ASX ANNOUNCEMENT

16 March 2023

New Camp Scale Gold targets identified in the West Tanami

- **New interpretation of geochemical and geophysical data identifies multiple camp scale gold targets in the 100% owned West Tanami project ("West Tanami")**
- **Recognition of strong bismuth-gold association outlines multi-kilometre scale untested anomalies**
- **New insights into the structural history of the region leads to the definition of corridor scale conceptual targets**
- **Field programs to commence in April 2023 and includes:**
  - **RC drilling up dip and along strike of the high-grade gold discovered at Sultan (April 2023)**
  - **RC drilling of the Eastern Corridor targets at Fremlins (May 2023)**
  - **Surface geochemical programs at Fremlins, Sultan and Far SW Corridors (May 2023)**
  - **Aircore drilling at the Newkirk and Olsen prospects (May-June 2023)**

Hamelin Gold Limited ("**Hamelin**" or the "**Company**") (**ASX:HMG**) is pleased to introduce a series of new camp scale gold targets identified in the West Tanami project, Western Australia.

Commenting on the new camp scale targets, Managing Director Peter Bewick said:

> *"Hamelin's maiden exploration program in the West Tanami in 2022 delivered a high-grade gold discovery at Sultan and has resulted in a number of key learnings that significantly increased our understanding of the structural setting, the basement geology and the nature of the regolith.*
>
> *These learnings have been incorporated into our targeting activities resulting in the identification of several new camp scale gold targets. These targets exhibit the geophysical and geochemical footprints commonly associated with large scale gold systems, and in areas we consider previous exploration programs have been ineffective.*
>
> *The identification of a new suite of high quality camp scale gold targets highlights the under-explored nature of this region and the vast opportunity that remains for the discovery of multi-million ounce gold deposits in the West Tanami."*

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Geochemical Learnings – The Bismuth-Gold Association

Hamelin commenced an R&D program in 2022 to evaluate the effectiveness and applicability of novel surface geochemical techniques to our gold exploration. A second study program investigated the mobility and behaviour of potential pathfinder elements in the deeply weathered and leached regolith profile in the West Tanami.

Historically arsenic has been the preferred gold pathfinder element of past explorers. The Company has recently conducted a review of available geochemical data demonstrating that arsenic correlates very poorly with gold mineralisation in the Tanami and does not offer a reliable or accurate indicator. Analysis of all multi-element geochemical data instead identified that primary gold mineralisation in the West Tanami has a remarkably high correlation with bismuth (see Figure 1).

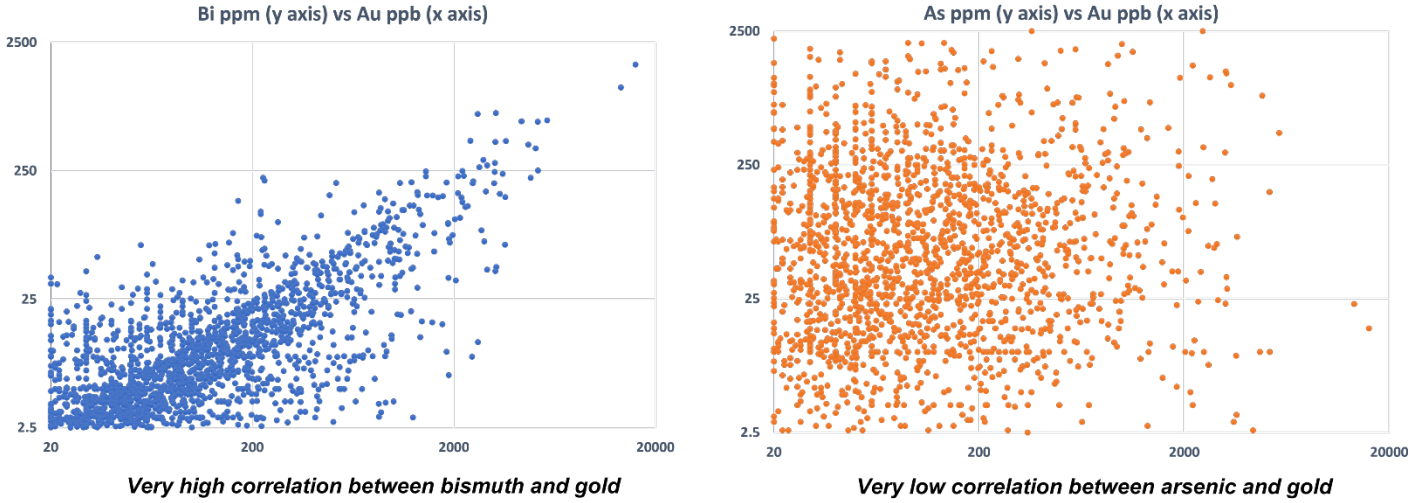

Figure 1. *Correlation of arsenic and bismuth to gold. Includes all drilling>2ppm Bi and >20ppb Au*

In total, approximately 30% of all surface geochemical and drill hole samples in the Company database have been analysed for bismuth. Bismuth is highly immobile in the weathering environment, meaning it does not get extensively leached away or reprecipitated during weathering processes, and is considered a proven pathfinder element to gold mineralisation. It is interpreted that in deeply weathered landforms such as the West Tanami that mobile gold may be stripped from the profile leaving a weak gold signature, while the immobile bismuth component of the mineralisation remains in situ leaving a relatively strong anomaly.

