ASX Announcement

3 September 2024

GLENLOGAN DRILLING UPDATE

Key Points

- **First hole completed to a downhole depth of 1,354.7 metres**
- **Variety of igneous rocks intersected with range of compositions (monzodiorites, quartz diorites to gabbros) suggesting multi-phase long-lived intrusive system**
- **Pervasive weak to moderate chlorite-epidote-pyrite alteration compatible with outer propylytic alteration zone around potential porphyry system**
- **Localised hematite alteration of feldspars similar to the intermediate "red rock" alteration zone found around East Lachlan Fold Belt deposits**
- **Significant increase in hydrothermal pyrite content throughout last 100 metres of hole, associated with crosscutting intermediate porphyry dykes**

S2 Resources Ltd ("S2" or the "Company") advises that its wholly owned subsidiary, Red Star Resources Pty Ltd ("Red Star"), has completed the first diamond drill hole at its Glenlogan project in the Lachlan Fold Belt of New South Wales, where it is earning up to an 80% interest from Legacy Minerals ("Legacy", ASX:LGM).

The hole was designed to test a prominent magnetic anomaly modelled as a vertically oriented columnar body and interpreted to be a potential copper-gold porphyry target (see S2 ASX announcement of 29 January 2024). It was collared some distance to the southwest of the centre of the magnetic anomaly and was designed to drill to the northeast with a relatively flat trajectory in order to pass through both the vertically oriented magnetic body, any enveloping alteration and/or mineralised zones surrounding it, and any sub-zones (individual intrusive phases) within it. After encountering drilling difficulties, the parent hole (SGLD0001) was continued via a daughter wedge hole (SGLD0001W1) to a final depth 1,354.7 metres, equivalent to a vertical depth of 1,000 metres below surface (see Figures 1 and 2).

After passing through a cover sequence of shales, sandstones and dacitic volcanics of potential Devonian or Silurian age, the hole intersected a variety of intrusive rocks including monzodiorites and gabbros from 464 metres downhole (approximately 350 metres below surface) to the end of the hole. The contact between the cover rocks and the intrusive bodies is interpreted to be unconformable, with evidence of the intrusives having been partially weathered (i.e. exposed at surface) prior to being buried by the younger cover rocks. If correct, this implies a pre-Devonian/Silurian age for the intrusives.

