



S2 STARTS 2025 WITH EXPLORATION ON MULTIPLE FRONTS

West Murchison:

- Soil sampling at Woodrarung and Aubrey South targets confirms two more significant anomalies, each 4 kilometres long at the 100ppm copper threshold
- All anomalies defined to date include significant Ni-Pt-Pd enriched subzones
- All anomalies are closely associated with major structures and/or intrusions, and ready for detailed field mapping, geophysics and/or reconnaissance drilling
- All anomalies are in virgin areas with no previous drilling

Glenlogan:

- Tensor induced polarisation/magnetotelluric (TIP/MT) geophysical surveys start this week over the copper-gold porphyry target drilled in late 2024
- Aim is to map potential hydrothermal alteration zones around the fringes of the recently drilled magnetic target to guide location of potential follow up drillhole

Greater Fosterville:

- Soil sampling has started over previously identified induced polarisation (IP) chargeability anomaly at Rasmussens, north of the Fosterville Gold Mine
- Further IP planned to track Rasmussens IP anomaly further south and to cover potential southern extensions of existing IP anomaly at Mayreef East
- Aim is to define and test a range of new shallower targets amenable to aircore and/or reverse circulation (RC) drilling

S2 Resources Ltd (“S2” or the “Company”) advises that it is starting 2025 with exploration on multiple fronts, with geophysics at Glenlogan and geochemistry at Fosterville to be followed by more IP at Fosterville. The Company has also received further encouraging soil sampling results from its West Murchison project, where two more 4 kilometre long copper anomalies with internal coincident nickel, platinum and palladium anomalies have been confirmed, adding to those reported late last year.

West Murchison: extensive multielement soil anomalies

Further results have been received from follow up soil sampling undertaken at the Company's 100% owned West Murchison project in Western Australia. These results, from the Aubrey South and Woodrarung targets, have confirmed the presence of significant multielement soil anomalies which supplement those recently identified at the Yalgamine and Whitehurst soil anomalies (see S2 ASX announcement of 21st November 2024).

At Woodrarung, 200 by 40 metre spaced infill sampling has confirmed a copper anomaly which extends over a distance of 4 kilometres at values in the range of 100-500ppm copper. This anomaly contains two subzones which each extend over a distance of 1.5 kilometres in the range of 200-500ppm copper. Both of these are closely related to a major north northwest trending structure seen in the regional aeromagnetic data, and the southern subzone is also strongly anomalous in platinum (5-200ppb), palladium (5-15ppb), nickel (>1,000ppm) and chrome (>1,000ppm) (see Figures 1 and 2).

At Aubrey South, 200 by 40 metre spaced infill sampling has confirmed a copper anomaly that extends over a distance 4.5 kilometres, with variable nickel and chrome anomalism. It includes a core zone extending over 750 metres at a level of 200-500ppm copper and 500-1,000ppm nickel with subtle gold and palladium anomalism (see Figures 3 and 4).

These anomalies are in addition to those recently identified at the Yalgamine and Whitehurst targets as detailed in S2's ASX announcement of 21st November 2024, described below.

At the Yalgamine target, 400m x 80m sampling on east-west and north-south lines defined a broad coincident nickel-chrome anomaly with a maximum dimension of 3km, containing a distinct "sweet spot" comprising coincident highly anomalous copper, platinum, palladium and gold to a maximum of 1,040ppm Cu, 24ppb Pt, 26ppb Pd and 15.5ppb Au (see Figures 5 and 6). This is particularly interesting because it coincides with the margin of an oval eye-like feature in the magnetic data, which is interpreted to represent an intrusion, and the level of anomalism and the sampling density is comparable to that initially defined over the Nova nickel-copper deposit, discovered by the S2 team as Sirius Resources in 2012 (refer to Sirius Resources ASX announcement of 22 March 2011).

At the Whitehurst target, variable spaced sampling on east-west and north-south lines identified three distinct multi-element anomalies, each measuring between 500m and 1,000m long and comprising coincident elevated nickel, copper, chrome, platinum, palladium and gold (see Figures 7 and 8).

The West Murchison project is located on the western edge of the Yilgarn Craton and is considered prospective for Julimar-style palladium-copper-nickel mineralisation. The large soil anomalies now defined are considered very promising given that they are associated with major, independently defined structures, and none have ever been drilled. Furthermore, the only drilling undertaken to date over the project comprises 6 reverse circulation (RC) holes located well to the north of the Woodrarung anomaly, the northernmost of which intersected 5 metres grading 0.34% copper and 0.35% nickel from 61 metres and 3 metres grading 0.68% copper and 0.39% nickel from 68 metres (see S2 ASX Quarterly Report of 28th April 2022).

Next steps being considered for these anomalies include regolith/landform mapping, geophysics and reconnaissance aircore or reverse circulation (RC) drilling, as appropriate.

