

Start of Works at Esperança Project in Lithium Valley, Brazil

ASX Announcement
09 October 2024

Lightning Minerals (L1M or the Company) is pleased to announce the start of soil sampling and ground reconnaissance works at its Esperança lithium project in the Lithium Valley region of Minas Gerais. Following the signing of an option agreement to acquire the project (ASX Announcement 14 August 2024) the Company has moved quickly to utilise the current on-ground exploration team currently completing soil sampling and ground reconnaissance at its Canabrava and Caraíbas lithium projects.

The Esperança exploration program will continue the positive works already completed by the Company in the region with initial positive results from soil sampling at Canabrava identifying potential early-stage drill targets with elevated lithium in soil assays up to 113ppm lithium (ASX Announcement 03 October 2024).

The on-ground works at Esperança will utilise the same approach already successfully employed at the Canabrava and Caraíbas lithium projects focusing on ground reconnaissance, soil sampling and geophysics interpretation.

HIGHLIGHTS

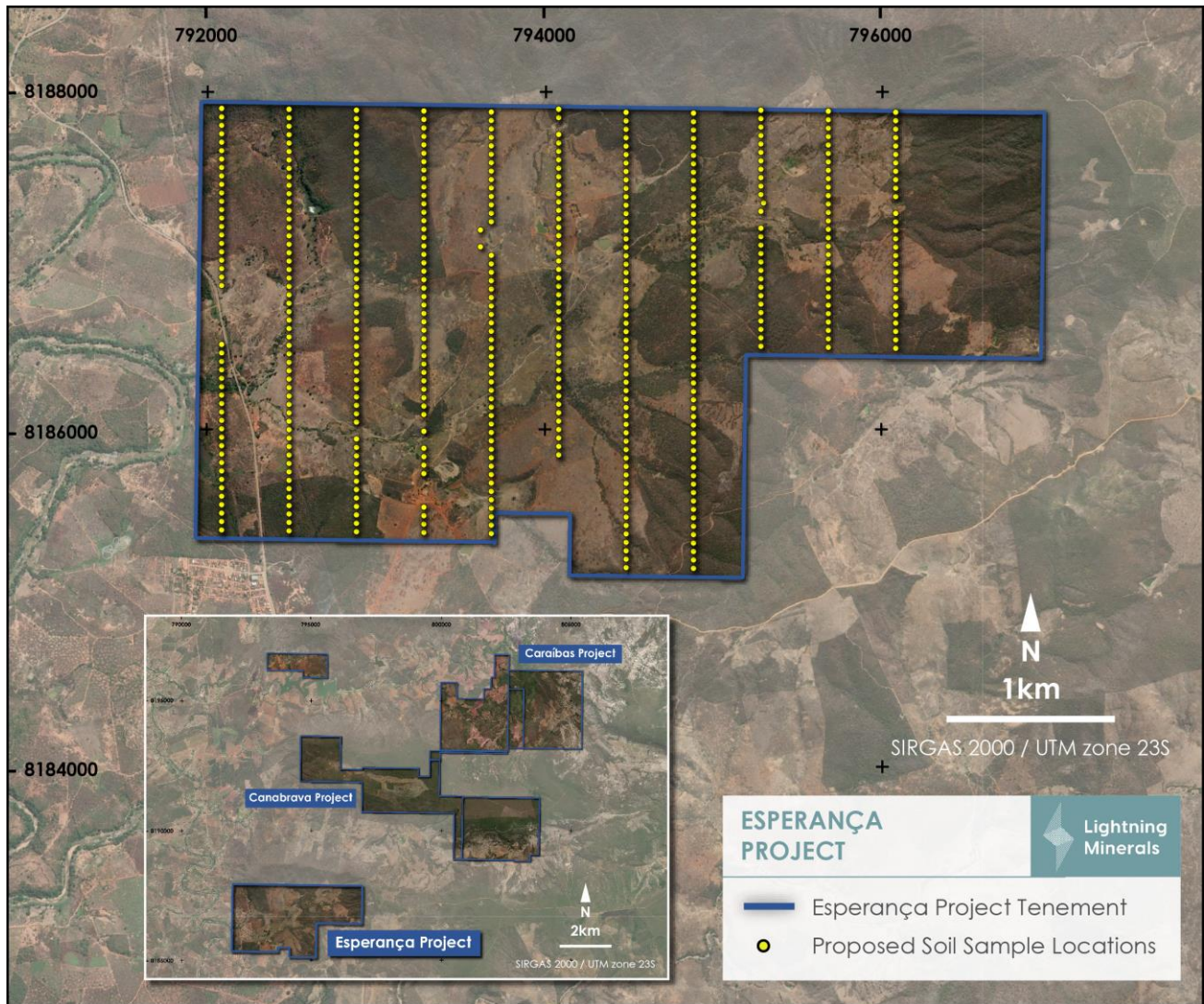
- **Additional local exploration teams secured to expedite soil campaign across highly prospective Esperança tenement**
- **Extensive soil program consisting of ~500 samples to begin imminently testing Salinas Formation rocks proximal to granites**
- **Securing additional field team accelerates Lightning Minerals' aggressive exploration strategy in Brazil**

