

19 January 2022

## MORE PRIORITY NICKEL TARGETS IDENTIFIED FROM SEISMIC SURVEY AT MT ALEXANDER

### HIGHLIGHTS

- **Three further targets for drill testing identified from final modelling and interpretation of the seismic dataset**
- **New targets have similar reflective properties in the seismic data to known areas of massive nickel-copper-PGE sulphides in the Cathedrals Belt**
- **Seismic data has revealed an extensive network of cross-cutting structures, further improving the prospectivity of the project area by increasing the number of sites that may host prospective intrusive lithologies**
- **Conjugate structures comprise a series of north-dipping as well as south-dipping structures, indicating a large intrusion network that is a prospective setting for a fertile intrusive nickel sulphide mineral system**
- **Drilling of high-priority seismic target S1 – drill hole MAD206 – is progressing well and at 398m downhole as of 18 January; two drill crews are now at site drilling 24/7**

Growth-focused Western Australian nickel company St George Mining Limited (ASX: **SGQ**) (“**St George**” or “**the Company**”) is pleased to announce further strong results from the seismic survey completed late last year at its flagship high-grade Mt Alexander Project, located in the north-eastern Goldfields.

Three new targets have been added to the portfolio of seismic targets prioritised for drill testing. These large targets are named S3, S4 and S5, and have been selected as prospective for massive nickel-copper sulphides based on their increased seismic amplitude and coincidence with an intrusive structure.

The three new seismic targets are in addition to targets S1 and S2 that were discussed in our ASX Releases dated 1 December 2021 *Seismic Results Unlock Standout Targets* and 9 December 2021 *Seismic Delivers Another Standout Target at Mt Alexander*.

The seismic targets are located within Exploration Licence E29/548 (100% St George) apart from S3 which is within E29/638 (75% St George: 25% Western Areas).

**John Prineas, St George Mining’s Executive Chairman, said:**

“The outstanding results from the seismic survey continue with another three targets identified.

“With drilling already underway at S1, it is a great outcome to add to the pipeline of priority targets for drill testing in the current diamond drill programme.

“The high-grade discoveries already made in the Cathedrals Belt are proof that we have a fertile and high-grade mineral system. The sheer scale of the structural network now being revealed by the seismic data strongly supports the potential for further significant mineralisation in the project area.

“We are excited to be drilling a portfolio of high-quality exploration targets at a time when the nickel price is reaching 10-year highs and investors are looking for new discoveries.”

## NEW SEISMIC TARGETS

Key features of the three new targets are:

- **S3** – located within an unexplored south-dipping structure that intersects the Cathedrals Belt structure at depth. S3 is modelled with a dip-extent of 350m commencing at 210m below surface.
- **S4** – located within the Transits Belt, an underexplored structure parallel and 1,200m to the north of the Cathedrals Belt. S4 is modelled with a dip-extent of 320m commencing at 475m below surface. The target was identified on seismic survey Line 1 and is 1,000m east of S2, also within the Transits Belt.
- **S5** – located within an unexplored north-dipping structure parallel and 3,000m to the north of the Cathedrals Belt. S5 is modelled with a dip extent of 300m commencing at 250m below surface, and was identified on Line 3.

The reflective properties of the new targets are consistent with the reflective properties recorded in the seismic for the known massive sulphides in the Cathedrals Belt. All targets are within an intrusive structure, which is a favourable setting for potential massive sulphides.

