# **ASX Announcement**

Monday 13th July 2020





# **EXPLORATION UPDATE**

# **Key points**

- First three reconnaissance diamond holes at S2's new Aarni' East gold target,
   Finland, confirm zone of intense deformation and hydrothermal alteration in bedrock beneath base of till gold anomaly – assays awaited
- Favourable rocks and a new "eye" magnetic feature confirmed in reconnaissance work on S2's new tenements, Fraser Range
- Nickel-copper anomalism identified in soils over new intrusive magmatic sulphide target at S2's new West Murchison tenement application
- Coincident nickel-copper-platinum-palladium anomalism confirmed over the targeted intrusion at TRT's new Berkshire project (currently 31% owned by S2)

S2 Resources Ltd ("S2" or the "Company") advises that exploration is advancing on several fronts on its 100% owned gold and nickel-copper-PGE targets in Australia and Finland, and also at the new Berkshire Ni-Cu-PGE project being acquired by Todd River Resources (ASX:TRT, subject to TRT shareholder approval) in which S2 currently has a 31% shareholding.

# Aarni' East gold target, Finland (S2 100%)

As recently announced (see S2 ASX release of 8<sup>th</sup> July 2020), the first ever diamond drilling has started at the Company's 100% owned Aarnivalkea East gold base of till (BOT) anomaly, located on the large Paana tenement some 20 kilometres northwest of Agnico Eagle's 9 million ounce Kittila gold mine in northern Finland.

The first two holes (FPAD0002 and 0003) of this initial reconnaissance drilling program have successfully confirmed the presence of a zone of intense deformation and hydrothermal alteration in bedrock beneath the BOT gold anomaly identified earlier this year. The next two holes (FPAD0004 and 0005) are being drilled 360 metres north along strike from the initial traverse.

The drilling program, which is designed to be a very wide spaced near surface first pass test of the >1,000 metre long gold anomaly, comprises 10-12 holes and is estimated to take about three weeks. The Company expects to begin receiving assay results after that.



# Fraser Range Ni-Cu-PGE project, Western Australia (S2 100%)

Initial reconnaissance work on the Company's recently granted exploration licences in the Fraser Range has confirmed that they straddle the regional gravity anomaly that forms the axis of the Fraser Range belt and that hosts the Nova-Bollinger mine and Mark Creasy's Silver Knight discovery, and what is interpreted to be a prospective corridor containing mafic-ultramafic granulites with several magmatic nickel-copper sulphide occurrences, including Crean (refer to LEG's ASX announcement of 1st May 2019), Delta Blues (refer to GAL's ASX announcement of 3rd December 2019), Oaktree (refer to BUX's ASX announcement of 26th November 2014) and ZV-07 (refer to BUX's ASX announcement of 14th May 2014).

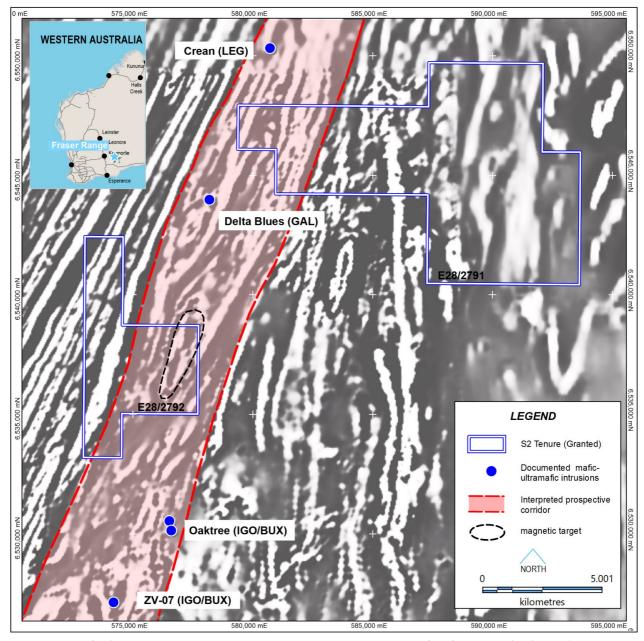


Figure 1: Two of S2's Fraser Range tenements, showing prospective corridor of mafic-ultramafics (colour), a magnetic "eye" target, and Ni-Cu sulphide occurrences reported by IGO (IGO), Buxton (BUX), Legend (LEG) and Galileo (GAL).



