

#### 4 February 2025

# COPPER ANOMALISM WITH POSSIBLE PORPHYRY FEATURES AT BAYNAZAR

Sarytogan Graphite Limited (ASX: SGA, "the Company" or "Sarytogan") is pleased to provide an update on copper exploration at the Baynazar copper exploration project in Kazakhstan.

#### **Highlights**

- "Baynazar" Copper Exploration Project was pegged last year, a high-resolution aeromagnetic survey was flown, and over 6,000 soil samples have been collected.
- An external exploration review has confirmed the previous results at "Ilken" and delineated three new anomalies at "Aminbay" within the Baynazar project, including textbook metal zonation and aeromagnetic features consistent with a possible porphyry intrusion (Figure 1).
- The soil sampling program will be infilled over the anomalies and extended to the north and south ahead of planning drilling programs.

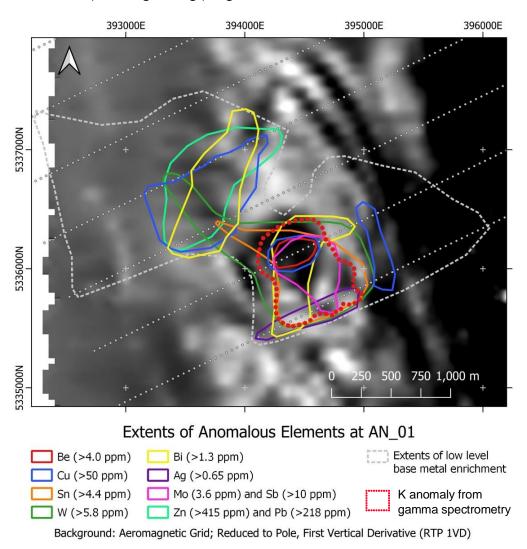


Figure 1: Plan showing the distribution of samples considered anomalous for various elements. The cutoff levels for each element were determined through population analysis of the data.



Sarytogan Managing Director, Sean Gregory commented:

"Kazakhstan is an established mining jurisdiction with many of the world's lowest cost copper mines and excellent prospectivity for the discovery of further copper porphyry mineralisation. This second target generated at the Baynazar Copper Exploration Project is named 'Aminbay' and looks very promising with textbook metal zonation and aeromagnetic features consistent with a possible porphyry intrusion. The soil sampling will be infilled and extended ahead of planning drilling at these exciting targets."

## **Bainazar Copper Exploration Project**

The Bainazar Copper Exploration Project was pegged by the Company last year as Kazakhstan is known to be an established mining jurisdiction, highly prospective for copper porphyry mines, with 4 of the 5 lowest cost copper mines being located there due to the low power, diesel and skilled labour costs (Figure 2).

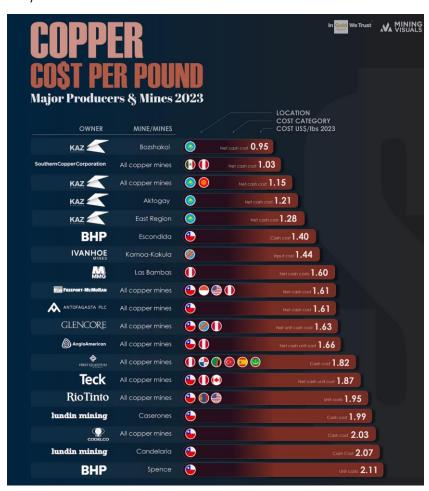


Figure 2 - Copper cost per pound illustrating Kazakhstan's low-cost copper mines. Source: miningvisuals.com, October 2024.

Over 6,000 soil samples were collected during the 2024 field season. These samples have been processed at the Company owned core shed and sample preparation facility in Karaganda and assayed to low detection limits at our preferred accredited laboratory in Kyrgyzstan. A high-resolution aero-magnetic survey was flown over the project. Assay results have been steadily flowing in and these results from the Aminbay prospect follow the previous results announced for the Ilken prospect (refer ASX Announcement 9 October 2024, Figure 3).



