

STRATEGIC AND TECHNICAL ADVANCEMENTS AT DESERT STAR PROJECTS, CALIFORNIA

Highlights

- **Australian Embassy Briefing in Washington, DC:** Bayan Mining and Minerals has provided a briefing to the Australian Embassy in Washington, DC, on its Desert Star Projects ahead of the upcoming meeting between Prime Minister Anthony Albanese and President Donald Trump in Washington DC, on 20 October 2025.
- **Technical Strengthening - Appointment of Veteran Geophysicist:** Bayan has appointed Mr Robert ('Bob') Ellis, a Reno-based consulting geophysicist with over 45 years' experience, including senior geophysical leadership at MolyCorp Inc., (now named MP Materials Corp.) the developer of the Mountain Pass REE Mine. Mr Ellis will support advanced data interpretation and drill target definition across the Desert Star Projects.
- **Ground Geophysics Completed:** A detailed ground magnetic, radiometric, and gravity surveys completed across both project areas. Data interpretation underway following the September geophysical desktop study that defined four high-priority REE targets. The ground geophysics interpretation results are expected by the end of October.
- **Plan of Operations (PoO) Submission Update:** The Company's PoO has been accepted by the U.S. Bureau of Land Management (BLM) and listed on the National Environmental Policy Act (NEPA) Register for public review and comment.
- **Drilling Preparations Underway:** Engagement with US based drilling contractors are progressing to finalise logistics for the maiden drilling program.
- **Outstanding REE Grades:** Up to 26,286 ppm TREO¹ confirmed at the Desert Star Project, California, USA, reaffirming the potential for a large-scale rare earth system along the Mountain Pass-Colosseum corridor.
- **Strategic Location of Desert Star Projects:** The Desert Star Project is strategically located just 4.5 km northeast of MP Materials' Mountain Pass REE Mine² 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 ounces³. Both properties are located within the same regional corridor and share structural and geological characteristics with the globally significant Mountain Pass Rare Earth Mine.

¹ Refer to BMM ASX Announcement dated 1 September 2025.

² MP Materials Corp. (NYSE:MP) www.mpmaterials.com

³ Dateline Resources Ltd (ASX:DTR) ASX Announcement titled 'Colosseum Scoping Study Delivers Positive Outcomes' dated 23 October 2024.



- **Downstream Evaluation Initiated:** Launched an evaluation program to pursue a pathway to secure a US downstream supply chain.

Bayan Mining and Minerals Ltd (ASX: BMM; "Bayan" or "BMM" or "the Company") is pleased to announce an update on recent exploration, permitting and government involvement progress across its 100% owned US portfolio, including the Desert Star Projects in California and the Bayan Springs South gold project in Nevada, USA.

Executive Director Fadi Diab commented:

We are honoured to have had the opportunity to brief the Australian Embassy in Washington, DC and present the Desert Star Projects during such an important week for Australia-U.S. relations. The briefing highlights the strategic importance of Desert Star's position within the Mountain Pass and Colosseum corridor and reflects how Australian expertise can contribute to securing transparent and resilient North American Critical minerals supply chain.

Bayan's U.S. projects have advanced rapidly this quarter, with permitting, technical interpretation, and geophysical integration now aligning to deliver our first drill program. The appointment of Bob Ellis adds exceptional depth to our technical team as we drill targets across Desert Star Projects."

Technical Strengthening – Appointment of Bob Ellis

To support the next phase of technical evaluation, Bayan has appointed Mr Robert (Bob) Ellis as Consultant/Technical Advisor. Mr Ellis brings more than four decades of experience in exploration geophysics, including over 15 years with MolyCorp Inc., where he led geophysical programs at the Mountain Pass REE Mine. He has extensive global experience in magnetic, gravity, IP, and MT interpretation for gold, copper, and rare earth systems and is a Registered Geophysicist (California GP-1048) and Professional Geologist (Wyoming PG-2683). Mr Ellis will advise the Company on advanced data integration and drill target refinement, ensuring a technically robust approach to discovery across both Desert Star and Desert Star North.

Desert Star – Ground Geophysics Completed

Bayan has completed high-resolution ground magnetic, radiometric and gravity surveys across the Desert Star and Desert Star North project areas. These datasets are now being integrated and interpreted in the context of the recent geophysics-led desktop study (see ASX Announcement dated 5 September 2025). The objective of the interpretation is to resolve target geometry, depth extent and structural controls in order to finalise maiden drill collar locations alongside the previously reported high-grade surface assays. The ground geophysics interpretation results are expected by the end of October.



