

2 September 2019

#### **NEW DISCOVERY OF NICKEL-COPPER SULPHIDES AT MT ALEXANDER**

Thick Zone of High-Grade Nickel-Copper Sulphides intersected in first hole at a new target area of the Cathedrals Belt:

- Massive nickel-copper sulphides discovered at shallow depth in first ever drilling at the recently named Radar Prospect
- 7.5m thick mineralised interval from 44.2m downhole in drill hole MAD152 comprising:

Interval	Style of Mineralisation
44.2m to 46.3m	Ultramafic with disseminated sulphides (partly weathered due to faulting)
46.3m to 48.7m	Ultramafic with heavily disseminated sulphides (30% sulphides comprising
	pentlandite (pn), chalcopyrite (cp) and pyrrhotite (po)
40.7m to 40.07m	Ultramafic with coarse blebby and heavily disseminated sulphides (40%
48.7m to 49.07m	sulphides comprising pn, cp, po)
49.07m to	Massive sulphides with average XRF readings of 6%Ni and 1.92%Cu* (100%
50.01m	sulphides comprising pn, cp, po) (the photograph below is drill core from this
	interval of massive sulphides)
50.01m to	Ultramafic with heavily disseminated sulphides (50% sulphides comprising
50.05m	pn, cp, po)
50.05m to 51.6m	Massive sulphides with average XRF readings of 5.48%Ni and 1.77%Cu*
20.03III (0 21.0III	(100% sulphides comprising pn, cp, po)
51.6m to 51.7m	Granite with stringer/breccia sulphides (50% sulphides comprising pn, cp, po)

<sup>\*</sup> Laboratory assays are pending and are required to confirm the nickel and copper grades which have been estimated using portable XRF analysis

- The Radar Prospect area is concealed by 10m of sand cover, highlighting the effectiveness of EM techniques in detecting sulphide mineralisation (including 'blind' targets) in the Cathedrals Belt
- Follow-up drilling to be prioritised as soon as the downhole electromagnetic (DHEM) survey in MAD152 is completed
- The new discovery is located in an area that has never before been drilled, and more than
   1km east of the nearest known sulphide mineralisation at the Cathedrals Prospect
- The east-west strike of mineralisation on the Cathedrals Belt is now extended to 5.5km with potential for significant further extensions at the West End Prospect and Fish Hook Prospect, where new EM anomalies have been identified by ongoing EM surveys





Growth-focused Western Australian nickel company St George Mining Limited (ASX: **SGQ**) ("**St George**" or "**the Company**") is pleased to announce a new discovery of high-grade nickel-copper sulphides at its flagship Mt Alexander Project, located in the north-eastern Goldfields.

MAD152 is the first drill hole at the newly named Radar Prospect and intersected nickel-copper sulphide mineralisation between 44.2m and 51.7m downhole including intervals of massive nickel-copper sulphides.

The hole was drilled to test a new EM conductor identified by EM surveys completed by St George earlier this month. The conductor was initially detected by a Moving Loop EM (MLEM) survey. An optimised follow-up Fixed Loop EM (FLEM) survey confirmed a late-time anomaly, which was modelled with a conductivity of 35,000 Siemens and at a depth of approximately 50m.

A DHEM survey will be completed in MAD152 next week to identify extensions of mineralisation around the hole and to plan follow-up drilling.

The significant intersection in MAD152 represents a new discovery in an unexplored section of the Cathedrals Belt and is important for a number of reasons:

- 1. It opens up an opportunity to drill out a new high-grade prospect, which along with the advanced Investigators, Stricklands and Cathedrals Prospects, could add substantial volumes of mineralisation to a potential resource at Mt Alexander.
- 2. It confirms the prospectivity of unexplored areas of the Cathedrals Belt for further high-grade mineralisation:
  - a) The east-west strike of known high-grade nickel-copper sulphides along the Cathedrals Belt is extended by this discovery to 5.5km, with another 10.5km of the Cathedrals Belt remaining as unexplored or underexplored.
  - b) In particular, the prospectivity of newly identified EM anomalies at the largely unexplored West End and Fish Hook Prospects located on the western and eastern extensions of the Cathedrals Belt, respectively is significantly elevated by the latest success at Radar.
- 3. It supports the effectiveness of exploration techniques being used at the Cathedrals Belt, particularly the critical role of EM surveys in identifying nickel-copper sulphide targets.
- 4. The increased strike of high-grade mineralisation along the Cathedrals Belt is indicative of a large mineral system. This not only increases the potential to discover more mineralisation along the east-west strike of the Belt but also at depth, in the down-dip direction and associated with the structures that are interpreted to be the likely source through which mafic/ultramafic intrusions hosting nickel-copper sulphides have passed upwards from the Earth's mantle.

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

"The discovery of high-grade nickel-copper sulphides with the first ever drill hole in an area with about 10m of transported overburden and more than 1km from the nearest known mineralisation on the Cathedrals Belt is an excellent exploration result and a credit to our technical team.

"The occurrence of high-grade nickel and copper sulphide mineralisation at shallow depths is rare and we are delighted to have further extended the strike of this type of mineralisation along the Cathedrals Belt to an impressive 5.5km.

"With multiple EM conductors still to be drilled, including targets at the unexplored West End and Fish Hook Prospects, we believe there is strong potential for more high-grade nickel-copper sulphide discoveries."





Figure 1 – drill core with massive sulphides from the interval at 49.07m downhole in MAD152 at the Radar Prospect

#### **RADAR PROSPECT – SIGNIFICANT NEW DISCOVERY**

A MLEM survey was completed earlier this month over a 2.2km east-west strike of the Cathedrals Belt, from the Cathedrals Prospect in the west to the Bullets Prospect in the east. Two stand-out EM anomalies were recorded – see Figure 2.

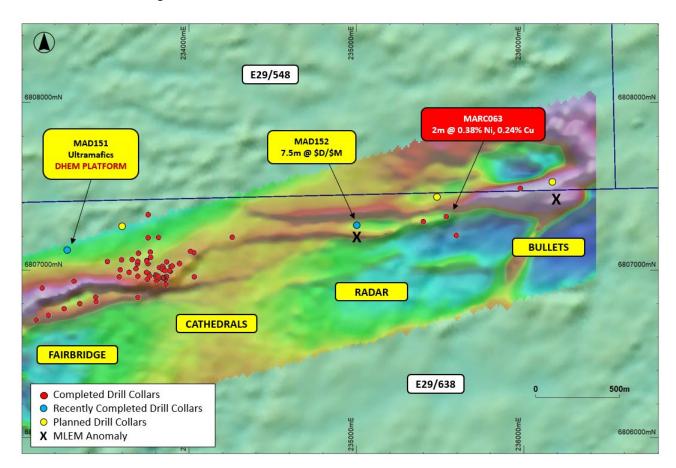


Figure 2 - plan view map (against SAM and RTP 1VD magnetic data) of the section of the Cathedrals Belt where two new conductors have been identified and are marked with "X".



One conductor is located 1km to the east of the Cathedrals Prospect, adjacent to a nickel-copper gossan and co-incident with a linear magnetic feature – known to represent mineralised mafic/ultramafic intrusions in other parts of the Cathedrals Belt. This area has been named the Radar Prospect and is where MAD152 has made the latest discovery of massive nickel-copper sulphides at the Cathedrals Belt.

The other EM anomaly is located a further 1km east at the Bullets Prospect, along strike from a historical drill intersection of nickel-copper sulphides made by BHP and co-incident with a larger magnetic feature.

Drilling of the EM conductor at Bullets is scheduled to commence next week.



Figure 3 – Drill core with heavily disseminated sulphides from the interval at 46.3m to 48.7m downhole in MAD152 at the Radar Prospect

#### FISH HOOK PROSPECT - DRILL TARGETS EMERGING FROM EM SURVEYS

A small MLEM survey has been completed at the Fish Hook Prospect to test the cover conditions in the area, which will assist in optimising future EM surveys. This EM survey was completed over the highly prospective area identified by the initial soil survey at Fish Hook, which recorded a very strong nickel-copper soil anomaly that is co-incident with a magnetic feature interpreted to represent mineralised ultramafics.

