

22 January 2024

# QUARTERLY ACTIVITIES REPORT QUARTER ENDING 31 DECEMBER 2023

Sarytogan Graphite Limited (ASX: SGA, "the Company" or "Sarytogan") is pleased to present the Quarterly Activities Report for the Quarter Ending 31 December 2023.

## **Highlights**

- Comprehensive metallurgical testwork has demonstrated positive results to produce Uncoated Spherical Purified Graphite (USPG) and Ultra-High Purity Fines (UHPF).
  - 20kg of Bulk flotation concentrate produced<sup>1</sup>.
  - o 99.998% TGC graphite purity achieved by thermal purification<sup>2</sup>.
  - High spheroidization yield of 54% achieved ideal D50 sphere sizes of 32, 18, and 12 µm after classification with high tap densities ranging from 0.91 to 0.99 g/cm<sup>3</sup>.
- Both the USPG and UHPF products to now be tested in advanced battery applications.
- The PFS is advancing and is scheduled for completion no later than Q3 2024.

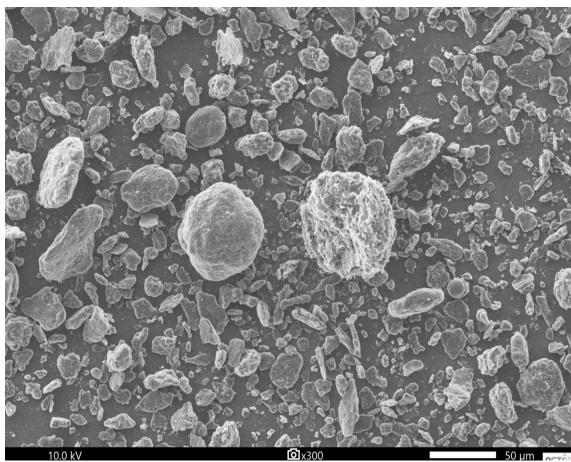


Figure 1 – Spheroidized Sarytogan Graphite, prior to classification. SEM image.

Refer ASX Announcements 1 13/11/23, 27/12/23, 3 19/12/23.



Sarytogan Managing Director, Sean Gregory commented:

"The December quarter saw significant advances at the Sarytogan Graphite Project. All flowsheet elements to produce USPG and UHPF up to 99.998% purity have now been demonstrated. These results go a long way to allaying doubts about the potential of the giant and exceptionally high-grade Sarytogan Graphite deposit to produce commercial grade graphite products for the rapidly growing lithium-ion battery market. We now charge into 2024 on a mission to measure the battery performance of these products."

#### **Flowsheet Elements**

All elements of the preferred thermal flowsheet have now been demonstrated to produce Uncoated Spherical Purified Graphite (USPG) and Ultra-High Purity Fines (UHPF) targeting the lithium-ion and other battery markets

Figure 2 illustrates the flowsheet for the Sarytogan Graphite Project, beginning with the high grade feed from the giant and exceptionally high-grade **229 Mt** at **28.9%** Total Graphitic Carbon (TGC) Indicated and Inferred Mineral Resource (refer ASX Announcement 27<sup>th</sup> March 2023).

- 1. The first processing step in the flowsheet is the flotation, where the graphite is upgraded to greater than 80% TGC, which has now been demonstrated at the bulk scale (refer ASX announcement 13th November 2023).
- 2. The second processing step, for the thermal option, is agglomeration where the graphite is bound into coarser beads to facilitate gas flow permeability allowing the sublimated diluents to vent through the fluidised bed reactor during the subsequent thermal purification step (refer ASX announcement 30th October 2023).
- 3. The third processing step is thermal purification. Sarytogan Graphite and our American technology partner have achieved **99.998%** C (weight % carbon) at a temperature of 2,700° Celsius (refer ASX announcement 7<sup>th</sup> December 2023). This is 25 times purer than the typical chemical specification for lithium-ion batteries of 99.95% C (i.e. 20 ppm vs 500 ppm of impurities).
- 4. The fourth processing step the thermal flowsheet is spheroidization. High spheroidization yield of 54% achieved ideal D50 sphere sizes of 32, 18, and 12 µm after classification with high tap densities ranging from 0.91 to 0.99 g/cm<sup>3</sup> (refer ASX announcement 19<sup>th</sup> December 2023).

The final confirmatory step is the testing of the products in battery uses, which is now underway.

