

17 March 2025

# SNX advances drill targeting with gravity survey at Warrior Project, Nevada USA

# **Highlights**

- Geochemical and spectral study completed at Warrior Project identifies five high priority targets and confirms two epithermal systems:
  - Low sulphidation epithermal vein system overprinted by a later high sulphidation epithermal event.
  - High priority targets identified based on white mica crystallinity and chemistry, element associations and structural context.
- SNX has commenced 500-station gravity survey at Warrior, designed to:
  - Improve understanding of the major structural features highlighting primary fluid pathways.
  - Aid identification of key growth faults / graben positions.
  - Define the depth to basement of the underlying and geochemically reactive Mesozoic aged limestone basement (Luning Formation) beneath the mineralised Tertiary aged bimodal volcanics.
- Upcoming field exploration program planned for Q2, 2025 will focus on geological mapping and geochemical and spectral sampling.

**Sierra Nevada Gold** (ASX: SNX) is pleased to provide an update on exploration at its Warrior Low Sulphidation Epithermal (LSE) project in the prolific Walker Lane Trend of southern Nevada, USA. Recently completed and currently underway work programs at Warrior will allow for refined and improved drill targeting, planned for Q3 2025.

The Warrior project exhibits the hallmarks of a large mineral system, which to date, has been largely under explored. SNX returned some impressive early drill results from first pass drilling programs which focused on testing the historic Warrior Mine and the associated Warrior Mine Trend, an extensive and highly anomalous north westerly trending zone that extends more than 2km and is open to both the northwest and southeast (*Figure 1*).

**SNX Executive Chairman Peter Moore said**: "While our recent exploration has focused on Blackhawk, we continue to progress work at Warrior, which we believe has potential to host a large epithermal system, and our geological activities completed last year have further confirmed this. We're set to commence a gravity survey at Warrior to provide more context and understanding of the mineralisation potential and will use results to define the best targets for drilling later in 2025."

The fertile Warrior Mine Trend hosts the Warrior Mine and is bookended by SNX reverse circulation (RC) drillholes in the northwest by WARC012 and in the southeast by WARC001 (*Figure 2*). **WARC012** returned 144m (to end of hole) of highly anomalous gold and silver (0.24g/t Au & 1.31g/t Ag) including 35.36m at 0.71g/t Au including **2.44m at 3.06g/t Au** and **4.88m at 2.30g/t Au**, with gold grade increasing downhole. **WARC001** returned 117m (to end of hole) at 0.22g/t Au and 1.21g/t Ag, and like WARC012, precious metal grade and

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pathfinder geochemistry increased downhole. Where drilled, the Warrior Mine Trend typically demonstrates a high level of gold and pathfinder anomalism where it is defined by downhole drill intercepts +80-100m greater than 0.1 g/t Au.

SNX RC drilling (*previously reported*<sup>1</sup>) of the historic Warrior Mine has returned several ore grade intersections with the mineralisation open to the north, south and down dip. Better intersections included:

- **17.07m at 1.57g/t Au** including **2.44m at 7.76g/t Au** (WARC007)
- 20.73m at 2.13g/t Au including 10.97m at 3.76g/t Au (WARC022)
- **4.88m at 5.49g/t Au** (WARC013)
- 10.97m at 1.80g/t Au including 1.22m at 14.40g/t Au (WARC019)
- **7.32m at 1.73g/t Au** including **2.44m at 4.68g/t Au** (WARC014)
- 8.53m at 1.64g/t Au including 1.22m at 10.15g/t Au (WARC015).

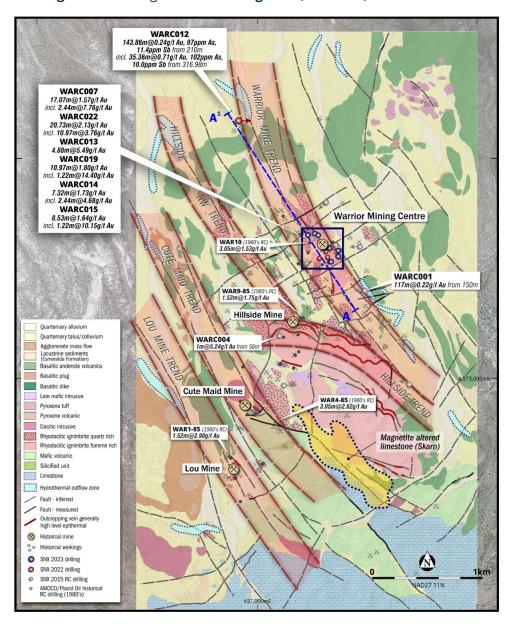


Figure 1: Plan view of the Warrior project showing geology, mineral trends and compilation of drilling.<sup>1</sup>

