For personal use only

31 July 2025

HIGH-GRADE RARE EARTHS DISCOVERED 1KM OUTSIDE MRE EXTENDS THE SCALE OF THE ARAXÁ PROJECT

13.5m @ 12.34% TREO from 0.5m returned in the initial assays from auger drilling, confirming a new high-grade REE discovery 1km from the existing large-scale rare earths JORC compliant deposit at the Araxá Project – 40.64Mt @ 4.13% TREO[1]

- **High-grade REE in first auger assay results:** Grades up to **13.4% TREO** (134,000ppm TREO) confirmed in the assays for first 22 auger drill holes[2], with all holes intersecting high-grade mineralisation including:
  - AXAG022 was drilled to a depth of 14m and intersected **13.5m @ 12.34% TREO** from 0.5m with the hole ending in mineralisation of **13.4% TREO.**
- **High magnet rare earths:** Ratio of NdPr to TREO **up to 35%** with NdPr values up to **3.33% NdPr** (33,300ppm NdPr).
- **Large extension to the REE mineral system:** The auger drilling was designed as a reconnaissance program of widely spaced, shallow drill holes to test an underexplored area approximately 1km east of the existing Mineral Resource Estimate (MRE) for the Araxá Project – and has successfully discovered a very significant extension to the known high-grade JORC compliant deposit.
- **World-class carbonatite hosted REE deposit at the Araxá Project:** The new discovery supports potential to expand the large carbonatite-hosted MRE at the Araxá Project, the same style of deposit as the two major producing REE mines outside of China – Mountain Pass in California and Mt Weld in Western Australia[3].
- **Resource expansion and definition drilling continues at Araxá with 5 drill rigs**: Follow-up drilling for the new discovery will be scheduled as part of the extensive auger, reverse circulation and diamond drilling program underway at the Araxá Project[4].

[1] See Table 1 and our ASX Release dated 1 April 2025 *'High-Grade Niobium and REE JORC Resource for Araxa'* for more information on the Mineral Resource Estimate.
[2] See Table 2 for details of all assays received for the auger drilling.
[3] See Table 3 for details of the resource at Mountain Pass and Mt Weld.
[4] See our ASX Release dated 25 July 2025 *'St George Boosts Araxá Drilling After $5m Placement'* for more information.

For personal use only

St George Mining Limited **(ASX: SGQ)** ("St George" or "the Company") is pleased to announce a significant discovery of high-grade rare earths mineralisation at its 100%-owned Araxá Project in Minas Gerais, Brazil.

John Prineas, St George Mining's Executive Chairman, said:

"We could not have hoped for better results from the initial drilling with assays received for the first batch of 22 holes confirming high-grade rare earths from surface across a broad area of 0.5 sq km.

"The exceptionally high grades of TREO and NdPr are impressive and suggest we have discovered an area which is very rich in rare earths mineralisation.

"With an existing JORC compliant rare earths resource that is already world-class, we are excited by the growth potential that this new discovery highlights.

"We will now prioritise follow-up drilling with RC and diamond drilling to scope out the extent of this new mineralised area which has potential to significantly add to the existing large-scale JORC compliant resource at the Project."

New rare earths discovery confirmed by auger drilling

The assay results for 22 auger drill holes totalling 291 metres have been received. Assays are pending for a further 28 auger holes totalling 348 metres.

Grades up to **13.4% TREO** (134,000ppm TREO) were intersected including NdPr values up to **3.33% NdPr** (33,300ppm NdPr). Table 2 below summarises the assays received.

The high ratio of MREO to TREO – **up to 35%** – highlights the potential value of the Araxá mineralisation as a source for rare earth magnet production.

Table 2 – List of significant intercepts (cut-off grade of 1% TREO):

HOLE ID	FROM	TO	INTERVAL		TREO%	MREO%	NdPr:TREO	Nb_2O_5
AXAG001	0.5	10	9.5	@	1.23	0.28	22	0.27
	0.5	6	5.5	*incl*	1.53	0.35	22	0.33
	8	10	2	*incl*	1.05	0.23	21	0.24
AXAG002	0.5	1	0.5	@	1.41	0.28	19	0.2
	4	5	1	@	1.18	0.29	24	0.21
AXAG003	0.5	12	11.5	@	1.5	0.47	30	0.33
AXAG004	0.5	6	5.5	@	1.77	0.48	26	0.34
AXAG007	**14**	**15**	**1**	**@**	**2.06**	**0.37**	**17**	**0.16**
AXAG008	0.5	11	10.5	@	1.3	0.33	24	0.17
	0.5	2	1.5	*incl*	1.47	0.25	17	0.21
	4	11	7	*incl*	1.42	0.39	26	0.16
	12	13	1	@	1.1	0.27	22	0.51
AXAG009	1	2	1	@	1.13	0.11	9	0.14
AXAG010	0.5	12.75	1	@	1.26	0.38	28	0.09
	2	6	4	*incl*	1.22	0.36	28	0.11
	7	**8**	**1**	***incl***	**2.91**	**0.82**	**27**	**0.07**
	9	12.75	3.75	*incl*	1.2	0.42	33	0.08
AXAG011	1	8	7	*AT*	1.46	0.37	23	0.69

