## **QUARTERLY REPORT**

## For period ending 31 December 2023



## 31 January 2024

# Discovery of new gold zones and selection for BHP Xplor program to Accelerate Exploration in 2024

## **Highlights:**

- Bedrock gold mineralisation identified beneath Sultan West Ultrafine® anomaly
- Second phase of aircore drilling confirms coherent gold anomalism at Fremlins South
- 2,500 metre RC drill program to test Sultan Main and Sultan West prospects to commence in March / April 2024
- Use of surface sampling and Ultrafine® analysis to expand into new areas in 2024
- Hamelin selected for BHP Xplor program and funding of up to US\$500,000 to help accelerate assessment of the nickel-copper-PGE potential of the West Tanami region
- Cash reserves of ~\$5.2 million at 31 December 2023

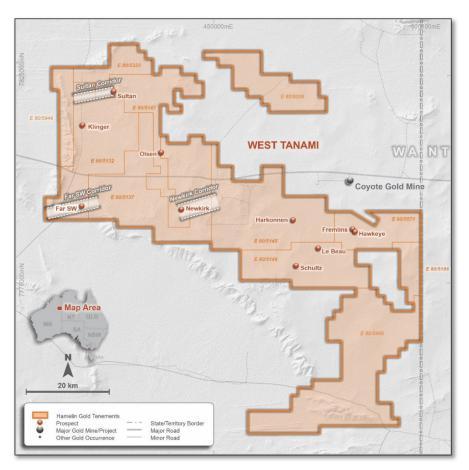


Figure 1: West Tanami Project - Priority Exploration Targets





## **Sultan Prospect**

Gold mineralisation along the Sultan Fault was first identified in EIS co-funded diamond drill hole, TSD0007. This hole intersected high grade gold mineralisation along a previously unexplored contact between a granitoid intrusion and a package of sediments and mafic rocks (refer to ASX announcement 12 December 2022).

Gold mineralisation within TSD0007 is hosted within a series of brecciated and deformed quartz veins with best results including:

 7.6 metres at 3.2 g/t Au from 326.2 metres including 1.1 metres at 15.9 g/t Au from 329.7 metres

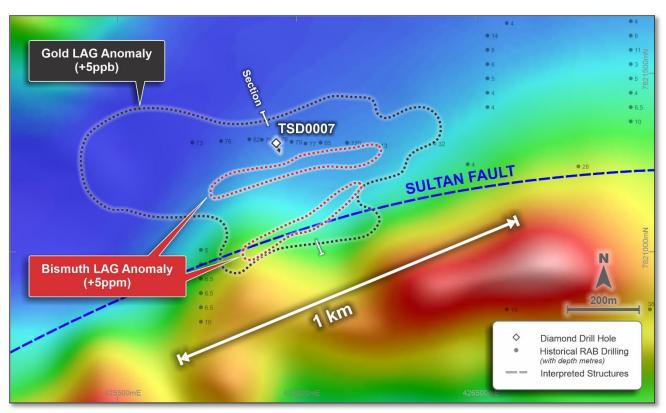


Figure 2: Sultan Prospect – Gold and bismuth soil anomaly along Sultan Fault on TMI magnetics

The structural corridor that hosted the Sultan mineralisation is interpreted to extend over 10 kilometres in strike and is almost entirely masked by a thin veneer of sand cover.

Hamelin completed a series of trials and orientation surveys that indicated soil sampling and analysis via the CSIRO developed Ultrafine<sup>®</sup> technology provides the most consistent and effective tool to detect gold anomalism within the sand-covered terrains in which we are operating. Such sand-covered areas within the West Tanami have been generally avoided by previous explorers as they were considered too difficult to explore and so represent a significant new exploration search space for the Company.