One of S2's tenements also contains an ovoid shaped magnetic feature ("eye"). Such features and fold noses are considered important as they are areas in which deformation and shearing has been less intense, therefore any sulphide accumulations are more likely to be preserved rather than "squeezed" into oblivion.

# West Murchison Ni-Cu-PGE target, Western Australia (S2 100%, awaiting grant)

Portable x-ray fluorescence (PXRF) analysis of recent reconnaissance soil sampling at the Company's recently pegged West Murchison Ni-Cu-PGE target has identified a coincident nickel-copper anomaly over the position of the interpreted ultramafic intrusion (see Figure 2). This anomaly is 200 metres wide at the 100ppm copper threshold, with a best result of 550 ppm copper with coincident 1562 ppm nickel. It is open (unsampled) to the east and corresponds with the southern margin of an ultramafic body that magnetics indicate extends a further kilometre eastwards.

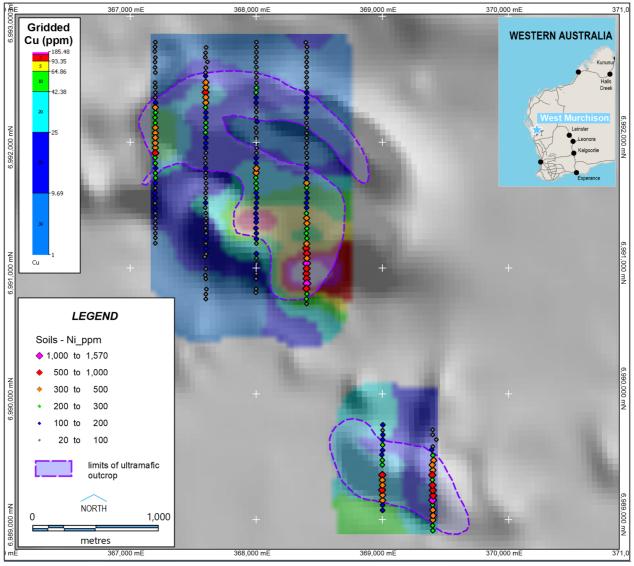


Figure 2: Nickel-copper soil anomalies (colour) over the magnetic anomalies interpreted to represent an ultramafic intrusion (greyscale). Nickel is shown as coloured diamonds and copper is shown as colour image.



Platinum group element (PGE) levels are not yet known as these require laboratory analysis. Selected nickel-copper anomalous samples have been submitted for analysis and results are expected in several weeks.

This is the first of several magnetic anomalies interpreted to be ultramafic intrusions situated within the Company's exploration licence application (see Figure 3).

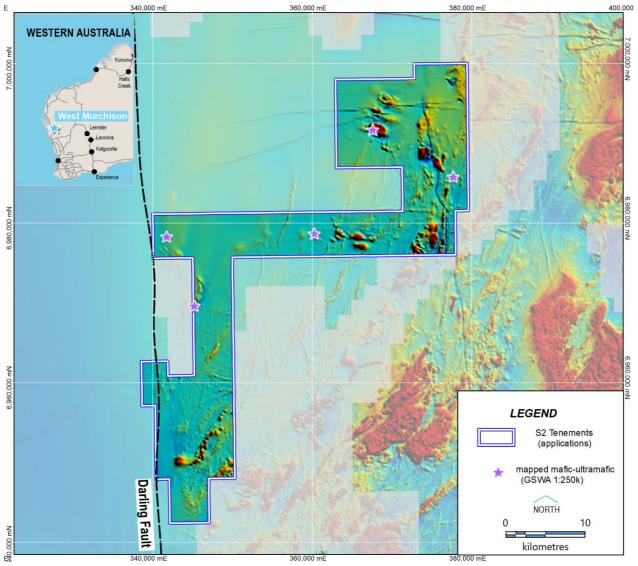


Figure 3: Magnetic anomalies interpreted to represent ultramafic intrusions within the West Murchison ELA. The nickel-copper soil anomaly reported in this announcement is located over the northernmost magnetic anomaly.