For personal use only

HOLE ID	FROM	TO	INTERVAL		TREO%	MREO%	NdPr:TREO	Nb_2O_5
AXAG014	0.5	15	14.5	@	1.63	0.37	22	0.14
	0.5	10	9.5	*incl*	1.44	0.32	22	0.15
	12	**15**	**3**	***incl***	**2.81**	**0.62**	**22**	**0.11**
AXAG015	5	15.8	10.8	@	1.11	0.38	35	0.14
	5	**6**	**1**	***incl***	**2.41**	**0.69**	**28**	**0.42**
	7	8	1	*incl*	1.21	0.37	30	0.22
	11	12	1	*incl*	1	0.34	33	0.09
	13	15.8	2.8	@	1.67	0.6	35	0.1
AXAG016	8	9	1	@	1.61	0.59	36	0.06
AXAG017	**6**	**7**	**1**	**@**	**2.34**	**0.65**	**27**	**0.08**
	11	13	2	*incl*	1.21	0.43	35	0.14
AXAG020	3	6	3	@	1.37	0.4	28	0.16
	9	10	1	*incl*	1.36	0.37	26	0.12
AXAG021	10	11	1	@	1.01	0.22	21	0.06
	14	16	2	*incl*	1.13	0.24	21	0.05
AXAG022	**0.5**	**14**	**13.5**	**@**	**12.34**	**3.33**	**27**	**0.1**
AXAG025	0.5	14	13.5	@	1.37	0.31	22	0.2
	0.5	12	11.5	*incl*	1.49	0.34	22	0.22
	13	14	1	*incl*	1.01	0.22	21	0.2
AXAG026	1	8	7	@	0.82	0.25	31	0.16
	1	2	1	*incl*	1.16	0.3	25	0.18
	4	5	1	*incl*	1.39	0.4	28	0.29
	7	8	1	*incl*	1.12	0.37	32	0.11

Large extension to high-grade mineral system

The assays received are from auger drilling completed in the eastern portion of the Project area, which is approximately 1km to the east of the modelled MRE. This is an area with no prior drilling with St George completing the first systematic drilling of the area.

The eastern portion of the Project area is interpreted to be on the fringe of the Barreiro Carbonatite, an area deemed to be highly prospective for rare earths. The area towards the centre of the carbonatite, where the MRE is currently modelled, is interpreted to be prospective for both rare earths and niobium which explains why the niobium levels in the auger drilling are below the high niobium grades seen in the MRE. Further drilling will be required to validate these interpretations.

The widespread high-grade REE mineralisation intersected in this eastern area, even at the shallow depths of the auger drilling (≤16m), is indicative of the surficial expression of a larger, underlying mineralised system.

Many of the auger holes ended in high-grade mineralisation, including AAXG022 which returned 13.4% TREO in the final metre of the hole, indicating strong potential for continuity at depth.

These outstanding initial results warrant immediate follow-up with RC and diamond drilling, to test the vertical extent and confirm depth continuity.

For personal use only

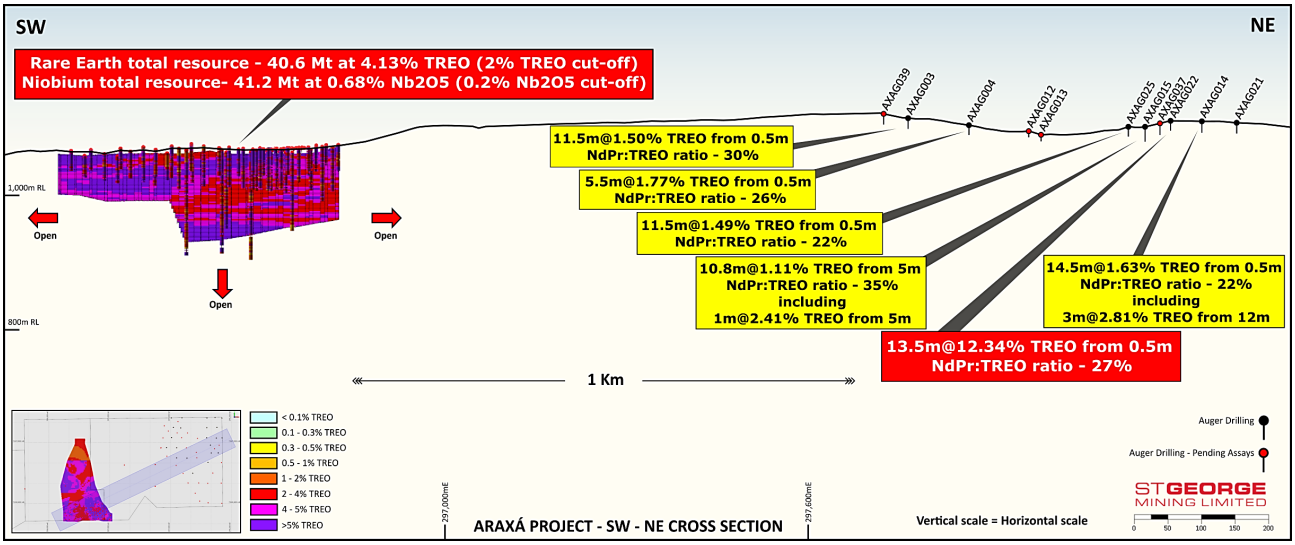

Figure 1 – section showing high-grade TREO intercepts (cut-off grade 1% TREO) in recent auger drilling and the existing JORC compliant MRE.

