### **ASX / MEDIA RELEASE**



23 October 2018

#### PRESENTATION – AUSTRALIAN NICKEL CONFERENCE

St George Mining Limited (ASX: **SGQ**) ('St George' or 'the Company') is participating in the Australian Nickel Conference in Perth today as a major sponsor.

A copy of the Investor Presentation for the Conference is attached.

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# Nickel-Copper Sulphide Discovery Continues to Grow

Australian Nickel Conference
23 October 2018

St George Mining Limited | ACN 139 308 973

**ASX: SGQ** 

### St George – Growth Nickel Stock



Nickel-copper sulphide discovery in WA

+

Drilling to expand resource potential

Upswing in nickel price

Major re-rating of St George



<u>On right</u>: Diamond drilling at Mt Alexander



# St George – Corporate Overview



### **Market Profile and Capital Structure**

Listed shares (SGQ): 298,116,211 Listed options (SGQOB): 24,579,714 SGQOB - exercise price of 20c, expiring on 30 Sept 2020.

Market cap: **A\$39m** (@12 per share)

Cash: **A\$3.8m** (at 30 Sept 2018)

#### **Broad Shareholder Base**

Over 3,500 shareholders including Australian and overseas institutions, high net worth and retail investors

#### **Share Ownership**

Top 10: 19% Top 20: 27%

Directors: 6%

#### **Largest Shareholders**

Impulzive: 4.5% City Natural Res's: 3% John Prineas: 4.4% Oceanic Capital: 3%



- Drilling is ongoing
- Strong newsflow continues

### **Highly Qualified Team**



### Directors, Management and Consultants with a Track Record of Success

**John PRINEAS, Executive Chairman** – founding shareholder with over 25 years experience in mining, and the banking and legal sectors servicing the resources industry.

**Tim HRONSKY, Technical Director** – over 25 years as a geologist in the global exploration and mining industry, including 15 years with Placer Dome Inc.

**Sarah SHIPWAY, Non-executive Director/Company Secretary** – Chartered Accountant with extensive experience in advising listed exploration companies.

Charles WILKINSON, Technical Consultant – over 32 years' experience as a geologist in the mining industry. 16 years at WMC Resources including Exploration Manager - Nickel Exploration Australia. Joined Western Areas Limited in 2008 as General Manager Exploration. During his 9 years at WSA, the company developed the Spotted Quoll deposit, significantly grew its resource inventory and became Australia's No. 1 independent nickel sulphide producer.

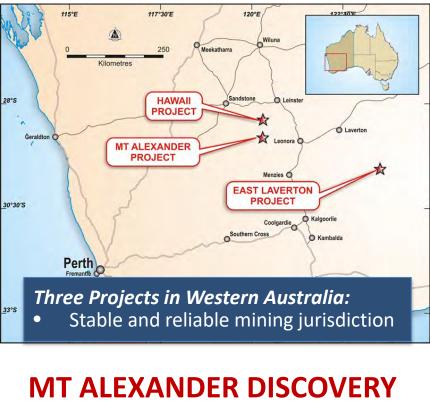
**Newexco** – Leading geophysical consultants in nickel sulphide exploration. Advisers on Nova-Bollinger deposit for Sirius Resources NL, and the Spotted Quoll and Flying Fox deposits for Western Areas Limited (ASX: WSA).

**Dr Jon HRONSKY, Consultant** – Chairman of the Centre for Exploration Targeting in WA, adviser on exploration targeting. Previously, Manager-Strategy & Generative Services for BHP Billiton Mineral Exploration.





# The Discovery at Mt Alexander

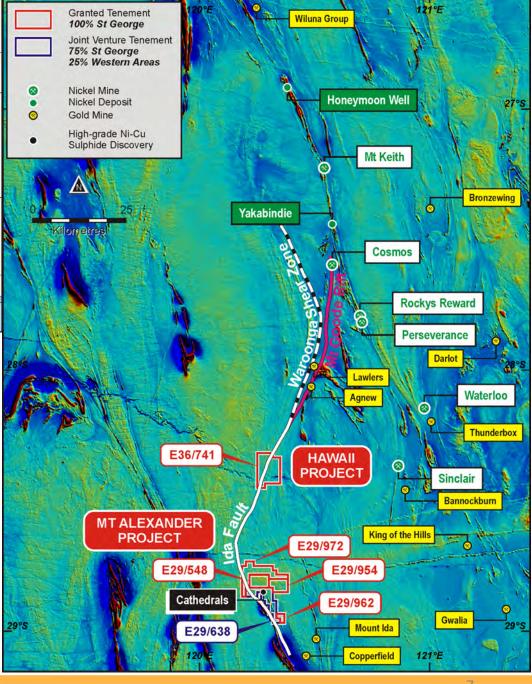


- Exceptional discovery in Western Australia
- High-grade nickel-copper sulphides

