



## WEST MURCHISON PROJECT UPDATE

### Key Points

- **Review of data confirms new soil geochemical anomalies requiring follow-up**
- **Includes broad coincident nickel-copper-palladium-gold anomalies**
- **Associated with unexplained structures close to the western edge of the Yilgarn craton**

S2 Resources Ltd (“S2” or the “Company”) advises that it has identified a number of broad coincident multi-element soil anomalies in the data from its 100%-owned West Murchison project since resuming unfettered ownership of the tenements as a result of the termination of the previously envisioned transaction with Pacific State Metals (see S2 ASX announcement of 17 June 2024).

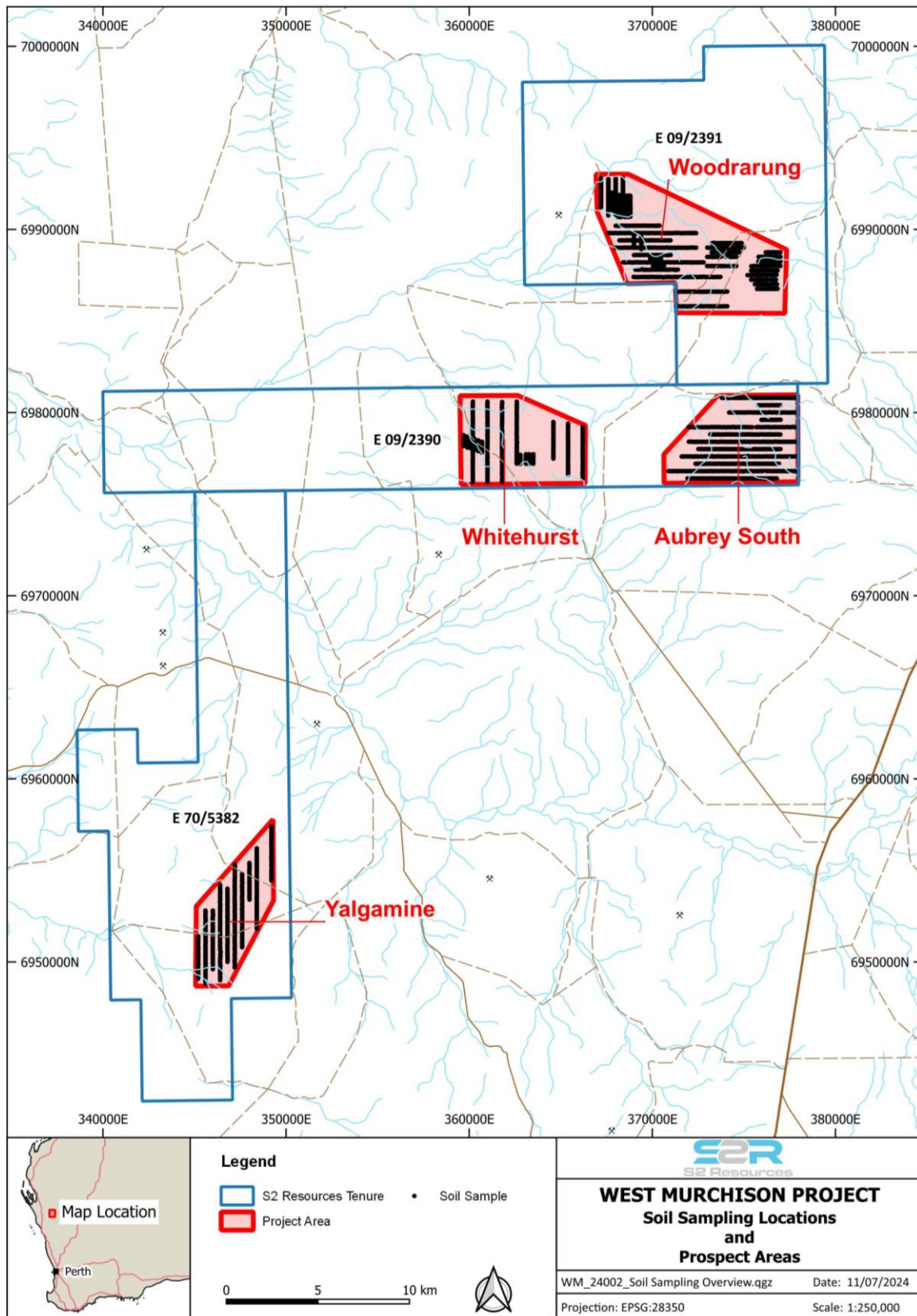
Ultrafine soil sampling in four areas has confirmed the previously identified soil anomaly at the Woodrarung prospect, and identified broad nickel-copper-palladium-gold anomalies in three additional areas (see Figure 1). Each of these anomalies covers several square kilometres and is associated with unexplained structures (as seen in magnetic data) close to the western edge of the Yilgarn craton.

