

6 July 2021

## **NEW EM CONDUCTORS SUPPORT GROWTH POTENTIAL AT HIGH-GRADE MT ALEXANDER NICKEL-COPPER SULPHIDE PROJECT**

### **NEW NICKEL-COPPER SULPHIDE TARGETS IDENTIFIED AT WEST END:**

- Multiple off-hole electromagnetic (EM) conductors identified by the downhole EM (DHEM) survey in MAD200
- One of the three new EM conductors is modelled as a large EM plate located over 75m to the north-west of MAD200 within the interpreted down-dip extension of the intrusive unit that is known to host massive nickel-copper sulphides in other parts of the Cathedrals Belt
- A further three very strong EM conductors are located in this area, identified from the DHEM survey in the nearby MAD196, supporting the potential for significant nickel-copper sulphides in this underexplored part of the West End Prospect

### **SEISMIC SURVEY SCHEDULED TO COMMENCE NEXT WEEK:**

- Seismic survey over the western section of the Cathedrals Belt is planned to commence next week, and will cover the area at West End where the new EM conductors have been identified
- Survey will assist in guiding future deeper drilling through high-definition mapping of structures and potential mineralisation to depths up to 2km from surface

### **SCOPING STUDY FOR STRICKLANDS STARTER MINE:**

- Ore-sorting process being trialled with the aim of upgrading the non-massive sulphide ore prior to processing
- New glycine leaching technology developed by Western Australia's Curtin University is due to be trialled for processing of nickel-copper sulphides
- The glycine-based process uses a non-toxic, biodegradable reagent with zero carbon emissions and is a potential alternative processing method to conventional flotation circuits
- Metallurgical test work in Canada is continuing

Growth-focused Western Australian nickel company St George Mining Limited (ASX: **SGQ**) ("**St George**" or "**the Company**") is pleased to provide an update on exploration and development activities at its flagship Mt Alexander Project, located in the north-eastern Goldfields.

## NEW EM TARGETS FOR MASSIVE NICKEL-COPPER SULPHIDES

The DHEM survey in MAD200 has identified three off-hole EM conductors, ranging in strike length from 250m, 60m and 40m respectively.

MAD200 intersected a 12.7m intrusive unit from 500.7m downhole including approximately 1.4m of disseminated and blebby nickel-copper sulphides from 512m downhole (<5% sulphides with pentlandite (pn), chalcopyrite (cp) and pyrrhotite (py)) with laboratory assays pending.

These nickel-copper sulphides are located on the basal contact and are preserved. This is a textbook geological setting supporting the potential for further nickel-copper sulphide deposits proximal to MAD200.

The new EM anomalies identified in MAD200 are of weak to moderate conductance (<1,000s). The largest of the EM plates is located 75m to the north-west of MAD200, being the detection limit of the DHEM system, and therefore may represent a vector to stronger, more distant mineralisation.

