ASX ANNOUNCEMENT

28 July 2025

Bayan
Mining and Minerals Limited

FIELDWORK COMMENCES AT DESERT STAR NORTH PROJECT NEAR COLOSSEUM MINE TARGETING REE & GOLD

Highlights

- **Fieldwork Underway:** Immediate commencement of field activities at Desert Star North Project, laying the groundwork for a high-impact exploration program.
- **Targeting REE and Gold Systems:** The initial exploration program includes reconnaissance mapping, geochemical sampling, and handheld gamma-ray spectrometer readings aimed at delineating high priority targets for follow up work that will include geophysical survey.
- **Strategic Location Near World-Class Deposits:** The Desert Start Project is strategically located approximately 13 km north of MP Materials' Mountain Pass REE Mine[1], one of the largest and highest-grade rare earth operations globally. Desert Star North Project lies only 3 km north of the Colosseum Gold Mine, which hosts a JORC-2012 compliant Mineral Resource of 27.1 Mt @ 1.26 g/t Au for 1.1 million ounces[2]. The project is located within the same regional corridor and shares structural and geological characteristics with the globally significant Mountain Pass Rare Earth Mine.
- **Assay Results:** Samples collected from the fieldwork program will be submitted to ALS Reno (Nevada), with assay results expected within 3 to 4 weeks of submission.

Bayan Mining and Minerals Ltd (ASX: BMM; "BMM" or "the Company") is pleased to announce a major advancement in its Desert Star North Project, with fieldwork set to commence following recent satellite imagery analysis that identified multiple high-priority targets *(see ASX Announcement dated 17 July 2025*).

The Desert Star North Project comprises 45 federal lode claims covering approximately 3.75 km² in San Bernardino County, California, situated within a highly prospective corridor for rare earth elements and gold. Strategically located just 3 km north of the Colosseum Gold Mine and approximately 13 km north of the world class Mountain Pass REE Mine, the project lies along the same structurally controlled mineralised trend. The tenement occupies a structurally complex zone of the eastern Mojave Desert, spanning a geological transition from Paleoproterozoic metamorphic basement rocks in the west to Cambrian marine sedimentary units in the east. These include gneisses, schists, limestones, quartzites, and shales, forming part of a

[1] MP Materials Corp. (NYSE:MP). www.mpmaterials.com
[2] Dateline Resources Ltd (ASX:DTR) ASX Announcement titled 'Colosseum Scoping Study Delivers Positive Outcomes' dated 23 October 2024.

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broader assemblage of Paleozoic sediments and volcanics recognised throughout the Mountain Pass–Colosseum corridor. The project is transected by a northwest trending crustal scale corridor and flanked by two major regional structures, the Ivanpah Fault to the east and the Clark Mountain Fault to the west each exhibiting vertical displacement of over 10,000 feet. These structures are recognised as primary controls on regional mineralisation, including at both the Mountain Pass and Colosseum deposits.