The MLEM survey comprised only three lines with an east-west strike of approximately 800m; see Figure 4. Two lines of fixed loop EM were also completed.

Two prominent EM anomalies were detected by the MLEM survey. One is co-incident with the strong nickel-copper soil anomaly and is shown on the eastern-most MLEM line in Figure 4. Another anomaly was recorded over the central MLEM line.

Data from follow-up FLEM surveys was less conclusive, with the western survey line highlighting a weak EM response over the same location as the soil anomaly. Further interpretation work is underway.

The Fish Hook area has about 10m of sand cover and appears to be geologically similar to the Radar Prospect with the same linear magnetic features. In light of the success in drilling the EM conductor at Radar, the EM anomalies at Fish Hook are emerging as very exciting drill targets.

A comprehensive soil survey has commenced at the Fish Hook Prospect, which will cover the entire 8km east-west strike length of the Cathedrals Belt east of Bullets.



Following completion of the soil survey and a review of survey results, a MLEM survey will be designed for the Fish Hook Prospect with particular focus on areas of nickel-copper soil anomalies.

The existing Programme of Works for Mt Alexander does not include drilling at Fish Hook. A further Programme of Works was submitted to the Department of Mines this week to incorporate drilling at Fish Hook, including at the emerging EM targets. We expect approval of the Programme of Works within the next four to six weeks.

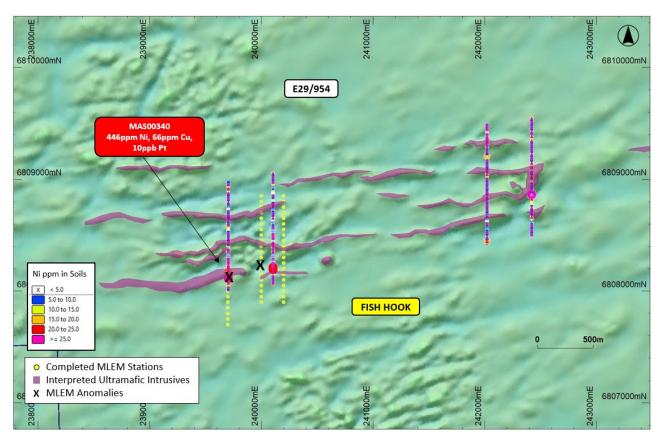


Figure 4 - plan view map (against RTP magnetic data) of the section of the Fish Hook Prospect showing the emerging targets (marked with "X") identified by the initial soil and EM surveys. The four trial soil survey lines are shown, as well as the three MLEM survey lines.

#### **DRILL PROGRAMME**

Table 1 contains details of the completed drill holes for the current diamond drill programme at Mt Alexander.

MAD153 is currently being drilled at the Cathedrals Prospect. This is a deep hole, with a planned depth of 450m targeting an area that has never been drilled before.

It is designed to test the down dip potential of the known shallow high-grade mineralisation at the Cathedrals Prospect and for potential repetitions of mineralisation at depth below the upper zone of mineralisation.

Drill holes MAD149 and MAD150 were completed at the Investigators Prospect to test EM conductors that were interpreted to represent potential extensions of known high-grade mineralisation.



The holes intersected the modelled plates for the EM conductors but there was no material in the drill core that could explain the strong conductors being targeted. A DHEM survey will be completed in each drill hole next week to review the modelling of the plates and design new holes to test the EM conductors.