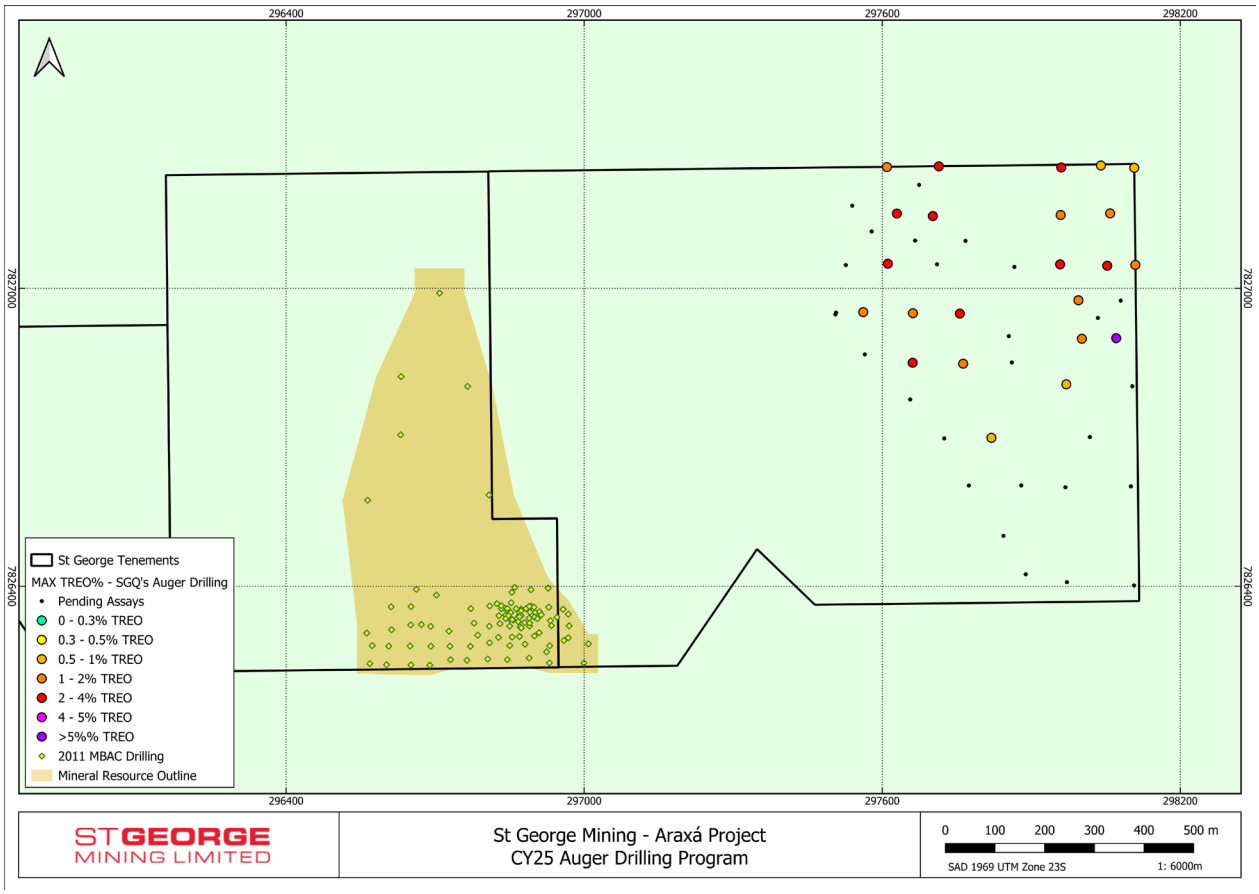

Figure 2 – plan view map of the Project area showing the location of the recent auger drilling relative to the MRE.

For personal use only

Carbonatite REE deposits – competitive advantages

The two major producing rare earths mines outside of China are carbonatite hosted deposits – the Mountain Pass mine in California and Mt Weld in Western Australia; see Table 3.

Carbonatite hosted rare earths deposits are typically high-grade deposits with cost structures that are highly competitive against other rare earths style deposits that have larger, bulk-tonnage operations. Chart 1 below highlights the low-cost advantage of carbonatite REE's over other deposit styles.