# Berkshire Ni-Cu-PGE project, Western Australia (TRT, 31% owned by S2)

Todd River Resources (ASX: TRT), in which S2 currently has a 31% interest, has also today reported that it has confirmed the presence of coincident nickel-copper-platinum-palladium anomalies over the western



trend of ultramafic intrusives on its new Berkshire project, being acquired from two private companies (pending shareholder approval - see TRT ASX announcement of 13<sup>th</sup> July 2020 for source information).

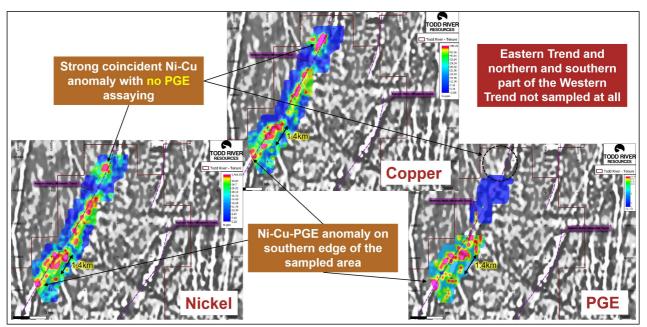


Figure 4: Gridded nickel, copper and platinum+palladium anomalies (colour) from previous auger sampling over magnetics (greyscale) covering 8 kilometres of strike of the western mafic/ultramafic trend (courtesy of TRT).

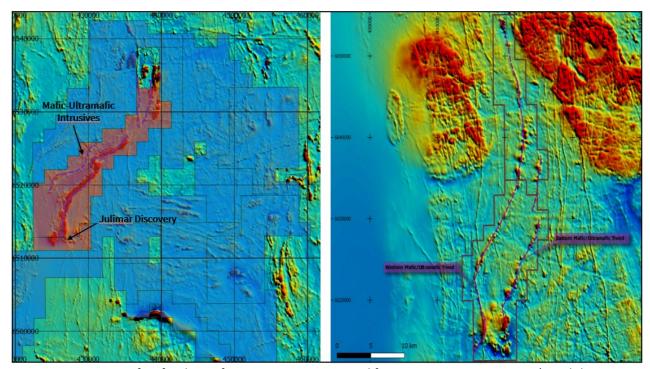


Figure 5: Comparison of mafic-ultramafic intrusions as interpreted from magnetic imagery at TRT's Berkshire project (RHS) and Chalice Gold's Julimar Project (LHS) at similar scales. The length and orientation of the two trends at Berkshire is comparable with that of the intrusion at Julimar (courtesy of TRT).



Several discrete coincident nickel-copper-platinum-palladium anomalies occur along an eight kilometre stretch of this intrusion where sampled. In addition, more than 34 kilometres of this trend, and the entirety of the eastern intrusive trend has yet to be sampled (see Figure 4).

The presence of these anomalies, together with the similarity of the size and orientation of the overall magnetic anomaly which is interpreted to represent an underlying intrusion of similar scale to that which hosts Chalice's Julimar discovery further south, is considered highly encouraging (see Figure 5).

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This announcement has been provided to the ASX under the authorization of Mark Bennett, Executive Chairman.

Past Exploration results reported in this announcement have been previously prepared and disclosed by S2 Resources Ltd in accordance with JORC 2012. The Company confirms that it is not aware of any new information or data that materially affects the information included in these market announcements. The Company confirms that the form and content in which the Competent Person's findings are presented here have not been materially modified from the original market announcement. Refer to www.s2resources.com.au for details on past exploration results.

# **Competent Persons statement**

The information in this report that relates to Exploration Results from Australia is based on information compiled by John Bartlett, who is an employee and shareholder of the Company. Mr Bartlett is a member of the Australian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience of relevance to the style of mineralization and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Bartlett consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

Table 1. Details of all diamond holes completed at the Aarni' East target (Finland) by S2. Note AWR means awaiting results:

Hole	Easting	Northing	RL	Dip	Azimuth	Depth	From	То	Width	Grade Au g/t
FPAD0002	420,170	7,551,750	237	-50	270	71.1		Δ	WR	
FPAD0003	420,220	7,551,740	235	-50	270	108.0		Д	WR	
FPAD0004	420,190	7,552,100	244	-50	270	73.5		Д	WR	
FPAD0005	420,230	7,552,100	244	-50	270		ı	n Progre	ss	



The following Tables are provided to ensure compliance with the JORC code (2012) edition requirements for the reporting of exploration results.