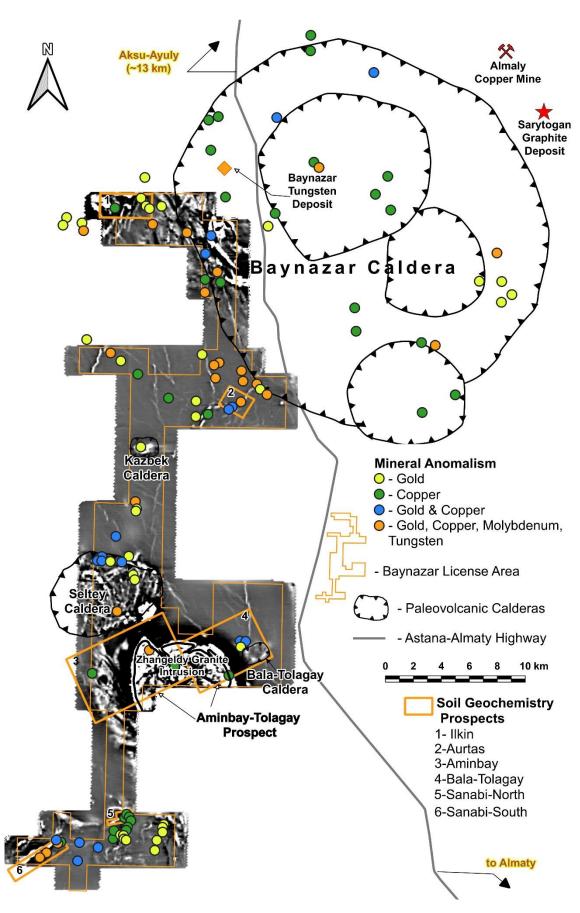


Figure 3 – Aeromagnetic Map with Major Calderas and Mineral Anomalism at the Baynazar Project



#### **External Exploration Review**

The Company has been utilising the services of renowned Australian exploration consultants Newexco Exploration Pty Ltd who quality assured the aero-magnetic survey. Newexco have now processed the data from the aeromagnetic survey as well as the soil sample assays received to date. This work has confirmed the anomalies previously announced at the Ilken prospect (refer ASX Announcement 9 October 2024, Figure 3) and identified three high-priority anomalies at the Aminbay Prospect (Figure 4).

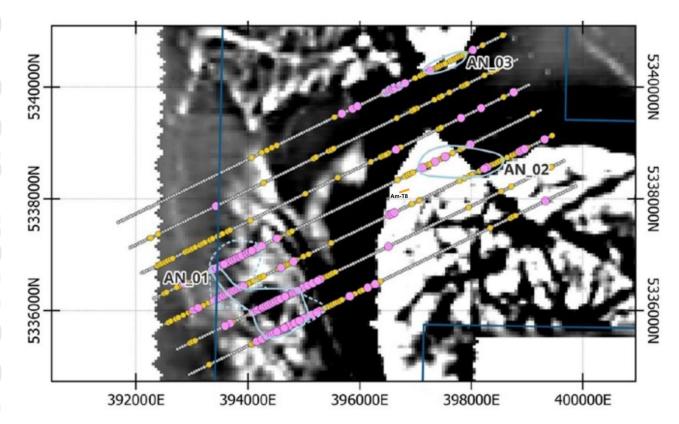


Figure 4 - Plan of the Animbay Prospect, showing the identified areas of interest over magnetic RTP 1VD image. Solid lines indicate the core of the geochemical anomaly, whereas dashed lines indicate a weaker extension, or a less certain anomaly. Sample points are coloured as grey (non-anomalous), yellow (elevated population but not necessarily anomalous) and magenta (anomalous in at least one element of interest). Interpretation of cut-off levels for each element were determined through population analysis of the data. The raw data is shown in Appendix 1.

# **Aminbay Prospect Anomalies**

# Anomaly AN\_01 (highest priority)

The south-western area of the Aminbay soil sampling grid contains a strong and extensive geochemical anomaly. This is a multi-element anomaly that appears to show zoning which mirrors the bedrock geology indicated by the magnetic data (Figure 1). The magnetic data show a small, round, magnetic low, which is interpreted to represent a small felsic intrusion. The magnetic low is coincident with a strong K anomaly, interpreted as potassic alteration at the top of this intrusion. This is the core of the geochemical zonation, with anomalous Cu and Be immediately overlying the centre of this feature. Mo, Sb, Sn, and W (plus Bi) are anomalous over a larger area of the magnetic feature and appear to trend out toward the northwest.



