

**ASX Announcement** 

11 May 2022

# Additional Lithium Mineralised Pegmatite Dykes Discovered at Marble Bar Lithium Project

# New Regional Soil Sampling Programs Commenced

# Highlights

Ongoing field reconnaissance of the significant portable XRF ("pXRF") soil anomalies recently reported at E45/4700 ("Marble Bar Lithium Project") has discovered additional pegmatite outcrops, some of which contain visible lithium mineralisation in the form of lepidolite (lithium mica)

Rock chip sample assay results returned up to  $1.6\%\ Li_2O$  and 372 ppm tantalum

The lithium-mineralised pegmatite dykes in E45/4700 trend into the adjacent, newly granted tenement E45/5970 significantly extending the area of known mineralised pegmatite dykes closely associated with the largest pXRF Li Index soil geochemistry anomaly to  $>2km^2$ 

A 200 x 100m regional soil geochemistry program has now been completed across the two newly granted tenements E45/5970 and E45/5943 (Marble Bar and DOM's Hill Lithium Projects respectively)

Both of these new tenements form part of Kalamazoo's recently announced exploration Joint Venture ("Joint Venture") with Chilean lithium producer Sociedad Química y Minera de Chile S.A. ("SQM") (NYSE: SQM)

Kalamazoo's soil sampling crew has commenced an initial regional soil sampling program (~2,300 samples) across its nearby 100% owned Pear Creek Lithium Project in mid-May 2022

At both the Marble Bar and DOM's Hill Lithium Projects, requisite Government permitting and cultural heritage surveys are well advanced with drilling programs scheduled to commence later in the June quarter 2022

**Kalamazoo's Chairman and CEO Luke Reinehr said today,** "The ongoing fieldwork at Marble Bar is delivering excellent results with the identification of multiple pegmatite dykes containing visible lithium mineralisation and rock chip assay results up to 1.6% Li<sub>2</sub>O and 372 ppm Ta. These discoveries are lining up well with our pXRF soil anomalies, and we are pleased to see the pegmatite dykes extending into our newly granted tenement E45/5970. We consider the potential for LCT pegmatite mineralisation in the immediate area is very high, which is supported by Global Lithium's nearby Archer deposit (10.5Mt @ 1.0% Li<sub>2</sub>O) to the north.

The grant of two additional tenements at Marble Bar and DOM's Hill further expands our lithium exploration tenure in the immediate area, which are now the subject of additional soil sampling and exploration activity in conjunction with our JV exploration partner SQM. We are anticipating the commencement of drilling across both projects towards the end of June 2022."



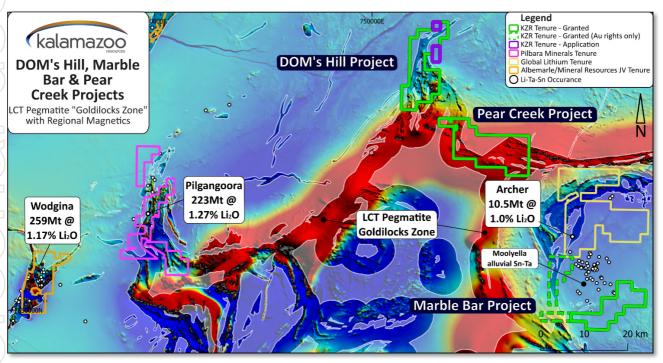
Kalamazoo Resources Limited **(ASX: KZR) ("Kalamazoo"** or the **"Company")** is pleased to provide the following update on early-stage field reconnaissance activities at its Marble Bar Lithium Project, as well as providing details of new regional soil sampling programs across its three Pilbara lithium exploration projects.

Kalamazoo's significant Pilbara lithium exploration ground holding now totals 354.4km<sup>2</sup> comprising the Marble Bar, DOM's Hill, and Pear Creek Lithium Projects (Figure 1).

The Marble Bar and DOM's Hill Lithium Projects form part of the recently announced exploration Joint Venture with Chilean lithium producer SQM.

The nearby Pear Creek Lithium Project covers ~147km<sup>2</sup> of highly prospective lithium and gold geology located between Kalamazoo's Marble Bar and DOM's Hill Lithium Projects. The Pear Creek Project area is 100% owned by Kalamazoo and is not currently included within the SQM Joint Venture.

All three projects are considered highly prospective for both pegmatite-hosted lithium-caesium-tantalum ("LCT") mineralisation as well as gold.