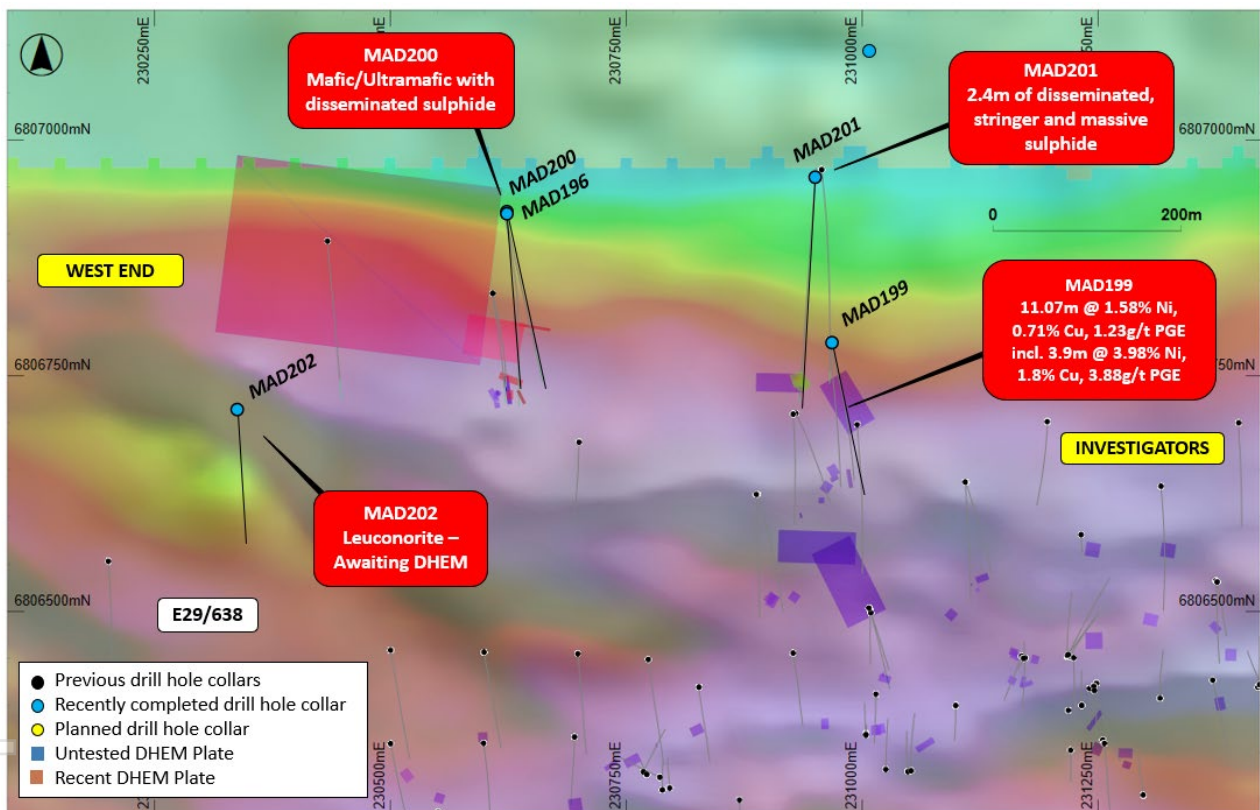


Figure 1 – Recent drilling and DHEM anomalies overlaying MMR (MMC) Image and magnetics (RTPFVD)

Significantly, a number of low conductivity EM anomalies have been drilled along the Cathedrals Belt and confirmed as nickel-copper sulphides including:

- MAD201 drilled a target modelled with less than 1,000 Siemens and returned a 2.4m thick nickel-copper sulphide intercept (laboratory assays are pending)
- MAD38 drilled a target modelled with 1,300 Siemens and confirmed high-grade nickel-copper sulphides with assays of:
  - 2.74m @ 3.77% Ni, 1.48% Cu, 0.10% Co, 3.85g/t total PGEs, 0.17g/t Au and 5.49g/t Ag from 25.4m including
  - 0.54m @ 8.59% Ni, 3.43% Cu, 0.24% Co, 6.73g/t total PGEs, 0.14g/t Au and 10g/t Ag from 27.6m

The successful intersection of nickel-copper sulphides at these previous targets indicates that weak conductors can be a vector to high-grade sulphide mineralisation. The low conductivity reading for these and the MAD200 EM anomalies may be because the target is on the edge of the range of detectability – typically 50m to 75m around a drill hole in a DHEM survey.

The DHEM survey in MAD196, which tested 50m up-dip from MAD200, identified three very strong EM conductors that remain untested by drilling. These conductors are modelled with conductivity of 69,926 Siemens, 27,000 Siemens and 32,235 Siemens, respectively, and are interpreted to have a massive sulphide source. For further details of these conductors, see our ASX Release dated 7 April 2021 *Update – Mt Alexander Nickel-Copper Sulphide Project*.

The presence of multiple conductors proximal to MAD200 and MAD196 is further support for the potential of significant sulphide mineralisation in this underexplored area of West End.

## SEISMIC SURVEY:

The seismic survey across the western part of the Cathedrals Belt is scheduled to commence next week. The survey is designed to map the host intrusive structures to a depth up to 2km and may also be able to identify accumulations of sulphide mineralisation within these structures.