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<sup>&</sup>lt;sup>1</sup> Information on 2015 drilling - Sierra Nevada Gold Replacement Prospectus - Annexure A. Independent Geological Report pages 68-71. Information on 2022 drilling - ASX Release 28 February 2023 – "SNX confirms large epithermal gold system at Warrior Project, Nevada, USA." Information on 2023 drilling - ASX Release 23 February 2024 – "SNX intersects shallow high-grade gold at Warrior Project, Nevada, USA."

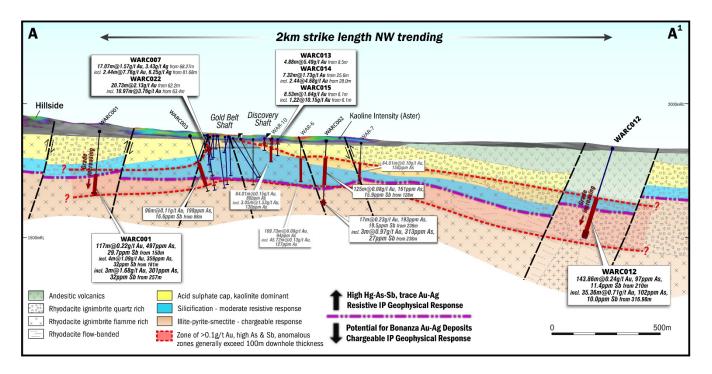


Figure 2: Schematic long section A-A1 looking westwards along the 2km Warrior mine trend. Long section shows the thickness and strike extent of the Warrior Mine hydrothermal system. Extensive Au anomalism over 2km of strike is shown in red.

## **Geochemical and Spectral Study**

In late 2024, SNX received the results of a geochemical and spectral study completed by LKI Consulting. A specialist consulting company specialising in the geochemical and spectral characteristics of mineral systems. This study combined and analysed the spectral and geochemical data from rock-chip sampling, soil sampling and drilling, with a view to establish geochemical and spectral vectors to mineralisation.

LKI identified **five high priority targets** based on white mica crystallinity, white mica chemistry, element associations, degree of host rock litho-geochemical depletion and structural context (*Figure 3*).

Key takeaways from this study:

- Evidence for two systems an early LSE with a later HSE (based on the presence of K & Ca-alunite and significant elemental depletion within the rhyodacite).
- Five distinct lithogeochemical units identified, some with varying degrees of immobile element depletion.
- Depleted rhyodacite hosts majority of mineralisation (Warrior Rhyolite).
- White mica wavelengths between 2199-2207nm closely associated with gold deposition.
- Compelling targets generated based on spectral and geochemical vectors utilising drilling, rock chip and soil data.

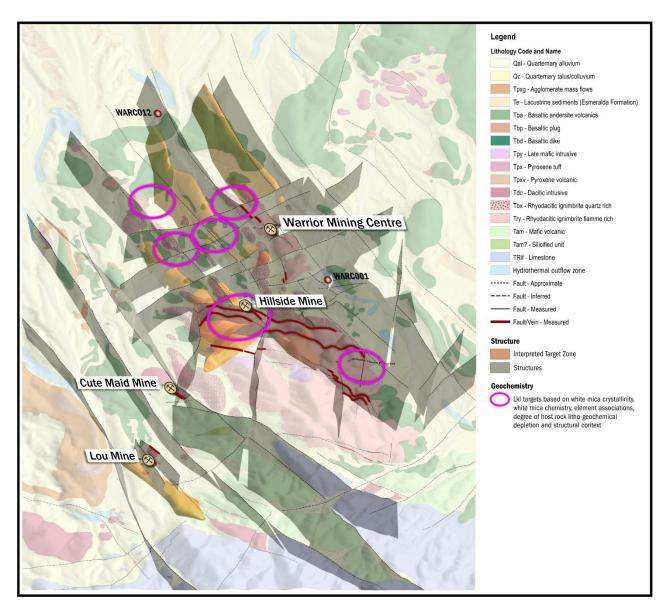


Figure 3: Oblique view looking north of the Warrior project showing geology, 3D structural framework and LKI high priority targets.