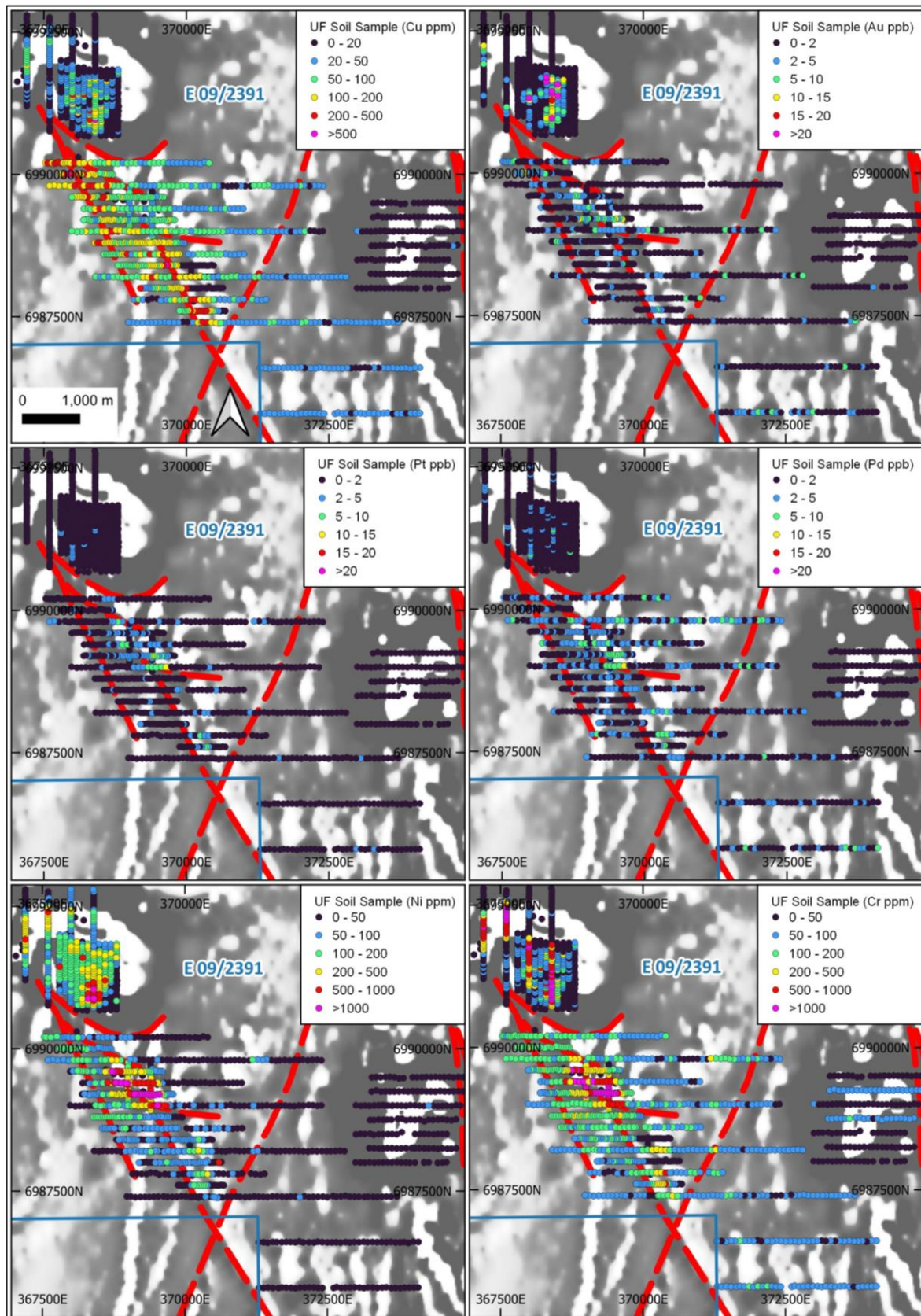


Figure 1. Woodraring target infill soil sampling (at 200m line spacing), showing large copper anomaly straddling significant NNW trending structures, with a coincident gold-platinum-palladium-nickel-chrome subzone.

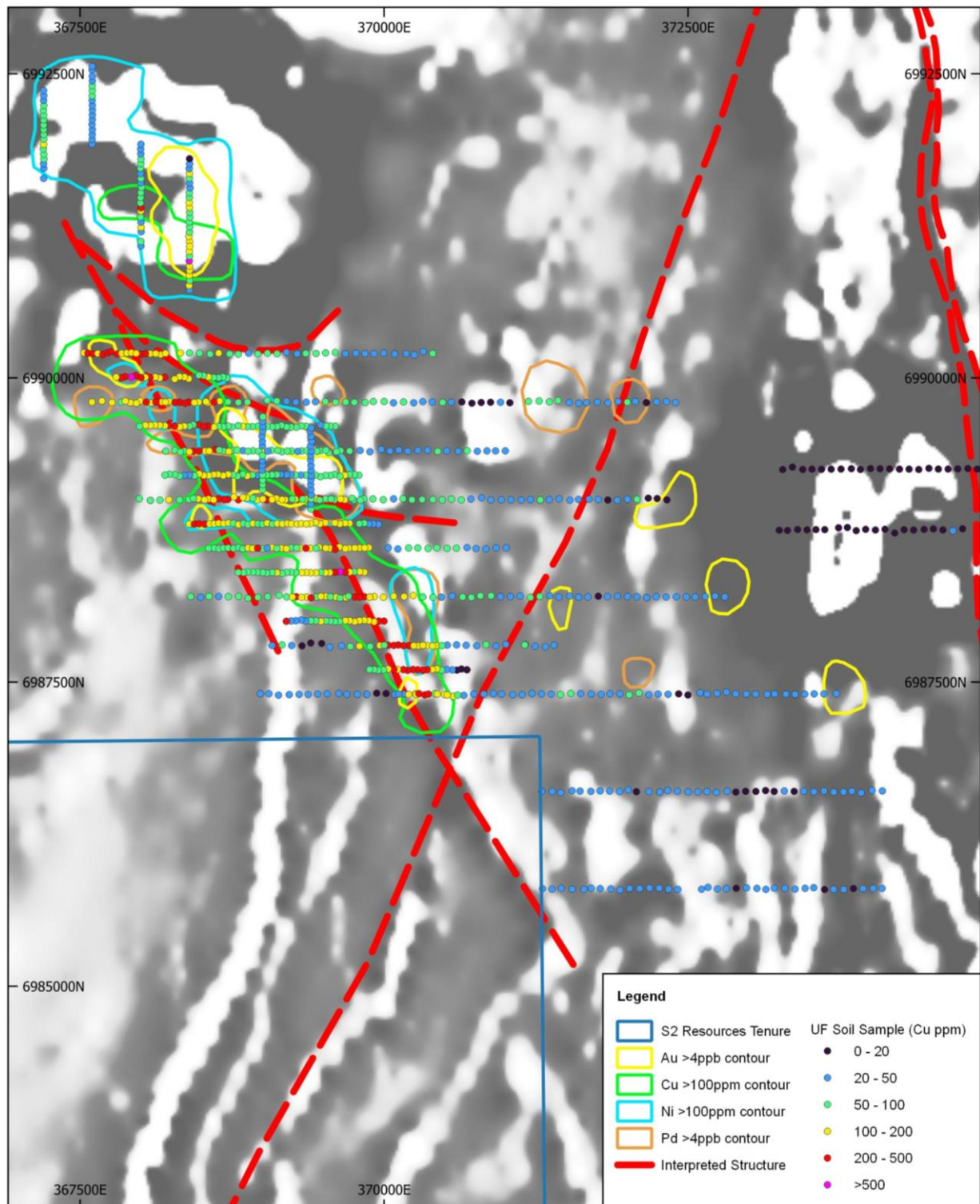


Figure 2. Woodraring target soil anomaly summary plan, showing large copper anomaly straddling significant NNW trending structures, and a coincident gold-platinum-palladium-nickel-chrome subzone.