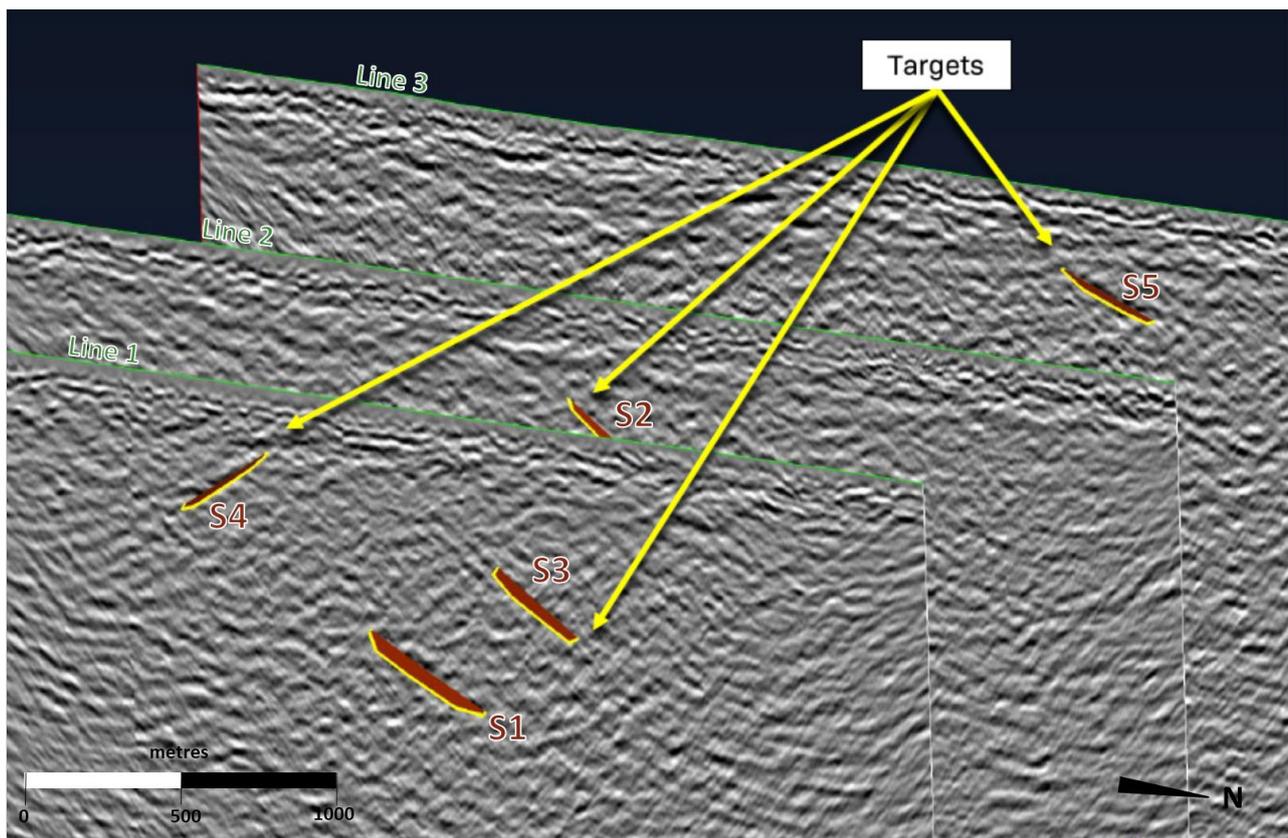


Figure 1 - oblique section (looking north-west) showing all seismic targets. Background data is the seismic 2D SEG-Y imagery from Lines 1, 2 and 3 of the 2021 seismic survey.

For further details of the seismic targets S1 and S2, see our ASX Releases dated 1 December 2021 ‘*Seismic Results Unlock Standout Targets*’ and 8 December 2021 ‘*Seismic Delivers Another Standout Target at Mt Alexander*’.

