ASX ANNOUNCEMENT

29 May 2025

EXPLORATION ACCELERATES AT BAYAN SPRINGS PROJECT WITH PHASE TWO UNDERWAY IN NEVADA

Highlights

- Second-phase exploration program underway following strong results from the first reconnaissance campaign.
- Rock chip assays from the initial reconnaissance campaign returned up to 4.56 g/t Au, with arsenic up to 2,640 ppm and antimony up to 863 ppm[1], confirming robust Carlin-style pathfinder geochemistry.
- The upcoming program will include detailed soil sampling, additional rock chip and stream sediment sampling over previously identified targets.
- The key target zones are hosted within a sequence of Palaeozoic carbonate units including the Dunderberg Shale, Hamburg Dolomite, Secret Canyon Shale, and Eldorado Dolomite and are spatially associated with jasperoid alteration at critical structural and stratigraphic contacts.
- Initiation of discussions with geophysical contractors to assess the suitability of IP/Resistivity and CSAMT surveys for target refinement.

Bayan Mining and Minerals Ltd (ASX: BMM; "BMM" or "the Company") is pleased to announce that it has commenced the second-phase exploration program at its 100% owned Bayan Springs Project in north-eastern Nevada, USA. This follow-up work builds on the highly encouraging geochemical results, as announced to the ASX on 15 May 2025, which highlighted the project's strong potential to host Carlin-style gold mineralisation.

During the initial reconnaissance campaign, the Company recorded a standout rock chip assay of 4.56 g/t Au, supported by elevated pathfinder elements including arsenic (up to 2,640 ppm) and antimony (up to 863 ppm) at the Bayan Springs Project, confirming a robust Carlin-type geochemical signature. The key target zones are hosted within a sequence of Palaeozoic carbonate units including the Dunderberg Shale, Hamburg Dolomite, Secret Canyon Shale, and Eldorado Dolomite and are spatially associated with jasperoid alteration at critical structural and stratigraphic contacts, comparable to those at the nearby Bald Mountain gold deposit (~10 km to the south).

[1] Refer to ASX Announcement date 15 May 2025.

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This program is designed to expand surface geochemical coverage and improve target vectoring to support future exploration planning. Key components of the second-phase work include:

- Detailed soil sampling, additional rock chip sampling, and stream sediment sampling along drainages intersecting previously identified mineralised zones.
- Engagement with geophysical contractors to evaluate the suitability of IP/Resistivity and CSAMT surveys for refining covered or blind targets.
- Initial permitting consultations to assess expected timelines, requirements, and cost parameters for potential scout drilling.