Mining	Flotation	Agglomeration	Purification	Spheroidizdation	Target Markets
			点		
Giant Resource 229 Mt @ 28.9% TGC <sup>1</sup>	80% TGC <sup>2</sup> Micro-Crystalline Graphite Product	Pre-treatment for thermal <sup>3</sup>	99.998% C thermal <sup>4</sup>	Demonstrated <sup>5</sup> 54% yield 3 cuts at d50 32, 18, 12 µm	USPG for Li-ion anodes, UHPF for other battery uses

Figure 2 – Elements of thermal flowsheet option for the Sarytogan Graphite Project



#### **Bulk Flotation Concentrate Production**

Our Australian laboratory partners Independent Metallurgical Operations Pty Ltd (IMO) successfully produced the bulk concentrate at Metallurgy Pty Ltd mineral processing laboratory in Perth, Western Australia in September 2023.

The 60kg processed was from a composite sample that was blended from 8 diamond drill holes, 5 from the northern graphite Zone (NGZ) and 5 from the Central Graphite Zone (CGZ) at an average head-grade of **32.5%** TGC. Preliminary mining studies indicate that this is a representative head-grade for the early years of the mining schedule. Grinding effort was minimal as the Sarytogan graphite readily fractures along mineral boundaries at a size of between 5 and 10 microns.

The result of bulk test compares favourably with bench scale tests previously reported. Importantly, the metal yield of **84.4%** is significantly higher than the **76.6%** previously achieved at the bench scale on the same sample (Refer ASX Announcement 16th August 2023). This yield combined with the exceptionally high-grade of the giant **229Mt @ 28.9%** TGC Indicated and Inferred Mineral Resource (SGA: ASX Announcement 27 March 2023) has the potential to deliver very-low operating costs per tonne of flotation concentrate.

#### **Thermal Purification**

Our American technology partner received the bulk flotation concentrate at **81.4%** Total Graphitic Carbon (TGC, Refer ASX Announcement 13<sup>th</sup> November 2023). The concentrate was then successfully agglomerated as previously reported (ASX Announcement 30<sup>th</sup> October 2023) ahead of thermal purification.

The Thermal Purification result exceeded all expectations with purity of **99.998%** weight % Carbon (C) achieved (Figure 3).

This result is highly significant for a number of reasons;

- (i) First, no pre-treatment by chemical purification was applied. The previous result of **99.990% C** (Refer ASX Announcement 28<sup>th</sup> August 2023) was on a sample that had already been chemically purified to **99.70% C**. This result has skipped that step entirely, simplifying the flowsheet and lowering the cost base for the project.
- (ii) Secondly, the temperature applied was 2,700 degrees Celsius, a reduction from the 3,000 degrees previously applied. At these high temperatures, this is a significant reduction in energy applied and the degradation of the furnace lining, again a useful cost saving.
- (iii) Thirdly, this result is on 1.1 kg of graphite, scaling up from the 50g of the previous test. The risk is normally a drop off in performance with scale, whereas this test has realised an improvement.



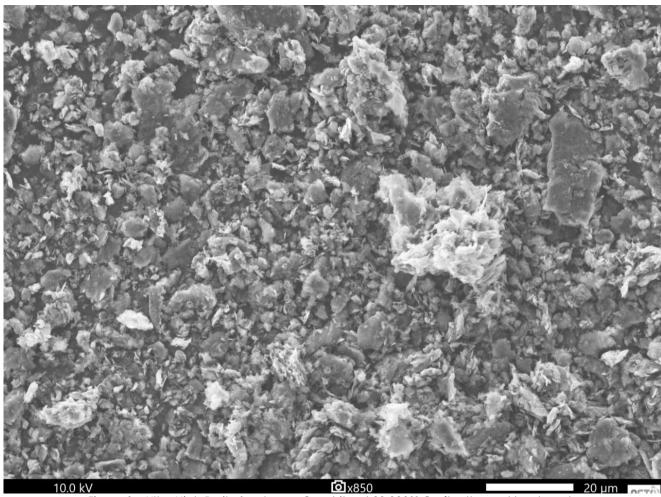


Figure 3 – Ultra High Purity Sarytogan Graphite at 99.998% C after thermal treatment

## **Spheroidization**

Our American technology partner took the **99.998%** C purified Sarytogan Graphite they produced and spheroidized it in a mechano-chemical mill. The graphite particles were subjected to intense impact, compressive and lapping forces. The forces generated sufficient energy to fuse the particles onto the surface of the neighboring particles creating a new composite material that has a spheroidal shape (Figure 4).



