

27 December 2023

#### **EXPLORATION UPDATE**

# Strong Foundations for Growth of Lithium and Battery Metals Projects in Western Australia

# **HIGHLIGHTS**

#### Mt Alexander Project – Lithium Exploration:

- Soil sampling, pegmatite field mapping and outcrop sampling completed over a previously untested area of the Mt Alexander Project – owned 100% by St George except for E29/638 (75% St George; 25% IGO)
- Assays are pending for soil samples and rock chip samples, with final results expected by mid-January 2024
- Results will allow for completion of drill targeting for the 2024 drill programme scheduled to commence in February – that will include targets across:
  - an 8km-long zone around the Manta Prospect, where drilling by St George intersected a 121m-thick fractionated pegmatite
  - a 4km-long zone of the Jailbreak Prospect, where drilling by St George intersected multiple lithium-bearing pegmatites with values up to 1.8% Li<sub>2</sub>O and rock-chip samples returned values up to 3.25% Li<sub>2</sub>O<sup>1</sup>

#### **Destiny Project – REE and Lithium Exploration:**

- Drill programme scheduled to commence in January 2024 to follow up rare earth elements (REE) and lithium targets
- <u>REE</u>: Further drilling at the high-grade Total Rare Earth Oxide (TREO) discovery at Destiny, where thick, near-surface, clay-hosted REE have been intersected – with grades up to 5,125ppm TREO and 1,199ppm MREO<sup>2</sup>
- <u>Lithium</u>: Maiden drilling of lithium targets including an area along strike from the Spargos Project of Neometals (ASX: NMT), where spodumene occurrences have been reported<sup>3</sup>

## <u>Lithium Star – ramping up work with support from world's leading lithium-ion battery maker:</u>

- Delegation from Amperex Technology Limited ("ATL") completed a site visit of selected Lithium Star projects in December
- ATL investment of \$3 million in Lithium Star Pty Ltd has been completed<sup>4</sup>

<sup>&</sup>lt;sup>1</sup>See St George's ASX Release dated 29 March 2023 "121 Metre Pegmatite Intersection at Mt Alexander" and ASX Release dated 5 July 2023 "Lithium Results at Mt Alexander"

<sup>&</sup>lt;sup>2</sup> See ASX Release by St George dated 6 December 2023 "High-Grade REE Discovery"

<sup>&</sup>lt;sup>3</sup> See ASX Release by Neometals dated 13 November 2023 "Neometals Discovers Spodumene bearing Pegmatite at Spargos"

<sup>&</sup>lt;sup>4</sup> See ASX Release by St George dated 17 October 2023 "Investment by World Leader in Lithium-Ion Batteries"



- Exploration at priority Lithium Star projects is being accelerated with a focus on:
  - the Split Rocks Project: located ~25km north-west of the Earl Grey lithium deposit (189Mt @ 1.50% Li₂O)<sup>5</sup> owned by Covalent Lithium – a joint venture between Wesfarmers (ASX: WES) and SQM (NYSE: SQM)
  - the Buningonia and Buningonia North Projects: located in the same lithium province as Global Lithium's (ASX: GL1) Manna Project (32.7Mt @ 1.0% Li<sub>2</sub>O)<sup>6</sup> and the operating Bald Hill Mine (26Mt @ 1% Li<sub>2</sub>O)<sup>7</sup>
  - the Myuna Rocks Project: near Allkem's (ASX: AKE) operating Mt Cattlin Mine (12.1Mt @ 1.3% Li₂O)<sup>8</sup>
- Pre-drilling field work underway ahead of maiden drill programme in 2024

St George Mining Limited (ASX: **SGQ**) ("**St George**" or "**the Company**") is pleased to provide an update on its portfolio of lithium and battery metals projects in Western Australia following a year of building out the foundations of a highly prospective exploration portfolio.

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

"Our work in 2023 has delivered a number of important project milestones and – looking forward – laid the platform for strong growth in 2024. We thank our shareholders for their support as we worked hard to establish these exciting growth foundations.

"Our drilling at Mt Alexander has confirmed the presence of high-grade lithium as well as very thick pegmatites that are up to 121m thick. These results point to the potential for a large lithium-bearing pegmatite mineral system. With only a fraction of the +16km exposure to the regional LCT corridor on our tenure tested by drilling, the exploration upside at Mt Alexander is significant.