The first application of soil sampling with Ultrafine<sup>®</sup> analysis was conducted along a 6-kilometre section of the Sultan Corridor to the west of the initial Sultan drill section in TSD0007 (see Figure 3). This program successfully identified two coherent gold anomalies located along the Sultan Fault (refer to ASX announcement 26 September 2023). The Western Anomaly is 1,000 metres long and located at an interpreted flexure in the Sultan Fault. The peak of this anomaly measured over 30 times background gold with associated elevated bismuth. The Central Anomaly is 800 metres long and coherent over three sample lines. Both anomalies occur in areas of complete sand cover with no previous drilling.



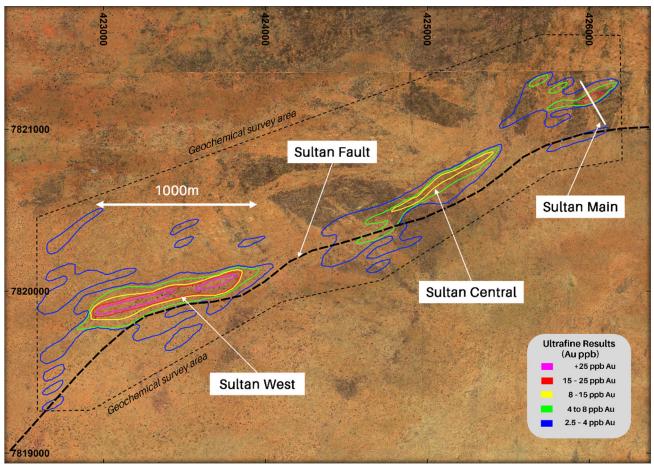


Figure 3: Sultan Ultrafine® surface geochemical anomalies

A program of 160 metre spaced, north-south aircore drill traverses was completed across the Sultan West and Sultan Central anomalies in October 2023 to test for regolith hosted gold mineralisation. Drilling highlighted a variable regolith profile that is occasionally either very thin or completely stripped. This is considered an environment that is likely to have a leached (depleted) or very limited lateral gold dispersion from any gold primary source and therefore the coherency and tenor of the gold mineralisation identified in this program is considered highly significant (refer to ASX announcement 2 January 2024).

Significant shallow gold mineralisation was intersected over 700 metres of strike at Sultan West including:

- TSA0146: 4m @ 0.58g/t Au from 20 metres to end of hole
- TSA0168: 8m @ 0.94g/t Au from 16 metres including 2 metres @ 2.6g/t Au from 18 metres
- TSA0172: 4m @ 0.99g/t Au from 12 metres including 2 metres @ 1.85g/t Au from 14 metres

A summary of mineralisation drilled in this aircore program is shown on Figure 4 with two key sections illustrating the nature of the regolith hosted gold mineralisation shown on Figure 5 and 6.



