

ASX Announcement

02 August 2023

INFILL SOIL SAMPLING BEGINS ON LITHIUM TARGETS AT DUNDAS SOUTH PROJECT

Lightning Minerals (LIM or the Company) is pleased to report that infill soil sampling has begun on tenements E63/2000 and E63/1993 at the Company's 100% owned Dundas project. The infill program is designed to further define drill targets and follows up on the positive geochemical results which outlined an 8km² lithium in soil anomaly up to 218ppm lithium.

HIGHLIGHTS

- **Follow up infill soil sampling designed to follow up on successful geochemical results that identified 8km² lithium in soil anomaly up to 218ppm lithium¹**
- **1500 samples are planned, which will increase the sampling density to approximately 200m x 200m, and to 100m x 100m over higher priority areas**
- **Exploration drilling is ongoing on tenement E63/2001 where multiple pegmatites have been intersected under alluvial cover²**

Lightning Minerals Chief Executive Officer Alex Biggs said, "Following the excellent results from our first pass soil sampling campaign at Dundas, multiple lithium anomalies have been identified across our tenements. As well as our drilling activities on our E63/2001 tenement, which are yielding success, the lithium anomaly identified on E63/2000 has been a priority for us to follow up on. The proximity to a known lithium resource, strong assay results and lithological setting presents an excellent opportunity for us to define some high quality drill targets. We are accelerating our exploration strategy across the Dundas region, and we look forward to keeping the market informed of our progress".

PREVIOUS GEOCHEMICAL RESULTS ON TENEMENTS E63/2000 AND E63/1993

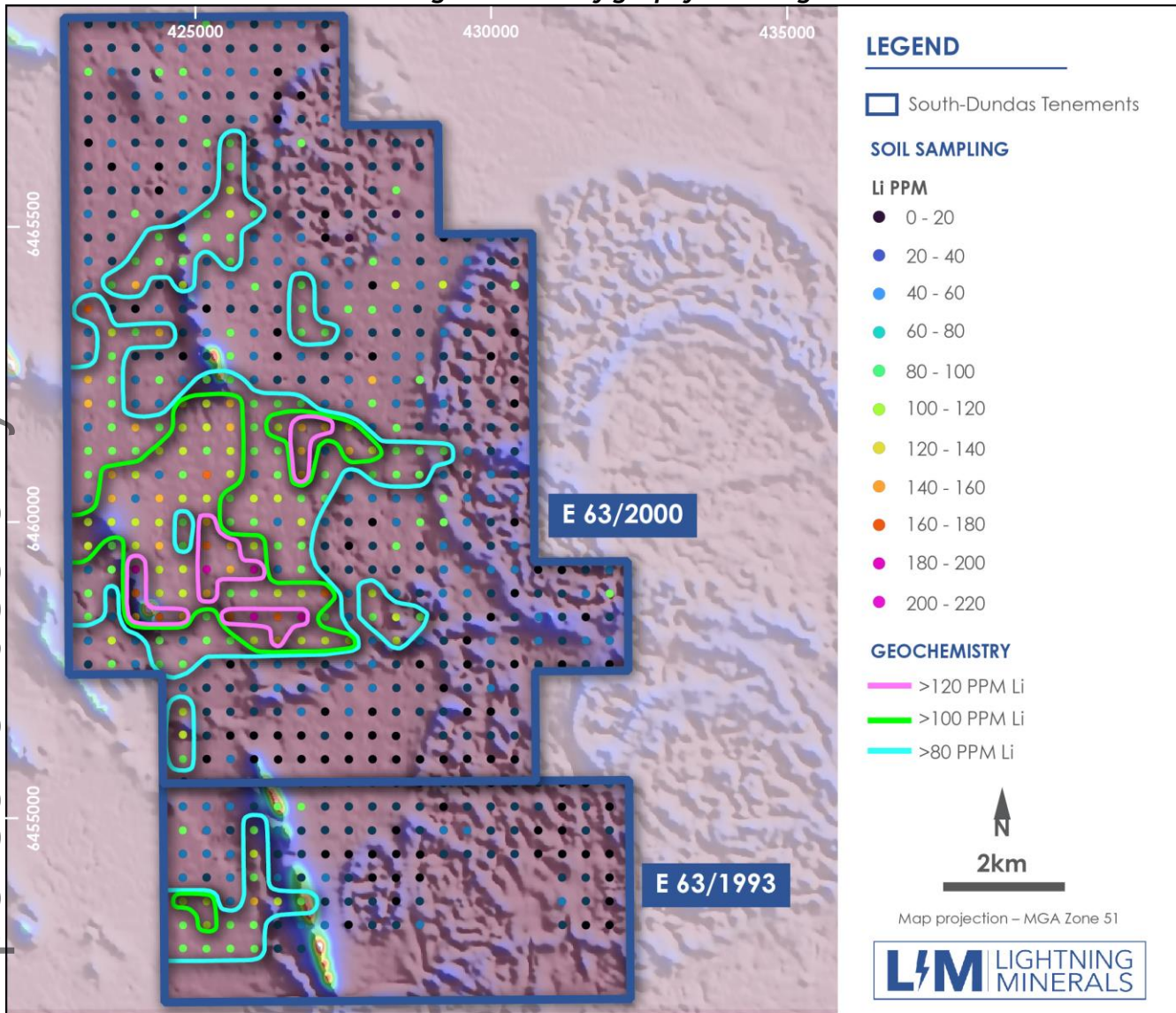
Previous geochemical results for tenements E63/2000 and E63/1993 (ASX announcement 23 March 2023) identified a broad, moderate to high tenor lithium-in-soil geochemical anomaly over an approximate 3.5km x 2.4km area with assays up to 218ppm lithium as shown in Figure 1.