"The exploration and M&A activity around our Mt Alexander Project cannot be ignored.

"Active lithium exploration is also underway at the neighbouring Mt Bevan Project – a joint venture between Hancock Prospecting, Legacy Iron (ASX: LCY) and Hawthorn Resources (ASX: HAW), and at the nearby Mt Ida Project (14.6Mt @ 1.2% Li<sub>2</sub>O)<sup>9</sup> of Delta Lithium (ASX: DLI) where Mineral Resources (ASX: MIN) has emerged as the controlling shareholder.

"Our ongoing, systematic exploration is delivering new targets at Mt Alexander for what is becoming a highly anticipated 2024 drill programme.

"Our strategy over the past year has also seen us build out our portfolio of highly prospective, underexplored projects in Western Australia. The new Destiny Project and the Lithium Star package of projects have substantially expanded the Company's pipeline of exploration opportunities.

"Our high-grade rare earths discovery at Destiny, which we announced just weeks ago, was an outstanding early achievement that we will build on in 2024 with follow-up drilling and exploration.

"In addition, numerous targets for potential lithium-bearing pegmatites are being defined across the large +3,000 sq km Destiny landholding – setting the stage for a maiden lithium drilling campaign in early 2024.

<sup>&</sup>lt;sup>5</sup> Wesfarmers Proposal to acquire Kidman Resources – ASX Briefing Presentation 2 May 2019

<sup>&</sup>lt;sup>6</sup> Global Lithium Delivers Transformative 50.7 Mt Lithium Resource Base – ASX Release 15 December 2022

<sup>&</sup>lt;sup>7</sup> Lithium Ore Reserve Increase of 105% at Bald Hill by Tawana Resources – ASX Release 6 June 2018

<sup>&</sup>lt;sup>8</sup> Allkem Confirms Material Growth Profile – ASX Release 25 September 2023

<sup>9</sup> Delta Lithium ASX Release dated 3 October 2023 "Mt Ida Lithium Mineral Resource Estimate Update"



"The acquisition of the Lithium Star projects was an exciting development in 2023. We were delighted that Amperex Technology (ATL) – the world leader in lithium-ion batteries – recognised the potential of these projects and invested \$3 million for an initial 10% stake in Lithium Star.

"We had the pleasure of hosting a delegation from ATL in Perth earlier this month. A ramp-up of exploration – including maiden drill programmes – is planned for the Lithium Star projects in 2024. We are excited about unlocking the potential at these unexplored and underexplored projects.

"Our vision to create shareholder wealth through exploration of high-quality projects was also recognised by Shanghai Jayson – another global battery player – which increased its shareholding in St George following a further investment of \$3 million.

"Our exploration and corporate achievements in 2023 have positioned St George for strong growth in 2024. The projects and funding are in place to enable us to pursue significant shareholder wealth creation through exploration success. As we sign off on a busy year, we look forward to launching the fully funded 2024 exploration push across our projects and reporting results to shareholders."

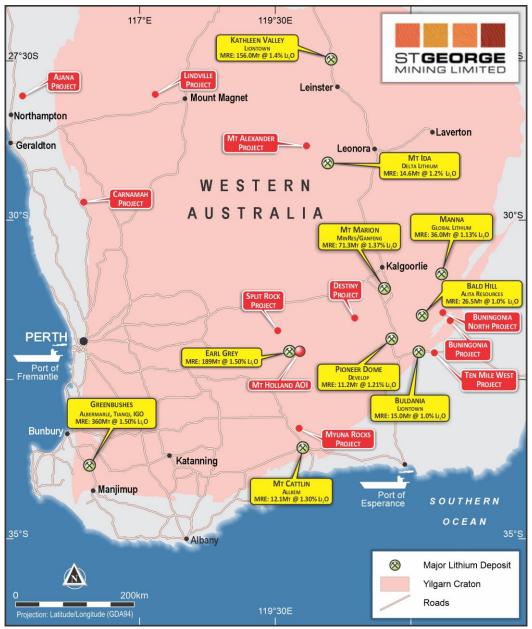


Figure 1 – map of southern WA showing the projects of St George (red labels) and other significant lithium mines and deposits.



