Bayan
Mining and Minerals Limited

SATELLITE IMAGERY ANALYSIS IDENTIFIES MULTIPLE HIGH-PRIORITY TARGETS AT DESERT STAR PROJECT

Highlights

- **Advanced Satellite Analysis Completed:** Sentinel-2 multispectral imagery has identified key spectral and gas anomalies across the Desert Star Project, pointing to significant rare earth element (REE) and gold mineralisation potential. The analysis was conducted by renowned spectral imaging specialist Dr Neil Pendock.
- **REE and Gold Indicator Minerals Mapped:** Spectral endmembers include calcite, barite, hornblende, neodymium oxide, talc and illite, highlighting dual exploration potential.
- **Gas Anomalies Detected:** Helium anomalies were recorded using atmospheric signal analysis offering a secondary vectoring layer for targeting concealed mineralisation.
- **Proximity to World-Class Deposits:** The Desert Start Project is strategically located just 4.5 km northeast 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.
- **Exploration Program Advancing:** Fieldwork is set to begin shortly at Desert Star North, with detailed geophysical surveys to follow, aimed at refining high-priority structural targets across both project areas.

Bayan Mining and Minerals Ltd (ASX: BMM; "BMM" or "the Company") is pleased to announce the encouraging results from an advanced satellite imagery analyses over its 100% owned Desert Star Projects in the eastern Mojave Desert, California.

The study was conducted by renowned spectral imaging specialist Dr. Neil Pendock of Dirt Exploration and utilised Sentinel-2 VNIR/SWIR datasets. After atmospheric correction and processed into a ten-band stack from which 16 spectral endmembers were extracted and correlated with the USGS spectral library to identify mineralogical indicators relevant with both REE and gold mineralisation systems.

[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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Interpretation Summary

The spectral analysis identified a suite of minerals indicative of both rare earth and gold mineralisation. Calcite, barite, hornblende, amphibole, and neodymium oxide were mapped across the licence, supporting the presence of carbonatite-related lithologies analogous to those at the Mountain Pass Mine. In parallel, the identification of illite and talc is consistent with hydrothermal alteration systems commonly associated with breccia-hosted gold mineralisation. Atmospheric anomaly analysis also revealed helium and hydrogen enrichment zones, with helium concentrations notably coinciding with illite-rich areas further supporting their potential as geochemical vectors. These results were enhanced by a multivariate classifier trained on spectral data from the "Alice" REE outcrop at Mountain Pass, which highlighted multiple analogous spectral signatures across the Desert Star Project. A separate gold focused classifier reinforced the presence of structurally controlled alteration zones, further strengthening the project's dual commodity potential.