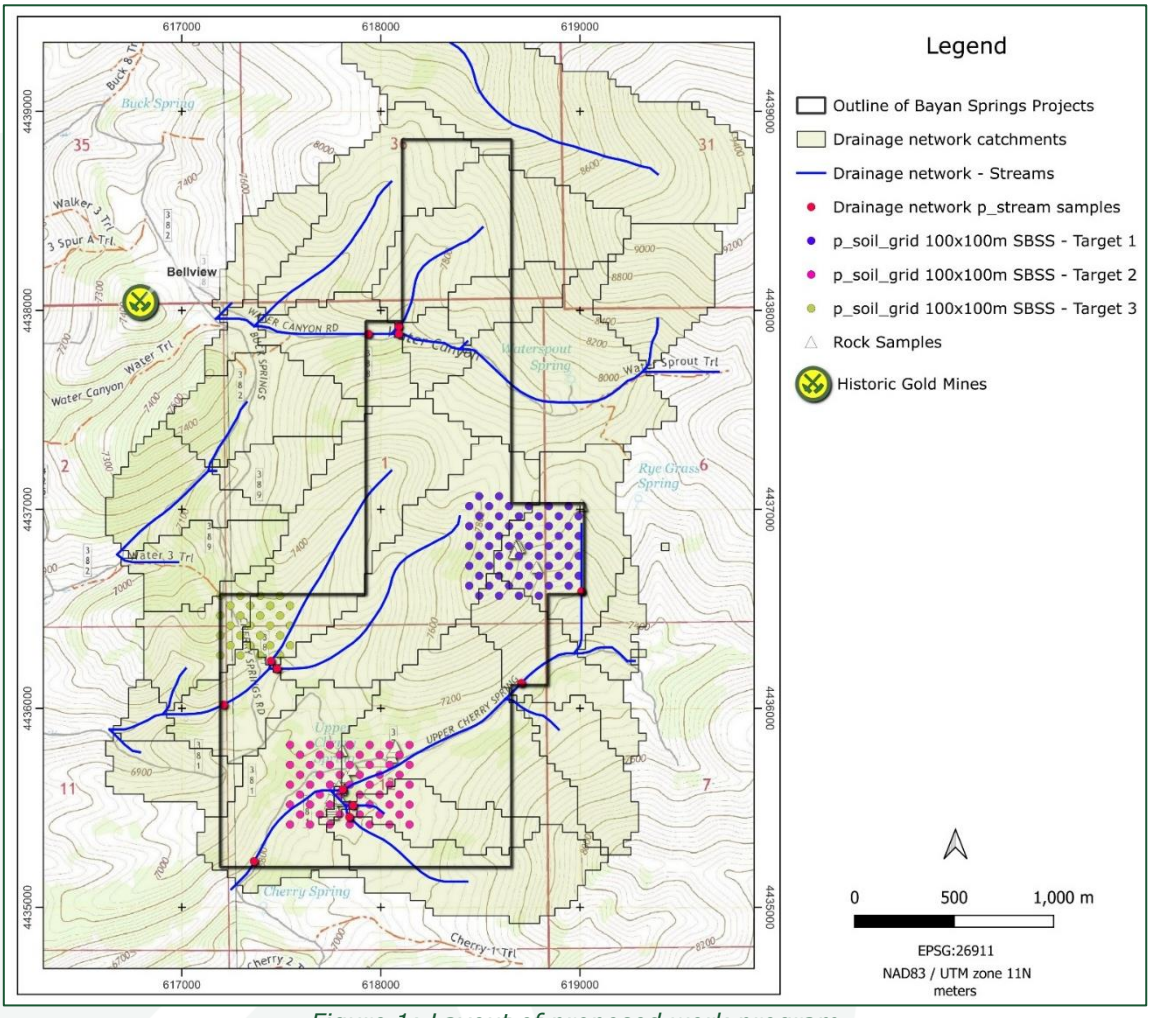

Figure 1: Layout of proposed work program

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The program is being led by Mr Bryan Kellie, an experienced exploration geologist who also oversaw the successful first-phase campaign. Fieldwork is anticipated to take approximately 10 days to complete. Upon conclusion, all samples will be submitted to ALS Global's laboratory in Reno, Nevada, for gold and multi-element analysis using industry-standard methods. Assay results are expected within the typical turnaround timeframe of three to four weeks.

Figure 2: Field geologist collecting sample at Bayan Springs Project

Executive Director Fadi Diab commented:

"The exceptional gold and pathfinder assay results from our initial program underscore the potential of Bayan Springs to host a Carlin-style gold system. This second-phase campaign is designed to refine target areas and provide clear vectors to guide future exploration. The project's structural and geochemical similarities to Kinross' Bald Mountain, just 10 kilometres to the south, offer encouraging regional context for ongoing work."

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About Bayan Spring North Project

The Bayan Spring North project consists of 116 lode claims covering approximately 9.7 km^2. It is adjacent to Sun Silver Ltd (ASX:SS1) Maverick Springs Project, which holds a JORC 2012 Inferred Mineral Resource of approximately 218.5 million tonnes at 68.29g/t AgEq, contained 480Moz AgEq[2].

The project is located in the Northern Maverick Springs Range, south Elko County and north White Pine County, Nevada, USA. It is located approximately 85 km south of Elko and 105 km to the north-northwest of Ely. The Project area is accessible via the paved Lamoille Highway and Harrison Pass Road to Ruby Valley, then via a well-maintained gravel road.

The primary hosts for silver and gold mineralisation are the silty limestone and fine-grained calcareous clastic sediments of the Rib Hill Formation. These formations are exposed over a remarkable 40 km stretched zone, striking north north-westerly.

Felsic to intermediate intrusive centres outcropping south and north of the project area are interpreted to have acted as feeder systems for Tertiary volcanic flows, potentially influencing the migration of mineralising fluids into surrounding favourable host environment.

Regionally, the project area lies within the tectonically active Great Basin province and in proximity to the Carlin Trend, a significant structural feature that demarcates a deep-seated fault. This fault line separates thicker, stable continental crust to the east from a zone of thinned, transitional crust to the west, providing structural conduits favourable for migration, concentration and deposition of gold and silver mineralisation. Historical exploration in this geologic setting reveals structural trends and faulting that may play a role in localising mineralisation within the project area.

Locally, the project area lies within a geologically diverse region dominated by carbonate formations that record a history of continental margin sedimentation. These include limestones and dolostones of the Permian-Pennsylvanian Rib Hill Formation, limestones of the Permian Pequop Formation, and carbonate strata of the Permian Park City Group. Locally, these sedimentary units have been intruded by Jurassic and Cretaceous acidic to intermediate, biotitic igneous rocks, and subsequently overlain by Tertiary volcanic deposits, including rhyolites and Late Tertiary tuffs.

This region's combination of carbonate-rich sedimentary units and structural complexity makes it permissive for sediment-hosted gold and silver mineralisation. Carbonate rocks, especially in proximity to intrusive bodies, often provide chemically reactive settings conducive to metal deposition. The presence of deep-seated faults, proximity to the Carlin Trend, also facilitates the movement of mineralising fluids through these

[2] Refer to Sun Silver Limited (ASX:SS1) ASX Announcement titled 'Maverick Springs Resource increased by 57Moz AgEq to 480Moz AgEq at 68.29g/t AgEq' dated 26 March 2025.