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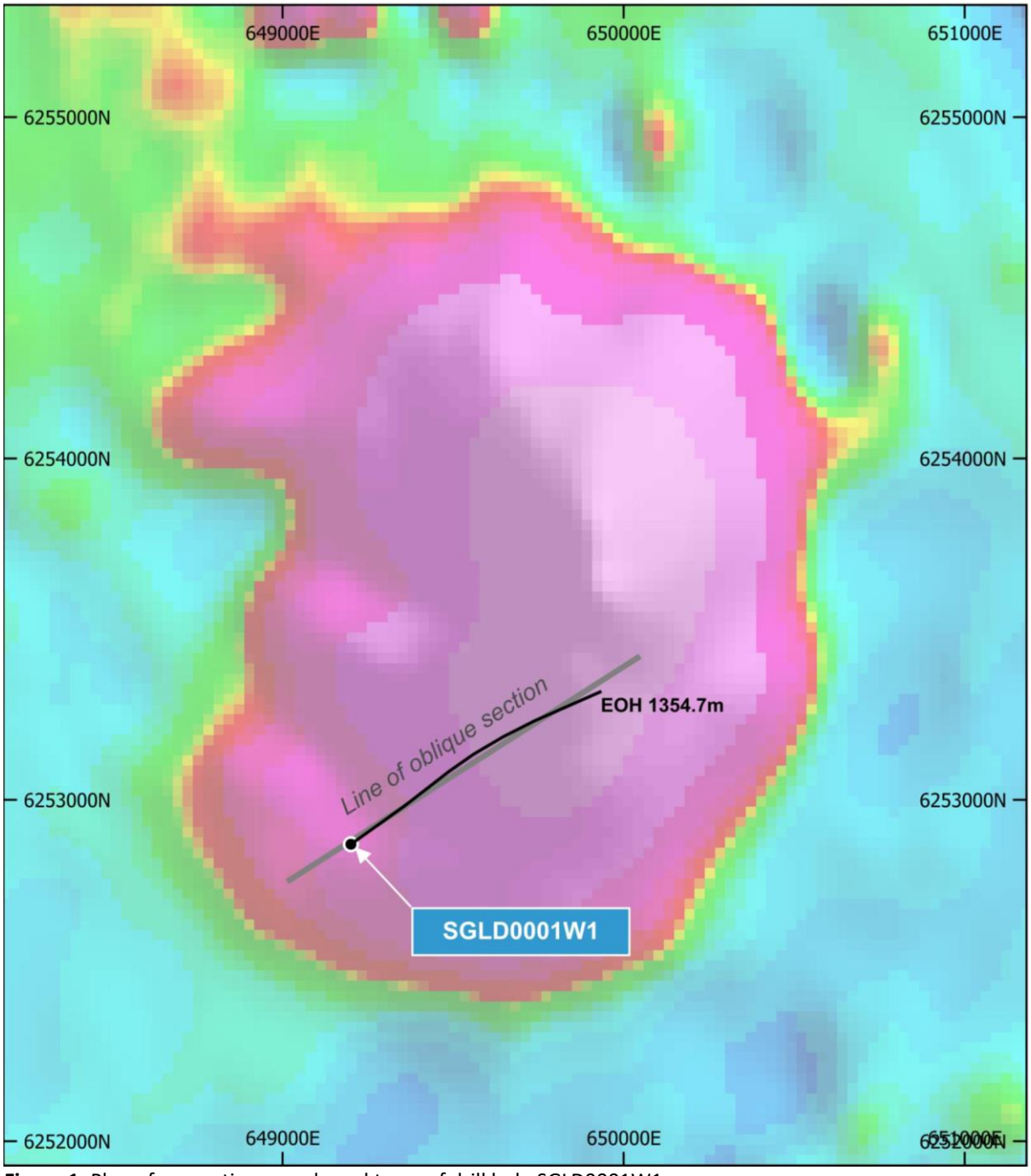

Figure 1: Plan of magnetic anomaly and trace of drill hole SGLD0001W1.

The measured magnetic susceptibility of the monzodiorite and gabbroic intrusives is compatible with the magnetic susceptibility required as a source for the magnetic anomaly modelled from the surface magnetic data, so this intrusion is interpreted as being responsible for the observed anomaly.

The main monzodiorite to gabbroic intrusion has been intruded by a number of later stage intrusive units including felsic to intermediate porphyries, aplite and microgranodioritic dykes and mafic dykes.

