

20 November 2018

## FURTHER EXTENSIONS TO HIGH-GRADE NICKEL-COPPER SULPHIDES AT MT ALEXANDER

#### **HIGHLIGHTS:**

## • Extensional drilling at Investigators:

- ➤ A further six drill holes have been completed since MAD127 identifying extensions to the mineralised channel at Investigators
- Downhole EM surveys have commenced
- Off-hole EM anomalies have already been identified with potential for additional mineralisation around the recently completed drill holes

### Technical team boosted:

- ▶ Dave O'Neill, highly experienced nickel sulphide geologist, joins St George as Exploration Manager
- O'Neill previously worked at BHP and Western Areas where he managed exploration programmes at Mt Alexander for those companies
- O'Neill will manage an escalation of exploration activity at Mt Alexander including definition drilling along the Cathedrals Belt and the initiation of regional exploration

Emerging Western Australian nickel company St George Mining Limited (ASX: **SGQ**) ("**St George**" or "**the Company**") is pleased to provide an update on the drilling programme underway at the Investigators Prospect – the largest of the three discoveries being drilled on the Cathedrals Belt at the Mt Alexander Project, located near Leonora in the north-eastern Goldfields.

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

"MAD126 and MAD127 intersected thick massive sulphides at Investigators with outstanding preliminary XRF values for nickel and copper. Laboratory assays are expected shortly.

"In the meantime, we are focussed on scoping out the scale of the discovery at Investigators with drilling continuing 24/7.

"Additional intersections of nickel-copper sulphides have now confirmed extensions to the mineralised ultramafic both laterally and at depth in the northerly down dip direction.

"These ongoing strong drill results are a credit to the St George exploration team and further boosts our confidence in the three high-grade nickel-copper sulphide discoveries – Investigators, Cathedrals and Stricklands – which lie along a 4.5km stretch of the Cathedrals Belt."

#### **INVESTIGATORS – LARGE SCALE UNFOLDING**

Figure 1 is a plan view map of Investigators set against SAMSON EM data that illustrates the very large conductive signature across the 1.5km east-west strike of the prospect area.

The map highlights the successful drilling completed at Investigators to date. Notwithstanding the multiple intersections of nickel-copper sulphides, these drill results do not fully account for the large EM signature at Investigators – suggesting strong potential for the discovery of further significant mineralisation here.





On left: drill core from MAD127 which includes a massive sulphide interval between 184.42m to 190.81m (6.39m) with average XRF readings of 8.03%Ni and 5.06%Cu – see our ASX Release dated 1 November 2018 'More Thick Nickel-Copper Sulphide Intercepts at Investigators'.

The mineralised ultramafic at Investigators dips to the north at an angle of about 30 degrees. Drilling is currently focused on three north-south sections — the MAD60 Line, MAD111 Line and MAD112 Line, as highlighted in Figure 1 below.

Figure 1 is a plan view of the Investigators Prospect showing drill hole collar locations over the large SAMSON total field EM anomalies (red/pink colours). The SAMSON EM image is shown in Channel 18 (44ms). The three north-west lines shown are the priority for current drilling. Step-out drilling along these lines is continuing to confirm an extension of mineralisation to the north.

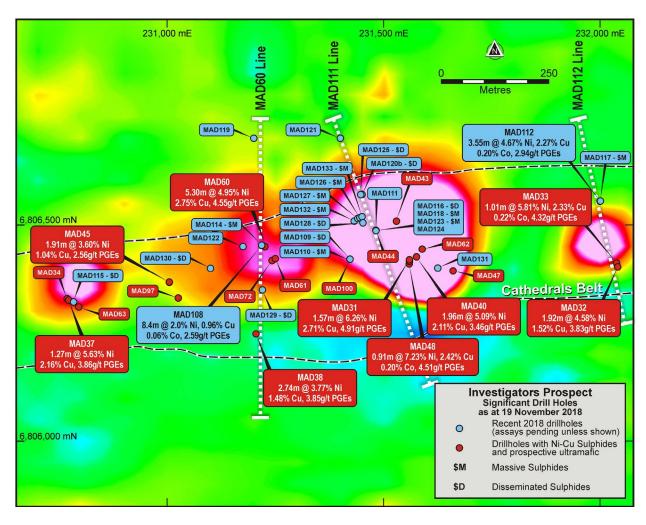




Figure 2 is a long section of the Investigators Prospect and illustrates the extensive mineralisation intersected as well as the large areas that are yet to be drilled.

