Shell 15 showing AC drilling collars.

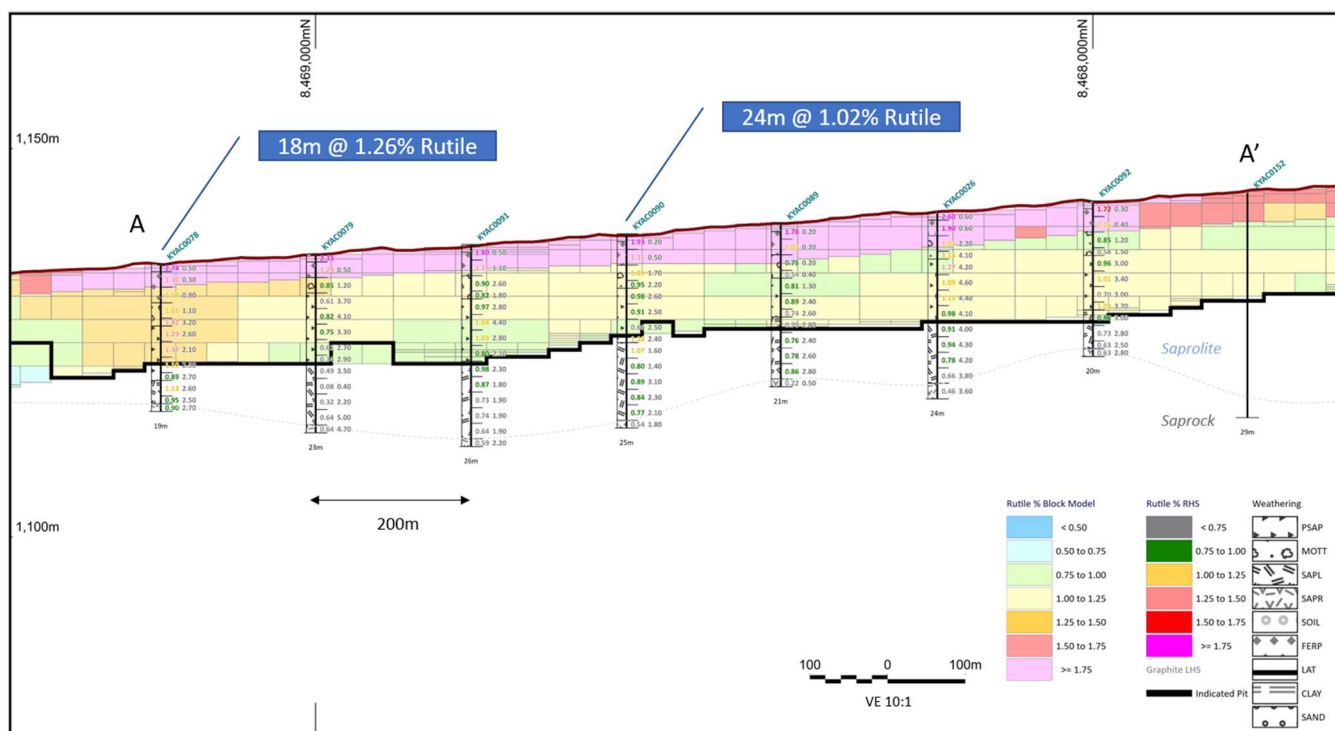


Figure 5: Pit 15 long section 544,400mE including KYAC0078 to KYAC0079 and KYAC0089 to KYAC0092.



The initial sighter phase of the AC drilling program (32 holes) focused on mineralised corridors where high-grade rutile mineralisation was hypothesised to persist at depth. These results showed that the mineralisation is pervasive throughout the saprolite zones with many holes showing mineralisation with 20-30m thickness from surface.

Once validated, the Company shifted its focus to a second phase concentrating on depth extensions to the early-scheduled mining pit shells. Pit 15 revealed the most pronounced, deep mineralised corridor, illustrated in the 1.4km long cross-section (Figure 5).

