

ASX Announcement

31 March 2023

INFILL AUGER PROGRAM TO TARGET LITHIUM ANOMALY AT DUNDAS PROJECT

Lightning Minerals (LIM or the Company) is pleased to advise that follow up geochemical sampling is now planned at its 100% owned Dundas South project in Western Australia. Reconnaissance soil sampling campaigns have returned elevated lithium anomalism within E63/2000 and E63/1993. Infill sampling is designed to progress targeting at suitable scale for potential future exploration drilling activities.

HIGHLIGHTS

- **Infill program to target 8km² lithium-in-soil anomaly identified by reconnaissance soil sampling campaign¹**
- **Up to 2,200 samples to be collected within E63/2000 and E63/1993**
- **Results of infill program have potential to progress to drill ready exploration targets**

Lightning Minerals Chief Executive Officer Alex Biggs said, "It is great to see such fast progress yielding positive results at Dundas. The planned works on tenement E63/2000 and E63/1993 provide the potential for a second drill target beyond our planned drilling on E63/2001. This is a demonstration of completing diligent and focused work programs on areas that we have always believed to be highly prospective with a view to being able to start drilling. Thanks to our team for completing works in a safe, speedy and highly effective manner".

DUNDAS SOUTH INFILL AUGER PROGRAM

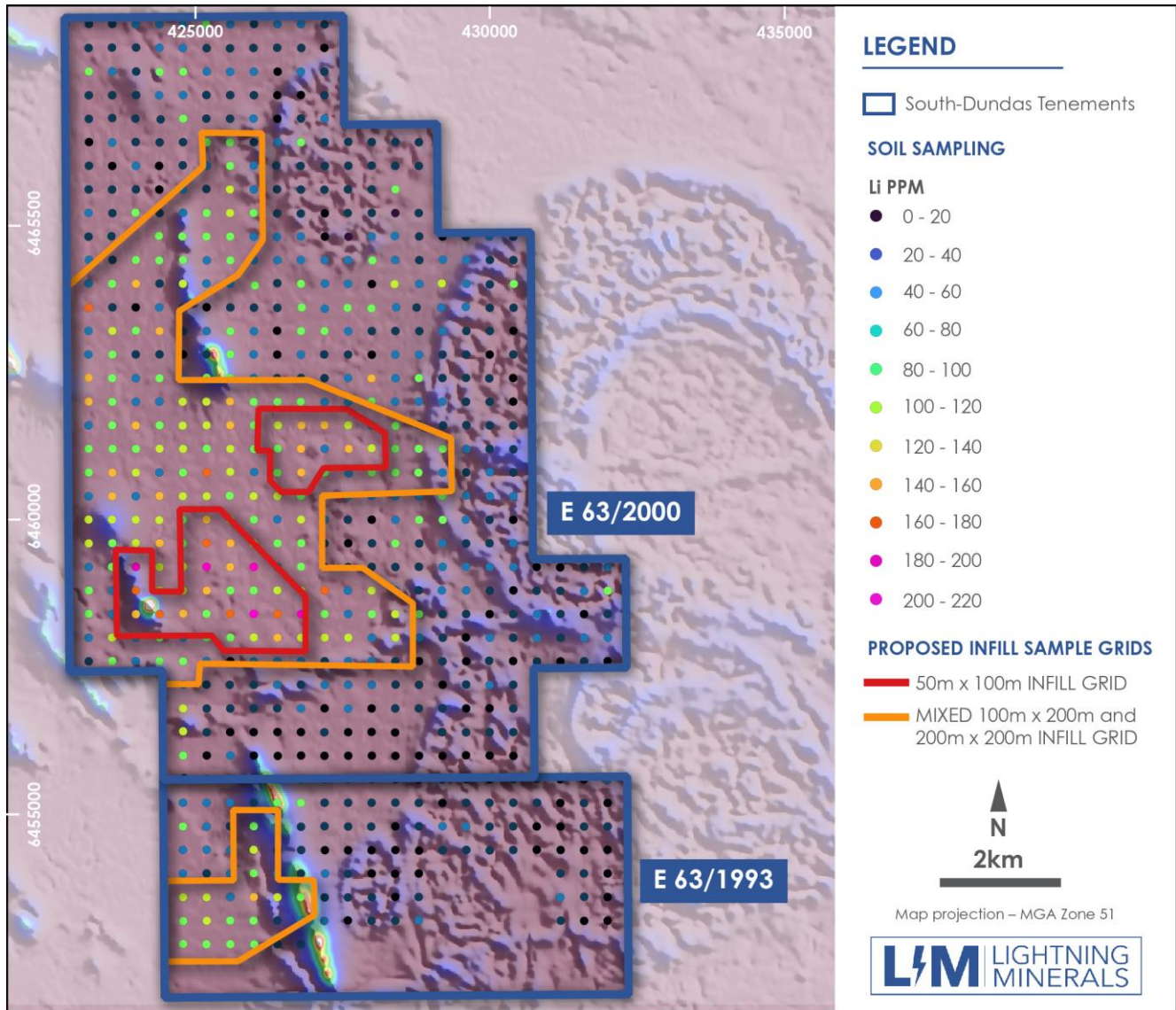
Results from reconnaissance soil sampling campaign are now complete for the Company's Dundas South Project¹. A first order follow-up target has been identified within E63/2000, where a broad, >80 PPM tenor lithium-in-soil geochemical anomaly has been discovered over an approximate 8km² area. A smaller anomaly of the same tenor is also present within E63/1993¹.