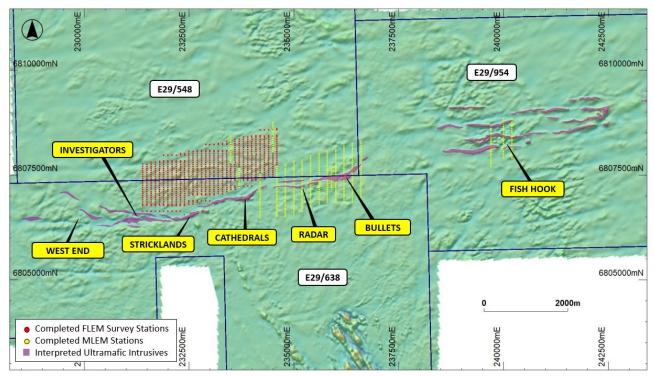


Figure 5 – map of the Mt Alexander tenements (against RTP 1VD magnetic data) with key prospects on the Cathedrals Belt highlighted. New targets generated at Bullets and Fish Hook have potential to significantly extend the strike of mineralisation along the 16km Cathedrals Belt.

Drill hole MAD151 was completed at the Fairbridge Prospect as a stratagraphic hole to search for extensions to the Cathedrals mineralisation and the source of the numerous gossans at surface at Fairbridge.

The hole was designed to intersect the main mineralised structure at depth, which is interpreted to be the structure that hosts the Cathedrals ultramafics and mineralisation, and also the source of the numerous nickel-copper gossans at surface.

The drill hole intersected granites intercalated with pegmatities and, importantly, three intervals of fault bound mafic and ultramafic rocks. While there were no visible sulphides in the drill core, a DHEM survey will be completed next week to search for any mineralisation around the drill hole.

Based on the intersection angle of the drilling with the modelled ultramafic unit, downhole widths are interpreted to be close to true widths.

Nickel and copper values shown above for recently completed drill holes are based on portable XRF analysis. They are preliminary in nature and a conclusive determination of the nickel, copper, cobalt and PGE values of the sulphide mineralisation will be confirmed when laboratory assays are available.

Average XRF readings in the massive sulphide interval are based on at least four readings per metre (unless otherwise stated) and are not length and density weighted.

Metal content for intervals of disseminated sulphides are not accurately determined by portable XRF analysis and estimates for this style of mineralisation are based on geological logging.



Hole ID	Prospect	East	North	RL	Depth	Azimuth	Dip	Target
MAD144	Investigators	231010	6806499	419	240.7	165	-71	EM plate 82,000 siemens
MAD145	Investigators	231650	6806569	424.6	230.3	196	-77	EM plate 20,000 siemens
MAD146	Investigators	231377	6806531	422.8	220.1	170	-75	EM plate 34,000 siemens
MAD147	Investigators	231299	6806305	421.4	150.8	353	-75	EM plate 30,000 siemens
MAD148	Investigators	231233	6806399.9	421.3	210.9	358	-80	EM plate 28,000 siemens
MAD149	Investigators	231219	6806453	420.9	240.60	029	-67	EM plate 20,000 siemens
MAD150	Investigators	231170	6806452	420.8	217.00	204	-77	EM plate 15,000 siemens
MAD151	Fairbridge	233270	6807080	417.5	330.50	155	-70	Stratigraphic Hole
MAD152	Radar	234933.69	6807257.7	426.07	81.70	180	-70	35,000 S MLEM plate
MAD153	Cathedrals	233627.25	6807180.4	420	ТВС	155	-65	Stratigraphic Hole

Table 1 – drill holes completed and underway in current drill programme at Mt Alexander.

#### About the Mt Alexander Project:

The Mt Alexander Project is located 120km south-southwest of the Agnew-Wiluna Belt, which hosts numerous world-class nickel deposits. The Project comprises five granted exploration licences – E29/638, E29/548, E29/962, E29/954 and E29/972.

The Cathedrals, Stricklands and Investigators nickel-copper-cobalt-PGE discoveries are located on E29/638, which is held in joint venture by St George Mining Limited (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.

# For further information, please contact:

John Prineas
Executive Chairman
St George Mining Limited
+61 (0) 411 421 253
John.prineas@stgm.com.au

Peter Klinger
Media and Investor Relations
Cannings Purple
+61 (0) 411 251 540
pklinger@canningspurple.com.au



#### **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 Dave O'Neill, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr O'Neill is employed by St George Mining Limited to provide technical advice on mineral projects, and he holds performance rights issued by the Company.