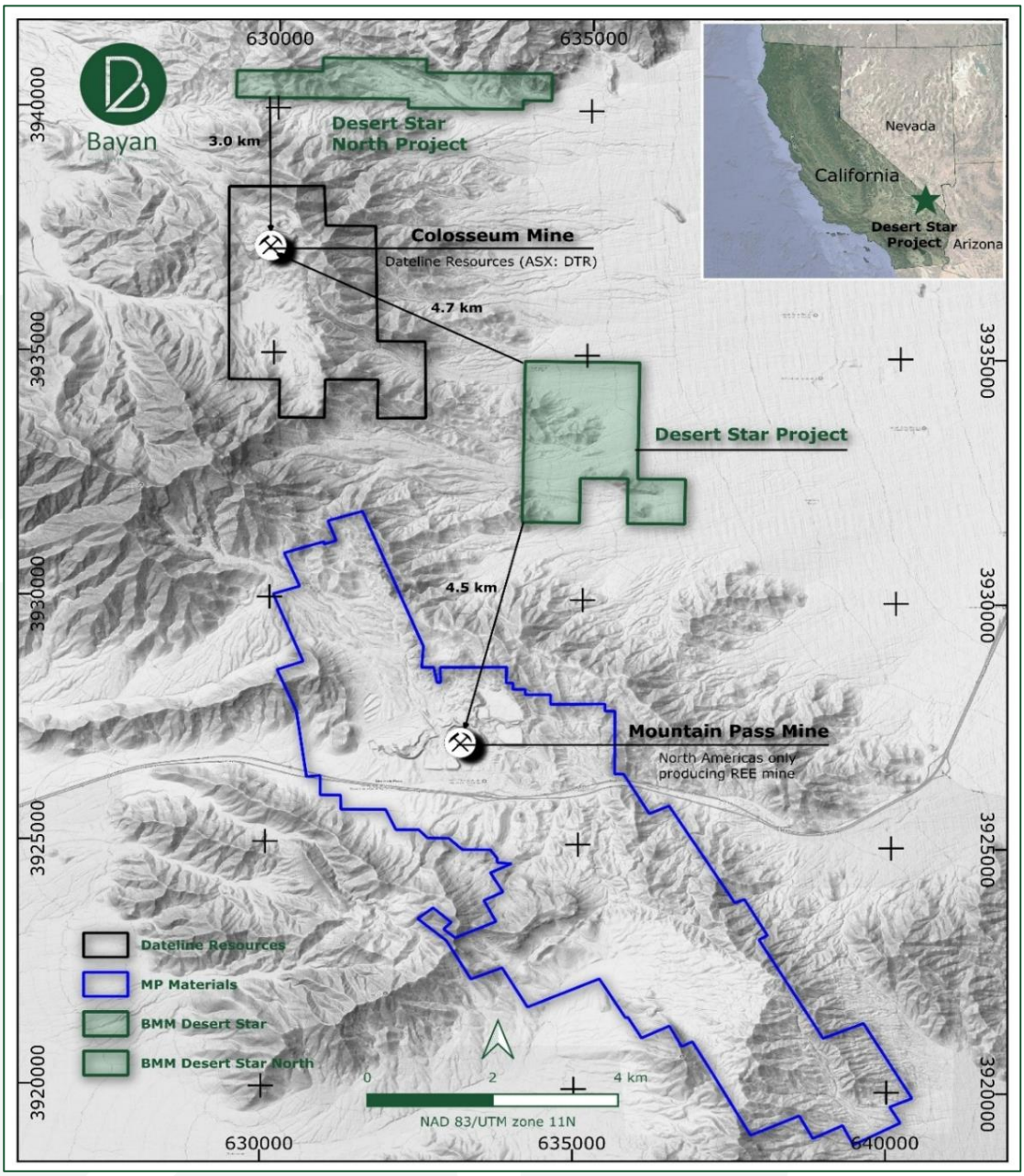

Figure 1 – Desert Start Projects Location Map

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Figure 2 – Aerial photo looking north-westerly toward outcropping metamorphic and felsic plutonic rocks at the Desert Start Project

Figure 3 – Desert Star North Aerial photo looking Southeasterly

Executive Director Fadi Diab commented:

"We're eager to get on the ground at Desert Star North, located in one of the most geologically fertile rare earth corridors in the world. Following the recent satellite imagery analysis, which identified multiple high-priority targets, we're now moving into a focused field program to evaluate these areas on the ground. Located just kilometres from the world-class Mountain Pass rare earth mine and a compelling structural and lithological setting, the project is exceptionally well positioned for exploration."

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Next Steps

Following the completion of the fieldwork program, samples to be analysed by ALS Laboratory in Reno, with assay results expected within 3 to 4 weeks of submission. BMM will conduct a comprehensive analysis of the geochemical data to define priority exploration targets. Pending results, the Company may proceed with the next exploration phase, including potential detailed mapping, sampling and targeted drilling to further evaluate mineralisation potential.

Initial Field Program Completed at Desert Star Project

The initial reconnaissance fieldwork campaign at the Desert Star Project has now been successfully completed. Over the past few weeks, the program focused on a thorough surface evaluation of the project potential for rare earth elements (REE) and gold across the identified target zones *(See ASX announcement dated 9 July 2025).*

During the campaign, a total of 65 rock chip samples and 30 heavy mineral concentrate samples were collected. The samples have been submitted to ALS Laboratory in Reno for rare earth element and multi-element analysis, as well as gold fire assays.

The Company is awaiting the results, which will provide valuable insights into the potential of the Desert Star Project. The market update will be provided as soon as the assay results are available.

Figure 4 – Collected rock chips and heavy minerals concentrate samples

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About Desert Star Projects

The Desert Star Project comprises two claim blocks, Desert Star and Desert Star North located in San Bernardino County in California's eastern Mojave Desert. Together, the projects cover a combined area of approximately 9.75 km² and consist of 117 federal lode claims[3], which have been staked and claim application were submitted to the U.S. Bureau of Land Management for registration.

Strategically located within a globally significant critical minerals corridor, the Desert Star Project lies just 4.5 km from MP Materials' operating Mountain Pass Rare Earth Mine and approximately 4.7 km from southern extents of the Colosseum Gold Mine.

The area is well supported by infrastructure, including nearby access to Interstate 15, high-voltage power transmission lines servicing the Mountain Pass Mine, and a Union Pacific rail line within 25 km that may support bulk logistics in future development. Additional renewable power infrastructure in the Ivanpah Valley provides further optionality for low-emission energy access.

The Desert Star claim block comprises 72 federal lode claims covering approximately 6 km². Geologically, the area lies within a structurally uplifted block of Paleoproterozoic metamorphic and igneous basement rocks intruded by Mesoproterozoic alkaline and carbonatite intrusives, including shonkinite, syenite, granite, and carbonatite. These intrusions are genetically linked to REE mineralisation in the district, with key alteration assemblages such as barite, fluorite, hematite, phlogopite, and calcite indicating a magmatic-hydrothermal origin. The tenement is bounded by the Ivanpah Fault to the east and the Clark Mountain Fault to the west, both major regional structures associated with mineralisation at Mountain Pass and Colosseum.