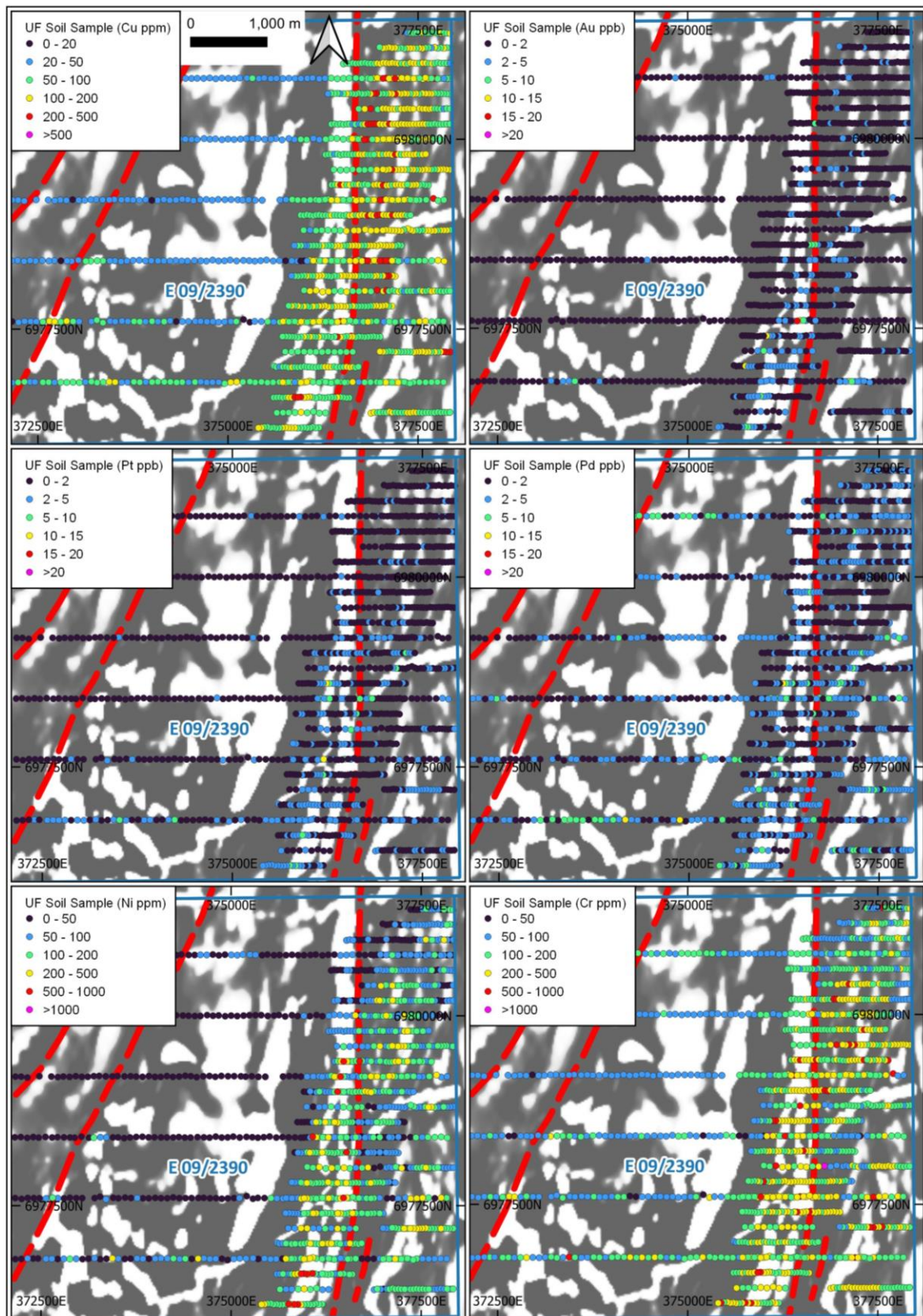


Figure 3. Aubrey South target infill soil sampling (at 200m line spacing), showing extensive copper-nickel-chrome anomaly associated with major N-S trending structure, with subtle gold-palladium anomalism.