The broad and consistent tenor of the anomalism is considered a positive indicator given the resolution of the sampling grid at 400m centres. Within the greater anomalous zone five samples have returned lithium values of over 150ppm lithium, with a peak result of 218ppm lithium. These sites occur within a clustered zone near the centre of the anomaly, thus indicating that a closer spaced soil sampling program is required to identify a starting point for exploration drilling.

The underlying bedrock geology consists of ultramafic and mafic volcanics hosted within a felsic granitic pluton as recorded in state interpreted geological datasets. Locally there appear to be multiple phases or 'pulses' of granitic intrusive events as evidenced by the unique geophysical signature of each 'pulse' as shown in Figure 1. Dependant on the timing and geochemistry these various pulses may have experienced the right conditions to emplace LCT pegmatites in the surrounding host rocks.

¹ASX Announcement 23 March 2023, ²ASX Announcement 13 July 2023

Figure 1: Lithium in soil geochemical results within E63/2000 and E63/1993, shown on Analytic Signal Total Magnetic Intensity geophysical image



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INFILL SOIL SAMPLING STRATEGY

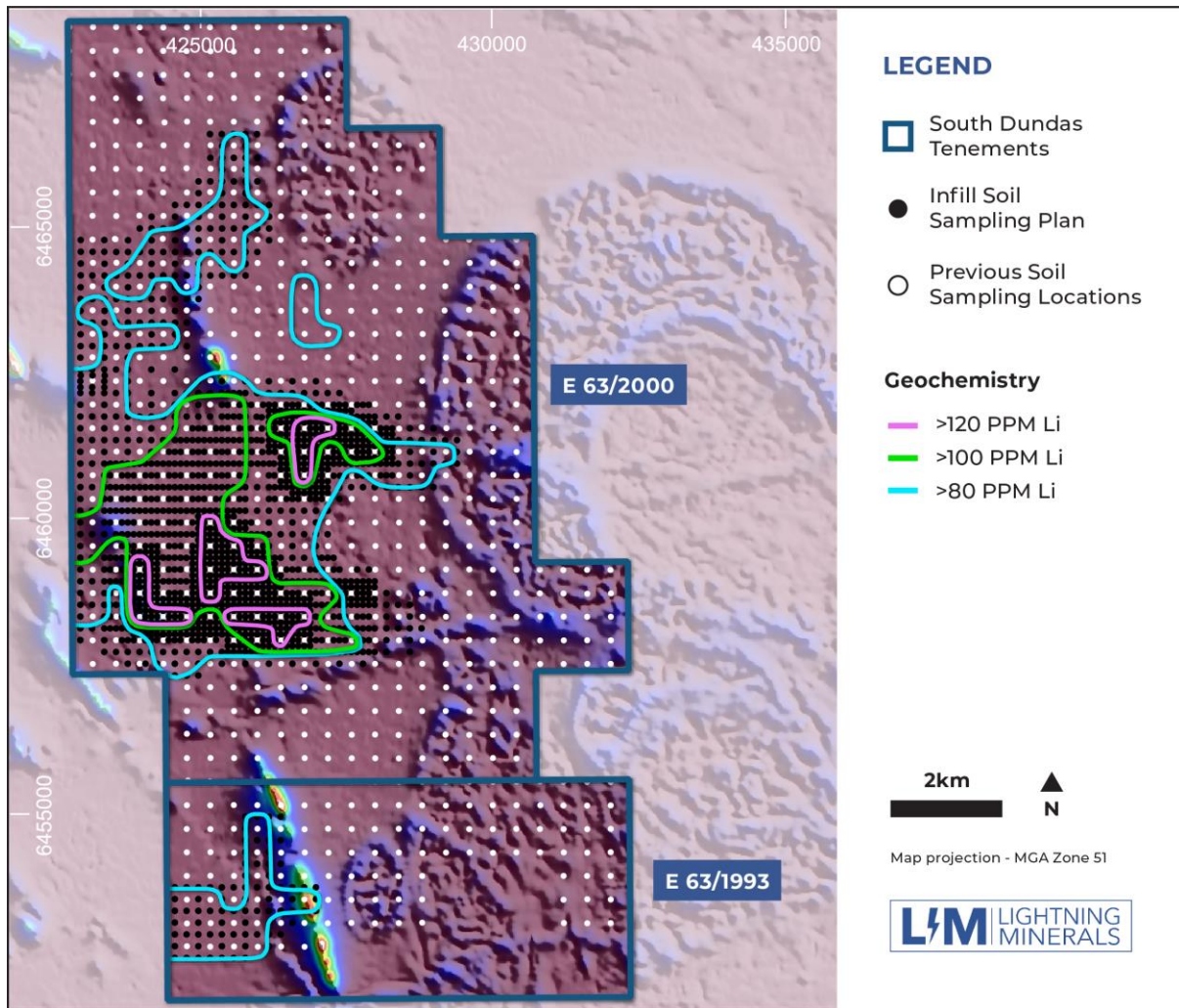
The strategy for the upcoming soil sampling is to infill the current areas of interest which were initially sampled on 400m x 400m centres. The planned infill soil sampling is shown in Figure 2 with the aim to provide a more targeted area for start of drilling as the current area of interest is large at 8km².

Sampling will be reduced to 100m x 100m centres over the highest levels of anomalism. This will provide the company with a higher resolution of results which will feed directly into follow up exploration drilling. Within the broader zones of anomalism, sample spacing will expand to 200m x 200m to assist in delineating drill targets.

It is important to provide a hierarchy of drill targets to increase the chance of drilling success particularly as the tenements have a degree of alluvial cover. This is seen as an opportunity as demonstrated by the Company's recent successful drilling on tenement E63/2001 where multiple pegmatites have been intersected under alluvial cover (ASX announcement 13 July 2023). Further infill sampling is proposed and being assessed on the Company's other Dundas tenements with the plan to delineate multiple high-quality drill targets.

A comprehensive targeting exercise using the results of the sampling program will now be utilised to extract maximum value from the 62 element suite of analytes provided by the UFF+ analytical technique. The review will include all applicable prospective commodities for the Dundas Projects including lithium, rare earth elements (REE), gold, copper, nickel, and platinum group elements (PGE).