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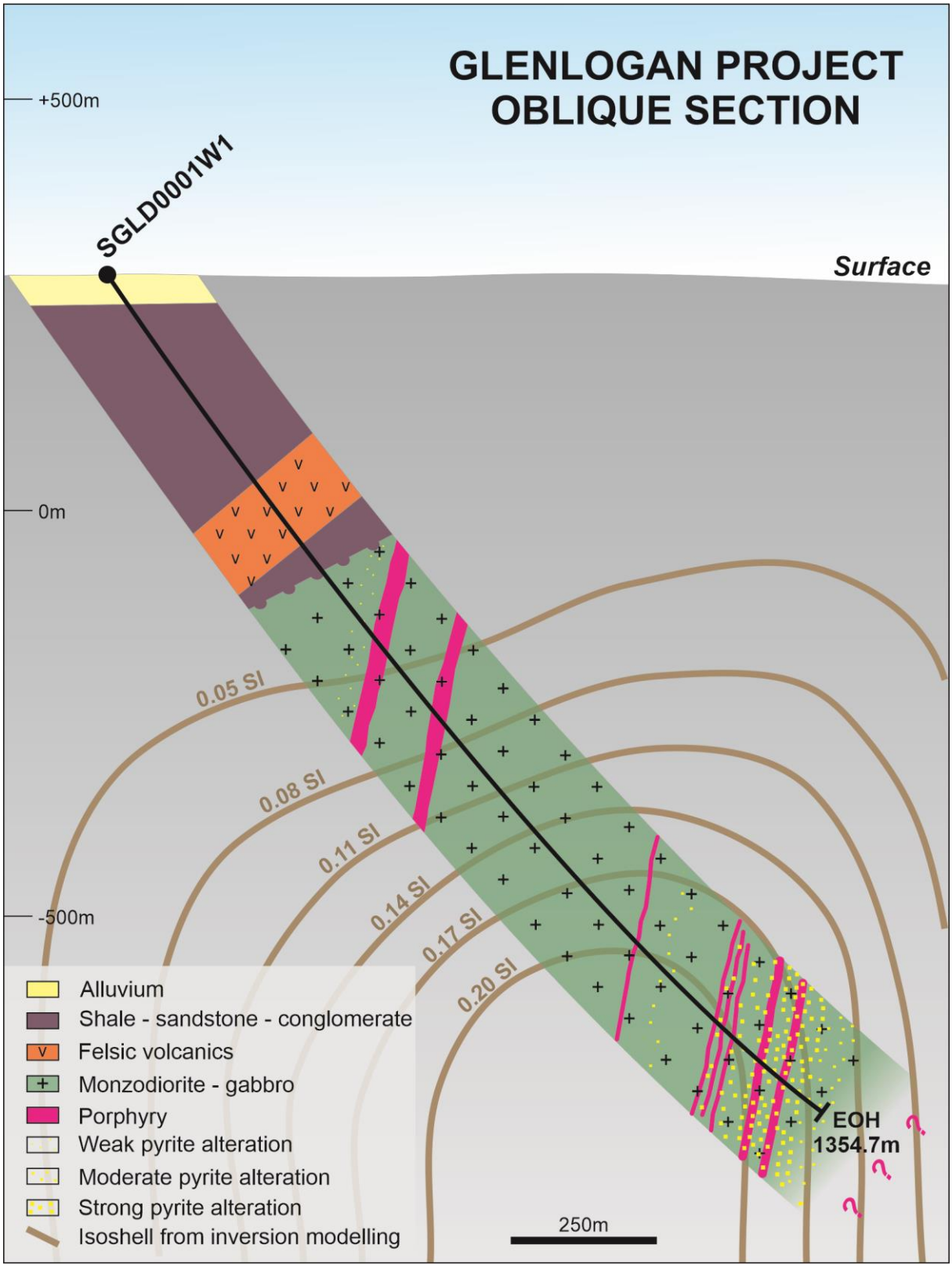

Figure 2: Oblique cross section of hole SGLD0001W1 showing trace of hole with respect to the modelled magnetic susceptibility isoshells of the target anomaly and geology encountered. Note the presence of a large multiphase intrusion located below an interpreted unconformable Devonian and/or Silurian sequence, and importantly, the increase in porphyryry dykes, propylitic alteration and hydrothermal pyrite downhole.

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The monzodiorites and the gabbro are also pervasively hydrothermally altered, with weak to moderate chlorite-epidote-pyrite and carbonate alteration, and in places hematite-feldspar alteration (see Figures 3 and 4). The chlorite-epidote-pyrite alteration assemblage is consistent with the propylitic alteration halo often found as a more distal, outer shell around porphyry copper-gold deposits, and the hematite dusting of feldspars is similar to the "red rock" alteration seen within the intermediate halo between the outer propylitic zone and the inner potassic zone of some of the porphyry deposits in the East Lachlan Fold Belt.