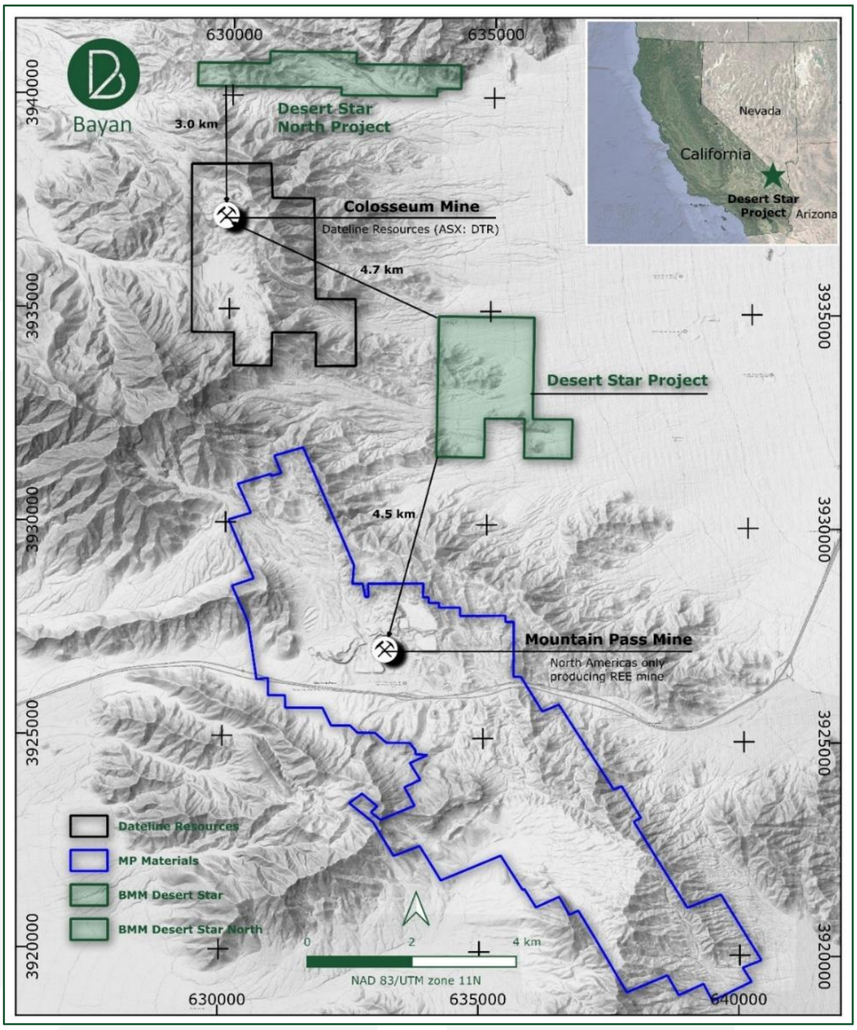

Figure 1 - Project Location Map

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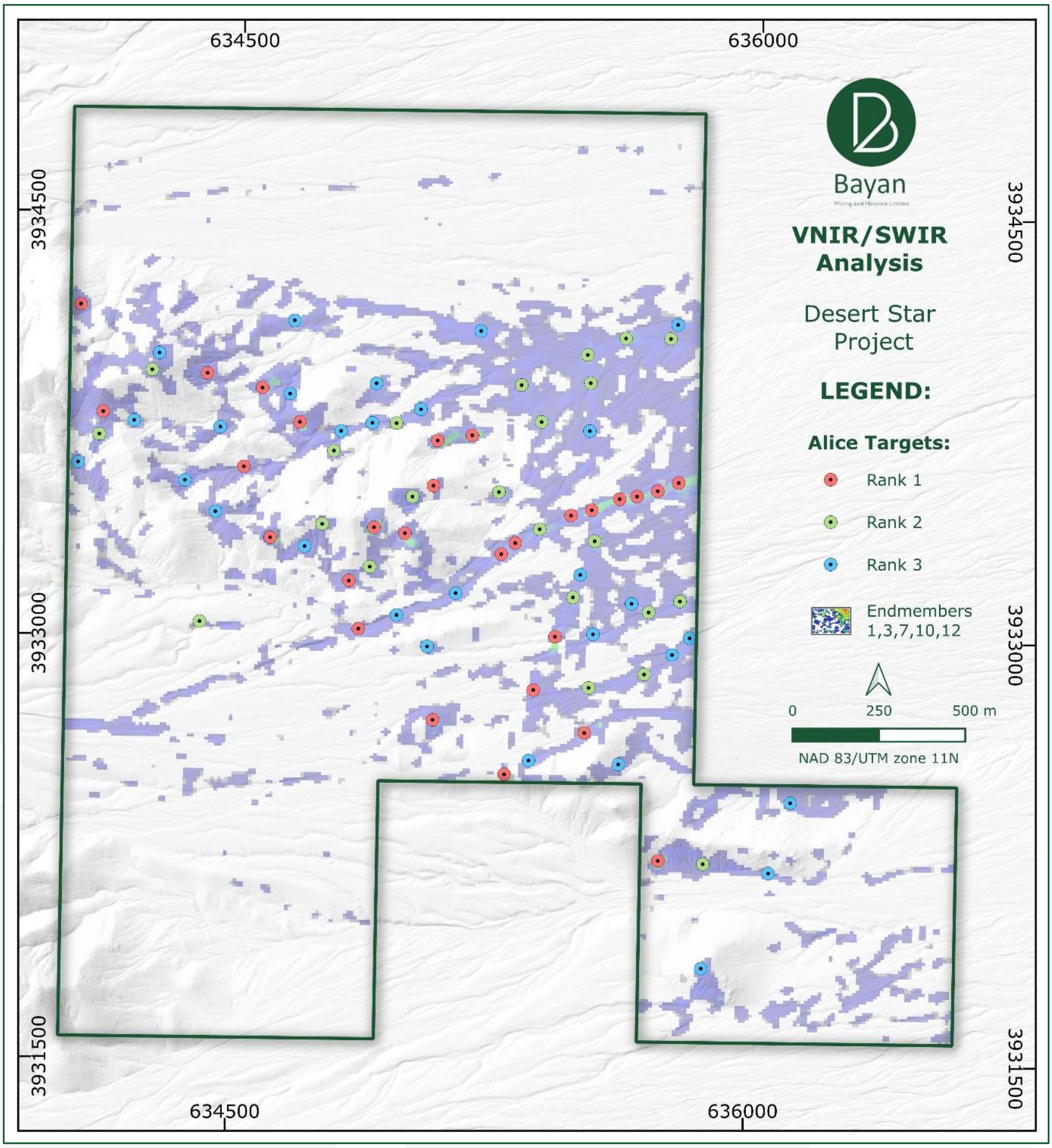