**Figure 1:** Location of Kalamazoo's DOM's Hill, Pear Creek, and Marble Bar Projects (~354km<sup>2</sup>) with respect to the Pilgangoora and Wodgina lithium mines and the Archer lithium deposit on a background WA regional-scale aeromagnetic image<sup>1</sup>. The interpreted "Goldilocks Zone" is defined as a 4km wide zone located along the Archaean granite-greenstone contact area.

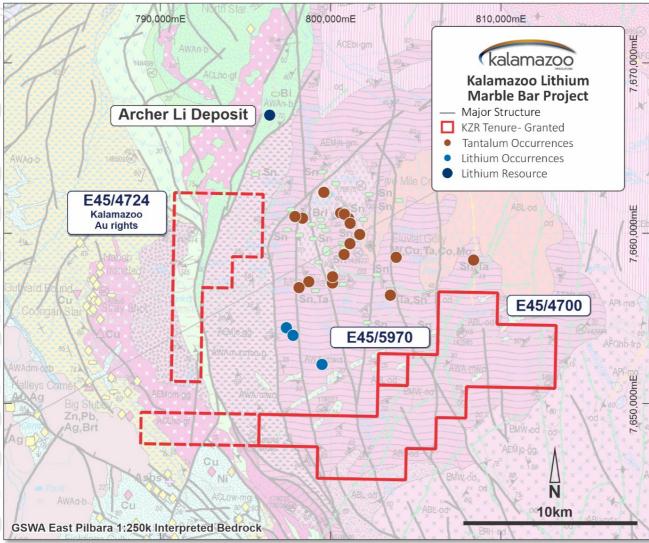
# Marble Bar Lithium Project (E45/4700 and E45/5970)

The Marble Bar Lithium Project (~76.6km<sup>2</sup>) is considered highly prospective for lithium mineralisation due to its favourable proximity to the Moolyella Monzogranite (inferred LCT-pegmatite source), its location along the margin of the Moolyella tin and tantalum alluvial field plus numerous local occurrences of mapped lithium-enriched pegmatites.

<sup>&</sup>lt;sup>1</sup> Refer to the Western Australian Department of Mines, Industry Regulation and Safety website: Lithium in Western Australia poster – June 2021

Furthermore, the Archer Lithium Deposit owned by Global Lithium Resources Limited (ASX: GL1) is located approximately 25km to the north, also on the margin of the Moolyella tin and tantalum field, with a reported maiden Inferred Resource of 10.5Mt @ 1.0% Li<sub>2</sub>O and (Figure 2).

Global Lithium also recently announced that the Archer deposit is now subject to a 60,000m RC drilling program, further highlighting the significant lithium prospectivity in the immediate region<sup>2</sup>.



**Figure 2:** Location of E45/4700 and E45/5970 on the southern margin of the Moolyella alluvial tin and tantalum field on a background GSWA East Pilbara 1:250k Interpreted Bedrock Geology Map Sheet. Note that Kalamazoo has gold rights only in respect to E45/4724.

Kalamazoo recently commenced field mapping and rock chip sampling activities aimed at verifying previously reported, highly encouraging pXRF soil geochemistry anomalies<sup>3</sup>. These programs were also designed to identify prospective pegmatite dykes for reconnaissance exploration drill testing. To date, numerous outcrops of pegmatite dykes have been found coincident with the soil geochemistry anomalies, some of which contain visible amounts of lepidolite (lithium mica) (Figure 3). Lepidolite is a common accessory mineral found associated with many lithium deposits and its presence demonstrates that favourable lithium enrichment processes have occurred in the area.

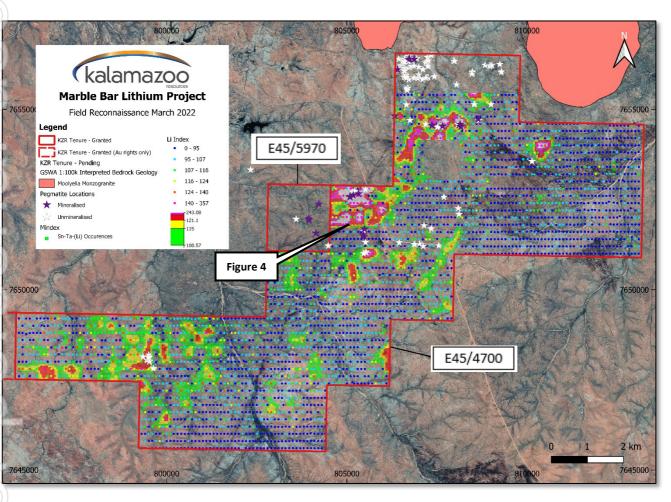
<sup>&</sup>lt;sup>2</sup> ASX: GL17 February 2022