Limited analysis of bismuth distribution has been completed historically. Given the new realisation of the critical association of gold and bismuth in the Tanami, Hamelin has interrogated the historical surface and drill hole sample dataset identifying significant, kilometre-scale footprints of strong bismuth anomalism that have been either ignored or unrecognised by previous explorers due to the subdued near-surface gold signatures. The Company now considers these areas high priority gold targets.

Structural Re-Interpretation

Orogenic gold deposits are typically formed by the interplay of geological, structural and hydrothermal processes that lead to the deposition of gold in alteration zones, in quartz veins or other structures. The conceptual targeting of this style of gold deposit is primarily focused on the identification of areas

of structural complexity and extension (or opening) where gold bearing fluids are likely to be concentrated during an ore forming event.

Structural re-interpretation of the West Tanami has highlighted several corridor-scale opportunities within the Paleo-Proterozoic geology that are considered to have been in the favourable extensional setting during the optimal time for regional gold deposition. These areas typically occur along antiform fold axes, at key structural intersections, or at flexures in key structures. The structural architecture of these areas is similar to that seen at a number of the large-scale gold deposits elsewhere in the Tanami Gold Province.

New Camp Scale Gold Targets

The combination of the new geochemical learnings and the structural re-interpretation has delivered a suite of high quality, camp scale gold targets across the West Tanami. These new target areas include the Newkirk, Sultan and Far Southwest Corridors, and the Olsen target (see Figure 2).