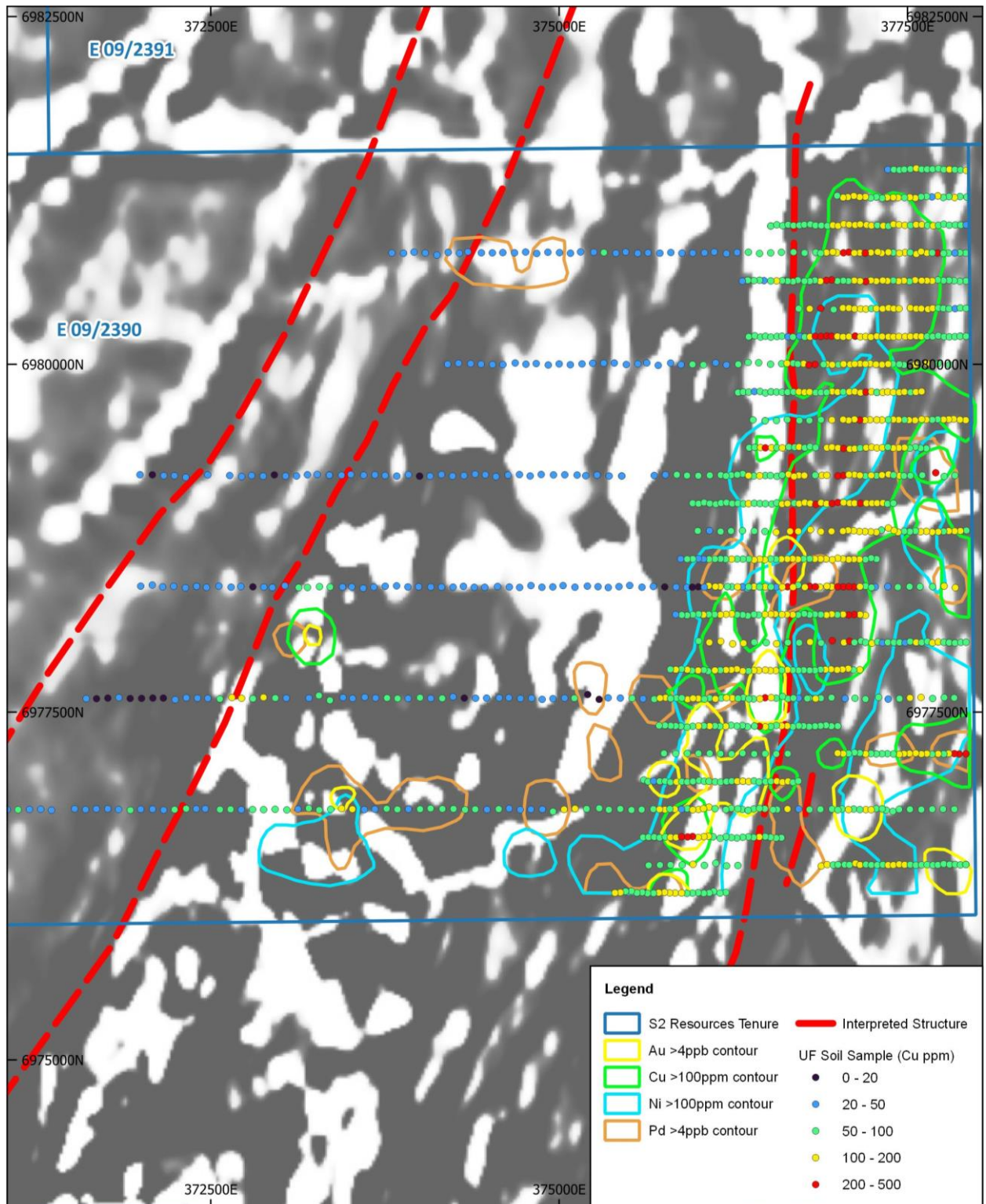


Figure 4. Aubrey South target soil anomaly summary plan, showing extensive copper-nickel-chrome anomaly associated with significant N-S trending structure accompanied by subtle gold-palladium anomalism.

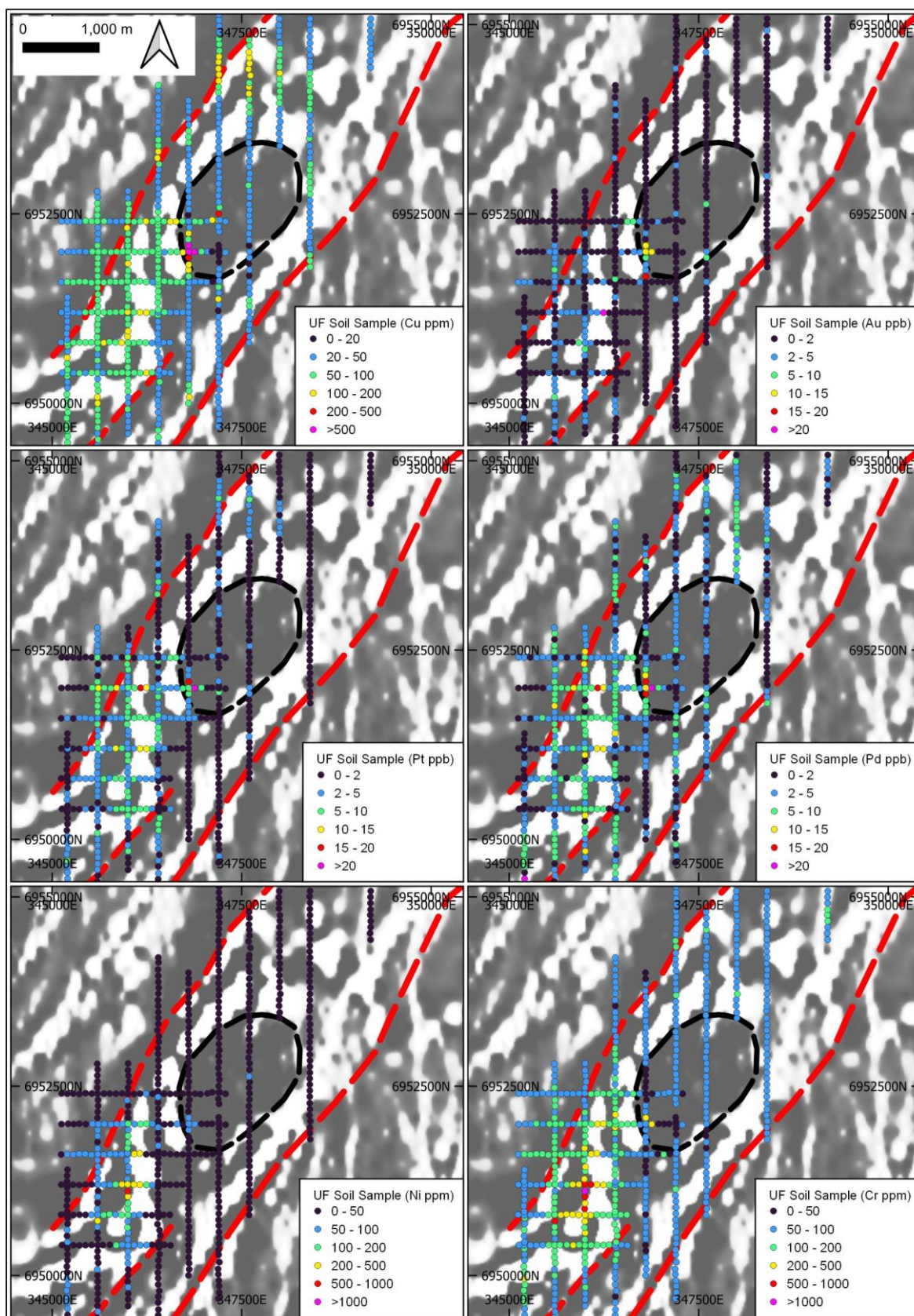


Figure 5. Yalgamine target soil sampling (at 400m line spacing), showing broad coincident nickel-chrome anomaly with coincident copper-platinum-palladium-gold anomaly on margin of eye-like magnetic feature.