<sup>&</sup>lt;sup>3</sup> ASX: KZR 28 February 2022

During the most recent field campaign a total of 93 rock chip samples were collected from within E45/4700 and their assay results have recently been received. Table 1 lists the best  $Li_2O$  assay results for these rock chip samples (minimum cut-off >0.1%  $Li_2O$ ).

Sample ID	Easting	Northing	Li ppm	Li <sub>2</sub> O %	Cs ppm	Ta ppm	Rb ppm
MBLR0077	807527	7654262	620	0.13	108	184	1800
MBLR0103	804689	7651828	7510	1.61	314	116.5	5410
MBLR0104	804738	7651789	5680	1.22	280	156.5	3920
MBLR0105	804763	7651765	1660	0.36	170	90.7	1740
MBLR0106	804788	7651745	2300	0.50	145	53.6	2330
MBLR0107	804812	7651722	5660	1.22	314	90.3	4340
MBLR0113	805182	7652449	580	0.12	154.5	356	2710
MBLR0144	805226	7652410	1020	0.22	222	372	3070
MBLR0147	805387	7652027	670	0.14	106	138	2940
	MBLR0077 MBLR0103 MBLR0104 MBLR0105 MBLR0106 MBLR0107 MBLR0113 MBLR0144	MBLR0077         807527           MBLR0103         804689           MBLR0104         804738           MBLR0105         804763           MBLR0106         804788           MBLR0107         804812           MBLR0113         805182           MBLR0144         805226	MBLR0077         807527         7654262           MBLR0103         804689         7651828           MBLR0104         804738         7651789           MBLR0105         804763         7651765           MBLR0106         804788         7651745           MBLR0107         804812         7651722           MBLR0113         805182         7652449           MBLR0144         805226         7652410	MBLR0077         807527         7654262         620           MBLR0103         804689         7651828         7510           MBLR0104         804738         7651789         5680           MBLR0105         804763         7651765         1660           MBLR0106         804788         7651745         2300           MBLR0107         804812         7651722         5660           MBLR0113         805182         7652449         580           MBLR0144         805226         7652410         1020	MBLR0077         807527         7654262         620         0.13           MBLR0103         804689         7651828         7510         1.61           MBLR0104         804738         7651789         5680         1.22           MBLR0105         804763         7651765         1660         0.36           MBLR0106         804788         7651745         2300         0.50           MBLR0107         804812         7651722         5660         1.22           MBLR0107         804812         7652449         580         0.12           MBLR0144         805226         7652410         1020         0.22	MBLR0107         807527         7654262         620         0.13         108           MBLR0103         804689         7651828         7510         1.61         314           MBLR0104         804738         7651789         5680         1.22         280           MBLR0105         804763         7651765         1660         0.36         170           MBLR0106         804788         7651745         2300         0.50         145           MBLR0107         804812         7651722         5660         1.22         314           MBLR0113         805182         7652449         580         0.12         154.5           MBLR0144         805226         7652410         1020         0.22         222	MBLR0107         807527         7654262         620         0.13         108         184           MBLR0103         804689         7651828         7510         1.61         314         116.5           MBLR0104         804738         7651789         5680         1.22         280         156.5           MBLR0105         804763         7651765         1660         0.36         170         90.7           MBLR0106         804788         7651745         2300         0.50         145         53.6           MBLR0107         804812         7651722         5660         1.22         314         90.3           MBLR0113         805182         7652449         580         0.12         154.5         356           MBLR0144         805226         7652410         1020         0.22         222         372

Table 1: E45/4700 - best rock chip assay results from latest batch of rock chip samples (minimum cut-off >0.1% Li<sub>2</sub>O)



**Figure 3:** Project-wide 200m x 100m soil sampling grid with pXRF Li Index analysis results on background Google Earth Image. Note the reported pegmatite locations (stars) are from reconnaissance mapping completed by previous explorers and Kalamazoo. Pegmatites denoted as mineralised have been identified from either visual observation of contained lithium minerals and/or rock chip assays.