Lightning Minerals Managing Director Alex Biggs said, "We're accelerating our work programs in Brazil to ensure our early-stage works are completed across all our projects quickly and effectively. Our geology team is nimble and knowledgeable and that allows us to conduct our works as cost effectively for the best outcome. The acquisition of Esperança is another step in our plans to consolidate our land holding in the Lithium Valley, an area we see as significantly under explored but with massive potential for discovery, as proven by other operators in the region over recent years. The next couple of months is a busy time for the Company as we begin to see results returned from across all our projects which will allow us to identify and prioritise drill targeting and increase our chances of making a discovery. I look forward to keeping you all informed of our progress and thank our team for their hard and diligent work".

Esperança Phase 1 Soil Sampling

The planned soil sampling program at Esperança consists of approximately 500 samples, to be taken at 50m spacings along N-S orientated sample lines. The sample lines will be spaced at 400m (Figure 1). The soil grid has been designed to cover much of the tenement during the first pass, this approach is aided by relatively low-moderate topographic relief and a low vegetation density which supports an aggressive sampling campaign that may be executed quickly and at a low cost.

Figure 1: Esperança project showing planned north-south orientated soil traverse and proposed soil sample locations



Esperança Ground Reconnaissance Works

During June 2024 the Company aided by highly experienced local lithium geologists visited the Esperança project area. Leveraging the knowledge of local geologists, the field team multiple sites of interest that may represent lithium potential.