The survey will cover the West End area and results will assist in designing further deeper drilling to test the multiple EM conductors identified in this area; see Figure 2.

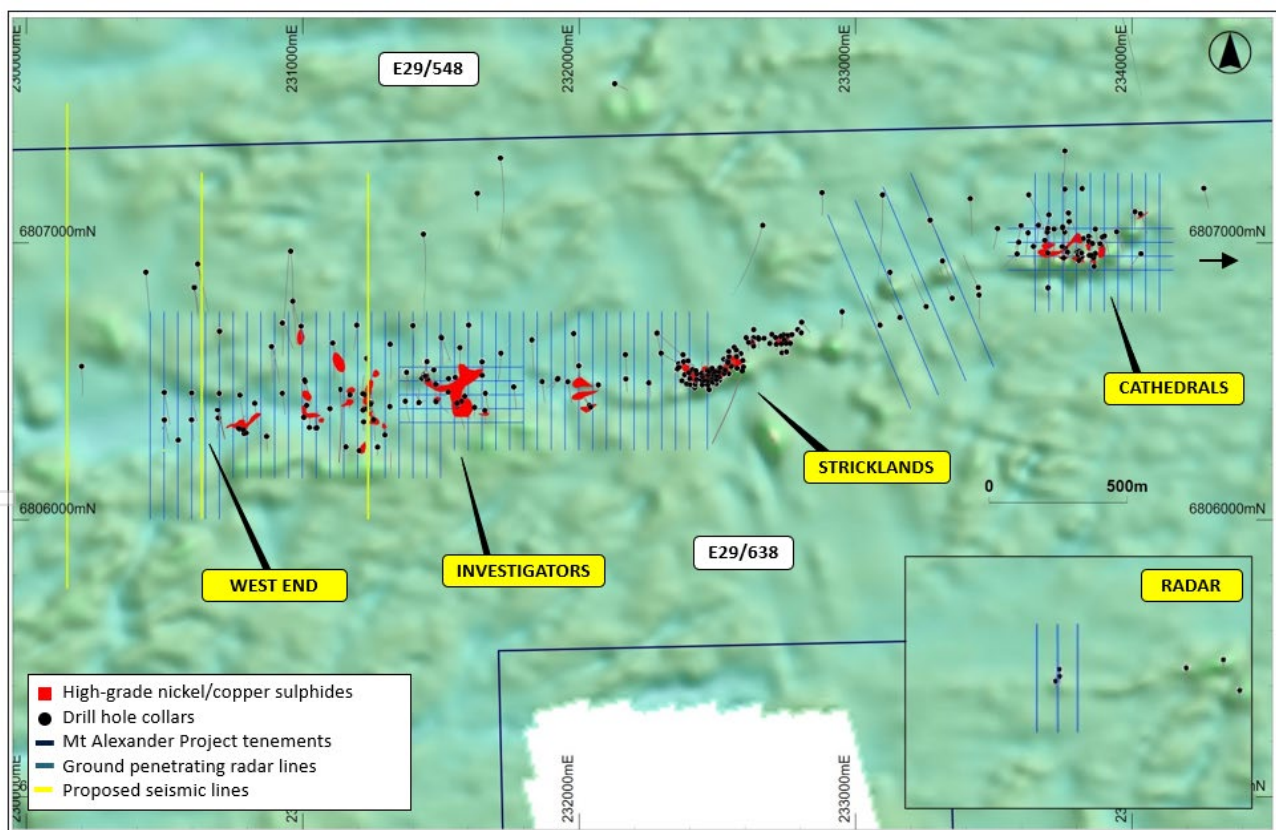
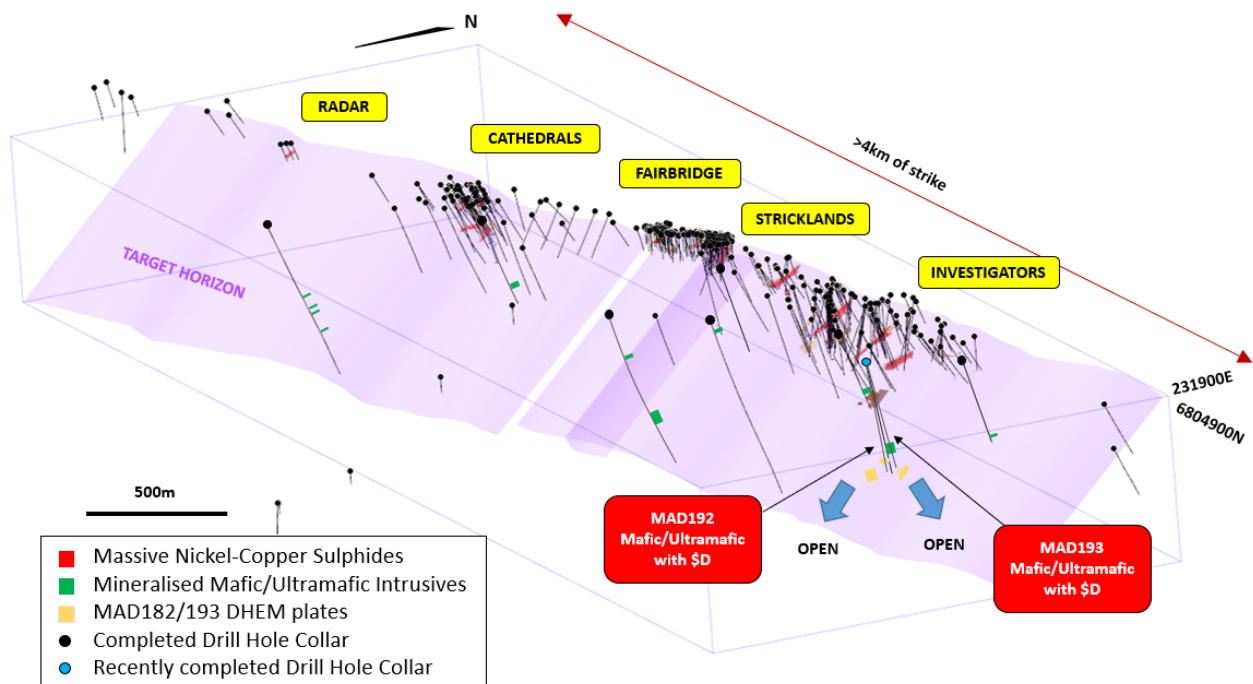