## **Gravity Survey**

SNX has commissioned a 200m  $\times$  200m-spaced, 500-station gravity program over the main Warrior Claim block. It will survey an area of approximately  $15 \text{km}^2$ , covering the main historical mines and their defined mineral trends (see figure 4). The gravity survey aims to:

- 1) Assist in the identification of graben forming structures (growth faults) and graben sites, an important locus for these types of deposits.
- 2) Alongside complimentary geophysical and geological datasets gravity data will allow the improved definition of the structural framework including the definition of fundamental structures (1<sup>st</sup> order) that have potentially acted as primary fluid pathways key to dictating exploration approach and drill targeting.
- 3) Assist in the estimation of depth to basement beneath the mineralised tertiary volcanics. This is locally important because the underlying basement is the Triassic Luning Formation, this formation hosts several mineral deposits locally such as the 750koz Sante Fe high sulphidation epithermal gold deposit and the high-grade skarn breccia deposit mined at the Simon Mine located 4.5km SW of Warrior (*figure 6*). Limestone is a very reactive rock and is potentially a receptive host for mineralisation and presents a compelling target medium.

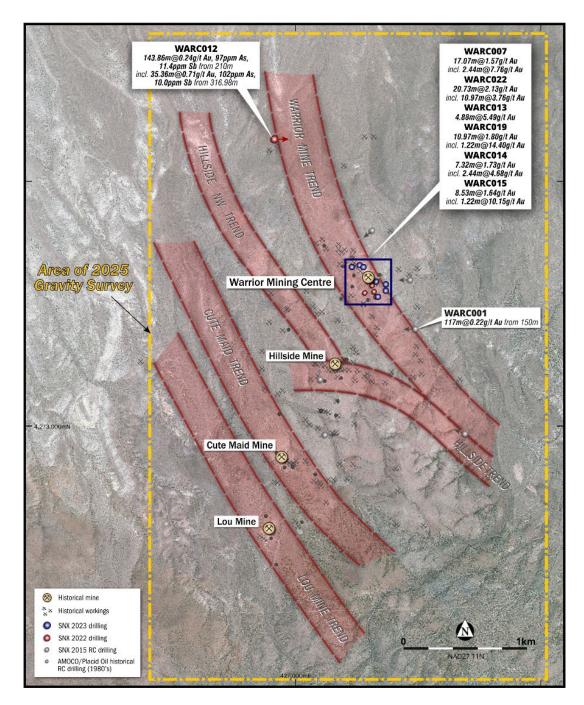


Figure 4: Plan view of the Warrior project showing the proposed area of gravity survey. Background is topography map draped on digital elevation model (DTM).

#### **Next Steps**

A program of geological mapping and rock chip sampling is planned to commence towards the end of Q2, 2025. The program is designed to gain additional geochemical and spectral data specifically to map hydrothermal outflow zones, geochemical leakage along structures in areas of syn to post mineral cover rocks. The program will extend coverage of prospective veins, breccias and structures already identified.

Another area of focus is to gather additional data (geochemical and spectral) within the high priority targets identified by the recently completed geochemical and spectral study. Once the gravity data has been received and interpreted this information will inform the upcoming field work focus.

After the completion and compilation of these works, SNX is planning to drill test targets.

### **Warrior Exploration Context**

The Warrior Project has a well-defined geological model that fits well within a conceptual understanding of low sulfidation epithermal systems. Geological mapping has confirmed the Warrior landscape is weakly eroded, exposing small areas of an extensive argillic and silica alteration layers, as well as proximal and distal hydrothermal outflows. Alteration and spectral studies illustrate only the upper portion of the epithermal system have been examined by drilling. Pathfinder elements in pXRF surveys and rock chip samples have a strong As, Sb and Hg signature, but can be low in Au and Ag, results that are typical for near paleo surface epithermal systems.

