

ASX Announcement

9th February 2024

Aircore Drill Program Complete at Dundas

Lightning Minerals (LIM or the Company) is pleased to report that exploration drilling on tenement E63/2000 is now complete. The drill program has successfully finished 96 aircore holes for 3,820m to test the lithium, caesium and rubidium geochemical in soil anomalism identified at surface by infill soil programs in late 2023¹.

HIGHLIGHTS

- **Aircore drilling campaign on tenement E63/2000 has now been completed**
- **96 Aircore drillholes for 3,820m completed to test the geochemistry beneath to surface soil anomalism**
- **Samples enroute to laboratory with assay results expected within 6-8 weeks.**

A total of 96 exploration Aircore drill holes have been completed for 3,820m of total drill metres at the company's flagship Dundas project 34km east of Norseman in Western Australia.

The drilling targeted two anomalous areas, a ~2.6km x ~1km >100ppm lithium in-soil anomaly, and a subordinate 600m x 300m area both within E63/2000¹. This was identified during late 2023 as part of the Company's aggressive exploration strategy across the Dundas group of tenements. Holes were drilled until blade refusal and averaged ~39m maximum depth. Composite samples have been collected and will be submitted to Nagrom Laboratories of Perth (Nagrom), Western Australia for analysis. The expected turnaround time for the results is between 6-8 weeks.

Drill contractors Gyro Drilling Australia have now demobilised from site.

Lightning Minerals Managing Director Alex Biggs said, "Completion of Aircore drilling on tenement E63/2000 is another important incremental step in identifying the mineralisation potential of the previously identified lithium in-soil anomalies. We have expedited this campaign efficiently and cost-effectively to allow us the best opportunity to continue to identify drill targets for future campaigns. Despite the current market sentiment this doesn't change the fact that the Dundas region is an emerging and important lithium district. The Company still believes in the green energy thematic and continues to execute on its promises that were committed to at the IPO stage. I would like to thank our geology team and contractors for their efforts and conducting the program in a safe and efficient manner".