Of note is a significant ~1.6km x 1.2 km pXRF soil geochemistry anomaly in E45/4700 that is open to the west and north (Figure 3). Field reconnaissance of this area has found this soil geochemistry anomaly closely associated with numerous outcropping pegmatite dykes, some of which contain visible lepidolite mineralisation. More recently additional outcropping lepidolite-mineralised pegmatite dykes in E45/4700 have been observed trending into the adjacent, newly granted tenement E45/5970 significantly extending the area of known mineralised pegmatite dykes closely associated with the

largest pXRF Li Index soil geochemistry anomaly to >2km<sup>2</sup> (Figures 4 and 5). This also supports historical exploration reports of several occurrences of lithium mineralised (lepidolite) pegmatite dykes known to occur within E45/5970 (Lithium Australia NL E45/4766 2019 Annual Report).

Kalamazoo is very encouraged by these early-stage results, and these soil anomalies and pegmatite dykes continue to be the subject of ongoing mapping and rock chip sampling exercises. Results to date demonstrate the widespread nature and prospectivity of lithium mineralisation contained within the Marble Bar tenure. The goal of these field exploration activities is to identify high priority targets for drill testing late in the June quarter 2022.

It should be noted that some of the exploration information in this announcement is based only on visual field observations. Assay results for 93 random rock chip samples recently collected from outcropping pegmatites have been received with the best assay results listed in Table 1. The Company has not yet confirmed whether economic lithium mineralisation is present, given that this can only be determined through further detailed exploration activity such as drilling.

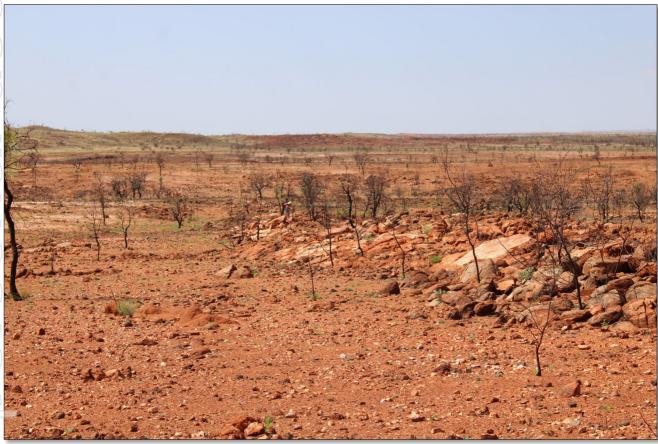


Figure 4a Photo of lepidolite-mineralised pegmatite dyke outcrop in E45/4700 near the eastern boundary of E45/5970 – see Figure 3 for location. Note Geologist at far end of outcrop for scale.



Figure 4b and c: Photographs of purple coloured lepidolite (lithium mica) contained within same pegmatite outcrop

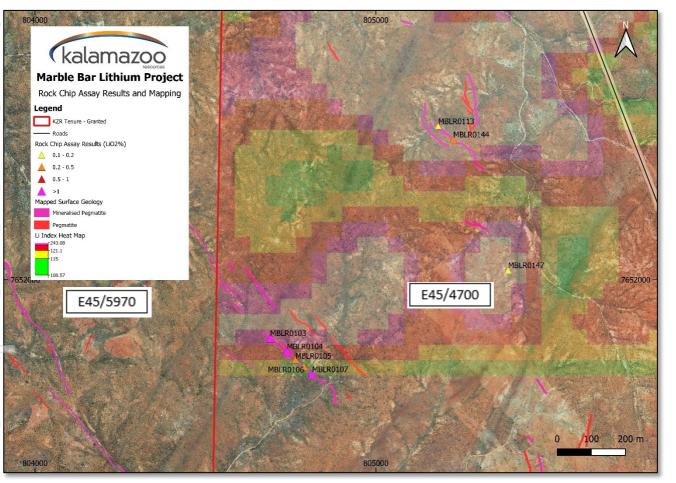


Figure 5: Marble Bar Project – early-stage reconnaissance results: mapped pegmatites (pink traces = mineralised, visual and/or assay determination), rock chip assay results (triangles), E45/4700 soil sample portable XRF Li Index results (coloured grid image) on a background Google Earth image

# Regional Soil Sampling Programs at the Marble Bar, DOM's Hill, and Pear Creek Lithium Projects

Kalamazoo has just completed two new soil sampling programs at the Marble Bar and DOM's Hill Lithium Projects and has commenced an initial soil sampling program at the Pear Creek Lithium Project (Figure 6; total ~2,600 soil samples).