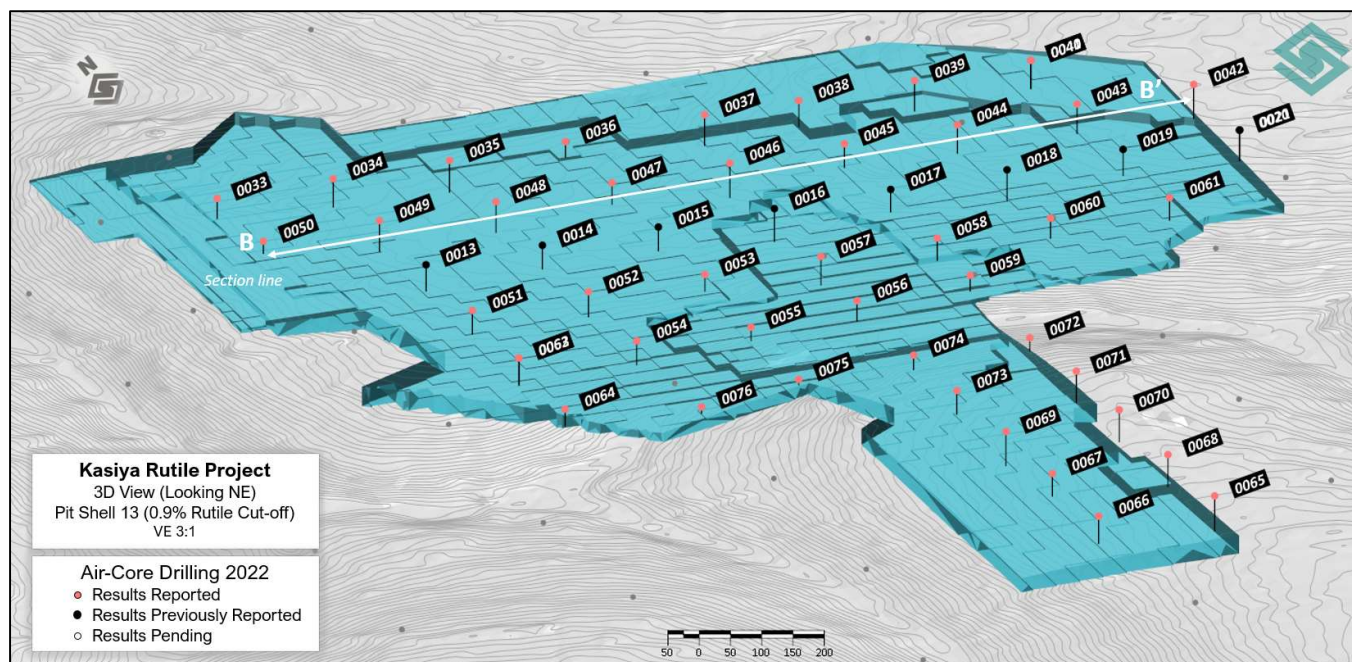


Figure 6: Kasiya Pit Shell 13 showing AC drilling collars.