Figure 2: Esperança Project reconnaissance site trip during June 2024



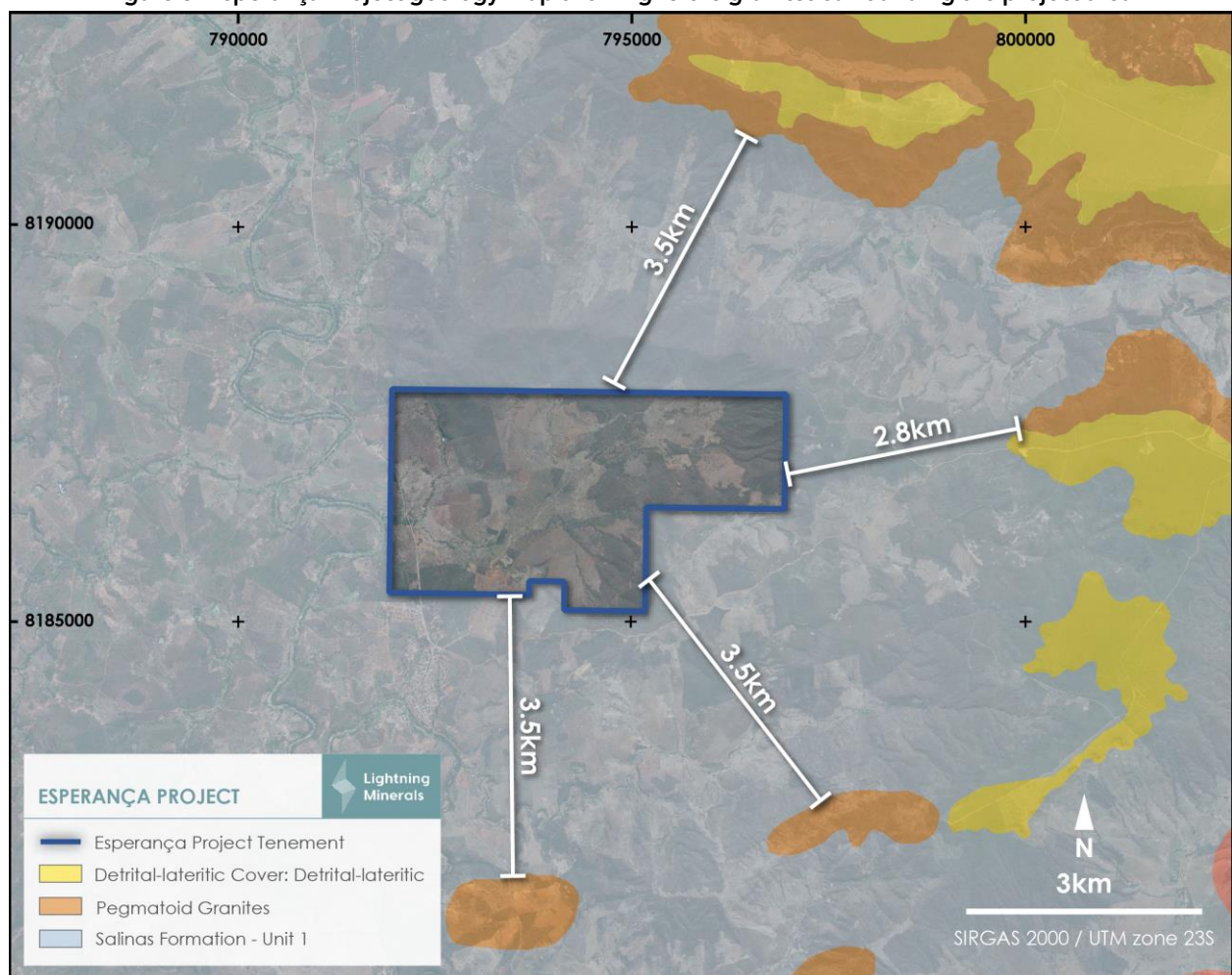
The proposed soil program now aims to identify regions within the tenement which may have the right geochemistry to support further exploration for lithium deposits. A geological mapping program will be undertaken in parallel to the soil program to collect data from outcropping geology within the project area.

Esperança Exploration Thesis

The Esperança project is considered of excellent prospectivity given its position proximal to fertile S-type granites within the region. The project has Palaeozoic S-type granites as mapped by the Brazilian Geological Survey to the north, east and west of the project area (Figure 3). Lithium deposits are often associated with these S-type granite batholiths as they are theorised to be the fundamental source for the lithium in hardrock deposits. The granites surrounding the project are documented with 'rich black tourmaline and, more rarely, garnet, pink and green tourmaline and lepidolite', the thesis is that these granites could represent a potential source for primary hydrothermal fluids that have the correct geochemistry for lithium formation.

In global context lithium deposits are usually not found within the granite themselves, but rather at a critical distance of 1 to 12 kilometres away from the source granitic rocks. The Esperança project is located between 3-4 kilometres away from S-type granitoids which is well situated based on this thesis. The ground observations during the reconnaissance visit in June 2024 are considered a positive indicator.

Figure 3: Esperança Project geology map showing fertile granites surrounding the project area.



Ongoing Works in Brazil

Phase 1 soil sampling is complete at the Canabrava project with identification of multiple pegmatite outcrops and lithium in soil anomalism up to 113ppm lithium (ASX Ann: 03 October 2024). Phase 1 soil sampling is ongoing at the Caraibas project with results expected imminently, testing priority targets

identified during ground reconnaissance works and initial desktop studies. Plans are now being developed to begin infill soil sampling at the target areas at the Canabrava project.