Figure 2 – Desert Star REE Classifier Output Based on Mountain Pass 'Alice' Signature

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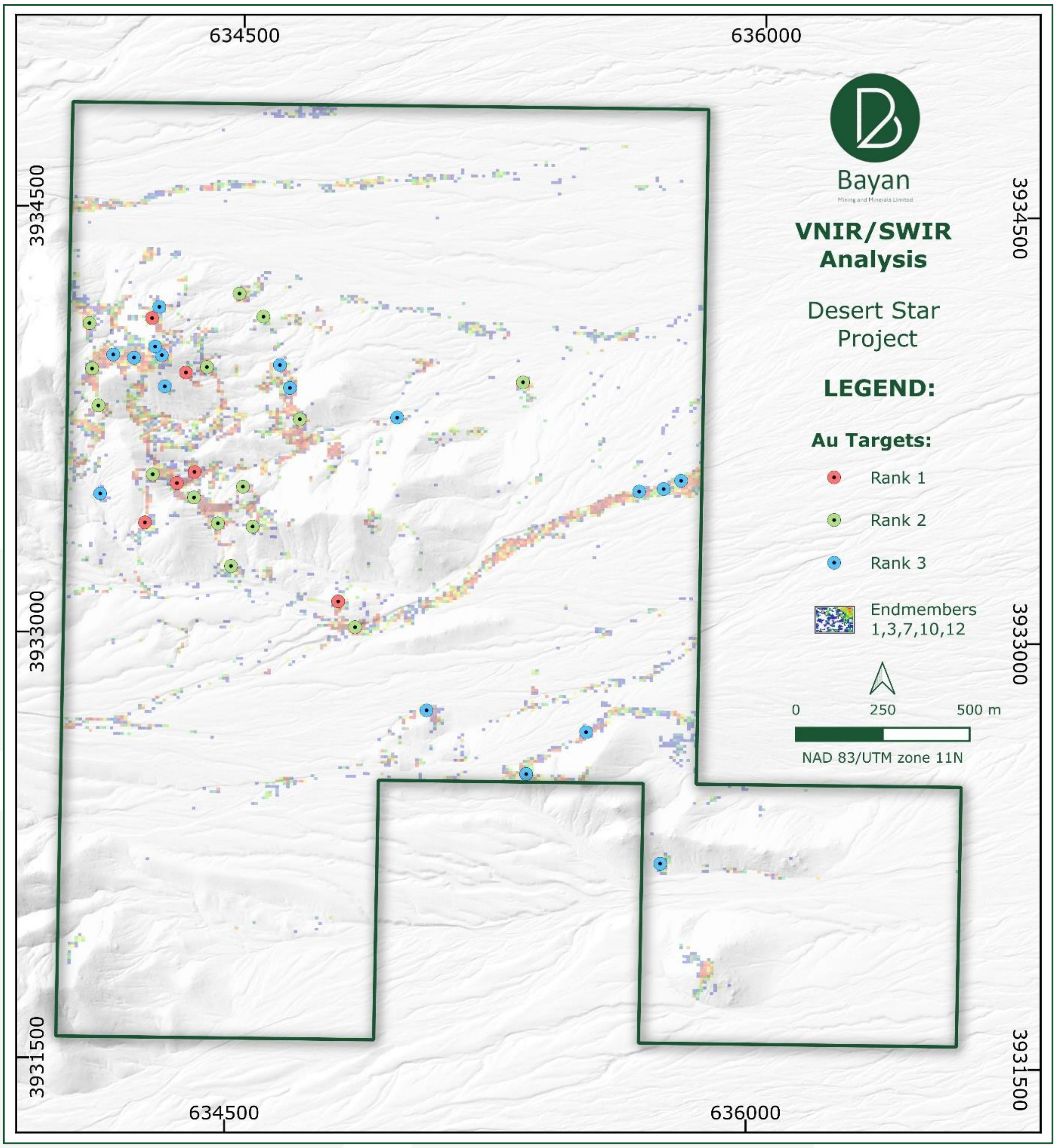