#### Favourable Location:

- Located S-SW of world class nickel and gold mines of the Agnew-Wiluna Belt
- Close to infrastructure/processing plants

The Cathedrals, Stricklands and Investigators Prospects are located on E29/638, which is held in joint venture by Western Areas Limited (25%) and St George (75%). 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. St George has 100% of all other tenements at Mt Alexander.



# **Exceptional Nickel-Copper Sulphide Discovery**

### **Cathedrals Belt Discovery at Shallow Depths:**

- Massive sulphide mineralisation 30m from surface
- Deeper drilling is underway to scope continuity at depth

### **High Grade and Polymetallic:**

- Nickel sulphide <u>plus</u> copper, cobalt and PGEs
- Key battery/EV metals

### **Extensive Strike of Mineralisation:**

- Nickel-copper sulphides occur over a 4.5km strike of the eastnortheast Cathedrals Belt
- 100% success rate in testing EM conductors in the Cathedrals Belt

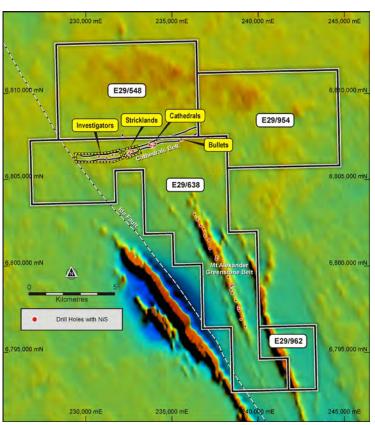
On right: Drill core from MAD56 that returned assays of 7.5m @ 3.90%Ni, 1.74%Cu, 0.12%Co and 3.32g/t total PGEs from 57.8m, including 3.15m @ 6.36%Ni, 2.92%Cu, 0.20%Co and 5.03g/t total PGEs from 61.81m



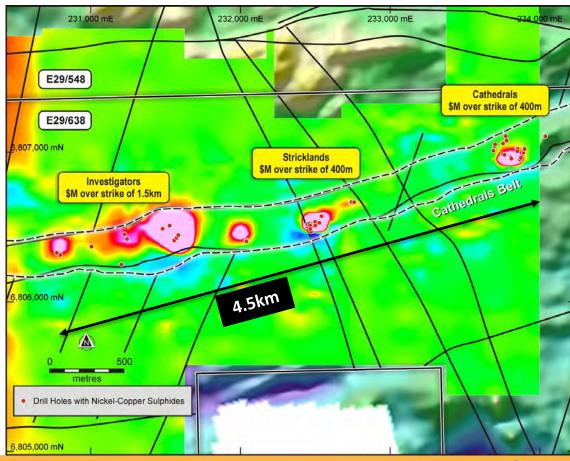
### **Large Mineral System**



- Investigators, Stricklands and Cathedrals Prospects are located within the 4.5km strike
  of the Cathedrals Belt each with increasing resource potential
- Definition drilling underway to fully scope the scale of the discovery



<u>Above</u>: Mt Alexander tenements against RTP magnetics. <u>Right</u>: Cathedrals Belt against SAMSON EM data.



### **Drilling Success Continues**

Wide intersections of high-grade Ni-Cu-Co-PGEs

### **2017** – some of the best intersections (with assays):

#### MAD71 (Stricklands Prospect):

17.45m @ 3.01%Ni, 1.31%Cu, 0.13%Co and 1.68g/t total PGEs from 37.45m, including 5.3m @ 4.39%Ni, 1.45%Cu, 0.21%Co and 2.09g/t total PGEs from 39.3m; and 2.02m @ 5.05%Ni, 2.01%Cu, 0.21%Co and 3.31g/t total PGEs from 50.6m.