Follow up exploration works have now been planned for the anomalous zone with a goal of progressing the target towards drilling. Approximately 2,200 infill samples have been designed at various infill sample spacings to further refine the anomalous area within the existing 400m x 400m grid. A higher resolution 50m x 100m infill sample grid will be completed directly over the concentrated contour highs of >120 PPM lithium, as shown in red in Figure 1. The remaining area shown in orange in Figure 1 will be assessed utilising a mixed sample spacing, with areas using a grid sample resolution of 100m x 200m and 200m x 200m.

Field works will be undertaken as soon as practicably possible given access permitting negotiations which are advanced.

¹ASX Announcement 23 March 2023

Figure 1 : Lithium in soil geochemical results within E63/2000 and E63/1993, showing areas for infill sampling to further delineate targets in red and orange. (Analytic Signal Total Magnetic Intensity geophysical image shown as backdrop)



DUNDAS PROJECT ONGOING WORK PROGRAMS

The Dundas reconnaissance soil sampling program field works are now complete across all project tenure as reported on 23rd March. The program collected 2,676 samples at a 400m x 400m reconnaissance spacing, of these samples 1,308 were taken from the Dundas North project for which analytical work remains pending.

As announced on 2nd March 2023 – Reverse Circulation and Aircore drilling activities have been proposed and approved for the E63/2001 tenement. Approvals are advanced and are expected to be finalised in the near term. Drill contractor procurement remains underway.

Infill auger sampling programs as described above are now planned for the Dundas South tenements E63/200 and E63/1993, further infill programs may be planned for the Dundas North projects dependent on the pending analytical results. Field execution of the planned work remains dependent upon permitting approvals.

