

# Quarterly Activities Report – Quarter ended 31 December 2022

## Highlights

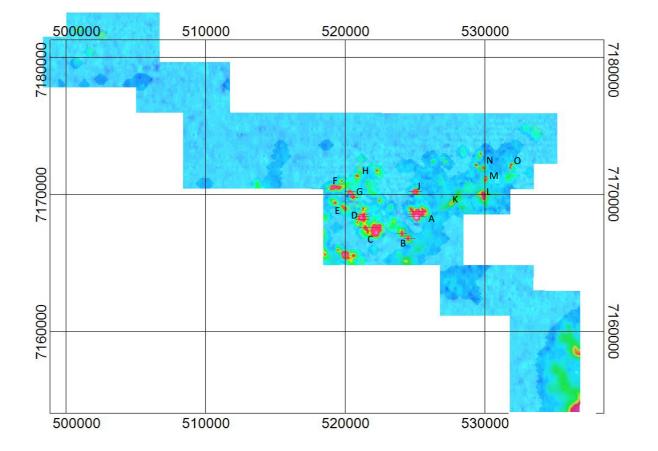
- Confirmation of a significant clay-hosted rare earth (REE) discovery at the Innouendy project.
- Drill program indicates both thick clays and large volumes of mafic and ultramafic rock across 20km of strike length. Geochemical analysis and metallurgical test work begun.
- Identification of new PGE and Nickel mineralisation at Innouendy
- REE identified in handheld XRF samples at Dingo Pass adjacent to 100Mt Tower resource. Drill program planned.
- 150 hole Program of Work approved at Belele.

## **Dingo Pass**

Downhole electromagnetic data (DHEM) was completed on 5 holes drilled earlier in the year. The holes had been designed to intersect conductors modelled from ground and airborne EM data. DHEM confirmed that the very high conductance bodies had not been intersected by first pass drilling. The holes had intersected metamorphosed mafic intrusions with traces of disseminated copper (Cu) and nickel (Ni) bearing sulphides, but not enough sulphide or other conductive rock to explain the anomalies. The Company infers that the targeted host intrusions have been deformed and metamorphosed and in other Ni provinces where this is the case, such as the Thomson Belt in Manitoba, Canada, the sulphides are often reworked into fold hinges and other structurally complex positions.

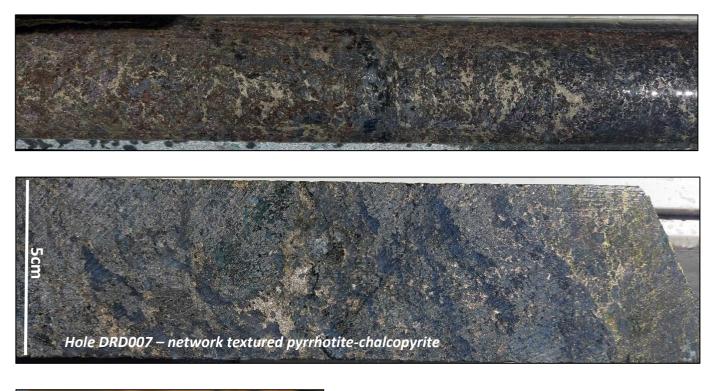
During Q4 2022 an additional four reverse circulation (RC) and diamond holes were drilled targeting the conductors modelled from DHEM. A total of 373m of RC drilling and 175m of diamond drilling were completed. All intersected semi-massive and/or networked sulphides coincident with the targeted modelled conductor (Figure 2). The sulphides were predominantly pyrrhotite with minor chalcopyrite and pyrite hosted in medium to coarse grained amphibolite, inferred to be a metamorphosed mafic intrusive. This unit is a promising potential host for nickel massive sulphides and occurred at the depth of the modelled conductor. The presence of sulphide mineralisation including chalcopyrite within mafic intrusive rock provides encouragement for the Company to prioritise and test the remaining dozen or so highly conductive bodies within the Dingo Pass license (Figure 1).





