

ASX Announcement

17 October 2023

EXPLORATION WORKS BEGIN ON DALMAS AND HIVER LITHIUM PROJECTS IN QUEBEC

Lightning Minerals (LIM or the Company) is pleased to announce that it has begun its initial exploration program at its Dalmas and Hiver Projects in the James Bay region of Quebec, Canada. The program is designed to identify potential lithium-caesium-tantalum (LCT) pegmatites from which drill targets can be developed. The James Bay region is a prolific lithium region, home to multiple tier one lithium resources.

HIGHLIGHTS

- **Ground reconnaissance works to be completed at Dalmas and Hiver Projects including mapping and rock chip sampling to identify potential LCT pegmatites**
- **Works will follow up on areas of interest as identified during Multispectral analysis¹**
- **165 discreet signatures that form seven exploration target areas¹ identified across both projects. Target areas up to 2.7km in length at Dalmas and 2.1km in length at Hiver**

Following successful completion of the acquisition of the Dalmas and Hiver Projects on 16 October 2023, the Company now moves into the first phase of exploration. As outlined in ASX announcement 30 August 2023 165 potential targets (Dalmas, 113 targets and Hiver, 52 targets) have been identified. The majority of multispectral targets appear to occur in four clustered areas at Dalmas, and three at Hiver.

Lightning Minerals Managing Director Alex Biggs said, “To begin work in Canada is a big step forward for the Company. The prospectivity of the region is well known so to make an acquisition in James Bay is a significant coup for us. We welcome our contractors and new colleagues in Canada and wish them a safe and productive exploration campaign. We look forward to updating the market on our progress”.

DALMAS PROJECT - TARGET GENERATION

The Dalmas Project is located in the James Bay region of Quebec approximately 150km to the east of Patriot Battery Metals’ (ASX: PMT) Corvette lithium project and 45km to the east of Winsome Resources’ (ASX: WRI) Adina lithium project. Within the Dalmas Project area 113 discreet multispectral signatures have been identified, which broadly form four clustered areas for follow up investigation (Figures 1 and 2). These signatures have the potential to represent lithium-caesium-tantalum (LCT) pegmatites.

Note 1: Further exploration work including the verification of historically mapped pegmatitic outcrops is necessary. The nature of the geological outcrop mapping is currently unknown and the presence of pegmatitic lithologies does not necessarily indicate the presence of lithium, tantalum or caesium mineralisation. Only laboratory chemical assays can determine the presence and grade of any mineralisation.

¹ASX Announcement 30 August 2023

Figure 1: Dalmas Project with identified multispectral pegmatite targets (red outlines) on Sentinel 2 composite image