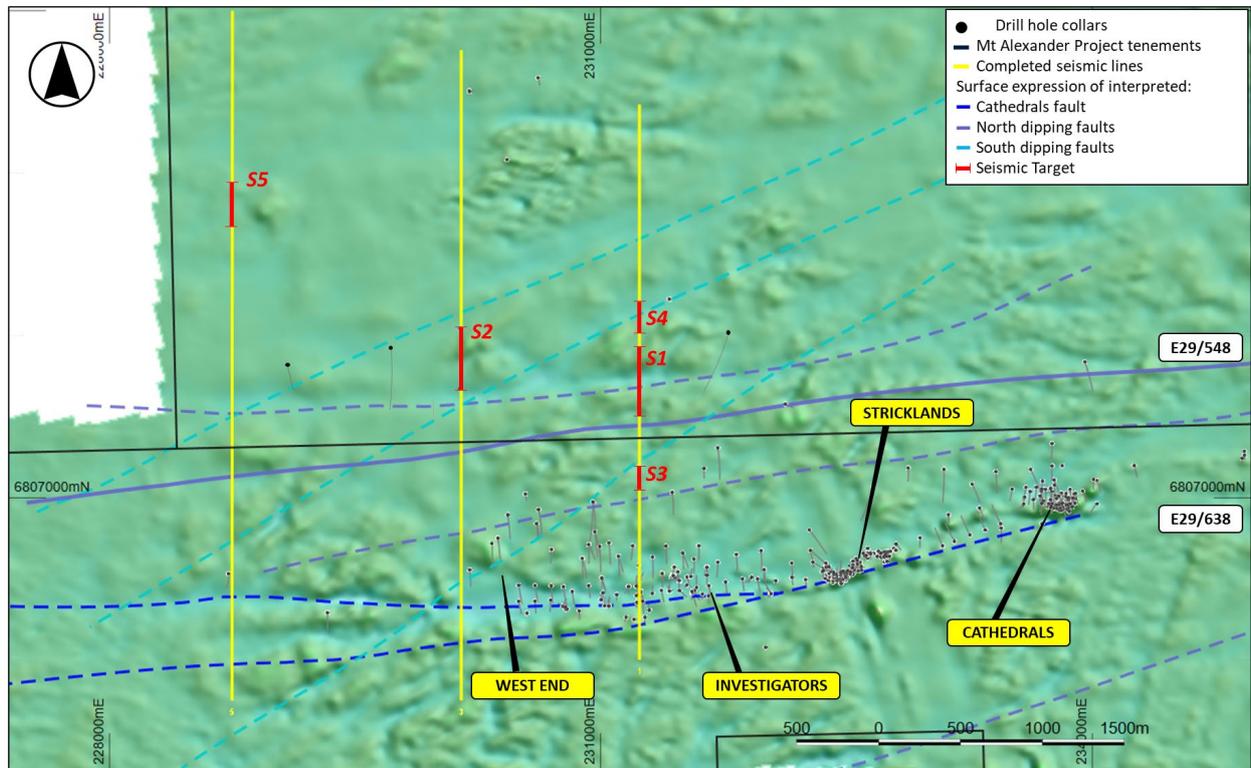


Figure 2 – map (against magnetic RTP 1VD) showing the seismic survey lines (yellow), the structures delineated by the survey and the new targets (interpreted position at depth projected at surface).

**MAPPING THE INTRUSIVE ARCHITECTURE**

**Large network increases prospectivity:** Large intrusive networks of the type identified at Mt Alexander are indicative of a mineral system with potential to host significant volumes of mineralisation.

The petrographic analysis completed by St George in 2021 indicated that the nickel-copper sulphides in the Cathedrals Belt are likely to have been associated with a large igneous event.

This is now supported by the St George-CSIRO research project that has linked the Mt Alexander intrusives to the Warakurna Large Igneous Province. See our ASX Release dated 11 January 2022 *Diamond Drilling Resumes at Mt Alexander* for further details.

The petrography also supported a dynamic emplacement environment including multiple magma pulses from a deeper magmatic chamber. See our ASX Release dated 8 March 2021 *High Impact Drilling at Mt Alexander* for a discussion on the petrography.

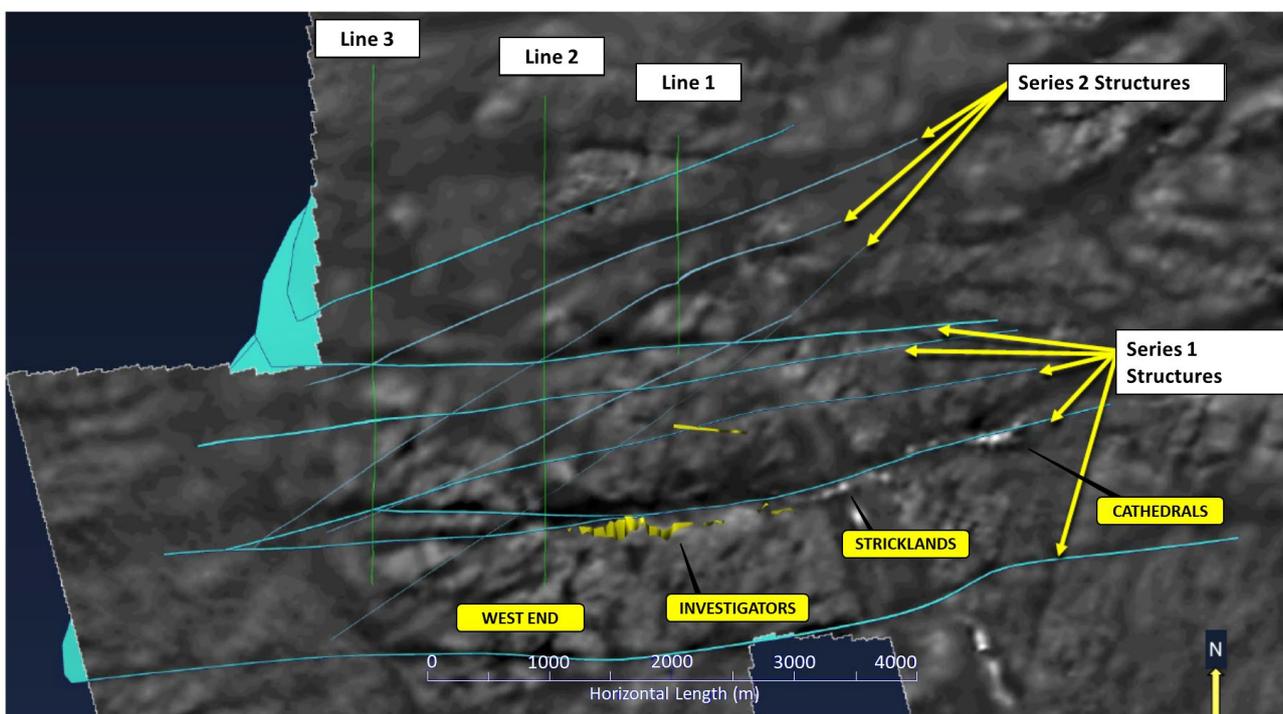
The structural network identified by the seismic data further corroborates the existence of an extensive plumbing system that has potential to host large mineral deposits in the Mt Alexander project area.