**Figure 1** Conductors at Dingo Pass. A-D tested – sulphides within mafic intrusives. Conductors E-O untested. Background image -calculated Tau time constant from airborne electromagnetics.





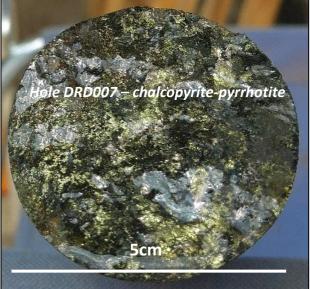
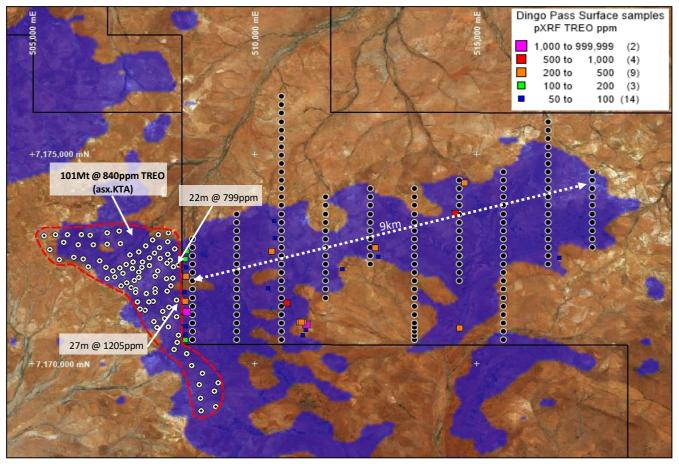


Figure 2. Examples of sulphides intersected at Dingo Pass



## Dingo Pass Project – REE Prospect

In November 2022 Krakatoa Resources reported a JORC compliant resource of 101Mt @ 840ppm TREO at their Tower prospect (ASX:KTA 21 November 2022). The eastern limit of the resource is truncated by the Dingo Pass tenement boundary, with remote sensing and radiometric data suggesting the REE mineralisation is likely to continue into the Dingo Pass Project (Figure 1).



**Figure 3.** Dingo Pass Project, Tower REE Prospect – Planned Drilling (black dots). Background is Radiometrics (Inverse Potassium) over photo imagery. Reconnaissance Sample points shown

Field reconnaissance with a portable XRF tool by DM1 personnel during the quarter has further confirmed the presence of elevated REEs within the Dingo Pass tenement east of the Tower deposit (Figure 3). Considering that Krakatoa's defined resource does not typically outcrop at surface, these surface sample results are particularly encouraging.

Desert Metals plans to drill test a 9km long zone along strike to the east of the Tower deposit with 5000m- 10,000m of Aircore drilling in early 2023 (Figure 3). Mineralisation in the area is typically flat lying, shallow and hosted in the clay horizon which leads to relatively quick and inexpensive drilling campaigns to test the mineralisation.

## Innouendy- Rare Earths

During Q4 2022 the Company received assay results for all outstanding samples from its 313 hole aircore drilling program at its recent Rare Earth element discovery at Innouendy. The results have significantly expanded the mineralised footprint and hence the potential size of the discovery. Results are within the weathered clay layer, are high grade for clay hosted mineralisation, are thick and extend over at least 21km of strike along the Yilgarn craton margin. In the northeast of the project a single drill line traverse perpendicular to the interpreted craton margin shows mineralisation across 2.5km. Similarly, results from the Innouendy central zone where drill lines have been oriented east-west show mineralisation across a width of greater than 2km. While a vast area of mineralisation has now been defined the REE and the clays that host them essentially remain open in all compass directions. It is unknown whether the highest-grade parts of the discovery have been found.