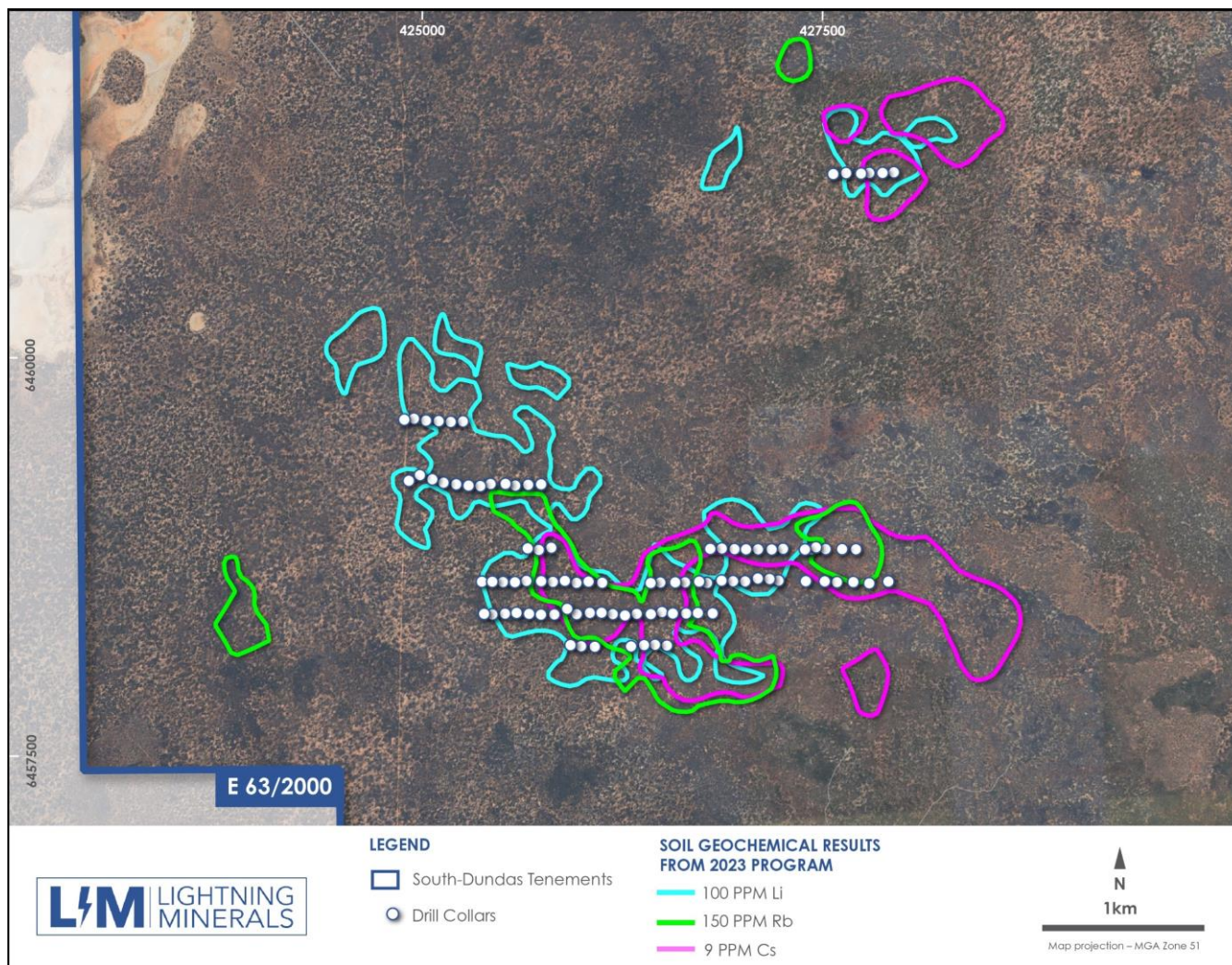
PRELIMINARY RESULTS

The drill program has successfully achieved spatial coverage of coincident lithium, caesium and rubidium in soil anomalism identified at surface in late 2023 (Figure 1). End of hole (EOH) lithological logging includes a range of rock types including mafic volcanics, granites, and metasediments, with some holes ending within hard undifferentiated saprock/saprolite.

¹ASX Announcement 08 August 2023

Samples have been collected from all holes where a 4m composite sampling technique has been employed. The samples are now enroute to the selected laboratory (Nagrom) for a full suite of exploration stage low level elemental analysis. These results will be assessed, any 4m composite samples that return elevated geochemistry for pathfinder elements will be resampled for further analysis at a one-meter resolution to better understand the tenor of the results within the saprolite profile. The results of this final round of analysis may then be used target and locate an RC drill campaign that can penetrate to fresh rock below any weathered profile.

Figure 1: Plan of Aircore drillhole collars completed within E63/2000.