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

# 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 programmes are completed by Reverse Circulation (RC) and Diamond Core drilling. Surface Electro-Magnetic (EM) surveys are completed by GAP geophysics.
		Diamond Core Sampling: The sections of the core that are selected for assaying are marked up and then recorded on a sample sheet for cutting and sampling at the certified assay laboratory. Samples of HQ or NQ2 core are cut just to the right of the orientation line where available using a diamond core saw, with half core sampled lengthways for assay.
		$\it RCSampling:$ All samples from the RC drilling are taken as 1m samples for laboratory assay.
		<i>EM Surveying:</i> All data is collected in a Moving Loop (MLEM) survey configuration using MLEM TX transmitter with a SMARTem 24 receiver.
		Appropriate QAQC samples (standards, blanks and duplicates) are inserted into the sequences as per industry best practice. Samples are collected using cone or riffle splitter. Geological logging of RC chips is completed at site with representative chips being stored in drill chip trays.
		Onsite XRF analysis is conducted on the fines from RC chips using a hand-held Olympus Innov-X Spectrum Analyser. These results are used for onsite interpretation and preliminary assessment subject to final geochemical analysis by laboratory assays.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	RC Sampling: Samples are taken on a one metre basis and collected using uniquely numbered calico bags. The remaining material for that metre is collected and stored in a green plastic bag marked with that specific metre interval. The cyclone is cleaned with compressed air after each plastic and calico sample bag is removed. If wet sample or clays are encountered then the cyclone is opened and cleaned manually and with the aid of a compressed air gun. A blank sample is inserted at the beginning of each hole, and a duplicate sample is taken every 50 <sup>th</sup> sample. A certified sample standard is also added according to geology, but at no more than 1:50 samples.
		Geological logging of RC chips is completed at site with representative chips being stored in drill chip trays. Downhole surveys of dip and azimuth are conducted using a single shot camera every 30m, and using a downhole Gyro when required, to detect deviations of the hole from the planned dip and azimuth. The drill-hole collar locations are recorded using a hand-held GPS, which has an accuracy of +/-5m. All drill-hole collars will be surveyed to a greater degree of accuracy using a certified surveyor at a later date.
		Diamond Core Sampling: For diamond core samples, certified sample standards were added as every 25 <sup>th</sup> sample. Core recovery calculations are made through a reconciliation of the actual core and the driller's records. Downhole surveys of dip and azimuth were conducted using a single shot camera every 30m to detect deviations of the hole from the planned dip and azimuth. The drill-hole collar locations are recorded using a hand-held GPS, which has an accuracy of +/- 5m. All drill-hole collars will be surveyed to a greater degree of accuracy using a certified surveyor at a later date.