DESERT

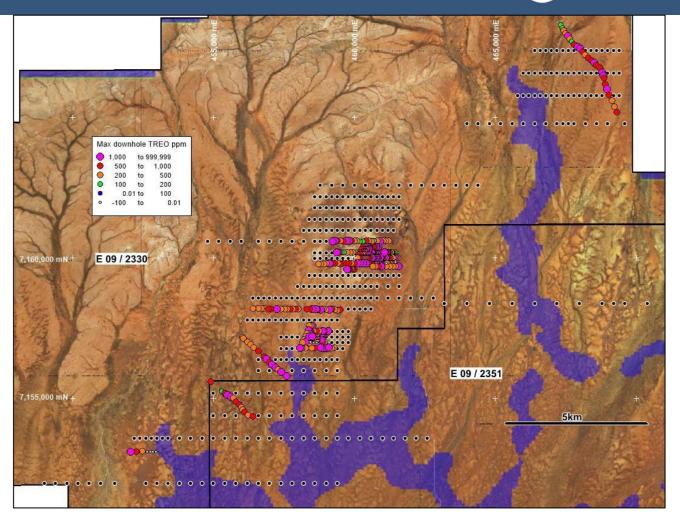
METALS

Limited

The latest batch of results includes assays from the Cattle Yard prospect (3.5km SW of Innouendy), and two new REE zones 1.5km and 3.5km SW of the Cattle Yard prospect. The results continue to confirm excellent grades and thickness of REE mineralisation at Innouendy.

Mineralisation has now been defined over a strike length of 21km, with 78% of holes containing TREO grades of over 300ppm. Significant TREO intercepts occur over the full 21km strike length tested and over widths of up to 2.5km. A substantial program of follow up drilling has been planned to both infill and further test the extent of this exciting discovery, with this work beginning early in 2023 (Figure 4). The results to date indicate that Innouendy is a significant rare earth discovery and has the potential to be a strategic supply of rare earths.





*Figure 4.* Innouendy drill holes coloured by maximum downhole TREO value. Black dots are planned drill holes (to be completed in 2023). Blue shaded areas are Paleochannels interpreted from EM Geophysical survey.

## Recovery from Acid Leaching

An additional 80 samples have been re-analysed using ALS Geochemistry's Aqua Regia weak acid digest procedure (ME-MS41W). This procedure is used to determine the proportion of leachable REEs. Aqua regia leach is an ideal medium for the release of elements adsorbed on clay particles though will not dissolve significant quantities of the silicate and alumino-silicate minerals or major refractory minerals when compared to the near total digestion of the Lithium Borate Fusion method (ME-MS81) or the Four Acid digest (ME-MS61).

These results demonstrate that the REEs at Innouendy are loosely bound and suggest excellent recoveries are possible from a simple leach procedure. Of note are the high-value magnetic REEs neodymium, praseodymium, dysprosium, samarium, and gadolinium which average recoveries of well over 80%. These results allow the Company to proceed with confidence into a significant program of ore characterisation and metallurgical test work to further advance economic parameters for the rare earth project.



## Innouendy Metallurgical Testwork.

The discovery of REEs at Innouendy has followed a systematic pathway:

1) Quantify the grade of mineralisation using a near complete digest methodology (Figure 2) (1<sup>st</sup> Aircore program February 2022).

Outcome - anomalous REEs encountered.

 Determine the potential for cheap processing, i.e. acid leach and/or ionic leach by re-assaying using Aqua Regia weak acid digest (Figure 2) – (1<sup>st</sup> Aircore program February 2022).

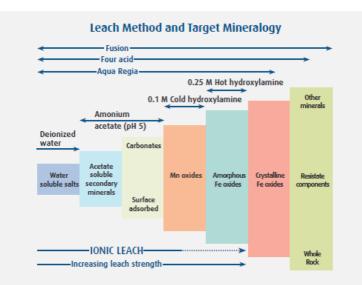
Outcome – REEs are leachable in acid.

3) Determine the extent of mineralisation (2<sup>nd</sup> aircore program and more extensive weak acid assays July- Dec 2022).