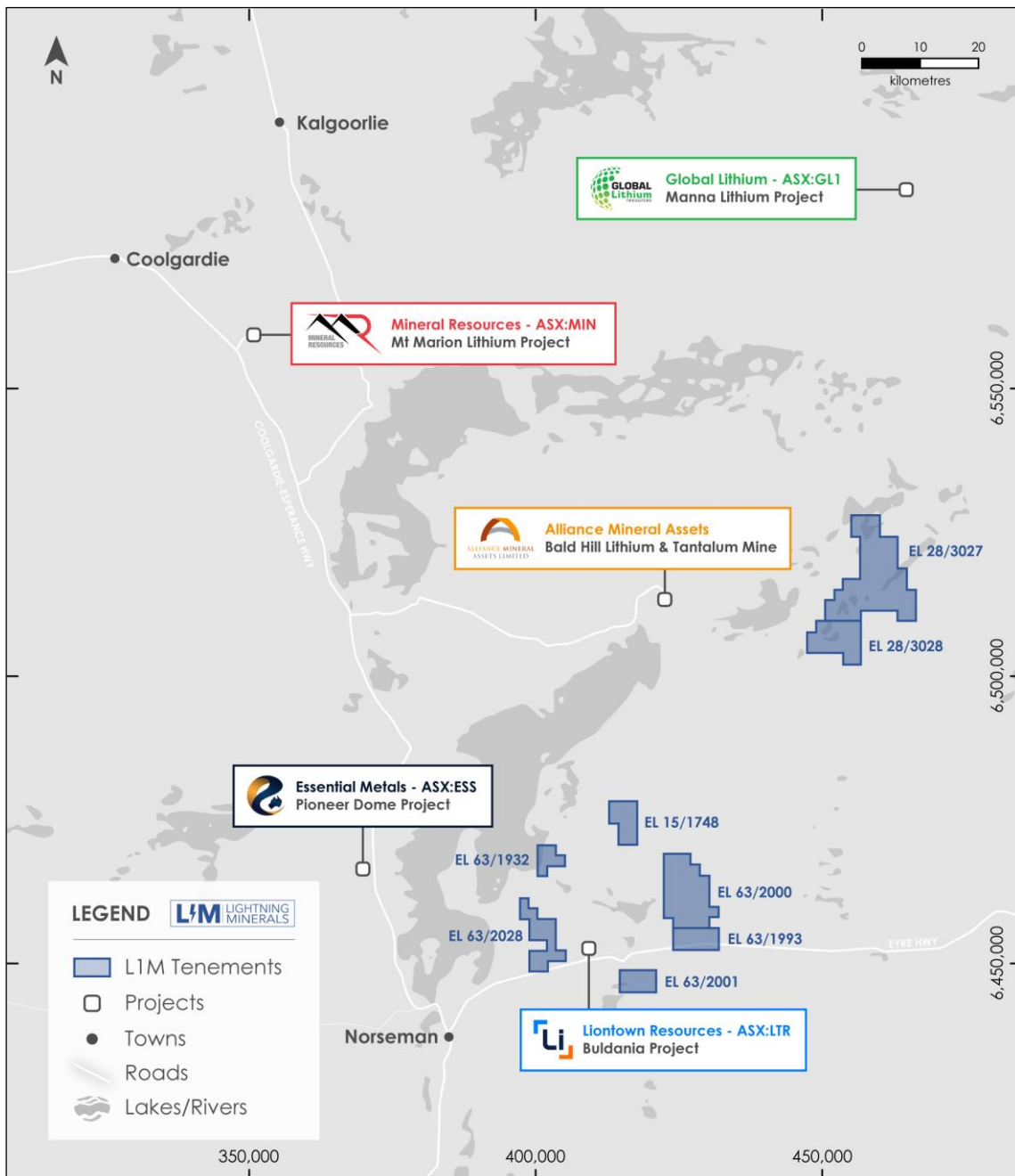
DUNDAS PROJECT (LIGHTNING MINERALS 100%)

The Dundas Project area is located near Norseman in Western Australia and comprises eight tenements totaling 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 2: 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 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.

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.

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	<p><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.</i></p> <p><i>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.</i></p> <p><i>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></p>	<ul style="list-style-type: none"> The Dundas Project soil samples are collected from below the natural surface at a depth of approximately 20cm. Soil samples are sieved on site and the ~2mm fraction is retained for geochemical analysis. Dundas soil sample weights are approximately 200 grams. All sieved material is collected in kraft packets (~200 grams). The Ultrafine+ soil sampling analysis technique utilised for the Dundas Project is considered acceptable and standard industry practice.
Drilling techniques	<p><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></p>	<ul style="list-style-type: none"> No drilling reported
Drill sample recovery	<p><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.</i></p> <p><i>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></p>	<ul style="list-style-type: none"> No drilling reported
Logging	<p><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.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<ul style="list-style-type: none"> Soil sample sites are photographed, described, and journaled noting landform and nature of soil media. Soil sample descriptions are considered qualitative in nature.
Sub-sampling techniques and sample preparation	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <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"> Sample preparation for the Dundas Project soil geochemistry program follows best practice as advised 'LabWest Minerals Analysis' whom is accredited to ISO17025. Sample sizes of approximately 200gm are considered appropriate for the Ultrafine+ analytical technique. Dundas soil samples were collected on a 400m x 400m grid pattern, some minor variations to sample site locations will occur due to field complexities.
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>	<ul style="list-style-type: none"> The analysis of soil samples by LabWest using the Ultrafine+ method is adequate at this