Figure 3 – Desert Star Project Gold Alteration Target Map (Illite-Talc Distribution)

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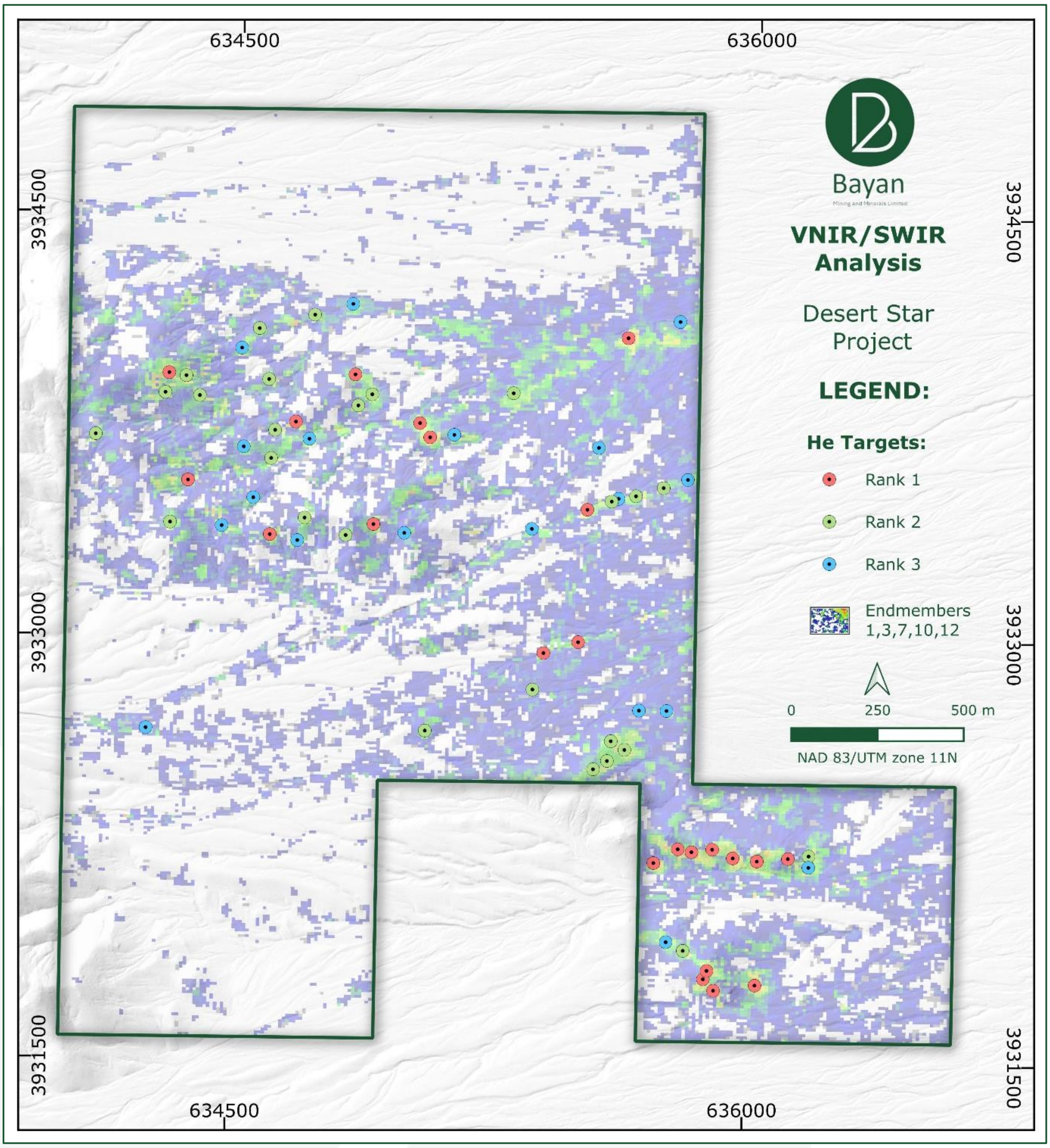

