

# MAIDEN EXPLORATION PROGRAM COMMENCES AT VIRGIN MOUNTAIN RARE EARTH PROJECT

## **HIGHLIGHTS**

## Virgin Mountain Rare Earth Project - USA

- Maiden exploration program underway at the Virgin Mountain Project in Arizona.
- Virgin Mountain contains historically reported high concentrations of heavy rare earth elements, including yttrium, ytterbium, dysprosium, terbium, gadolinium, holmium, erbium, lutetium and thulium, as well as valuable light rare earth elements neodymium and praseodymium.<sup>1</sup>
- ➤ Historic channel samples returned grades between 0.53% and 1.26% TREO, with heavy rare earth elements comprising up to 57% of total rare earth oxides.¹
- Exploration program will target **highly prospective historical anomalies**, with a focus on determining the extent of mineralised trends.
- ➤ Mineralisation is associated with an underexplored 760m uranium-thorium structural trend mapped by the Arizona Geological Survey.
- ➤ Recent **Chinese export control measures** affecting several heavy rare earth elements—including dysprosium, terbium, lutetium and yttrium—highlight the importance of ongoing supply diversification and underscore the strategic significance of advancing exploration in the United States.
- ➤ Virgin Mountain project is located within a region of **established infrastructure** and is proximal to the operating **Mountain Pass rare earth element mine**.

Commenting on the results, Lodestar Executive Director Coraline Blaud said: "We are very pleased to have initiated our maiden exploration program at Virgin Mountain. The historical rare earth results point to a compelling heavy rare earth opportunity, with several samples reporting a majority of heavy rare earth component. Our work now focuses on verifying this historic data, improving our geological understanding and defining priority targets for follow-up exploration. We are also putting in place the technical and strategic foundations—through our consultants and upcoming government engagement—to properly evaluate any future development options should exploration success continue."

<sup>&</sup>lt;sup>1</sup> Refer to ASX Announcement 27 October 2025.



**Lodestar Minerals Limited ("LSR" or "the Company") (ASX: LSR)** is pleased to advise that Company geologists have mobilised to site and commenced preliminary field activities at the Virgin Mountain project in Arizona, USA (Figure 1 & 2).

The maiden program marks Lodestar's first on-ground exploration work since Lodestar entered into an option agreement on the Virgin Mountain project in September 2025.



Figure 1: Lodestar lead consultant geologist on the ground

## **Historic Rare Earth Element (REE) Results**

A review of historic datasets, as detailed in ASX Announcement 27<sup>th</sup> October 2025, confirms the presence of multiple REE-enriched zones within the Virgin Mountain project. Previous operators reported the following channel sample results<sup>2</sup> from the Hummingbird Prospect (2022) (Figure 3):

- AGL-7: 1.26% TREO, 36% heavy rare earths, 20% Nd/Pr
- AGL-13: 0.72% TREO, 30% heavy rare earths, 22% Nd/Pr
- ALG-8: 0.67% TREO, 57% heavy rare earths, 14% Nd/Pr
- AGL-12: 0.61% TREO, 36% heavy rare earths, 21% Nd/Pr
- AGL-10: 0.53% TREO, 38% heavy rare earths, 21% Nd/Pr

<sup>&</sup>lt;sup>2</sup> Refer to ASX Announcement 27 October 2025.



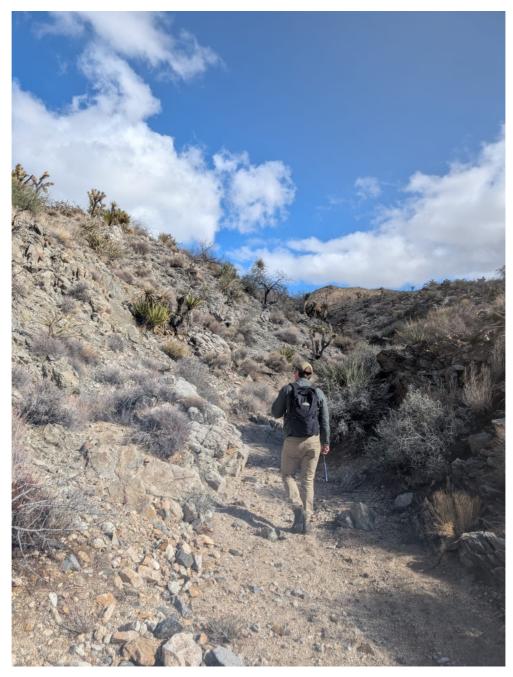


Figure 2: Lodestar consultant geologist on the ground

The historic <u>heavy rare earth element suite</u> reported includes **yttrium**, **ytterbium**, **dysprosium**, **terbium**, **gadolinium**, holmium, erbium, lutetium and thulium, alongside <u>key light rare earth</u> magnet elements **neodymium** and **praseodymium**.