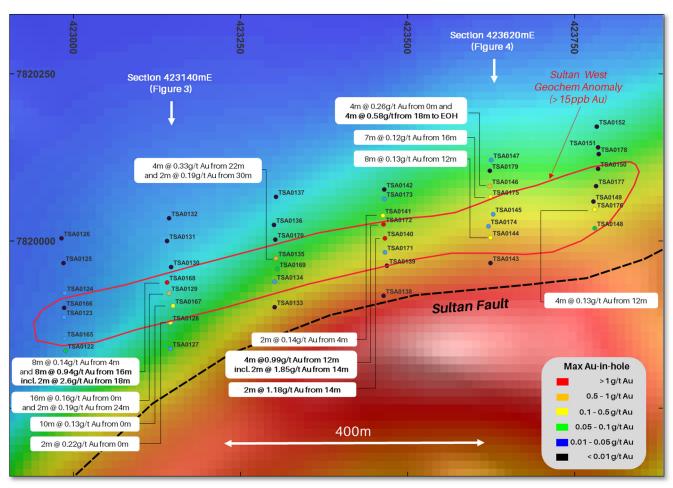


Figure 4: Sultan West - Maximum gold-in-hole over RTP residual (1K) magnetics

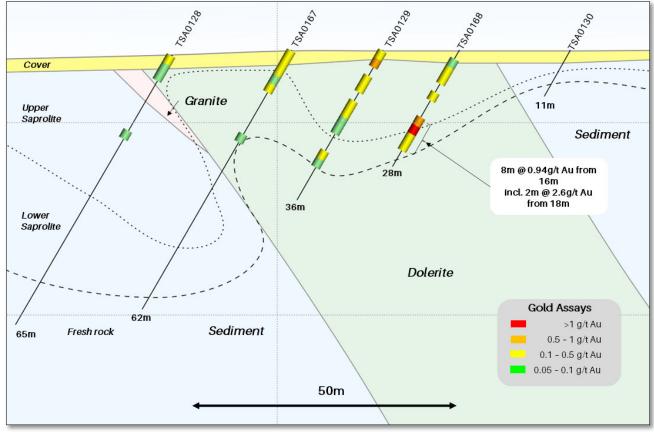


Figure 5: Sultan West - Cross Section 423140mE



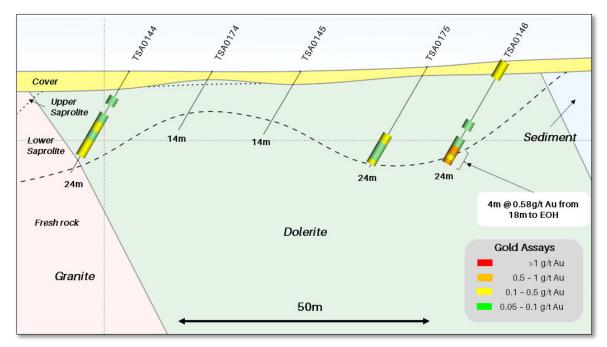


Figure 6: Sultan West - Cross Section 423620mE

A 1,300 metre RC drill program is planned to be completed across the Sultan West prospect at the start of the 2024 field season (March/April 2024) to test for primary gold mineralisation at depth and along strike of the mineralisation defined in the aircore drill program. This program will be completed along with the 1,200 metre, EIS co-funded drill program at Sultan Main that is designed to test the area immediately along strike of the gold mineralisation intersected in TSD0007.

#### **Fremlins**

The Fremlins gold system ("Fremlins") extends over 9 kilometres of strike and is located 8 kilometres to the south of the Coyote Gold Mine. Fremlins consists of two parallel antiform-hosted gold trends defined by surface geochemistry, shallow RAB, vacuum and RC drilling. Both mineralised trends are covered by a 20-metre-thick leached regolith profile. The southern 3 kilometres of the eastern gold trend is defined by a gold-in-LAG sampling anomaly. Historical shallow RAB drilling (average 7 metre hole depth) over the anomaly is considered an ineffective test due to not penetrating the leached zone.

First pass aircore testing of the Fremlins South anomaly was undertaken with 320 metre spaced traverses with 80 metre hole spacing (ASX Announcement 16 October 2023). This aircore program defined a +200-metre wide, +100ppb gold anomaly below the leached zone which confirmed the ineffective nature of the previous RAB test and the effectiveness of the historical LAG sampling (Figure 7a).

A second program of aircore drilling was completed in October 2023 infilling the initial 80 metre spaced holes to 40 metres within the gold anomaly to identify potential high-grade corridors (Figure 7b). The drilling has successfully infilled the anomaly confirming coherent regolith gold mineralisation (refer to ASX announcement 22 January 2024). The southern most aircore traverse (Figure 8) contains the highest gold grades and best continuity, suggesting the system is improving to the south. Better intersections include:

TLA0087: 22 metres at 0.34 g/t Au from 22 metres

including 2 metres at 1.2 g/t Au from 28 metres

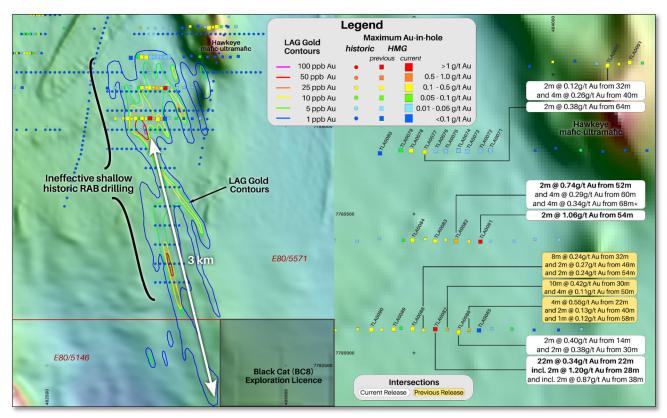
TLA0081: 2 metres at 1.06 g/t Au from 54 metres

TLA0082: 4 metres at 0.29 g/t Au from 60 metres

and 4 metres at 0.34 g/t Au from 68 metres to end of hole



As gold in the regolith at Fremlins South leaches strongly, there is the potential that related mineralised structures might increase in grade in fresh rock. The remainder of the 3 kilometre long surface gold anomaly at Fremlins South is planned to be drill tested with a program of aircore drilling early in the 2024 field season following completion of a heritage survey and regulatory approvals. An RC drill program targeting primary gold mineralised structures is planned to be completed in the second quarter of 2024.



**Figure 7a**: Maximum gold in hole with geochemical contours over RTP residual (1K) magnetics. **Figure 7b**: Fremlins South aircore maximum gold in hole.

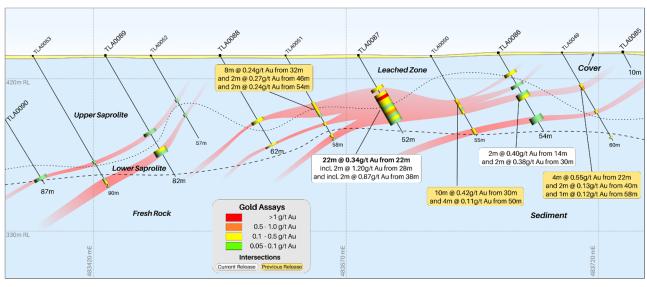


Figure 8: Fremlins South - Cross Section 7785080mN



## **Olsen Prospect**

The Olsen prospect ("Olsen") is located along an interpreted north-west splay propagating from a flexure in the regional Hero Fault (ASX Announcement 7 September 2023). This splay structure is associated with a coincident 2.5 kilometre long north-west striking gold anomaly in LAG and a distinct zone of magnetic enhancement. A second parallel splay 1.3 kilometres to the south of the main Olsen anomaly hosts a coincident 2.1 kilometre gold in LAG anomaly. The LAG anomalies occur in an area of sand and sheetwash cover making these coherent low level gold anomalies of particular interest.

Two 320-metre spaced north-south aircore traverses were drilled at Olsen (Figure 1), testing the eastern part of the two large geochemical anomalies in areas of magnetic enhancement. The drilling identified two coherent regolith gold anomalies coincident with the existing LAG anomalies within deeply weathered sediments and dolerite (Figure 9). The confirmation of a bedrock source for both anomalies confirms these splay structures are mineralised gold-bearing structures (refer to ASX announcement 22 January 2024). Better results from the Olsen aircore program include:

• TSA0065: **2 metres at 3.04 g/t Au** from 14 metres

and 4 metres at 0.30 g/t Au from 36 metres and 2 metres at 0.48 g/t Au from 62 metres