**SECTION 1: SAMPLING TECHNIQUES AND DATA - FINLAND** 

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. 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.	Base of Till (BoT) drilling is undertaken by Moreenityo Macklin Oy of Sattanen, Finland. Holes are drilled to bedrock or blade refusal and a 20cm sample is collected at the end of hole for geochemical analysis and lithological logging.  Drilling is undertaken using MK Drilling of Ranua, Finland drilling NQ2 rod size with a DDH size of 75.7mm and core size of 50.7mm. NQ2 core samples are logged and marked up by S2 personnel. Unbiased core sample intervals were cut in half by diamond saw with half core sent for preparation and analysis
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Sampling and QAQC procedures are carried out using S2 protocols 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information	The BoT samples are sent to ALS Laboratories in Sodankyla, Finland for preparation that includes weighing and then screening to produce a sieved fraction <180 micron for analyses for gold and base metals.  The drill core samples are sent to ALS Laboratories for analyses for gold and base metals. Drill core is sampled at S2's facilities in Kittila, Finland.
Drilling techniques	Drill type (e.g. core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).	Base of Till drilling is by a percussion flow through sample bit that can collect a 20cm sample of bedrock material at the base of glacial deposits up to 20m thick.  Diamond drilling with NQ2 wireline bit producing a 50.7mm diameter core.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	BoT samples are visually inspected and photographed to assess if they are likely to be a basement sample or whether the hole has failed to reach basement due to boulders or excessive cover thickness.  Diamond Drill core recoveries are recorded by the driller and written on core block markers. The exact recovery is then recorded on a metre basis after core mark-up and recorded in the database.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Sample quality is qualitatively logged on a metre basis, recording sample condition
	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 relationship has been seen to exist



Criteria	JORC Code explanation	Commentary
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.	The logging uses a standard legend developed by S2 which is suitable for wireframing of the basement interface. Exploration holes are not geotechnically logged but resource holes are.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	All core has been photographed both dry and wet. Geological logging of the diamond drill holes is into tough books using standardised codes and templates. These logs are then imported into S2's central database
	The total length and percentage of the relevant intersections logged	All drillholes were logged in full.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Core sawn in half and half core taken for assay.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Bot samples are dried and sieved. A representative portion of the coarse fraction is retained and logged
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Samples were delivered by S2 personnel to ALS Minerals laboratory in Sodankyla, Finland, where they are crushed with >70% <2mm (code CRU-31), split by riffle splitter (code SPL-21), and pulverised 1000grm to 85% <75 um (code PUL-32). Crushers and pulverizers are washed with QAQC tests undertaken (codes CRU-QC, PUL-QC). The prepared samples are forwarded to ALS Minerals Loughrea, Ireland, for analysis.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Full QAQC system in place to determine accuracy and precision of assays
	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.	For DDH's non biased core cutting through using an orientation line marked on core and cut to the line
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Samples are of appropriate size
Quality of assay		All samples were analysed by ALS Minerals Loughrea, Ireland.
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.	BoT samples analysed for gold undergo a 25g aqua regia digestion with ICP-MS finish (code Au-TL43). Samples analysed for Ag, As, Bi, Ca, Cd, Cu, Fe, Hg, Mg, Mn, Mo, Ni, P, Pb, S, Sb, Tl & Zn undergo an aqua regia digestion with ICP-AES Finish (code ME-ICP41).  Core samples analysed for gold undergo a 50g fire assay with AA finish (code Au-AA26). Selected samples are analysed for Ag, As, Bi, Ca, Cd, Cu, Fe, Hg, Mg, Mn, Mo, Ni, P, Pb, S, Sb, Tl & Zn undergo an oxidising digestion with ICP-AES Finish (code ME-ICPORE).
	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.	No geophysical tools were used to determine any element concentrations.