Geochemical, alteration and spectral studies of SNX's drill holes show important transitions with depth to more favorable conditions for Au-Ag deposition. Deeper drill holes all show an increase in veining and sulphide associated with anomalous gold values.

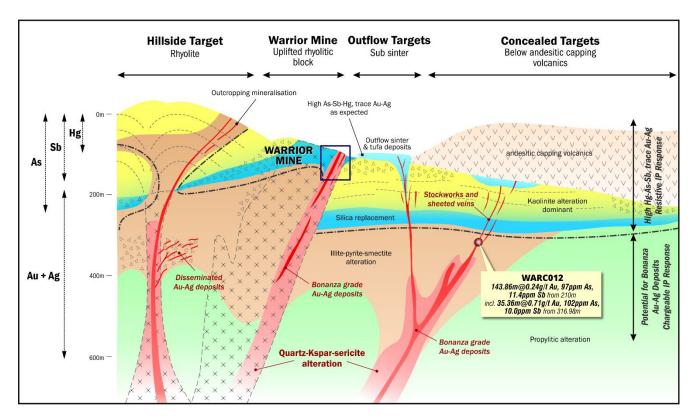


Figure 5: Schematic mineral model showing the Warrior epithermal systems and relative level of geochemical prospectivity. Note previous drilling on the property has not adequately tested the more prospective portions of the epithermal system.

#### Geology

Much of the Warrior project is concealed by capping andesitic volcanics and alluvial and colluvial deposits, which hides a low-profile volcanic center. These concealing sequences comprise tuffs, agglomerate and lava flows of andesitic composition, with basal units exhibiting weak hydrothermal alteration and rare chalcedonic veins. Such assemblages typically infill paleo-topographic depressions, which form a now eroded arcuate cone around the margin of the greater project area. North, east and west of the project area, shallow dipping lacustrine sediments of Esmeralda Formation dominate. These shallow water sediments show evidence of the interaction with hydrothermal fluids with areas of well-defined proximal and distal tufa and silica sinter outflows mapped, some with evidence of steam heating.

Mapped and inferred northwest trending faults are important structural trends that traverse the Warrior Project area. Epithermal veining exposed at surface is commonly hosted by northwest trending structures.

These structures commonly coincide with rapid changes in lithology and alteration across strike but are not generally exposed beyond the cover sequence. This suggests that tectonic activity was ongoing during the deposition and alteration of rhyodacitic tuffs and caldera infill assemblages with their presence underpinning the potential for concealed mineralisation.

## **Alteration and Spectral**

Exposed windows through covering geological sequences show strongly altered lithologies associated with the Warrior epithermal system. ASTER imagery and alteration mapping demonstrate these exposures are dominated by argillic and silica alteration assemblages, representing the upper parts of the epithermal system. Closer to known prospects such as the Warrior Mine, ASTER records an increase in sericite and adularia alteration, demonstrating common alteration vectors to high-grade Au-Ag mineralisation are present within the Warrior system.

Soil pXRF results depict the dissipation of As and Sb plumes away from emergent sinter springs and tufa deposits, consistent with the presence of a paleo-water table beneath the cover sequence. Northwest trending structures controlling mineralisation in the central Warrior Project area are linked to peripheral sinter springs.

ASTER imagery highlights areas of silica alteration coincident with eroded rhyodacitic volcanic piles where chalcedonic fracture fill, high-level epithermal veins and breccia are exposed. These areas are interpreted to be high-level exposures of silica alteration where silica deposition has occurred as upwelling hydrothermal fluids cool. At the Hillside Prospect, silica alteration is accompanied by massive chalcedony veins and weakly bladed epithermal vein textures. These high-level vein textures are indicative of conditions just above a 'boiling zone' where deposition of high-grade Au-Ag often occurs. The Hillside Prospect and host silica altered rhyodacitic volcanics have strong As-Sb-Hg-Mo anomalism related to a localized facture network containing yellow chalcedonic fill, another strong vector towards Au-Ag mineralisation at depth.