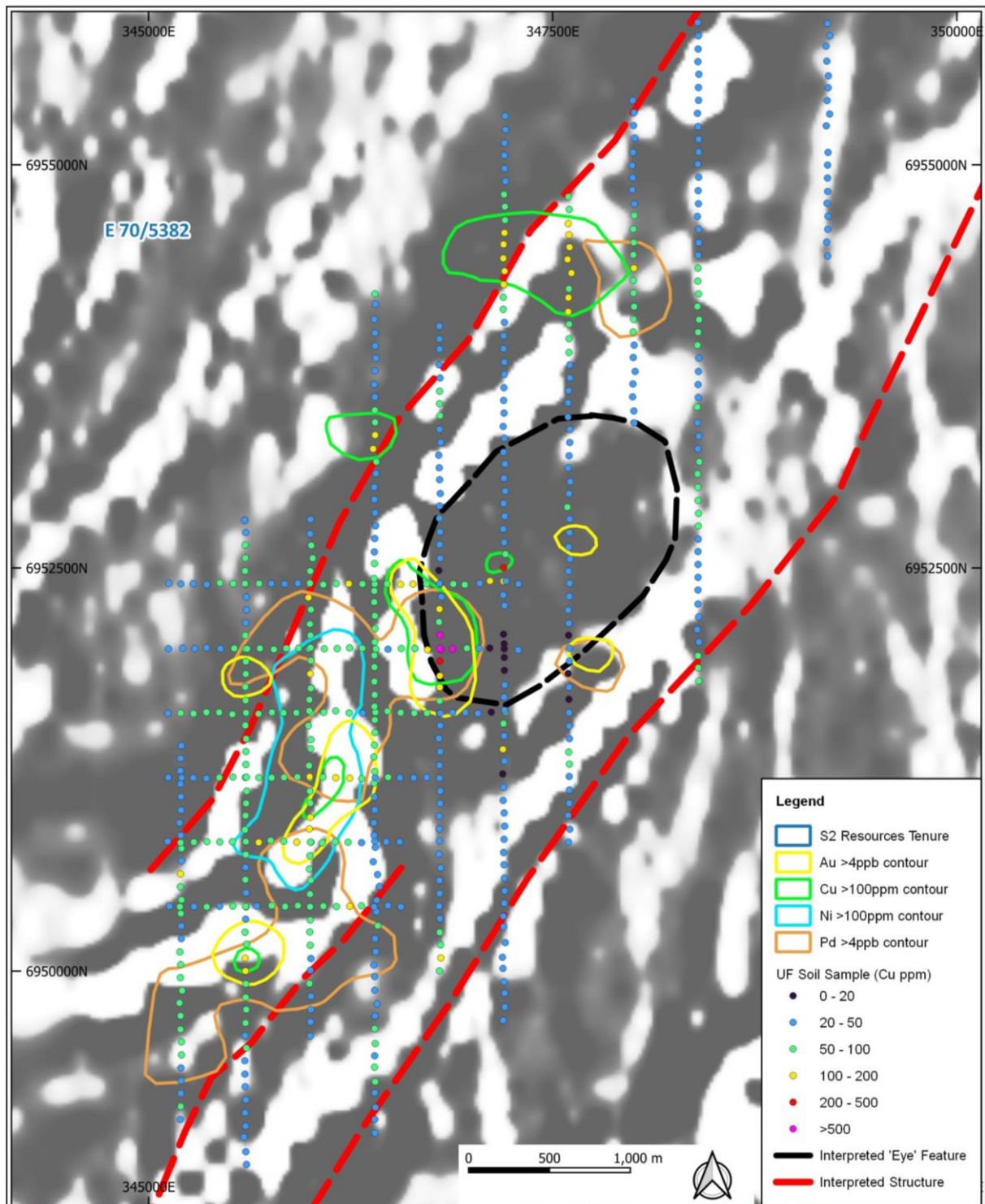


Figure 6. Yalgamine target soil anomaly summary plan showing extensive (3km long) multi-element anomaly with strongest coincident copper-platinum-palladium-gold anomalism on margin of eye-like magnetic feature.