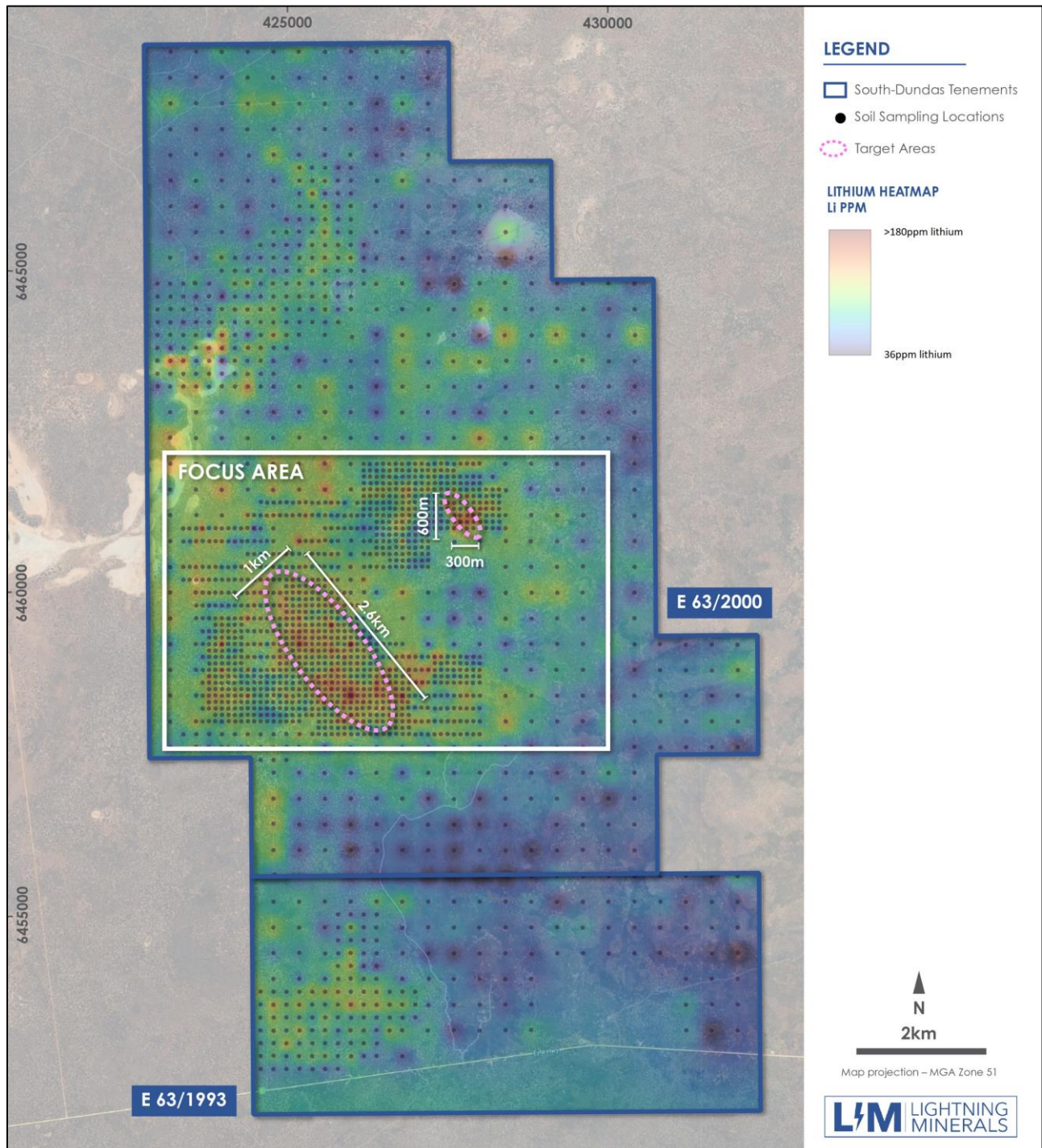


OTHER EXPLORATION PROGRESS AT DUNDAS

Logistics are currently being arranged to facilitate an infill soil sampling campaign on tenement E63/2028. Review of previous soil geochemistry results in this tenement warrants a follow-up program to further test the thin/stripped saprolite profile present. It is expected that the program could be undertaken as early as March 2024 dependent on permitting.

Plans are also being finalised for infill soil sampling programs to follow up previous results at the Company's Dundas North Project.

Figure 2: Dundas South tenement E63/2000 and E63/1993 showing UFF+ lithium soil geochemistry results for reconnaissance and infill sampling programs with resultant target areas



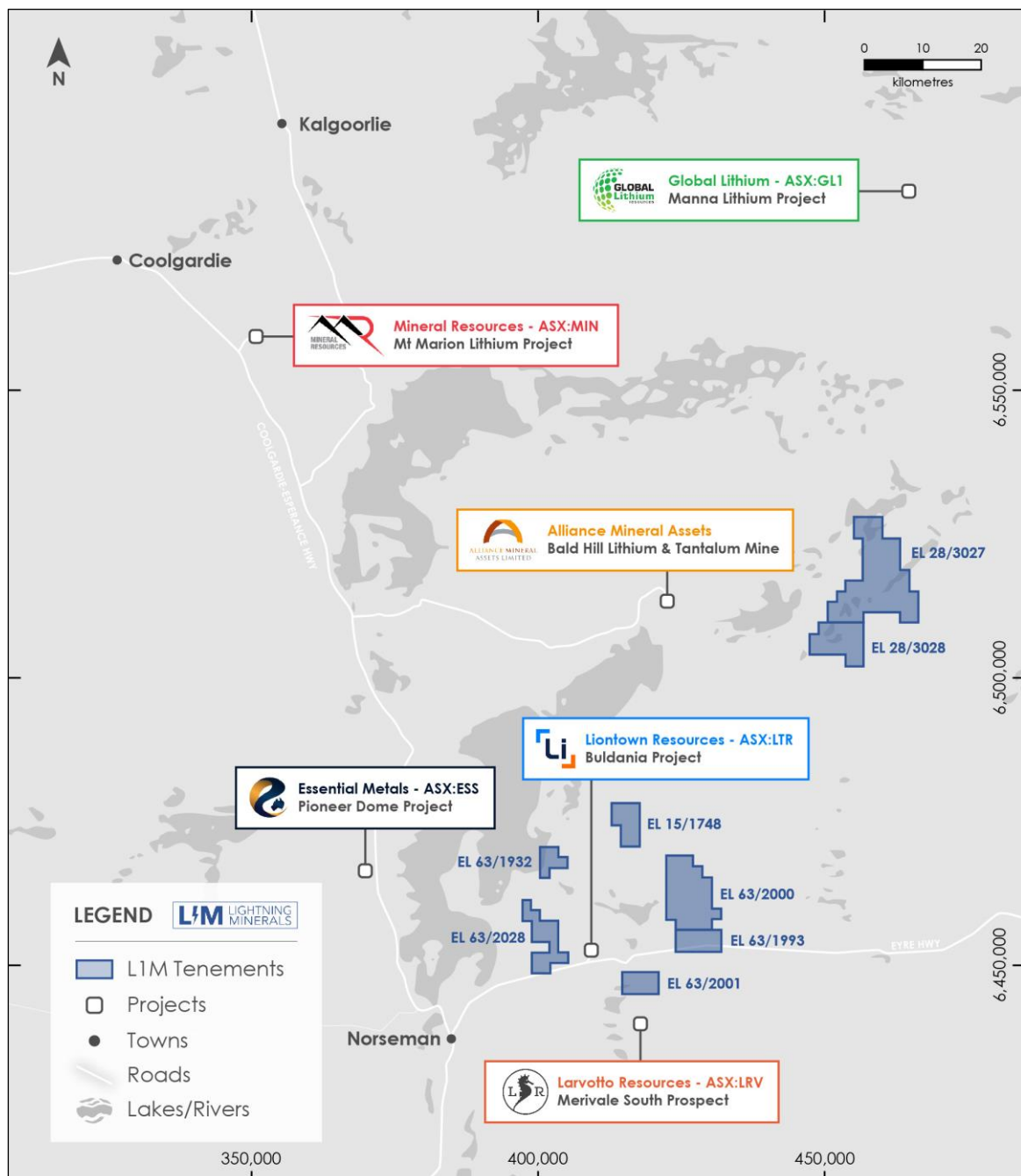
DUNDAS PROJECT (LIGHTNING MINERALS 100%)