Figure 4 – Desert Star Project Helium Anomaly Heatmap

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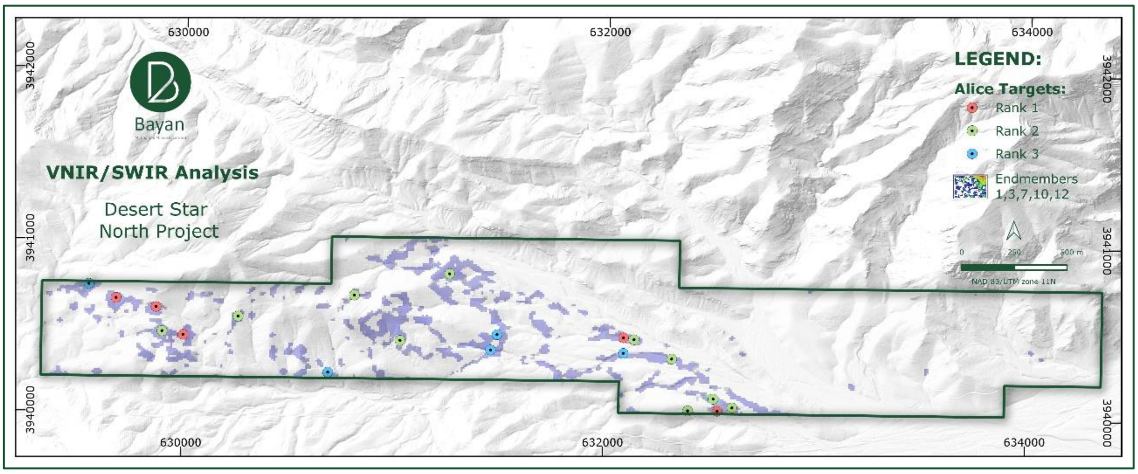

Figure 5 – Desert Star North REE Classifier Output Based on Mountain Pass 'Alice' Signature

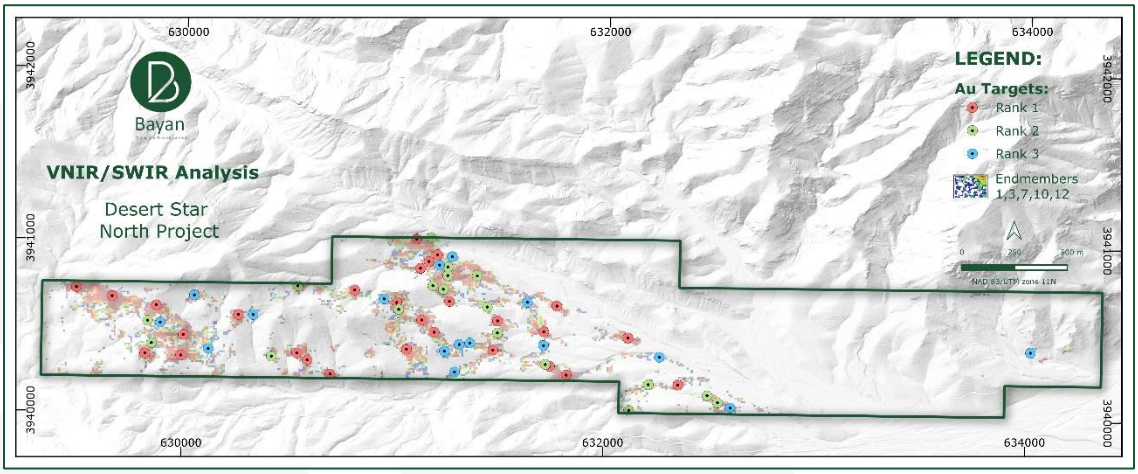

Figure 6 - Desert Star North Project Gold Alteration Target Map (Illite-Talc Distribution)

