

Quarterly Activity Report and Appendix 5B for 30 June 2023

Corporate Highlights

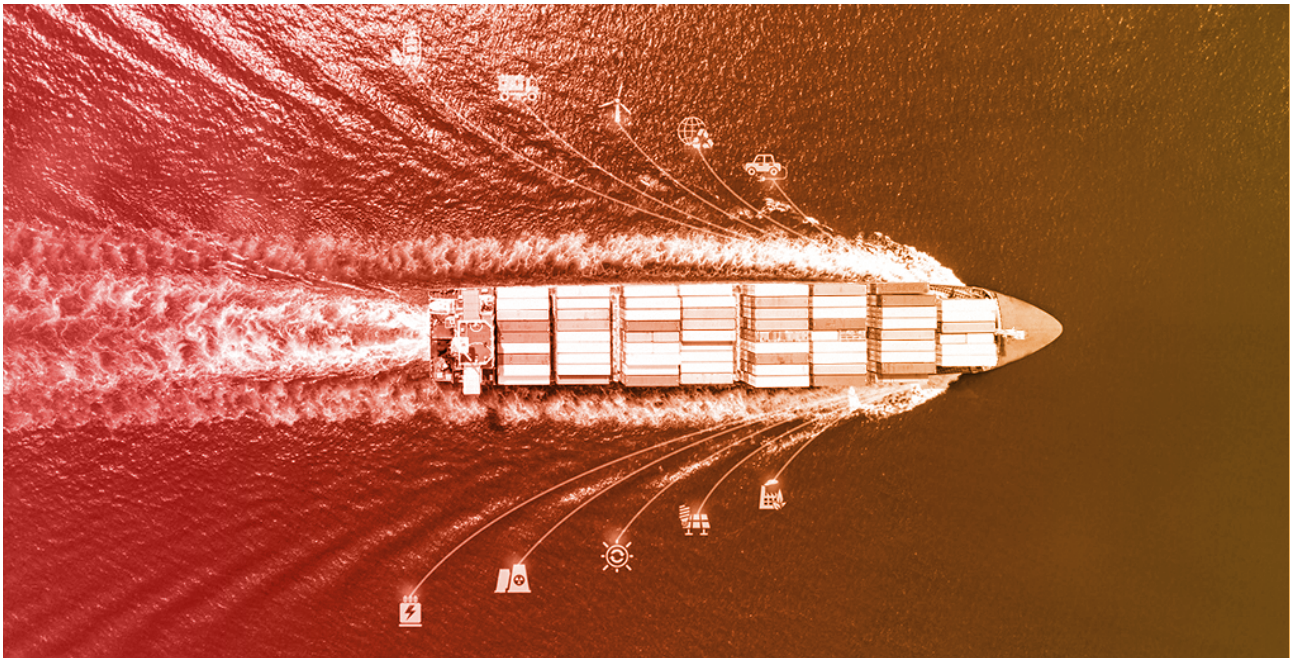
Update to Uley 2 Definitive Feasibility Study (DFS)

During the period the Company announced that Lycopodium Minerals was progressing the preparation of an update to the Uley 2, Stage 1 2019 DFS.

The update to the DFS will address the following key items:

- Revision of the capital costs to reflect current market pricing;
- The option to increase production to approximately 100,000 dmt per annum;
- A basket price that reflects the current market price for Uley flake, including at the higher purity levels of more than 99% achieved by the various test work programs concluded during the period (see below); and
- An increase in the annual exploration budget to accelerate the advance in the Company's JORC 2012 Mineral Resources.

The Board's strategy over the last two years has been shaped by the imminent commercialisation of **The Sunlands Energy Company's (SEC)** LDES technology and the forecast deficiency in supply from 2025. These factors and the increased growth in the traditional markets for coarse flake (especially without transition metal contaminants) also underpin the Board's near-term exploration strategy to accelerate the increase in the Company's JORC 2012 Mineral Resources.



ABOUT QUANTUM GRAPHITE LIMITED

QGL is the owner of the Uley flake graphite mineral deposits located south-west of Port Lincoln, South Australia. The company's Uley 2 project represents the next stage of development of the century old Uley mine, one of the largest high-grade natural flake deposits in the world. For further information, qgraphite.com.