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:

- South/western tenements surrounding Liontown Resources' Buldania/Anna lithium deposit, and,
- 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



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

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 owns the Dalmas and Hiver lithium projects in Quebec, Canada, another significant and evolving lithium region globally as well as 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 Jarrod 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.

APPENDIX 1: DUNDAS – JORC CODE 2012 TABLE 1 CRITERIA

The Table below summarises the assessment and reporting criteria used for exploration results for the Dundas Exploration Project and reflects the guidelines in Table 1 of The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC 2012 Code).

SECTION 1 - SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	<ul style="list-style-type: none"> No drill assays reported. Aircore (AC) drilling samples are collected at 1m intervals from the beginning to the end of each AC hole. Drill sample piles are placed in an orderly fashion on the drill site pad. A 2-3kg composite sample is then taken from four consecutive 1m samples using a spear comprised of inert material. Sampling was carried out using Lightning Minerals procedures and QAQC processes as per current industry standard practice. Drillhole collars are located using a Garmin Map 62s handheld device.
Drilling techniques	<i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	<ul style="list-style-type: none"> AC drilling used an industry standard aircore blade drill bit of 90mm diameter, collecting samples at 1m intervals, with the drill sample cuttings being placed onto the drill site pad.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	<ul style="list-style-type: none"> Sample quality and % recoveries are recorded as a visual estimate percentage as part of the field drill rig geologist's rig data capture template. Recoveries remained relatively consistent throughout the program. Care was taken to ensure calico samples were of consistent volume and weight. Samples are representative of the drilled intervals.
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.</i>	<ul style="list-style-type: none"> All drillholes are geologically domain logged by suitably experienced and qualified geologists. Logging is both quantitative and qualitative in nature, including lithology, mineralisation, mineralogy, weathering, and colour. Logging is of a standard able support future resource studies should they be required. A representative washed chip sample for each end of hole (EOH) interval as placed in a chip tray for future reference. Photographs are taken of EOH chip trays for each drillhole and stored on L1M company servers. Field lithological logging is not indicative of economic pegmatite hosted mineralisation. No laboratory analysis results have yet been returned. Further exploration work including an assessment of the current drill sampling results and follow up drilling and sampling will be required to confirm the presence of any mineralisation.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	<ul style="list-style-type: none"> No drill sample assays have been reported in this announcement.