Spectral studies from recent drilling have confirmed shallow argillic alteration is associated with a kaolinite dominated, acid sulphate cap – commonly observed above low sulphidation epithermal systems. Only low-level Au-Ag is expected in acid sulfate caps, as cooling hydrothermal fluids have already precipitated most of their gold at deeper levels of the epithermal system. Samples from further down-hole generally have alteration assemblages more abundant in illite. The spectral signatures of illite group minerals show an increasing temperature of formation with depth. Similarly, increasing K/Al ratios is indicative of adularia formation with depth. Both illite and adularia coincide with increasing Au-Ag grades and associated veining down hole. Illite and adularia are common gangue minerals coincident with high-grade Au-Ag mineralisation low-sulphidation epithermal systems.

In general, the deepest scout drilling within the Warrior project area has the expected mineralogical conditions for high-grade Au-Ag deposition, coincidently, Au anomalism is observed to be increasing with depth in these holes.

#### Geochemistry

To better understand the distribution of epithermal related pathfinder elements at Warrior, pXRF soil survey and rock chip sampling was used to rapidly survey the entire project area. Historic mineralisation and zones of argillic/silica alteration record strong As, Sb and Hg anomalism with only trace levels of Au and Ag. Such results help confirm that surface alteration and mineralisation at Warrior represent upper sections of a low sulfidation epithermal system.

Results from recent SNX and historic drilling demonstrate changes in geochemical pathfinders with depth. Shallow historic drilling generally records high mercury (Hg) assays near surface, rapidly declining to 0.5ppm downhole (below historic detection limit). High Hg results near the surface are indicative of shallow steamheated alteration zones.

In general, SNX scout drilling records strongly anomalous As and Sb over the first 150m vertical depth, with peak values of 1500ppm and 80ppm respectively, declining to <250ppm and <20ppm respectively at 250m below surface. Conversely, Au, Ag and potassium (K) assays increase with depth, with Ag grades demonstrating a steady increase from 1.5ppm near the surface to >3ppm at 250m vertical depth. This is consistent with increases in sulfidation, with a strong spatial correlation with IP chargeability and precious metal grades.

## **Geophysical Data**

The combination of geophysical datasets and field studies has facilitated a geophysical interpretation of the Warrior Project and greatly aided target generation. IP and CSMAT response across the Warrior Project area highlight extensive resistive zones associated with mineralisation, immediately above a more chargeable layer. This boundary represents a fundamental transition in the hydrothermal system where boiling and sulfide deposition has occurred. It is beneath this zone where temperature and pH conditions are expected to favor high grade Au-Ag deposition.

Geological segmentation and the local geophysical signatures outline a northwest trending structure, reflecting zones of alteration and attitude of mineralised trends observed at surface. Using this understanding, further blind targets have been generated (*see figure 6*), such as the one situated between the Warrior Mine and the scout hole (WARC012 – drilled in 2022).

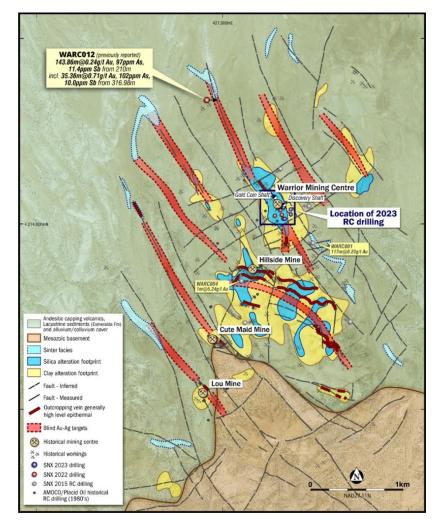


Figure 6: Plan showing the high-level epithermal alteration signature and blind targets at Warrior. Note the extensive distribution of post mineral cover and capping volcanic rocks that obscures much of the extensions to known mineralisation. Importantly, in addition to the outcropping veins, more than 10km of blind potential strike extensions have been interpreted under these covering sequences. Datum UTM NAD 27 Zone 11.