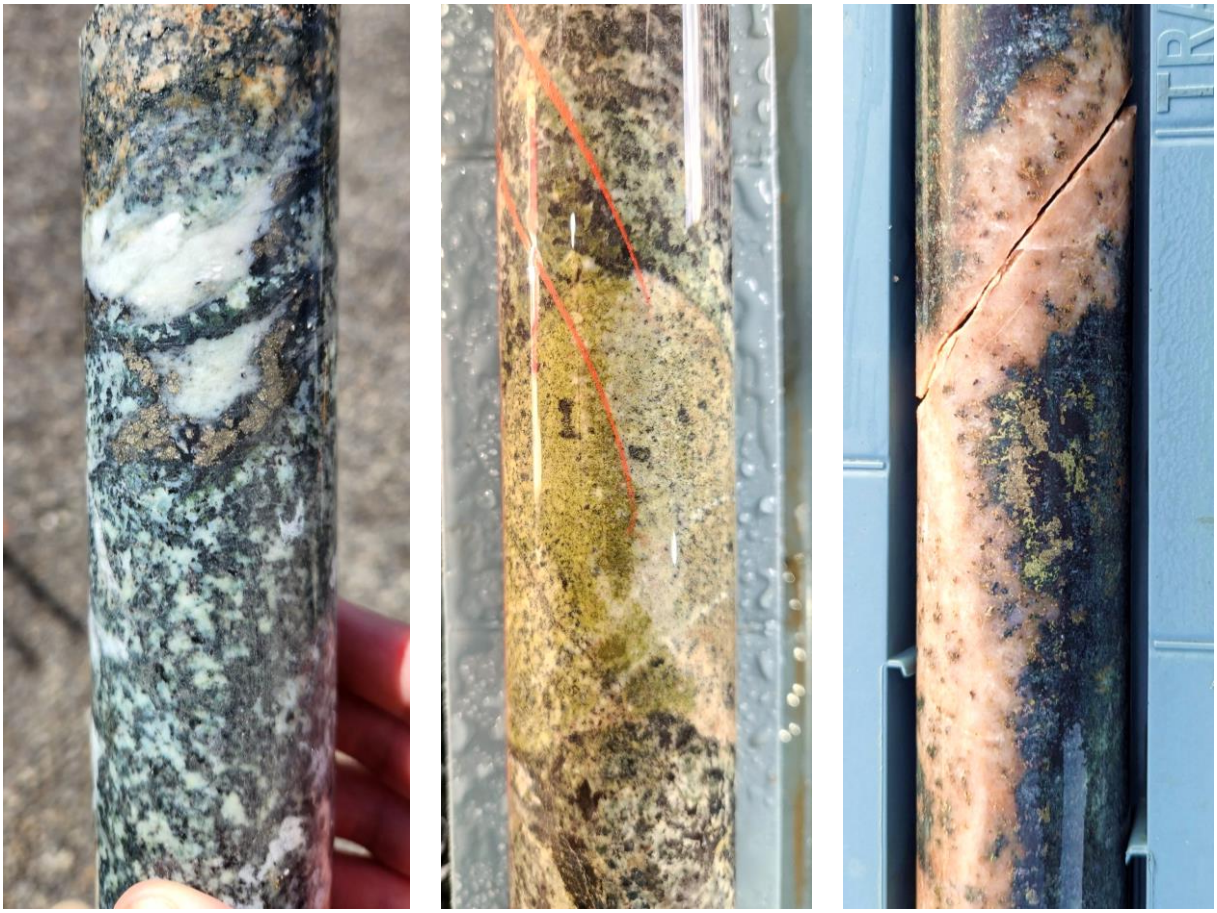

Figure 3: Examples of chlorite-epidote-pyrite alteration and veining: quartz-chlorite-pyrite veining and alteration at 827m (LHS), epidote veing and epidote-chlorite alteration at 985m (centre) and chlorite-pyrite-trace chalcopyrite alteration around vein at 1,264m downhole.

However, only a very low density of quartz-pyrite veins was observed, so the drillhole did not intersect any features indicative of being close to the inner, potassic alteration zone of a porphyry system, if such a system is present, and the distribution of these veins did not show any systematic change in frequency, so does not provide a vector.

There was a marked increase in pyrite alteration and abundance, present as disseminations, blebs and veinlets, throughout the last 100 metres of the drill hole. The increase in pyrite appears to be related to several later porphyry dyke intrusions within this interval, and occurs both within the dykes and throughout adjacent rock units (see Figures 5 and 6). The increase in pyrite is also associated with a subtle increase in chlorite-epidote alteration. This increase in pyrite and propylitic alteration may indicate the hole is approaching a mineralised system, however the "pyritic shell" around a porphyry

system can extend a significant distance, and there is no guarantee that a pyritic shell will necessarily contain a copper-rich core.

Figure 4: Examples of hematite dusting of feldspars: with carbonate veining at 873m (top) and with pervasive hydrothermal pyrite at 1,333m downhole.