TSA0066: 2 metres at 0.64 g/t Au from 66 metres

and 2 metres at 0.13 g/t Au from 72 metres

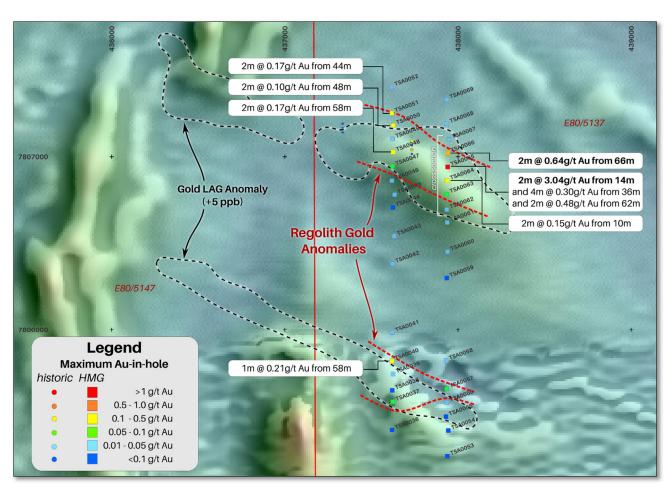


Figure 9: Olsen maximum gold in hole over RTP residual (1K) magnetics

Future work at Olsen will aim to define the extent of these two mineralised trends using Ultrafine<sup>®</sup> surface sampling which will be used to target a follow-up aircore drill program. A subsequent RC drill program will likely follow, testing for a primary source of the gold mineralisation.

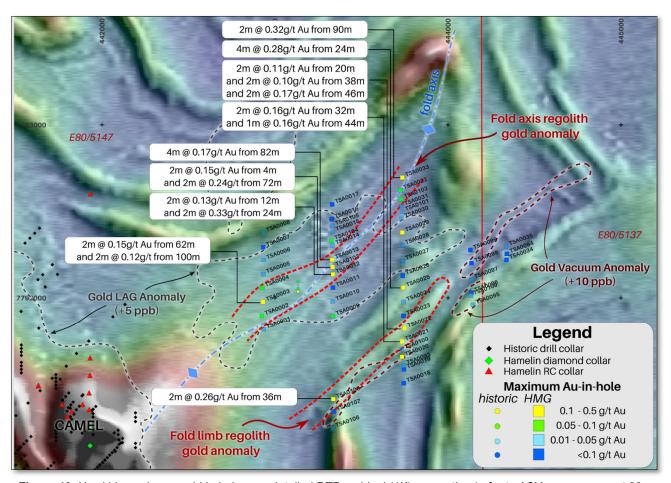


## **Newkirk Prospect**

The Newkirk prospect ("Newkirk") is located at the eastern end of the 6-kilometre-long ENE Newkirk Gold Corridor. Newkirk is defined by a +1.5 kilometre long coincident gold and bismuth LAG anomaly hosted within the core of an interpreted ENE trending regional fold axis. The southern fold limb is defined by faulted dolerite sills and hosts a subparallel zone ENE of surface gold anomalism defined by LAG and vacuum drilling.

An aircore drilling program of 400 metre spaced north-south traverses testing for regolith-hosted gold anomalism beneath the geochemical anomalies was completed at Newkirk in September 2023. This drilling identified deeply weathered and highly veined rocks in the fold core with an average aircore hole depth of 94 metres. The drilling confirmed the core of the fold axis hosts a corridor of +100 ppb gold and bismuth mineralisation (Figure 10). Drilling across the southern fold limb identified a much shallower weathering profile with low-level gold mineralisation identified on two sections, however the shallow nature of much of the drilling makes this test less comprehensive.

The confirmation of regolith-hosted mineralisation along the fold axis and southern limb suggests the Newkirk Gold Corridor is a large and poorly tested gold system. Future work will be undertaken using Ultrafine<sup>®</sup> surface sampling to assess strike extensions and other favourable structural settings in the Newkirk-Camel area prior to further drill testing.



**Figure 10**: Newkirk maximum gold in hole over detailed RTP residual (1K) magnetics (refer to ASX announcement 22 January 2024)



## **BHP Xplor Program**

Hamelin has been selected to participate in the 2024 BHP Xplor program. BHP Xplor is an accelerator program that runs over a six-month period designed to provide participants with the opportunity to advance their growth plans and establish potential long-term partnerships with BHP and its global network of partners (refer to ASX announcement 23 January 2024).