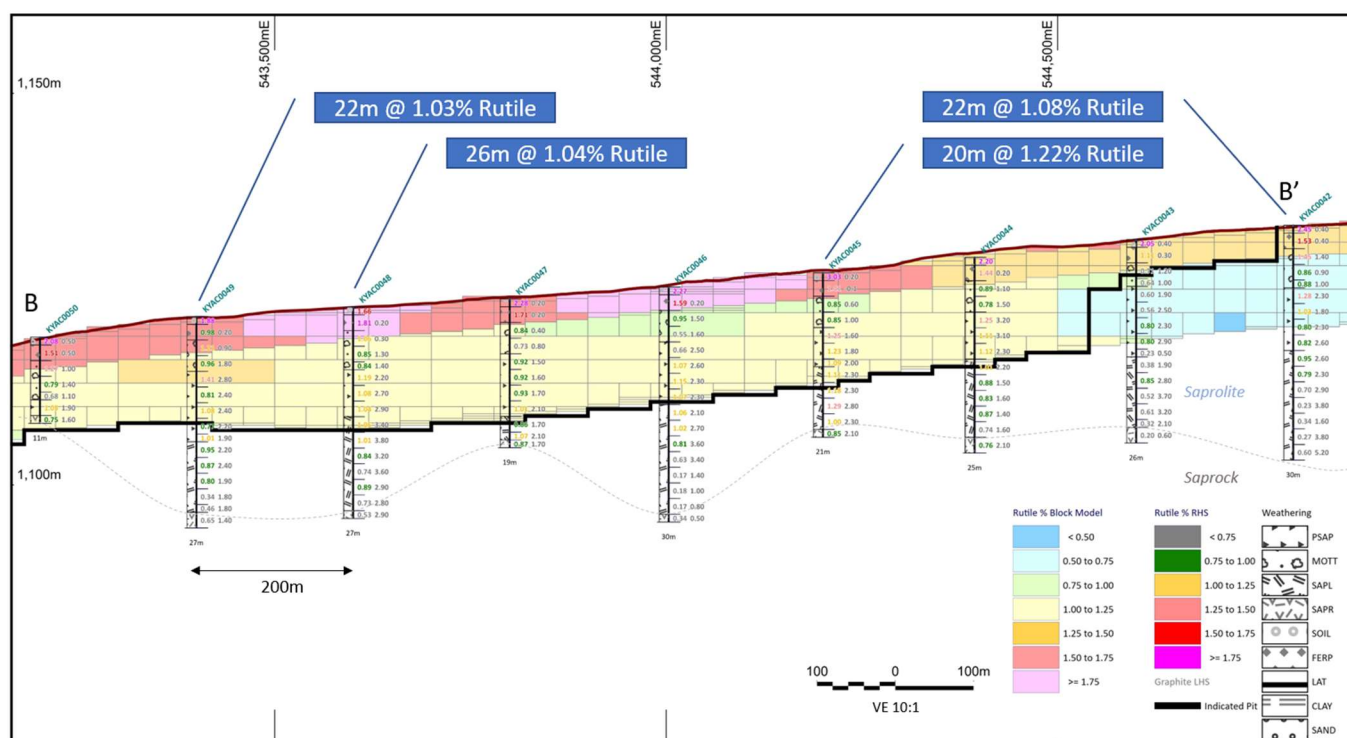
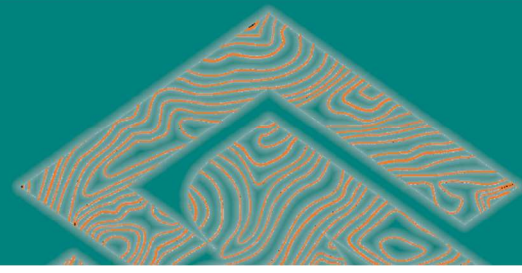


Figure 7: Pit 13 cross section 8,472,000mN including KYAC0050 to KYAC0042.





Coarse flake graphite is present in all AC holes in association with rutile mineralisation. Graphite grades appear to improve with depth averaging +2% TGC in numerous holes.



Figure 8: Rig #THR001 AC drilling KYAC0001 to 23m EOH at Kasiya



Figure 9 & 10: Kasiya drilling sample collection under the cyclone and mineralised weathering profile displayed in a chip tray



## PFS ACTIVITIES

All major activities for Kasiya's PFS have commenced under the guidance of globally recognised consultants. Programs underway include:

- Infill drilling to upgrade the entire resource to the Indicated category – now complete with majority of results pending
- Mining trade-off study examining hydro-mining vs dozer mining options
- Pit optimisation and design
- Pumping testwork, modelling and design
- Tailings disposal testwork and design
- Rehabilitation work programs and modelling
- Preliminary hydrogeological pilot and test boreholes
- Continued metallurgical test-work focused on the planned first 10 years of mining
- Environmental screening assessments



Figure 11: Water drilling underway at Kasiya





## OFFTAKE AND MARKETING ALLIANCE

In July 2022, Sovereign entered into a non-binding MoU with Mitsui, one of the largest global trading and investment companies in Japan. The MoU establishes a marketing alliance and offtake for 30,000 tonnes of natural rutile per annum from the Company's world-class Kasiya project.