Further to the north-west of the core of the geochemical anomaly lies a Cu, Zn, Pb, and Bi anomaly, which possibly overlies the edge of a larger intrusive stock (based on the magnetics). Copper is also anomalous on the opposite side the magnetic feature overlying a similar edge in the magnetics.

The anomalous areas are surrounded by a large envelope of weakly enriched base metals, particularly Zn and Pb. The anomaly is truncated to the northeast by modern drainage. Drainage is also responsible for the bow-tie shape of the extent of low-level base metal enrichment; the modern drainage contains sediment / soil of a different provenance to the residual soil and therefore does not return anomalous levels in the assays.

The distribution of elements indicate zoning above and around a granitic stock. This suggests that a hydrothermal system was actively moving and depositing metals, which is encouraging from an exploration perspective, as there is the potential for such a system to emplace a mineral deposit. Further exploration is required to test whether such mineralisation is present at the prospect.

The anomaly is open to the south, so additional sampling lines are planned both to the south and to infill the anomaly.

#### Anomaly AN 02

A region of highly anomalous copper is located in the east of the geochemical survey area (Figure 4). This anomaly occurs close to the outer edge of a large, strongly magnetic Zhangeldy granite intrusion (Figure 3). Although copper enrichment appears to follow the rim of this feature, the strongly anomalous area is where the bedrock geology is offset by a northwest-trending fault (interpreted from the magnetics).

The AN\_02 area is most strongly anomalous for Cu, although there is some more patchy associated enrichment in W, Bi, and Mo. There is evidence for historic artisanal mining is this area, targeting copper mineralisation. A historical trench 300m south-west of the AN\_02 anomaly (Am-T8, Figure 4) was sampled by Sarytogan Geologists and averaged 0.67% Cu, 0.02 g/t Au, 0.47 g/t Ag, and 0.01% Mo over a 15m length. This is unsurprising as copper mineralisation can be quite mobile and travel some distance from the source. Further exploration work is required to determine the extent and grade of any copper mineralisation present in the area.

#### Anomaly AN\_03

The northern line of the soil geochemical survey encountered sporadic anomalism in a number of elements, including Cu, W, Au, Sb, and Zn. It is interpreted that the enrichment in these elements is related to the proximity of the Seltey Caldera, which is located immediately to the north of this sampling line (see Figure 3). These results suggest that the Seltey Caldera contains enriched levels of gold and pathfinder elements. The soil sampling grid has therefore been extended to the north and assays are pending.

#### **Next Steps**

Assays across the other prospects at Baynazar are continuing to flow in and will be interpreted with the aim of identifying additional anomalies. The soil sampling at Aminbay will be infilled across the anomalies identified and extended to the north and south. Drilling programs will then be planned, subject to specific funding for the ongoing copper exploration, as the recent investment from the European Bank for Reconstruction and Development (EBRD) is being preferentially directed to the development of the Sarytogan Graphite Project.



A second copper exploration licence has also been pegged elsewhere in Kazakhstan and an announcement on this new project will follow in due course.

This announcement is authorised by:

**Sean Gregory** 

**Managing Director** 

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# **About Sarytogan**

The Sarytogan Graphite Deposit is in the Karaganda region of Central Kazakhstan. It is 190km by highway from the industrial city of Karaganda, the 4th largest city in Kazakhstan (Figure 5).



Figure 5 - Sarytogan Graphite Deposit location.

The Sarytogan Graphite Deposit was first explored in the 1980s with sampling by trenching and diamond drilling. Sarytogan's 100% owned subsidiary Ushtogan LLP resumed exploration in 2018. An Indicated and Inferred Mineral Resource has recently been estimated for the project by AMC Consultants totalling **229Mt @ 28.9% TGC** (Table 1), refer ASX Announcement 27 March 2023).



Table 1 - Sarytogan Graphite Deposit Mineral Resource (> 15% TGC).