#### **MAD56 (Cathedrals Prospect):**

7.5m @ 3.90%Ni, 1.74%Cu, 0.12%Co and 3.32g/t total PGEs from 57.8m, including 3.15m @ 6.36%Ni, 2.92%Cu, 0.20%Co and 5.03g/t total PGEs from 61.81m MAD60 (Investigators Prospect) - photo of drill core on right:

5.3m @ 4.95%Ni, 2.75%Cu, 0.16%Co and 4.55g/t total PGEs from 157.9m, including 3m @ 6.40%Ni, 3.55%Cu, 0.21%Co and 5.25g/t total PGEs from 159.38m

2018 – some of the best intersections from current drilling (assays pending unless shown otherwise):

#### MAD104 (Stricklands Prospect):

6.25m @ 2.36%Ni, 1%Cu, 0.15%Co and 1.25g/t total PGEs from 67.2m, including 3.34m @ 3.01%Ni, 1.12%Cu, 0.2%Co and 1.41g/t total PGEs from 70.11m.

#### **MAD108 (Investigators Prospect):**

8.4m @ 2%Ni, 0.96% Cu, 0.646% Co, 2.59g/t total PGEs from 199m, including 1.37m @ 6.83% Ni, 2.88% Cu, 0.21% Co, 5.58g/t total PGEs from 206.03m MAD112 (Investigators Prospect):

3.55m @ 4.67%Ni, 2.27%Cu, 0.20%Co and 2.94g/t total PGEs from 116m *MAD114 (Investigators Prospect):* 

13.03m of sulphide mineralisation from 193.30m, including massive/semi-massive sulphides





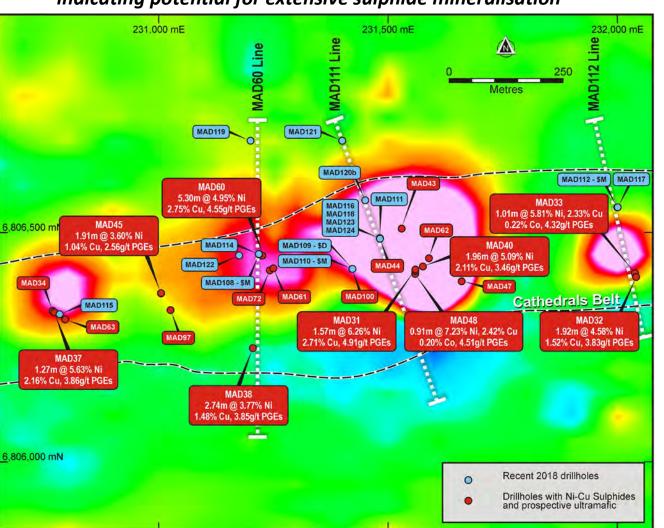
# **Extensions of High-Grade Mineralisation**

### **Investigators Prospect**

### STGEORGE MINING LIMITED

### Multiple high-grade hits over a 1,500m strike

➢ High powered SAMSON electromagnetic (EM) survey identifies large areas of EM conductivity indicating potential for extensive sulphide mineralisation



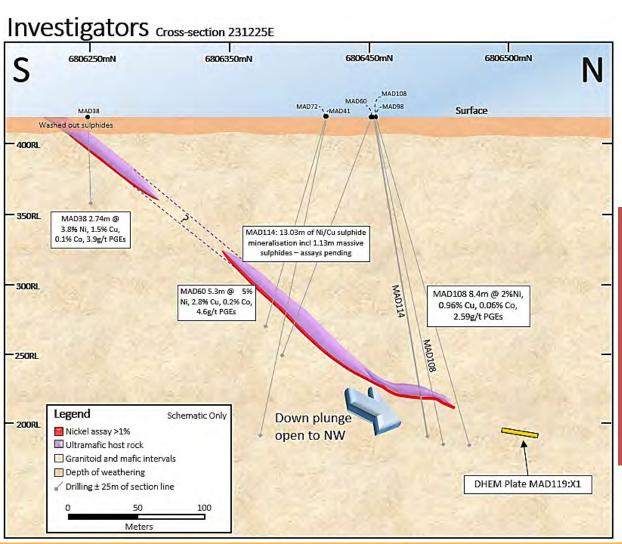
- Mineralised ultramafic unit dips 30 degrees to the north
- Drilling on three north-south lines – MAD60, MAD111 and MAD112 Lines – intersects additional massive Ni-Cu sulphides and new EM conductors in the northerly down dip direction
- Step-out drilling along these lines is continuing to extend mineralisation to the north and at depth