### Woodrarung

At Woodrarung, ultrafine soil sampling has identified a northwest-southeast trending semi-coincident copper-nickel-palladium-gold anomaly that extends for over 3 kilometres and overlies a prominent northwest trending structural feature (see Figure 2). The new anomaly is located southeast of the partially drill tested area at Woodrarung where in a small, six hole reverse circulation (RC) drilling program, S2 previously intersected 5 metres at 0.34% copper, 0.35% nickel, 0.33g/t gold and 3.7g/t silver (including 2 metres @ 0.62% copper, 0.68% nickel, 0.64g/t gold and 7.2g/t silver) from 61 metres, and 3 metres @ 0.68% copper, 0.39% nickel, 0.51g/t gold and 5.9g/t silver (including 1 metre @ 1.06% copper, 0.70% nickel, 0.51g/t gold and 6.2g/t silver) from 69 metres in SWMC0007 (see S2 ASX quarterly report of 28 April 2022)

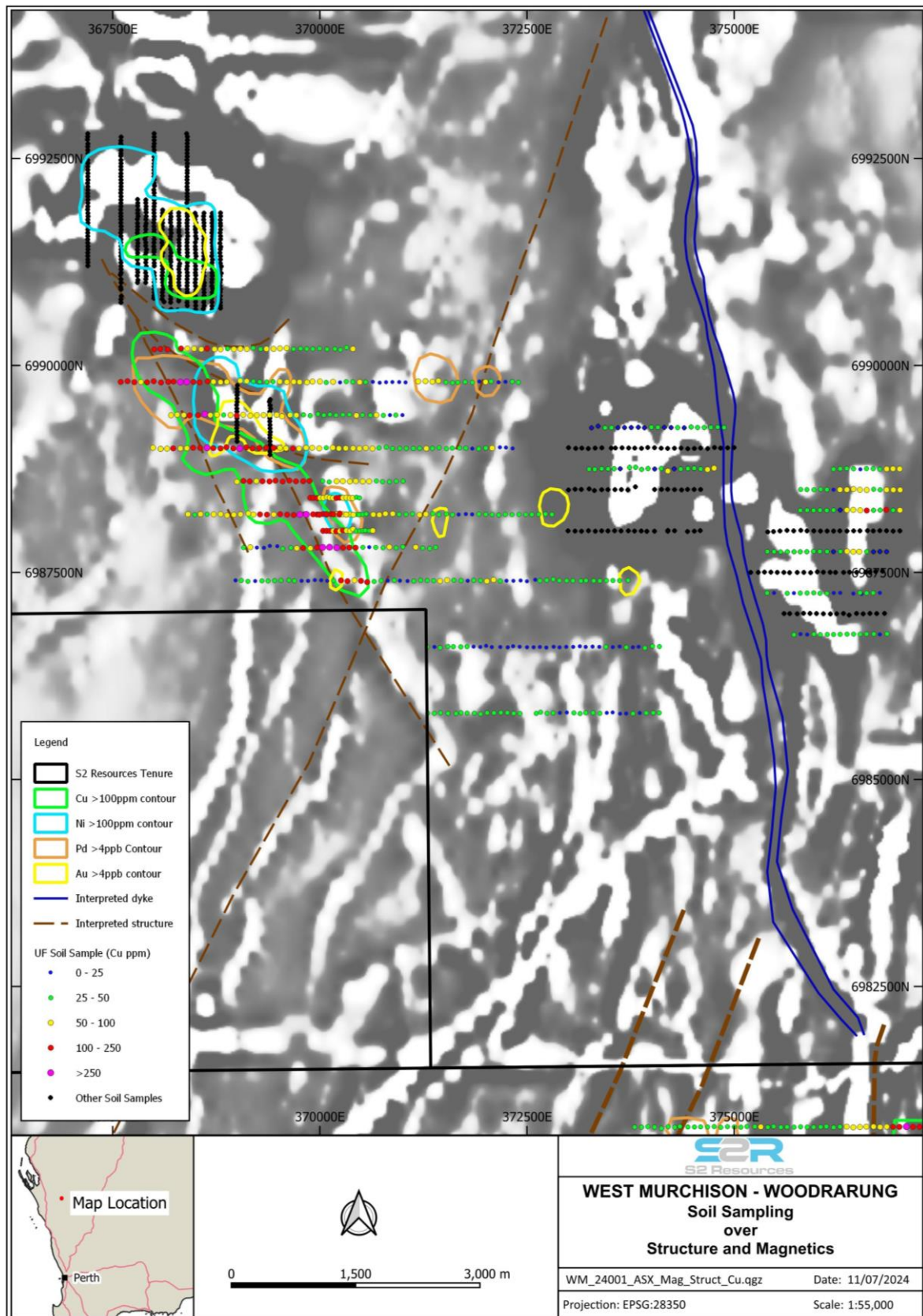
### Yalgamine

At Yalgamine, ultrafine soil sampling has identified a 3 kilometre long zone of semi-coincident palladium-copper-nickel-gold anomalism in a distinct corridor bound by two prominent northeast-southwest striking structures. The broader anomaly contains a core of particularly strong copper anomalism associated with the margin of an “eye”-like feature in the magnetics (see Figure 3).

