10 January 2024

Spodumene identified at Higginsville Lithium District

Highlights

- The Higginsville Lithium District comprises approximately 1,571km^2, which has been separated into eight project areas (Figure 1)
- Spodumene identified in multiple areas at the Spargoville Project, one of the Company's projects within the Higginsville Lithium District
- Assays from rock chip samples returned results up to 3.69% Li_20, with highlighted results including:
    - Parker-Grubb Prospect KCSA049 3.69% Li_20, 349 ppm Ta
    - Flynn-Giles Prospect KCSA037 1.63% Li_20, 258 ppm Ta
    - Flynn-Giles Prospect KCSA030 1.24% Li_20, 136 ppm Ta
    - Green Flame Prospect KCSA043 1.27% Li_20, 41 ppm Ta
- Initial assays from rock chip samples at the Mt Henry Project returned a lithium result of 1.02% Li20, <10 ppm Ta in sample KCSA039
- First pass soil sampling program completed at Spargoville and Widgiemooltha Projects
- Ongoing soil sampling programs planned to cover all eight Projects in 2024
- Reverse circulation (RC) drilling program at the Spargoville Project is scheduled to commence in the first half 2024, the first lithium-focused drilling undertaken in the area.

Kali Metals Limited (ASX: KM1) ("Kali" or "Company") is pleased to announce that preliminary exploration programs completed pre-IPO have identified and sampled lithium bearing pegmatites across multiple locations within the Higginsville District Scale tenement holding.

Importantly, Spodumene has been identified at the Spargoville Project.

In late December 2023 a first pass soil sampling program was completed across the Spargoville project and the northern section of the Widgiemooltha project area. Assay results pending.

Stuart Peterson, General Manager Geology commented:

"The Higginsville Lithium District portfolio has already proven to be prospective for lithium exploration with spodumene identified in multiple locations. Our exploration team, who have extensive lithium exploration experience, have set up ongoing exploration pathways for identifying new lithium discoveries across what is an impressive, district scale tenement holding.

I look forward to updating the market as the Higginsville Projects progress, along with regular updates from the Company's other lithium Projects in the Pilbara region of Western Australia and the Lachlan Fold Belt in Australia's eastern states."

Further large-scale geochemical soil sampling programs have been planned across the entire Higginsville Lithium District, utilising a rolling soil sampling program to cover the prospective ground across the eight Projects.

A targeted RC drilling program is expected to commence at the Spargoville Project in the first half of 2024 to drill test a number of the outcropping LCT pegmatites.

Higginsville Exploration Strategy

The Higginsville Lithium District covers approximately 1,571 km^2 of land holding with Kali owning 100% of the lithium and associated battery mineral rights across these tenements.

Within the Higginsville Lithium District portfolio, eight Projects (Figure 1) have been identified as having a prospective geological setting to host LCT pegmatites. Some of these areas have existing mapped outcropping pegmatites with spodumene identified, while in other areas, pegmatite occurrences have been logged within the existing drilling intercepts throughout the extensive historical gold drilling database.

The Kali exploration team has developed a specific exploration program for each Project, to be implemented throughout this year in order of prospectivity.

This approach allows the implementation of systematic exploration programs across the Company's entire tenement holding in the Higginsville Lithium District.

Large-scale geochemical sampling programs have been completed across the Spargoville and Widgie Projects. Additional programs are planned following further analysis and a comprehensive understanding of the area's potential. Assay results from these additional programs are pending.

Higginsville Early Results

Rock chip samples taken during the Companies first field trip have returned grades greater than 1.0% Li_20 across multiple Projects. These samples were taken from outcropping lithium, cesium, and tantalum (LCT) pegmatites during the initial site visits. Highlighted results below:

Spargoville Project (Figures 2 and 3)

- Parker-Grubb Prospect KCSA049 3.69% Li_20, 349 ppm Ta
- Flynn-Giles Prospect KCSA037 1.63% Li_20, 258 ppm Ta
- Flynn-Giles Prospect KCSA030 1.24% Li_20, 136 ppm Ta
- Green Flame Prospect KCSA043 1.27% Li_20, 41 ppm Ta

Mt Henry Project (Figure 6)

- Dave's Claim Prospect KCSA039 1.02% Li_20, <10 ppm Ta

Commencement of Drilling at Spargoville

With the early field success at the Spargoville Project, the Company is planning a maiden drilling program to test the Flynn-Gyles and Green Flame LCT pegmatites. The program is expected to consist of approximately 10,000m of RC drilling and will focus on known spodumene occurrences and outcropping tends, expanding to step-out drilling along strike and down dip. The Company has the capacity to extend the drilling program as required.