Zone	Classification (JORC Code)	In-Situ Tonnage (Mt)	Total Graphitic Carbon (IGC %)	Contained Graphite (Mt)
North	Indicated	87	29.1	25
	Inferred	81	29.6	24
	Total	168	29.3	49
Central	Indicated	39	28.1	11
	Inferred	21	26.9	6
	Total	60	27.7	17
Total	Indicated	126	28.8	36
	Inferred	103	29.1	30
	Total	229	28.9	66

Sarytogan has produced bulk flotation concentrates at higher than **80% C** and further upgraded the concentrate up to **99.9992% C** "five nines purity" by thermal purification, without any chemical pre-treatment (refer ASX Announcement 5 March 2024). Sarytogan envisages three product types:

- Microcrystalline graphite at 80-85% C ("Micro80C") for traditional uses,
- Ultra-High Purity Fines (UHPF) for advanced industrial use including batteries, and
- Spherical Purified Graphite (USPG and CSPG) for use in lithium-ion batteries.

A Pre-Feasibility Study (PFS) was completed in August 2024 that outlined a staged development plan to match market penetration, minimise initial capital expenditure and deliver attractive financial returns.

An Ore Reserve of **8.6 Mt @ 30.0% TGC** (Table 2) was estimated using the Guidelines of the 2012 Edition JORC Code (refer ASX announcement 12 August 2024).

Table 2 - August 2024 Sarytogan Probable Ore Reserve estimate

Ore mass	TGC	Concentrate mass	Concentrate grade	TGC in conc. Mass
kt	%	kt	%	kt
8,587	30.0	2,654	81.4	2,160

#### Notes:

- Tonnes and grades are as processed and are dry.
- The block mass pull varies as it is dependent on the TGC grade, concentrate grade (fixed) and process recovery (fixed) resulting in a variable cut-off grade, block by block. The cut-off is approximately 20% TGC with minimal mass below 20% TGC contributing.

Sarytogan is also progressing copper porphyry exploration, initially at its Baynazar project and subsequently across a planned portfolio of copper exploration projects to be assembled across the highly prospective Central Asian Orogenic Belt.

# **Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information compiled by Dr Waldemar Mueller, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Dr Mueller is a full-time employee of the Company and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Dr Mueller consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Compliance Statements**

The information in this report that relates to Sarytogan Mineral Resources was first reported in ASX announcement dated 27 March 2023. The information in this report that relates to Sarytogan Ore Reserves was first reported in ASX announcement dated 12 August 2024.

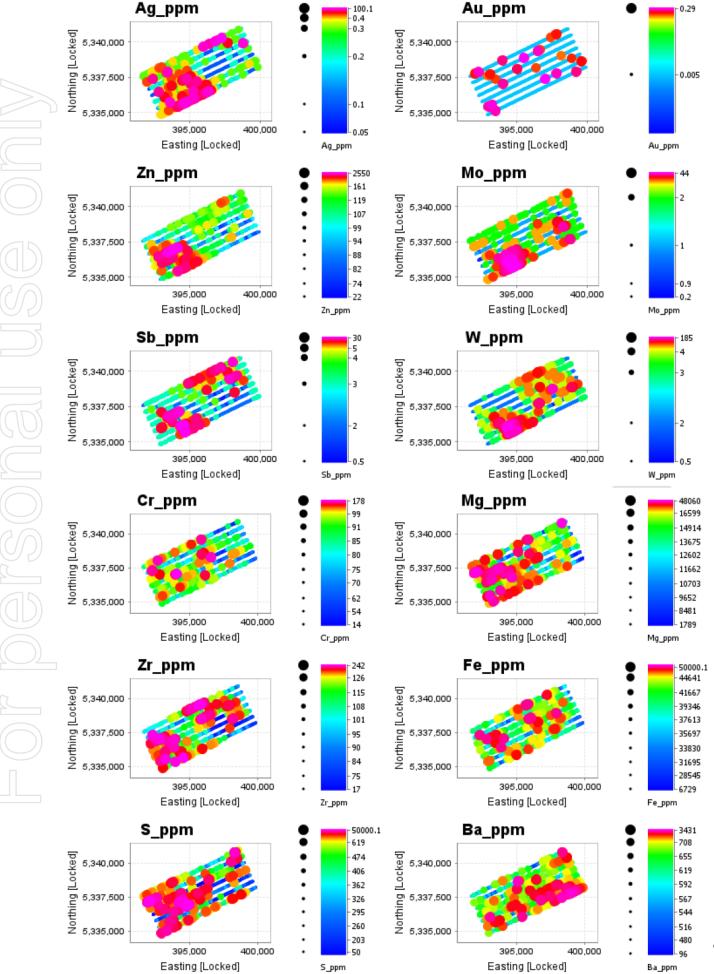
The Company confirms that it is not aware of any new information or data that materially affects the information included in relevant market announcements and, in the case of estimates of Mineral Resources and Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcements.