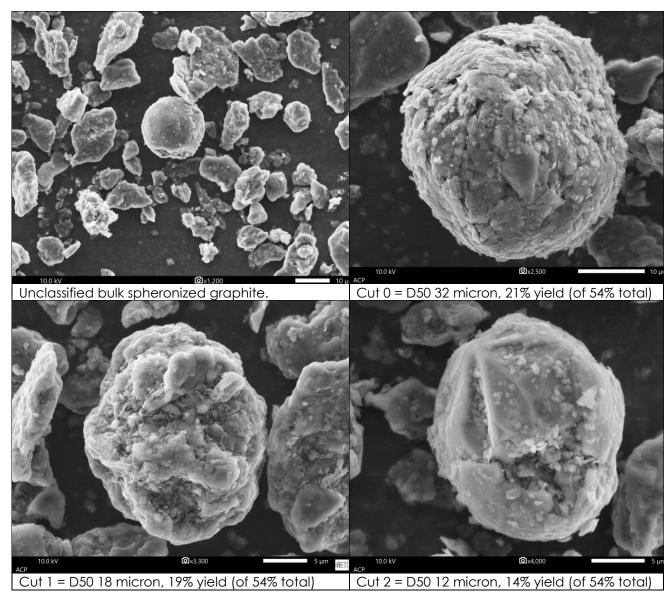


Figure 4 - Sarytogan Graphite spheres before and after classification.

The spheronized graphite was then classified into different size fractions with different tap densities. The three coarsest cuts all had tap densities of greater than 0.9 g/cm<sup>3</sup>, which is the recommended criteria for application in lithium-ion batteries (Table 1).

The combined mass yield of these spheres was 54% which compares favorably with the 35-50% yield typical in China. The remaining 46% is Ultra-High Purity Fines (UHPF) which is anticipated to also be a high-value product for use in batteries.

Table 1 - Characterisation of three coarsest cuts of spheronized graphite after classification

Sample	Mass Yield (%)	Tap Density (g/cm³)	D50 (µm)
Cut 0	21	0.99	32
Cut 1	19	0.94	18
Cut 2	14	0.91	12
Sub total	54		



Results to date allay concerns regarding the fine nature of Sarytogan Graphite. The agglomeration, thermal purification and spheroidization steps are all playing a role in coarsening the size distribution to that typically used in lithium-ion battery anodes.

## **Pre-Feasibility Study**

The Pre-Feasibility Study led by GR Engineering Services (GRES), is progressing well. The study will evaluate two main flowsheet options; chemical and thermal. The recent exceptional results in thermal purification and spheroidization have firmly placed the thermal flowsheet as the favoured option. However, the development of the chemical flowsheet option is also continuing in Germany.

The scale of the initial operation has been confirmed as 150,000tpa of feed to make 50,000tpa of flotation concentrates.

Three products are contemplated, subject to customer qualification:

- 1. Micro-crystalline graphite at > 80% TGC after flotation for industrial uses
- 2. USPG at > 99.95% TGC for lithium-ion battery anodes; and
- 3. UHPF at > 99.95% for other battery and advanced industrial uses.

The plant is being designed to produce approximately equal proportions of each product (i.e. 13,000 – 18,000 tpa of each product), to ease the acceptance of each product into each market.

This scale is modular, and many future modules could be built, limited only by the size of the market and availability of capital, not by the size of the giant and exceptionally high-grade **229 Mt** at **28.9%** Total Graphitic Carbon (TGC) Indicated and Inferred Mineral Resource (refer ASX Announcement 27<sup>th</sup> March 2023).

Mining studies have continued during the quarter including analysis of the 8 geotechnical drill holes drilled and the completion of a further 3 water exploration bores which continue to affirm the good quality and quantity of water available in alluvials above fractured rock aquifers in the river channel to the north of the project.

An initial 50-year mine plan, utilising only a very small proportion on the Mineral Resource, has been prepared and a request for quotation will shortly be issued to capable local Kazakh mining contractors.

Rheology and thickening testing of the concentrates and tails have been undertaken. The design of the tailings facility will shortly commence in the preferred valley fill location (Figure 5).

The flotation is planned to be conducted on site. For the downstream purification and spheroidization, the Company is investigating options to acquire industrial land in Karaganda, 190km from the project, with access to very low-cost power, water, rail terminals and importantly a skilled workforce with all of the amenities of a major city. Some of these options also offer favourable tax incentives from the Kazakhstan government.