## Investigators Long-section

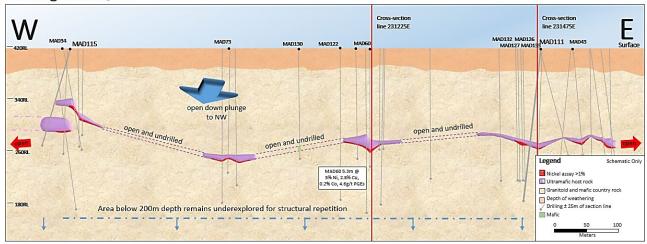


Figure 2 – schematic long section of the Investigators Prospect (facing north) as interpreted from drill hole data. The MAD60 Line and MAD111 Line are shown, with the MAD112 Line (not shown) a further 530m to the east of the MAD111 Line. Mineralisation remains open to the north and at depth.

In the southern part of the Investigators ultramafic, massive nickel-copper sulphides have been intersected at shallow depths of 30m from surface. As step-out drilling progresses north, additional high-grade mineralisation has been intersected at depth in the down dip direction of the ultramafic.

Drilling and downhole EM (DHEM) surveys are being used concurrently to identify extensions to the known nickel-copper sulphide mineralisation, which remains open in all directions.

With an east-west strike of mineralisation at Investigators of some 1.5km, the further extension of mineralisation to the north has the potential to substantially increase the footprint of high-grade nickel-copper sulphides at Investigators.

Six drill holes have been completed since the completion of MAD127 and these are discussed below. DHEM surveys have also commenced on these recent drill holes.

#### **MAD60 LINE**

An excellent illustration of the step out exploration strategy is the MAD60 Line, as shown in the cross section in Figure 3. Mineralisation on the MAD60 Line was first identified by MAD38 which intersected 2.74m @ 3.77%Ni, 1.48%Cu, 0.10%Co and 3.85g/t total PGEs from 25.4m downhole.

Step-out drilling to the north has extended the plunge of mineralisation to 320m with further high-grade nickel-copper sulphides intersected in MAD112 and MAD114. A strong EM conductor has now been identified down plunge from this mineralisation through the DHEM survey in MAD119.

This new conductor MAD119:X1 (30,000 Siemens) is highlighted in Figure 3. It is scheduled to be drilled next week. The intersection of nickel-copper sulphides at this target would further extend the plunge of mineralisation on the MAD60 Line to a very significant 380m.

Two further drill holes were recently completed on the MAD60 Line to test for extensions of mineralisation.



#### **MAD122:**

MAD122 was completed to a downhole depth of 200m as a step-out approximately 60m to the west of the high-grade mineralisation in MAD60. A thin ultramafic unit was intersected from 96.88m to 97.77m. Mafic rocks were intersected between 119.1m to 158.1m although no sulphides were observed. The remainder of the hole intersected mainly granite rocks.

The presence of a very thick mafic sequence is encouraging for the potential extension of mineralisation.

A DHEM survey has just been completed in MAD122 and identified two off-hole EM anomalies. The initial interpretation of these anomalies is that they are consistent with a massive sulphide source to the north of MAD122. Further modelling of the data will be completed ahead of drill testing of these targets.

#### MAD129:

MAD129 was completed as infill to the high-grade intersections in MAD38 and MAD60, and was drilled to a downhole depth of 129.9m. MAD129 intersected a thick mafic unit between 61.90m to 93.30m, followed by 30cm of ultramafic with trace sulphides at the expected target depth and then granites.

The presence of a thick mafic unit in MAD129 plus trace sulphides are encouraging for the possibility of stronger sulphide mineralisation proximal to the drill hole. A DHEM survey will be completed in MAD129 to investigate the potential for any further mineralisation around the hole.