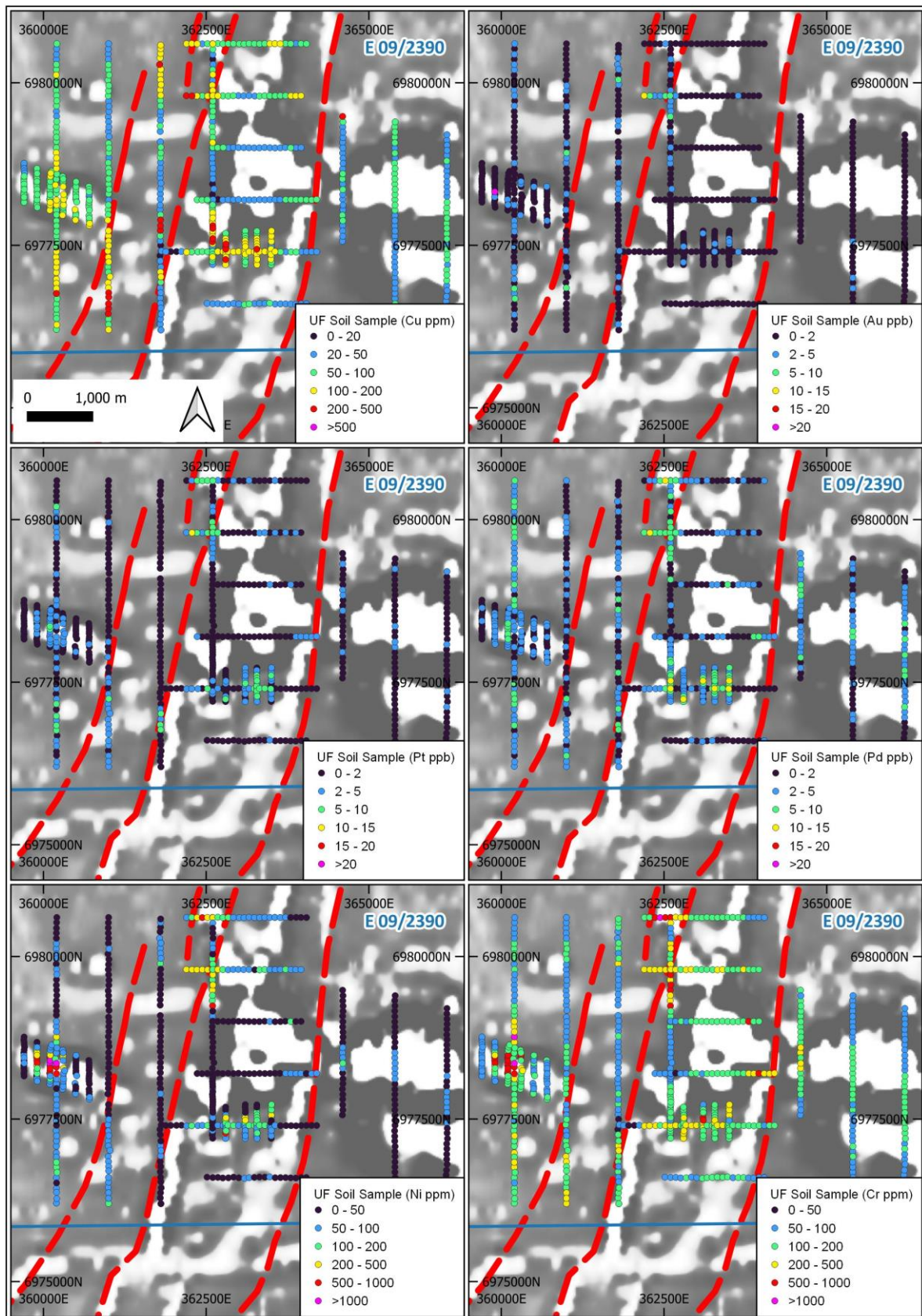


Figure 7. Whitehurst target follow up soil sampling, showing three distinct coincident nickel-chrome-copper-platinum-palladium sub-anomalies, each 500m-1,000m long.

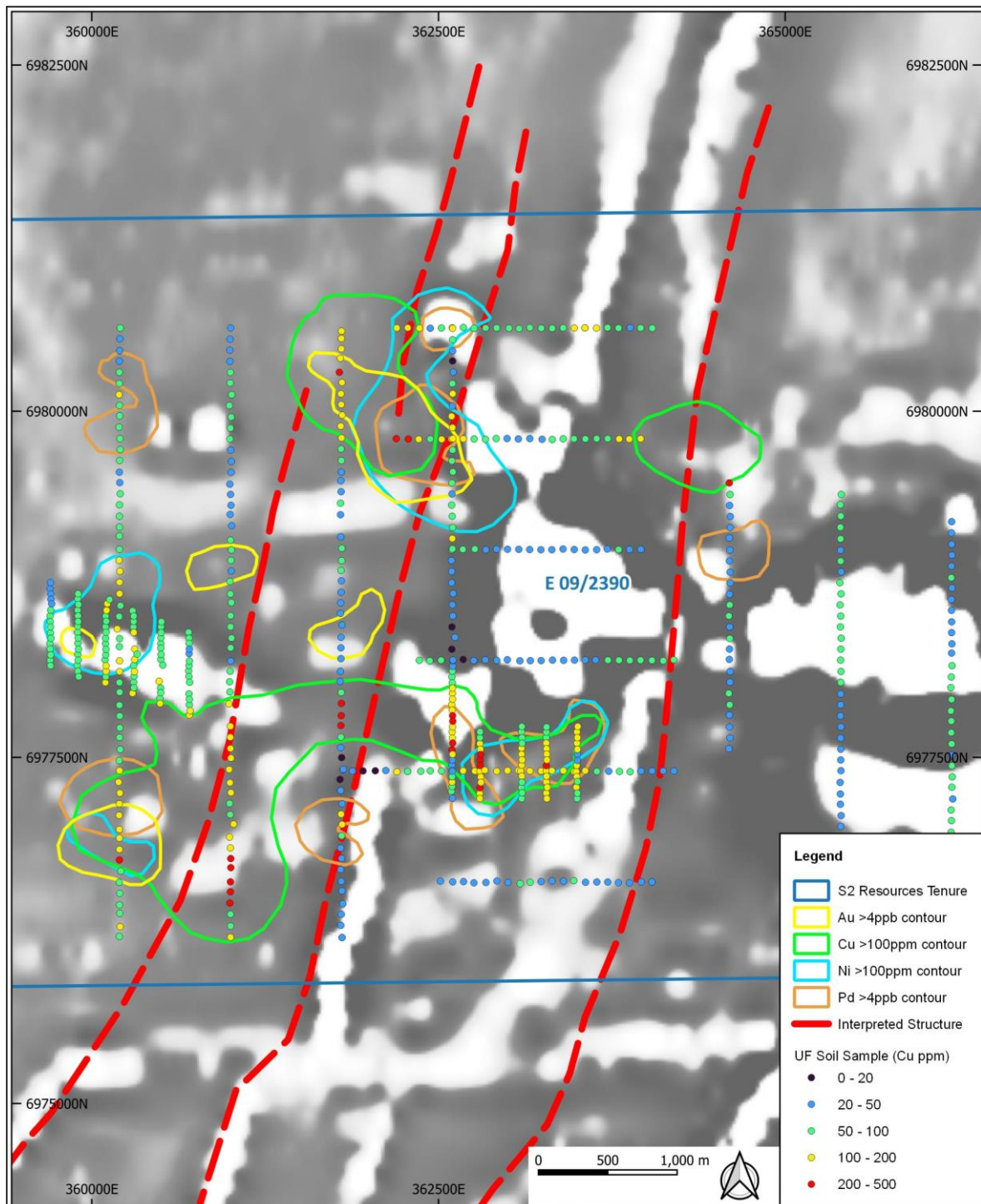


Figure 8. Whitehurst target soil anomaly summary plan, showing three distinct coincident nickel-chrome-copper-platinum-palladium sub-anomalies, each 500m-1,000m long.

Glenlogan: Tensor IP/MT geophysics surveys start this week

At the Glenlogan project, where S2 is earning a 70% and potentially 80% interest, land access agreements have been completed and a tensor induced polarisation / magnetotelluric (TIP/MT) geophysics survey is starting this week. This survey is designed to identify any resistive and/or chargeable zones around the fringes of the strong magnetic anomaly drilled late last year (see S2 ASX announcement of 28th October 2024) that may be related to alteration associated with copper-gold bearing porphyry intrusions on the fringes of the large magnetic intrusion. In order to ensure adequate coverage and penetration, the survey extends significantly beyond the limits of the magnetic body (see Figure 9). It is expected to take two weeks to complete with results being available in six weeks.