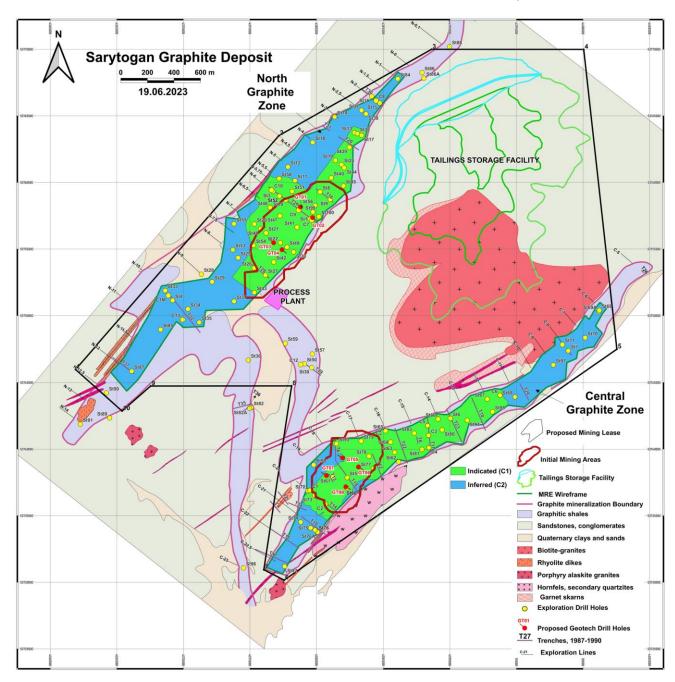


Figure 5 - Sarytogan Graphite Deposit Proposed Mine Layout Over Geology.

## **Kenesar Exploration Project**

#### **Exploration Methods**

The drilling program at Kenesar comprised of initial scout drilling using water-transported core drilling (KGK drilling) and follow up diamond drilling.

368 KGK drill holes over 12 lines for 9,071 m were completed at an average depth of 25 meters (Figure 6). The drill lines targeted the rock conductivity anomalies identified by the Time Domain Electro-Magnetic (TDEM) survey conducted earlier this year (refer ASX Announcement 27 June 2023). The drilling method is designed to penetrate the weathered rock and allow the bedrock to be mapped.



Prospective geology identified from the KGK drilling was then targeted with 7 follow up vertical HQ diamond drill holes for 863.6m at an average depth of 123m (Figure 6).

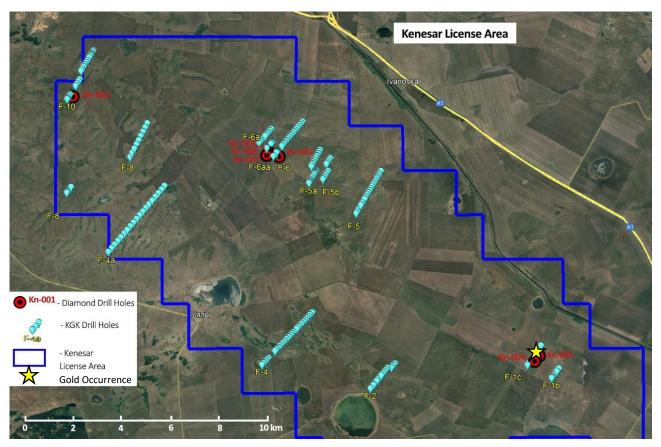


Figure 6 – Drill hole locations at the Kenesar Graphite Exploration Project

#### Graphite Mineralisation

Graphitic schist grading higher than 0.8% TGC was intersected in 5 of the 7 holes. The best intercept was 138.6m @ 0.98% TGC from 34.4m to end of hole, including 8.3m @ 1.29% TGC from 52.7m and 21.7m @ 1.13% TGC from 95.5m (Table 2, Figure 7).

Table 2 - Significant graphite intercepts from diamond drilling at Kenesar

Hole ID	X	Y	Z	Intercept
				(criteria TGC> 0.8%, max. 6m int. dilution)
KN001	539440	5891571	343	18m @ 0.91% TGC from 76.4m
KN002	530804	5893994	299	1.1m @ 1.98% TGC from 34.1m
KN003	539031	5891727	342	No significant intercept
KN004	550173	5883163	337	4m @ 1.29% TGC from 58.7m
KN005	550360	5883384	342	No significant intercept
KN006	538961	5891657	340	13.7m @ 0.86% TGC from surface
				138.6m @ 0.98% TGC from 34.4m to EOH
				incl 8.3m @ 1.29% TGC from 52.7m
				incl 21.7m @ 1.13% TGC from 95.5m
KN007	538924	5891624	338	24.2m @ 0.70% TGC from 21.8m
				2.5m@ 1.08% TGC from 64.0m
				71.5m @ 0.89% TGC from 81.0m to EOH



