

Drilling Underway at Lithium Targets in Brazil's Lithium Valley

ASX Announcement 21 February 2025

Lightning Minerals (L1M or the Company) is pleased to report that Energold Drilling S.A. has begun drilling at the Company's Esperança lithium project in the Lithium Valley region of Minas Gerais, Brazil. Drilling is targeting spodumene pegmatites discovered at Esperança project in November 2024 (ASX Announcement 18 November 2024 and ASX Announcement 17 January 2025).

HIGHLIGHTS

- Up to 2,000m of drilling to test spodumene within pegmatites at the Esperança lithium project has begun
- Drilling to focus on identified N-E trending pegmatites with proven spodumene and elevated lithium in soil anomalies
- Energold Drilling S.A. will complete drilling. Highly experienced in lithium exploration in the Lithium Valley region of Minas Gerais

Lightning Minerals Managing Director Alex Biggs said, "Drilling has begun at Esperança which is a great step forward for the Company in the execution of its exploration plans in Brazil. We have always known that the Lithium Valley is highly prospective and with a clear initial target at Esperança we're excited about the potential for our projects and the Company moving forwards. Esperança is our priority one target but we are continuing works at both our Caraíbas and Canabrava projects where multiple lithium targets have been identified. Plans are underway for drilling programs at Caraíbas later in 2025. We wish our team a safe and productive drilling campaign and we look forward to updating the market on our progress in due course".

Drilling Begins at Esperança Project

A diamond drill program for up to 2,000m has begun at the Company's Esperança lithium project this week focusing on lithium targets identified in November 2024 (ASX Announcement 18 November 2024) and proven spodumene in pegmatites (ASX Announcement 17 January 2025).

The program is designed to test for the potential of pegmatites beneath those already identified at and near surface, which are highly weathered. The drill program will be conducted utilising Energold's specialist modular drill rigs which minimise clearing requirements, environmental impacts and allow for flexibility in drilling. This is important as drill plans may change as further information on the target area is understood as the drill program advances.

Ongoing Works in Brazil

In parallel to the Company's inaugural drill program at the Esperança project ground reconnaissance is continuing at both the Caraíbas and Canabrava projects where lithium in soil anomalism up to 429ppm Lithium and 320ppm Lithium have been identified respectively (ASX Announcement 17 January 2025). Drill targeting is being evaluated across multiple target areas with plans for further drilling later in 2025.



Figure 1: Energold drill rig on site at the Esperança project

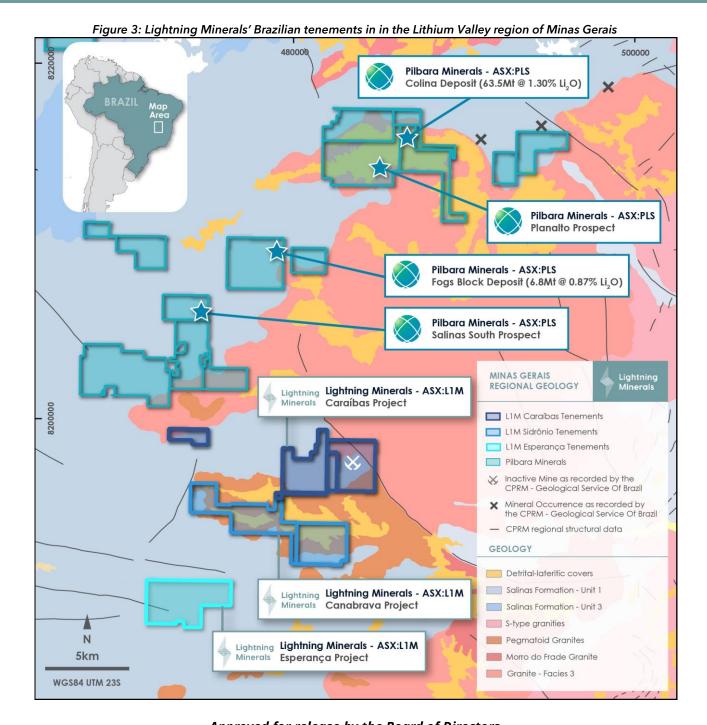




460000 500000 540000 Pilbara Minerals - ASX:PLS Colina Deposit (70.9Mt@ 1.25% Li₂O) Pilbara Minerals - ASX:PLS Fogs Block Deposit (6.8Mt @ 0.87% Li₂O) MINAS GERAIS Lightning Minerals Lightning Minerals - ASX:L1M Caraíbas Project REGIONAL GEOLOGY L1M Caraíbas Tenements L1M Sidrônio Tenements Lightning Minerals - ASX:L1M Minerals Canabrava Project L1M Esperança Tenements Pilbara Minerals Lightning Lightning Minerals - ASX:L1M Sigma Lithium Resources Minerals Esperança Project Rio Tinto Atlas Lithium Corporation Lithium Ionic Inactive Mine as recorded by the CPRM - Geological Service Of Brazil GEOLOGY Ferruginous detrital-lateritic coverings Chapada Acauã Formation Nova Aurora Formation Sigma Lithium - TSX:SGML Ribeirão da Folha Formation Grota Do Cirilo Project (108.9Mt @ 1.41% Li₂O) Salinas Formation Córrego da Chuva Granite N S-type granites, late to post-collisional 25km Type-I granites, post-collisional **WGS84 UTM 23S**

Figure 2: Lightning Minerals' tenements in in the Lithium Valley region of Minas Gerais (Regional location)





Approved for release by the Board of Directors

-END-

More information at www.lightningminerals.com.au



ABOUT LIGHTNING MINERALS

Lightning Minerals is a mineral exploration company, listed on the Australian Securities Exchange (ASX:L1M) and focused on the exploration of critical minerals and lithium at its tenements across Western Australia. The acquisition of the Caraíbas, Canabrava and Esperança lithium projects in Minas Gerais, Brazil are potentially transformational to the Company's success in the lithium sector. The Company also owns the Dundas project in the prolific Dundas region of Western Australia, the Dalmas and Hiver lithium projects in Quebec, Canada, another significant and evolving lithium region globally. The Company also holds other projects in Western Australia which include Mt Bartle and Mailman Hill which are prospective for base metals and critical minerals.

FORWARD LOOKING STATEMENTS

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

COMPETENT PERSONS STATEMENT

The information contained herein that relates to exploration results is based on information compiled or reviewed by Mr Jarrad Woodland, who is a Competent Person and a member of the Australasian Institute of Mining and Metallurgy. Mr Woodland is a full-time employee of the Company. Mr Woodland has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Woodland consents to the inclusion of his name in the matters based on the information in the form and context in which it appears. Mr Woodland holds options in Lightning Minerals.

REFERENCES TO PREVIOUS ANNOUNCEMENTS

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, and that all material assumptions and technical parameters have not materially changed. The Company also 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.