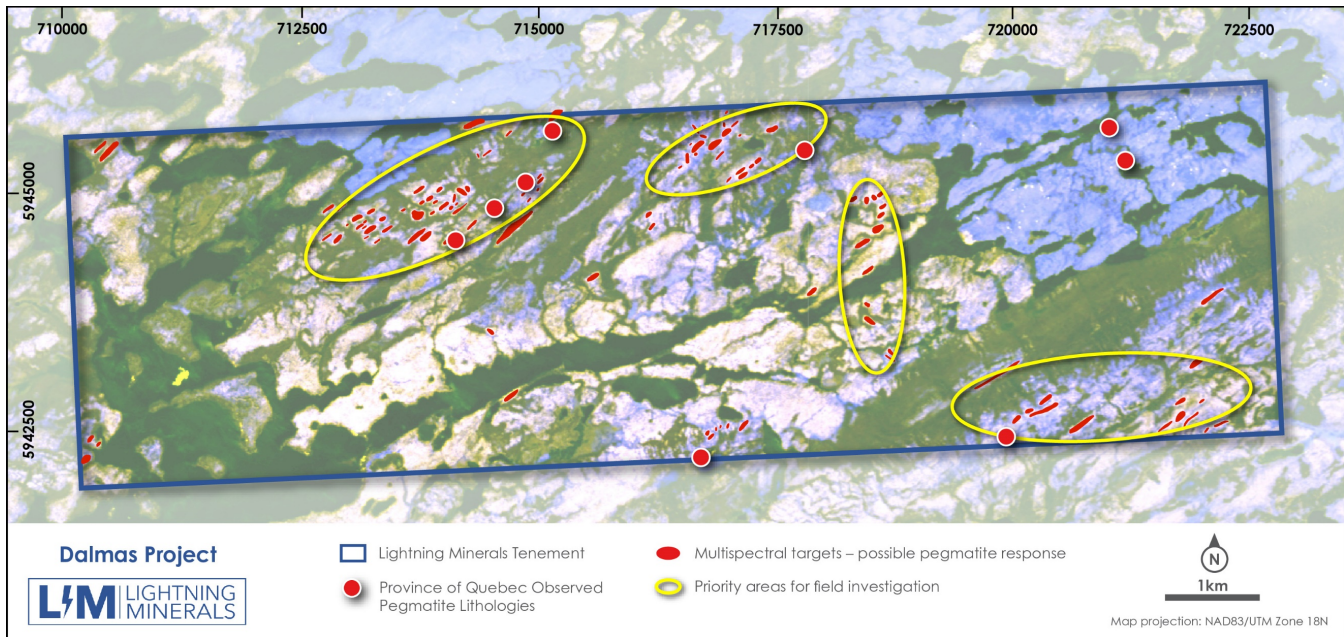
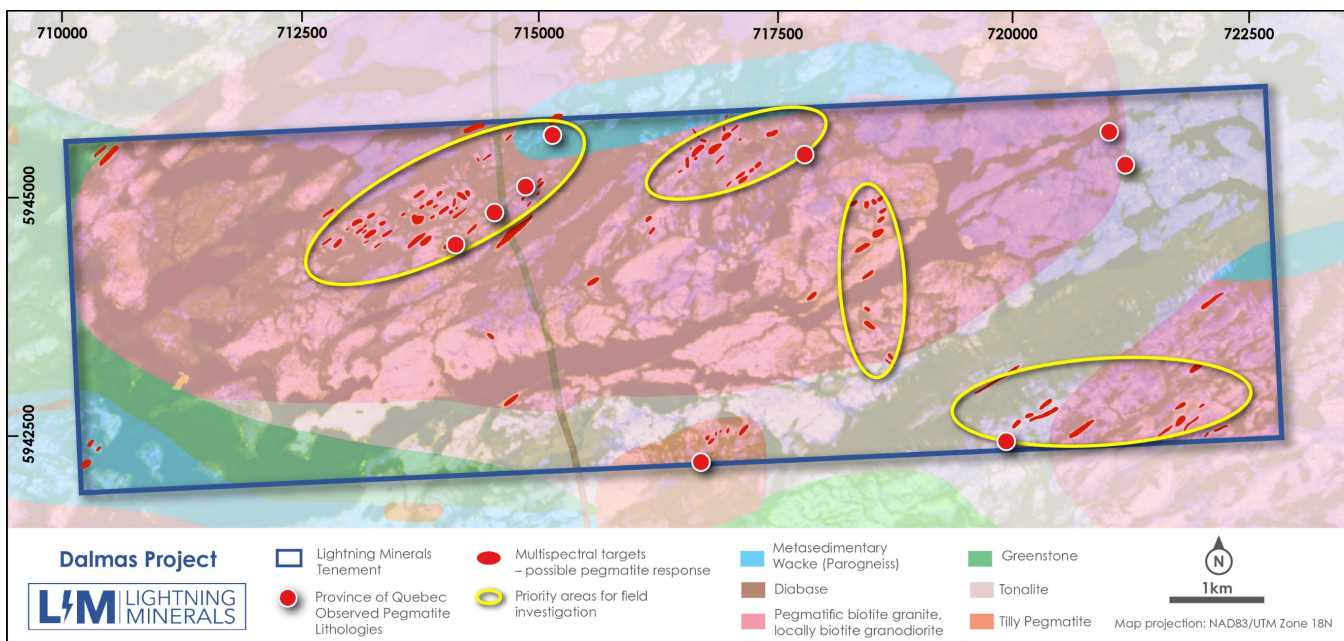