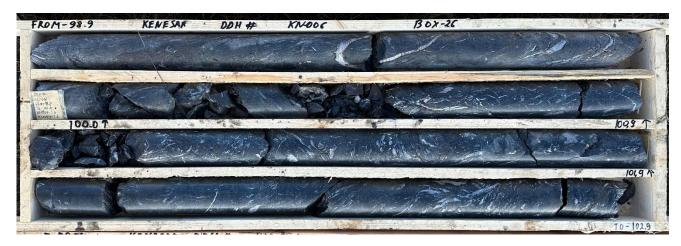


Figure 7 – Graphitic Schist in Diamond Drill Core from Kenesar

#### Gold Mineralisation

Historical small scale surface gold workings and gossan outcrops were observed in the south-east of the project. Adjacent to these workings, gold assays were taken from the outcrops and from the KGK and diamond drill holes KN004 and KN005 (Figure 8). One result of **2m @ 6.59g/t Au** from 23m (Fence 1c, KGK hole 30, 550405mE, 5883484mN) was returned.

North Kazakhstan is a renowned gold mining province of Central Asia since the 18th century with major gold deposits including Vasilkovskoe (13Moz) and Raygorodok (3.3Moz) located 45km and 90km from the Kenesar licence respectively. Most of the gold deposits in this region are structurally controlled by boundary of the Kokshetau pre-Cambrian metamorphic shield tectonically overprinted and intruded by Ordovician granitoids. This tectonic boundary runs along the length of the Kenesar tenement area.

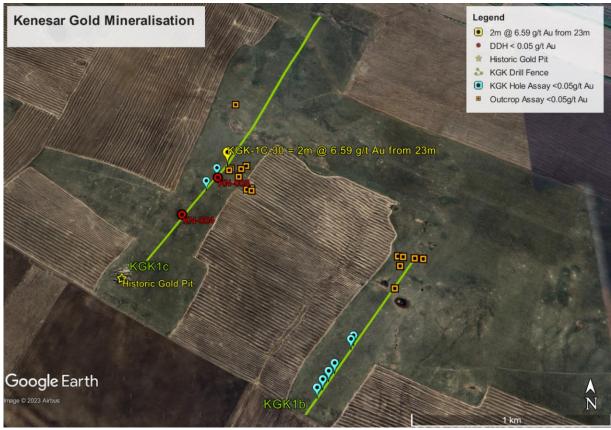


Figure 8 - Gold Mineralisation at Kenesar



### Corporate

As at quarter end on 31 December 2023, the Company had A\$4.85M in cash.

The Company provides the following information pursuant to ASX Listing Rule requirements:

- 1. ASX Listing Rule 5.3.1: Exploration and Evaluation Expenditure spend during the quarter was \$1,405,000 materially comprising drilling, assay, metallurgical, and study expenses.
- 2. ASX Listing Rule 5.3.2: There were no substantive mining production and development activities during the quarter.
- 3. ASX Listing Rule 5.3.3:
  - a. The Sarytogan Graphite Deposit exploration licence 1139-R-TPI (1139-P-ΤΠΙ) was issued to Ushtogan LLP on 14/08/2018 and confirmed by 5406-TPI (5406-ΤΠΙ) contract on 26/10/2018. The contract was extended in June 2022 for a further 3 years to June 2025. The exploration concession covers 70 km². There was no change to the Company's 100% interest in the licence since the last quarter.
  - b. The Kenesar Graphite Exploration Project exploration licence 1968-EL was issued to Ushtogan LLP on 28/02/2023 for a period of six years to February 2029. The exploration concession covers 150 graticular blocks or 309km<sup>2</sup>. There was no change to the Company's 100% interest in the licence since the last quarter.
- 4. ASX Listing Rule 5.3.4: the progress towards spending the funds relative to the proposed use of funds (ie. what is set out in Section 6(e) of the SGA supplementary prospectus) and any material variance between anticipated expenditure and actual expenditure is set out in Table 3.
- 5. ASX Listing Rule 5.3.5: Payment to related parties of the Company and their associates during the quarter as set out in Section 6.1 of the attached Appendix 5B relate to director salaries and fees in the quarter.

Table 3 - Reconciliation of expenditure to date vs that projected in the Company's Supplementary Prospectus.

IPO allocation of funds	Projected Amount (A\$)	Actual expenditure to
Drilling	2,200,000	31/12/23 (A\$) 1,092,937
Assays	550,000	415,662
Metallurgical Testwork	500,000	844,390
Consulting Fees	550,000	212,465
Scoping, Pre-Feasibility Studies	450,000	354,119
Environmental Studies	150,000	21,210
Transportation	175,000	186,497
Equipment	150,000	213,173
Working Capital & Wages	1,354,627	1,973,568
Accommodation and Storage	250,000	236,838
Administration	450,000	1,161,279
New tenement	0	607,179
Taxes	300,000	131,693
Working Capital Loan Repayment	839,187	836,995
Brokerage	519,572	536,754
Accrued administration costs (unpaid director fees)	317,008	290,548
Expenses of the Offer	75,000	90,000
Total	8,830,394	9,205,307



### **Next Steps**

The Company's in-country exploration team is currently deployed in the assessment of various battery metal projects in Kazakhstan.

