



ASX Announcement | 30 January 2025

# Rosario Copper Project, Chile Survey Delivers Vectors to Six New Copper Targets

#### **HIGHLIGHTS**

- Stream sediment survey deliver vectors to six new Copper targets.
- Three of the six targets have been categorised as High Priority.
- Survey confirms the large-scale nature of highly elevated copper across much of the Rosario Copper Project.

Battery and critical metals explorer and developer, Flagship Minerals Limited (ASX: FLG) ("Flagship", "FLG" or "Company") is pleased to advise that results have been received from stream sediment samples collected across the Rosario project. The Rosario Copper Project (Rosario) is located in Chile's Central Copper Belt, between Copiapo and Antofagasta and 10km north of the famous El Salvador copper mine, owned and operated by Codelco since 1959.

#### Flagship Minerals' Managing Director, Paul Lock, commented:

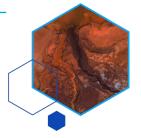
"Stream sediments are a low cost method of vectoring into exploration opportunities in the right conditions. Flagship has successfully used this methodology elsewhere to identify and subsequently drill out a Mineral Resource. At Rosario, the results are compelling with 6 targets identified, 3 of which are high priority. We have a high degree of confidence in the stream sediments and the resultant vectors due to the highly positive results from the Rosario East Trend, which was our test bed. Several of the targets are in the new exploration concession applications announced in November 2024. The results confirm the large scale nature of the copper anomalism across much of the Rosario Copper Project."

Results have been received for a program of 'stream sediment' sampling conducted at Flagship's Rosario Copper Project. A total of 31 'stream-sediment' samples were collected across much of the Rosario project area, see Figure 1.

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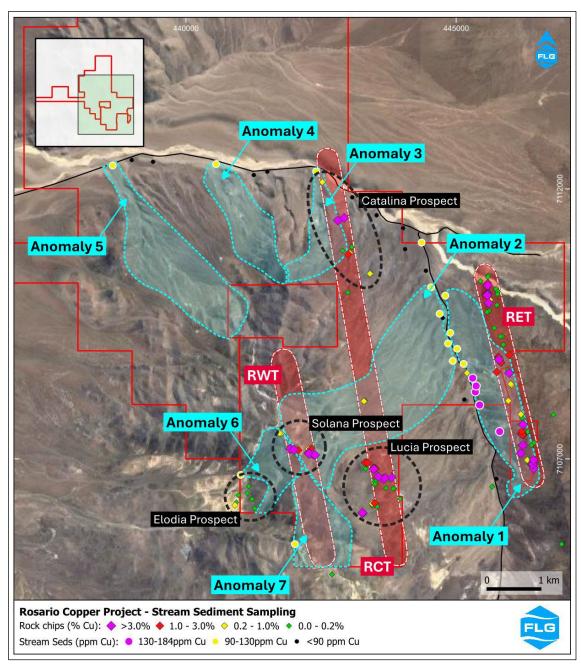


Figure 1: Rosario Copper Project - Stream Sediment Data and Anomalies

The stream sampling program had two main objectives:

1. To confirm whether copper anomalism could be detected in 'stream sediments' downstream of known outcropping copper mineralisation, and hence whether stream sampling is a reliable method of vectoring to mineralisation; and



2. To investigate catchments throughout the project area using 'stream sediments' as a vector to new zones of copper mineralisation, and develop a better understanding of mineralisation potential of the Rosario project area, particularly in the recently announced increase of Flagship's Rosario holdings from 25km² to 86km².

The results are compelling and demonstrate the large-scale nature of highly elevated copper across much of the Rosario project area.

#### **Program details**

The Rosario project is located in the Atacama Desert which has been semi arid to hyper-arid for tens of millions of years. However, rare, and sometimes intense, rainfall events, combined with land uplift, does allow for erosion to take place and for copper to be distributed more broadly. The stream sediment sampling was undertaken in the ephemeral gullies that dominate the project area. The stream sediment samples were collected just below the surface, with coarser material discarded. Approximately 2.5-3kg was sieved to -0.8mm in the field which generated around 1kg of -0.8mm material. This sample was 'cone and quartered' to obtain a 300-350 sub-sample which was retained for analysis using a Niton hand-held XRF analyser which reports copper and 25 other elements.

#### **Results**

Copper values ranged from 57ppm to 184ppm. The data is indicative of high background levels of copper. Based upon Cu values and the Cu responses from catchments with known mineralisation it was determined that results of >90ppm Cu are considered anomalous for copper and therefore prospective.

From the data the Rosario East Trend (RET), with its high-grade Cu in rock chips, is detectable in stream sediment samples collected approximately 500m to 700m west of the RET. Copper values generally range from 100ppm to a peak of 184ppm (as shown in Figure 1). This area is identified as **Anomaly 1**.