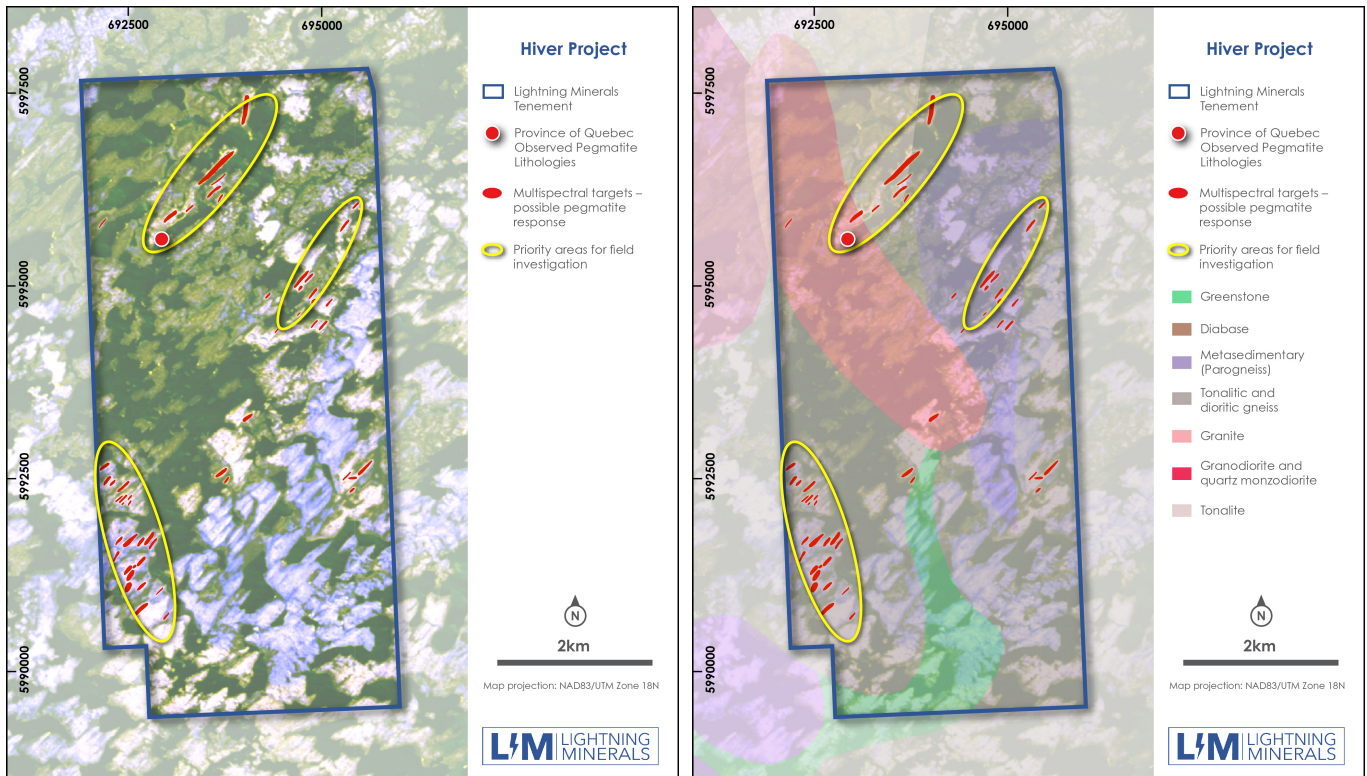
Figure 2: Dalmas Project with identified multispectral pegmatite targets (red outlines) on Sentinel 2 composite image and 1:2,000,000 QGS interpreted bedrock geology



HIVER PROJECT – TARGET GENERATION

The Hiver Project is also located in the James Bay region of Quebec, covers an area of 32km² and is located approximately 4km from the Trans-Taiga Road highway. The Project is adjacent to Megado Resources' (ASX: MEG) Cyclone lithium project and in the proximity of multiple lithium exploration opportunities. The Hiver project contains 52 discreet potential pegmatite signatures which have been identified. These broadly form three clustered areas for follow up investigation (Figure 3 and 4). Quebec Geological Survey historic outcrop mapping information is also displayed in Figure 4. Previously mapped outcropping pegmatite lithologies occur at one of the three priority areas.