This MoU creates a marketing alliance between the two parties to jointly market Sovereign's rutile across Asia and other markets. The alliance will allow Sovereign to leverage off Mitsui's extensive network and their market-leading understanding of the titanium industry and global logistics.

Mitsui has shared samples of rutile product from Kasiya with Asian end-users that have confirmed its premium chemical specifications should be suitable for use in their titanium sponge and pigment processes, as a precursor for high-grade, high-specification titanium metal and pigment production.

The Company is continuing product marketing with further offtake MOUs expected to be executed in the near-term.

## RELATED PARTY PAYMENTS

During the quarter ended 30 September 2022, the Company made payments of \$287,000 to related parties and their associates. These payments relate to existing remuneration arrangements (executive salaries, director fees, superannuation and bonuses of \$170,000), business development services (\$30,000) and provision of serviced office facilities, company secretarial services and administration services (\$87,000).

## MINING EXPLORATION EXPENDITURES

During the quarter, the Company made the following payments in relation to mining exploration activities:

Activity	A\$'000
Drilling	(950)
Assaying and Metallurgical Test-work	(295)
Studies and Reserve/Resource Estimation	(386)
Field Supplies, Equipment, Vehicles	(43)
Malawi Operations - Site Office, Personnel and Travel	(586)
<b>Total as reported in Appendix 5B</b>	<b>(2,260)</b>

There were no mining or production activities and expenses incurred during the quarter ended 30 September 2022.

## Competent Person Statement

*The information in this announcement that relates to the Mineral Resource Estimate is extracted from the announcement dated 5 April 2022. The announcement is available to view on [www.sovereignmetals.com.au](http://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 announcement; b) all material assumptions included in the 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.*

**Table 1: Kasiya Mineral Resource Estimate at 0.7% Rutile Cut-off**

Mineral Resource Category	Material Tonnes (millions)	Rutile (%)	Rutile Tonnes (millions)	Total Contained Graphite (TGC) (%)	TGC Tonnes (millions)	RutEq. Grade* (%)
Indicated	662	1.05%	6.9	1.43%	9.5	1.76%
Inferred	1,113	0.99%	11.0	1.26%	14.0	1.61%
<b>Total</b>	<b>1,775</b>	<b>1.01%</b>	<b>18.0</b>	<b>1.32%</b>	<b>23.4</b>	<b>1.67%</b>

\* RutEq. Formula: Rutile Grade x Recovery (98%) x Rutile Price (US\$1,308/t) + Graphite Grade x Recovery (62%) x Graphite Price (US\$1,085/t) / Rutile Price (US\$1,308/t). All assumptions are taken from this Study \*\* Any minor summation inconsistencies are due to rounding

*The information in this announcement that relates to Production Targets, Processing, Infrastructure and Capital and Operating Costs, is extracted from the announcement dated 16 June 2022 entitled 'Kasiya Expanded Scoping Study Results'. Sovereign confirms that: a) it is not aware of any new information or data that materially affects the information included in the announcement; b) all material assumptions and technical parameters underpinning the Production Target, and related forecast financial information derived from the Production Target included in the 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 presentation have not been materially modified from the Announcement.*

*The information in this announcement that relates to the Metallurgy is extracted from the announcement dated 7 December 2021. The announcement is available to view on [www.sovereignmetals.com.au](http://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 announcement; b) all material assumptions included in the 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 Exploration Results is extracted from the announcement dated 8 September 2022 and 26 October 2022. The announcements are available to view on [www.sovereignmetals.com.au](http://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 announcements; b) all material assumptions included in the announcements 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 announcements.*