#### **PROJECTS IN TIER 1 WA:**

Figure 1 above shows the location of St George's projects in Western Australia – the world's premier hard-rock lithium address.

Most of St George's projects are located near major lithium projects including several in the southern portion of the Yilgarn Craton – an area gaining a global reputation as a 'super province' for lithium because it already hosts three spodumene-producing mines and five others that are in development.

#### MT ALEXANDER - LITHIUM EXPLORATION:

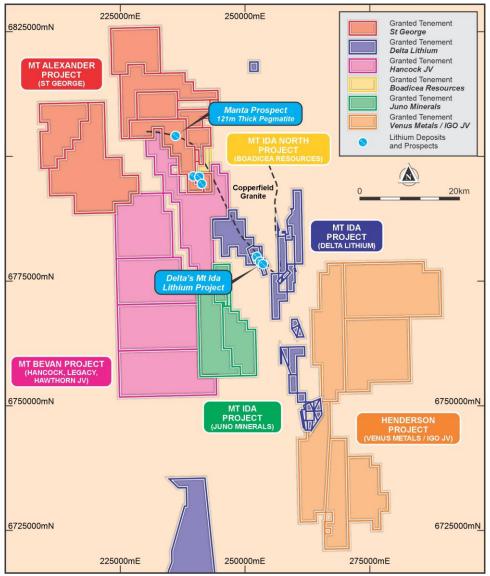


Figure 2 – Regional map showing the location of Mt Alexander Project and nearby lithium projects.

Field mapping and systematic rock-chip sampling have been recently completed on several new target areas on tenements E29/638 (75% St George; 25% IGO) and the 100% St George-owned E29/1143, P29/2680 and E29/962.

The priority target areas on these tenements are:



- 1. The contact of the Mt Alexander greenstone sequence and the Copperfield Granite. This setting is a direct analogue to the contact of the Copperfield Granite with the Mt Ida Project area, where Delta Lithium defined a major lithium deposit less than 300m from that contact.
- 2. Extensive pegmatite swarms in the northern and central portions of the Mt Alexander greenstones with more than 400 pegmatites interpreted in this area from aerial imagery.
- 3. Extension areas along strike of Jailbreak including a Proterozoic dyke interpreted from magnetics within the same structural corridor that hosts the Jailbreak lithium discoveries.
- 4. Structural corridors interpreted to be fault or shear zones that align with historical lithium anomalism and/or are in contact with the Copperfield Granite. Pegmatites in this case are interpreted to utilise fault or shear zone structures from the source granite into the greenstone sequence. They can then travel further from the source allowing them to fractionate and become enriched in lithium, caesium and tantalum.

Final assay results for the soil samples and rock chip samples are expected by mid-January. The results will assist in finalising drill targets for the 2024 drill programme – scheduled for late February.

For further details of the exploration at Mt Alexander, see our ASX Release dated 18 October 2023 "Lithium Exploration Underway at Mt Alexander".

#### NOTE:

Visual observations of pegmatites are based on geological logging and visual interpretations and should not be considered a substitute for laboratory analysis, which is required to determine the concentration of any elements that may be indicative of possible mineralisation associated with pegmatites that are mapped, sampled from rock chips or intersected by drilling.

#### About the Mt Alexander Project:

The Mt Alexander Project is located 120km south-west of the Agnew-Wiluna Belt, which hosts numerous world-class nickel deposits. The Project comprises eight tenements – seven granted exploration licences, E29/638, E29/548, E29/962, E29/954, E29/972, E29/1041 and E29/1143 and one Prospecting Licence P29/2680 – which are a contiguous package. An additional two exploration licences – E29/1093 and E29/1126 – are located to the southeast of the core tenement package.

E29/638 is held in joint venture by St George (75%) and IGO Limited (25%). St George is the Manager of the Project, with IGO retaining a 25% non-contributing interest (in E29/638 only) until there is a decision to mine. With the exception of E29/638, all Project tenements are owned 100% by St George.

#### **DESTINY PROJECT – BREAKTHROUGH EXPLORATION:**

The Destiny Project is a unique regional exploration opportunity with only minimal previous exploration. The landholding covers more than 90km of the Ida Fault – an important shear zone that is interpreted to be associated with major lithium, gold and base metal deposits.