The Desert Star North claim block consists of 45 federal lode claims covering approximately 3.75 km². The project spans a geological transition from Paleoproterozoic basement rocks in the west to Cambrian marine sedimentary units in the east, including limestones, quartzites, and shales. These formations are part of the broader stratigraphy that hosts both rare earth and gold mineralisation in the region. Desert Star North is similarly transected by the northwest-trending Ivanpah and Clark Mountain faults, which exhibit vertical displacement in excess of 10,000 feet. These structures are recognised as key controls on regional mineralisation, including at the Mountain Pass REE Mine and the Colosseum Gold Mine, located immediately to the south.

[3] Refer to BMM ASX Announcements dated 7 July 2025 and 14 July 2025.

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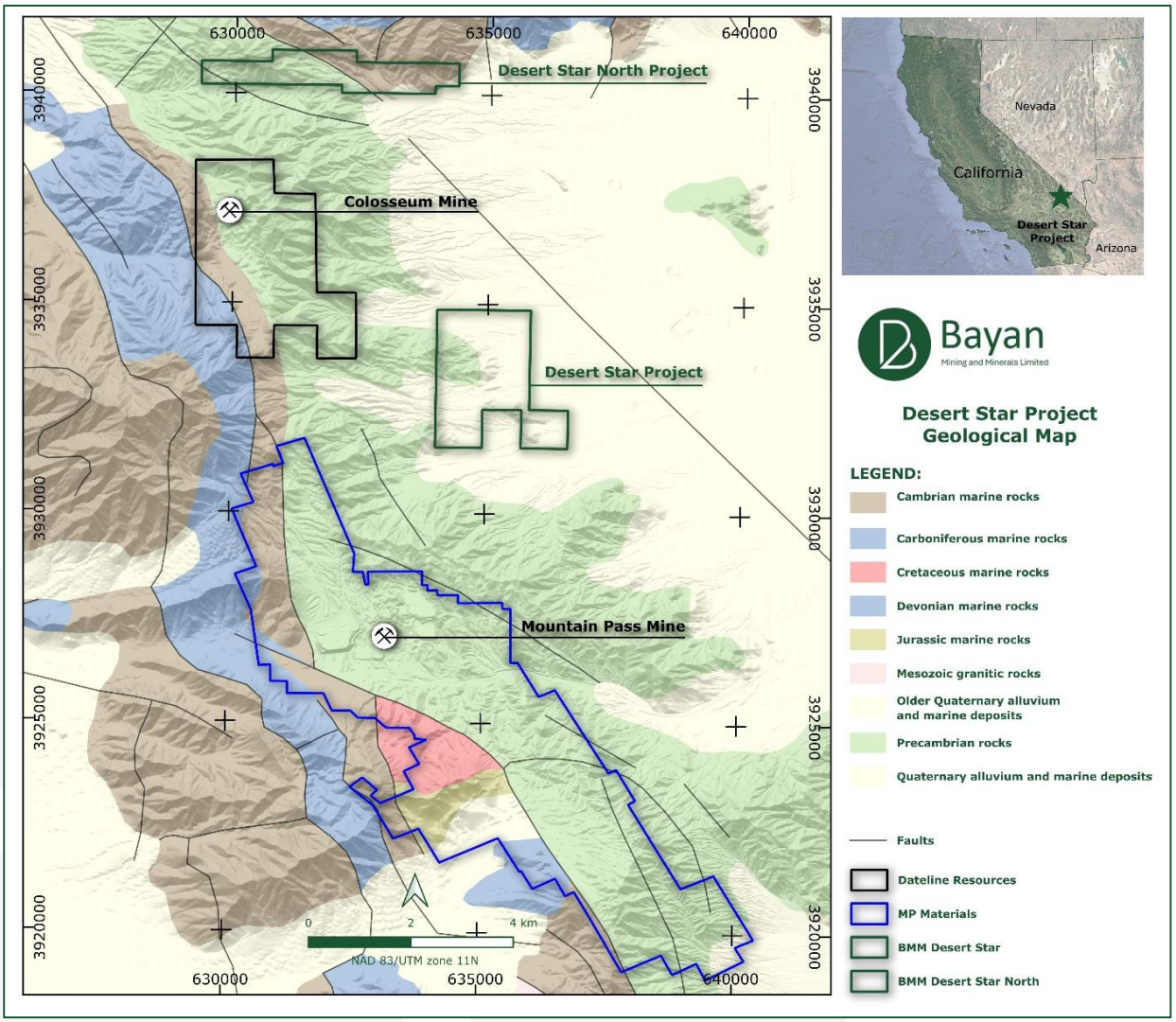

Figure 5 – Desert Star Project Locations Over Regional Geological Map

For further information, please contact:

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

-ENDS-

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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 Desert Star Projects and includes references to topographical or geological similarities to that of the Desert Star 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 Desert Star Projects, if at all.

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