ABOUT SUNLANDS POWER

Sunlands Power is our joint venture with Sunlands Co. for the manufacture of coarse natural flake based thermal storage media and the manufacture of complete TES Graphite Cell facilities. The flake for the storage media will be sourced exclusively from the QGL's Uley mine. The manufactured media will be fitted within TES Graphite Cells and the completed facility delivered to Sunlands Co. for deployment as a grid connected long duration energy storage solution. <https://www.sunlandSCO.com/>

Uley 2 Green Bond Financing

During the period the Company progressed the financing for the Uley 2 project including:

- Concluding major presentations with its insurance advisers to a number of highly rated global insurers in Europe for the comprehensive insurance coverage of the project. These presentations resulted in the Company receiving formal proposals for the coverage requested and the execution of non-binding insurance proposals for policies covering all facets of the Uley 2 project including procurement (marine cargo), construction and commissioning, delayed start up for a period of up to two years and trade-credit;
- Preparation of the summary terms sheet which has formed the basis for discussions and negotiations with prospective investors in Europe and Asia; and
- The appointment of ESG consultants and advisors that is assisting the Company achieve the necessary accreditation for its green bond financing.



Lincoln Minerals Takeover Offer

During the period, the Company extended the takeover offer announced on 9 August 2022 for Lincoln Minerals Limited until 7.00pm (Melbourne time), 14 July 2023. The offer was subsequently withdrawn on 7 July 2023.

Grant Thornton Legal Action

The Company's Proceedings against Grant Thornton in connection with its failure to provide an opinion on the 2020 Financial Reports is ongoing. Discovery has been substantially completed and the parties are now engaged in the preparation of expert evidence.

Operational Highlights

TES Graphite Cell OEM Rights

On 9 May 2023 the Company's joint venture completed its acquisition of the original equipment manufacture rights (OEM) for TES Graphite Cells from SEC.

As part of the acquisition, the joint venture name was changed from Quantum Sunlands Partnership to Sunlands Power to reflect its critical role in the delivery of the LDES technology to the market. The OEM rights are in addition to those previously granted to Sunlands Power to manufacture the Uley 2 flake graphite-based energy storage media fitted within TES Graphite Cells. The acquisition of the OEM rights, positions Sunlands Power as a strategic full participant in the global LDES market.

SEC's commercialisation model has also been impacted by the grant of the OEM rights to Sunlands Power. This model will now be limited to project origination and the operations and maintenance of TES Graphite Cells. Consequently, Sunlands Power will play a key role in the development and construction of TES Graphite Cells, (including associated plant and equipment) and the retrofit of coal fired power stations with the SEC LDES technology. Importantly the OEM rights are not limited to or dependent on the flake graphite being sourced from the Company. The Company's financial returns from Sunlands Power will be a significant addition to the returns delivered from its Uley 2 Project.

Based upon the current market prices, the Company's share of revenues from Sunlands Power's combined manufacture and sale of flake storage media and TES Graphite Cell facilities will generate greater revenues for the Company than the revenues it derives from the sale of Uley 2 flake to Sunlands Power.

Uley 2 Flake Anode Application - Successful Production of 99.99% Ultra-High Purity Flake

On 27 June 2023 the Company completed the second and final phase of the thermal purification analysis of the test work program conducted by INEMET, ProTherm Systems and Sunlands Power in the prior period.

The results confirmed that:

- Uley flake purity of 99.99% graphitic carbon (gC) is achievable from the SEC's proprietary thermal treatment process; and
- The process can be scaled to deliver commercial production levels for the Li-ion battery market.

For the Company's Uley 2 project, these results have a significant impact on the Company's Uley 2 Project, i.e.,

- *Based on this purity level the current market price for the Company's Uley 2 products is approximately US\$1,540 per tonne - compared to the basket price used in the 2019 DFS of US\$919; and*
- Commercial demand for this purified product alone confirms the need to increase production levels in the anticipated revision of the Company's DFS.