The Company confirms that all the material assumptions underpinning the production target, or the forecast financial information derived from the production target, in the initial public report (12 August 2024) continue to apply and have not materially changed.

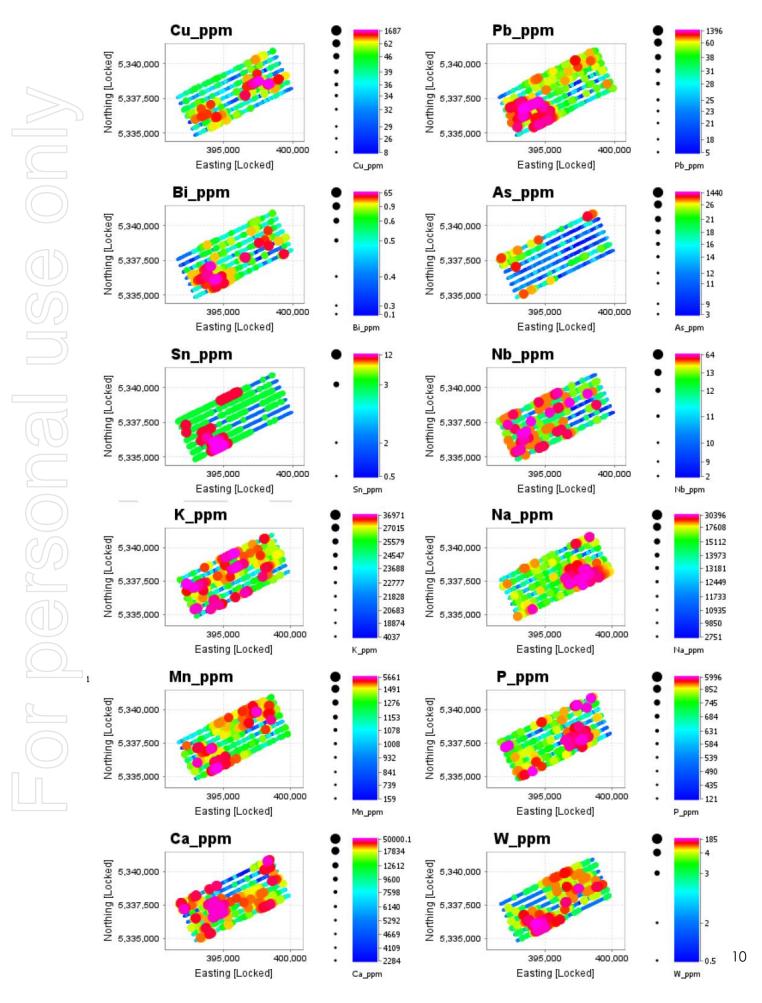
#### **Appendix**

Overleaf: ioGAS Plots of the Animbay area, coloured by quantile, and scaled by abundance. This plan can be used to identify the individual elements giving rise to the anomalous areas outlined in Figure 1 and Figure 4.











## JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
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.  Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.  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 (eg 'reverse circulation drilling was	Soil samples of approximately 1kg were taken in the field. Early in the field season, they were returned to the core shed for drying and sieving at 2mm. Later in the field season, they were sieved in the field.  Historical trenches were resampled by Sarytogan Geologists. The trench walls were expanded by shovel digging to expose a fresh face. Representative channel samples of approximately 2kg for every 2-2.5m of trench length were taken in the field and processed as whole rock without sieving.
	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 (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 reported here.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.  Measures taken to maximise sample	No drilling is reported here.
	recovery and ensure representative nature of the samples.	
	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.	
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation,	Soil sample locations were logged by Company geologists for position in the regolith profile.



