

## **Geochemical Surveys define New Gold Targets – drilling has commenced**

- Surface soil sampling and application of the Ultrafine® (“UFF”) analytical technology has defined new gold targets in the West Tanami and at the Anderson project in the wheatbelt region of WA
- A coincident gold and multi-element pathfinder anomaly, the Jazz Prospect, has been defined on the limb of a tightly folded antiform to the west of the Sultan gold targets in the West Tanami
- Aircore drilling of Jazz has commenced with 60 holes planned to test the core of the new anomaly as well as other areas of interest highlighted in the UFF survey
- Roadside soil sampling and UFF analysis completed at the Company’s Anderson project in the wheatbelt has defined an area of gold anomalism that extends over 8km in strike with a maximum point value of 0.17g/t gold

Hamelin Gold Limited (“**Hamelin**” or the “**Company**”) (**ASX:HMG**) is pleased to announce the results of recently completed soil sampling programs completed in the West Tanami and the Anderson project in Western Australia.



**Figure 1:** Soil sampling crew in the West Tanami – August 2024

**Commenting on the results of the geochemical programs, Hamelin Gold Managing Director Peter Bewick said:**

*“The expansion of the use of soil sampling and Ultrafine® analysis across the West Tanami and our sand covered Yilgarn projects in WA is proving to be successful at defining areas of gold anomalism in previously under-explored regions. The recently defined Jazz anomaly in the West Tanami occurs where two key structures intersect and is hosted within a highly prospective dolerite unit. Jazz has strong multi-element support and has the geochemical footprint similar to other major gold deposits in the Tanami region. Aircore drilling at Jazz has just commenced with assay results expected in December 2024.”*

### **Jazz Prospect (Tanami District)**

The Jazz gold prospect (“**Jazz**”) is in the northwest of the West Tanami project to the west of the Sultan gold corridor (see Figure 5). In 2023, soil sampling and analysis using the CSIRO developed Ultrafine® analytical technique identified two discrete gold anomalies along the sand covered Sultan gold corridor named Sultan West and Sultan Central (see Figure 2). Aircore and RC drilling at Sultan West successfully identified regolith and bedrock gold mineralisation directly beneath the UFF gold anomalies. This mineralisation is found within a dolerite sill hosted in Stubbins Formation sediments.

Intersections from the aircore and RC drilling programs at Sultan West include:

- 4 metres at 0.58g/t Au from 20 metres to end of hole
- 8 metres at 0.94g/t Au from 16 metres including 2 metres @ 2.6g/t Au from 18 metres
- 2 metres at 6.12g/t Au from 52 metres
- 6 metres at 1.0g/t Au from 34 metres
- 6 metres at 0.52g/t Au from 66 metres
- 24 metres at 0.17g/t Au from 54 metres