Criteria	JORC Code explanation	Commentary
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Full QAQC system in place including Certified Standards and blanks of appropriate matrix and levels
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	All significant intercepts have been verified by senior S2 exploration personnel, including verifying against drill logging, core photos (direct visual inspection of drill core has not been possible due to travel restrictions associated with the COVID-19 pandemic
	The use of twinned holes.	No twinned holes have been drilled within at the Aarni' East prospect area
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary sampling data is collected in a set of standard Excel templates. The information is managed by S2's database manager for validation and compilation into S2's central database.
	Discuss any adjustment to assay data.	No adjustments made
Location of data points	Accuracy and quality of surveys used to locate	BoT collars were located with a handheld GPS with an accuracy of within 3 metres.
	drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Diamond drill collars are pegged using a Trimble DGPS to +/- 1m accuracy. Drill rigs are aligned to Grid west using Standard Finnish National Grid ETRS-TM35FIN. The holes are downhole surveyed using a Deviflex tool.
	Specification of the grid system used.	The grid system used is the Standard Finnish National Grid ETRS-TM35FIN
	Quality and adequacy of topographic control.	Elevation data for all collars is determined by a digital elevation model derived from public domain 2m Lidar data. Topographic control and map data is excellent.
Data spacing and distribution		BoT geochemical samples are drilled at 400m by 20m for initial reconnaissance and 100m by 10m for detailed infill.
	Data spacing for reporting of Exploration Results.	Diamond drilling is currently being drilled on 40m spacing's, on lines between 200 – 360 metres apart over the geochemical anomaly to scope out the basement stratigraphy and structure and will be progressively infilled with deeper holes as deemed appropriate.
	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.	Data spacing and distribution is not sufficient at this stage to allow the estimation of mineral resources.
	Whether sample compositing has been applied.	No sample compositing has been applied
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.	Drillhole orientation is designed to intersect the mineralised package of rocks and be perpendicular to shearing and mineralisation. Structural measurements from orientated core indicate that the main fabric and contacts are dipping steeply to the east and hence holes collared at -60dip 270deg azimuth are appropriate.
	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.	The drilling at this stage is preliminary and exploratory. It is not possible to assess if any sample bias has occurred due to drillhole orientation at this stage.



Criteria	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample security.	Chain of custody is managed by S2 personnel. Drill samples and core is visually checked at the drill rig and then transported to S2's logging and cutting facilities by S2 personnel for logging, cutting and sampling. Bagged samples are transferred to ALS Laboratories in Sodankyla, Finland by S2 personnel.
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 - FINLAND**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The exploration work is located within the Paana Central Exploration License. ML2018:0081  The exploration licenses are 100% owned by Sakumpu Exploration Oy, a Finnish registered 100% owned subsidiary of S2
	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.	All of the Exploration Licenses are in good standing and no known impediments exist on the tenements being actively explored.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The area is a virgin greenfields discovery. Outokumpu completed limited regional BoT drilling in the area, but were not assayed for gold.
Geology	Deposit type, geological setting and style of mineralisation.	The prospect style is a shear zone hosted orogenic gold deposit within the Central Lapland Greenstone belt.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a 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.	Refer to sample plans in text.
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.	Results are single point geochemical samples at the end of the BoT hole.
	Where aggregate 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.	None used.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	None used.



Criteria	JORC Code explanation	Commentary
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').	The trend of mineralisation at the prospects described is broadly north-south. Other orientation such as dip or dip direction are not known at present. Diamond drilling will be used to determine this.  Refer to figures in body of text.
Diagram	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 plan view of drill hole collar locations and appropriate sectional views.	Refer to Figures in body of text.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results considered significant are reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; 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.	No other exploration data present.
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	Initial diamond drilling of the prospect has commenced. This area is able to be drilled in either winter or summer.

# SECTION 1: SAMPLING TECHNIQUES AND DATA – FRASER RANGE

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. 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.	No sampling has been conducted on the tenements
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	No sampling has been conducted on the tenements



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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information	No sampling has been conducted on the tenements
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).	No drilling has been conducted on the tenements
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	No drilling or sampling has been conducted on the tenements
	Measures taken to maximise sample recovery and ensure representative nature of the samples	No drilling or sampling has been conducted on the tenements
	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 drilling or sampling has been conducted on the tenements
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.	No drilling or sampling has been conducted on the tenements
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	No drilling or sampling has been conducted on the tenements
	The total length and percentage of the relevant intersections logged	No drilling or sampling has been conducted on the tenements
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	No drilling or sampling has been conducted on the tenements .
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	No drilling or sampling has been conducted on the tenements
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	No drilling or sampling has been conducted on the tenements
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	No drilling or sampling has been conducted on the tenements
	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.	No drilling or sampling has been conducted on the tenements
	Whether sample sizes are appropriate to the grain size of the material being sampled.	No drilling or sampling has been conducted on the tenements