Figure 2: Planned infill soil sampling campaign on tenements E63/2000 and E63/1993



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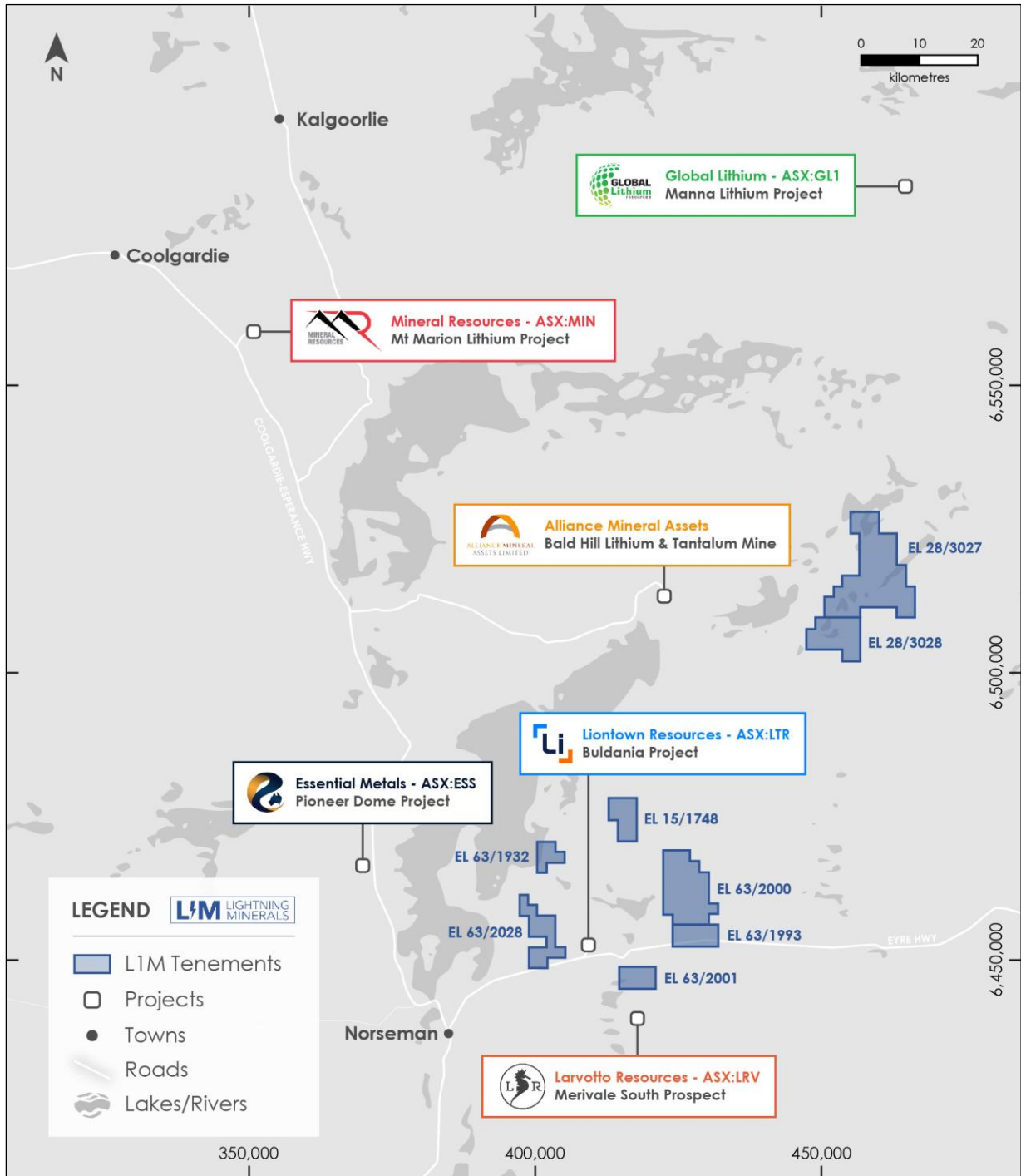
DUNDAS PROJECT (LIGHTNING MINERALS 100%)

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 become an emerging lithium and critical minerals province with multiple discoveries and significant exploration activity.

There are two project areas at Dundas:

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

Figure 3: Location of Lightning Minerals' Dundas Projects



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

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 announcements.