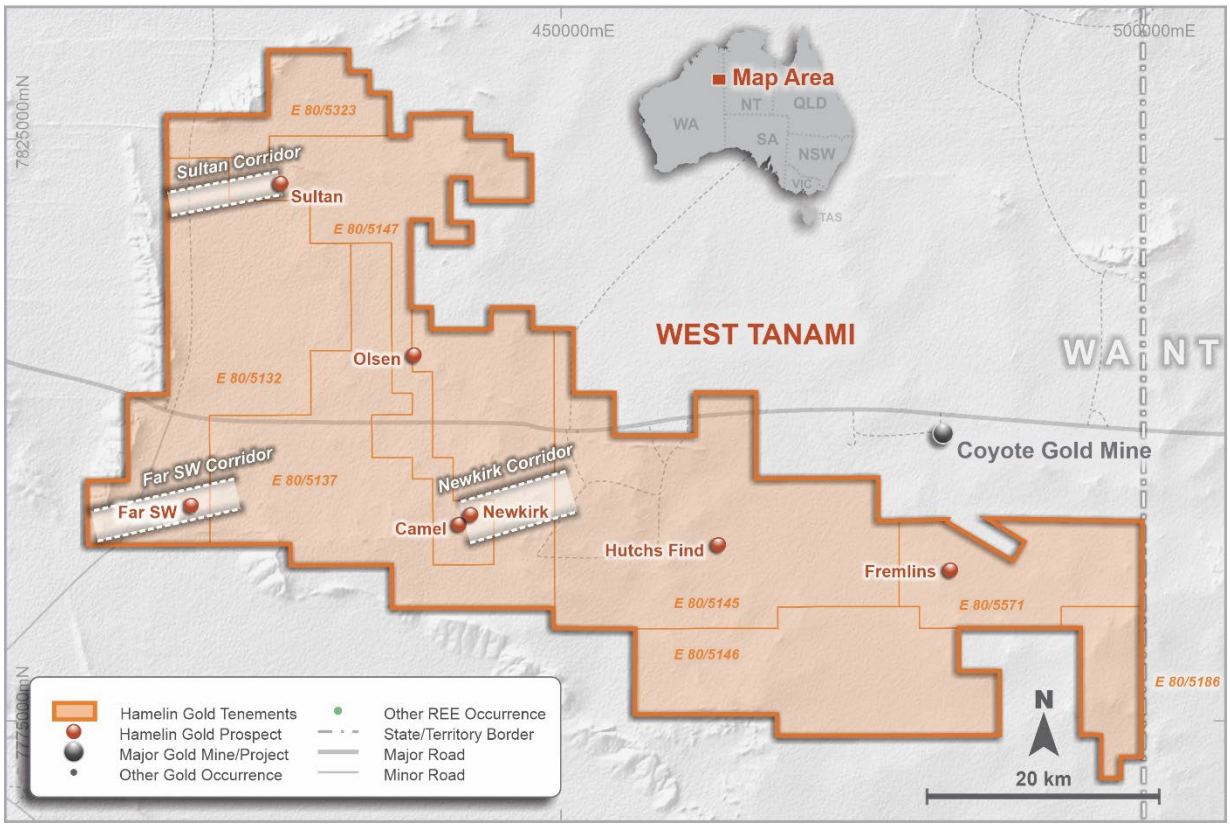

***Figure 2**: West Tanami Project – New Camp Scale Gold Targets*

Newkirk Corridor

The Newkirk Gold Corridor hosts the Camel prospect in the west and extends for 6 kilometres in an ENE orientation. Beyond the immediate Camel area historical drilling is limited to shallow RAB drilling (generally <10 metres) with only 9 holes along the corridor drilled deeper than 20 metres. Given the deep weathering profile, and known metal leaching confirmed in the Tanami, the drilling across this corridor is considered ineffective for gold exploration.

The main untested geochemical anomaly within the corridor is located 1.8 kilometres east of Camel and is named the Newkirk prospect. A +1.5-kilometre-long coincident gold and bismuth LAG anomaly is located at an interpreted flexure of the antiformal fold axis (see Figure 3). This structural setting is considered an ideal conceptual target and the coincident and extensive geochemical anomalism make Newkirk a high priority targetfor drilling in 2023.

The strongest of the bismuth anomalism at Newkirk is located in the NE of the anomaly. No bismuth analyses was completed on the LAG samples taken further to the east and north of this line and as such this anomaly remains open.