The Company will receive up to US\$500,000 in non-dilutive funding from BHP and access a network of internal and external experts to provide guidance in development of technical, business and operational aspects the Company.

Funding will be directed to assessing the regional nickel-copper-PGE potential of the West Tanami where Hamelin intersected a nickel-copper-PGE mineralisation within the Hawkeye mafic-ultramafic intrusion. This is the first time this style of mineralisation has been recorded in the Tanami region. The Xplor funded program will look to answer key questions on the nature, age and composition of the mineralised intrusions so as to ascertain the potential scale of the exciting opportunity.



Figure 11: Disseminated and stringer magmatic sulphides. 140-142m in TLR0022 (image width ~20mm) – ASX announcement 27 July 2023.



## Corporate

Hamelin Gold held cash reserves of ~\$5.2 million at 31 December 2023.

#### Securities

During the December 2023 quarter the Company issued 1,980,000 options to directors following shareholder approval at the Company's 2023 annual general meeting.

A total of 2,000,000 options were cancelled during the quarter on expiry of the exercise term on 31 October 2023.

There have been no other changes to the securities of the Company during the quarter.

#### Related party transactions

Payments to related parties of the entity and their associates (refer section 6 of Appendix 5B below):

				\$(000)
	section	6.1-	Remuneration of directors	58
Comprises:			Remuneration of director related parties	-
			Total	58

Included at section 6.2	Remuneration of directors	50
Comprises:	Remuneration of director related parties	29
	Total	79

## Quarterly exploration reporting – ASX Listing Rule 5.3.1

In accordance with ASX Listing Rule 5.3.1, the Company confirms that there have been no material developments or changes to its exploration activities, and provides the following information:

- Approximately \$1,080k was incurred by the Company in respect of exploration activity for the quarter ended 31 December 2023 (YTD \$2,308k), primarily on drilling and geochemical exploration programs at the West Tanami Gold Project.
- A summary of the specific exploration activities undertaken in each project area (which included drilling and geochemical and geophysical programs), is provided in the relevant sections of this activity report

In accordance with ASX Listing Rule 5.3.2, the Company advises that no Mining Development or Production activities were conducted during the quarter.



#### **Schedule of Tenements**

Please find attached a schedule of mining tenement interests pursuant to ASX Listing Rule 5.3.3 in respect of the Quarterly Activities Report for the period ended 31 December 2023:

Lease	Location	Area km²	Interest at start of quarter (01/10/2023)	Interest at end of quarter (31/12/2023)
E80/5132	Tanami Province, WA	381.2	100%	100%
E80/5137	Tanami Province, WA	532.8	100%	100%
E80/5145	Tanami Province, WA	471.3	100%	100%
E80/5146	Tanami Province, WA	277.4	100%	100%
E80/5147	Tanami Province, WA	274.7	100%	100%
E80/5186	Tanami Province, WA	71.0	100%	100%
E80/5323	Tanami Province, WA	100.3	100%	100%
E80/5571	Tanami Province, WA	167.9	100%	100%
E80/5995	Tanami Province, WA	645.5	application	0%
E80/5949	Tanami Province, WA	65.4	application	0%
E80/6006	Tanami Province, WA	209.7	application	0%
E30/561	Yilgarn Province, WA	54.6	application	0%
E36/1085	Yilgarn Province, WA	93.5	application	0%

The information in this report that relates to Exploration Results is based on information compiled by Mr. Peter Bewick who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Bewick holds shares and options in and is a full time employee of Hamelin Gold Ltd and has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bewick consents to the inclusion in the report of the matters based on the information compiled by him, in the form and context in which it appears.

<sup>1</sup>Information on historical results outlined in this Announcement together with JORC Table 1 information, is contained in the Independent Technical Assessment Report within Hamelin's Prospectus dated 17 September 2021, which was released in an announcement on 3 November 2021.

The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant ASX releases and the form and context of the announcement has not materially changed. This announcement has been authorised for release by the Board of Hamelin Gold Limited.