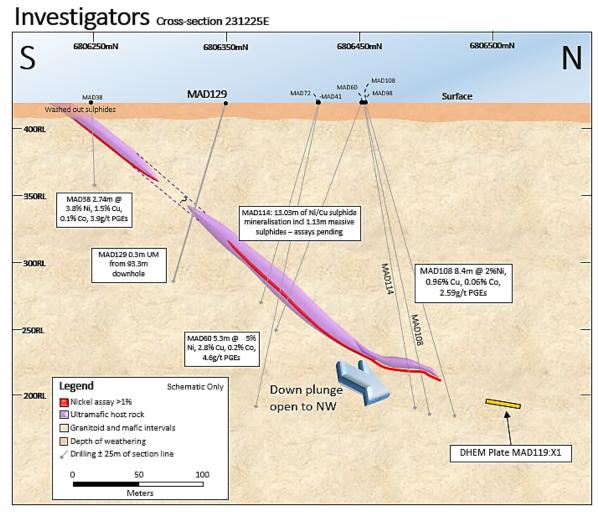


Figure 3 – schematic cross section of the MAD60 section (facing west) at Investigators based on interpretation of drill hole data. The mineralised ultramafic dips to the north-west, with mineralisation open in the down plunge direction where the new conductor MAD119:X1 is situated.



#### **MAD111 LINE**

The MAD111 Line is located at 231475E, about 250m east of the MAD60 Line. Drilling in this section is currently focused on testing very strong off-hole conductors, as announced in our ASX Release dated 3 October 2018 Downhole EM Lights Up Strong Conductors at Investigators Prospect.

The outstanding intersections of MAD126 and MAD127 are located on the MAD111 Line. Three further drill holes have been completed on the MAD111 Line since MAD127 was drilled.

#### MAD128:

MAD128 was completed to a downhole depth of 198.60m to test for an up-dip extension of the massive sulphides in MAD127. Ultramafic was intersected between 175.90m to 179.10m with disseminated sulphides increasing with depth (0.50% to 1%Ni, based on geological logging). The remainder of the drill hole intersected mainly granite rocks.

The intersection of mineralised ultramafic at the interpreted up-dip position of the mineralised system indicates the continuation of the mineralised structure up-dip on the MAD111 Line, with potential for further mineralisation in this area.

#### **MAD132** and **MAD133**:

MAD132 tested approximately 10m to the south-west of MAD127, and MAD133 tested about 20m to the south-west of MAD127.

MAD132 was completed to a downhole depth of 229.9m and intersected sulphide mineralisation within an intercalating interval of ultramafic, massive sulphides and granite as follows:

Interval	Geological Logging
167.90m to 172.88m	Mafic, no sulphides observed
172.88m to 181.71m	Ultramafic with sulphide mineralisation (1%-2%Ni) observed in: 178.5m to 180.9m – blebby sulphides 180.9m to 181.71m – disseminated sulphides
181.71m to 181.96m	Massive nickel-copper sulphides; po-cpy-pn-py observed
181.96m to 201.4m	Granite
201.4m to 202.02m	Ultramafic, trace sulphides
202.02m to 202.24m	Semi-massive sulphides: po-cpy-pn-py observed
202.24m to 209.2m	Granite
209.2m to 211.88m	Ultramafic with blebby sulphides

The remainder of the drill hole intersected mainly granite.

#### MAD133:

MAD133 was drilled to a downhole depth of 204.3m and intersected a 7.2m interval of sulphide mineralisation that included massive sulphides, as follows:



Interval	Geological Logging					
178.20m to	Ultramafic with disseminated sulphides increasing frequency with depth					
184.83m	becoming blebby/vein controlled (0.5% to 5%Ni)					
184.83m to						
185.44m	Massive nickel-copper sulphides; po-cpy-pn-py observed					
185.44m to	Cumita					
204.30m	Granite					

The drill hole data from MAD132 and MAD133 suggests that the geometry of the mineralisation may be consistent with a variable ribbon-like body of mineralisation with increasing thickness towards MAD132.

The complex nature of the above interval in MAD132 (i.e. several horizons of mineralised ultramafic) indicates structural modification of the massive sulphides in this area. Structural modification of massive sulphides has also been observed in other nearby drill holes, including MAD118 which intersected massive sulphides with a high-angle contact.

Structural influences can be positive for the creation of nickel sulphide ore bodies, with examples of significant structurally controlled nickel sulphide deposits in Western Australia including Flying Fox and Silver Swan.

Figure 4 is a schematic cross section of the MAD111 Line based on drill hole data. Drilling has focused on testing the very strong EM conductors identified on this section.