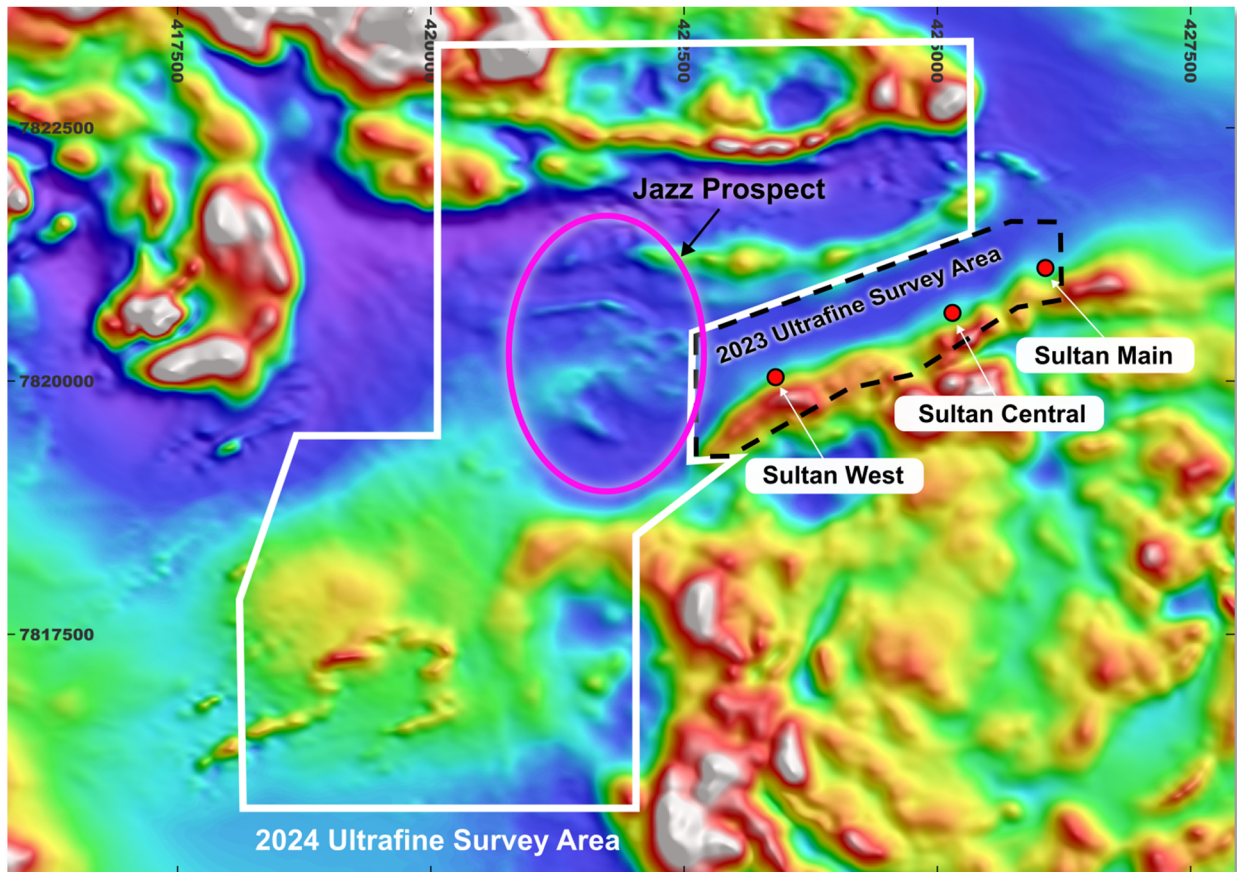
*(see ASX announcements dated 2 January 2024 and 26 August 2024)*

The confirmation of bedrock gold mineralisation below the Sultan West anomaly outlined in the UFF soil survey provides the first validation of the use of this new technology in the Tanami region. These results are highly encouraging and have resulted in the broader application of surface geochemistry and UFF analysis across the West Tanami project.