The soil sampling has been recently completed at the newly granted E45/5970 (Marble Bar) and E45/5943 (DOM's Hill) both of which form part of the exploration Joint Venture fully funded by the major Chilean lithium producer SQM. Both new tenements were the subject of an initial detailed 200m x 100m grid soil sampling program that was completed in early May 2022.

Following the completion of the above-mentioned programs, the soil sampling crew has mobilised to Kalamazoo's nearby, 100%-owned Pear Creek Lithium Project which will be the subject of an initial detailed 200m x 200m grid soil sampling program, which is expected to be completed by late June 2022 (~2,300 samples). This soil sampling program will initially focus on the "Goldilocks Zone", being approximately 4km wide zone from the Granite-Greenstone contact.

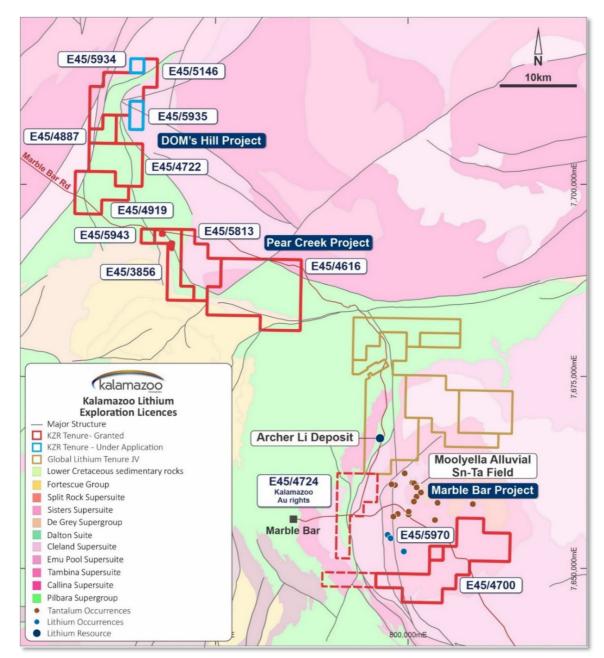


Figure 6: Location of Kalamazoo's lithium exploration projects at DOM's Hill, Pear Creek and Marble Bar, East Pilbara WA. Note that Kalamazoo has gold rights only in respect to E45/4724.

## **Next Steps**

Kalamazoo's priority for its Pilbara Lithium portfolio is to focus on advancing its projects towards extensive drill programs, which will include the following:

- Ongoing field reconnaissance/mapping and rock chip sampling campaigns
- Ongoing laboratory assay analyses of rock chip samples
- Commencement of new soil sampling campaigns across the three lithium projects
- Target identification and exploration drill program design and planning
- Advancing requisite Government permitting and cultural heritage surveys

# Kalamazoo/SQM Pilbara Exploration Joint Venture

The DOM's Hill and Marble Bar Lithium Projects are part of an exploration Joint Venture agreement between Kalamazoo Resources Limited and major Chilean lithium producer Sociedad Química y Minera de Chile S.A. (**"SQM"**). SQM has been granted the right to earn an initial 30% interest (to a maximum of 70%) in all mineral rights at Kalamazoo's DOM's Hill and Marble Bar Lithium Projects, by sole funding a minimum of **A\$12 million** of exploration and development activities over the next four years. SQM is one of the world's leading lithium producers with its main asset in Australia being its 50% joint venture interest in the Mt. Holland Lithium Project.

#### For further information, please contact:

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#### Previously Released ASX Material References

For further details relating to information in this announcement please refer to the following ASX announcements: ASX: KZR 7 December 2021

ASX: KZR 7 December 2021 ASX: KZR 14 December 2021 ASX: KZR 16 December 2021 ASX: KZR 28 February 2022

#### About Kalamazoo Resources Limited

Kalamazoo Resources Limited (ASX: KZR) is an ASX-listed exploration company with a portfolio of high-quality gold and lithium projects in Victoria and the Pilbara, WA. Kalamazoo is exploring at its 100% owned Castlemaine Goldfield (historical production of ~5.6Moz Au) and south of the Maldon Goldfield (historical production of ~2Moz) near the world class Fosterville gold mine in Victoria. In the Pilbara, Kalamazoo's extensive exploration program is advancing the 100% owned Ashburton Gold Project to further increase the 1.65Moz Au resource and progress development plans. Kalamazoo's lithium projects include the DOM's Hill and Marble Bar Lithium Projects in an exploration joint venture with the major Chilean lithium producer Sociedad Química y Minera de Chile S.A. (SQM) (NYSE: SQM) and the 100% owned Pear Creek Lithium Project.