**Complex intrusion network:** The seismic data has revealed a complex network of deep structures in the survey area. These structures are likely to have acted as a control on the nickel-copper sulphide mineralisation at the project.

‘Series 1’ structures are east-west striking and dip to the north between 30 to 40 degrees. The Cathedrals Belt and Transits Belt are Series 1 structures and considered to be primary hosts to known and interpreted further mineralisation in the project area.

‘Series 2’ structures are east-northeast striking and dip to the south between 35 to 50 degrees. Series 2 structures are newly recognised and remain unexplored.

Massive sulphide mineralisation has been discovered in the Cathedrals Belt, suggesting potential for repetition of mineralisation in other Series 1 structures.



*Figure 3 – plan view against magnetics showing the completed seismic lines and the structures.*

The structures seen in the seismic data correlate with linear features observed in magnetic data. This supports an interpretation that the structures continue beyond the survey area in line with the magnetics.

Seismic surveys will be required outside the existing survey area to determine the orientation of the structures at depth in those other areas, and whether any folding or other displacement has occurred.

**Extension of survey:** Three north-south 2D seismic lines were completed in the first-ever seismic survey at Mt Alexander. Each line has provided a vertical plane of seismic data.

The potential for off-plane events in the survey area is minimal because of the planar nature and continuity of the structures hosting mineralisation. Accordingly, 2D seismic surveys are considered effective for this project.

The three seismic lines span an east-west strike of 3,000m. This is much less than the full east-west strike of the Cathedrals Belt and other structures, interpreted to be more than 15km. Further seismic surveys will be designed to cover the remaining strike of the structures.

In addition, future survey lines will be extended to the south to cover an interpreted Series 1 structure to the south of the Cathedrals Belt.

## DRILL PROGRAMME

Diamond drilling of target S1 is in progress, with drilling at 398m downhole as at 18 January 2022.

Drilling in double shifts commenced on January 15, much earlier than expected, which will fast-track the outcomes of these highly anticipated holes.

Drill holes to test targets S3, S4 and S5 are being designed and will be added to the current drill programme.

Hole ID	Tenement	East	North	RL	EOH Depth	Target Depth	DIP	AZI	Target
MAD206	E29/548	231238	6808009	414	990	850	-70	167	S1
MAD207	E29/548	230150	6808081	408	660	550	-65	173	S2

*Table 1 – drill hole details for the first two holes planned in the 2022 drill programme*

## COVID-19:

St George continues to manage its operations in compliance with COVID-19 regulations issued by State and Commonwealth authorities. We proactively manage drilling and other field programmes to protect the health and safety of our team and service providers.

Border restrictions in Western Australia and elsewhere have impacted the movement of personnel for drill rig crews, which is constraining the availability of drill rigs. St George is in close contact with its drilling contractors to best manage access and continuity to drilling services.

## About the Mt Alexander Project:

The Mt Alexander Project is located 120km south south-west of the Agnew-Wiluna Belt, which hosts numerous world-class nickel deposits. The Project comprises six granted exploration licences – E29/638, E29/548, E29/962, E29/954, E29/972 and E29/1041 – which are a contiguous package. A seventh granted exploration licence – E29/1093 – is located to the south-east of the core tenement package.

The Cathedrals, Stricklands, Investigators and Radar nickel-copper-cobalt-PGE discoveries are located on E29/638, which is held in joint venture by St George (75%) and Western Areas Limited (25%). St George is the Manager of the Project, with Western Areas retaining a 25% non-contributing interest in the Project (in regard to E29/638 only) until there is a decision to mine. All other Project tenements are owned 100% by St George.

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



**For further information, please contact:**

**John Prineas**

Executive Chairman

St George Mining Limited

+61 411 421 253

[john.prineas@stgm.com.au](mailto:john.prineas@stgm.com.au)

**Peter Klinger**

Media and Investor Relations

Cannings Purple

+61 411 251 540

[pklinger@canningspurple.com.au](mailto:pklinger@canningspurple.com.au)

**Competent Person Statement:**

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves for the Mt Alexander Project is based on information compiled by Mr Dave Mahon, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. 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.