Outcome 1 – the mineralisation is extensive (21km strike tested).

Outcome 2 – the mineralisation is regularly acid leachable over a wide extent.

- 4) Determine the viability of potential process routes for the mineralisation (2023 work programs)
- 5) Define limits of mineralisation and define a JORC compliant resource (2023 work programs) **Resource definition post 20,000m of additional drilling (with interim resource based on 2022 drilling likely)**
- 6) Scoping study (second half of 2023)



**Figure 5.** Applicability of various Assay Methodologies. Clay hosted REEs that can be leached ionically or with acid are mined cost effectively in China. REEs in resistate minerals (ie "hard Rock" REE deposits) require more complex and expensive processing (and thus require much higher grades).



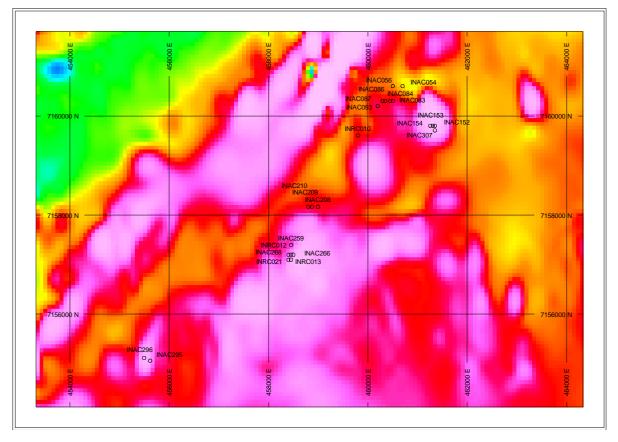
## Innouendy PGE-Ni

During the quarter assays identified a significant new zone of PGE mineralisation in drilling. Aircore (AC) hole INAC208 intersected 32m @ 0.46g/t Pt+Pd+Au (PGE3) from 32m depth, including a high-grade zone of 4m @ 1.186g/t PGE3. The interval also included the highest gold sample so far encountered at Innouendy (4m @ 0.13g/t Au). The Company believes this to be the first PGE intercept of potentially economic grade in the Narryer Terrane. The PGE zone continues on section at low but anomalous levels for approximately 200m and is open along strike for at least 2km. Desert Metals is planning to test this zone at depth and along strike with additional RC and AC drilling in early 2023.

The drill program also followed up on several promising nickel and PGE anomalies identified in previous AC drilling. Drilling beneath a previously reported intercept of 4m @ 0.58% Ni (ASX release 19 April 2022) returned 52m @ 0.29% Ni from surface, including 4m @ 0.41% Ni. Minor sulphides are associated with the higher-grade interval with most of the nickel inferred to be in silicate minerals.

Similarly at the Cattle Yard prospect drilling beneath previously reported significant nickel in laterite encountered broad zones of low grade nickel in fresh ultramafic intrusive rocks, with associated elevated chrome and cobalt values. Although these nickel values are modest, they are similar to the nickel grades of the Julimar resource (0.16% Ni with 49% recovery – Chalice Mining ASX Announcement 8 July 2022), occur in ultramafic host rocks across considerable strike length and hence the Company considers these results to be very encouraging. The 2023 drilling campaign to define and expand the recent rare earth element discovery at Innouendy will also be targeting higher grade nickel and PGE zones across this strike length.