Criteria	JORC Code explanation	Commentary
	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	RC Sampling: A 1m composite sample is taken from the bulk sample of RC chips that may weigh in excess of 40 kg. Each sample collected for assay typically weighs 2-3kg, and once dried, is prepared for the laboratory as per the Diamond samples below.
	'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.	Diamond Core Sampling: Diamond core (both HQ and NQ2) is half-core sampled to geological boundaries no more than 1.5m and no less than 10cm. Samples less than 3kg are crushed to 10mm, dried and then pulverised to 75μm. Samples greater than 3kg are first crushed to 10mm then finely crushed to 3mm and input into the rotary splitters to produce a consistent output weight for pulverisation.
		Pulverisation produces a 40g charge for fire assay. Elements determined from fire assay are gold (Au), platinum (Pt) and palladium (Pd) with a 1ppb detection limit. To determine other PGE concentrations (Rh, Ru, Os, Ir) a 25g charge for nickel sulphide collect fire assay is used with a 1ppb detection limit.
		Other elements will be analysed using an acid digest and an ICP finish. These elements are: Ag, Al, As, Bi, Ca, Cd, Co, Cr, Fe, K, Li, Mg, Mn, Mo, Nb, Ni, P, Pb, S, Sb, Sn, Te, Ti, V, W, Zn. The sample is digested with nitric, hydrochloric, hydrofluoric and perchloric acids to effect as near to total solubility of the sample as possible. The sample is then analysed using ICP-AES or ICP-MS.
		LOI (Loss on Ignition) will be completed on selected samples to determine the percentage of volatiles released during heating of samples to $1000^{\circ}\text{C}$ .
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, facesampling bit or other type, whether core is	Diamond Core Sampling: The collars of the diamond holes were drilled using RC drilling down through the regolith to the point of refusal or to a level considered geologically significant to change to core. The hole was then continued using HQ diamond core until the drillers determined that a change to NQ2 coring was required.
	oriented and if so, by what method, etc).	The core is oriented and marked by the drillers. The core is oriented using ACT Mk II electric core orientation.
		RC Sampling: The RC drilling uses a 140 mm diametre face hammer tool. High capacity air compressors on the drill rig are used to ensure a continuously sealed and high pressure system during drilling to maximise the recovery of the drill cuttings, and to ensure chips remain dry to the maximum extent possible.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Diamond Core Sampling: Diamond core recoveries are recorded during drilling and reconciled during the core processing and geological logging. The core length recovered is measured for each run and recorded which is used to calculate core recovery as a percentage.
		RC Sampling: RC samples are visually checked for recovery, moisture and contamination. Geological logging is completed at site with representative RC chips stored in chip trays.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	RC Sampling: Samples are collected using cone or riffle splitter. Geological logging of RC chips is completed at site with representative chips being stored in drill chip trays.
		Diamond Core Sampling: Measures taken to maximise core recovery include using appropriate core diameter and shorter barrel length through the weathered zone, which at Cathedrals and Investigators is mostly <20m and Stricklands <40m depth. Primary locations for core loss in fresh rock are on geological contacts and structural zones, and drill techniques are adjusted accordingly, and if possible these zones are predicted from the geological modelling.

Criteria	JORC Code explanation	Commentary
	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 competent fresh rocks that host the mineralised sulphide intervals.
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.	Geological logging is carried out on all drill holes with lithology, alteration, mineralisation, structure and veining recorded.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of diamond core and RC samples records lithology, mineralogy, mineralisation, structures (core only), weathering, colour and other noticeable features. Core was photographed in both dry and wet form.
	The total length and percentage of the relevant intersections logged.	All drill holes are geologically logged in full and detailed lithogeochemical information is collected by the field XRF unit. The data relating to the elements analysed is used to determine further information regarding the detailed rock composition.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Diamond Core Sampling: Diamond core was drilled with HQ and NQ2 size and sampled as complete half core to produce a bulk sample for analysis. Intervals selected varied from 0.3 – 1m (maximum) The HQ and NQ2 core is cut in half length ways just to the right of the orientation line where available using a diamond core saw. All samples are collected from the same side of the core where practicable.
		Assay preparation procedures ensure the entire sample is pulverised to 75 microns before the sub-sample is taken. This removes the potential for the significant sub-sampling bias that can be introduced at this stage.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples are collected in dry form. Samples are collected using cone or riffle splitter when available. Geological logging of RC chips is completed at site with representative chips being stored in drill chip trays.
	For all sample types, the nature, quality and appropriateness of the sample preparation	RC Sampling: Sample preparation for RC chips follows a standard protocol.
	technique.	The entire sample is pulverised to 75 $\mu$ m using LM5 pulverising mills. Samples are dried, crushed and pulverized to produce a homogenous representative sub-sample for analysis. A grind quality target of 90% passing 75 $\mu$ m is used.
	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 with each sample batch. QAQC results are routinely reviewed to identify and resolve any issues.
		RC Sampling: Field QC procedures maximise representivity of RC samples and involve the use of certified reference material as assay standards, along with blanks, duplicates and barren washes.
		Diamond Core Sampling: Drill core is cut in half lengthways and the total half-core submitted as the sample. This meets industry standards where 50% of the total sample taken from the diamond core is submitted.