Figure 1: Field crew conducting ground magnetic and gravity survey at Desert Star Project

Permitting and Drill Preparation Advancing at Desert Star

The Plan of Operations (PoO) for the Desert Star Projects has been formally accepted by the U.S. Bureau of Land Management (BLM) and published on the NEPA Register for public review and comment. This represents a key regulatory milestone in progressing the Desert Star Project toward its maiden drill program.

In parallel, Bayan is advancing discussions with experienced U.S. based drilling contractors to confirm logistics, rig availability, and scheduling for the upcoming drill campaign.

About Desert Star Projects

The Desert Star Projects 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 claims⁴, which have been staked and claim applications 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

⁴ Refer to BMM ASX Announcements dated 7 July 2025 and 14 July 2025.

as key controls on regional mineralisation, including at the Mountain Pass REE Mine and the Colosseum Gold Mine, located immediately to the south.

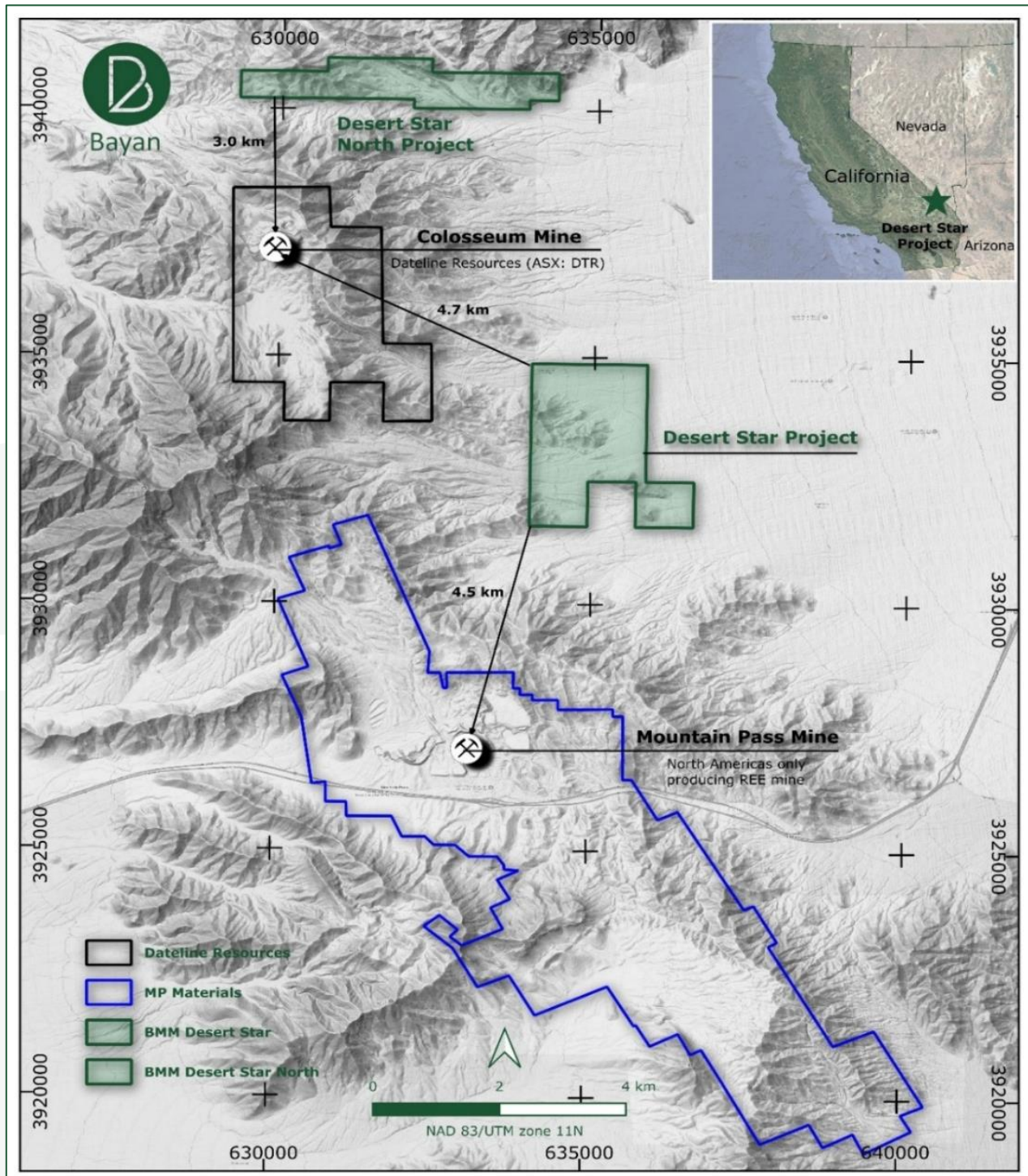


Figure 2: Desert Star Projects Location Map

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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 release 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 release 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 release 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.