#### **REE Discovery**:

St George's maiden drill programme at Destiny intersected widespread TREO within a saprolitic clay horizon up to 100m thick. High-grade TREO (>500ppm) were intersected in 42 of the 61 drill holes completed, with a peak value of **2m @ 5,125ppm from 32m** downhole within a broader interval of **30m @ 1,885ppm from 20m** downhole.

With only 7km of the 90km prospective horizon tested by drilling, the exploration potential is substantial. For further details of the REE discovery, see our ASX Release dated 6 December 2023 "High-Grade REE Discovery".



A follow-up drill programme at Destiny is scheduled to commence in late January to further scope the extent of the REE mineralisation.

#### **Lithium Exploration at Destiny:**

Mapping, rock chip and soil sampling of pegmatites and prospective horizons have been initiated at the Destiny Project, where no previous systematic exploration for lithium appears to have been conducted. Assay results are expected in late January.

Greenstone sequences – including mapped ultramafics at the contact zone with the potentially fertile Burra Monzogranite to the east of the Ida Fault – are a priority exploration area for potential lithium mineralisation. This target horizon is along strike of the spodumene recently discovered at the Spargos Project by Neometals (ASX: NMT) – see their announcement dated 13 November 2023 'Neometals Discovers Spodumene bearing Pegmatite at Spargos'.

A maiden drill programme of lithium targets is scheduled for February.

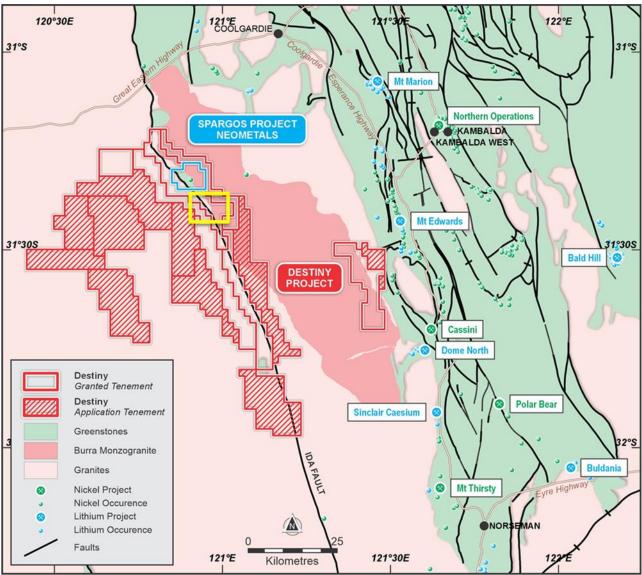


Figure 3 – map showing the regional location of the Destiny Project. REE drill area marked by the yellow polygon. The large Burra Monzogranite is interpreted to be a potential source of mineralised pegmatites.



#### **LITHIUM STAR – EXPLORATION ACCELERATES:**

The investment by ATL of \$3 million for a 10% stake in Lithium Star has provided a major step forward in unlocking the value of the Lithium Star project portfolio. With seven hard-rock lithium projects located in highly prospective regions of Western Australia, we believe the potential of Lithium Star is very significant.

Work programmes to advance the exploration knowledge at the Lithium Star projects will accelerate in 2024. Drill programmes for the priority projects at Myuna Rocks, Split Rock and Buningonia will be scheduled for 2024, with pre-drilling field work already underway.

A delegation from ATL visited Perth and project sites earlier in December, adding further support for a commitment to advance exploration at the Lithium Star projects.



Figure 4 – John Prineas and a senior executive of ATL visiting a mine site (Mt Cattlin) near Lithium Star's Myuna Rocks Project.

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

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#### **Competent Person Statement:**

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

Mr Mahon 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'. Mr Mahon consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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

- 8 August 2023 Acquisition of Strategic Lithium Projects
- 5 September 2023 Base Metals Discovered at Ajana
- 11 September 2023 Exploration Commences at Woolgangie
- 17 October 2023 Investment by World Leader in Lithium-ion Batteries
- 18 October 2023 Lithium Exploration Underway at Mt Alexander
- 6 December 2023 High-Grade REE Discovery

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.

#### **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 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. The document 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 conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this announcement.



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