## 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.*

## Authorisation Statement

*This announcement has been approved and authorised for release by the Company's Managing Director, Julian Stephens.*



## APPENDIX 1: SUMMARY OF MINING TENEMENTS

As at 30 September 2022, the Company had an interest in the following tenements:

Licence	Holding Entity	Interest	Type	Licence Renewal Date	Expiry Term Date <sup>1</sup>	Licence Area (km <sup>2</sup> )	Status
EL0609	MML	100%	Exploration	25/09/2024	25/09/2028	440.5	Granted
EL0582	SSL	100%	Exploration	15/09/2023	15/09/2027	285.0	Granted
EL0372	SSL	100%	Exploration	N/A	13/03/2022 <sup>2</sup>	729.2	Granted
EL0492	SSL	100%	Exploration	29/01/2023	29/01/2025	935.4	Granted
EL0528	SSL	100%	Exploration	27/11/2021 <sup>3</sup>	27/11/2025	16.2	Granted
EL0545	SSL	100%	Exploration	12/05/2022 <sup>3</sup>	12/05/2026	53.2	Granted
EL0561	SSL	100%	Exploration	15/09/2023	15/09/2027	124.0	Granted
RL0012	NGX	100%	Retention	N/A	26/07/2026	6.0	Granted
RL0032	SSL	100%	Retention	N/A	4/10/2027	24.64	Granted

### Notes:

SSL: Sovereign Services Limited, MML: McCourt Mining Limited & NGX Exploration Limited

<sup>1</sup> An exploration licence (EL) covering a preliminary period in accordance with the Malawi Mines and Minerals Act (No 8. Of 2019) (Mines Act) is granted for a period not exceeding three (3) years. Thereafter two successive periods of renewal may be granted, but each must not exceed two (2) years. This means that an EL has a potential life span of seven (7) years. ELs that have come to the end of their term can be converted by the EL holder into a retention licence (RL) for a term of up to 5 years subject to meeting certain criteria.

<sup>2</sup> Prior to expiry of EL0372, the Company applied for the grant of a mining licence (ML) and a RL over separate parts of EL0372. Under the Mines Act, an EL term automatically extends until the ML application has been processed and/or granted.

<sup>3</sup> EL0528 and EL0545 currently under application for renewal.

## Appendix 5B

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

Name of entity

Sovereign Metals Limited

ABN

71 120 833 427

Quarter ended ("current quarter")

30 September 2022

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(2,260)	(2,260)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(530)	(530)
	(e) administration and corporate costs	(376)	(376)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	71	71
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other – Business Development	(170)	(170)
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(3,265)</b>	<b>(3,265)</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) exploration & evaluation	-	-
	(e) investments	-	-
	(f) other non-current assets	-	-



<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>-</b>	<b>-</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(34)	(34)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>(34)</b>	<b>(34)</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	<b>18,894</b>	<b>18,894</b>
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(3,265)	(3,265)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(34)	(34)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-

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

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	(8)	(8)
4.6	<b>Cash and cash equivalents at end of period</b>	<b>15,587</b>	<b>15,587</b>

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	1,062	1,322
5.2	Call deposits	14,525	17,572
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>15,587</b>	<b>18,894</b>

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	287
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		



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

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

8.	<b>Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1	Net cash from / (used in) operating activities (item 1.9)	(3,265)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(3,265)
8.4	Cash and cash equivalents at quarter end (item 4.6)	<b>15,587</b>
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	<b>15,587</b>
8.7	<b>Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	<b>4.8</b>
	<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1	Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
	Answer: Not applicable	
8.8.2	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
	Answer: Not applicable	
8.8.3	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
	Answer: Not applicable	
	<i>Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.</i>	

**Compliance statement**

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

Date: 31 October 2022

Authorised by: Company Secretary  
(Name of body or officer authorising release – see note 4)

**Notes**

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