	<p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<ul style="list-style-type: none"> Aircore drill cuttings are collected at 1m intervals from the beginning to the end of each AC hole. Drill sample piles are placed in an orderly fashion on the drill site pad. A 2-3kg composite sample is then taken from four consecutive 1m samples using a spear comprised of inert material. Compositing samples to 4m intervals are considered appropriate at this early stage of exploration.
Quality of assay data and laboratory tests	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <p><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></p>	<ul style="list-style-type: none"> No drill sample assays have been reported. References to prior reports have adequate JORC Table 1 information contained within.
Verification of sampling and assaying	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<ul style="list-style-type: none"> No drill sample assays have been reported.
Location of data points	<p><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<ul style="list-style-type: none"> Handheld Garmin GPS instruments were used to geo locate each drill collar, these instruments are understood to be accurate within a nominal $\pm 5m$ in the horizontal and vertical planes. The level of topographic control offered by a handheld GPS is considered sufficient for early exploration drilling. All drillholes are in the Geocentric Datum of Australia 1994 (GDA94) system. (MGA94, Zone 51)
Data spacing and distribution	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<ul style="list-style-type: none"> The drilling spacing is considered appropriate for the reporting of the exploration results. No Mineral Resource or Ore Reserve Estimates have been completed. 4m sample compositing was applied.
Orientation of data in relation to geological structure	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></p>	<ul style="list-style-type: none"> The drillhole locations are designed to target as best possible the soil anomalism at this early stage of exploration activities.
Sample security	<p><i>The measures taken to ensure sample security.</i></p>	<ul style="list-style-type: none"> The chain of custody for sampling procedures and sample analysis was managed by the onsite rig geologists during drilling.
Audits or reviews	<p><i>The results of any audits or reviews of sampling techniques and data.</i></p>	<ul style="list-style-type: none"> No audits or reviews of sampling techniques have been conducted to date.

SECTION 2 - REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	<p>The Dundas Projects are located ~600km east of Perth and 20 to 50 km ENE of Norseman in Western Australia.</p> <p>The Dundas Project area totals ~450km² and comprises eight granted exploration licences separated into two exploration areas – Dundas North (E28/3027 and E28/3028) and Dundas South (E15/1748, E63/1932, E63/1993, E63/2000, E63/2001, and E63/2028)</p> <p>The Tenements are covered by the Ngadju Determined Native Title Claim (WCD2014/004). An agreement is in Place between the Ngadju Native Title Aboriginal Corporation RNTBC and Lightning Minerals.</p> <p>The Tenements are considered in good standing at the time of this report.</p>
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>The Dundas South Project area has been explored predominantly for gold and nickel by various prior parties.</p> <p>More recent exploration has included a focus on Lithium via explorers such as Matsa Resources (2008-2018), West Resource Ventures (2018 – 2019), and Liontown Resources (2018-2020).</p> <p>The result of this work is described in numerous publicly available Geological Society of Western Australia publications.</p> <p>Review of the considerable historic exploration activities is ongoing; data is being collated into company databases as per industry standard data collection practice.</p>
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>No known mineral deposits occur within project tenure.</p> <p>The mineralisation style related to this release are metals related to lithium-caesium-tantalum (LCT) pegmatites intrusives. There are publicly reported occurrences of LCT pegmatites within an acceptable proximity to the Dundas Project exploration tenure. (Liontown Resources (ASX:LTR) – Buldania Deposit)</p> <p>The Dundas Project is located at the southern-eastern end of the Norseman-Wiluna Belt within the Archaean Yilgarn Craton. The project area sits adjacent to the Jerdacuttup Fault which represents the boundary or the Archaean Yilgarn Craton with the adjacent Proterozoic Albany-Fraser Province.</p>
<i>Drill hole Information</i>	<p><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i></p> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ○ <i>down hole length and interception depth,</i> ○ <i>hole length.</i> <p><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></p>	<p>Ninety six (96) AC holes for a total of 3,820m were drilled during the campaign.</p> <p>Relevant drill hole information has been provided in this release.</p> <p>No information has been excluded.</p>
<i>Data aggregation methods</i>	<p><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p> <p><i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should</i></p>	<p>No levelling of the raw geochemical data was undertaken.</p> <p>Plan images have been generated using QGIS software.</p> <p>No metal equivalent values are reported.</p>

	<i>be stated and some typical examples of such aggregations should be shown in detail.</i>	
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i>	Any relationship between reported geochemical results and potential mineralisation is unknown at the time of the report.
<i>Diagrams</i>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Appropriate plans and cross sections have been included in the body of this announcement; these plans suitably represent the nature of the drilling results.
<i>Balanced reporting</i>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Balanced reporting has been completed.
<i>Other substantive exploration data</i>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	All meaningful data and relevant information have been included in the body of the report.
<i>Further work</i>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Mineralogical studies and geochemical assay work is planned to be completed once the samples are returned to Perth. Planning of follow up Reverse Circulation or Diamond Drilling of pegmatites is partially dependant on qualified laboratory analytical results but is under consideration.