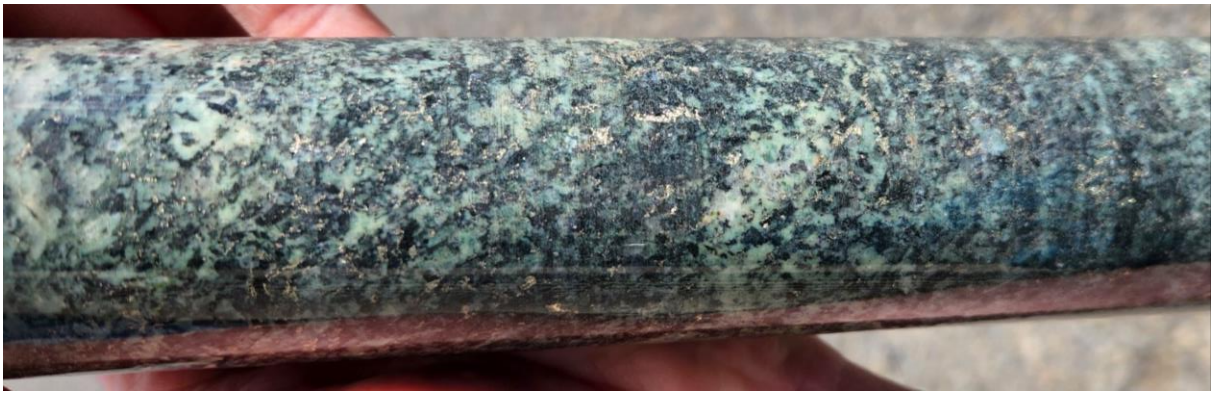

Figure 5: Pervasive hydrothermal pyrite in chlorite-epidote altered monzodiorite at 1,334m downhole.

Selected samples from throughout the drillhole have been submitted for multi-element assay, petrography and spectral analysis to characterise the lithologies and alteration, the presence of any subtle alteration zonation vectors, and implications for the potential fertility of the system.

The Company is also assessing the merits of various ground geophysical surveys that may also assist in in vectoring prior to a decision on the location of a second hole given the magnetic body targeted by the first hole appears to be explained by the broad magnetite bearing intrusive.

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It is anticipated that initial sample analysis will take 6-8 weeks, with any decision on ground geophysics prior to a second hole being determined at that stage.

Project background

The Glenlogan project comprises an exploration licence (EL9614) covering 85 square kilometres in the highly endowed Lachlan Fold Belt of New South Wales, which contains a number of major gold/copper deposits, including Newmont's Cadia-Ridgeway operations (36.6Moz gold/8.3Mt copper), Evolution Mining's Cowal (8.8Moz gold) and North Parkes (3.3Moz gold/2.9Mt copper) mines, and Alkane's Tomingley (1.8Moz gold) mine and Boda (8.4Moz gold/1.5Mt copper) deposit (see Figure 6).

S2 is earning up to an 80% interest in this project from ASX-listed Legacy Minerals ("Legacy"). The agreement comprises an earnin and joint venture phase, with key terms as follows:

- S2 Legacy with 1 million ordinary shares on signing, representing a consideration of approximately A$150,000 at a deemed price of A$0.15 per share
- Minimum commitment is to drill the Shellback magnetic anomaly within 12 months and to undertake 1,200 metres of diamond drilling
- S2 can spend A$2 million within 2 years of signing to earn a 51% participating interest
- Following this, S2 can elect to spend a further A$4 million within a further 3 years to earn an additional 19% interest for a 70% participating interest, including a minimum of 8,000 metres of diamond drilling

At the earn-in point:

- A joint venture will be formed with S2 having up to a 70% participating interest and Legacy having a 30% participating interest
- Legacy will have a one-time choice to retain its participating interest or to convert this to a 20% carried interest
- In the circumstance of a participating interest, Legacy must contribute or dilute
- Should Legacy's participating interest drop below 10%, its interest will revert to a 2% net smelter return (NSR) royalty
- S2 can buy down half of this royalty (ie, 1%) for A$3 million at any time up to 3 years from a joint venture being formed
- In the circumstance of a carried interest, S2 will have an 80% interest and Legacy's 20% interest will be funded by S2 up to the commencement of commercial production, with this being will repayable from 70% of the production revenue attributable to Legacy's 20% interest in a mining operation