This announcement has been authorised by the Board of Directors.

For further information, please contact:

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#### **About Hamelin Gold**

Hamelin Gold Limited (**ASX:HMG**) is an ASX-listed mineral exploration company based in Perth, Western Australia. Hamelin has a landholding of 3,197km² in the Tanami Gold Province in Western Australian (Figure 12). The province is prospective for high value, large scale gold deposits and hosts Newmont's Tier 1 Callie Operations in the Northern Territory. Hamelin's West Tanami project is a belt-scale Greenfields opportunity hosting the same geology and key structures as Callie with minimal modern exploration completed across the Hamelin landholdings.

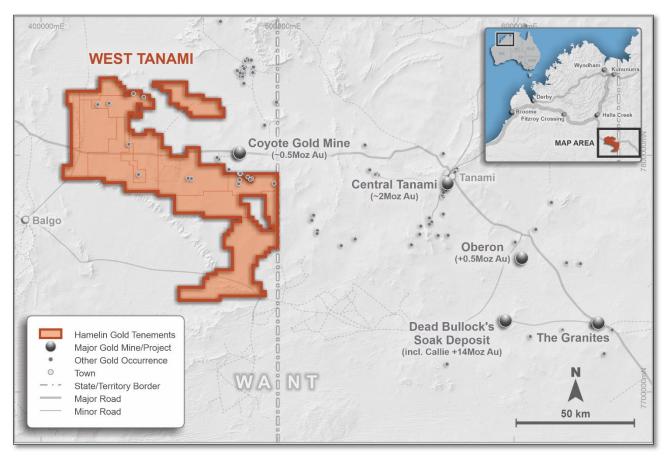


Figure 12: Hamelin's West Tanami Project tenure within the Tanami Gold Province

Hamelin is undertaking systematic whole of project target generation activities in the West Tanami targeting world class mineral systems.

The Company has a strong Board and Management team and is well funded.

Hamelin's shareholders include highly regarded gold miners Gold Fields Limited (JSE/NYSE:GFI) and Silver Lake Resources Limited (ASX:SLR).

## **Appendix 5B**

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

## Name of entity

Hamelin Gold Limited

ABN

Quarter ended ("current quarter")

15 650 439 580

31 December 2023

Con	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	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(119)	(216)
	(e) administration and corporate costs	(118)	(240)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	63	151
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	(174)	(305)

2.	Ca	sh flows from investing activities		
2.1	Pa	yments to acquire or for:		
	(a)	entities	-	-
	(b)	tenements	-	-
	(c)	property, plant and equipment	(15)	(15)
	(d)	exploration & evaluation	(1,080)	(2,308)
	(e)	investments	-	-
	(f)	other non-current assets – bonds and security deposits	-	-

<sup>+</sup> See chapter 19 of the ASX Listing Rules for defined terms.

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 – farm-in and joint venture contributions	_	-
	Other – exploration incentive grants	135	135
	Other – R&D Tax receipts	-	-
2.6	Net cash from / (used in) investing activities	(960)	(2,188)

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	-	(11)
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	-	-
3.10	Net cash from / (used in) financing activities	-	(11)

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	6,327	7,697
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(174)	(305)

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Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(960)	(2,188)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	(11)
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	5,193	5,193

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	193	1,077
5.2	Call deposits	5,000	5,250
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)	5,193	6,327

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	58
6.2	Aggregate amount of payments to related parties and their associates included in item 2	79
	f any amounts are shown in items 6.1 or 6.2, your quarterly activity report must includ ation for, such payments.	le a description of, and an

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 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.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	174
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	1,080
8.3	Total relevant outgoings (item 8.1 + item 8.2)	1,254
8.4	Cash and cash equivalents at quarter end (item 4.6)	5,193
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	5,193
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	4.1

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.

Anewer: N/a		

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

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:	N/a
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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?

Answer: 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**

- 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 2024

Authorised by: The Board of Hamelin Gold Limited

(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.