Figure 3 and 4: Hiver Project with identified pegmatite targets (red outlines) on Sentinel 2 composite image; and 1:2,000,000 QGS interpreted bedrock geology.

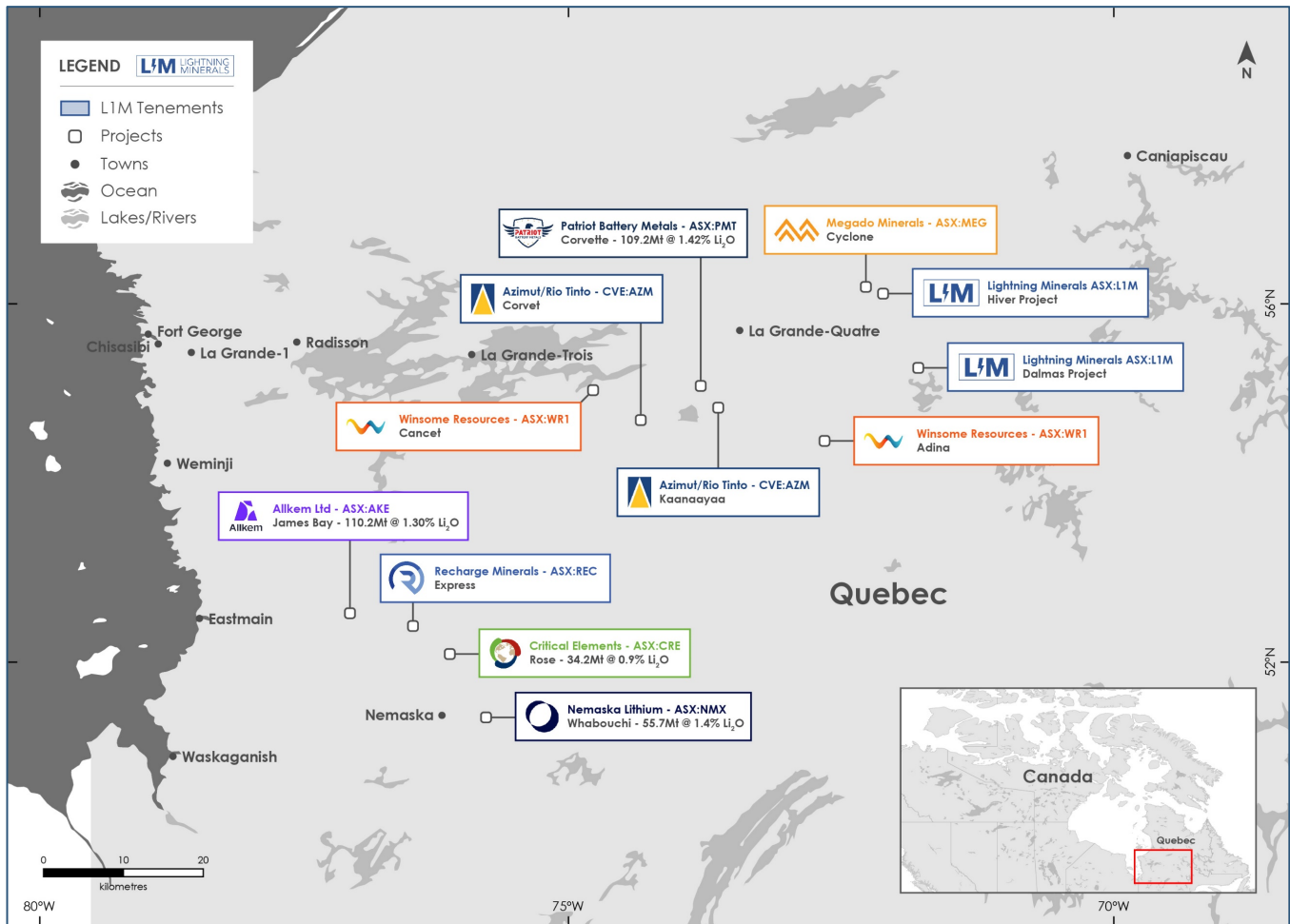


ABOUT THE PROJECTS AND QUEBEC AS A SIGNIFICANT LITHIUM REGION

The Company signed a binding letter of intent on 11th August 2023 to acquire two project areas, Dalmas and Hiver in the James Bay region of Quebec, Canada. Quebec is quickly becoming one of the world's leading lithium regions, particularly the James Bay district which hosts multiple large scale lithium projects including:

- Patriot Battery Metals' (ASX: PMT) Corvette lithium project² consisting of 109.2Mt @ 1.42% Li₂O Inferred, currently the largest hard rock lithium deposit in the Americas
- Nemaska Lithium's (TSX: NMX) Whabouchi lithium project³ with 55.7Mt @ 1.4% Li₂O consisting of 38.5Mt @ 1.45% Li₂O Measured and Indicated and 17.2Mt @ 1.29% Li₂O Inferred
- Critical Elements' (TSX.V: CRE) Rose lithium project⁴ with 34.2Mt @ 0.9% Li₂O consisting of 31.5Mt @ 0.91% Li₂O Indicated and 2.7Mt @ 0.77% Li₂O Inferred
- Sayona Mining's (ASX: SYA) Moblan lithium project⁵ with 51.4Mt @ 1.30% Li₂O Measured, Indicated and Inferred
- Allkem's (ASX: AKE) James Bay lithium project⁶ with 54.3Mt @ 1.30% Li₂O Indicated and 55.9Mt @ 1.29% Li₂O Inferred
- Winsome Resources' (ASX: WR1)⁷ who are exploring multiple lithium exploration projects in the region

Figure 5: Dalmas and Hiver project locations, James Bay, Quebec



REFERENCES

¹ASX Announcement 30 August 2023

²Patriot Battery Metals (PMT) ASX Announcement 31 July 2023

³Nemaska Lithium's TSX Announcement 09 August 2019

⁴Critical Element's TSX.V Announcement 27 July 2022

⁵Sayona Mining's ASX Announcement 17 April 2023

⁶Allkem's ASX Announcement 11 August 2023

⁷Winsome Resources (WR1) ASX Announcement 01 August 2023

⁸Sentinel-2 - Lithium combination (Kohler, 2021), ASTER Lithium - combination (Cardoso-Fernandes, Joana & Teodoro, A. & Lima, A. & Perrotta, Mônica & Roda-Robles, Encarnacion. (2020))