The drilling program will be the first lithium-focused exploration undertaken on the Company's Spargoville pegmatites.

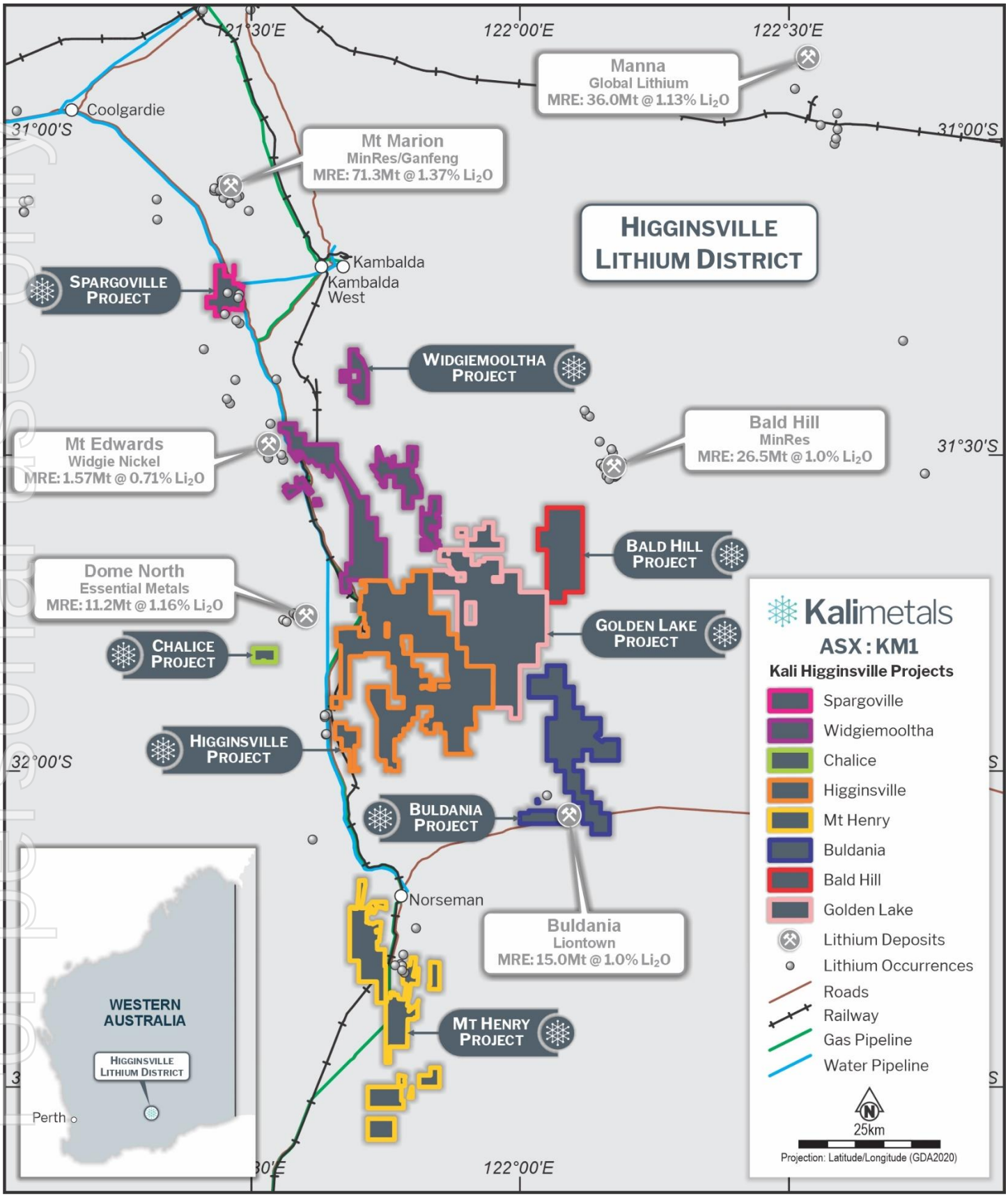

Figure 1: Higginsville Lithium District showing the Company's eight distinct Projects

Spargoville Project

The Spargoville Project is located 20km due south from the Mt Marion lithium mine and adjacent to the major sealed Esperance-Coolgardie highway. The majority of the project area is located within an existing granted mining license (M15/1828).

The Company's exploration team has conducted a project wide mapping and sampling program, with results from rock chip samples returning lithium assays up to 3.69% Li_2O. Spodumene has been identified at the Spargoville Project, specifically in two separate locations at the Flynn-Giles prospect within a large outcropping pegmatite that extends over an 800m strike length.