Criteria	JORC Code explanation	Commentary
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.	No assaying of samples has been conducted on the tenements
	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.	No geophysical tools were used to determine any element concentrations.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	No assaying of samples has been conducted on the tenements
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	No assaying of samples has been conducted on the tenements
	The use of twinned holes.	No drilling has been conducted on the tenements
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	No drilling or sampling has been conducted on the tenements
	Discuss any adjustment to assay data.	No drilling or sampling has been conducted on the tenements
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	No drilling or sampling has been conducted on the tenements
	Specification of the grid system used.	The grid system is GDA94 (MGA), zone 51.
	Quality and adequacy of topographic control.	Elevation data for all data is determined by a digital elevation model derived from public domain 10m Elevation grids
Data spacing and distribution	Data spacing for reporting of Exploration Results.	No drilling or sampling has been conducted on the tenements
	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.	No drilling or sampling has been conducted on the tenements
	Whether sample compositing has been applied.	No sample compositing has been applied
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.	No drilling or sampling has been conducted on the tenements
	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 drilling or sampling has been conducted on the tenements
Sample security	The measures taken to ensure sample security.	No drilling or sampling has been conducted on the tenements
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 – FRASER RANGE

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Fraser Range Project tenements are EL and ELA's located South and South East of Zanthus in Western Australia. They are E28/2791 and E28/2792 (both granted) and E28/2794 (application).  The exploration licences are 100% owned by Southern Star Exploration Pty Ltd, a 100% owned subsidiary of S2 Resources.
	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.	All of the Exploration Licences are in good standing and no known impediments exist on the tenements being actively explored.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Tenements have had no published or open file exploration work for magmatic nickel/ copper type deposits. The only documented drilling on the tenements was by Homestake following up calcrete gold anomalism.
Geology	Deposit type, geological setting and style of mineralisation.	The underlying unweathered lithology is granulite facies metamorphosed and partially retrogressed sedimentary, mafic and ultramafic igneous rocks as determined by petrographic work on adjacent tenure.  The target geology is magmatic sulphide mineralisation hosted in or associated with mafic-ultramafic intrusions within the Fraser Complex of the Albany-Fraser Orogeny.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a 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.	No drilling or sampling has been conducted on the tenements
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.	No drilling or sampling has been conducted on the tenements
	Where aggregate 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.	No drilling or sampling has been conducted on the tenements
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	None used.
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').	No drilling or sampling has been conducted on the tenements



Criteria	JORC Code explanation	Commentary
Diagram	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 plan view of drill hole collar locations and appropriate sectional views.	Refer to Figures in body of text.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results considered significant are reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; 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.	A Passive Seismic survey was conducted at EL28/2791 and ELA28/2794 to help ascertain potential depth of transported cover so as to determine the suitability for surface geochemical sampling.
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 moving loop electro-magnetic survey (MLTEM) is being planned at E28/2791 and E28/2792.

# SECTION 1: SAMPLING TECHNIQUES AND DATA – WEST MUCHISON

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. 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.	Soil sampling has been carried out by collecting a soil sample from approximately 20-30cm depth and screened using a -80# sieve (177µ). Approximately 200g of the -80# sample was collected and retained in a waxed paper geochemical bag. Geochemical samples were analysed using an Olympus Delta portable XRF analyser.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	The portable XRF analyser was regularly calibrated using the provided disk.
	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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information	A 200g, -80# soil sample was used to undertake portable XRF analysis of the sample.