Figure 2 – map (against magnetic RTP 1VD data) showing survey lines for the deep ground penetrating radar (DGPR) and seismic surveys as well as areas of known nickel-copper sulphides. The DGPR survey at the Cathedrals Belt has been completed with processing of results continuing.

The seismic survey will also cover the area where the recent gravity survey identified numerous gravity highs. MAD202 was the first drill hole to test a gravity anomaly and successfully intersected thick intrusive-style rocks, warranting follow-up exploration. The seismic survey, as well as the completion of a DHEM survey in MAD202, will assist in the search for potential sulphide mineralisation around this hole.

See our ASX Release dated 22 June 2021 *Assays Confirm High-Grade Discovery at Mt Alexander* for further details of MAD202 and the seismic technique to be deployed at the Cathedrals Belt.



*Figure 3 – Orthographic view of the Cathedrals Belt showing the interpreted host-intrusive unit which is the priority target horizon for the discovery of further nickel-copper sulphides. The seismic survey is designed to map this intrusive unit in higher resolution to aid ongoing drilling.*

## SCOPING STUDY FOR STARTER MINE:

The scoping study for a potential starter mine at the Stricklands deposit is advancing with two new initiatives being trialled.

**Ore sorting:** Ore sorting equipment can remove waste rock and ore with low concentrations of mineralisation from mined inventory resulting in an upgrade of the ore that is then processed. This can result in higher recoveries and significant savings in processing and transport costs.

A sample of semi-massive, stringer, blebby and disseminated sulphide ore from Mt Alexander will undergo a trial ore sorting process with Steinert, leading industry experts in this field.