Geophysics interpretation works are also pending across all three project areas. The combination of ground reconnaissance, soil sampling and geophysics is critical to ensuring confident identification of targets for drilling.

Figure 4: Lightning Minerals' Brazilian tenements in regional context of the Lithium Valley region of Minas Gerais

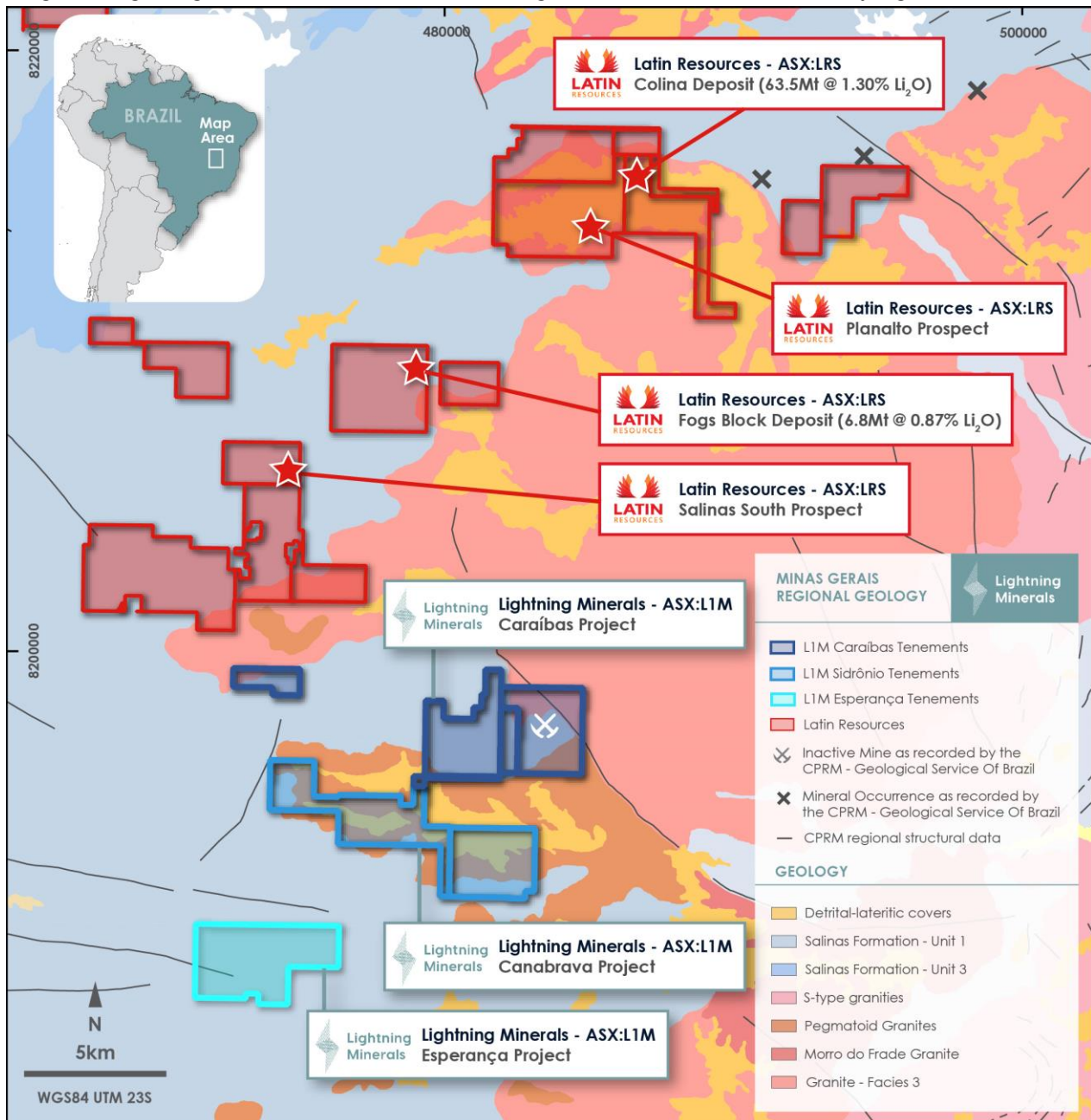
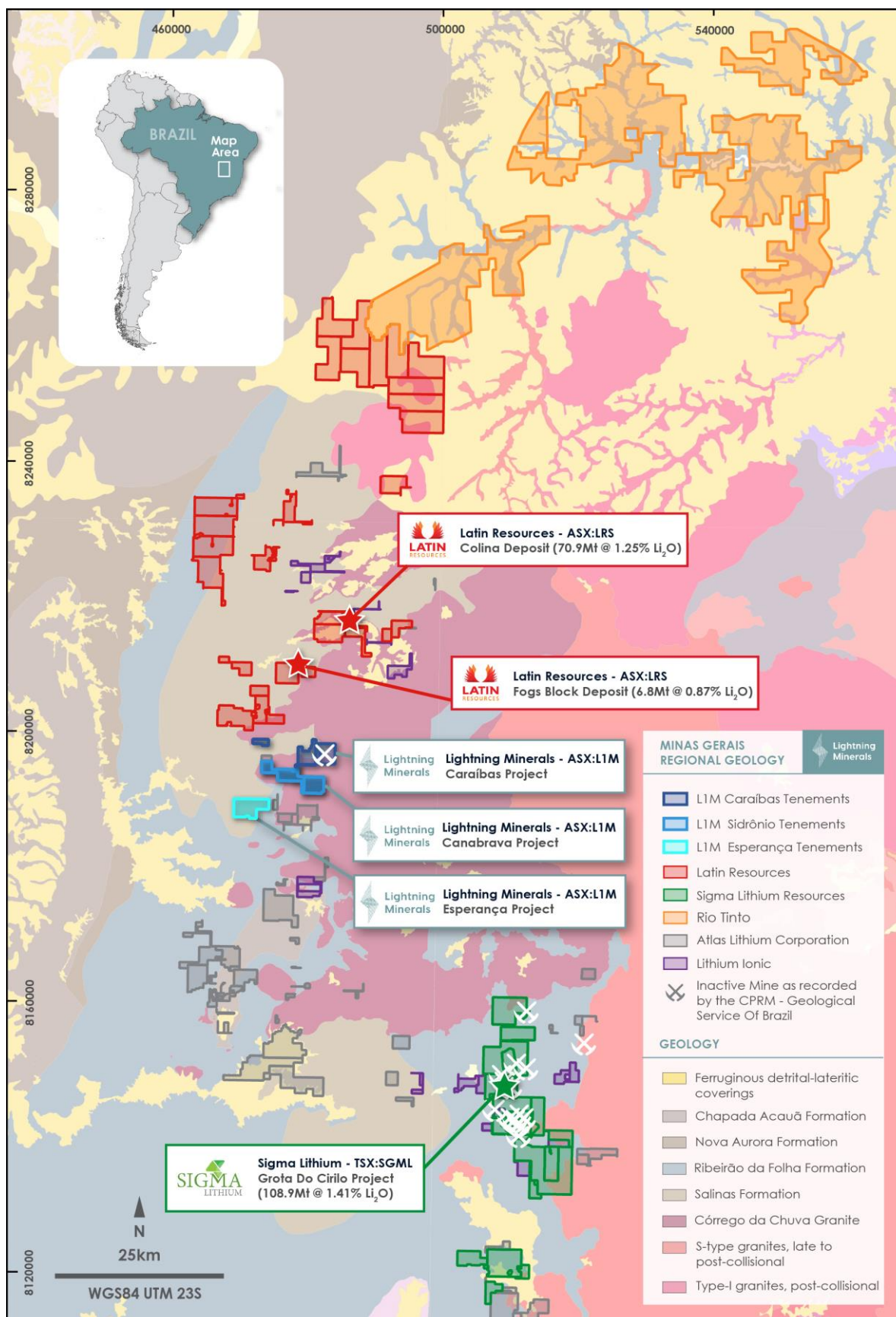


Figure 5: Local project location of Lightning Minerals' Brazilian lithium projects



Approved for release by the Board of Directors

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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 recent acquisition of the Caraibas, Sidrônio (now 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 Jewell, 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.