<u>Left</u>: plan view of Investigators Prospect with drill hole collar locations (completed and planned) over the large SAMSON total field EM anomalies (red/pink colours). The three north-west lines which are the priority for current drilling are highlighted.

### Plunge Increased by Latest Drilling



Drilling and downhole EM surveys used concurrently to identify more high-grade mineralisation at depth



- MAD60 Line (approx. 231225E) has down plunge strike of highgrade mineralisation to 320m
- DHEM in MAD119, a 150m stepout to the north, has identified a strong EM conductor which could extend the plunge of mineralisation to 380m

#### **MAD60**:

5.3m @ 4.95%Ni, 2.75%Cu, 0.16%Co and 4.55g/t total PGEs from 157.9m, including 3m @ 6.40%Ni, 3.55%Cu, 0.21%Co and 5.25g/t total PGEs from 159.38m

#### **MAD108:**

8.4m @ 2%Ni, 0.96% Cu, 0.646% Co, 2.59g/t total PGEs from 199m, including 1.37m @ 6.83% Ni, 2.88% Cu, 0.21% Co, 5.58g/t total PGEs from 206.03m

<u>Left:</u> Schematic cross section of the MAD60 line (facing west) with down plunge of mineralisation over 320m and open to the north-west.

### **Stricklands Prospect**

+400m strike with wide intercepts

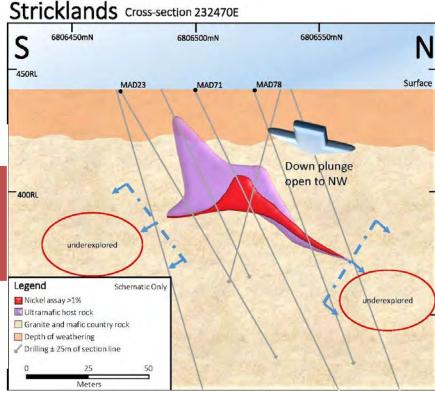
Multiple high-grade hits including drill hole MAD71:

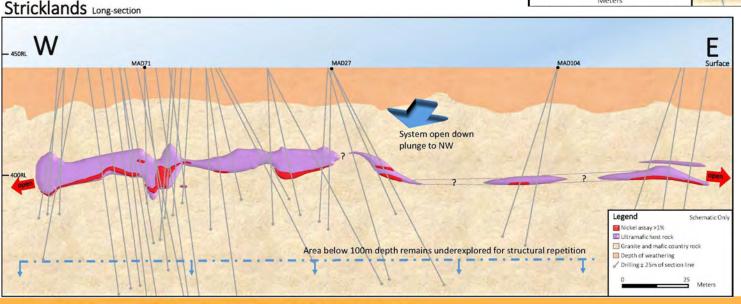
17.45m @ 3.01%Ni, 1.31%Cu, 0.13%Co and 1.68g/t PGEs from 37.45m, including the massive sulphide zones of:

5.3m @ 4.39%Ni, 1.45%Cu, 0.21%Co and 2.09g/t PGEs from 39.3m; and

2.02m @ 5.05%Ni, 2.01%Cu, 0.21%Co and 3.31g/t PGEs from 50.6.

- Large areas undrilled and mineralisation is open
- Step-out drilling to north to test for down plunge extensions





Above: Schematic cross section of the MAD71 line (facing west) at Stricklands based on drill hole data. The mineralised ultramafic dips to the north-west with potential for a down plunge extension.

<u>Left</u>: long section of Stricklands highlights the multiple intersections of +1%Ni mineralisation over a 400m strike.