Other anomalous catchments are also identified in Figure 1. These are discussed below.

**Anomaly 2** (High Priority) appears associated with downstream expressions of the Rosario Central Trend (RCT) and Rosario West Trend (RWT). Much of the catchment near and below the RCT is dominated by surficial gravels with limited outcrop.

**Anomaly 3** seems associated with the northern end of the RCT and the western part of the Catalina prospect and/or possibly a new zone further to the west.

Anomaly 4 (High Priority) appears to be associated with a possible northern extension of the RWT.

**Anomaly 5** (High Priority) represents a new large target area with an as yet unknown Cu source. Much of this catchment appears to be covered in surficial gravels.

**Anomaly 6** seems to be associated with the western side of the Solana prospect and/or northern extensions of the Elodia prospect.



**Anomaly 7** would appear to be associated with southern extensions of the RWT and the Solana prospect where high copper grades have been identified in rock-chip samples.

Anomalies 2, 4 and 5 have been categorised as High Priority.

#### **Next Steps**

Flagship intends to conduct follow up work in many of these anomalous catchments with work to include rock chip sampling and stream sediment sampling where appropriate.

A follow-up trenching program is planned for RET ahead of the drilling program, a field-work program is planned for High Priority targets discussed above.

Flagship has been in discussions with drilling contractors to commence a first phase reverse circulation (RC) drilling program of about 2000m to be conducted on the RET. Drilling companies have indicated start dates from mid to late March and Flagship expects to conclude negotiations and enter formal contracts in the near term.

The Company looks forward to keeping shareholders and the market informed, regarding continued exploration and planned drilling at the Rosario project.

- Ends -

Authorised by the Board of Directors

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#### FLAGSHIP MINERALS LIMITED (ASX: FLG)

#### **About Flagship Minerals**

Flagship Minerals is an exploration and development company focused on securing and developing assets which are situated in superior strategic settings, and which will produce the critical resources required for electrification and a low carbon future. As electrification gains momentum we provide exposure to the metals that matter, copper and lithium. We do this in a responsible manner. With community and environment in mind, we aim to produce better outcomes.

#### **Our Strategy**

Flagship Minerals' strategy to secure and develop projects which it believes will position the Company as a low cost producer of copper and lithium, metals that matter. Specifically, Flagship Minerals seeks to secure low capital intensity projects in low cost jurisdictions and infrastructure rich settings, projects which are positioned for high margin outcomes, and projects which are proximal to industry, chemical processing, and manufacturing. We believe that, ultimately, a project's cost environment and geographic setting will be the key determinants of economic success, assuming positive metallurgy.

#### **Our Values**

Our value proposition centres on an inclusive approach to our business, delivering positive outcomes for all stakeholders, including the communities and environment we operate in. We believe in reciprocity – when communities thrive, we thrive. We envision a future where exploration and mining coexist harmoniously with community development, cultural preservation, and sustainable growth, delivering positive outcomes for all stakeholders.



#### IMPORTANT INFORMATION

#### **Competent Persons Statement**

The information in this report that relates to Exploration Targets and Exploration Results, is based on information compiled by Mr. David Hobby, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Hobby is a full-time employee, Director and Shareholder of Flagship Minerals Limited. Mr. Hobby has sufficient experience, relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr. Hobby consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Forward Looking Statements**

Various statements in this document constitute statements relating to intentions, future acts and events which are generally classified as "forward looking statements". These forward-looking statements are not guarantees or predictions of future performance and involve known and unknown risks, uncertainties and other important factors (many of which are beyond the Company's control) that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed in this document. For example, future reserves or resources or exploration targets described in this document may be based, in part, on market prices that may vary significantly from current levels. These variations may materially affect the timing or feasibility of particular developments. Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates", "potential" and similar expressions are intended to identify forward-looking statements. Flagship Minerals Limited cautions security holders and prospective security holders to not place undue reliance on these forward-looking statements, which reflect the view of Flagship Minerals Limited only as of the date of this document. The forward-looking statements made in this document relate only to events as of the date on which the statements are made. Except as required by applicable regulations or by law, Flagship Minerals Limited does not undertake any obligation to publicly update or review any forward-looking statements, whether as a result of new information or future events. Past performance cannot be relied on as a guide to future performance.

#### **Important**

To the extent permitted by law, Flagship Minerals Limited and its officers, employees, related bodies corporate and agents (Agents) disclaim all liability, direct, indirect or consequential (and whether or not arising out of the negligence, default or lack of care of Flagship Minerals Limited and/or any of its Agents) for any loss or damage suffered by a Recipient or other persons arising out of, or in connection with, any use or reliance on this document or information.