Additional LCT pegmatites have also been identified running parallel to the main trend across the Project area, with results returning elevated lithium levels in the first-pass rock chip sampling program. These results were taken from surface and within the weathered zone of the pegmatite, with further analysis of the samples to be performed.

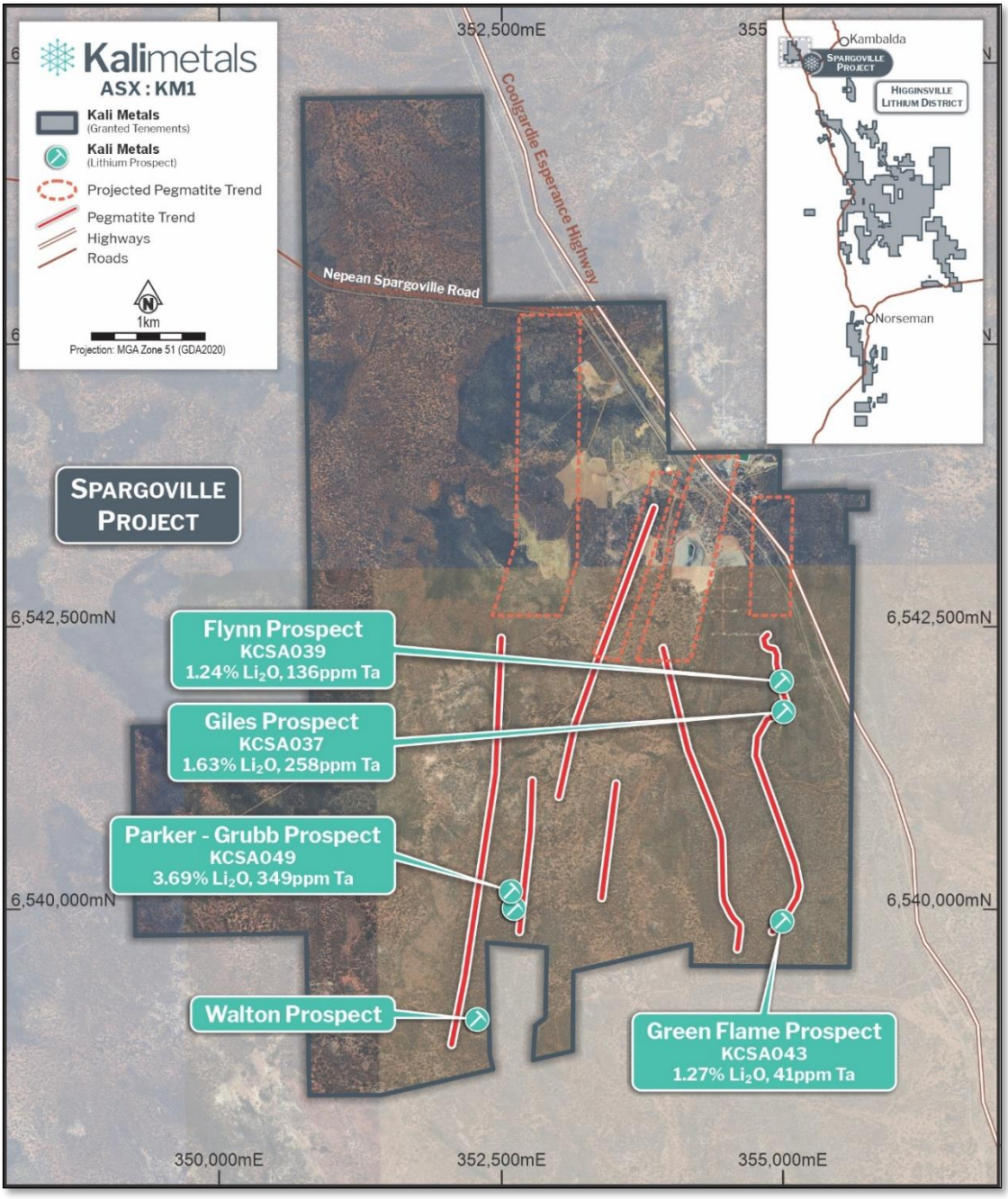

Figure 2: Spargoville Project with LCT pegmatite trends and rock chip sample results

A soil sampling program has been conducted over the pegmatite trends, the results to be used for drill targeting of priority areas.

Widgiemooltha Project

The Widgiemooltha Project extends over a 35km strike length of prospective greenstone that runs from just north of the Widgiemooltha roadhouse, south to the historic Higginsville gold mine. The Project is adjacent to major infrastructure, including the sealed highway along with a rail line, plus water and gas pipelines.

As with the Spargoville Project, a widespread ground sampling and mapping program has been conducted across the northern section of the Widgiemooltha Project, where several outcropping LCT pegmatites were observed.