This historically sampled mineralised zone remain **open along strike**. As part of the reconnaissance exercise, the exploration team aims to define these prospective structures at surface and determine the extent of mineralisation.



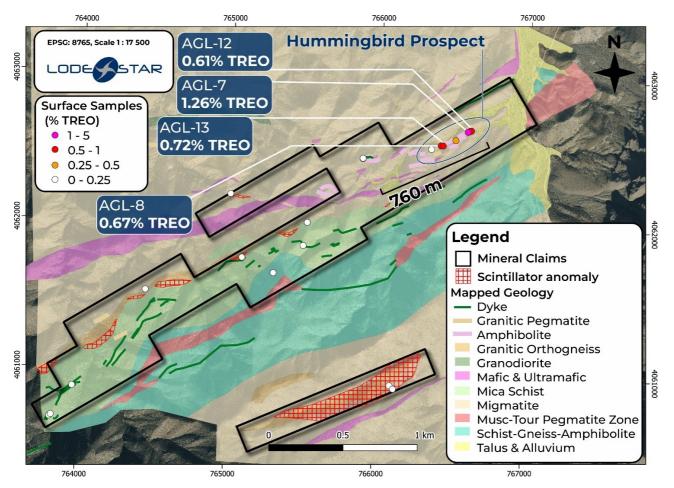


Figure 3: Project geology and assay results over the Virgin Mountains Project

#### **Current field program**

Lodestar's on ground activities now underway includes priority work at the Virgin Mountain project:

- Verification of historical sample and shaft locations
- Surface rock-chip sampling across the prospect area and along strike
- Reconnaissance geological and structural mapping
- o Integration of historic datasets with new site observations
- Review of access, logistics and permitting considerations

The team will also conduct generative review of potential new projects within the vicinity. Projects will be assessed to determine geological setting and potential to host an economic Rare Earth Element orebody.

This initial exploration program will aim to develop additional high-priority targets to be tested in the future and provide foundations of which to base more substantial future exploration as well as expanding the footprint and impact of Lodestar in the rare earth element exploration space in the USA.

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#### **Technical & Downstream Planning**

Lodestar is committed to its rare earth element exploration program and has recently engaged **rare earth element specialised geologists and metallurgical consultants** with expertise across mineralogy, processing and downstream supply chains.

Their early-stage role includes:

- Assisting with interpretation of host geology and REE mineralisation
- Advising on mineralogical and metallurgical testwork programs
- Providing guidance on potential downstream processing options, subject to exploration success and technical results

This ensures Lodestar's exploration strategy is informed by downstream technical requirements from the start.

## **Government Engagement**

As part of its broader strategic planning, Lodestar intends to **engage with government agencies** in both Australia and the United States that administer **critical minerals programs, development pathways and potential financing initiatives**.

These engagements will be exploratory and form part of Lodestar's ongoing assessment of future development options.

#### **Next Steps**

In the USA, following completion of the initial fieldwork program, Lodestar will:

- Analyse newly obtained geological and geochemical data, using to validate historic workings and determine relevance of historic uranium structures and targeting.
- Plan the next stage of outcrop mapping, comprehensive surface sampling and groundbased geophysical assessment.
- Utilise field observations to better understand geological and structural constraints on mineralisation, findings will be used to refine subsurface targets.
- Move to commence mineralogical studies (confirm the presence of ore-forming REE minerals) and develop early target zones for collection of bulk metallurgical samples.

Lodestar has also started a review of the mineralisation potential of the Ned's Creek Gold project in Western Australia ahead of the drilling planned for early 2026. The Chilean team is constantly monitoring the desert wildflower event in Chile ahead of the drilling program at Three Saints project plan to start early December.



#### **About Lodestar**

Lodestar Minerals is an active critical metals, gold and base metals explorer. Lodestar's projects include the Virgin Mountain REE project in USA, the Darwin and Three Saints Copper & Gold projects in Chile and the 100% owned Earaheedy and Ned's Creek Gold projects in Western Australia (Figure 4).



Figure 4: Global map of Lodestar Projects

This announcement has been authorised by the Board of Directors of the Company.

-ENDS-

#### **Contacts**

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## **Competent Person Statement**

The information in this report that relates to Exploration Results is based on information compiled by Coraline Blaud, Director and Head of Exploration, who is a Member of the Australasian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ms Blaud consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

This announcement is available to view on the Lodestar website. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.