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permeable carbonate units, increasing the likelihood of significant mineral accumulation. Collectively, these geological factors create a favourable environment for discovering substantial sediment-hosted precious metal deposits.

About Bayan Spring South Project

The Bayan Spring South Project is located along the prolific Carlin Trend and consists of 42 lode claims covering an area of approximately 3.75 km^2. The Project is located east of Bellview Au-Ag-Pb Deposit[3] and approximately 10 km north of Kinross Gold Corporation (NYSE:KGC) Bald Mountain mine, a major gold mining operation in Nevada with approximately 1.173 million ounces in Probable Reserves, 2.7 million ounces in Measured and Indicated Resources and 571 kilo ounces in Inferred Resources (as of 31 December 2024)[4].

The project is situated on the southern slopes of the Ruby Mountains in northwest White Pine County, Nevada, USA, approximately 85 km south of Elko and 110 km northwest of Ely. The project area is accessible via the paved Lamoille Highway and Harrison Pass Road leading to Jiggs, with a well-maintained gravel road providing direct access to the site.

Geologically, the project is located within southern extension of the prolific Carlin trend. The broader project area is characterised by a conformable sequence of Cambrian limestones, dolomites, shales, quartzites, siltstones, and altered jasperoids, which generally dip to the SSE.

Lower to Middle Cambrian sedimentary sequences, including limestones, dolostones (notably the Eldorado Dolomite), and shales of the Secret Canyon and Dunderberg Formations. These units are structurally juxtaposed along a complex network of northeast- and northwest-trending faults and thrusts. A swarm of dioritic dikes intrudes the sequence, and major faults exhibit north-northeast, northwest, and east-west orientations. A prominent regional thrust fault emplaces the Cambrian Hamburg Limestone above the Secret Canyon Shale, creating a structural trap exploited at the Saddle Target. The stratigraphy is folded into a doubly plunging anticline, further deformed by additional WNW- and NE-trending warps. High-angle faults have played a key role in localising jasperoid alteration, which acts as a critical control on Carlin-type gold mineralisation.

[3] The Diggings 2024. https://thediggings.com/mines/12815

[4] Kinross Gold Corporation (NYSE:KGC) 2024 Annual Mineral Reserve and Resource Statement.
Kinross' mineral reserve and mineral resource estimates as of December 31, 2024, were classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") "CIM Definition Standards - For Mineral Resources and Mineral Reserves" adopted by the CIM Council in accordance with the requirements of National Instrument 43-101 "Standards of Disclosure for Mineral Projects". Mineral reserve and mineral resource estimates reflect Kinross' reasonable expectation that all necessary permits and approvals will be obtained and maintained.

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Figure 3: Bayan Springs Project Location Map

For further information, please contact:

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Authorised for release by the Board of Bayan Mining and Minerals Limited

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Competent Persons Statement

The information in this report that relates to Exploration Targets or Exploration Results is based on information compiled by Mr Dejan Jovanovic, a Competent Person who is a Member of the European Federation of Geologists (EurGeol). The European Federation of Geologists is a Joint Ore Reserves Committee (JORC) Code 'Recognised Professional Organisation' (RPO). An RPO is an accredited organisation to which the Competent Person under JORC Code Reporting Standards must belong to report Exploration Results, Mineral Resources, or Ore Reserves through the ASX. Mr Jovanovic is the General Manager of Exploration and is a part-time contractor of the Company. Mr Jovanovic has sufficient experience that 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 JORC 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Jovanovic consents to the inclusion in the report of the matters based on his information 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 included in the original market announcements.

The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcements.

Forward-looking Statements

Certain statements included in this release constitute forward-looking information. Statements regarding BMM's plans with respect to its mineral properties and programs are forward-looking statements. There can be no assurance that BMM's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that BMM will be able to confirm the presence of additional mineral resources, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of BMM's mineral properties. The performance of BMM may be influenced by a number of factors which are outside the control of the Company and its Directors, staff, and contractors.

These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements.

Except for statutory liability which cannot be excluded, each of BMM, its officers, employees and advisors expressly disclaim any responsibility for the accuracy or completeness of the material contained in these forward-looking statements and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in forward-looking statements or any error or omission. BMM undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events other than required by the Corporations Act and ASX Listing Rules. Accordingly, you should not place undue reliance on any forward-looking statement.

Proximate Statements

This announcement contains references to mineral exploration results derived by other parties either nearby or proximate to the Bayan Springs North and South Projects and includes references to topographical or geological similarities to that of the Bayan Springs North and South Projects. It is important to note that such discoveries or geological similarities do not in any way guarantee that the Company will have similar exploration successes on the Bayan Springs North and South Projects, if at all.

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