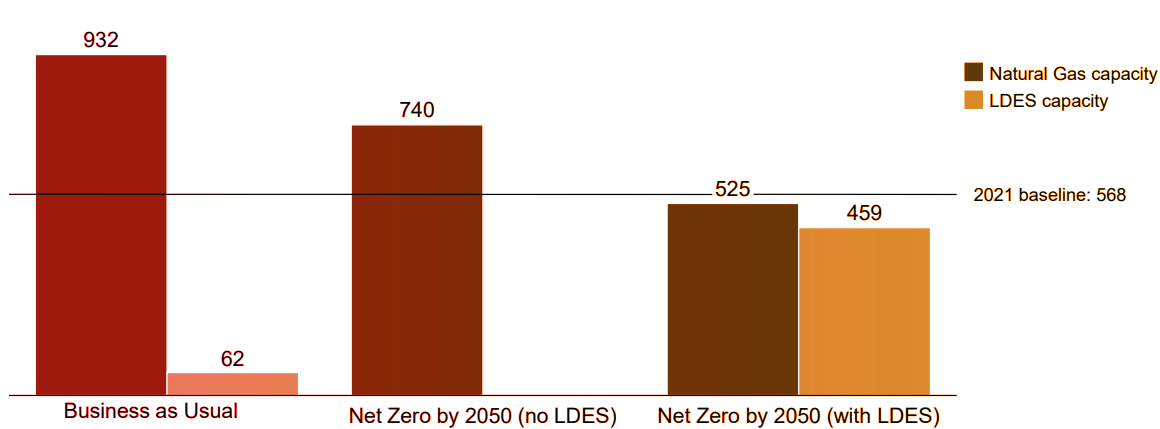
Significant News and Developments in Long Duration Energy Storage

During the period both the Long Duration Energy Storage Council and the US Department of Energy (DOE) highlighted the critical role of LDES in the transition to net zero emissions and the decarbonisation of global electricity grids. The DOE estimated that the installed base of thermal energy storage of 10GW in 2019 is expected to increase by more than 15 times to 160 GW in 2030.

The DOE's recent Pathways Paper ([liftoff.energy.gov](https://www.energy.gov/lift-off)) estimated that competitive LDES could remove the need for 200GW+ of Natural Gas in the USA and projects annual savings of US\$10 billion to US\$20 billion in operating costs and avoided capital expenditures by 2050.

② Net zero scenarios all include Natural Gas with CCS; however, LDES removes the need for 200GW+ of Natural Gas capacity

Total Installed Capacity in 2050, GW



1. Includes both Diurnal and Seasonal LDES; Does not include Li-Ion

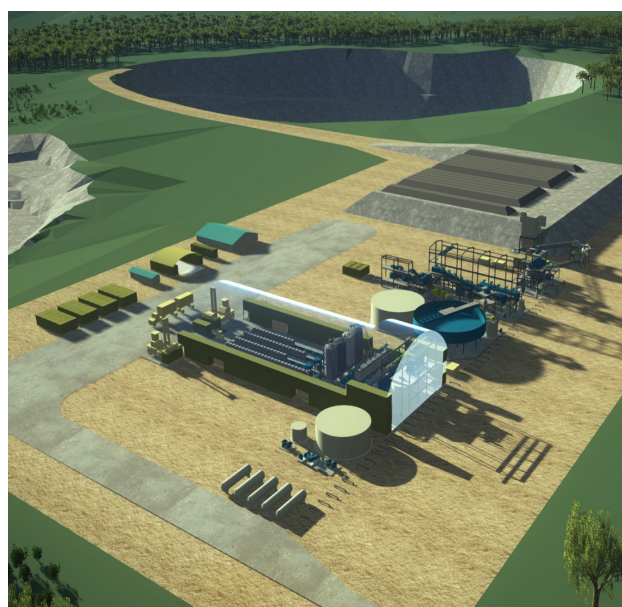
Scenarios that include competitive LDES are projected to deliver **~\$10-20B in annual savings** in operating costs and avoided capital expenditures by 2050.