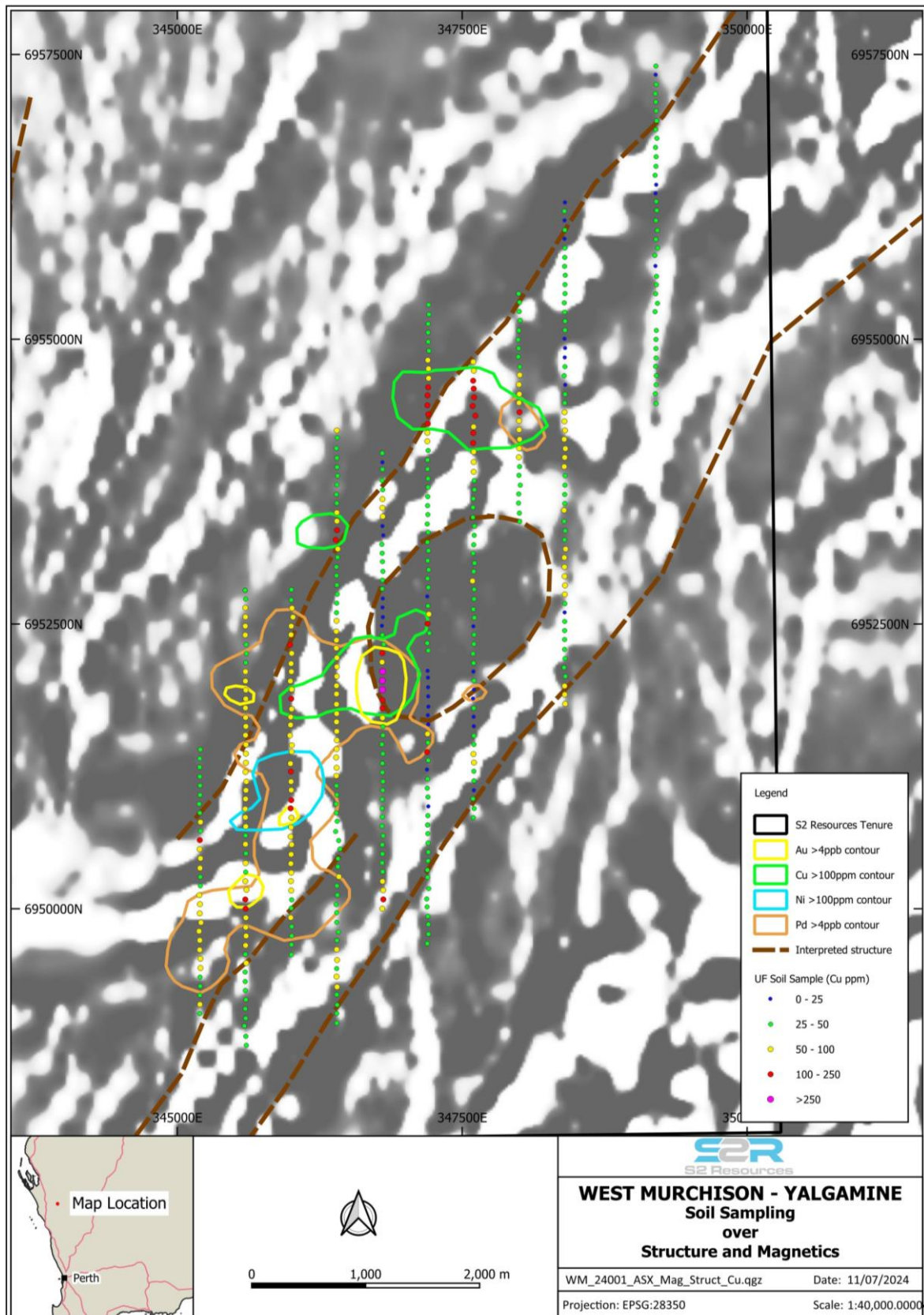


**Figure 1.** West Murchison project area showing location of ultrafine soil sampling.



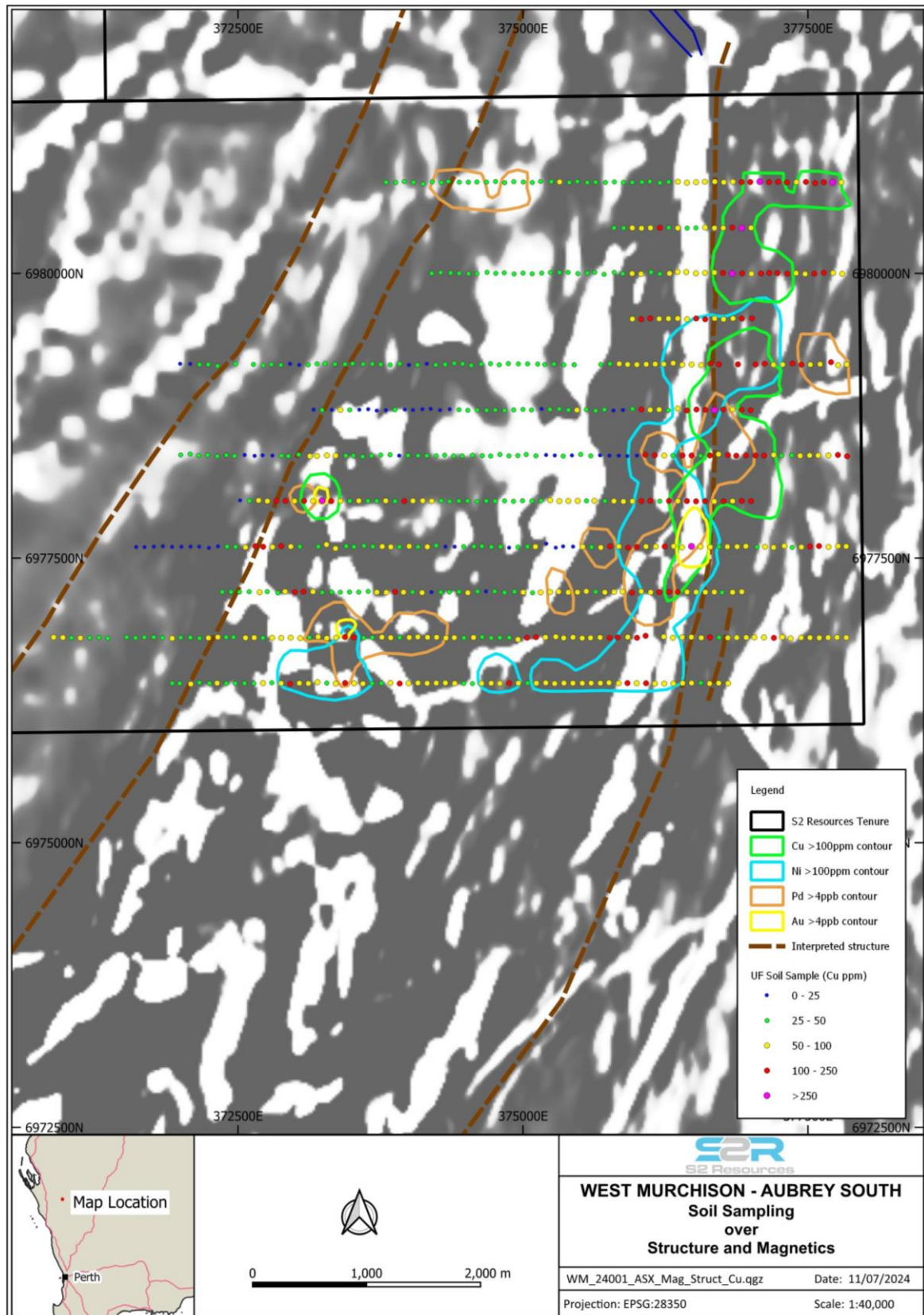


**Figure 2.