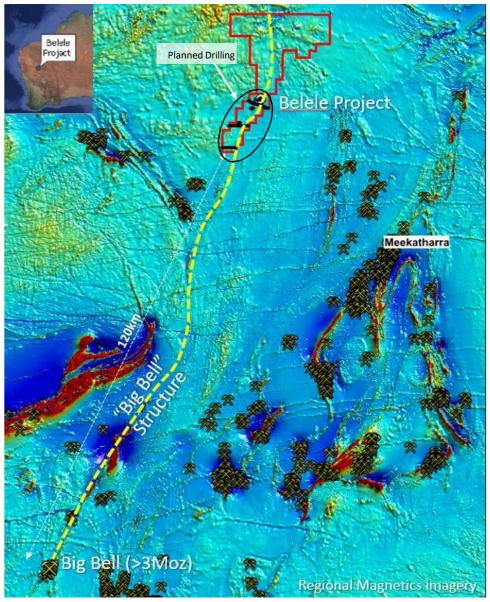


**Figure 6.** Collar locations for significant nickel and PGE intercepts at Innouendy. Background Image RTP magnetics- regional 400m line spaced data.



# Belele Project

A 150 hole reconnaissance Program of Work (POW) drill program has been approved at Belele to test a 15km zone of untested greenstone belt for gold and base metals within the Carbar Shear Zone (Figure 3). DM1 intends to carry out this program once it has completed a heritage survey early in 2023.



*Figure 7.* Belele Project relative to the Carbar Shear Zone ("Big Bell" Linear). Black dots are proposed drillholes



### **Tenement Status**

The Company confirms that all of the Company's tenements remain in good standing and that the Company has not acquired additional tenements or disposed of any tenements during the quarter. The Company further confirms that as at the end of the quarter the beneficial interest held by the Company in the various tenements has not changed. Details of the tenements are set out in Annexure 1.

### **Payment to Related Parties**

The Company advises that payments to related parties of \$204,237 included Directors' fees, legal fees, CEO and executive management fees and consulting fees for geophysical and geological interpretation.

## \$2.5M Placement

In November 2022 the Company raised \$2,500,000 via a placement from sophisticated and professional investors. Canaccord Genuity (Australia) Limited ("Canaccord") acted as sole lead manager to the placement. The funds raised will be directed towards the Company's exploration activities. These will include:

Innouendy:

- Definition and expansion of Desert Metals 100% owned rare earth element discovery, initially through an additional 10-20,000m aircore drilling campaign.
- A significant program of leachability assays, ore characterisation and metallurgical test work to further advance economic parameters for the rare earth project.
- Follow up drilling on recent significant PGE and nickel intercepts.

**Dingo Pass:** 

- Follow up drilling program on recent rare earth element discovery by Krakatoa Resources (ASX:KTA) immediately adjoining and appearing to trend onto Desert Metals' Dingo Pass license
- Further testing of high conductance sulphide anomalies for nickel-copper- PGE mineralisation.

Belele:

• Desert Metals drilling recently revealed that the Mingah Range Greenstone Belt does extend completely under shallow alluvial cover across the entire license. Drilling permit approved for up to 150 holes to test 15km strike of Carbar Shear Zone for both volcanogenic massive sulphide (VMS) and gold mineralisation.



#### **Summary of Exploration Expenditure**

In accordance with ASX listing Rule 5.3.1 the Company advises the cash outflows on its mining exploration activities reported in 1.2(a) of its Appendix 5B for the December 2022 quarter are as follows: Exploration: \$1,008,643.

#### Finance and Use of Funds

Pursuant to ASX listing rule 5.3.4, the Company provides a comparison of its actual expenditure against the estimated expenditure on items set out in section 5.5 of the Company's Prospectus:

Activity Description	Funds Allocated	Actual to Date
Exploration (2 years)	\$4,774,202	\$6,474,807
Administration (2 years)	\$1,000,000	\$934,793
Expenses of the offer	\$494,148	\$557,435

Authorised by the Board of Desert Metals Limited.