Battery testing of the Sarytogan USPG and UHPF is underway.

The USPG is targeted for the rapidly growing lithium-ion battery market and specifically for electric vehicles. The performance of the spheres in coin-cell lithium-ion batteries will be measured in short-term and long-term cycling tests. The short-term tests are expected to be available in Q1 2024.

The fine UPHF by-product will be tested in a host of other commercially available advanced battery systems such as alkaline, lithium primary, and lead-acid batteries and also as a conductivity enhancer in the cathode of lithium-ion batteries.

The alternative chemical purification flowsheet is also under development in Germany.

The results outlined in this Quarterly report represent a series of important inputs into the Pre-Feasibility Study which is progressing towards completion no later than Q3 2024.

**Sean Gregory** 

**Managing Director** 

admin@sarytogangraphite.com



## **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 4<sup>th</sup> largest city in Kazakhstan (Figure 9).



Figure 9 - Sarytogan Graphite Deposit and Kenesar Graphite Exploration Project locations.

The Sarytogan Graphite Deposit was first explored during the Soviet era 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 4) (refer ASX Announcement 27 March 2023). Sarytogan has upgraded the mineralisation to 99.87% purity by chemical purification (refer ASX Announcement 6 December 2022) and to 99.998% purity by thermal purification, without any chemical pre-treatment (refer ASX Announcement 7 December 2023). Furthermore, spheres of graphite have been made at a size suitable for lithium-ion batteries and battery testing is underway (refer ASX Announcement 19 December 2023). A PFS as part of its strategy to supply high-quality anode pre-cursor material for the rapidly growing electric vehicle battery market is well advanced and scheduled for completion no later than Q3 2024.



Table 4 - Sarytogan Graphite Deposit Mineral Resource (> 15% TGC).

Zone		In-Situ Tonnage (Mt)	Total Gra phitic Carbon (TGC %)	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

## **Competent Persons Statement**

The information in this report that relates to Kenesar 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 Statement**

The information in this report that relates to other Exploration Results is cross referenced to the relevant announcements in the text. These reports are available at www.asx.com.au. The information in this report that relates to Sarytogan Mineral Resources was first reported in ASX announcement dated 27 March 2023.

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, 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.

## 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	Half core was sampled. Sample length within graphitic rocks is primarily 2 m or less depending on the lithology.



Criteria	JORC Code explanation	Commentary
	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 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).	Core drilling was completed by an XY- 44T drill rig mounted on wheel-based mobile trailed platforms and equipped with a smooth-bore drill with a detachable core receiver of the Boart Longyear system equipped with double core tubes.
		Pre-drilling is completed with carbide crowns with a diameter of 112-132 mm to a depth of 2-4 m, followed by casing. Drilling is carried out using a removable core receiver and HQ diamond crowns (diameter 96 mm), in rare cases, in complex geological conditions, diameter was reduced to NQ size (diameter 76 mm). Water was used as a washing liquid, and polymer solutions were used at absorption sites.
		All drill holes are vertical. At the completion of a drill hole, downhole survey is carried using a MIR-36 inclinometer with measurements every 20 m.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.  Measures taken to maximise sample recovery and ensure representative nature of the samples.	To maximise core recovery, double tube HQ and NQ core drilling was used, with the drilling utilising drillers experienced in drilling difficult ground conditions. Drill penetration rates and water pressure were closely monitored to maximise recovery.
	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.	During the diamond drilling the length of each drill run and the length of sample recovered was recorded by the driller (driller's recovery). The recovered sample length was cross checked by the geologists logging the