Ore sorting can be deployed at very low cost in small or remote mining installations with the processing line planned in semi-mobile form consisting of crushers, screens, belts and sorting machines. Waste rock is disposed on-site providing greater optionality for either further efficient processing at site or transport of a high-concentrate ore to another facility.

## **Glycine-based leaching:**

Western Australia's Curtin University has developed a new processing technology for sulphide ores that uses a glycine-based reagent to selectively leach base-metals, including nickel and copper from sulphides.



The glycine reagent is non-toxic, biodegradeable and imparts zero carbon emissions.

The process involves sulphide ores being placed in large vats where the glycine reagent is applied. A leaching process over a period of several weeks results in separation of the various metals within the sulphide ore. The metals are then recovered in a high-purity powder concentrate form and are ready for shipping to end-users.

The glycine leaching process will be trialled on a sample of nickel-copper sulphide mineralisation from Mt Alexander to test the amenability of the Mt Alexander ore to this process.

Potentially, this leaching process can be considered as an alternative to processing of ores by conventional flotation circuits – resulting in very significant savings in capital expenditure for processing facilities.

***Metallurgical Test Work in Canada:***

The metallurgical test work on the Stricklands ore is continuing in Canada. There have been significant delays in this test work due to ongoing COVID-19 restrictions in Canada.

Initial test work results are now expected later in Q3 2021.

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

"Our systematic step-out drilling at the Cathedrals Belt is continuing to extend the footprint of the intrusive unit that is already known to host massive nickel-copper sulphides along a strike of more than 5.5km.

"All deeper drill holes in the western part of the Cathedrals Belt have intersected intrusive-style rocks. These results indicate a very large mineral system at the Cathedrals Belt with potential for further discoveries of high-grade mineralisation in the underexplored western section of the Belt.

"The multiple EM conductors identified at West End are particularly exciting. These are favourably located within the interpreted intrusive unit and on the same plane as mineralisation intersected by recent drill holes.

"The results of the seismic survey in this area could be very important in better understanding the distribution of mineralisation in this area and planning the next drill programme for these targets.

"We are pleased to be progressing the scoping study for the potential starter mine at Stricklands. We are trialling two new processing initiatives which may materially enhance the economics of a potential starter mine.

"We look forward to providing further updates of exploration and development activities at Mt Alexander.

"We are also excited with the drilling currently underway at our Paterson Project and will provide an exploration update on that programme shortly".

***COVID-19:***

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

Border restrictions and snap lockdowns in Western Australia and elsewhere have impacted on the movement of personnel for drill rig crews, which has been 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-southwest 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.

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 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.

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 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  |
|----------------------------|---|---|
| <b>Sampling techniques</b> | <i>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.</i> | <p><b>Diamond Core Sampling:</b> 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.</p> <p><b>RC Sampling:</b> All samples from the RC drilling are taken as 1m samples for laboratory assay. 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.</p> <p><b>DHEM Surveying:</b> The surveys were conducted using the DigiAtlantis system and VTX-100 transmitter. The readings were recorded at 5m intervals with 1m infill down hole. The surveys used 400 x 400m loops orientated to magnetic north.</p> <p><b>Gravity Surveying:</b> A ground gravity survey was completed by Atlas Geophysics. The following primary instrumentation was used for acquisition of the data;</p> <ul style="list-style-type: none"> <li>- Scintrex CG-5 Autograv Gravity Meter (accuracy &lt;0.02 mGal)</li> <li>- CHC Nav i70+ GNSS Rover Receiver</li> <li>- CHC Nav i70+ GNSS Base Receiver</li> <li>- Garmin GPS receivers for navigation</li> </ul> <p>Gravity surveys are used to detect density contrasts which may be related to the underlying lithology and rock types, alteration of minerals or mineralisation.</p>  |
|                            | <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>  | <p><b>RC Sampling:</b> 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.</p> <p>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.</p> <p><b>Diamond Core Sampling:</b> 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.</p> |