Kalamazoo has become the first gold and lithium explorer operating in Australia to be certified carbon neutral for its business operations under the Federal Government's Climate Active Program, with projected 2022 emissions fully offset achieved with a verified environmental reforestation program in Western Australia.

#### **Response to COVID-19**

Kalamazoo has been proactively managing the potential impact of COVID-19 and has developed systems and policies to ensure the health and safety of its employees and contractors, and of limiting risk to its operations. These systems and policies have been developed in line with the formal guidance of State and Federal health authorities and with the assistance of its contractors and will be updated should the formal guidance change. Kalamazoo's first and foremost priority is the health and wellbeing of its employees and contractors.

To ensure the health and wellbeing of its employees and contractors, Kalamazoo has implemented a range of measures to minimise the risk of infection and rate of transmission to COVID-19 whilst continuing to operate. All operations and activities have been minimised only to what is deemed essential. Implemented measures include employees and contractors completing COVID-19 risk monitoring, increased hygiene practices, the banning of non-essential travel for the foreseeable future, establishing strong infection control systems and protocols across the business and facilitating remote working arrangements, where practicable and requested. Kalamazoo will continue to monitor the formal requirements and guidance of State and Federal health authorities and act accordingly.

#### **Competent Persons Statement**

The information for the Kalamazoo's Pilbara Lithium Exploration Projects is based on information compiled by Dr Luke Mortimer, a competent person who is a Member of The Australian Institute of Geoscientists. Dr Mortimer is an employee engaged as the Exploration Manager Eastern Australia for the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration results, Mineral Resources and Ore Reserves'. Dr Mortimer consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

#### Forward Looking Statements

Statements regarding Kalamazoo's plans with respect to its mineral properties and programs are forward-looking statements. There can be no assurance that Kalamazoo's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that Kalamazoo will be able to confirm the presence of additional mineral resources/reserves, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of Kalamazoo's mineral properties. The performance of Kalamazoo may be influenced by a number of factors which are outside the control of the Company and its Directors, staff, and contractors.

# Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Soil samples referred to in this report were obtained from in situ soil samples overlying dominantly Archaean (Tambina Supersuite (Fig Tree Gneiss) and to a lesser extent Emu Pool Supersuite granitoid basement rocks.</li> <li>Soil sampling was conducted along 200m spaced E-W lines with a sample station every 100m i.e. a 200m x 100m grid pattern.</li> <li>The soil sampling interval is considered sufficient for reconnaissance-level lithium and gold exploration.</li> <li>Soil samples were sieved to -2mm size fraction.</li> <li>Soil sampling practice is appropriate to the generally residual soil profile of the area sampled and complies with industry best practice.</li> <li>Rock chip samples referred to in this report were obtained from random in-situ rock chip samples of pegmatite dykes found in E45/4700 as observed by Kalamazoo geologists during standard field reconnaissance exercises.</li> <li>The random rock chip samples are irregularly spaced which is considered appropriate for "regional-scale" reconnaissance-level lithium and gold exploration.</li> <li>The random rock chip samples are irregularly spaced which is considered appropriate for "regional-scale"</li> <li>The reported occurrence of lepidolite (lithium mica) in pegmatite samples was initially determined visually by Kalamazoo Geologists. Some previous Kalamazoo rock chip samples have confirmed lepidolite via RAMAN mineral spectroscopy conducted by Portable Spectral Services Pty Ltd (Perth WA).</li> <li>This sampling practice is appropriate to the generally sub-cropping to outcropping profile of the area sampled and complies with industry best practice.</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka,</li> </ul>	Not applicable.