LIGHTNING MINERALS PROJECT PORTFOLIO - AUSTRALIA

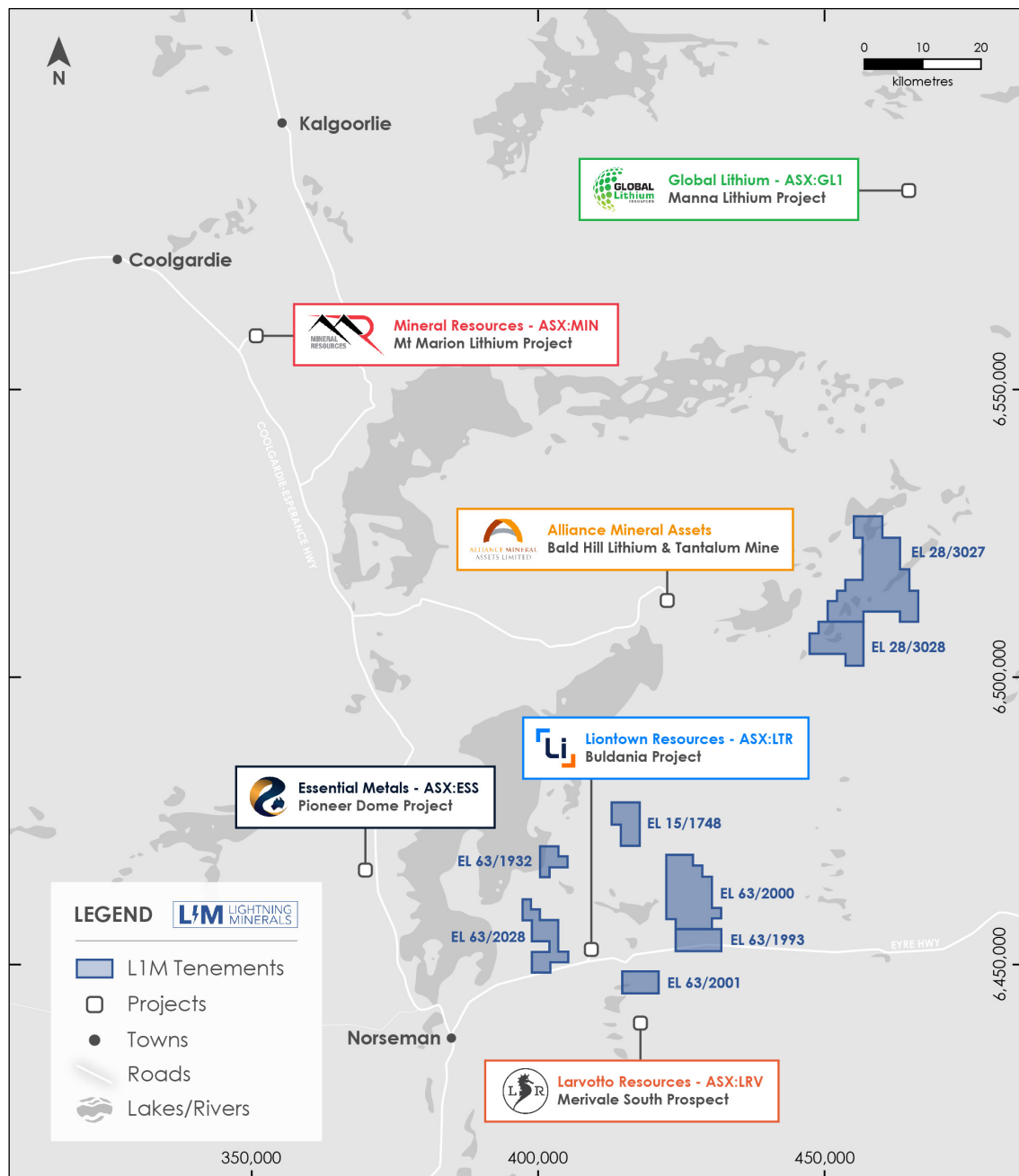
DUNDAS PROJECT (LIGHTNING MINERALS 100%)

The Dundas Project area is located near Norseman in Western Australia and comprises eight tenements totalling approximately 454km². Norseman has a strong history of mining dating back to 1892 and is located 190km south of Kalgoorlie. Historically, Norseman and the Dundas area has experienced mining in gold and nickel although over recent years the region has emerged as a lithium and critical minerals province with multiple discoveries and significant exploration activity. Exploration is ongoing across the Dundas tenements.

There are two project areas at Dundas:

- South/western tenements surrounding Liontown Resources' Buldania/Anna lithium Project, and,
- North/eastern tenements approximately 30km to the east of Alliance Mineral Assets' Bald Hill lithium-tantalum Mine.

Figure 6: Location of Lightning Minerals' Dundas Projects



MT JEWELL, MAILMAN HILL AND MT BARTLE PROJECTS (LIGHTNING MINERALS 100%)