** Woodraring area showing coincident nickel-copper-palladium-gold anomalism and associated northwest-southeast striking structures as seen in aeromagnetic data. Note the prominent dyke to the east.

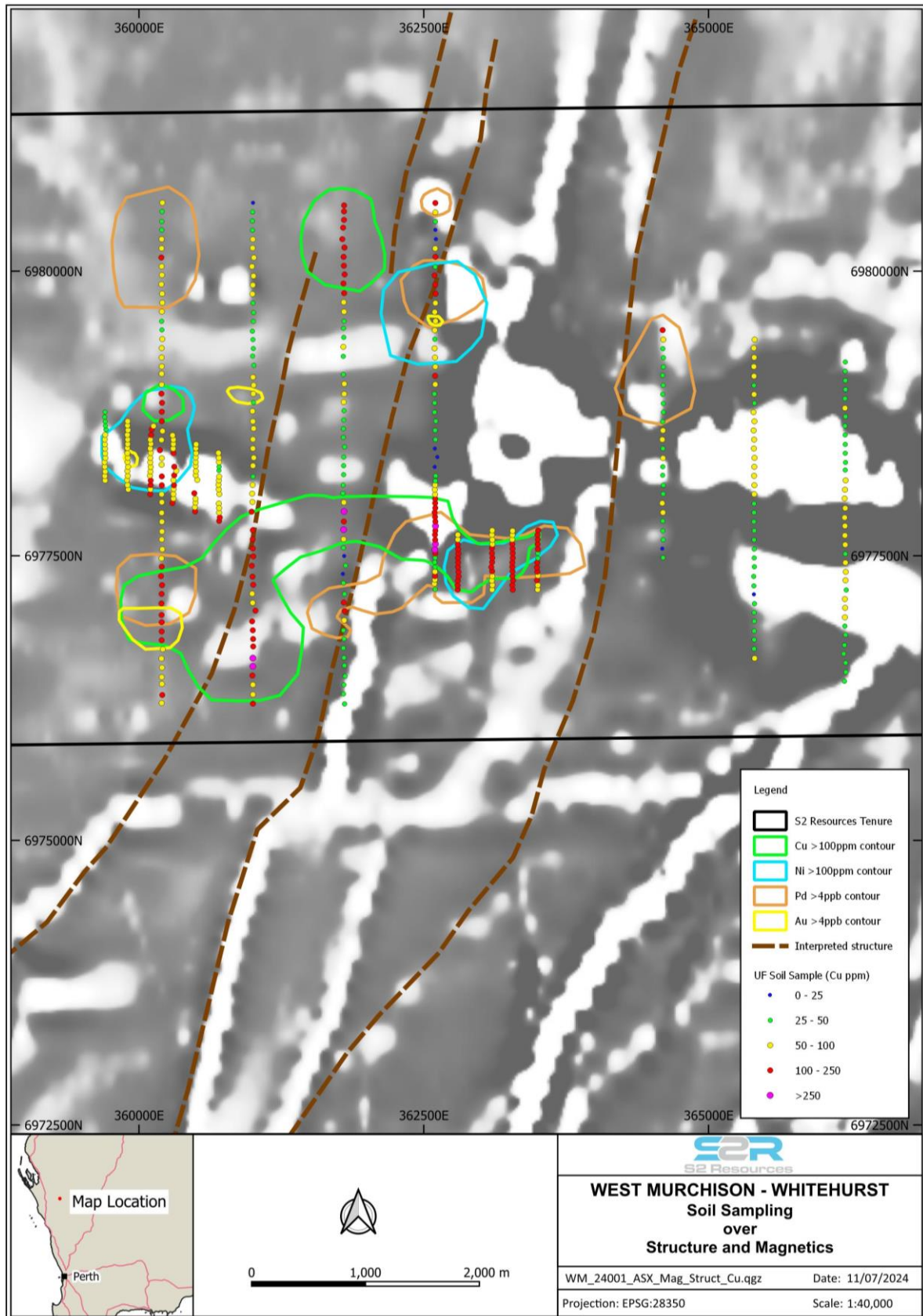


**Figure 3.** Yalgamine area showing coincident nickel-copper-palladium-gold anomalism and associated structures as seen in aeromagnetic data, with strongest copper anomalism at the edge of an “eye”-like feature.