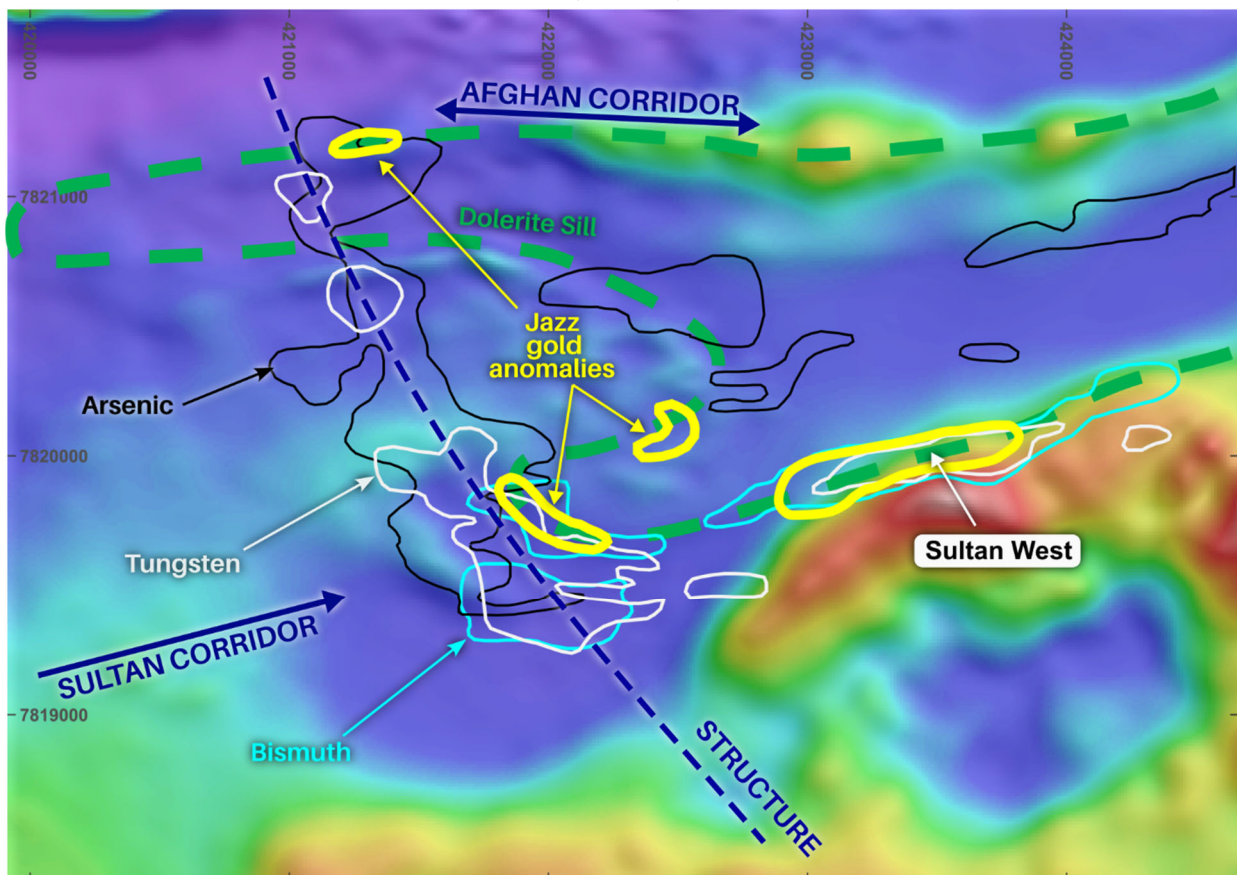
Results from the next phase of soil sampling in the West Tanami have now been received. A program of over 3,000 soil samples was completed providing an initial test of 11 regional scale targets. One of the larger programs tested an area to the west of the Sultan and Afghan gold corridors and has identified three discrete gold anomalies within a structurally complex area containing folded and faulted dolerite units. This area has been named the Jazz prospect and is coincident with a large scale multi-element anomaly enriched in a suite of pathfinder elements that are known to be associated with gold mineral systems in the Tanami region including; tellurium, tungsten, bismuth, arsenic and molybdenum (see Figure 3).

The arsenic and tungsten pathfinder anomalies are interpreted to be mapping the orientation of a major NNW trending structure. The intersection of this structure with the Sultan and Afghan gold corridors, outlines two high priority structural targets. Coincident gold anomalism and geological complexity in this area has delivered two priority gold targets that will be the focus of the current aircore drill program. A program of 60 aircore holes has commenced at Jazz and will be the first systematic bedrock drilling completed across the area. Results from this drilling are expected in December 2024.