Criteria	JORC Code explanation	Commentary
	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. Samples comprise two quarter core samples for Diamond Core. Duplicate RC samples are captured using two separate sampling apertures on the splitter.
	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 base metal sulphide mineralisation and associated geology based on: the style of mineralisation (massive and disseminated sulphides), 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.	For RC sampling, a 30 gram sample will be fire assayed for gold, platinum and palladium. The detection range for gold is $1-2000$ ppbAu, and $0.5-2000$ ppb for platinum and palladium. This is believed to be an appropriate detection level for the levels of these elements within this specific mineral environment. However, should Au, Pt or Pd levels reported exceed these levels; an alternative assay method will be selected.
		All other metals will be analysed using an acid digest and an ICP finish. The sample is digested with nitric, hydrochloric, hydrofluoric and perchloric acids to effect as near to total solubility of the sample as possible. The solution containing samples of interest, including those that need further review, will then be presented to an ICP-OES for the further quantification of the selected elements.
		Diamond core samples are analysed for Au, Pt and Pd using a 40g lead collection fire assay; for Rh, Ru, Os, Ir using a 25g nickel sulphide collection fire assay; and for Ag, Al, As, Bi, Ca, Cd, Co, Cr, Fe, K, Li, Mg, Mn, Mo, Nb, Ni, P, Pb, S, Sb, Sn, Te, Ti, V, W, Zn using a four acid digest and ICP-AES or MS finish. 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	MLEM: 200m x 200m loops with 50m stations were used for the MLEM surveys. The MLEM TX transmitter uses a base frequency of 0.25 or 0.5Hz and 100amps. The SMARTem 24 is a fluxgate receiver.
	make and model, reading times, calibrations factors applied and their derivation, etc.	XRF: A handheld XRF instrument (Olympus Innov-X Spectrum Analyser) is used to systematically analyse the drill core and RC sample piles onsite. One reading is taken per metre, however for any core samples with matrix or massive sulphide mineralisation then multiple samples are taken at set intervals per metre. The instruments are serviced and calibrated at least once a year. 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	Laboratory QAQC involves the use of internal lab standards using certified reference material (CRMs), blanks and pulp duplicates as part of in-house procedures. The Company also submits a suite of CRMs, blanks and selects appropriate samples for duplicates.
	have been established.	Sample preparation checks for fineness are performed by the laboratory to ensure the grind size of 90% passing 75 $\mu$ m is being attained.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intersections are verified by the Company's technical staff.
	The use of twinned holes.	No twinned holes have been planned for the current drill programme.

Criteria	JORC Code explanation	Commentary
	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 the geological analysis, standards and recognised factors may be used to calculate the oxide form assayed elements, or to calculate volatile free mineral levels in rocks.
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	Drill holes and EM stations have been located and pegged using a DGPS system with an expected accuracy of +/-5m for easting, northing and elevation.
	used in Mineral Resource estimation.	Downhole surveys are conducted using a single shot camera approximately every 30m or downhole Gyro during drilling to record and monitor deviations of the hole from the planned dip and azimuth. Post-drilling downhole gyroscopic surveys will be conducted, which provide more accurate survey results.
	Specification of the grid system used.	The grid system used is GDA94, MGA Zone 51.
	Quality and adequacy of topographic control.	Elevation data has been acquired using DGPS surveying at individual collar locations and entered into the central database. A topographic surface has been created using this elevation data.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The spacing and distribution of holes is not relevant to the drilling programs which are at the exploration stage rather than definition drilling.
	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.	The completed drilling at the Project is not sufficient to establish the degree of geological and grade continuity to support the definition of Mineral Resource and Reserves and the classifications applied under the 2012 JORC code.
	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 drill holes are drilled to intersect the modelled mineralised zones at a near perpendicular orientation (unless otherwise stated). However, the orientation of key structures may be locally variable and any relationship to mineralisation has yet to be identified.
	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 RC 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.
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 drilling programme.