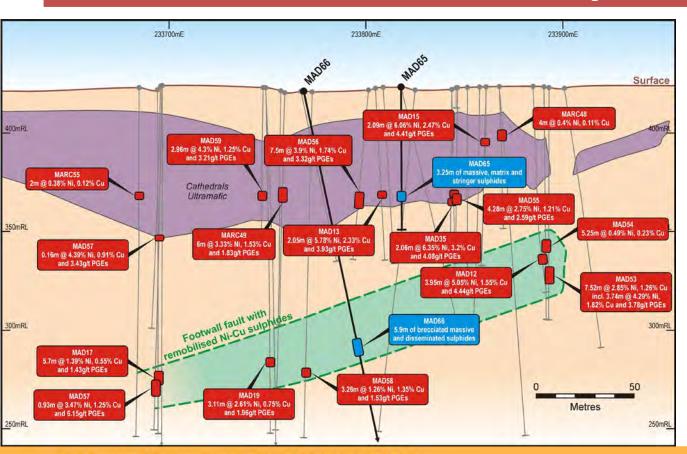
### **Cathedrals Prospect**



### High grade mineralisation on two surfaces

Numerous intersections of nickel-copper sulphides on two surfaces – the Cathedrals ultramafic and the footwall fault below including MAD56:

7.5m @ 3.90%Ni, 1.74%Cu, 0.12%Co and 3.32g/t total PGEs from 57.8m, including 3.15m @ 6.36%Ni, 2.92%Cu, 0.20%Co and 5.03g/t total PGEs from 61.81m



- Cathedrals ultramafic extends for strike length of 400m with potential for extensions
- Infill and extensional drilling ongoing

Left: a long section of the Cathedrals Prospect (looking north) showing significant intersections from both recent and historic drill holes. The Cathedrals ultramafic and footwall fault outlines are also shown.

### **Metallurgical Testwork**

### High Recoveries from Ore:

• >99% recoveries of Ni and Cu to concentrates from preliminary testwork on massive sulphides

#### Clean Concentrate:

No deleterious elements like MgO, talc or arsenic

#### **Standard Flotation:**

 Separate nickel and copper concentrates produced by standard flotation process (on right: copper being floated in test completed by Strategic Metallurgy Pty Ltd)

### High Value Concentrate:

- Nickel concentrate with 18%Ni (Nova is 13.5%Ni\*)
- Copper concentrate with 32%Cu (Nova is 29%Cu\*)
- Cobalt grade of 0.55%Co in nickel concentrate
- PGEs + Au of 13.5 g/t in nickel concentrate
- PGEs + Au of 3.2 g/t in copper concentrate

Clean and high grade concentrate will attract a premium price

<sup>\*</sup> Nova Optimisation Study: IGO ASX Release dated 14 December 2015



### Opportunity for Low Cost/ High Margin Project



Shallow Mineralisation	Existing Infrastructure	Clean Concentrate
✓ Low cost drilling/ low cost potential mining	✓ Nearby processing plants	✓ High grade Ni and Cu plus cobalt and PGEs
✓ Well defined zones of mineralisation	✓ Close to existing roads, power	✓ Excellent metallurgy



Strong indications for favourable project economics which will be assessed by scoping/feasibility studies

<u>Left</u>: Tim King Pit at Spotted Quoll mine at Forrestania (owned 100% by Western Areas Limited) where high grade nickel sulphides were mined from 60m below surface