Due to the deep weathering and the relative immobility of bismuth it is interpreted that stronger bismuth anomalism in surface sampling may indicate areas of stronger primary gold mineralisation at depth. This hypothesis will be tested at Newkirk with drill testing planned to traverse the central and north-eastern extents of the prospect. This program will be completed May-June 2023.

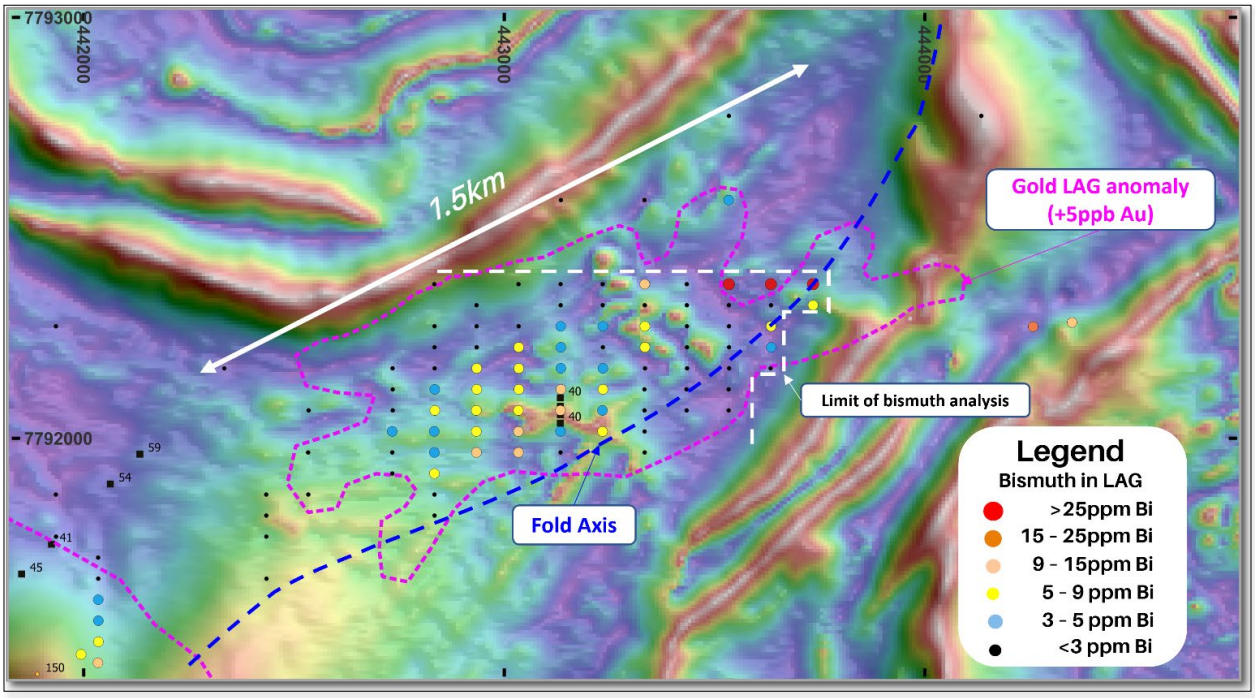

***Figure 3**: Newkirk prospect – Gold and Bismuth LAG Anomaly and previous drilling on magnetics*

Sultan Corridor

The gold potential of the Sultan prospect was highlighted by a single diamond hole drilled in 2022 to evaluate a +1km long coincident gold–bismuth anomaly located on a previously untested granite contact. Drill hole TSD0007 intersected a veined and altered shear zone returning high grade results:

- **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**

This mineralised intersection remains open along strike and up-dip and highlights the potential for a new mineralised corridor at Sultan. Re-interpretation of the structural setting of Sultan has highlighted a significant possible extension to the gold corridor further to the east into an area of no previous exploration activity (refer ASX announcement 12 December 2022).