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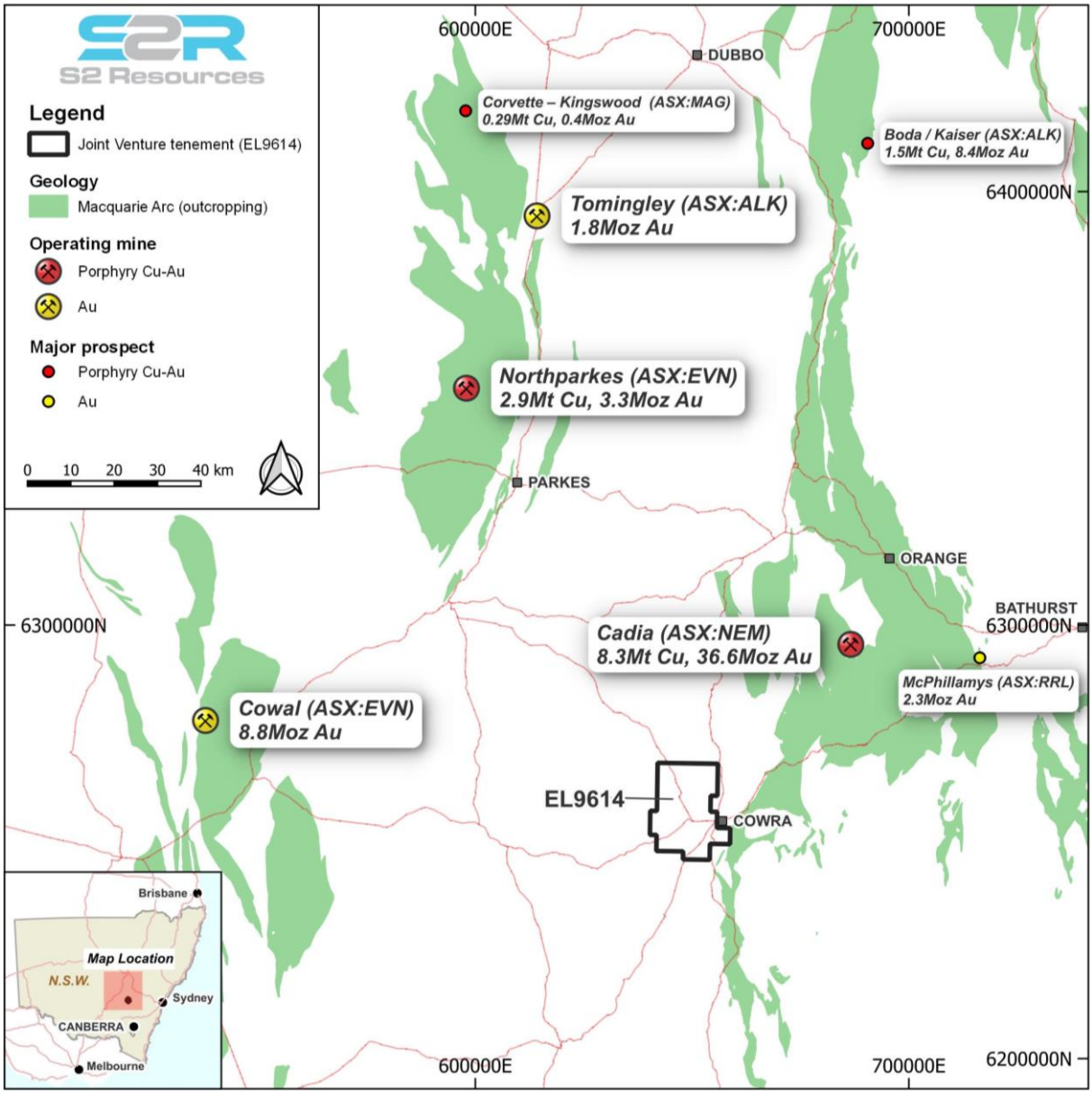

Figure 6:. Map showing outcropping areas, known deposits/mines, and the location of the Glenlogan target.

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

For further information, please contact:
Mark Bennett
Executive Chairman
+61 8 6166 0240

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 from Glenlogan is based on information compiled by Rohan Worland and John Bartlett, who are employees and equity holders 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 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 Worland and Mr Bartlett consent 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.