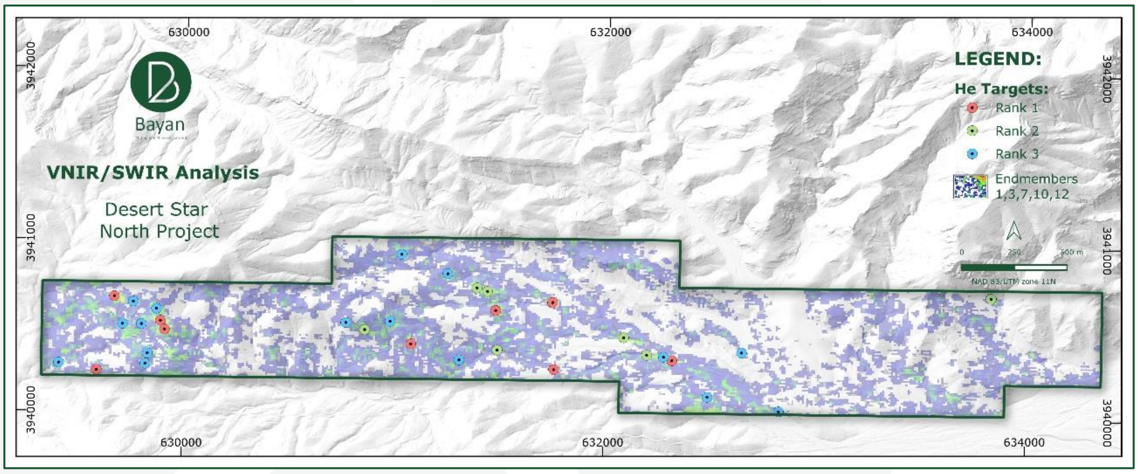

Figure 5 - Desert Star North Project Helium Anomaly Heatmap

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Executive Director Fadi Diab commented:

"We are excited to report the results of this advanced satellite imagery analysis, which further validates the significant exploration potential at the Desert Star Project. The identification of both rare earth and gold mineralisation indicators from this cutting-edge remote sensing data strengthens our belief in Desert Star's dual-commodity potential. The proximity to world-class deposits, including the Mountain Pass REE Mine and the Colosseum Gold Mine, adds a layer of strategic value to the project. With fieldwork set to commence shortly, we are confident that we're well-positioned to advance toward drill-ready targets and unlock substantial value for our shareholders."

Near Term Work Program

The Company has completed initial reconnaissance mapping and geochemical sampling across the Desert Star Project, with assay results expected in 3 to 4 weeks. A similar field program is set to begin shortly subject to contractors' availability at Desert Star North. Additionally, a detailed geophysical survey will be conducted across both project areas, aimed at enhancing structural interpretations and refining key exploration targets. The integration of geological, geochemical, spectral, radiometric, and geophysical data will provide a comprehensive foundation to prioritise areas for future drilling, ensuring a focused and efficient path forward for the project.

About Desert Star Project

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

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

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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.