**Figure 4.** Aubrey South area showing coincident nickel-copper-palladium-gold anomalism and associated major north-south structure as seen in aeromagnetic data.



**Figure 5.** Whitehurst area showing coincident nickel-copper-palladium-gold anomalism and associated structures as seen in aeromagnetic data.

### **Aubrey South**

The Aubrey South ultrafine soil anomaly extends over a length of 4 kilometres and consists of semi-coincident elevated copper, nickel, palladium and gold. The anomaly also coincides with a major north-south striking structural discontinuity seen in the magnetic data (see Figure 4).

### **Whitehurst**

At Whitehurst, there is a cluster of copper, palladium, nickel and gold anomalies spanning several structures of unknown significance (see Figure 5).

### **Next steps**

Field truthing of these anomalies will commence next week, to determine the influence of landforms and regolith conditions on their extent and magnitude. This will determine if aircore or reverse circulation (RC) drilling is required as the next step.

### **Elsewhere**

Preparations are underway for the commencement of drilling at the Glenlogan Porphyry copper-gold target in New South Wales. The Company will advise the market when drilling commences.

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

### **For further information, please contact:**

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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](http://www.s2resources.com.au) for details on past exploration results.

### **Competent Persons statement**

Information in this report that relates to Exploration Results from Victoria is based on information compiled by Rohan Worland, who is an employee and equity holder of the Company. Mr Worland is a member of the Australian Institute of Geoscientists (AIG) 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 Worland consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

Information in this report that relates to Exploration Results from Western Australia, New South Wales and Finland 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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<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.
	<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
<b>Drilling techniques</b>	<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.
<b>Drill sample recovery</b>	<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



Criteria	JORC Code explanation	Commentary
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	No new drilling is reported in this announcement
<b>Logging</b>	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	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
<b>Sub-sampling techniques and sample preparation</b>	<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.
<b>Quality of assay data and laboratory tests</b>	<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.
<b>Verification of sampling and assaying</b>	<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.

Criteria	JORC Code explanation	Commentary
	<i>Discuss any adjustment to assay data.</i>	No adjustments to any assay data have been undertaken
<b>Location of data points</b>	<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.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	Soil sampling has been carried out on a nominal 400 metre x 80 metre grid pattern, orientated either N-S or E-W, depending on the orientation of the underlying geology
<b>Orientation of data in relation to geological structure</b>	<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
	<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
<b>Sample security</b>	<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)
	<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
<b>Audits or reviews</b>	<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
<b>Mineral tenement and land tenure status</b>	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).

Criteria	JORC Code explanation	Commentary
<b>Exploration done by other parties</b>	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.
<b>Geology</b>	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.
<b>Drill hole Information</b>	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"> <li>• easting and northing of the drill hole collar</li> <li>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>• dip and azimuth of the hole</li> <li>• down hole length and interception depth</li> <li>• hole length.</li> </ul>	All significant drilling results have been previously reported (ASX quarterly report dated 28 April 2022)
<b>Data aggregation methods</b>	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	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
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents have been used.
<b>Relationship between mineralisation widths and intercept lengths</b>	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
<b>Diagram</b>	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.



Criteria	JORC Code explanation	Commentary
<b>Balanced reporting</b>	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.
<b>Other substantive exploration data</b>	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.	<p>Surface soil geochemical sampling has been completed over selected areas.</p> <p>MLEM electromagnetic surveys have been carried out over the Woodrarung and Whitehurst target areas. Heliborne SkyTEM electromagnetic surveys have been carried out over Aubrey East and Yalgamine target areas.</p> <p>Limited diamond drilling has been undertaken over the Woodrarung and Whitehurst target areas.</p>
<b>Further work</b>	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	Field truthing of these anomalies will commence next week, to determine the influence of landforms and regolith conditions on their extent and magnitude. This will determine if aircore or reverse circulation (RC) drilling is required as the next step.