Uley 2 Phase 1 Mining Study and Feasibility Summary Financial Metrics

Total undiscounted cash flow	A\$310.5million ¹
Crusher feed	500,000 tonnes per annum
Graphitic carbon grade	11.89%
Graphitic carbon recovery	84%
Concentrate purity	>97% graphitic carbon
Capital expenditure	A\$79.98 million
Processing cost (PCAF)	A\$55.3 per tonne
Mining cost (MCAF)	A\$2.5/t milled at surface plus 5c for every 4m
Production	55,000 tonnes per annum
Product Cost (Av LOM)	US\$368 dmt
Product Price (Ex-works)	US\$919 dmt

¹ Includes JORC 2012 Reserves and Resources



Schedule of JORC 2012 Minerals Reserves and Resources

JORC 2102 Mining Study and Reserve Statement, November 2019²

Reserve	Classification	Tonnes (kt)	Total Graphitic Carbon (%)
Uley 2	Proved	811	11.66
Uley 2	Probable	3,191	11.95
	Total	4,003	11.89

JORC 2012 Mineral Resource Estimate, November 2021³

Resource	Classification	Tonnes (kt)	TGC (%)	Density (t/m ³)	TGC (kt)
Uley 3	Inferred	900	6.6	2.1	59
	Uley 3 Total	900	6.6	2.1	59
Uley 2	Measured	800	15.6	2.1	125
	Indicated	4,200	10.4	2.1	435
	Inferred	1,300	10.5	2.2	137
	Uley 2 Total	6,300	11.1	2.1	697
Uley Project Total	TOTAL	7,200	10.5	2.1	757

² Released to the market on 1 December 2019

³ Released to the market on 18 November 2021

Schedule of Tenements (ASX Listing Rule 5.3.3)

Tenement	Tenement Type	Interest ⁴	Changes during the Quarter
ML5561	Mining Licence	100%	Nil
ML5562	Mining Licence	100%	Nil
RL66	Retention Licence	100%	Nil
RL67	Retention Licence	100%	Nil
EL6224 ⁵	Exploration Licence	100%	Nil

⁴ All interests are registered in the name of the company's subsidiary, Quantum Graphite Operations Pty Ltd and held as at the end of the quarter.

⁵ An application has been lodged for the renewal of EL6224.