| Criteria                     | JORC Code explanation   | Commentary  |
|------------------------------|---|---|
|                              | <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></p> | <p><b>RC Sampling:</b> 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.</p> <p><b>Diamond Core Sampling:</b> 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.</p> <p>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.</p> <p>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.</p> <p>LOI (Loss on Ignition) will be completed on selected samples to determine the percentage of volatiles released during heating of samples to 1000°C.</p> |
| <b>Drilling techniques</b>   | <p><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></p>   | <p><b>Diamond Core Sampling:</b> 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.</p> <p>The core is oriented and marked by the drillers. The core is oriented using ACT Mk II electric core orientation.</p> <p><b>RC Sampling:</b> The RC drilling uses a 140 mm diameter 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.</p>   |
| <b>Drill sample recovery</b> | <p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p>   | <p><b>Diamond Core Sampling:</b> 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.</p> <p><b>RC Sampling:</b> RC samples are visually checked for recovery, moisture and contamination. Geological logging is completed at site with representative RC chips stored in chip trays.</p>   |
|                              | <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p>   | <p><b>RC Sampling:</b> 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.</p> <p><b>Diamond Core Sampling:</b> 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 &lt;20m and Stricklands &lt;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.</p>  |



| Criteria  | JORC Code explanation  | Commentary   |
|---|--|--|
|   | <i>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.</i>                                  | 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.  |
| <b>Logging</b>  | <i>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.</i> | Geological logging is carried out on all drill holes with lithology, alteration, mineralisation, structure and veining recorded.   |
|   | <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>  | 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.  |
|   | <i>The total length and percentage of the relevant intersections logged.</i>   | All drill holes are geologically logged in full and detailed litho-geochemical 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.  |
| <b>Sub-sampling techniques and sample preparation</b> | <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>   | <b>Diamond Core Sampling:</b> 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.<br><br>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.            |
|   | <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>   | 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.  |
|   | <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>  | <b>RC Sampling:</b> Sample preparation for RC chips follows a standard protocol.<br><br>The entire sample is pulverised to 75µm 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 75µm is used.   |
|   | <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>   | 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.<br><br><b>RC Sampling:</b> 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.<br><br><b>Diamond Core Sampling:</b> 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  |
|---|--|---|
|   | <p><i>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.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>   | <p>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.</p> <p>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.</p>  |
| <b>Quality of assay data and laboratory tests</b> | <p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>For geophysical tools, spectrometres, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <p><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></p> | <p>A 25-50gram sample will be fire assayed for gold, platinum and palladium, using a minimum detection value of 1ppb for gold is 1ppb and 0.5ppb for platinum and palladium.</p> <p>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.</p> <p>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.</p> <p><b>DHEM:</b> The surveys were conducted using the DigiAtlantis system and VTX-100 transmitter. The readings were recorded at 5m intervals with 1m infill down hole. The transmitter produced 96amps and recorded at a frequency of 0.5Hz.</p> <p><b>XRF:</b> 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).</p> <p>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.</p> <p><b>Gravity:</b> A Scintrex CG-5 Autograv Gravity Meter was used for data acquisition which has an accuracy of &lt;0.02 mGal</p> <p>Elevation information was captured using CHC Nav i70+ GNSS receivers with an accuracy of &lt;2m.</p> <p>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.</p> <p>Sample preparation checks for fineness are performed by the laboratory to ensure the grind size of 90% passing 75µm is being attained.</p> |
| <b>Verification of sampling and assaying</b>      | <p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p>  | <p>Significant intersections are verified by the Company's technical staff.</p> <p>No twinned holes have been planned for the current drill programme.</p>  |