Hole ID	North	East	RL	Azi/Dip	Depth (m)
SGLD0001 *(Abd)*	6,252,870	649,200	292	055/-55	292.8
SGLD0001W1	6,252,870	649,200	292	055/-55	1354.7

SECTION 1: SAMPLING TECHNIQUES AND DATA

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.*	All 2024 drilling was diamond core drilling from surface completed by Deepcore Australia Pty Ltd, based out of Bendigo, Victoria.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	All 2024 core is split in half by core saw for external laboratory preparation and analysis.

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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	Based on the distribution of mineralisation the core sample size is considered adequate for representative sampling.
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, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	All 2024 drilling was diamond core from surface, PQ, HQ and NQ3 size. NQ3 core is triple tube wireline. Core orientation uses the Axis Camp Ori tool.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	2024 drilling methods are selected to ensure maximum recovery possible.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	2024 core recovery is collected in a set of standard Excel templates then transferred to the digital database.
	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 results are being reported
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.*	All 2024 diamond core undergoes geotechnical and geological logging to a level of detail (quantitative and qualitative) sufficient to support use of the data in all categories of Mineral Resource estimation. Diamond core logging includes records of lithology, alteration, veining, structure and recovery.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	All 2024 core is photographed.
	The total length and percentage of the relevant intersections logged	All 2024 drill holes are logged in full.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Core is split in half by core saw and one-half sampled and submitted to the laboratory for analysis.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	No non-core sampling was completed by S2 during this drill program.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	2024 core samples are submitted to ALS and undergo standard industry procedure sample preparation (crush, pulverise and split) appropriate to the sample type and mineralisation style..
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Full QAQC system is in place for 2024 core assays 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.	2024 core is cut to achieve non-biased samples. No duplicate samples have been collected at this stage.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are appropriate to the grain size of the material being sampled.

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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.*	Core samples are submitted to ALS for analysis. Au is assayed using a 25g fire assay with AAS finish (Au-AA25). A multi-element suite of 48 elements is assayed by technique ME-MS61 (0.25g charge by four acid digest and ICP-MS finish). The nature and quality of the analytical technique is deemed appropriate for the mineralisation style. Fire assay for Au is considered total. Multi-element assay four acid digest are considered near-total for all but the most resistive minerals (not of relevance).
	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.	Full QAQC system is in place for 2024 core sample assays including blanks and standards (relevant certified reference material).
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	No drilling results are being reported
	The use of twinned holes.	No twin holes are reported.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	For 2024 drilling the 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 drilling results are being reported
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.*	All 2024 diamond drill holes are surveyed by handheld GPS in the first instance. All 2024 diamond drill holes are surveyed downhole using the Axis Champ Gyro at approximately 12m intervals to determine accurate drill trace locations. There is no magnetic interference with respect to downhole surveys.
	Specification of the grid system used.	The grid system is MGA GDA94 (Zone 55). Local easting and northing are in MGA.
	Quality and adequacy of topographic control.	Elevation data for all data is determined by a digital elevation model derived from public domain SRTM 10m Elevation grids
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	No drilling results are being reported .
	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 Mineral Resource or Ore Reserve estimation is reported.
	Whether sample compositing has been applied.	No drilling results are being reported
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 results are being reported

Criteria	JORC Code explanation	Commentary
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	No drilling results are being reported
Sample security	*The measures taken to ensure sample security.*	Chain of custody is managed by S2 personnel. Drill core is visually checked at the drill rig and then transported to S2's Cowra facility where it is cut and sampled before being secured in a locked shed. Bagged samples are transported to the ALS laboratory in Orange 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 by S2 at this stage.

SECTION 2: REPORTING OF EXPLORATION RESULTS

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td rowspan="2">Mineral tenement and land tenure status</td><td>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.</td><td>The Glenlogan project comprises one exploration licences (see list below), covering approximately 85 square kilometres.

The tenements is held in the name of Legacy Minerals Pty Ltd and is subject to Earn-in Joint Venture with S2 Resources Ltd (terms outlined in text of this announcement).