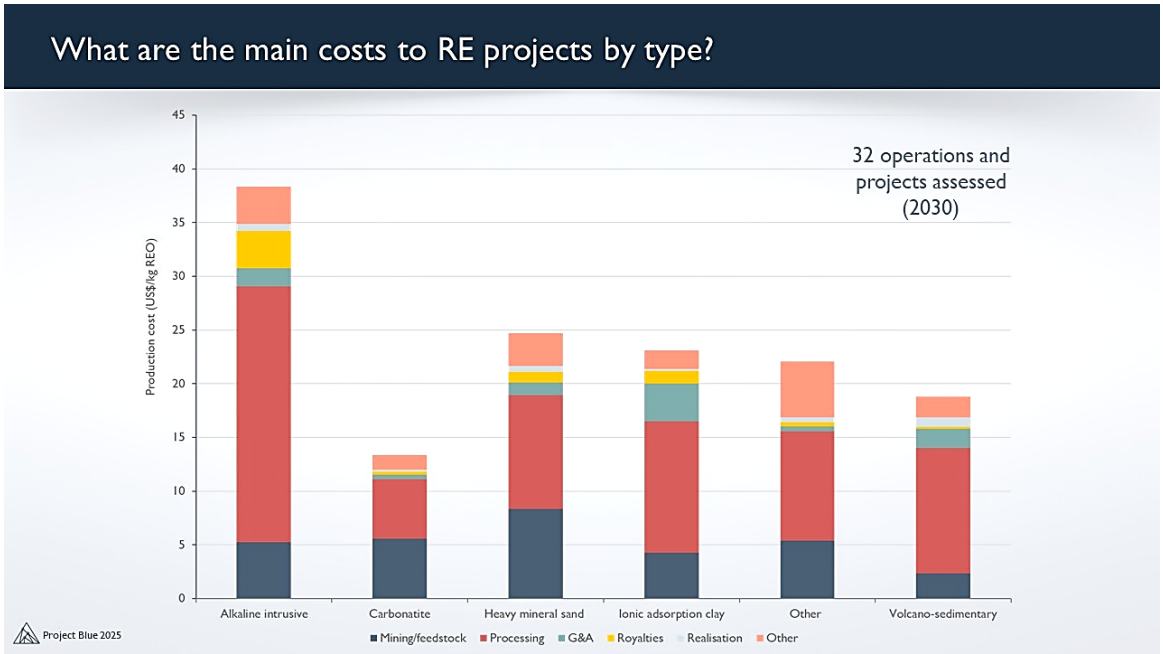

Chart 1 – Comparison of production costs across REE deposit styles. Source: Project Blue.

The two major producing rare earths mines outside of China are Mountain Pass and Mt Weld – both carbonatite hosted.

The US has only one rare earths mine, Mountain Pass owned by MP Materials (NYSE: MP), which until recently relied on China to process most of its product. MP Materials has recently entered landmark transactions[5] that will support a US domestic rare earths supply chain – notably:

- A multi-billion dollar investment by the Department of Defense (DoD) that includes a direct investment of US$400m in equity of MP and a 10-year agreement establishing a price floor commitment by DoD of US$110 per kilogram for MP's NdPr products
- A US$500m investment by Apple to support the establishment by MP Materials of a rare earths processing facility in the US with the aim of supplying Apple with magnets for use in iPhones and other Apple devices

[5] See announcement by MP Materials dated 10 July 2025 '*MP Materials Announces Transformational Public-Private Partnership with the Department of Defense to Accelerate U.S. Rare Earth Magnet Independence*' and announcement by MP Materials dated 15 July 2025 *'MP Materials and Apple Announce $500 Million Partnership to Produce Recycled Rare Earth Magnets in the United States'*

For personal use only

Company	St George	Lynas	MP	Arafura
Market cap and stock exchange	**A$110 million ASX; SGQ**	**A$10.5 billion ASX: LYC**	**US$10.7 billion NYSE: MP**	**A$444 million ASX: ARU**
Project	Araxá, Brazil	Mt Weld, Australia	Mountain Pass, USA	Nolans, Australia
Deposit style	Hard-rock	Hard-rock	Hard-rock	Hard-rock
Stage	Development studies	Producing	Producing	Construction
REE Product	Oxide	Oxide	Oxide	Oxide
Mineral resource (Mt)	**Measured**: 1.9 **Indicated**: 7.37 **Inferred**: 31.37 **Total**: 40.64	**Measured**: 20 **Indicated**: 15.5 **Inferred**: 71.1 **Total**: 106.6	**Measured**: 0.1 **Indicated**: 31.5 **Inferred**: 9.1 **Total**: 40.6	**Measured**: 4.9 **Indicated**: 30 **Inferred**: 21 **Total**: 56
TREO grade (%)	**Measured**: 5.44% **Indicated**: 4.76% **Inferred**: 3.9% **Total**: 4.13%	**Measured**: 7.2% **Indicated**: 4.3% **Inferred**: 3.2% **Total**: 4.1%	**Measured**: 9.5% **Indicated**: 6.2% **Inferred**: 5.1% **Total**: 5.9%	**Measured**: 3.2% **Indicated**: 2.7% **Inferred**: 2.3% **Total**: 2.6%
NdPr grade (%)	**Total**: 0.78%	**Total**: 0.61%	**Total**: 0.93%	**Total**: 0.69%
Contained NdPr (Mt)	0.32	0.65	0.38	0.38

Table 3 – Peer benchmarking of major hard-rock rare earths deposits (ex-China). (For source data, see below).