## Investigators - 231475E

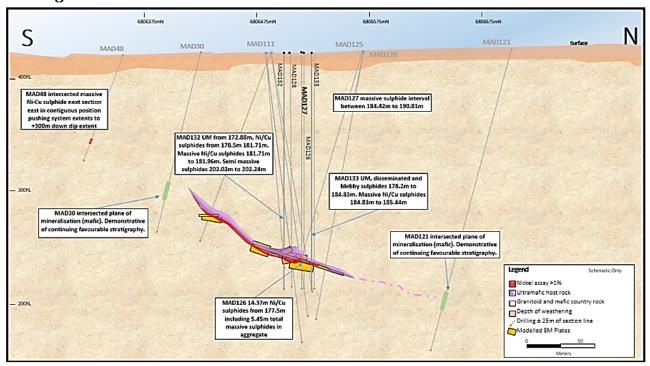


Figure 4 – schematic cross section of the MAD111 Line showing MAD126 and MAD127 and the EM plates modelled on this Line. Drilling subsequent to MAD127 has intersected the mineralised ultramafic; not all holes can be seen in the cross section as they are on a similar east-west horizon to previous drill holes.

Geological interpretation of the latest drill hole data is continuing.



The location of these first step-out drill holes from MAD126 and MAD127 was constrained by lack of available drill pads, and may not have been ideal to fully test the extent of the mineralisation.

New and larger step-outs on the MAD111 Line have now been designed and new drill pads have been prepared for these planned holes. Final planning of the holes will be completed once the new DHEM surveys are completed and data is interpreted.

Further drilling and DHEM surveys will assist in mapping the mineralisation on the MAD111 Line.

#### **EXTENSIONAL DRILLING – EAST-WEST STRIKE**

Two drill holes were completed to test the east-west strike of known massive nickel-copper sulphides.

### MAD130:

MAD130 tested an area approximately 100m to the west of the MAD60 Line, and was completed to 150m downhole. Ultramafic was intersected between 36.85m to 39.54m, and 14m of mafic rocks were intersected from 107.16m downhole.

The presence of the ultramafic/mafic rocks confirms the lateral extension of the mineralised system to the west with potential for further sulphide mineralisation in this area.

#### MAD131:

MAD131 was completed to 142.1m downhole and was designed to test an area between the sulphide mineralisation in MAD31 and MAD47, approximately 100m to the east of the MAD111 Line. MAD131 intersected mainly granitic rocks.

A DHEM survey will be completed in each of MAD130 and MAD131 to investigate for mineralisation around the drill holes.

#### **TECHNICAL TEAM IS BOOSTED**

St George is pleased to announce that Dave O'Neill has joined the Company's technical team as Exploration Manager – further boosting the team's industry-leading credentials in the discovery and development of nickel sulphide deposits.

Mr O'Neill has more than 20 years' experience as a geologist in the mining industry with particular expertise in nickel sulphide exploration gained in senior roles with WMC Resources, BHP and Western Areas.

At Western Areas, Mr O'Neill worked with Charles Wilkinson, currently Technical Consultant to St George and previously the General Manager Exploration for Western Areas.

During his term at BHP and Western Areas respectively, Mr O'Neill managed and supervised exploration programmes at the Mt Alexander Project for each of those companies.

Mr O'Neill's advanced knowledge of the Mt Alexander Project will be invaluable for the escalation of St George's exploration activities at the Project – focussing on definition drilling at the Cathedrals Belt and the initiation of regional exploration on underexplored areas including the Mt Alexander greenstone belt.

#### DRILL PROGRAMME

Table 1 contains details of the initial drill holes for the current programme at Mt Alexander. MAD134 is currently being drilled.

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 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	GDA94_51 East	GDA94_51 North	Hole Dip Depth (m)		Azi Targe Deptl (m)		Target
MAD108	231218	6806453	250	-76	33	205	Test MAD98: X1 plate
MAD109	231422	6806421	160	-80	73	135	Test MAD100:X3 plate
MAD110	231422	6806421	170	-77	338	155	Test MAD100:X2 plate
MAD111	231482	6806487	210	-81	210	185	Test MAD100: X1 plate
MAD112	232000	6806555	140	-58	174	110	Test MAD101: X1 plate
MAD113	233696	6807050	200	-70	185	180	Test MAD102: X1 plate
MAD114	231218	6806453	250	-78	30	205	Test MAD108 plate
MAD115	230784	6806322	150	-68	290	110	Test west of \$M in MAD37/34
MAD116	231482	6806487	240	-76	315	190	Test MAD111:X1 plate
MAD117	232000	6806555	140	-60	180	110	Test MAD112 Plate
MAD118	231482	6806487	220	-78	301	190	Test MAD111:X1 plate
MAD119	231200	6806700	350	-75	180	280	Deep step-out MAD60 Section
MAD120b	231450	6806570	240	-80	185	190	MAD111:X1 plate - north dip extent
MAD121	231400	6806700	320	-75	180	260	Deep step-out MAD111 Section
MAD122	231175	6806450	200	-75	180	160	Test 50 west of MAD60 \$M
MAD123	231482	6806488	220	-75	311	180	Test MAD116:X1 plate
MAD124	231483	6806486	220	-79	290	190	Test MAD116:X2 plate
MAD125	231447	6806570	210	-73	186	180	Test MAD120b:X1 plate