For further details please contact:

Rob Stuart	Tony Worth
Managing Director	Technical Director
Phone: +61 (8) 6458 4200	Phone: +61 (8) 6458 4200

#### **Competent Person Statement**

The information in this announcement that relates to Exploration Results is based on, and fairly represents, information and supporting documentation prepared by Dr Rob Stuart, a competent person who is a member of the Australasian Institute of Mining and Metallurgy. Dr Stuart has a minimum of five years' experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a competent person as defined in the 2012 Edition of the Joint Ore Reserves. Dr Stuart is a related party of the Company, being a Director, and holds securities in the Company. Dr Stuart has consented to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

### **Corporate Information**

#### **Company Secretary**

**Paul Heatley** 

#### Forward shareholder enquiries to

Automic Group

Tel: 1300 288 664

Web: investor.automic.com.au

#### **Issued Capital**

As at the date of this report the total fully paid ordinary shares on issue were 72,441,078.

#### **Annexure 1 - Tenement Information**

In accordance with listing rule 5.3.3, the table below shows the interest in tenements held by the Company.

DESERT METALS

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TENID	ТҮРЕ	TENSTATUS	Ownership	HOLDER
E 0902303	EXPLORATION LICENCE	LIVE	100%	DESERT METALS LIMITED
E 0902330	EXPLORATION LICENCE	LIVE	100%	DESERT METALS LIMITED
E 0902331	EXPLORATION LICENCE	LIVE	100%	DESERT METALS LIMITED
E 0902351	EXPLORATION LICENCE	LIVE	100%	DESERT METALS LIMITED
E 5101901	EXPLORATION LICENCE	LIVE	100%	DESERT METALS LIMITED
E 5101907	EXPLORATION LICENCE	LIVE	100%	DESERT METALS LIMITED
E 5203650	EXPLORATION LICENCE	LIVE	100%	DESERT METALS LIMITED
E 5203665	EXPLORATION LICENCE	LIVE	100%	DESERT METALS LIMITED
E 5203741	EXPLORATION LICENCE	LIVE	100%	DESERT METALS LIMITED
E 5102083	EXPLORATION LICENCE	PENDING	100%	DESERT METALS LIMITED

# Appendix 5B

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

Name of entity	
Desert Metals Limited	
ABN Quarter ended ("current quarter")	
84 617 947 172	31 December 2022

Cons	solidated 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	(1,009)	(2,078)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(43)	(108)
	(e) administration and corporate costs	(199)	(360)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	-	-
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes received	107	208
1.7	Government grants and tax incentives	132	132
1.8	Other (provide details if material)	3	3
1.9	Net cash from / (used in) operating activities	(1,009)	(2,203)

2.	Ca	sh flows from investing activities		
2.1	Pay	yments to acquire or for:		
	(a)	entities	-	-
	(b)	tenements	-	-
	(c)	property, plant and equipment	(4)	(9)
	(d)	exploration & evaluation	-	-
	(e)	investments	-	-
	(f)	other non-current assets	-	-

Cons	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	(4)	(9)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	2,500	2,500
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	(165)	(165)
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	2,335	2,335

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,815	3,014
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,009)	(2,203)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(4)	(9)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	2,335	2,335

Cons	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	-	-
4.6	Cash and cash equivalents at end of period	3,137	3,137

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	3,137	3,014
5.2	Call deposits	-	-
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)	3,137	3,014

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	204
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	f any amounts are shown in items 6.1 or 6.2, your quarterly activity report must incluc ation for, such payments.	le a description of, and an

7.	<b>Financing facilities</b> 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 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.					

8.	Estim	ated cash available for future operating activities	\$A'000	
8.1	Net cash from / (used in) operating activities (item 1.9)		(1,009)	
8.2		ents for exploration & evaluation classified as investing es) (item 2.1(d))	-	
8.3	Total r	elevant outgoings (item 8.1 + item 8.2)	(1,009)	
8.4	Cash a	and cash equivalents at quarter end (item 4.6)	3,137	
8.5	Unuse	d finance facilities available at quarter end (item 7.5)	-	
8.6	Total available funding (item 8.4 + item 8.5)		3,137	
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)		3.10	
	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?			
	Answe	er: Not applicable		
	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?			
	Answe	er: Not applicable		

Answer:	Not applicable		

## **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 January 2023

Authorised by: By the Board (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.