APPENDIX 1 - JORC Code, 2012 Edition - Table 1

## JORC Code, 2012 Edition - Table 1

# Rosario Copper Project

## **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	Explanation	
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Stream sediment samples were collected in the central parts of gullies and valleys. In wider valleys 2-3 samples were composited to form a single sample.  Rock sample types include semi-selective rock chips, random rock chips and some 'channel' chips, and are considered to be appropriate for the style of mineralisation present. Sample weights are generally in the 0.5-2kg range.  Previous work has been conducted by the project Vendors in several phases (2103-
	Include reference to measures taken to ensure sample representivity and the appropriate calibration o any measurement tools or systems used.	f
	Aspects of the determination of mineralisation are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge fo	



Criteria	Explanation	
	fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	No drilling is being reported.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	No drilling is being reported.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource	No drilling is being reported.



Criteria	Explanation	
	estimation, mining studies and metallurgical studies.  • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.  • The total length and percentage of the relevant intersections logged.	
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes</li> </ul>	Rock chip samples have been processed by ALS laboratories in Chile.  Samples are crushed to >70% to <2mm by ALS Method CRU-31. This sample is then riffle split to obtain a sub-sample of 250g by ALS Method SPL-21. The sub-sample is pulverised to >75% to <75 microns.  ALS conduct internal QA/QC on the sub-sampling process regarding grain size and distribution. ALS also conducts assay analysis of duplicate samples of the pulverised sample. A review of this data indicates the samples are representative of the material being sampled.  The stream sediment sampling was undertaken in the ephemeral gullies that dominate the project area. The stream sediment samples were collected just below the surface with coarser material discarded. Approximately 2.5-3kg was sieved to -0.8mm in the field which generated around 1kg of -0.8mm material. This sample was 'cone and quartered' to obtain a 300-350 sub-sample which was retained for analysis using a Niton hand-held XRF analyser which reports copper and 25 other elements.



Criteria	Explanation	
	grain size of the material being sampled.	
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF</li> </ul>	For previous work copper, silver and other elements were analysed by ALS Method ME-ICP41 which involves an Aqua Regia digestion and analysis by Inductive Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES). Samples returning above detection limit of 1% Cu were re-analysed using ALS Method Cu-AA46 which uses Atomic Absorption Spectroscopy (AAS).  Gold was analysed by ALS Method Au-ICP21, which involves 30g fire assay with ICP-AES finish. All samples were analysed for Cu and Ag. Au and other elements were not analysed in some programs.  For Flagship rock samples analysis was completed by method OG46, analysing for Cu and Ag. by Agua Baria dispatient with ICP-AES at AAS finish. A foregraph agree of the complete samples analysis was completed by method OG46, analysing for Cu and Ag. by Agua Baria dispatient with ICP-AES at AAS finish. A foregraph agree and a sample samples analysis was completed by method OG46, analysing for Cu and Ag. by Agua Baria dispatient with ICP-AES at AAS finish. A foregraph agree analysis was completed by method OG46, analysing for Cu and Ag. by Agua Baria dispatient with ICP-AES at AAS finish.
	instruments, etc, the parameters used in determining the analysis including instrument	Cu and Ag, by Aqua Regia digestion with ICP-AES or AAS finish. A few samples were analysed for gold using ALS method Au-AA25 which is a 30g fire assay with AAS finish. All these methods are considered to provide total analysis for the elements of economic interest.
	make and model, reading times, calibrations factors applied and their	Internal ALS QA/QC procedures involving standards, duplicates and blanks analysis have been reviewed and indicate acceptable levels of accuracy and precision of the assay data.
	<ul> <li>derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	For stream sediment sampling analysis was performed by TECSIS Limited in Chile using a hand-held THERMO NITON XRF. The sample is excited through a tube of 50 or 45 kV X-rays: 85 uA maximum. A silver anode and SDD solid-state detector are used refrigerated, with a resolution of 195eV. Equipment under IP-55 (dust-resistant) and sigma specification 2 (95.5 certainty). Analysis time is 60-70 seconds. No calibration factors were applied. CRM was analysed by the XRF and showed suitable levels of accuracy. In the XRF analysis approximately every sample was repeat analysed on a different location on the sample. Comparison of the two analysis of these samples showed acceptable levels of repeatability, indicating the sample prep and XRF is adequate for the data being reported.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	No drilling is being reported.
	The use of twinned holes.	
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data is delivered from ALS in csv format for direct import into GIS data files. These data are checked against sample number v's the imported assay against the data from ALS. Data delivered by TECSIS is in csv format and then directly imported into GIS data files for plotting