Source data for Table 1: Source reference data for resources referred to in Table 3 is set out below. For market capitalisation, values are based on closing prices as at 30 July 2025 in the ASX for Lynas, Arafura and St George; and on the closing price for MP Materials as at 29 July 2025 in the NYSE.

Lynas, Mt Weld:

Resource details are from the ASX announcement dated 5 August 2024: "2024 Mineral Resource and Reserve Update" and from the Annual Report FY2023 released to ASX on 12 October 2023.

Arafura:
Resource details are from ASX announcement dated 11 November 2022 "Nolans Project Update".

MP Materials:
Resource details are from SEC filing: "FORM 10-K" dated 28 February 2022. Measured Resource assumed to be equal to Proven Reserves. Indicated Resource assumed to equal Probable Reserves.

For personal use only

About the Araxá Project:

St George acquired 100% of the Araxá Project on 27 February 2025. Araxá is a de-risked, potentially world-class rare earths and niobium project in Minas Gerais, Brazil, located adjacent to CBMM's world-leading niobium mining operations.

The region around the Araxá Project has a long history of commercial niobium production and provides access to infrastructure and a skilled workforce. St George has assembled a highly experienced in-country team and established relationships with key parties and authorities in Brazil to drive the Project through exploration work and development studies.

St George has been selected to participate in the Federal Government's MAGBRAS Initiative – a program aimed at establishing an integrated and sustainable rare earth products supply chain including the production of permanent magnets entirely within Brazil – and has signed a cooperation agreement with the State of Minas Gerais in October 2024 pursuant to which the State will assist in expediting permitting approvals for the Araxá Project.

These relationships underscore St George's strategy to integrate with the Brazilian government and business sectors, as well as the local community, to support unified and smooth progress in the development of the Araxá Project.

Extensive high-grade niobium and REE mineralisation at the Araxá Project has been confirmed by past drilling. High-grade mineralisation commences from surface, with more than 500 intercepts of high-grade niobium (>1% Nb_2O_5) with grades up to 8% Nb_2O_5 plus rare earths with grades up to 33% TREO, as announced in our ASX Release of 6 August 2024.

On 1 April 2025, St George announced a maiden resource for the Project which represents both a globally significant niobium and rare earths resource as shown in **Table 1** below:

Niobium – total resource:
41.2 Mt at 0.68% Nb_2O_5 (6,800ppm Nb_2O_5) comprising (at a cut-off of 0.2% Nb_2O_5)**:**

Resource Classification	Million Tonnes (Mt)	Nb_2O_5 (%)
Measured	1.90	1.19
Indicated	7.37	0.93
Inferred	31.93	0.59
Total	**41.20**	**0.68**

Rare earths – total resource:
40.6 Mt at 4.13% TREO (41,300ppm TREO) comprising (at a cut-off of 2% TREO):

Resource Classification	Million Tonnes (Mt)	TREO (%)	MREO (%)
Measured	1.90	5.44	1.04
Indicated	7.37	4.76	0.90
Inferred	31.37	3.90	0.74
Total	**40.64**	**4.13**	**0.78**

For personal use only

Table 4 - List of auger drillholes reported in this announcement. All holes in SAD69 UTM Zone 23S.

HOLEID	EASTING	NORTHING	RL	DEPTH	DIP	AZIMUTH	DRILL TYPE
AXAG001	297562	7826952	1110	15	-90	0	Auger
AXAG002	297662	7826950	1102	9	-90	0	Auger
AXAG003	297661	7826850	1116	15	-90	0	Auger
AXAG004	297763	7826848	1106	14	-90	0	Auger
AXAG007	297611	7827050	1102	15	-90	0	Auger
AXAG008	297629	7827150	1106	13	-90	0	Auger
AXAG009	297609	7827244	1117	15	-90	0	Auger
AXAG010	297714	7827246	1097	12.75	-90	0	Auger
AXAG011	297702	7827145	1093	15	-90	0	Auger
AXAG014	298053	7827045	1108	15	-90	0	Auger
AXAG015	297958	7827048	1096	15.8	-90	0	Auger
AXAG016	297959	7827148	1095	13.3	-90	0	Auger
AXAG017	297960	7827243	1084	13	-90	0	Auger
AXAG018	298040	7827247	1088	11.5	-90	0	Auger
AXAG019	298107	7827243	1089	4.1	-90	0	Auger
AXAG020	298059	7827151	1100	15.5	-90	0	Auger
AXAG021	298109	7827047	1110	16	-90	0	Auger
AXAG022	298071	7826900	1113	14	-90	0	Auger
AXAG023	297970	7826807	1110	10	-90	0	Auger
AXAG024	297820	7826699	1121	15	-90	0	Auger
AXAG025	298002	7826898	1104	15	-90	0	Auger
AXAG026	297995	7826976	1101	9	-90	0	Auger

Authorised for release by the Board of St George Mining Limited.