Uley 2 Location and Resource Extension Priorities

Priority 1 Short Term Ore Reserve extension

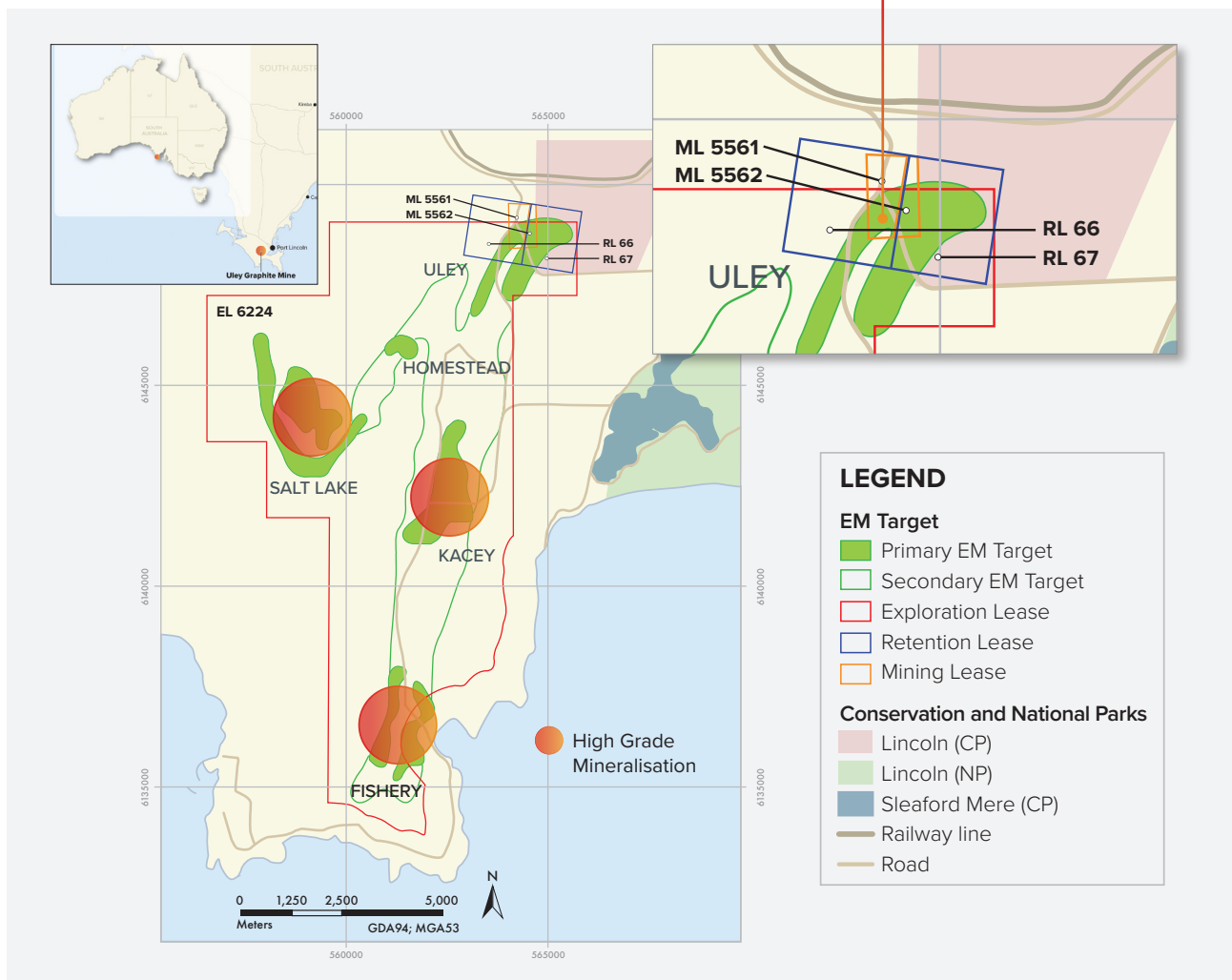
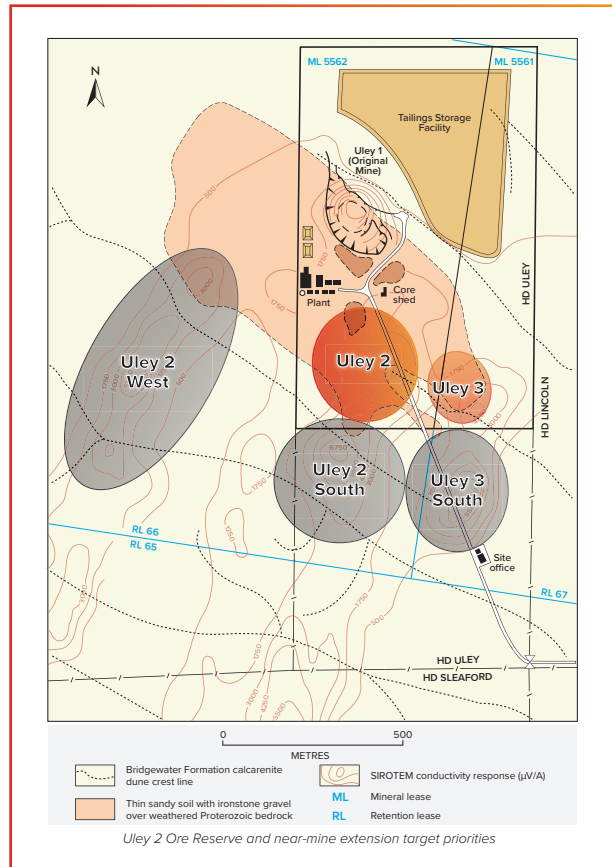
- Uley 2 South 50m
- Infill drilling at Uley 3

Priority 2 Medium Term Resource extension

- Uley 3 South
- Extension drilling to 50m-by-50m intervals

Priority 3 Long Term Resource extension

- Uley 2 West geophysical anomaly target
- Uley 2 South beyond Priority 1 along strike of the geophysical anomaly.



Corporate Information and Announcements

As at 30 June 2023 the company had 337,370,000 ordinary shares and 3,000,000 unlisted options on issue and 1,911 shareholders. The top 20 shareholders held 56.52% of the issued ordinary shares in the Company.

As at 30 June 2023 the company held cash at bank of \$974,450.07. As at 31 July 2023 the Company held cash at bank of \$765,557.05.

Related party payments in the amount of \$306,900 were made in the period. These payments were made to Chimaera Capital Limited in respect of the provision of administrative, technical and asset management services and SC Capital Pty Ltd for technical services.

This report should be read in conjunction with all prior announcements made by the Company and available at <http://quantumgraphite.com/investors>.