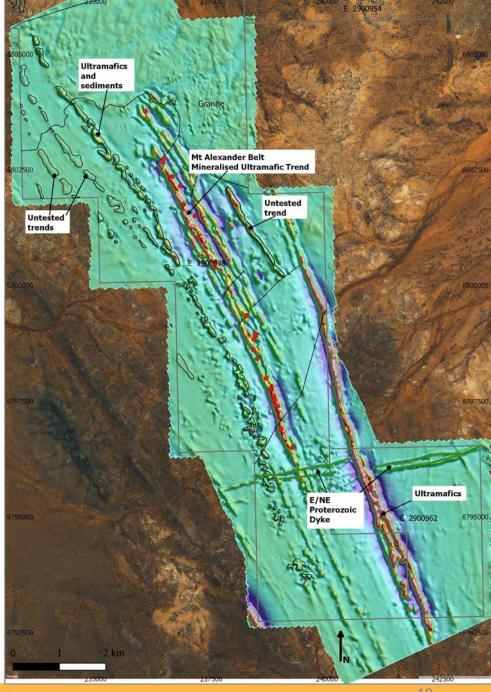
# **Upside with Regional Exploration**

### Mt Alexander Belt

Underexplored belt with proven massive nickel sulphides

- Mt Alexander Belt is north-northwest trending with a strike of 7km
- Historical drilling has intersected widespread nickel sulphides including massive sulphides
- Prior drilling completed mostly as wide-spaced drill holes (upto 1km apart) or single drill holes
- New high resolution magnetic data has identified additional trends parallel to the Mt Alexander Belt that are untested and could represent mineralised ultramafic sequences
- Mt Alexander Belt and parallel trends remain prospective for nickel sulphide deposits

<u>Right</u>: new high resolution magnetic data (RTP 1VD) acquired by St George for the southern portion of E29/638 set against an airphoto of the surrounding ground. The new data clearly recognises the north-northwest Mt Alexander Belt and a series of weak-moderate magnetic sequences that are parallel to the west and east of the mineralised ultramafic trend (drill holes with NiS shown in red).

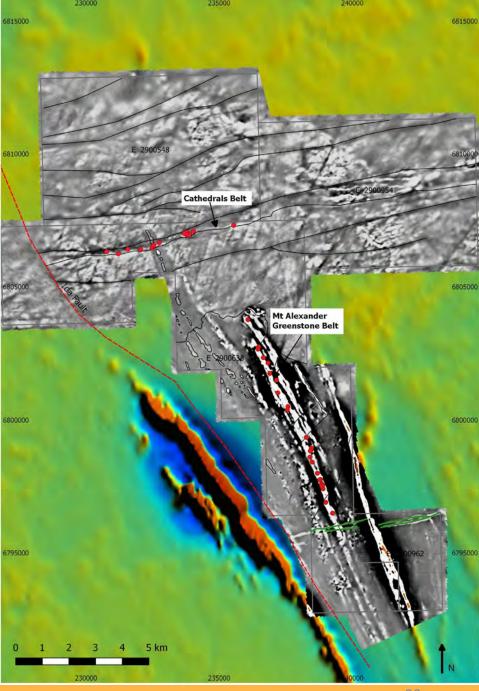


### **Northern Areas**

# Newly recognised magnetic trends, never explored

- New high resolution magnetic data for the northern tenements – E29/548 and E29/954 – has recognised east-northeast structures parallel to the Cathedrals Belt
- These structures may represent ultramafic sequences similar to the Cathedrals Belt that may also host nickel-copper sulphide mineralisation
- These trends have either never been explored or not explored systematically for nickel sulphides
- St George to complete a high-powered EM survey to identify any conductive material associated with these trends

<u>Right</u>: new high resolution magnetic data (RTP 1VD) for E29/638, E29/954 and E29/548. The new high resolution magnetic data is set against lower-resolution regional TMI RTP magnetics. Drill holes with nickel sulphides shown in red. The new magnetic data has recognized trends that are parallel to the Cathedrals Belt and may also represent mineralised ultramafics.





## **Nickel Market Dynamics are Changing**

### **EV Demand Surges**

# Demand Rises on Electric Vehicle Revolution:

- 1Mt deficit in nickel by 2025
- price pressure building

On right: Forecast nickel deficit (McKinsey Basic Materials Institute)

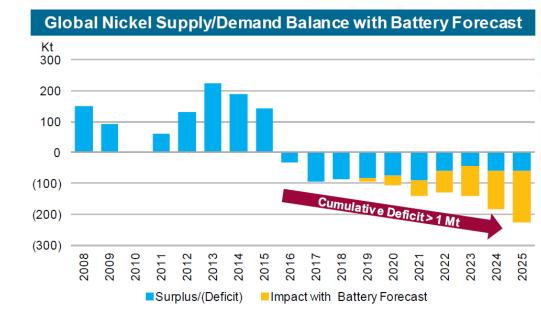
UBS, Miner's Price Review, June 2018:

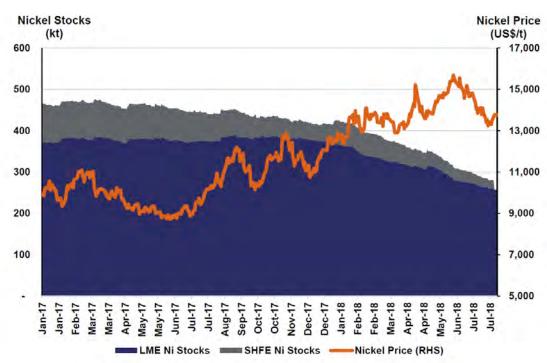
"EV battery demand is emerging faster than expected.