John Prineas
Executive Chairman
St George Mining
+61 411 421 253
john.prineas@stgm.com.au

Peter Klinger
Media and Investor Relations
Purple
+61 411 251 540
pklinger@purple.au

Competent Person Statement – Mineral Resource Estimate

Mr. Beau Nicholls: The information in this ASX Release that relates to Mineral Resource Estimate and historical/foreign results is based upon, and fairly represents, information and supporting documentation reviewed and compiled by Mr. Beau Nicholls, a Competent Person who is a Fellow of The Australian Institute of Geoscientists. Mr Nicholls is the Principal Consultant of EM2 Ltd (Sahara), an independent consultancy engaged by St George Mining Limited for the review of historical data and preparation of the Mineral Resource Estimate for the Araxá Niobium & Rare Earth Project under the JORC guidelines of 2012. Mr Nicholls has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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".

For personal use only

Mr. Leandro Silva: The information in this ASX Release that relates to Mineral Resource Estimate is based upon, and fairly represents, information and supporting documentation reviewed and compiled by Mr Leandro Silva, a Competent Person who is Member of The Australian Institute of Geoscientists. Mr Silva is the Consulting Geologist of EM2 Ltd (Sahara), an independent consultancy engaged by St George Mining Limited for the review of historical data and preparation of the Mineral Resource Estimate for the Araxá Niobium & Rare Earth Project under the JORC guidelines of 2012. Mr Silva has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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"

This ASX announcement contains information related to the following reports which are available on the Company's website at www.stgm.com.au:

- *1 April 2025 Maiden High-Grade Niobium and Rare Earth Resource Estimate for the Araxá Project, Brazil*

The Company confirms that it is not aware of any new information or data that materially affects the Mineral Resource Estimates included in any original market announcements referred to in this report and that all material assumptions and technical parameters underpinning the Mineral Resource Estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Competent Person Statement – Exploration Results

The information in this ASX Release that relates to historical and foreign results is based upon, and fairly represents, information and supporting documentation reviewed by Mr. Carlos Silva, Senior Geologist employed by GE21 Consultoria Mineral and a Competent Person who is a Member of The Australian Institute of Geoscientists. GE21 is an independent consultancy engaged by St George Mining Limited for the review of historical exploration data. Mr Silva has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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".

This ASX announcement contains information related to the following reports which are available on the Company's website at www.stgm.com.au:

- *6 August 2024 Acquisition of High-Grade Araxá Niobium Project*
- *12 December 2024 St George signs partnership for downstream niobium and rare earth processing and production in Brazil.*
- *9 January 2025 St George commences program to optimise niobium and rare earths downstream processing for the Araxá Project.*

The Company confirms that it is not aware of any new information or data that materially affects the exploration results included in any original market announcements referred to in this report and that no material change in the results has occurred. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Competent Person Statement:

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves for the Araxá Project is based on information compiled by Mr Wanderly Basso, a Competent Person who is a Member of The Australasian Institute of Geoscientists. Mr Basso is employed by St George Mining Limited to provide technical advice on mineral projects, and he holds performance rights issued by the Company.

Mr Basso has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition

For personal use only

of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Basso consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward Looking Statements:

This announcement includes forward-looking statements that are only predictions and are subject to known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of St George, the directors and the Company's management. Such forward-looking statements are not guarantees of future performance.

Examples of forward-looking statements used in this announcement include use of the words 'may', 'could', believes', estimates', targets', 'expects', or 'intends' and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of the announcement, are expected to take place.

Actual values, results, interpretations or events may be materially different to those expressed or implied in this announcement. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements in the announcement as they speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and the ASX Listing Rules, St George does not undertake any obligation to update or revise any information or any of the forward-looking statements in this announcement or any changes in events, conditions or circumstances on which any such forward-looking statement is based.

This announcement has been prepared by St George Mining Limited and contains background Information about St George Mining Limited current at the date of this announcement. The announcement is in summary form and does not purport to be all inclusive or complete. Recipients should not rely upon it as advice for investment purposes, as it does not take into account your investment objectives, financial position or needs. These factors should be considered, with or without professional advice, when deciding if an investment is appropriate.

The announcement is for information purposes only. Neither this announcement nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares in any jurisdiction. The announcement may not be distributed in any jurisdiction except in accordance with the legal requirements applicable in such jurisdiction. Recipients should inform themselves of the restrictions that apply to their own jurisdiction as a failure to do so may result in a violation of securities laws in such jurisdiction.

This announcement does not constitute investment advice and has been prepared without taking into account the recipient's investment objectives, financial circumstances or particular needs and the opinions and recommendations in this announcement are not intended to represent recommendations of particular investments to particular person.

Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments. To the extent permitted by law, no responsibility for any loss arising in any way (including by way of negligence) from anyone acting or refraining from acting as a result of this material is accepted by St George Mining Limited (including any of its related bodies corporate), its officers, employees, agents and advisers.