Criteria	Explanation	
	Discuss any adjustment to assay data.	For previous rock chip data that has been adjusted includes two copper assays that reported grades of >5% Cu. Overlimit assaying was not performed on these samples, and they are recorded as containing 5.01% Cu in the data being presented.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	Drilling and Mineral Resources are not being reported.  Sample locations and other mapped features are located by hand-held GPS in grid system UTM Zone 19 South WGS84, with an accuracy of less than 10m, commonly 2-5m.  Topographic control is achieved by fitting the X-Y co-ordinates to Google Earth ground level. This also serves to verify sample locations with observed ground features at sample sites.
Data spacing and distribution	Data spacing for reporting of Exploration Results.      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.      Whether sample compositing has been applied.	Data spacing of rock chip and stream sediment samples is highly variable from 1m up to several hundred metres. For consecutive rock samples collected across some outcrops/subcrops GPS co-ords were appropriately altered to reflect this.  Mineral Resources or drill results are not 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.      If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have	Most sampling is essentially random grabs. Some outcrop channel chip samples were collected across or along the zones being sampled.  For stream sediment sample locations were selected generally in the centre of gullies to maximise representivity of the catchment sediments



Criteria	Explanation	
	introduced a sampling bias, this should be assessed and reported if material.	
Sample security	The measures taken to ensure sample security.	Samples were temporarily stored in the 4WD being used by the geologists who collected the samples. The vehicle was securely parked and locked during any overnight stays. At the end of the program rock samples were delivered in same vehicle to ALS laboratories in La Serena or Santiago, Chile. Stream sediment samples were freighted to TECSIS in closed taped box, with photographs taken of samples before and after delivery.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Flagship's Chief Geologist has held extensive discussions with the Vendor's highly experienced Geologist who was present during all the rock chip sampling programs at Rosario and is satisfied the sampling and assaying programs have been conducted to an acceptable standard. No audits or review has been done on stream sed data.



# **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	Explanation	
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	The project contains 4 Exploitation Concessions. These are Rosario 6, 1-40 which covers 1.9km² and Salvadora 1/14 which is 1km². These are situated on the eastern side of the project. Rosario 7, 1/38 which covers 1.95km² and Abandonara 2, 1/10 which covers 0.6km² are situated in the central parts of the project. In the NE portion of the Abandonara Concession there is an historical site of Tambo-Cachiyuyo.  The Exploitation Concessions are partly surrounded and encompassed by 17 Exploration Concession applications that cover 86km². Concessions and applications that make up the project are held by the Vendors (in trust for Flagship) or directly by Flagship. Flagship has entered into an option agreement for up to 3 years. The option fee per year is \$US100k payable as 50% cash with the remaining 50% payable as FLG shares or cash at FLG's election.  Flagship at any time can elect to acquire 100% of the project for \$US2.0 Million, payable as 50% cash with the remaining 50% payable as Flagship shares or cash at Flagship's election.  The tenure is secure under the robust Chilean system and there are no known impediments to obtaining licence to operate in the area.
Exploration done by other parties	Acknowledgment     and appraisal of     exploration by other     parties.	Flagship acknowledges the exploration conducted by the Vendors and Variscan Mines (ASX:VAR) from 2012-2022. Recent FLG work serves to support and enhance the previous work.
Geology	Deposit type, geological setting and style of mineralisation.	The Rosario project is interpreted as a Manto/Redbed volcanic hosted deposit. The mineralisation has a structural and lithological control and is hosted in late Cretaceous to early Tertiary andesites and associated volcano-sedimentary sandstone that were deposited in a submarine setting.
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:	No drilling being reported.



Criteria	Explanation	
Criteria	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.     If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person	
	should clearly explain why this is the case.	
Data aggregation methods	<ul> <li>In reporting         Exploration Results,         weighting averaging         techniques,         maximum and/or         minimum grade         truncations (eg         cutting of high         grades) and cut-off         grades are usually         Material and should         be stated.</li> <li>Where aggregate         intercepts         incorporate short         lengths of high grade</li> </ul>	Any reported average grades are arithmetic with no cutting of high grades. Lower cutoff grades for average calculations are reported.  All data relates to surface geochemical sampling with no drilling data being reported.



Criteria	Explanation	
	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.  The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  If the geometry of mineralisation with respect to the drill hole angle is known, its nature should be reported.	No drilling being reported.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported.  These should include, but not be limited to a plan view	Appropriate maps, plans and figures are provided in the report.



Criteria	Explanation	
	of drill hole collar locations and appropriate sectional views.	
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 grades shown on maps, with some higher grades labelled.
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 substantive exploration data is available.



Criteria	Explanation	
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	The project is at a relatively early stage of exploration. Additional work is planned to include more detailed geochemical sampling and mapping, including trenching. Induced Polarisation geophysics is also planned across the prospective trends to identify sulphide zone targets. Drill targets will be identified, and drilling is planned to commence at the earliest opportunity.