**Figure 2:** Sultan / Afghan soil sampling program and prospect location map over residual (1K) magnetics (GDA94 z52)



**Figure 3:** Jazz Prospect gold and pathfinder geochemical anomalies over residual (1K) magnetics (GDA94 z52)

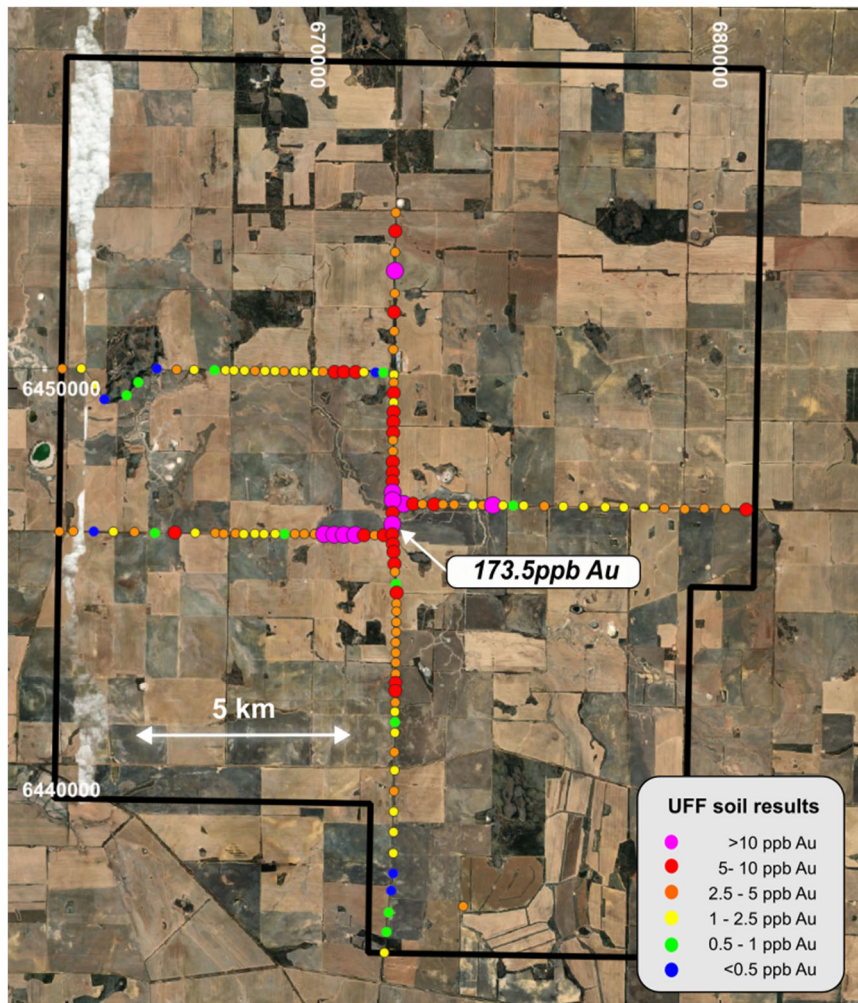
## Anderson Project (Yilgarn District)

Located 40km north of Hyden in the Western Gneiss Terrane of the southwest Yilgarn Province (see Figure 6), this 340km<sup>2</sup> exploration licence covers an area of gold anomalism identified by a historical regional roadside laterite sampling program completed in the late 1990s. Limited shallow drilling completed in 2008 over the core of a regional gold anomaly intersected broad low level gold anomalism as well as several significant end of hole gold intersections within gneissic and granitic rocks.

A surface geochemical trial survey using the UFF method was completed along the roadsides to test the effectiveness of this analysis technique against the historical laterite sampling program. The results from this early-stage program are very encouraging, with clear zones of gold anomalism defined over an area of approximately 8 kilometres by 2 kilometres.