MAD126	231445	6806517	210	-90	0	185	Test MAD120b:X1 plate
MAD127	231440	6806515	210	-90	0	185	S-SW extension of \$M in MAD126
MAD128	231452	6806505	200	-90	0	187	Up dip continuity of \$M in MAD126
MAD129	231220	6806350	130	-75	180	90	Infill MAD38 to MAD60 \$M
MAD130	231100	6806400	150	-75	180	90	West of MAD60 Line
MAD131	231625	6806400	130	-75	180	120	Infill MAD31 and MAD47 \$M
MAD132	231432	6806509	210	-90	0	190	10m SW extension of \$M in MAD127
MAD133	231450	6806519	205	-90	0	185	20m SW extension of \$M in MAD127
MAD134	231440	6806523	215	-90	0	190	NW extension of \$M in MAD127

Table 1 – drill holes for the current drill programme at Mt Alexander, completed and in progress.

Additional drill holes will be added to this programme as results are reviewed.

#### **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:

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#### **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 Benjamin Pollard, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Pollard is a director of Cadre Geology and Mining Pty Ltd which has been retained by St George Mining Limited to provide technical advice on mineral projects.

Mr Pollard 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 Pollard 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 sections are 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.	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.					
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Wherever possible the same side of the drill core is sampled to ensure sample is representative. Appropriate QAQC samples are inserted into the sequences as per industry best practice.					
	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 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to	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.					
	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)	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.					
	may warrant disclosure of detailed information.	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°C.					
Drilling techniques	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, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	Diamond drilling is completed using HQ sized coring equipment through the weathered zone (mostly saprock) with 3m barrels, and then HQ or NQ2 in fresh rock with 3m or 6m barrels as required. The core is oriented using ACT II electric core orientation.					
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	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.					
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	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.	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 completed for all drill holes with lithology, alteration, mineralisation, structure and veining recorded. The logging is recorded digitally and imported in the St George Mining central database.					
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is both qualitative and quantitative depending on the field being captured. Core is photographed with one tray per photo and stored digitally.					
	The total length and percentage of the relevant intersections logged.	All drill holes are geologically logged in full.					
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	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.					
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Reverse circulation holes have been rotary cone split, and wetness recorded during drilling.					
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	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.					
	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.					
	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, or for RC comprise a one meter sample equally split into two bags and taken at set meter intervals.					
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered to be appropriate for base metal sulphide mineralisation and associated geology.					
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.	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, spectrometers, 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.	used to systematically analyse the drill core and RC sample pile onsite. One reading is taken per meter, however for any core sample					
		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.					

Criteria	JORC Code explanation	Commentary					
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	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.					
	nave been establishea.	Sample preparation checks for fineness are performed by the laboratory to ensure the grind size of 90% passing 75µm 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 Exploration Manager of St George Mining.					
	The use of twinned holes.	No twin holes are currently planned for the upcoming drill program.					
	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 reported.					
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 have been located and pegged using a DGPS system with an expected accuracy of +/-0.05mmm for easting, northing and elevation.					
	used in Mineral Resource estimation.	Downhole surveys are conducted using a single shot camera approximately every 30m 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 at the Mt Alexander project 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 diamond drill program is testing modelled EM conductors and geological criteria for massive nickel-copper-PGE sulphide mineralisation. The spacing and distribution of the planned drill holes is appropriate to test the defined targets.					
	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 Cathedrals, Stricklands and Investigators 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.	Drill holes are planned as perpendicular as possible to the target EM plates and geological units to approximate true width. Most of the ultramafic units in the Cathedrals Belt dip shallow to the north (and occasionally south) and where possible drill holes are planned to intersect perpendicular to this dip. The orientation of key structures may be locally variable.					