Criteria	JORC Code explanation	Commentary
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).	No drilling has been conducted on the tenements
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	No drilling has been conducted on the tenements
	Measures taken to maximise sample recovery and ensure representative nature of the samples	No drilling has been conducted on the tenements
	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 drilling has been conducted on the tenements
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.	A description of the sample location and nature of the soil collected was recorded at each site entered into the companies SQL database
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging is considered qualitative.
	The total length and percentage of the relevant intersections logged	Data for all sample sites were recorded
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	No drilling has been conducted on the tenements.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Samples were collected by dry sieving and collecting the 80# fraction for analysis.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation is considered appropriate for the nature of the samples being collected. The samples are also considered to be of sufficient quality and appropriateness to be submitted to a commercial geochemical laboratory for wet chemistry analysis
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	Sample collection sites were selected to avoid areas of obvious disturbance as well as to avoid creek lines. All sample equipment was clean and dry brushed between sites to avoid contamination.
	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.	Sample sites were selected to avoid areas of obvious recent disturbance so as to maximise the representative nature of the sample collected
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample size is considered appropriate.
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.	No laboratory assaying of samples has been conducted on the tenements to date. The portable XRF analyser used to analyse the soil samples is considered appropriate for the early stage nature of the exploration and is considered a partial.



Criteria	JORC Code explanation	Commentary
	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.	An Olympus Delta portable XRF machine was used to analyse the soil samples. Each analysis was carried out using a 35 second reading time (15 seconds for beam 1 and 20 seconds for beam 2). No calibration factors have been applied to the analysis.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Standard reference material samples were used during the analysis process. Duplicate analysis of selected samples was undertaken to ensure repeatability.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	No significant intersections have been reported on the tenements
	The use of twinned holes.	No drilling has been conducted on the tenements
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	The data has been exported directly from the XRF and has been loaded into the companies SQL database
	Discuss any adjustment to assay data.	No adjustments to any assay data has been undertaken
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	The location of soil samples has been recorded and downloaded directly from a handheld Garmin GPS (accuracy of approximately +/-3 metres)
	Specification of the grid system used.	The grid system is GDA94 (MGA), zone 50.
	Quality and adequacy of topographic control.	Elevation data for the soil data has been derived directly form the Garmin handheld GPS and is considered adequate given the preliminary nature of the exploration activities.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Soil samples have been collected on 40 metre spacings along N-S grid lines, with lines spaced 400 metres apart.
	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 sampling to date is inadequate to establish geological and grade continuity for the purposes of Mineral Resource estimation
	Whether sample compositing has been applied.	No sample compositing has been applied
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 sampling is preliminary in nature and is currently not possible to assess whether sampling is unbiased
	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.	Not applicable (see comments above)
Sample security	The measures taken to ensure sample security.	Samples were collected and bagged up on site and transported to the company's office facilities in Perth
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 – WEST MURCHISON

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The West Murchison Project comprises three exploration license applications (ELAs), located southwest of Murchison in Western Australia. The ELAs are E09/2390, E09/2391 and E70/5392. The ELAs are 100% owned by Southern Star Exploration Pty Ltd, a 100% owned subsidiary of S2 Resources. The tenements are located wholly within (WC2004/010) Wajarri Yamatji #1Native Tile claim (partially determined) and partially within (WC1996/093) Mullewa Wadjari Community Native Title claim
	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.	All of the Exploration Licences are currently under application and are currently awaiting assessment for the expediated native title process (s29) prior to grant.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Tenements have had no published or open file exploration work for magmatic nickel/ copper type deposits. WMC undertook limited rock chip sampling in 1977 to assess the potential for chromite mineralisation of outcropping ultramafic within the project area.
Geology	Deposit type, geological setting and style of mineralisation.	The project is located on the southwest margin of the Narryer Gneiss Terrain, a poly-deformed complex of granite and interleaved Archean greenstone (mafic, felsic and sedimentary lithologies) accreted to the northwest margin of the Yilgarn Craton.  The target mineralisation style is magmatic nickel-copper-PGE sulphide mineralisation hosted in or associated with maficultramafic intrusions.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a 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.	No drilling or sampling has been conducted on the tenements
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.	No drilling or sampling has been conducted on the tenements
	Where aggregate 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.	No drilling or sampling has been conducted on the tenements
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	None used.



Criteria	JORC Code explanation	Commentary
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').	No drilling or sampling has been conducted on the tenements
Diagram	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 plan view of drill hole collar locations and appropriate sectional views.	Refer to Figures in body of text.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results considered significant are reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; 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.	Reconnaissance mapping of the project areas has been undertaken.
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	Selected soil samples are to be submitted to a recognised geochemical laboratory for precious metal analysis (Au, Pt, Pd). Infill soil sampling and detailed mapping is to be carried out.