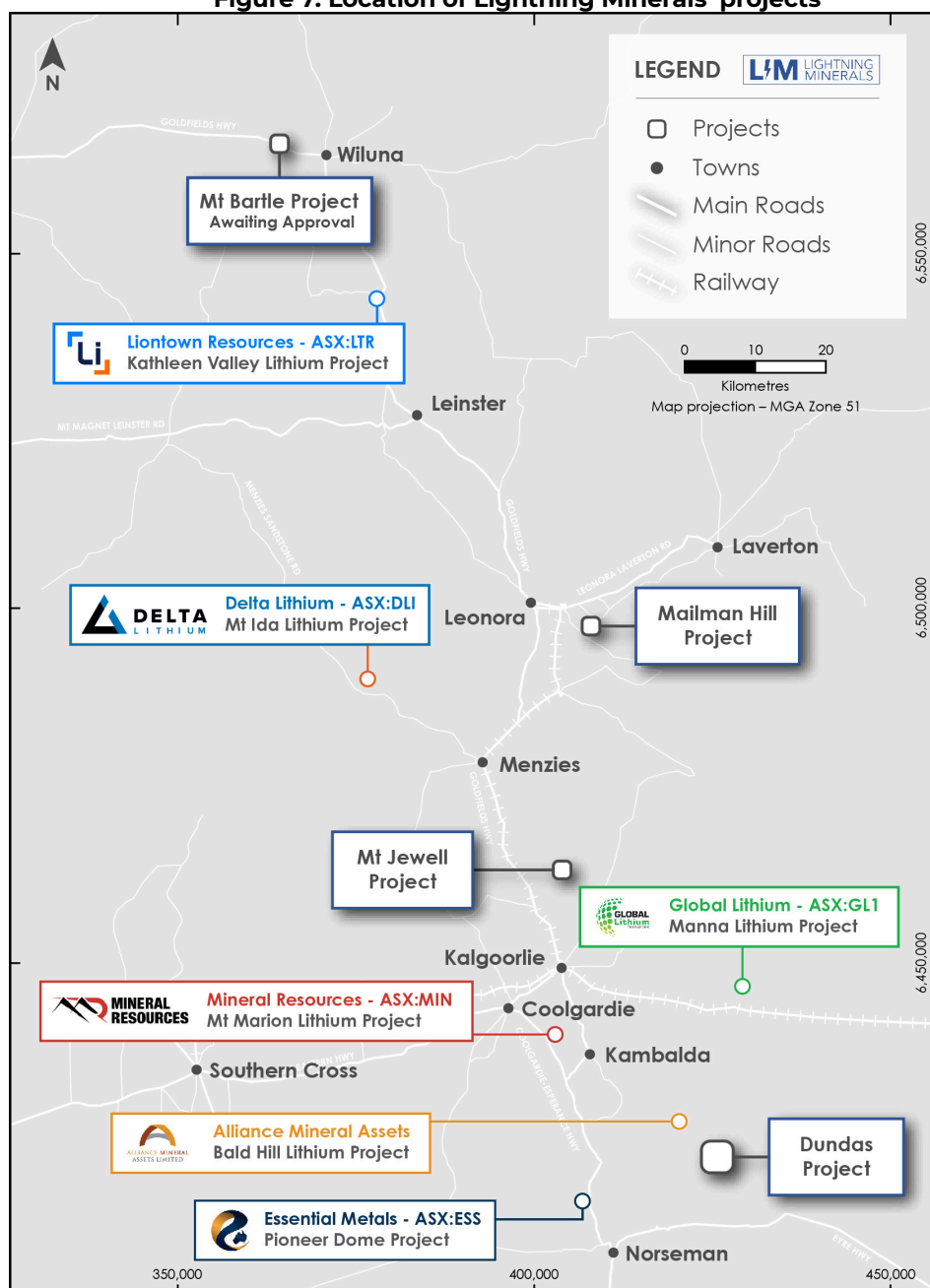
Lightning also has 100% interest in the Mt Jewell and Mailman Hill Projects to the north of Kalgoorlie in Western Australia. The Company holds a 100% interest in the Mt Bartle Project where licence applications are pending.

The Mt Jewell Project covers approximately 9km² and is highly prospective for nickel with dominant lithologies consisting of mafic and ultramafic domains. Mt Jewell is in the locality of the high-grade Silver Swan, Carr Boyd and Scotia historic nickel mines.

The Mailman Hill Project covers approximately 102km² and is located 25km east of Leonora and 10km west of the Murrin Murrin nickel Project. The project is prospective for both gold and nickel.

The Mt Bartle Project covers approximately 396km² and is prospective for base metals. The project is situated in the locality of the Magellan lead Mine and 27km north-west of the mining centre of Wiluna.

Figure 7: Location of Lightning Minerals' projects



This announcement has been approved for release by the Board of Directors.
-ends

ABOUT LIGHTNING MINERALS

Lightning Minerals is a mineral exploration company, listed on the Australian Stock Exchange (ASX:LIM) and focused on the exploration of critical minerals and lithium at its tenements across Western Australia. The Company's flagship Dundas project is located in the prolific Dundas region of Western Australia. The Company also has other projects in Western Australia, Mt Jewell, Mt Bartle and Mailman Hill 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.

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.