Criteria	JORC Code explanation	Commentary
	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 St George Mining. Core samples are stored in the secure facilities at Bureau Veritas laboratory in Perth. Transportation of core is managed by St George contractors and Bureau Veritas and actively track monitored.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been conducted at this stage.

## **Section 2 Reporting of Exploration Results**

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 four 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 komatiite-hosted Ni-Cu sulphides in granite terrane. 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 meters) of the drill hole collar	Drill hole collar locations are shown in the maps and tables included in the body of the relevant ASX release.						

Criteria	JORC Code explanation	Commentary
	<ul><li> Dip and azimuth of the hole</li><li> Down hole length and interception depth</li><li> Hole length</li></ul>	
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 and should be stated.	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.  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%.
	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.	Any high-grade sulphide intervals internal to broader zones of sulphide mineralisation are reported as <i>included</i> intervals.  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 <i>including</i> intersection.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have yet been 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 (e.g. down hole length, true width not known).	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.
Diagrams	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 Exploration Results.	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.  Appendix A contains details of significant intersections at the Investigators Prospect announced by the Company.
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.	Further exploration in the Cathedrals Belt is currently being planned based on results from the recent drill program. Further exploration is also warranted north of the Cathedrals Belt on E29/548, and also in the Mt Alexander greenstone belt to the south.

Hole ID	GDA94 East	GDA94 North	Dip	Azimuth	Depth (m)	From (m)	To (m)	Width (m)	Ni%	Cu%	Co%	Total PGEs g/t	Au g/t	Ag g/t
MAD29	231559.5	6806419.6	-60	160	201.6	104.00	105	1	0.36	0.18	0.01	1.02	0.12	1.50
MAD31	231559.4	6806416.5	-63		160	108.00	111.67	3.67	0.56	0.28	0.02	1.22	0.16	1.98
MAD31	23133311		03	133	100	111.67	113.24	1.57	6.26	2.71	0.18	4.91	0.19	8.10
	T	Including	ı			112.08	113.09	1.01	7.98	3.13	0.22	5.90	0.14	9.06
MAD32	232040.2	6806403	-73	220	92.7	44	51.6	7.6	0.44	0.19	0.02	0.59	0.03	0.88
MAD32						51.6	53.52	1.92	4.58	1.52	0.14	3.83	0.12	4.43
	ı	Including	ı			52.75	53.52	0.77	7.82	2.50	0.24	6.31	0.13	6.82
MAD33	232038.2	6806412	-57	330	129.7	87.45	96.48	9.03	0.43	0.14	0.02	0.44	0.03	1.08
MAD33		0000112	<i>-</i>			96.48	97.49	1.01	5.81	2.33	0.22	4.32	0.12	7.30
MAD34	230769	6806330	-70	25	152.5	94	96.1	2.1	0.52	0.25	0.02	0.57	0.07	2.04
MAD34	230703	0000330	, 0		132.3	96.1	98.89	2.79	1.63	0.53	0.05	1.24	0.11	3.62
	T	Including	r		1	98.7	98.89	0.19	7.34	1.53	0.22	3.27	0.05	24.00
MAD37	230772.7	6806327	-84	335	156	110	122	12	0.41	0.13	0.02	0.35	0.04	1.22
MAD37	230772.7	0000327	04	333	130	122	123.27	1.27	5.63	2.16	0.17	3.86	0.10	6.83
		Including				122.55	123.27	0.72	7.93	2.75	0.23	4.81	0.07	9.00
		And, Includii	ng			123.27	123.6	0.33	0.81	0.69	0.03	2.33	0.14	2.50
MAD38	231205.1	6806248	-70	90	65.5	25.4	28.14	2.74	3.77	1.48	0.10	3.85	0.17	5.49
	Including					26.3	26.4	0.1	12.80	5.54	0.25	11.52	0.38	36.50
		And, Includii	ng			27.6	28.14	0.54	8.59	3.43	0.24	6.73	0.14	10.00
MAD40	231575.7	6806427	-68	160	1/12 2	105.35	106.79	1.44	0.46	0.16	0.02	0.60	0.07	1.32
MAD40	2515/5./	0000427	-08	100	142.3	106.79	108.75	1.96	5.09	2.11	0.16	3.46	0.39	6.04
		Including				107.75	108.75	1	7.88	3.11	0.24	5.04	0.53	8.00
MAD43						149.7	157.22	7.52	0.43	0.20	0.02	0.55	0.05	1.13
MAD43	231528.9	6806508	-70	160	180	157.22	157.9	0.68	7.09	2.73	0.23	3.54	0.14	9.50
MAD43	231320.9	0000000	-70	100	160	170.43	170.53	0.1	4.25	0.98	0.13	2.91	0.11	6.00
MAD43						171.1	171.25	0.15	1.88	1.27	0.06	1.65	0.11	6.50
MAD44	231482.4	6806488	-70	180	180	155.66	156.11	0.45	5.59	1.27	0.18	4.28	0.24	11.70
		Including				155.84	156.11	0.27	8.49	1.67	0.27	5.24	0.20	16.50
MAD45	2240040	6006360	04	255	220	174	178.23	4.23	0.39	0.13	0.02	0.35	0.04	0.85
MAD45	231004.9	6806368	-81	355	229	178.23	180.14	1.91	3.60	1.04	0.11	2.56	0.19	2.71
	•	Including	•			178.87	179.08	0.21	5.44	0.51	0.17	2.55	0.09	2.50
		And, Includii	ng			179.76	180.14	0.38	7.10	2.84	0.21	5.42	0.21	7.00
MAD47	231659.8	6806394	-70	175	142.1	42.2	43	0.8	1.77	2.85	0.05	4.31	0.21	8.34
		Including	•			42.2	42.35	0.15	0.92	6.85	0.02	5.35	0.24	21.00
		And, Includii	ng			42.9	43	0.1	7.54	7.02	0.28	10.04	0.33	14.00
MAD47	231659.8	6806394	-70	175	142.1	43.95	44.2	0.25	1.65	0.74	0.03	2.71	0.13	2.50
MAD48	224555	6006415		404		89.35	91.98	2.63	0.58	0.33	0.02	0.97	0.10	4.36
MAD48	231559.7	6806410	-70	181	127.1	91.98	92.89	0.91	7.23	2.42	0.20	4.51	0.18	8.00
MAD60	224555	6006:-:		450	466	156	157.9	1.9	0.60	0.28	0.02	1.49	0.29	2.63
MAD60	231225.2	6806451	-70	178	190	157.9	163.2	5.3	4.95	2.75	0.16	4.55	0.25	8.95
	ı	Including	1		Ī	159.38	162.38	3	6.40	3.55	0.21	5.25	0.17	12.18
		And, Includii	ng			162.9	163.2	0.3	5.93	3.54	0.20	4.36	0.12	11.00
MAD61						133	135.6	2.6	0.37	0.17	0.01	0.48	0.04	0.65
MAD61	231249.4	6806423	-70	180	160.1	135.94	136.18	0.24	0.73	0.61	0.02	1.64	0.14	2.50