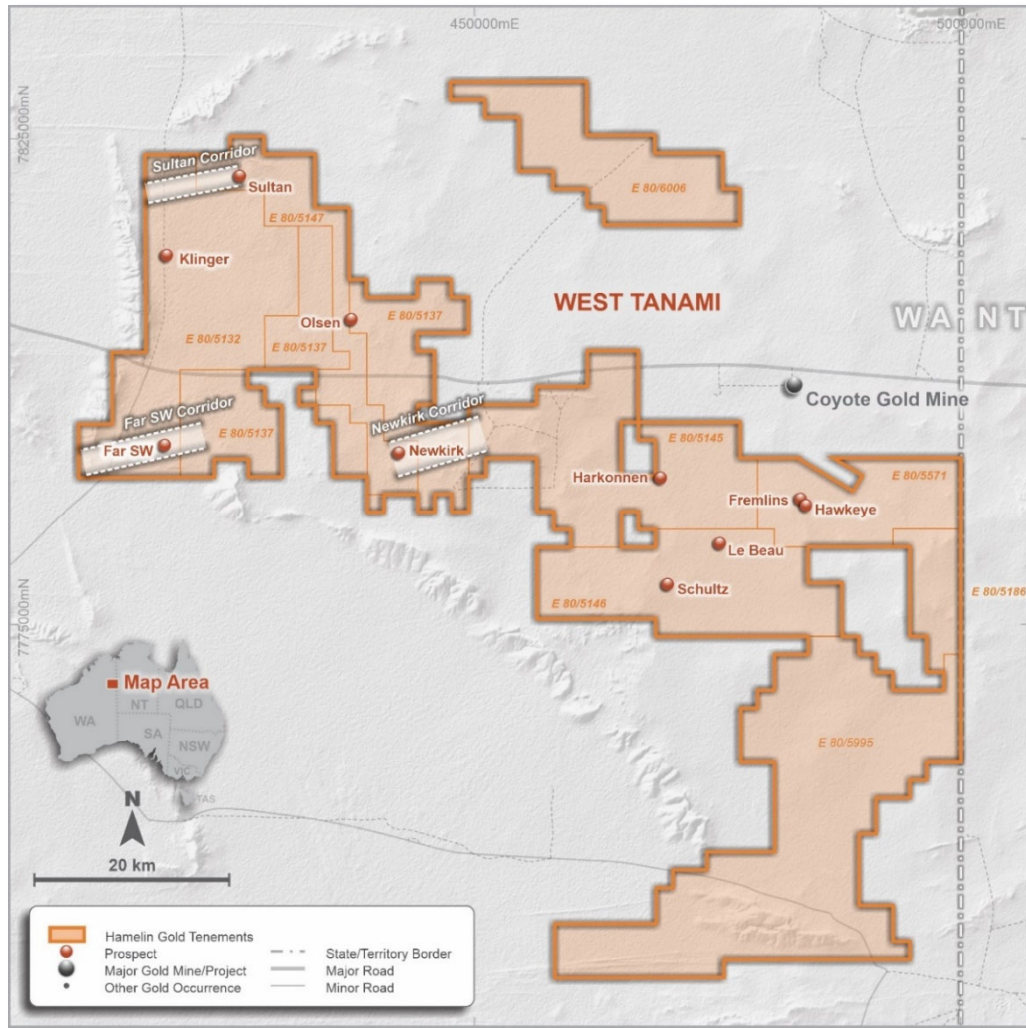
The core of the UFF anomaly is broadly coincident with the anomaly defined in the laterite sampling, however the UFF results appear to provide more discrete areas of stronger gold anomalism as well as identifying new areas of anomalism to the north and south of the main anomaly (see Figure 4). Results above 5ppb gold are considered significant in this program and warrant more detailed follow up sampling. An individual sample from this initial program assayed 0.17g/t gold and is the highest grade UFF sample recorded by the Company to date.

The next phase of work at Anderson will focus on additional soil sampling within the 8km by 2km area defined in the roadside sampling. Pending landowner approval, this phase of soils would be completed along existing fire breaks, fence lines and tracks to provide more detailed sample coverage and define areas for potential drill testing.



**Figure 4:** Anderson Project (E70/6601) UFF soil sampling program over Bing airphoto (GDA94 z50)





**Figure 5: West Tanami Project – Tenement and Prospect location map (GDA94 z52)**

This announcement has been authorised by the Board of Directors.