Criteria	JORC Code explanation	Commentary
	sonic, etc) and details (e.g. 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).	
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	• Not applicable.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	• Not applicable.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality, and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Soll SAMPLING</li> <li>Soil samples were collected in dry conditions and placed in numbered calico bags and grouped in poly-weave bags for dispatch to the laboratory.</li> <li>Sample size was generally 0.3- 0.5 kg.</li> <li>Samples were directly delivered to the Kalamazoo Perth office and subsequently Portable Spectral Services via tracked TOLL freight consignment.</li> <li>Field duplicate samples were collected at a rate of 1:50. Duplicate results show an acceptable level of variability for the material sampled and style of mineralisation.</li> <li>Sample weights are recorded and provided by the laboratory.</li> <li>Rock chip samples were collected in dry conditions and placed in numbered calico bags and grouped in poly- weave bags for dispatch to the laboratory.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>All rock chip samples were directly delivered to the Kalamazoo Perth Office then ALS Laboratory Perth via tracked TOLL freight consignment.</li> <li>Rock chip sample sizes were generally 1.5-3.0 kg.</li> <li>Sample preparation was conducted at ALS Laboratory, Perth WA including sample sorting, drying, crushing, and milling.</li> <li>Sample sorting: samples are weighed, and respective weights recorded in LIMs. Any reconciliation (extra samples, insufficient sample, missing samples) is noted at this stage.</li> <li>Sample Drying: Samples are dried in calico bags in ovens at 105 deg C.</li> <li>Sample Milling: Charges of up to 3kg are milled to 90% passing 75um in an LM5 mill.</li> <li>No duplicate samples were collected.</li> <li>Sample weights are recorded and provided by the laboratory.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>SOIL SAMPLES</li> <li>The soil samples were analysed with a pXRF unit and conducted by Portable Spectral Services Pty Ltd in Perth WA.</li> <li>The pXRF analysis used was a specialised "Li Index" function developed by Portable Spectral Services Pty Ltd.</li> <li>Portable XRF units are not capable of directly resolving lithium.</li> <li>The pXRF Li Index provides a proxy for Li content via a correlation with a suite of five elements (Rb, Nb, Ta, Ga, and Cs) that are resolvable by pXRF and calibrated against certified reference materials.</li> <li>The analytical quality control procedures consisted of the inclusion of a Certified Reference Material (CRM) at a rate of 1:15.</li> <li>The CRM used was OREAS148 with the results showing consistency throughout the sampling program.</li> <li>QC analysis of the pXRF</li> <li>sample results indicate that an acceptable level of accuracy</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>and precision has been achieved and the database contains no analytical data that has been numerically manipulated.</li> <li>All pXRF analysis results and QC data have been independently verified by an independent third-party consultant (Dr Nigel Brand – Consultant Geochemist).</li> <li>The assaying techniques and quality control protocols used are considered appropriate for the data to be used for reporting exploration soil geochemistry results.</li> <li><u>ROCK CHIP SAMPLES</u></li> <li>Assaying of the rock chip samples are to be conducted by ALS Laboratory, Perth.</li> <li>All samples are being assayed</li> </ul>
		<ul> <li>using the ME-MS61 for 48 elements using a 4-acid digestion followed by ICP- AES/ICP-MS determination.</li> <li>Sampling and assaying quality control procedures consisted of the laboratory inclusion of Certified Reference Materials (CRMs), coarse 'blanks and</li> </ul>
		<ul> <li>sample duplicates.</li> <li>Assays of quality control samples will be compared with reference samples for select elements and verified as acceptable prior to use of data from analysed batches.</li> <li>The analytical techniques and quality control protocols used are considered appropriate for the data to be used for reporting exploration rock chip mineralogy results.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>All soil and rock chip sampling, RAMAN and pXRF data were stored in a secure database with restricted access.</li> <li>Digital sample submission forms provided the sample identification numbers accompanying each submission to the laboratory.</li> <li>All sampling, assaying and laboratory analysis documentation are validated and stored off-site with an independent third party.</li> <li>Laboratory analytical results with corresponding sample identification are loaded directly into the database.</li> <li>All sampling and assaying documentation are validated and stored off-site with an independent third party.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>No analytical result adjustments have been applied.</li> <li>Verification of the pXRF and rock chip RAMAN spectroscopy results has been completed by Portable Spectral Services Pty Ltd and the Competent Person.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All soil and rock chip sample locations (x-y) have been recorded with a 64s Garmin Handheld GPS with 3-5m accuracy and height (z) relative to AHD.</li> <li>All sample location coordinates are provided in the Geocentric Datum of Australia (GDA94 MGA Zone 50S).</li> <li>RL data is verified utilising publicly available SRTM- derived (~30m pixel) Digital Elevation Model.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Soil sample spacing: 100m along east west lines; lines spaced 200m north-south (GDA94 MGA Zone 50S).</li> <li>The rock chip sampling reported was conducted randomly.</li> <li>No sample compositing is applied to samples.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Soil sample spacing and orientation is reconnaissance in nature and not targeted at specific structures or known trends of mineralisation.</li> <li>The rock chip samples were collected irrespective of the geometry/orientation of the outcropping pegmatite dykes.</li> <li>The rock chip sampling is reconnaissance in nature and targeted at select outcropping pegmatite dykes.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>All soil and rock chip Samples were secured in closed polyweave sacks and stored at company premises.</li> <li>All samples have been delivered direct to the laboratory and company premises via tracked TOLL freight consignment.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Due to the limited duration of the program, no external audits or reviews have been undertaken.

# Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land te status	<ul> <li>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.</li> <li>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.</li> </ul>	All tenements belonging to the DOM's Hill, Marble Bar and Pear Creek Projects (as listed below) are 100% owned by Kalamazoo and are in good standing with no known impediments. DOM's Hill Project tenements: • E45/4722 • E45/4887 • E45/4919 • E45/5146 • E45/5943 Marble Bar Project tenements: • E45/4700 • E45/5970 • E45/4724 (Au only rights) Pear Creek Project tenements: • E45/3856 • E45/4616
Exploration done by other pa	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>E45/5813</li> <li>The project area has seen limited exploration for both LCT pegmatites and alluvial and quartz-vein (nuggety) gold mineralisation by numerous previous parties.</li> <li>The historical rock chip samples mentioned in this report are derived from: E45/4700 - Sayona Mining Limited June 2019 Quarterly Activities Report (ASX: SYA 31 July 2019). E45/5970 – Hanree Holdings Pty Ltd, Report to accompany map of the Moolyella South Lithium Project, E45/4766 East Pilbara WA.</li> <li>The historical rock chip results reported have not been independently verified by Kalamazoo.</li> <li>Appraisal of the substantial volume of historical exploration occurred is ongoing.</li> </ul>
Geology	• Deposit type, geological setting, and style of mineralisation.	<ul> <li>The company is targeting lithium-caesium-tantalum mineralization hosted by granitic pegmatites.</li> <li>The tenement covers a portion of the southwestern margin of the Mt Edgar batholith. This large granitic complex comprises a number of discrete intrusions including 'younger' monzogranites.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>The tenement is prospective for lithium mineralisation associated with spodumene and lepidolite bearing pegmatites. Regionally, spodumene and lepidolite pegmatites have been identified within the Mt Edgar batholith, associated with the fertile Moolyella monzogranite.</li> <li>The bulk of the tenement covers the Fig Tree Gneiss member of the Tambina Supersuite. The northern portion of the tenement adjoins the Moolyella monzogranite, and the southwestern part covers the Jenkin Granodiorite (3313 – 3307 Ma) member of the Emu Pool Supersuite.</li> <li>The Marble Bar Lithium Project is prospective for alluvial and bedrock gold occurrences typical of the East Pilbara region.</li> </ul>
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	Not applicable.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> </ul>	<ul> <li>Significant pXRF Li-Index soil anomalies were generated based upon statistical dataset analysis using the ioGAS software application.</li> <li>The Li<sub>2</sub>O% for rock chip samples is calculated via the reported % Li grade multiplied by the standard conversion factor of 2.153</li> </ul>

Criteria	JORC Code explanation	Commentary
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>The exact relationship of results reported to any mineralization present is unknown at the time of reporting.</li> </ul>
Diagrams	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.	• As provided.
Balanced reporting	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.	<ul> <li>Only significant pXRF soil Li Index analytical results have been reported. Anomalous values were based upon a statistical dataset analysis using the ioGAS software application.</li> <li>Only significant visual and RAMAN spectroscopy confirmation of lepidolite (Li-mica) in rock chip samples collected by Kalamazoo have been reported.</li> </ul>
Other substantive exploration data	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.	<ul> <li>No other exploration data to report.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and</li> </ul>	<ul> <li>Further field-based geological mapping and reconnaissance is planned.</li> <li>Further field validation of significant soil geochemistry anomalies is planned. This practice will involve physically</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>future drilling areas, provided this information is not commercially sensitive.</i>	observing each anomalous soil sample site to verify its validity, record the site geology and to ascertain whether it is in-situ material, alluvial deposit, or otherwise contaminated site.