	<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>	<p>early stage of exploration, this includes the assessment of bedrock under moderate quaternary cover.</p> <ul style="list-style-type: none"> • LabWest uses internal QAQC process • The remaining bulk sample (-2mm) has been retained and the coarse fraction/pulp (if one existed) of each sample has also been preserved.
<p><i>Verification of sampling and assaying</i></p>	<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 drilling results reported. • No twinned holes or drilling results are reported. • Primary soil sample location data was collected electronically. • No adjustments have been applied to laboratory assay results.
<p><i>Location of data points</i></p>	<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 locate the sample sites, these instruments are understood to be accurate within a nominal ±5m in the horizontal and vertical planes. • This spatial location accuracy is considered adequate for early grid soil sampling programs. • All samples were collected in the Geocentric Datum of Australia 1994 (GDA94) system. (MGA94, Zone 51)
<p><i>Data spacing and distribution</i></p>	<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"> • Soil samples were taken on a 400m x 400m grid, these samples spacings may require minor and infrequent variation dependent on field conditions. • There is no known sample representivity to mineralisation at this early stage of exploration sampling. • No compositing undertaken on soil samples.
<p><i>Orientation of data in relation to geological structure</i></p>	<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 strike of geological units across the Dundas project is variable. • The 400m x 400m sample spacing grid is sufficient to ensure that no specific structures or known trends of mineralisation have received biased targeting.
<p><i>Sample security</i></p>	<p><i>The measures taken to ensure sample security.</i></p>	<ul style="list-style-type: none"> • Samples were secured in closed HDPE bags and stored at secure premises during the field campaign.

		<ul style="list-style-type: none"> The field supervisor who supervised the soil sample collection delivered the sample packets to the laboratory.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	<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>	<ul style="list-style-type: none"> The Dundas Projects are located ~600km east of Perth and 20 to 50 km ENE of Norseman in Western Australia. 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) The Tenements are covered by the Ngadju Determined Native Title Claim (WCD2014/004). The Tenements are considered in good standing at the time of this report.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<ul style="list-style-type: none"> The Project area has been explored predominantly for Gold and Nickel by various prior parties. 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). The result of this work is described in numerous publicly available Geological Society of Western Australia publications. Review of the considerable historic exploration activities is ongoing; data is being collated into company databases as per industry standard data collection practice.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	<ul style="list-style-type: none"> No known mineral deposits occur within project tenure. There are publicly reported occurrences of Lithium –

		<p>Caesium-Tantalum (LCT) pegmatites within acceptable proximity to the Dundas Project exploration tenure.</p> <ul style="list-style-type: none"> 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.
Drill hole Information	<p>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:</p> <ul style="list-style-type: none"> ○ easting and northing of the drill hole collar ○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ○ dip and azimuth of the hole ○ down hole length and interception depth ○ hole length. <p>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.</p>	<ul style="list-style-type: none"> No drilling reported
Data aggregation methods	<p>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.</p> <p>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<ul style="list-style-type: none"> No levelling of the raw geochemical data was undertaken. Images of the individual elements have been generated using QGIS software. No metal equivalent values are reported
Relationship between mineralisation widths and intercept lengths	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>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’).</p>	<ul style="list-style-type: none"> Any relationship between reported geochemical results and potential mineralisation is unknown at the time of the report.
Diagrams	<p>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.</p>	<ul style="list-style-type: none"> Appropriate two-dimensional plans have been included in the body of this announcement; these plans suitably represent the nature of surface geochemical sampling.
Balanced reporting	<p>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.</p>	<ul style="list-style-type: none"> Representative reporting of soil results is shown in Figure 1 of the above report. Assay data for samples with greater than 80 ppm lithium has been previously reported in ASX Announcement 23 March 2023
Other substantive exploration data	<p>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.</p>	<ul style="list-style-type: none"> All meaningful data and relevant information has been included in the body of the report.
Further work	<p>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</p>	<ul style="list-style-type: none"> Field validation of elevated Lithium results is planned by company geologists.

	<p><i>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></p>	<ul style="list-style-type: none">• Infill soil and auger sampling campaigns will be considered to infill the 400m x 400m sampling grid to a higher resolution.• Planning of follow up Aircore, Reverse Circulation or Diamond Drilling of Geochemical targets remains under consideration.
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