The 10km long granite contact at Sultan currently contains only one effective drill hole and limited surface geochemical sampling along a 3km section of the prospective contact (see Figure 4). This new gold corridor is considered a high priority target and will be a focus for additional surface geochemistry and drilling in 2023. The initial program will be completed April to May 2023 starting with targeted RC drilling in the area immediately up dip and along strike of TSD0007, whilst a surface geochemical program will cover amenable areas along the corridor to the west and east of existing sampling.

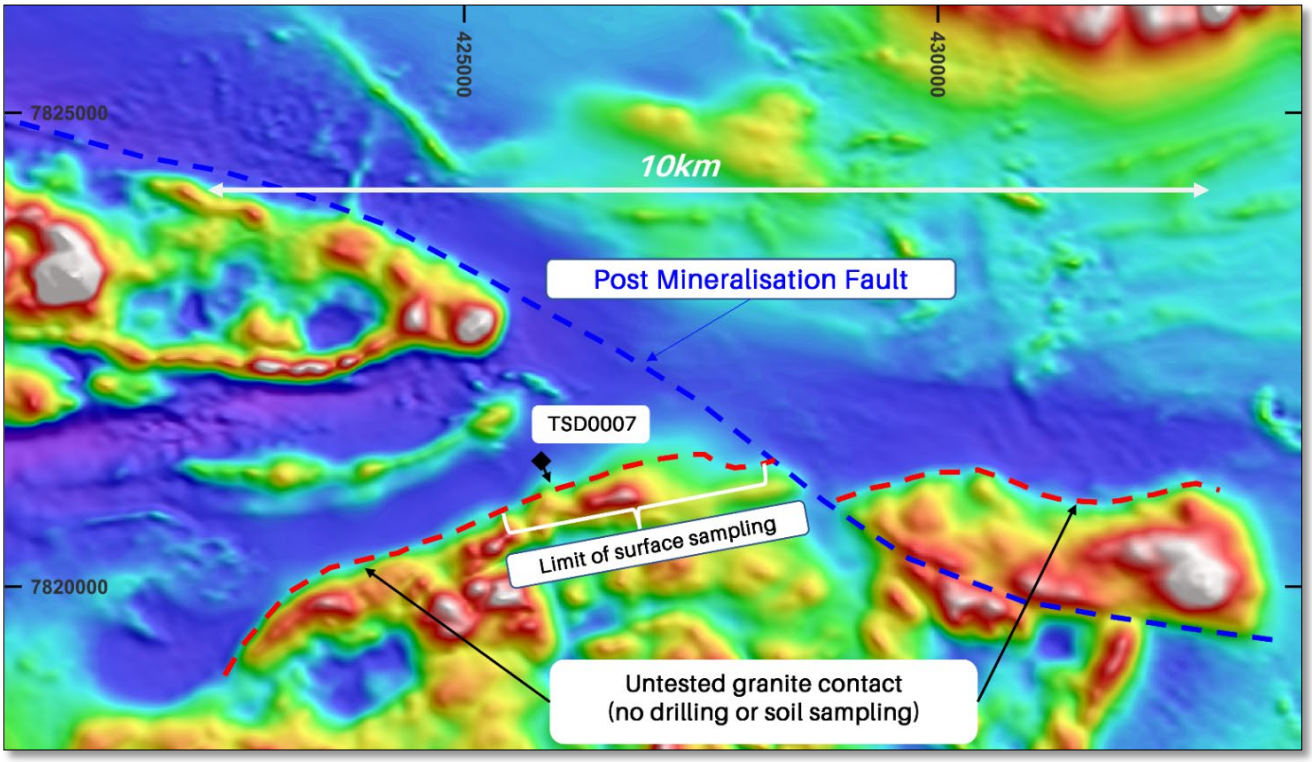

***Figure 4**: Sultan Corridor – Prospective granite contact on magnetics*

Olsen Target

The re-interpretation of detailed aeromagnetic data acquired by the Company in 2021 (refer ASX Announcement 1 March 2022) has been assisted by identification of a series of late post mineralisation faults. The moving back of geological blocks or "unfaulting" of these late faults is depicted in Figure 5a and 5b and has provided new insights into the structural architecture of the area at the time of the gold mineralisation event. A key outcome of this work has been the identification of a major flexure in a north-south orientated structure heading north from the Camel prospect. This structure has been named the Hero Fault and bounds the eastern margin of a significant regional gravity anomaly. The Hero Fault forms part of a major interpreted mineralising corridor and is associated with the known gold occurrences at the Camel and Bandicoot prospects.