| Criteria   | JORC Code explanation   | Commentary  |
|--|---|---|
|  | <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>   | 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.  |
|  | <i>Discuss any adjustment to assay data.</i>  | 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.   |
| <b>Location of data points</b>                                 | <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>  | Drill holes and MT/AMT stations have been located and pegged using a DGPS system with an expected accuracy of +/-5m for easting, northing and elevation.<br><br>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.<br><br>The Gravity data was positioned using CHCi70+ DGPS receivers operating in kinematic mode. |
|  | <i>Specification of the grid system used.</i>   | The grid system used is GDA94, MGA Zone 51.   |
|  | <i>Quality and adequacy of topographic control.</i>   | 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.   |
| <b>Data spacing and distribution</b>                           | <i>Data spacing for reporting of Exploration Results.</i>   | The spacing and distribution of holes is not relevant to the drilling programs which are at the exploration stage rather than definition drilling.<br><br>The gravity data was collected at 25m station spacings.   |
|  | <i>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.</i> | 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.   |
|  | <i>Whether sample compositing has been applied.</i>   | No compositing has been applied to the exploration results.   |
| <b>Orientation of data in relation to geological structure</b> | <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>   | 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.  |
|  | <i>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.</i>                   | No orientation based sampling bias has been identified in the data to date.   |
| <b>Sample security</b>   | <i>The measures taken to ensure sample security.</i>  | Chain of Custody is managed by the Company until samples pass to a 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.   |
| <b>Audits or reviews</b>                                       | <i>The results of any audits or reviews of sampling techniques and data.</i>  | 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  |
|--|---|---|
| <b>Mineral Tenement and Land Status</b>  | <p>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.</p> <p>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.</p>   | <p>The Mt Alexander Project is comprised of six granted Exploration Licences (E29/638, E29/548, E29/954, E29/962, E29/972 and E29/1041). 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).</p> <p>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.</p>   |
| <b>Exploration Done by Other Parties</b> | Acknowledgment and appraisal of exploration by other parties.   | <p>Exploration on tenements E29/638 and E29/962 has been largely focused on the discovery of komatiite-hosted nickel sulphides within 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.</p> <p>Mafic-Ultramafic intrusion related 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 and East-West orientated ultramafic units and the discovery was named the Cathedrals Prospect.</p> |
| <b>Geology</b>                           | Deposit type, geological setting and style of mineralisation  | <p>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 interpreted 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.</p> <p>The Mt Alexander Project is prospective for further high-grade nickel-mineralisation (both komatiite and mafic-ultramafic intrusive hosted) and also precious metal mineralisation (i.e. orogenic gold) that is typified elsewhere in the Yilgarn Craton.</p>  |
| <b>Drill hole information</b>            | <p>A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes:</p> <ul style="list-style-type: none"> <li>• Easting and northing of the drill hole collar</li> <li>• Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>• Dip and azimuth of the hole</li> <li>• Down hole length and interception depth</li> <li>• Hole length</li> </ul> | Drill hole collar locations are shown in the maps and tables included in the body of the relevant ASX releases.   |
| <b>Data aggregation methods</b>          | 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 and should be stated.  | <p>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.</p> <p>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%.</p>  |

| Criteria  | JORC Code explanation   | Commentary   |
|---|---|--|
|   | <p><i>Where aggregated intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>             | <p>Any high-grade sulphide intervals internal to broader zones of sulphide mineralisation are reported as included intervals.</p> <p>Any disseminated, matrix, brecciated or stringer sulphides with (usually) &gt;1% nickel or copper on contact with massive sulphide mineralisation are grouped with the massive sulphides for calculating significant intersections.</p> <p>No metal equivalent values are used for reporting exploration results.</p> |
| <b>Relationship between mineralisation widths and intercept lengths</b> | <i>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.</i>  | 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.  |
| <b>Diagrams</b>   | <i>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.</i>  | A prospect location map, cross section and long section are shown in the body of relevant ASX Releases.  |
| <b>Balanced Reporting</b>   | <i>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.</i>  | <p>Reports on recent exploration can be found in ASX Releases that are available on our website at <a href="http://www.stgm.com.au">www.stgm.com.au</a>:</p> <p>The exploration results reported are representative of the mineralisation style with grades and/or widths reported in a consistent manner.</p>   |
| <b>Other substantive exploration data</b>                               | <i>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.</i> | All material or meaningful data collected has been reported.   |
| <b>Further Work</b>   | <i>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.</i>  | <p>A discussion of further exploration work underway is contained in the body of recent ASX Releases.</p> <p>Further exploration will be planned based on ongoing drill results, geophysical surveys and geological assessment of prospectivity.</p>   |