For further information, please contact:

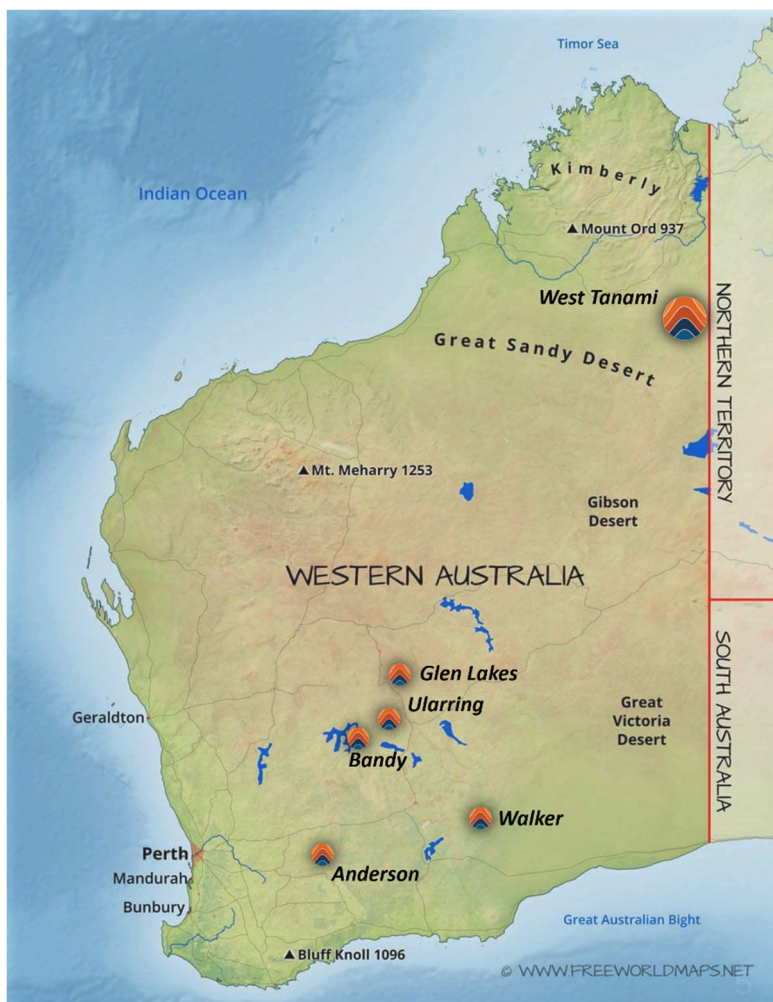
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*The information in this report that relates to Exploration Results is based on information compiled by Mr. Peter Bewick who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Bewick holds shares and options in and is a full time 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.*

*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.*

## About Hamelin Gold

Hamelin Gold Limited (**ASX:HMG**) is an ASX-listed gold exploration company based in Perth, Western Australia. Hamelin has a landholding of ~2,200km<sup>2</sup> in the Tanami Gold Province in Western Australian (Figure 6). The province is prospective for high value, large scale gold deposits and hosts Newmont's Tier 1 Tanami Operations in the Northern Territory. Hamelin's West Tanami project is a belt-scale Greenfields opportunity hosting the same geology and key structures as Newmont's Tanami Operations with minimal modern exploration completed across the Hamelin landholdings.



**Figure 6:** Hamelin's Project location map

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 Vault Minerals Limited (ASX:VAU).

## JORC Code, 2012 Edition – Table 1 report

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	Soil samples were collected from approximately 30cm below surface and bagged in ~250gm samples.
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	No drill results are reported in this announcement.
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	No drill results are reported in this announcement.