The pro forma Appendix 5B (Mining exploration entity and oil and gas exploration entity quarterly report) is attached to this report.

Competent Persons Statement

The Company confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters relating to Mineral Resources is based on, and fairly represent, the Mineral Resources and information and supporting documentation extracted from the reports prepared by a competent person in compliance with the JORC Code (2012 edition) and released to the ASX (including under the company's previous code, VXL on 17 December 2014, 5 May 2015 and 15 May 2015 respectively).

Forward Looking Statements

All statements other than statements of historical fact included in this announcement including, without limitation, statements regarding future plans and objectives of are forward-looking statements. When used in this announcement, forward-looking statements can be identified by words such as 'may', 'could', 'believes', 'estimates', 'targets', 'expects' or 'intends' and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this announcement, are expected to take place. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, its directors and management, that could cause QGL's actual results to differ materially from the results expressed or anticipated in these statements.

QGL cannot and does not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements. QGL does not undertake to update or revise forward- looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this announcement, except where required by applicable law.

FOR FURTHER INFORMATION CONTACT:

Company Secretary
Quantum Graphite Limited
E: info@qgraphite.com

ABOUT LDES

A scalable energy storage system that can store energy predominantly from renewable sources for more than 12 hours and deliver dispatchable, inertia restoring energy to grid networks as required especially when renewables generation is not available. LDES is the critical solution underpinning the decarbonisation of grid networks.



ABOUT PROTHERM

Protherm Systems, founded in July 1987, is a leading thermal process engineering company, based in South Africa. The Company designs and supplies a wide range of thermal and related thermal processing plant and equipment for industrial users world wide, such as Plate Heat Exchangers, Shell and Tube Heat Exchangers, Air Dryers and Evaporators.



ABOUT INEMET

The Institute for Non-Ferrous Metallurgy and High Purity Materials focuses on sustainable and innovative processes that rethink existing production processes and the handling of supposed waste products in the spirit of the circular economy and zero waste thinking. INEMET's dedicated team work toward a greener future and the revolutionizing of non-ferrous metallurgy. It develops existing processes within pyrometallurgy, hydrometallurgy and the semiconductor industry in working groups and in a variety of projects. <https://tu-freiberg.de/en/fakult5/inemet>

Appendix 5B

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

Name of entity

Quantum Graphite Limited

ABN

41 008 101 979

Quarter ended ("current quarter")

30 June 2023

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (12 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	(75)	(305)
(e) administration and corporate costs	(727)	(3,648)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	1	5
1.5 Interest and other costs of finance paid	-	(34)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	80	80
1.8 Other (provide details if material)	-	-
1.9 Net cash from / (used in) operating activities	(721)	(3,902)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	-	-
(d) exploration & evaluation	(124)	(647)
(e) investments	-	-
(f) other non-current assets	-	-

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

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	200
	(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	(124)	(447)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	4,318
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	-	4,318

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,819	1,005
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(721)	(3,902)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(124)	(447)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	4,318

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

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	974	974

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	-	-
5.2	Call deposits	974	1,819
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)	974	1,819

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	(307)
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

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

7. Financing facilities	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>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.</i>		
7.1 Loan facilities	1,789	1,789
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
7.4 Total financing facilities	1,789	1,789
7.5 Unused financing facilities available at quarter end		-
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		
The finance facility was provided by Chimaera Capital Limited at an interest rate of 8.25%, the maturity date has been extended to the earlier of 24 January 2024 or the date of any capital raising being undertaken by the Company.		

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(721)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(124)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(845)
8.4 Cash and cash equivalents at quarter end (item 4.6)	974
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	974
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	1.2
<i>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.</i>	
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?	
Answer: Yes.	
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?	
Answer: Yes. The Company is expected to raise further capital by way of the issue of additional equity. The Board expects that the success of the capital raising is highly likely.	

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

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: Yes. The Company expects to continue to operate in the ordinary course, i.e. undertaking all activities included within its business plan and meeting its key corporate and commercial objectives. This is on the basis that the Company plans to raise additional capital.

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: 31 July 2023

ROCHELLE PATTISON
 Authorised by: COMPANY SECRETARY
 (Name of body or officer authorising release – see note 4)

Notes

1. 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.