The Hero Fault makes a distinct flexure approximately four kilometres north of the Bandicoot prospect. A second order splay structure propagates from the interpreted flexure point and trends to the north-west. This splay structure is associated with a coincident 2.5 kilometre long gold anomaly in LAG and a distinct zone of magnetic enhancement (see Figure 6). No previous bismuth analyses have been completed on the surface samples taken in this area.

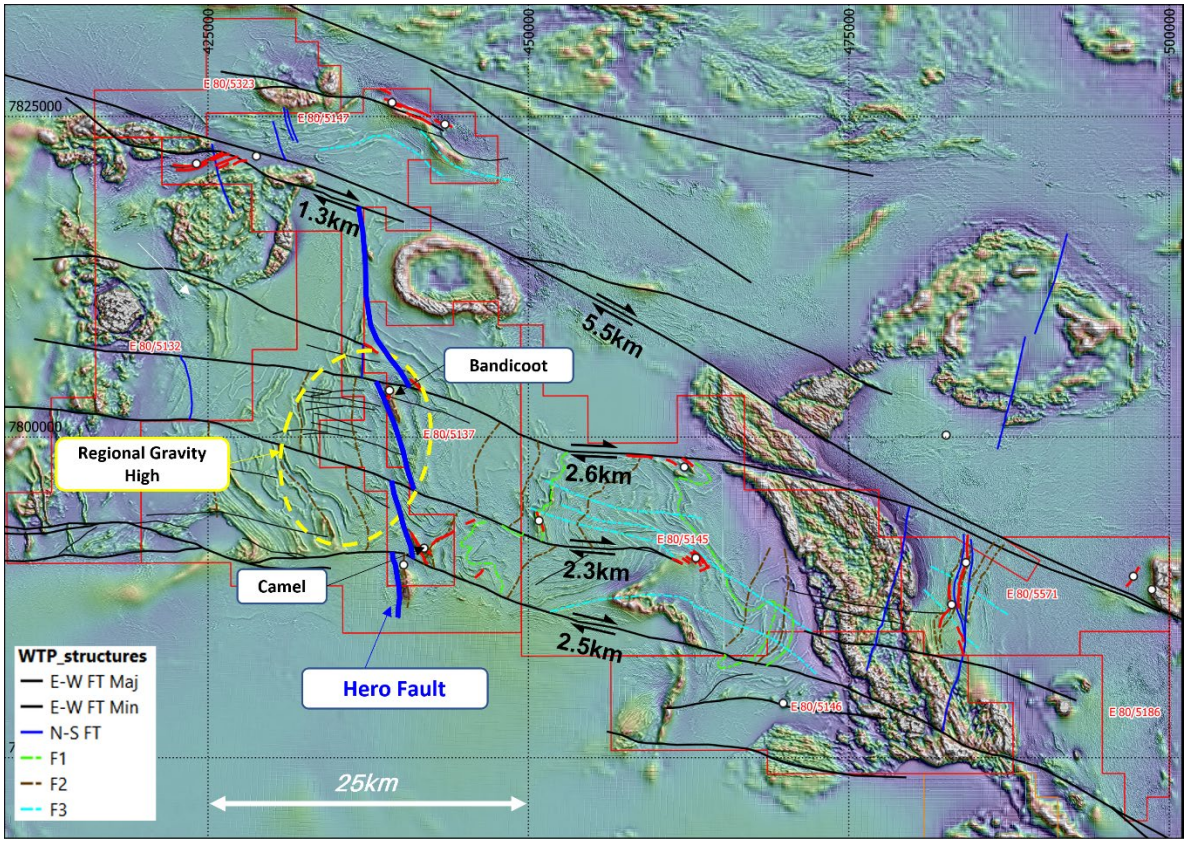

***Figure 5a**: West Tanami Project – High level geophysical interpretation on magnetics*

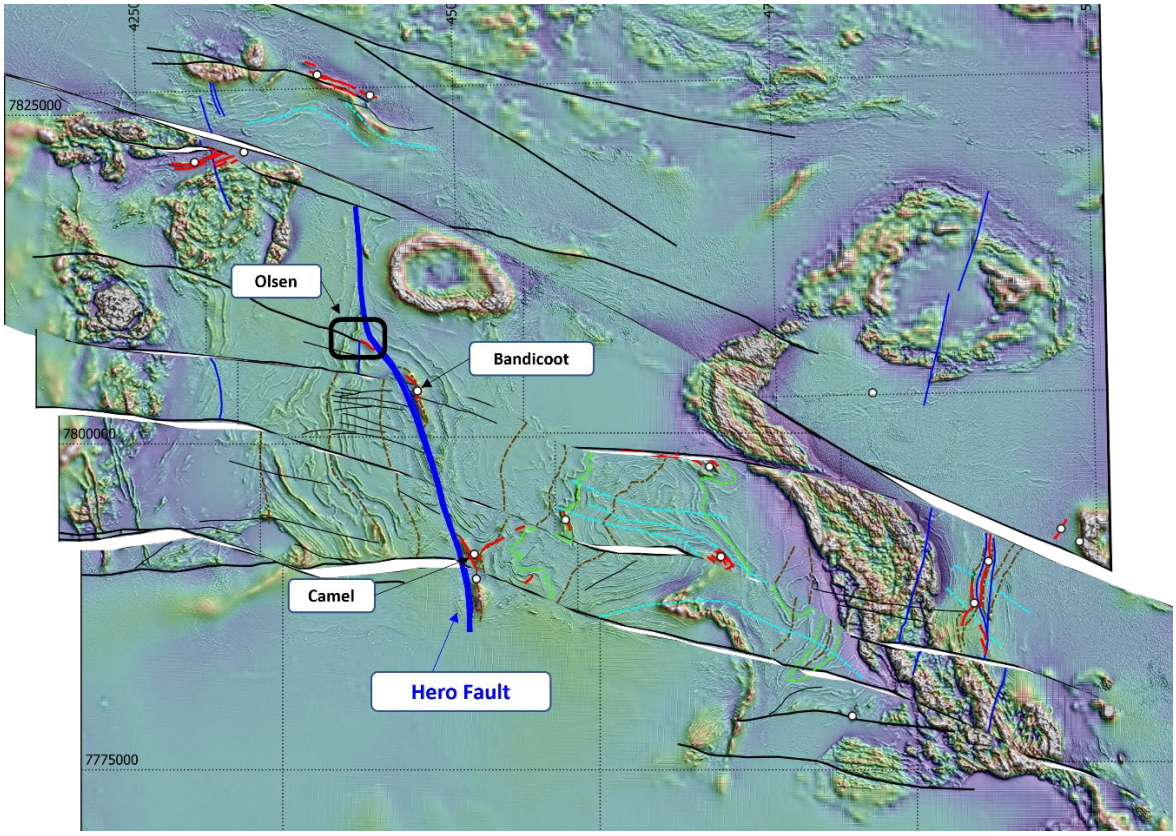

***Figure 5b**: West Tanami Project – 'Unfaulting' of magnetic image centred on the Hero Fault*

The Olsen target is a coincident geochemical and geophysical anomaly that occurs in a region containing significant areas of sand and sheetwash cover making the coherent low level gold anomaly of particular interest. Again, limited follow up work was conducted by previous explorers at Olsen with only ten 50 metre deep RAB holes completed on two separate sections.

The Olsen target will initially be tested with a series of aircore drill sections drilled to the top of fresh rock. Drilling is planned to be completed in May/June 2023.