Criteria	JORC Code explanation	Commentary
		drill core and recorded as the final recovery.
		Average core recoveries are greater than 98%.
		At present, no relationships between sample recovery and grade bias due to loss/gain of fines or washing away of clay material has been identified. It is assumed that the grade of lost material is similar to the grade of the recovered core.
Logging	Whether core and chip samples have been geologically and geotechnically	All logging is completed on paper and later transferred to a digital media.
	logged to a level of detail to support appropriate Mineral Resource 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.	The core documentation includes information on the length of the drill runs, drilling diameter, core recovery and sampling intervals. Special attention was paid to the zones of graphitised rocks, lithology, alteration and mineralisation, the orientation of quartz veins and veinlets were studied in detail.
		All drill core is digitally photographed and completed in separate room using a specially designed stand that provides a fixed angle. The camera positioned at the same distance from the stand. The core is photographed in 2 stages before sawing and then after sawing. The most interesting samples are photographed at close distances.
		A collection of representative samples is used during logging to provide consistency with descriptions
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.  If non-core, whether riffled, tube sampled, ro.tary split, etc and whether sampled wet or dry.	Half core was sampled for assay. Sample length within graphitic rocks is primarily 2 m or less depending on the lithology. The sample length in the barren rocks is 3 m. Half of the core is taken for sampling.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.  Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Most core was cut using an electric diamond saw and some more friable intervals were split manually. All core for sampling was pre-marked with the cut line, and only one side of the core
	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.	was sent for assay to maintain consistency.  The core sampling was generally at a 2 m interval, refined to match logged lithology and geological boundaries.  A minimum sample length of 0.5 m
	Whether sample sizes are appropriate to the grain size of the material being sampled.	was used. The quality of sampling is checked by comparing geological documentation and samples.



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.  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.  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.	All samples are dried, weighed, crushed and milled in accordance with the sample preparation scheme. Sample preparation control is carried out using blank samples, taking duplicates from crushing rejects. The quality control of the sample abrasion is performed using the "dry" screening method through a sieve with a mesh size of 0.075 mm. Passing of the milled material is more than 95%. After preparing each sample, all tools and tables are thoroughly cleaned with compressed air. As soon as a batch of samples is prepared, glass is passed through the crushers. The pulverisers are cleaned with quartz sand. Quality of sample preparation is good.  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 227186 of 08/25/2008). The main type of analytical method is to determine the content of graphite carbon. All samples are subjected to technical tests for the analysis of graphite carbon.  Some samples (about 5%) are also
		given for multi-element analysis.  Analysis of graphite carbon (SE / C11 analysis code) is performed on a Leco analyser after pre-treatment. The method of determination was developed by the laboratory in advance and provides reliable values for total graphitic carbon (TGC).
		Gold is by 4 acid digest and fire assay at LLC Stewart Assay and Environmental Laboratories, located in Karabalta, Kyrgyzstan.
		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.
		Additionally, higher grade samples from Sarytogan were submitted as control samples, which assayed as expected.
		60 Duplicate samples were also sent to ALS Laboratory in Ireland for TGC analysis by LECO and the results



Criteria	JORC Code explanation	Commentary
		compared well with the original assays.
		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.  Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.  Discuss any adjustment to assay data.	assessment of the QAQC assays.  Visual validation of mineralisation against assay results was undertaken for several holes.  All diamond drill core samples were checked, measured and marked up before logging in a high level of detail.  The diamond drilling, sampling and geological data were recorded on paper into standardised templates and transferred to Microsoft Excel by the logging/sampling geologists.  Geological logs and associated data were cross checked by the supervising Project Geologist.  Laboratory assay results were individually reviewed by sample batch and the QC results checked before uploading. All geological and assay data were uploaded into Excel. This data was then validated for integrity visually and by running systematic checks for any errors in sample intervals, out of range values and other important variations.  All drill core was photographed with corrected depth measurements before sampling.  No specific twin holes were drilled; however, some recent drill holes were placed and drilled close to the historical holes. Similar grades and
		distribution were observed in the recent drill holes.
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.	Coordinates are by handheld GPS at this stage. UTM WGS84 Grid Zone 42U.
	Specification of the grid system used.	
	Quality and adequacy of topographic control.	
Data spacing and	Data spacing for reporting of Exploration Results.	The KGK drill holes were spaced at 50- 100m along fences 1-5km apart.
distribution	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.	As this is first pass exploration, the spacing of the diamond drill holes is targeting mineralisation occurrences and is not yet sufficient to establish continuity of the mineralisation.
	Whether sample compositing has been	



Criteria	JORC Code explanation	Commentary
	applied.	
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 introduced a sampling bias, this should be assessed and reported if material.	All drill holes were vertical with KGK fences oriented perpendicular to the strike of the geology. The rocks are highly deformed with folding and faulting and no consistent dip was observed, supporting the choice of vertical holes in the initial exploration.
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. The core samples selected after logging are transferred (with the corresponding orders and sample registers) to the sample preparation facilities, which is located in the Ekibastuz city. In the sample preparation laboratory, each sample underwent the entire processing cycle in compliance with all necessary requirements for the preservation of samples and the prevention of their contamination.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been completed at this stage.  Visual validation of the drill hole and mineralised intersections was undertaken against drill logs and core photographs.