# Section 2 Reporting of Exploration Results (Criteria listed in section 1 will also apply to this section where relevant)

Criteria	JORC Code explanation	Commentary
Mineral Tenement and Land Status	Type, name/reference number, location and ownership including agreements or material issues with third parties including joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Mt Alexander Project is comprised of five granted Exploration Licences (E29/638, E29/548, E29/954, E29/962 and E29/972). Tenement E29/638 is held in Joint Venture between St George (75% interest) and Western Areas (25% interest). E29/638 and E29/548 are also subject to a royalty in favour of a third party that is outlined in the ASX Release dated 17 December 2015 (as regards E29/638) and the ASX release dated 18 September 2015 (as regards E29/548).
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	No environmentally sensitive sites have been identified on the tenements. A registered Heritage site known as Willsmore 1 (DAA identification 3087) straddles tenements E29/548 and E29/638. All five tenements are in good standing with no known impediments.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	Exploration on tenements E29/638 and E29/962 has been largely for komatiite-hosted nickel sulphides in the Mt Alexander Greenstone Belt. Exploration in the northern section of E29/638 (Cathedrals Belt) and also limited exploration on E29/548 has been for mafic/ultramafic intrusion related Ni-Cu-PGE sulphides. No historic exploration has been identified on E29/954 or E29/972.
		High grade nickel-copper-PGE sulphides were discovered at the Mt Alexander Project in 2008. Drilling was completed to test co-incident electromagnetic (EM) and magnetic anomalies associated with nickel-PGE enriched gossans in the northern section of current tenement E29/638. The drilling identified high grade nickel-copper mineralisation in granite-hosted ultramafic units and the discovery was named the Cathedrals Prospect.
Geology	Deposit type, geological setting and style of mineralisation	The Mt Alexander Project is at the northern end of a western bifurcation of the Mt Ida Greenstones. The greenstones are bound to the west by the Ida Fault, a significant Craton-scale structure that marks the boundary between the Kalgoorlie Terrane (and Eastern Goldfields Superterrane) to the east and the Youanmi Terrane to the west.
		The Mt Alexander Project is prospective for further high-grade komatiite-hosted nickel-copper-PGE mineralisation (both greenstone and granite hosted) and also precious metal mineralisation (i.e. orogenic gold) that is typified elsewhere in the Yilgarn Craton.
Drill hole information	A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes:  • Easting and northing of the drill hole collar  • Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar  • Dip and azimuth of the hole  • Down hole length and interception depth  • Hole length	Drill hole collar locations are shown in the maps and tables included in the body of the relevant ASX releases.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material.	Reported assay intersections are length and density weighted. Significant intersections are determined using both qualitative (i.e. geological logging) and quantitative (i.e. lower cut-off) methods.
	grades) and cut-off grades are usually Material and should be stated.	For massive sulphide intersections, the nominal lower cut-off is 2% for either nickel or copper. For disseminated, blebby and matrix sulphide intersections the nominal lower cut-off for nickel is 0.3%.

Criteria	JORC Code explanation	Commentary
	Where aggregated intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such	Any high-grade sulphide intervals internal to broader zones of sulphide mineralisation are reported as included intervals.
	aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Any disseminated, matrix, brecciated or stringer sulphides with (usually) >1% nickel or copper on contact with massive sulphide mineralisation are grouped with the massive sulphides for calculating significant intersections and the massive sulphide mineralisation is reported as an including intersection.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are used for reporting exploration results.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of exploration results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect.	Assay intersections are reported as down hole lengths. Drill holes are planned as perpendicular as possible to intersect the target EM plates and geological targets so downhole lengths are usually interpreted to be near true width.
iagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plane view of drill hole collar locations and appropriate sectional views.	A prospect location map, cross section and long section are shown in the body of relevant ASX Releases.
Balanced Reporting	Where comprehensive reporting of all Exploration Results is not practical, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Reports on recent exploration can be found in ASX Releases that are available on our website at <a href="www.stgm.com.au">www.stgm.com.au</a> :  The exploration results reported are representative of the mineralisation style with grades and/or widths reported in a consistent manner.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; geophysical survey results; geochemical survey results; bulk samples — size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	All material or meaningful data collected has been reported.
Further Work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large — scale step — out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	A discussion of further exploration work underway is contained in the body of recent ASX Releases.  Further exploration will be planned based on ongoing drill results, geophysical surveys and geological assessment of prospectivity.