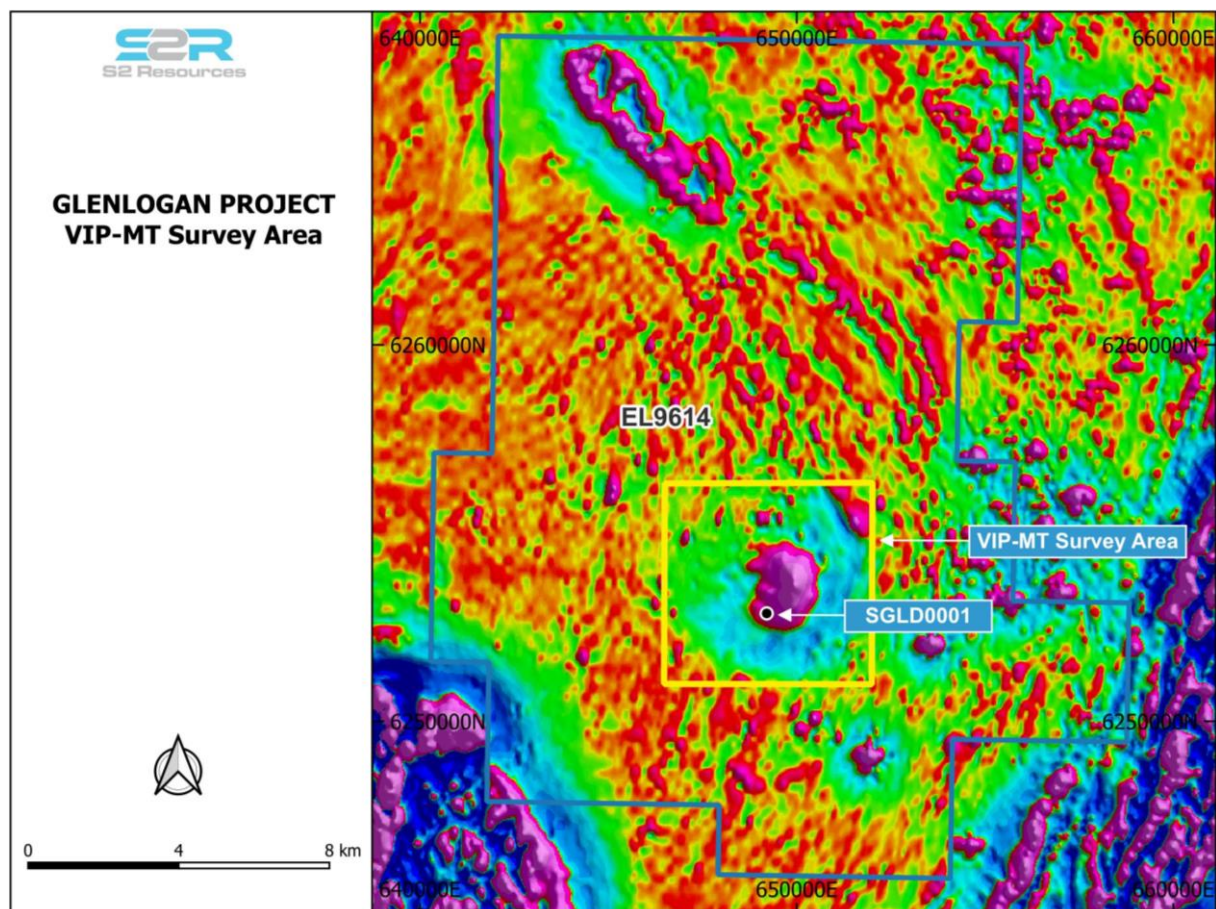


Figure 9. Extent of TIP/MT geophysical survey area at Glenlogan, around the magnetic intrusive.

Greater Fosterville: soil sampling underway followed by IP geophysics

At the 100% owned Greater Fosterville project, soil sampling has started over an induced polarisation (IP) chargeability anomaly at the Rasmussens target, and the existing IP coverage will be extended to the south to track this IP anomaly along the O'Dwyer's Fault system, which hosts Agnico Eagle's Robbins Hill deposits further along strike to the south (see Figure 10). More IP geophysics is planned in the Mayreef East area to extend coverage over the potential extension to an IP chargeability anomaly identified in the Company's previous survey, which was restricted due to cropping at that time (see Figure 10). It is anticipated that this will take place in February with results being available in March/April.