– Ends –

For personal use only

The following section is provided for compliance with requirements for the reporting of exploration results under the JORC Code, 2012 Edition.

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (eg 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.*	Drilling programme will be completed by mechanised Auger All samples from the auger drilling are taken as 1m samples from surface to the maximum depth achieved for laboratory assay, maximum depth reached was 17m due to blade refusal. The first 0.5 metres of the hole was not sampled to avoid excessive organic matter and potential non in-situ materials. Appropriate QAQC samples (standards, blanks and duplicates) are inserted into the sequences as per industry best practice for all samples collected
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Samples are taken on a one metre basis and collected using uniquely numbered bags. The remaining material for that metre is collected and stored in a plastic bags marked with that specific metre interval and hole ID. A blank sample is inserted at the beginning of each hole, and a duplicate sample is taken every 40th sample. A certified sample standard for niobium and REE is also added according to geology, but at no more than 1:40 samples. The number of samples per batch varies between 41 to 55 samples. A percentage of the samples will be selected to be assayed by the same method by a different laboratory for umpire checks. The drill-hole collar locations are recorded using a handheld GPS and after completion the final drill hole location will be recorded using a high-precision DGPS station which as expected accuracy of +/- 10cm. Geological logging of core is completed at site, the remaining of the auger material that hasn't been sampled is also stored for future reference.
	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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.*	Each 1m composite bulk sample is naturally dried, clumps/lumps are diminished with the help of a sieve, the full content of the bulk sample are than homogenised, divided in quarters and collected for assay, typically weighs 2-3kg, and once dried, is prepared for the laboratory. The samples are prepared by the laboratory according to the following procedure: Whole samples drying and weighing, crushing of sample to -2mm followed by homogenization and splitting to a 250g sub-sample. Samples pulverization to 85% passing 75 micron and splitting of pulverized material to 50-gram pulp. Elements for all suites go through the following analytical method: Elements are analysed by ALS Laboratories using Lithium Metaborate fusion and an ICP-MS/AES finish. These elements are: La_2O_3, CeO_2, Pr_6O_{11}, Nd_2O_3, Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Lu_2O_3, Ho_2O_3, Er_2O_3, Y_2O_3, Yb, Tm_2O_3, Nb_2O_5, Hf, Rb, Sn, Ta, Th, U, V, W, Zr, Sc, SiO_2, Na_2O, P_2O_5, Al_2O_3, K_2O, SrO, Fe_2O_3, Cr_2O_3, BaO, CaO, TiO_2, MgO, MnO and LOI.

For personal use only

Criteria	JORC Code explanation	Commentary
		Elements are analysed by SGS Laboratories using Lithium Metaborate fusion and an ICP-MS/XRF finish. These elements are: La2O3, CeO2, Pr6O11, Nd2O3, Sm2O3, Eu2O3, Gd2O3, Tb4O7, Dy2O3, Lu2O3, Ho2O3, Er2O3, Y2O3, Yb, Tm2O3, Nb2O5, Hf, Rb, Sn, Ta, Th, U, V, W, Zr, Sc, SiO2, Na2O, P2O5, Al2O3, K2O, SrO, Fe2O3, Cr2O3, BaO, CaO, TiO2, MgO, MnO and LOI. Due to the high-grade nature of the deposit, assays results that are reported above the upper detection limit for the methods above mentioned will be subject to determination by XRF finish. Prior to be analysed by the methods above mentioned, the samples will be analysed using a Sciapps X555 portable XRF, the results obtained from the portable XRF analyses are indicative only and will only be used as preliminary indication of mineralisation occurrences and for the purposes of geological interpretation.
Drilling techniques	*Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diametre, 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).*	Drilling programme will be completed by mechanised Auger. The auger holes are drilled from surface to planned depth or until blade refusal, samples are collected from the auger blade sampler every 1 metre.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Samples are visually checked for recovery, moisture and contamination. Geological logging is completed at site with remaining representative auger samples stored in plastic bags for future reference.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Samples are collected directly from the auger blade sampler in a 1m interval and stored directly in individually labelled plastic bags. Geological logging of the samples collected is completed at site with representative samples being stored in bags.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	To date, no sample recovery issues have yet been identified that would impact on potential sample bias in the soil/regolith profile or sampling methods.
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.*	Logging of samples records lithology, mineralogy, mineralisation, alteration, weathering, colour and other noticeable features to a level of detail to support appropriate Mineral Resource estimation.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	The logging is both qualitive and quantitative in nature, with sample recovery and volume being recorded. No photographs are taken.
	The total length and percentage of the relevant intersections logged.	All drill holes are geologically logged in full. The data relating to the elements analysed is later used to determine further information regarding the detailed rock composition. Detailed litho-geochemical information is collected by the portable XRF unit to help with lithological identification and geological interpretation.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Not applicable as drilling was completed by the auger method..