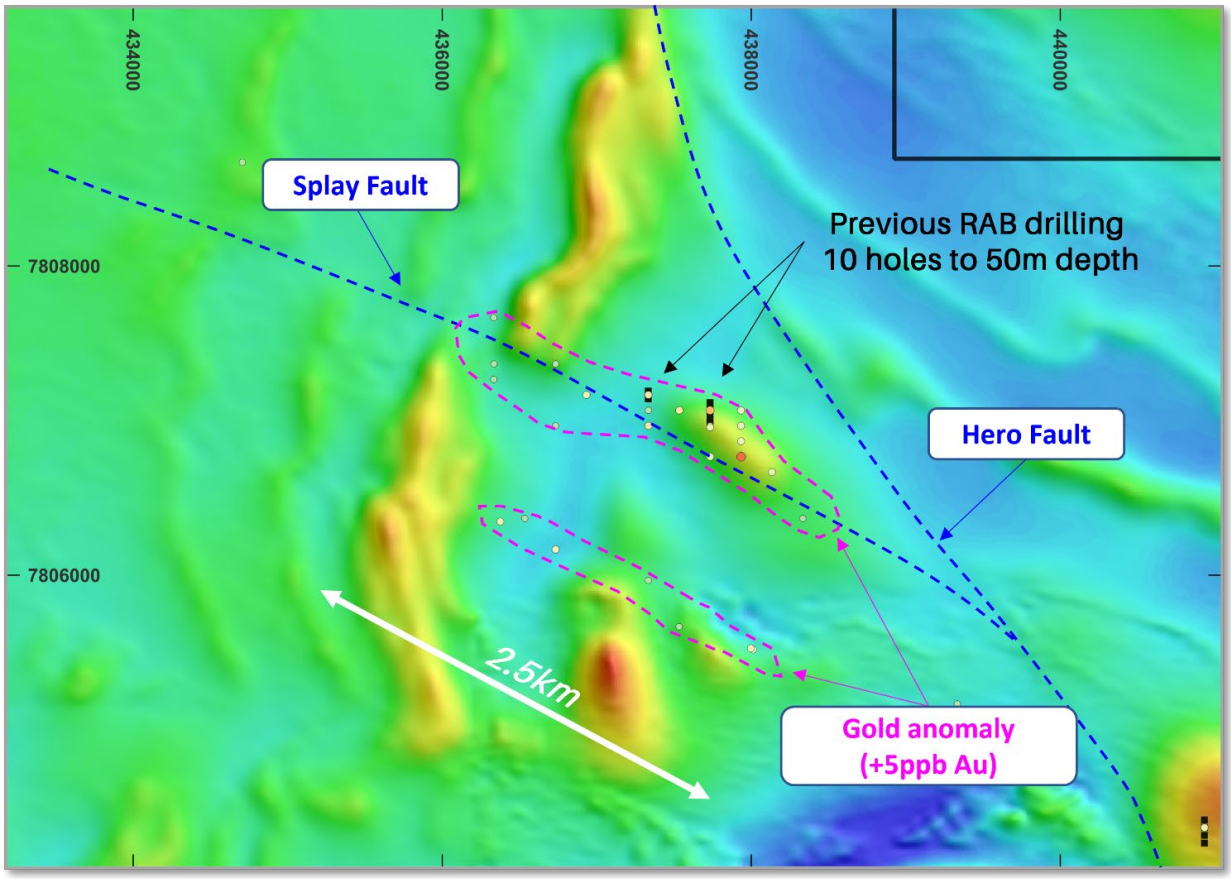

***Figure 6**: Olsen Target – Structural Interpretation, soil anomalies and previous drilling on magnetics*

Far Southwest Corridor

A 10km long, east-northeast trending corridor of faulted and folded Stubbins Formation sediments and mafic intrusive rocks is located in the southwestern corner of the West Tanami area. This corridor has not been subject to previous on-ground exploration with no surface sampling or drilling completed (see Figure 7).

The area was highlighted during the recent project generation exercise. Most of the area is covered by a thin sand overlay with pockets of residual soil exposed. Initially surface sampling trials will be conducted to determine the amenability of the area to surface geochemical techniques. Pending results of the surface sampling Hamelin will consider deployment of aircore and/or RC drilling along the length of the corridor.