Criteria	JORC Code explanation	Commentary
	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	If core, whether cut or sawn and whether quarter, half or all core taken.	The trench samples were crushed in a jaw crusher to minus 2mm and split to
and sample preparation	If non-core, whether riffled, tube sampled, ro.tary split, etc and whether sampled wet or dry.	0.5kg. The soil and trench samples were pulverised to 80% passing 75um with quality checks on sizing completed on every 20th sample. As
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	soon as a batch of samples is prepared, glass is passed through the crushers. The pulverisers are cleaned
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	with quartz sand.
	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.	
	Whether sample sizes are appropriate to the grain size of the material being sampled.	
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.  For geophysical tools, spectrometers, handheld XRF instruments, etc., the	Analytical studies are carried out in the chemical-analytical laboratory of LLC Stewart Assay and Environmental Laboratories, located in Karabalta, Kyrgyzstan (Certificate No. RU 181163 of 10/21/2001 and Certificate No. RU
	parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	227186 of 08/25/2008).  The assays are high-quality and low-detection four-acid digest with an ICP-MS finish plus gold by 30g fire-assay.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Quality control (QC) samples were submitted with each assay batch (certified reference standards, certified reference standard blanks and duplicate samples). The laboratory inserted their own quality assurance/quality control (QAQC) samples as part of their internal QAQC. All assay results returned were of acceptable quality based on assessment of the QAQC assays.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.  The use of twinned holes.	Laboratory assay results were individually reviewed by sample batch and the QC results checked before uploading. All geological and assay
	Documentation of primary data, data entry procedures, data verification, data	data were uploaded into Excel. This data was then validated for integrity visually and by running systematic



Criteria	JORC Code explanation	Commentary
	storage (physical and electronic) protocols.  Discuss any adjustment to assay data.	checks for any errors in sample intervals, out of range values and other important variations.
Location of data points	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.  Specification of the grid system used.  Quality and adequacy of topographic control.	Sample locations were recorded by handheld GPS with typical accuracy of +/- 5m.  The grid system used at the deposit is the WGS84 UTM Zone 43 coordinate system, Baltic elevation system.
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	The soil samples are taken on a 250x50m grid.  The grid is sufficient to identify soil anomalies.
Orientation of data in relation to geological structure	whether sample compositing has been applied.  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 introduced a sampling bias, this should be assessed and reported if material.	The sampling grids are aligned perpendicular to the geological structure.
Sample security	The measures taken to ensure sample security.	Control over the security of samples is carried out throughout the entire process. Each sample is assigned a unique number and tracked form the field to the Company's sample preparation facility and the laboratory.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Newexco Exploration Pty Ltd has reviewed the data and exploration conducted to date.

# Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The exploration #2788-EL has been issued to Baynamys LLP on 15/08/2024 for six years. The exploration concession covers 282 km2.



C	Criteria	JORC Code explanation	Commentary
)		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.	
С	xploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Before 1991 the exploration works were carried out by different State exploration enterprises.
			Aeromagnetic and soil geochemistry survey in scale 1:50,000, spare trenching and diamond drilling on separate occurrences of gold, copper, rare metals.
C	Geology	Deposit type, geological setting and style of mineralisation.	The Palaeozoic Central Asian Orogenic Belt (CAOB) runs through Kazakhstan, Northern China and Mongolia. The Baynazar ELA is situated within a Devonian volcanic belt that spans from central to south Kazakhstan as part of the broader CAOB.  The Baynazar area is characterised by cluster of volcanic calderas, with the largest spanning 30 by 40 kilometres. This area is renowned for its diverse mineralization types.  The Baynazar ELA encompasses the Baynazar Caldera's western contact zone and two southern satellite calderas, all exhibiting a favourable zonality for copper-porphyry mineralization. On the opposite margin of the Baynazar Caldera, lies the recently developed Almaly copper-porphyry mine.
_	Orill 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 is reported here.
		<ul> <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> <li>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</li> </ul>	



	Criteria	JORC Code explanation	Commentary
		clearly explain why this is the case.	
9	Data aggregation methods	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.	Not applicable.
		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.	
		The assumptions used for any reporting of metal equivalent values should be clearly stated.	
	Relationship between mineralisation	These relationships are particularly important in the reporting of Exploration Results.	Not applicable.
	widths and intercept lengths	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 (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 of drill hole collar locations and appropriate sectional views.	Refer to diagrams 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 soil samples for the prospect are illustrated in the contouring of the results.
	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.	The historical diamond drill hole C-16 is reported for this context.
	Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Soil sampling is ongoing.
		Diagrams clearly highlighting the areas of	



Criteria	JORC Code explanation	Commentary
	possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	