## 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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The Kenesar Graphite Exploration Project exploration licence 1968-EL was issued to Ushtogan LLP on 28/02/2023 for a period of six years to February 2029. The exploration concession covers 150 graticular blocks or 309km2. There are no other mineral deposits or protected natural areas within the concession area.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historic mineralogical studies estimated the concentration of the graphite to vary in thin sections from 5% to 25%.
Geology	Deposit type, geological setting and style of mineralisation.	The geology at Kenesar is Pre-Cambrian strata-formations controlled by NW-striking regional structures of the Kokshetau Shield (Figure 3).



Criteria	JORC Code explanation	Commentary
		The Pre-Cambrian formations are represented by variety of regionally metamorphosed rocks: quartz-muscovite schists, gneisses, chlorite-biotite- and garnet-sillimanite schists. The strata-formations are intensively folded and overprinted by predominately NW-trending regional faults.
		The strata-bound graphite mineralization occurs in quartzites and various schists as bands, lenses and disseminated crystals (Figure 1). The extension of the graphite-bearing formations within Kenesar tenement is 30km by width 3 to 8km.
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:	Refer to the table in the text.
	<ul> <li>easting and northing of the drill</li> </ul>	
	hole collar	
	o elevation or RL (Reduced Level –	
	elevation above sea level in	
	metres) of the drill hole collar	
	<ul> <li>dip and azimuth of the hole</li> </ul>	
	o down hole length and interception	
	depth	
	o 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	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.	Intervals are reported at a 0.8% TGC cut-off with up to 6m internal dilution. Higher-grade 'inc' zones are reported at a 1.1% cutoff at a minimum thickness of 6m and with up to 4m internal dilution.
	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.	GIIOTIOTI.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between	These relationships are particularly important in the reporting of Exploration	The deposit is hosted in folded meta- sediments that vary in dip angle. The



Criteria	JORC Code explanation	Commentary
mineralisation widths and intercept lengths	Results.  If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	drill holes are vertical. As such, the mineralisation widths reported may not necessarily be true widths intersecting the rocks perpendicular to the dip.
	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.	A map of the drilling is presented in the text. Insufficient drill holes have been completed to accurately map the mineralisation in cross section.
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 drillholes are reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Refer to the Time Domain Electro- Magnetic (TDEM) survey reported on the ASX on 27 June 2023.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	The results are under review ahead of planning any further exploration for the 2024 field season.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	

## Appendix 5B

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

#### Name of entity

Sarytogan Graphite Limited			
ABN Quarter ended ("current quarter")			
91 107 920 945	31 December 2023		

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(190)	(384)
	(e) administration and corporate costs	(207)	(453)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	67	125
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	Net cash from / (used in) operating activities	(330)	(712)

2.	Ca	sh flows from investing activities		
2.1	Pay	yments to acquire or for:		
	(a)	entities	-	-
	(b)	tenements	-	-
	(c)	property, plant and equipment	-	-
	(d)	exploration & evaluation	(1,405)	(2,243)
	(e)	investments	-	-
	(f)	other non-current assets	-	-

ASX Listing Rules Appendix 5B (17/07/20)

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	(1,405)	(2,243)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)		
3.10	Net cash from / (used in) financing activities	-	-

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	6,571	7,773
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(330)	(712)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(1,405)	(2,243)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	16	34
4.6	Cash and cash equivalents at end of period	4,852	4,852

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	852	1,571
5.2	Call deposits	4,000	5,000
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	4,852	6,571

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	205
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include	le a description of, and an

explanation for, such payments.

7.	Financing facilities  Note: the term "facility' includes all forms of financing arrangements available to the entity.  Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at qu	uarter end	-
7.6	Include in the box below a description of each rate, maturity date and whether it is secured facilities have been entered into or are proposinclude a note providing details of those facilities.	or unsecured. If any add osed to be entered into af	tional financing

8.	Estimated cash available for future operating activities	\$A'000		
8.1	Net cash from / (used in) operating activities (item 1.9)	(330)		
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(1,405)		
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(1,735)		
8.4	Cash and cash equivalents at quarter end (item 4.6) 4,85			
8.5	Unused finance facilities available at quarter end (item 7.5)	-		
8.6	Total available funding (item 8.4 + item 8.5)	4,852		
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	2.8		

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

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8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

۸.۵		NI/A
Αn	swer.	N/A

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: N/A

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

#### **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 22 January 2024

Authorised by: The Board of Directors

(Name of body or officer authorising release – see note 4)

#### **Notes**

- This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.