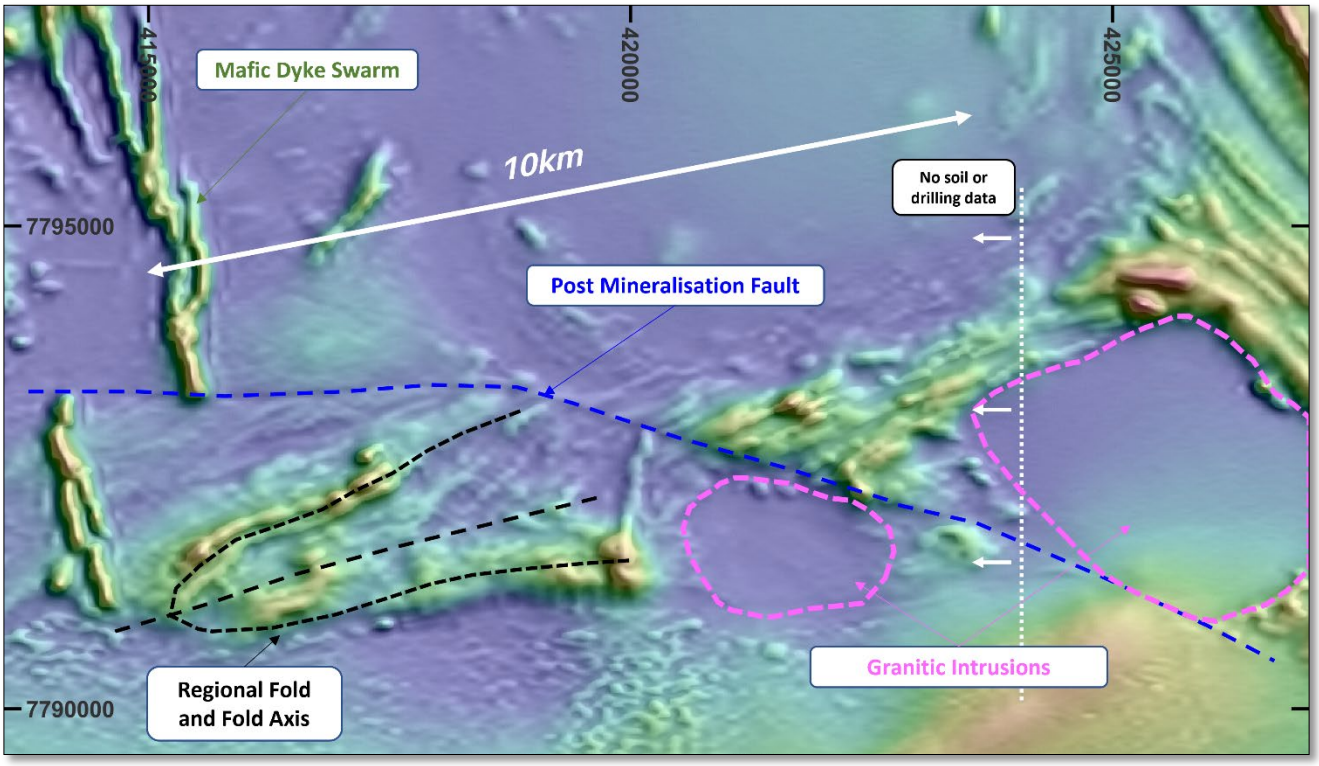

***Figure 7**: Far Southwest Corridor – Structural and Geological Interpretation on magnetics*

Planned 2023 Work Program

The 2023 field program commences in April initially with RC drilling and surface geochemical programs at Sultan and Fremlins prospects. Regional aircore programs are then planned for a number of the new, high priority camp scale targets across the project. The initial programs of the 2023 campaign will include:

- RC drilling up dip and along strike of TSD0007 at Sultan
- RC drilling of the Eastern Corridor at Fremlins
- Surface geochemical programs at Fremlins South and along the Sultan and Far SW Corridors
- Aircore drilling at Newkirk and Olsen prospects

The results of this initial program will direct programs in the second half of the year.

This announcement has been authorised by the Board of Directors.

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About Hamelin Gold

Hamelin Gold Limited (**ASX:HMG**) is an ASX-listed exploration company based in Perth, Western Australia. Hamelin has a landholding of ~2,500km^2 in the Tanami Gold Province in Western Australian (Figure 8). The province is prospective for Tier 1 gold deposits and for rare earth element deposits. The Tanami hosts Newmont's +14Moz Callie Operations in the Northern Territory and the Browns Range REE deposit in WA. 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.

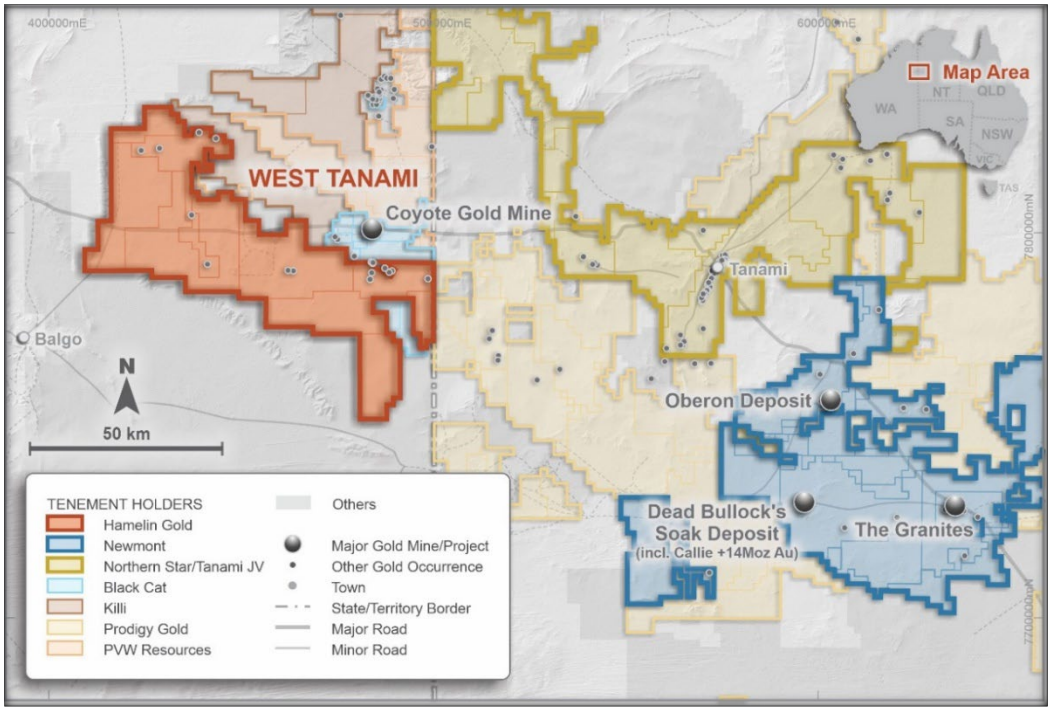

***Figure 8**: Hamelin's West Tanami Project tenure within the Tanami Gold Province*

Hamelin is undertaking systematic whole of project target generation activities in the West Tanami to support major drill programs targeting world class gold mineral systems and REE deposits.

The Company has a strong Board and Management team and with significant shareholders including highly regarded gold miners Gold Fields Limited (JSE/NYSE:GFI) and Silver Lake Resources Limited (ASX:SLR).

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.

[1]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.