<table>
<tr><th>TENID</th><th>TENSTATUS</th><th>HOLDER</th></tr>
<tr><td>EL 9614</td><td>LIVE</td><td>Legacy Minerals Pty Ltd</td></tr>
</table>

The project is located east of the township of Cowra, within the Central West region of New South Wales. Access to the project is via the Mid Western Highway, Olympic Highway and Lachlan Valley Way, which pass through the tenement.</td></tr>
<tr><td>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.</td><td>EL9614 is a granted exploration licence within in New South Wales and the current term of grant is until 11 February 2026, with the licence currently considered in good standing.

Prior to accessing the ground S2 is required to obtain signed land access agreements with the landowners.</td></tr>
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Criteria	JORC Code explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historical exploration within the project area has been limited. In 1982, Mines Exploration completed a single deep drill hole, DDHCV1, to a depth of 629m. The hole, located 1km to the west of the magnetic target, intersected Devonian sediments to end of hole at 629m supporting the interpretation of a major fault to the west of the magnetic target. Reconnaissance drilling in 1992 was completed by Placer Exploration Limited and intercepted altered monzonite at end of hole shallow percussion holes drilled directly above the Cowra Target. Drill holes CRB7 (56m) and CRB57 (96m) were strongly altered by chlorite-sericite-quartz-zeolite, comparable to the propylitic alteration commonly found distal to porphyry systems. Drill holes did not reach the Ordovician basement which is interpreted to be at approximately 450m depth. Post mineral intrusions are common in large, long lived mineral systems and as such the observation of monazite in drilling is considered encouraging for a large and older intrusive complex at depth in association with the magnetic anomaly. Rio Tino held the project between 1994-1997, undertaking Magnetic modelling which suggested the magnetic anomaly was approximately 800m below surface, thus the likelihood of a large-scale mineral system associated with the magnetic source was not likely to be amenable to shallow mining methods and drilling was therefore not conducted.
Geology	Deposit type, geological setting and style of mineralisation.	The Glenlogan Project is in the Central Lachlan Fold Belt, NSW, which hosts world-class Au-Cu orebodies including the Cadia-Ridgeway, Northparkes and Cowal Mines. The project is considered prospectve for copper-gold porphyry intrusions and/or associated skarn style copper-gold. The exploration tenement covers the western margin of the Siluro-Devonian Cowra trough, located in the Forbes Anticlinal Zone of the Lachlan Fold Belt. The Ordovician Macquarie Arc volcanics are interpreted to be buried beneath these later geological units. The “Shellback” magnetic anomaly is modelled to intrude to within 450 – 600m of surface, suggesting the body has not intruded into the overlying Silurian sequence, thus suggesting the magnetic body was emplaced during the early Silurian to late Ordovician, which is a similar timing to the Cadia Valley porphyry complex (435.9 – 459.7Ma). It is considered that the Silurian age cover sequence will have been critical in the preservation of any potential porphyry mineralisation across the Glenlogan Project, as it was for the preservation of the Cadia Valley porphyry district. Comparable aeromagnetic responses to those present at the Glenlogan project have been reported at other major porphyry Cu-Au deposits, including: Cadia East (AUS), Grasberg (IND), Alumbrera (ARG), and Buenavista Del Cobre (MEX). The strong magnetic response suggests a discrete central magnetic high possibly due to chalcopyrite-bornite-magnetite mineralisation, associated with a porphyry proximal potassic alteration zone, surrounded by an annular magnetic low due to magnetite destructive hydrothermal alteration of surrounding rock, features that are characteristic of globally important Cu-Au porphyry deposits.

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Criteria	JORC Code explanation	Commentary
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.	All drilling within the project area is historical in nature, and no drill holes are considered material at this point. Compilation and validation of the historical datasets is ongoing.
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.	N/a - no drilling results are considered material or being reported.
	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.	N/a - no drilling results are considered material or being reported.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	N/a - no drilling results are considered material or being reported.
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').	N/a - no drilling results are considered material or being reported.
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.	Any historical results considered significant are to be 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.	Legacy commissioned Geodiscovery to undertake a target review including 3D inversion modelling of the regional aeromagnetic dataset to establish the depth to top of body. S2 has independently commissioned Newexco to undertake 3D inversion modelling and forward modelling of the magnetics which has supports the findings of Geodiscovery.

Criteria	JORC Code explanation	Commentary
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	S2 will complete sample analysis of drill core prior to assessing whether ground geophysics should be considered before any follow-up drilling will be undertaken.

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