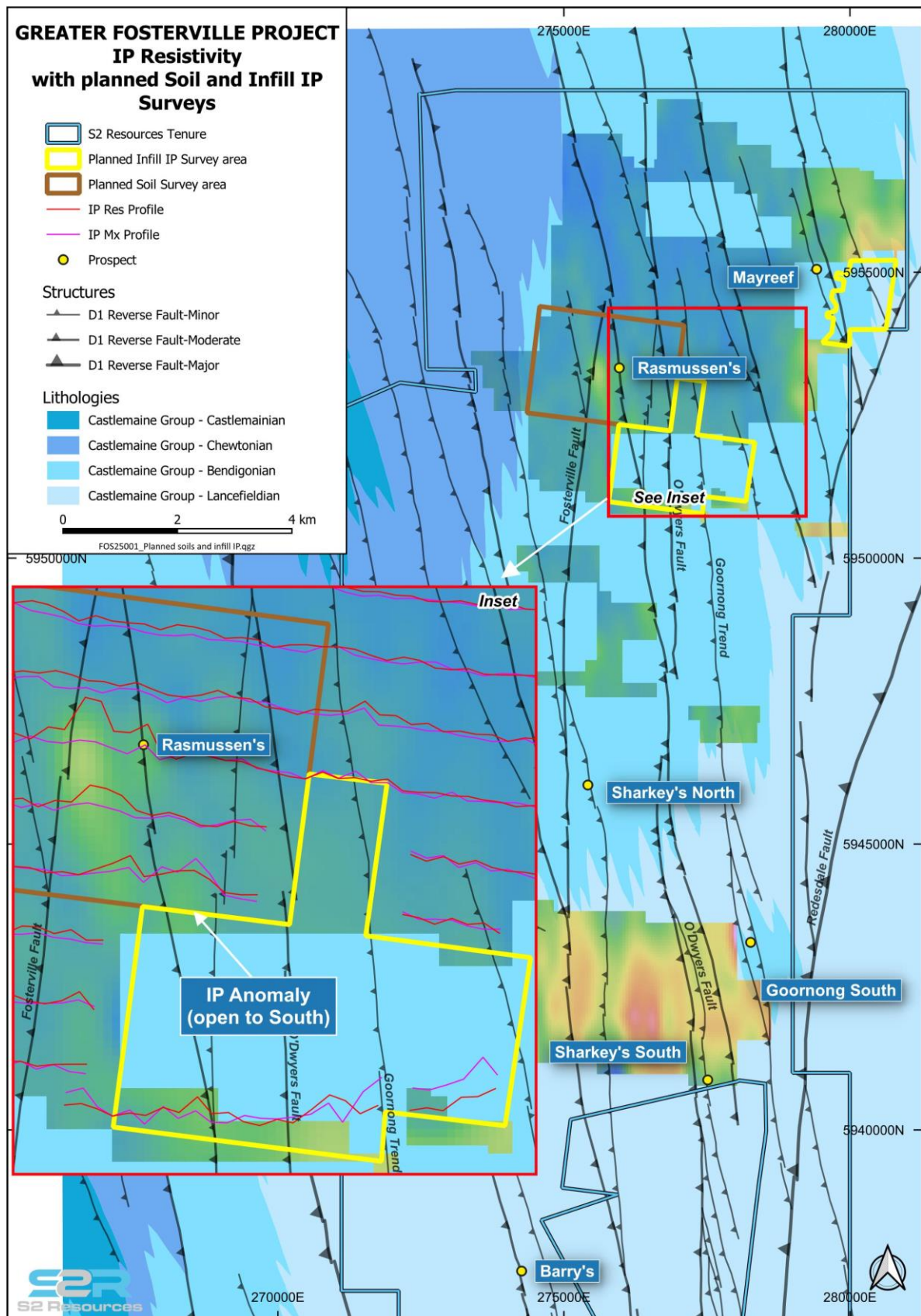


Figure 10. Location of soil sampling and planned IP at Rasmussens and Mayreef East targets, Fosterville.

This announcement has been provided to the ASX under the authorisation of the S2 Board.

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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

Information in this report that relates to Exploration Results is based on information compiled by John Bartlett, who is an employee and equity holder 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.

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 - WEST MURCHISON

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>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.</i>	Soil samples were collected by digging a hole to a nominal depth of between 20-30 centimetres and collecting approximately 200 grams of material, sieved to a -2mm, from the bottom of the hole
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</i>	Sampling and QAQC procedures are carried out using S2 protocols as per industry best practice.

Criteria	JORC Code explanation	Commentary
	<i>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</i>	Samples were submitted to Labwest in Malaga for analysis for multi-element suite using the Ultrafine soil analysis
Drilling techniques	<i>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, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	No new drilling is reported in this announcement.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed</i>	No new drilling is reported in this announcement
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples</i>	No new drilling is reported in this announcement
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	No new drilling is reported in this announcement
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	No new drilling is reported in this announcement
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	No new drilling is reported in this announcement
	<i>The total length and percentage of the relevant intersections logged</i>	No new drilling is reported in this announcement
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No core drilling has been undertaken on the project area
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	No new non-core drill samples are reported in this announcement
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Full QAQC system in place to determine accuracy and precision of assays
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	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.
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	No compositing has been undertaken
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The sample size is considered appropriate.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	The ultrafine soil technique uses an initial 50g subset, which the laboratory uses to extract a sub 2 micron fraction, which is then analysed using an aqua regia digest. The method is considered a partial digest, and is an appropriate method for soil samples.
	<i>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.</i>	No geophysical tools were used to determine any element concentrations.
	<i>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.</i>	Full QAQC system in place including Certified Standards and blanks of appropriate matrix and levels.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Significant soil anomalies have been identified by the project geologist and have been verified by the exploration manager.
	<i>The use of twinned holes.</i>	No twin holes have been completed
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	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.
	<i>Discuss any adjustment to assay data.</i>	No adjustments to any assay data have been undertaken
Location of data points	<i>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.</i>	Drill hole collar locations were recorded using handheld Garmin GPS. Elevation values were in AHD RL and values recorded within the database. Expected accuracy is + or – 5 m for easting, northing and 10m for elevation coordinates.
	<i>Specification of the grid system used.</i>	The grid system is GDA94 (MGA), zone 50.
	<i>Quality and adequacy of topographic control.</i>	Elevation data for the soil data has been derived directly from the Garmin handheld GPS and is considered adequate given the preliminary nature of the exploration activities.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Soil sampling has been carried out on a nominal 400 metre x 80 metre (Yalgamine) or 800 metre x 80 metre (Whitehurst) grid pattern, orientated either N-S or E-W, to follow up earlier N-S oriented sampling
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	The sampling to date is inadequate to establish geological and grade continuity for the purposes of Mineral Resource estimation
	<i>Whether sample compositing has been applied.</i>	No sample compositing has been applied
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	The sampling is preliminary in nature and is currently not possible to assess whether sampling is unbiased
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	Not applicable (see comments above)
Sample security	<i>The measures taken to ensure sample security.</i>	Samples were collected and bagged up on site and transported directly to the independent laboratory in Perth by S2 personnel

Criteria	JORC Code explanation	Commentary
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	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 licenses, located southwest of Murchison in Western Australia. The ELs are E09/2390, E09/2391 and E70/5392. The ELs 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 #1 Native Title 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.	No known impediments to obtaining a licence to operate in the area. All of the Exploration Licences are granted and a heritage agreement has been finalised with the native title claim group (Wajarri Yamatji #1).
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 or orogenic gold style mineralisation. 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 mafic-ultramafic 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: <ul style="list-style-type: none"> 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. 	All significant drilling results have been previously reported (ASX quarterly report dated 28 April 2022)
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.	Drilling results have been reported using either 0.3% copper or 0.3% nickel lower cut-off. All significant results have been length weight averaged.
	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.	Internal intervals have been reported using either 0.5% or 1.0% for either copper or nickel

Criteria	JORC Code explanation	Commentary
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents have been 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').	The geometry of mineralisation has yet to be adequately establish, as such only down-hole lengths have been quoted
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.	Surface soil geochemical sampling has been completed over selected areas. MLEM electromagnetic surveys have been carried out over the Woodraring and Whitehurst target areas. Heliborne SkyTEM electromagnetic surveys have been carried out over Aubrey East and Yalgamine target areas. Limited diamond drilling has been undertaken over the Woodraring and Whitehurst target areas.
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	Targeted infill soil sampling (200m x 40m) is planned at Whitehurst and Yalgamine. Once results of all soil sampling has been received, reconnaissance aircore / RC drilling to be completed over selected targets.