For personal use only

Criteria	JORC Code explanation	Commentary
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Auger samples are collected in dry form directly from the auger blade sampler in a 1m interval and stored in individually labelled plastic bags. Geological logging of auger samples are completed at site with representative samples stored in bags for future reference.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Assay preparation procedures follow a standard protocol which include drying and weighing of whole sample, samples are then crushed to -2mm size. Sample homogenization and splitting to a 250g sub-sample. Pulverization to 85% passing 75 micron and splitting of pulverized material to 50-gram pulp.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Quality control procedures include submission of Certified Reference Materials (standards), duplicates and blanks Field QC procedures maximise representivity of Auger samples and involve the use of certified reference material as assay standards, along with blanks and duplicates with each sample batch. QAQC results are routinely reviewed to identify and resolve any issues, eventual failed batches are re-analysed. A percentage of the global samples are selected to be assayed by the same method by a different laboratory for umpire checks.
	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.	Duplicate samples are selected during sampling for auger by collecting a representative sample of the same homogenised/quarted pile.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered to be appropriate to correctly represent type and style of mineralisation and associated geology based on the deposit style (supergene deposit), the thickness and consistency of the intersections and the sampling methodology.
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.*	The assay method and detection limits are appropriate for analysis of the elements required.
	For geophysical tools, spectrometres, handheld XRF instruments, etc, the parametres used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	XRF: A handheld XRF instrument (Sciapps X555) is used to systematically analyse the samples onsite. One reading is taken per 1 metre, however for any samples with expected mineralisation then multiple samples are taken at set intervals. The instruments are serviced and calibrated at least once a year following the manufacturer protocol. Field calibration of the XRF instrument using standards is periodically performed (usually daily). The handheld XRF results are only used for preliminary assessment and reporting of element compositions, prior to the receipt of assay results from the certified laboratory.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Laboratory QAQC involves the use of internal lab standards using certified reference material (CRMs), blanks, umpire assays and pulp duplicates as part of in-house procedures. The Company also submits a suite of CRMs, blanks, umpire assays and selects appropriate samples for duplicates. Company's QAQC protocols are expected to be collected at an overall rate of 20%. Blank samples represent 5% of the database; duplicates, 5%; umpire checks, 5%; and certified reference materials, for niobium and REE, has an expected 5% insertion rate in the program.

For personal use only

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Significant intersections and assays are verified by the Company's Technical Director and Consulting Geologist.
	The use of twinned holes.	No twinned holes were drilled.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data is captured onto a laptop using acQuire software and includes geological logging, sample data and QA/QC information. This data, together with the assay data, is entered into the St George Mining central SQL database which is managed by external consultants.
	Discuss any adjustment to assay data.	No adjustments or calibrations will be made to any primary assay data collected for the purpose of reporting assay grades and mineralised intervals. For geological analysis recognised calculations may be used to demonstrate mineralisation potential for one or more elements of interest, such as demonstrate below: TREO (Total Rare Earth Oxides) calculations include the summation of the following elements: La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Tm2O3 + Dy2O3 + Lu2O3 + Ho2O3 + Er2O3 + Y2O3 + Yb2O3 MREO (Magnetic Rare Earth Oxides) calculations include the summation of the following elements: Pr6O11+ Nd2O3+ Tb4O7+ Dy2O3 HREO (Heavy Rare Earth Oxides) calculations include the summation of the following elements: Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Lu2O3 + Ho2O3 + Er2O3 + Y2O3 + Yb2O3
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.*	Drill holes have been located and pegged using a Handheld GPS system with an expected accuracy of +/-5m for easting, northing and elevation. Upon completion of drilling the holes will be be recorded using a high-precision DGPS station which as expected accuracy of +/- 10cm.
	Specification of the grid system used.	The coordinates were provided in following format: SAD 69 datum - georeferenced to spindle 23S.
	Quality and adequacy of topographic control.	Elevation data will be acquired using DGPS surveying at individual collar locations and entered in a central database. A topographic surface will be created using this data and additional topographic survey at later stage.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Hole spacing ranges from approximately 50 to 100 metres, depending on the specific objective being targeted in each area.
	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.	No prior drilling was conducted in the area. The drilling program is exploratory in nature and will require follow-up drilling to establish an appropriate degree of geological continuity.
	Whether sample compositing has been applied.	No compositing has been applied to the exploration results.
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.*	The mineralisation is flat lying and occurs within the saprolite/clay zone of a deeply developed regolith (reflecting topography and weathering). Vertical sampling from the drill holes is therefore appropriate.

Criteria	JORC Code explanation	Commentary
	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.	No orientation-based sampling bias has been identified in the data to date.
Sample security	*The measures taken to ensure sample security.*	Chain of Custody is managed by the Company until samples pass to a duly certified assay laboratory for subsampling and assaying. The sample bags are stored on secure sites and delivered to the assay laboratory by the Company or a competent agent. When in transit, they are kept in locked premises. Transport logs have been set up to track the progress of samples. The chain of custody passes upon delivery of the samples to the assay laboratory.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Sampling techniques and procedures are regularly reviewed internally, as is data. To date, no external audits have been completed on the planned drilling programme.

For personal use only