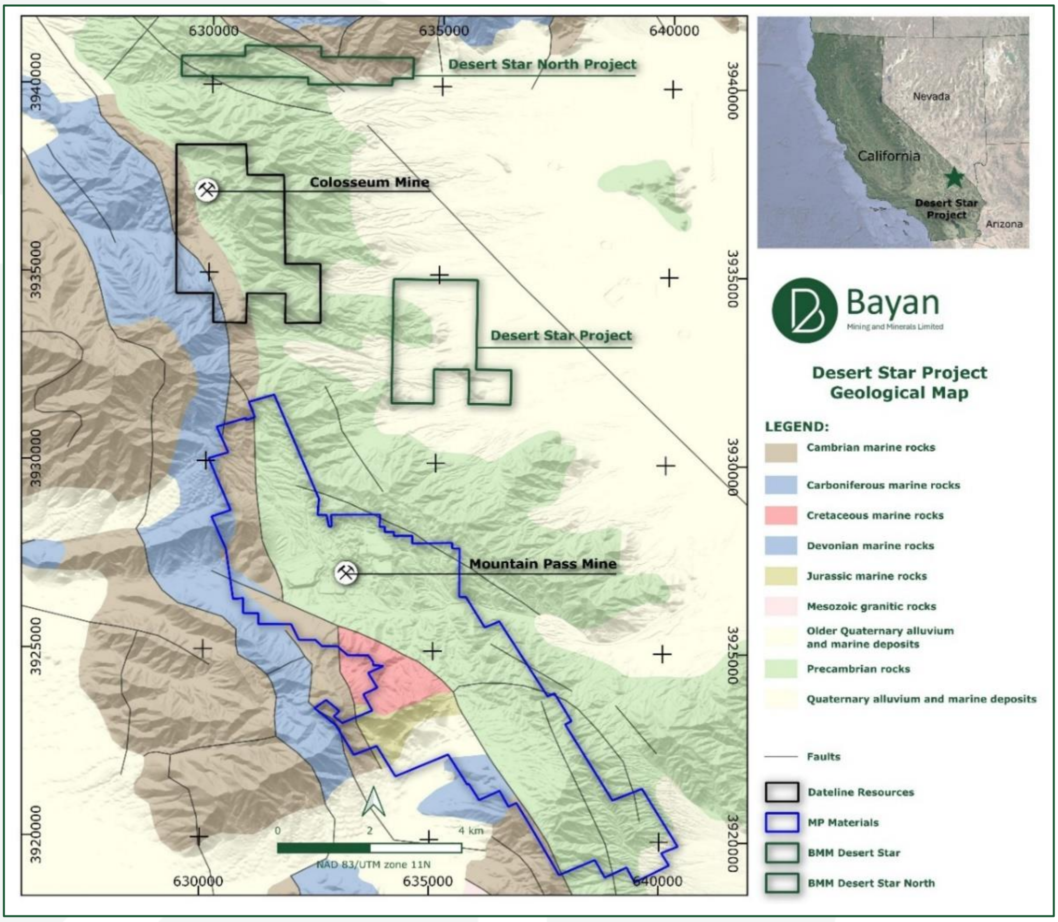

Figure 8 – Desert Star Project Locations Over Regional Geological Map

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

-ENDS-

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.

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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.

Appendix 1: JORC Table 1

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *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.*	• No physical sampling was conducted. The reported data is based solely on satellite spectral interpretation using Sentinel-2 VNIR/SWIR imagery. • Target mineralisation is inferred from spectral endmembers matched to USGS mineral libraries. This is an early-stage remote sensing technique used to identify prospective zones.
Drilling techniques	• *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).*	• Not applicable. No drilling results are being reported.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• Not applicable. No drilling results are being reported.
Logging	• *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.* • *Whether logging is qualitative or quantitative in*	• Not applicable. No drilling results are being reported.

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	nature. Core (or costean, channel, etc) photography. • *The total length and percentage of the relevant intersections logged.*	
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Not applicable. No drilling results are being reported.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	• No laboratory assays were conducted. Interpretation is based on spectral correlation with USGS mineral databases.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Spectral interpretation was conducted by Dr. Neil Pendock (Dirt Exploration) using published USGS mineral spectral libraries and multivariate classification models.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Sentinel-2 imagery has a spatial resolution of 10 m (VNIR) and 20 m (SWIR), resampled to 10 m. Interpretation is geographically referenced to UTM Zone 11N, NAD83.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Sentinel-2 data provides continuous coverage over the project areas.
Orientation of data in relation to	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	• The satellite data is orthorectified and not subject to directional bias. Interpretation accounts for surface spectral response regardless of structural trends.

geological structure	• *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.*	
Sample security	• *The measures taken to ensure sample security.*	• Not applicable. No drilling results are being reported.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The interpretation has been reviewed by the Company and is consistent with regional geological and geophysical datasets. No third-party audit has been performed.

Section 2 Reporting of Exploration Results
(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *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.*	• Desert Star comprises 72 federal lode claims (~6 km²); Desert Star North comprises 45 claims (~3.75 km²). All claims have been physically staked and filed with the U.S. Bureau of Land Management (BLM) final BLM confirmation pending.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• No systematic historical exploration is recorded on either project area. Regional datasets (e.g., USGS airborne radiometric data) have been used to support interpretation.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The projects lie within a structurally complex corridor hosting REE and gold mineralisation. REEs are associated with carbonatite-related intrusions; gold is interpreted to occur in hydrothermal systems. Major controlling structures include the Ivanpah and Clark Mountain faults
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Not applicable. No drilling results are being reported.

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Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Not applicable. No drilling results are being reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• Not applicable. No drilling results are being reported.
Diagrams	• *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.*	• Appropriate figures were included in the main body of this report.
Balanced reporting	• *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.*	• All material results from the satellite analysis are disclosed. The interpretation is preliminary and conceptual in nature.
Other substantive exploration data	• *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.*	• All relevant and material historical exploration data related to the project area is discussed, have been reported or referenced.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• The Company is planning ground truthing of spectral targets, commencement of fieldwork at Desert Star North, and a detailed geophysical survey to define drill targets.

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