MAD62	231587.4	6806445	-70	0	220	195.84	197.25	1.41	0.82	0.31	0.04	0.92	0.07	1.28
MAD62	231367.4	0600443	-70	U	220	197.25	197.56	0.31	6.07	2.81	0.23	2.94	0.03	6.50
MAD63						106	110.33	4.33	0.81	0.35	0.03	1.26	0.17	2.66
MAD63	230796.9	6806312	-75	355	128.1	110.33	110.62	0.29	7.73	2.57	0.24	3.26	0.04	5.50
MAD63						110.62	110.77	0.15	0.82	1.05	0.03	6.13	0.08	3.50
MAD72						131.3	135.79	4.49	0.38	0.09	0.02	0.28	0.02	0.55
MAD72	231242.1	6006410	-75	180	154.7	135.79	136	0.21	5.90	0.32	0.19	1.08	0.01	3.00
MAD72	231242.1	6806418	-/5	180	154.7	136	136.71	0.71	0.53	0.15	0.02	0.40	0.03	7.00
MAD72						136.71	136.96	0.25	6.23	7.48	0.21	2.52	0.01	18.00
MAD108	231218	6806453	-76	33	250	199	207.4	8.4	2.00	0.96	0.06	2.59	0.24	4.31
						206.03	207.4	1.37	6.83	2.88	0.21	5.58	0.26	8.98
MAD112	232000	6806453	-58	174	140	116	119.55	3.55	4.67	2.27	0.20	2.94	0.16	7.14