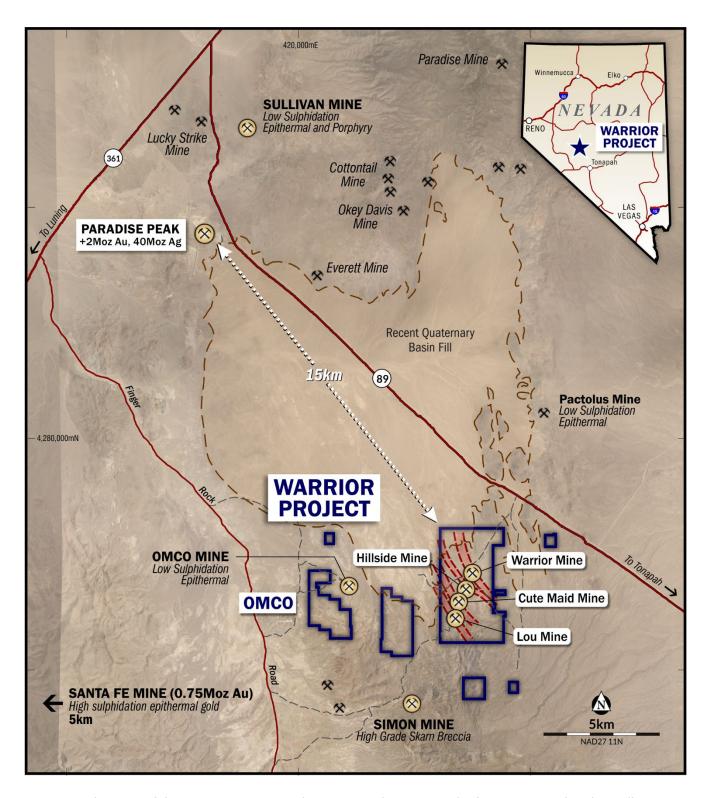


Figure 7: Plan view of the Warrior project in relation to nearby mines and infrastructure within the Walker Lane Trend of southern Nevada, USA.

## **About Sierra Nevada Gold (SNX)**

Sierra Nevada Gold (SNX) is actively engaged in the exploration and acquisition of precious and base metal projects in the highly prospective mineral trends in Nevada, USA since 2011. The Company is exploring five 100%-controlled projects in Nevada, comprising four gold and silver projects and a large copper/gold porphyry project, all representing significant discovery opportunities for the company.

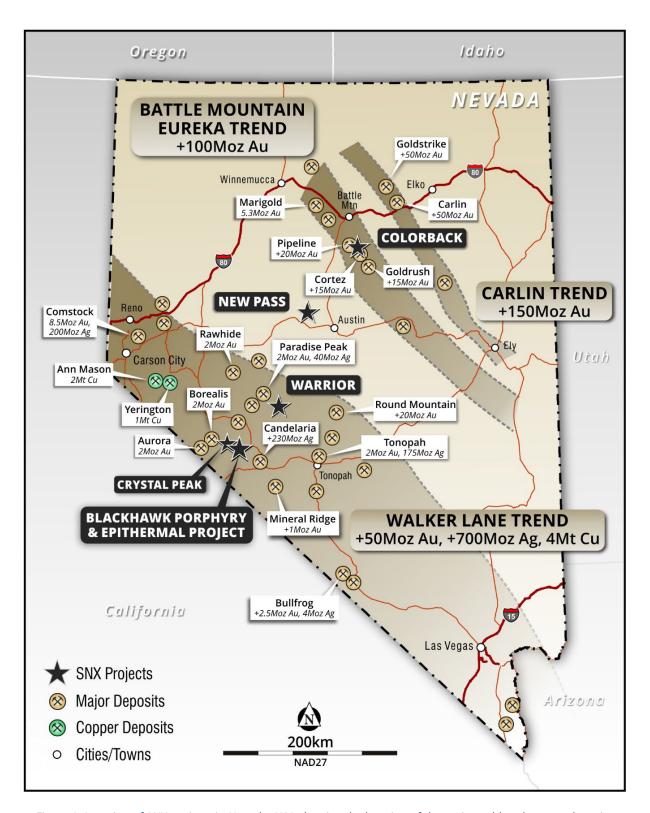


Figure 8. Location of SNX projects in Nevada, USA showing the location of the major gold and copper deposits.



This announcement was authorised for release by Mr Peter Moore, Executive Chairman of the Company.

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## **Competent Persons Statement**

Information in this document that relates to Exploration Results is based on information compiled or reviewed by Mr. Brett Butlin, a Competent Person who is a Fellow of the Australian Institute of Geoscientists (FAIG). Mr. Butlin is a full-time employee of the Company in the role of Chief Geologist and Executive Director and is a shareholder in the Company. Mr. Butlin has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Butlin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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