<b>Logging</b>	<ul style="list-style-type: none"> <li>• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>• The total length and percentage of the relevant intersections logged.</li> </ul>	The nature and type of surface material being sampled is logged by Hamelin geologists.
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>• Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Soil samples were prepared by LabWest. The ultrafine (sub 2 micron) particles were separated utilizing proprietary techniques.
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>• Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<p>The soil samples have been microwave digested and analysed via low detection ICPMS.</p> <p>Laboratory QAQC involves the use of internal lab standards using certified reference material and blanks as part of in-house procedures. A formal review of this data is completed on a periodic basis.</p>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> <li>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>• Discuss any adjustment to assay data.</li> </ul>	<p>Results included in this report have been verified by Clayton Davys (Exploration Manager)</p> <p>Geological logging is completed using in-house logging data systems. All data entry is carried out by qualified personnel. Standard data entry is used on site and is backed up on external hard drives and then to a cloud based database.</p> <p>No adjustments have been made to the assay data</p>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>• Specification of the grid system used.</li> </ul>	<p>Soil sample locations are collected by hand held GPS (<math>\pm 5m</math>)</p> <p>Grid Datum MGA94 UTM Zone 52S</p>



	<ul style="list-style-type: none"> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	Soil samples were collected at 50m spacing along 200m spaced lines in the West Tanami and along selected public road at 200m spacing in the wheatbelt.
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	This is early stage exploration and the orientation of sampling to the mineralisation is not fully understood.
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	The chain of custody of the samples is managed by Hamelin. Samples collected in the West Tanami were delivered by Hamelin personnel to the Coyote mine site and then transported to the Labwest laboratory via AWH. Samples from the Anderson project were delivered to Labwest by Hamelin geologists
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	Sampling techniques and procedures are regularly reviewed internally, as is data. To date, no external audits have been completed on these data.

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<p>The Jazz prospect is located within the tenement E80/5147 which is held by Hamelin Resources Pty Ltd, a 100% owned subsidiary of Hamelin Gold Ltd. The Anderson project is located in E70/6601 which is held by Hamelin Tanami Pty Ltd, a 100% owned subsidiary of Hamelin Gold Ltd.</p> <p>The Jazz prospect is within Vacant Crown Land where the Tjurabalan People have been determined to hold native title rights. The Anderson project is located within Freehold farmland in the eastern wheatbelt of WA.</p> <p>No historical or environmentally sensitive sites have been identified within the areas of work.</p>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<p>Minimal previous exploration has been completed at the Jazz prospect. Occasional areas of surface geochemical sampling including rock chip, lag, soil and auger sampling, and vacuum drill sampling are present.</p> <p>Roadside geochemical sampling and semi - systematic aircore drilling over an area 3km by 1.5km has been completed at Anderson.</p>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<p>The Jazz prospect is situated in the Proterozoic Tanami Province and Anderson is located in the Western Yilgarn terrain, both are in Western Australia.</p> <p>Jazz and Anderson are considered prospective for orogenic gold mineralisation.</p>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of information for all Material drill hole.</li> </ul>	<p>No drill results are reported in this announcement.</p>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<p>Manual contouring of soil sampling results has been completed at Jazz using the following anomaly thresholds; Au (5ppb), As (10ppm), Bi (1ppm), Mo (1ppm), Te (1ppm) and W (1ppm). The thresholds are statistically significant in these data.</p> <p>Individual sample points at Anderson are plotted as per the intervals shown on Figure 4.</p>

<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></li> </ul>	No drill results are reported in this announcement.
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	Refer to body of this announcement
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<p>All geochemical anomalies are plotted at Jazz are shown the following anomaly thresholds; Au (5ppb), As (10ppm), Bi (1ppm), Mo (1ppm), Te (1ppm) and W (1ppm). These thresholds are statistically significant in these data. Minor isolated point anomalies may have been excluded from the contouring.</p> <p>All samples taken at Anderson have been plotted on Figure 4.</p>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	All meaningful and material information has been included in the body of the text. No metallurgical or mineralogical assessments have been completed.
<b>Further work</b>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	A 60 hole aircore drill program has commenced at the Jazz prospect with drilling to test the entire regolith profile down to fresh rock. Pending landowner approval, the next phase of work at Anderson will include infill soil sampling along tracks and firebreaks with any drilling likely to occur once cropping activities have been completed.