Inventory is falling, premia are rising, indicating a scramble for nickel metal.

Meanwhile little battery-ready mine supply investment is being made."

On right: Decreasing Stockpiles Support a Rising Nickel Price (source: Bloomberg)





### **Nickel Price to Outperform**



UBS, Miner's Price Review, June 2018:

### Best Commodities on Risk/Return?

"Nickel is our preferred play on a >12 month view."

Commodity	Units	Current Price	LT Forecast	'Upside' LT v. Current
Cobalt	US\$/t	62,750	43,200	(32%)
Copper	US\$/t	5,972	7,280	22%
Nickel	US\$/t	12,673	22,000	74%
Zinc	US\$/t	2,503	2,830	13%
Lead	US\$/t	2,025	2,250	11%

Nickel offers significant upside

<u>Source</u>: Current prices as at 14 September 2018 by Kitco; LT Forecasts by Wood Mackenzie (nickel forecast revised upwards in 2018 to US\$22,000/t)

### **Nickel Price Targets:**

- Wood Mackenzie long-term forecast US\$22,000/t
- High in previous cycle (March 2007) US\$54,000/t

# St George Mining: creating shareholder wealth through exploration success



Above: diamond drill rig at Stricklands, Cathedrals Belt. Right: Drill core from MAD108.



#### DISCLAIMER:

Certain statements contained in this presentation, including information as to the future financial or operating performance of St George Mining Limited (ASX:SGQ) and its projects, are forward looking statements:

-may include, among other things, statements regarding targets, estimates and assumptions in respect of mineral reserves and mineral resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions;

-are necessarily based upon a number of estimates and assumptions that, while considered reasonable by St George Mining, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; and

-involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward looking statements.

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All forward looking statements made in this presentation are qualified by the foregoing cautionary statements. Investors are cautioned that forward looking statements are not guarantees of future performance and investors are cautioned not to put undue reliance on forward looking statements due to the inherent uncertaintyntherein.

#### **COMPETENT PERSON STATEMENT:**

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Ben Pollard, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Pollard is employed by Cadre Geology and Mining Pty td which has been retained by St George Mining Limited to provide technical advice on mineral projects.

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

- 13 November 2017 Further High Grade Mineralisation at Mt Alexander
- 20 November 2017 Outstanding Intersection of Nickel-Copper Sulphides
- 30 November 2017 Drilling at Mt Alexander Update
- 7 December 2017 Further Nickel-Copper Sulphides Intersected at Mt Alexander
- 15 December 2017 Assays Confirm Best Ever Intersection at Mt Alexander
- 19 March 2018 Drilling of Nickel-Copper Sulphide Targets at Mt Alexander Resumes
- 4 April 2018 Nickel-Copper Sulphide Drilling at Mt Alexander Update
- 11 April 2018 Further Nickel-Copper Sulphides Intersected at Mt Alexander
- 19 May 2018 Nickel-Copper Sulphide Drilling at Mt Alexander Update
- 4 June 2018 Assays Confirm High Grades at Mt Alexander
- 19 June 2018 New EM Conductors Ready for Drilling at Mt Alexander
- 21 June 2018 Assays Confirm Further High Grades at Mt Alexander
- 25 June 2018 Drill Programme Expanded at Mt Alexander
- 23 July 2018 High-Grade Nickel-Copper Sulphides in First Drill Hole
- 15 August 2018 Further High-Grade Nickel-Copper Sulphides
- 24 August 2018 Mt Alexander Continues to Deliver Outstanding Results
- 5 September 2018 Mt Alexander Drilling Update
- 18 September 2018 More Strong Results at Mt Alexander
- 3 October 2018 Downhole EM Surveys Light Up Strong Conductors
- 19 October 2018 Extension to High-Grade Mineralisation at Mt Alexander

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.