The area consists of a stacked system of multiple, north-south trending, outcropping LCT pegmatites with some extending over a 1km strike length.

Figure 3: Cut sample of weathered spodumene from the Spargoville Project

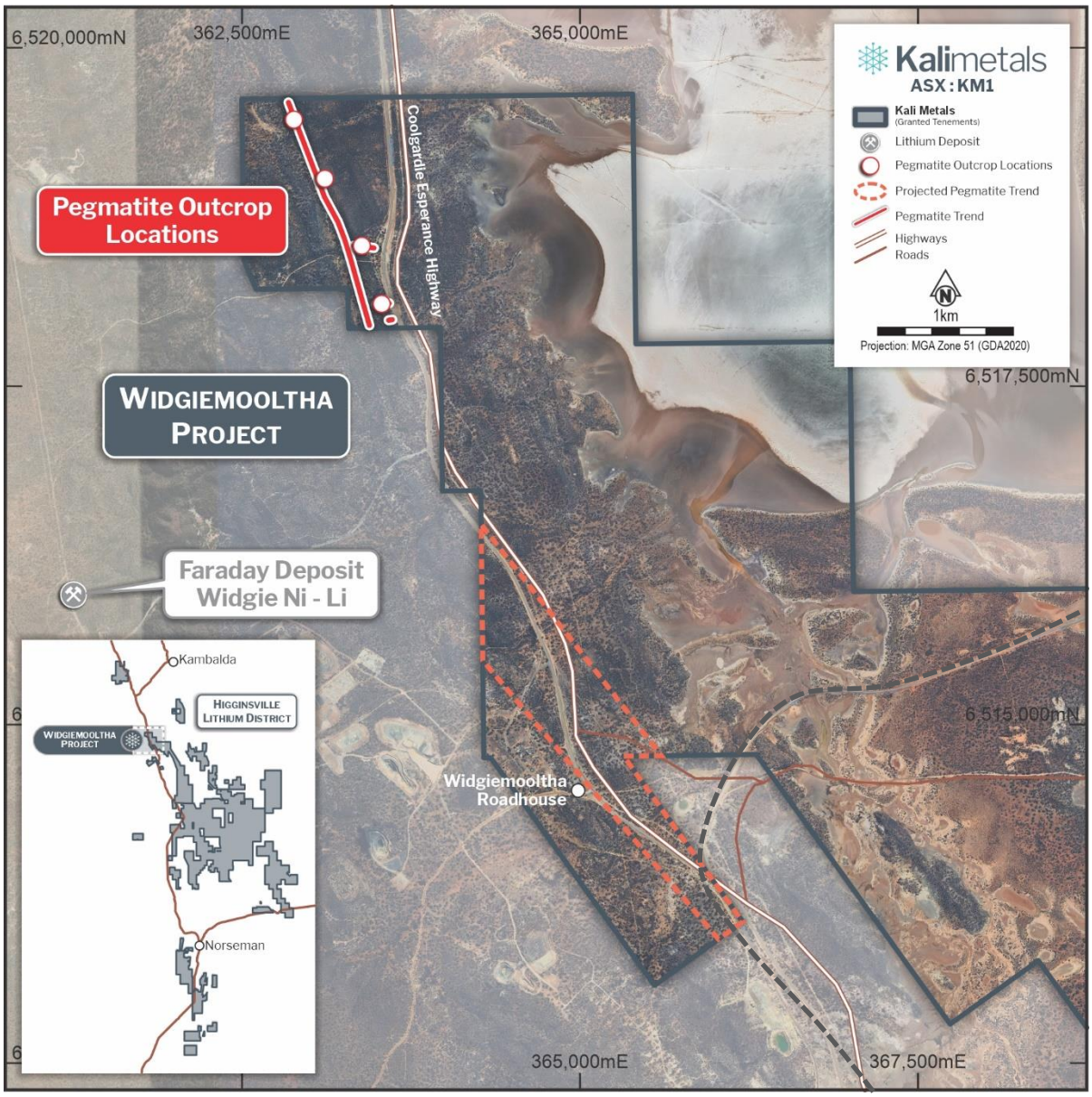

Figure 4: Northern area of the Widgiemooltha North project showing the pegmatite trend.

Figure 5: Weathered LCT pegmatite identified from the northern Widgiemooltha project area (UV light 365nm)

Mt Henry Project

The Mt Henry Project is accessed by a sealed road, 20km south of the town of Norseman and only 180km north of the port town of Esperance. The project contains an 8km long greenstone strike length that hosts the historic Mt Henry gold mine, along with abundant infrastructure that is adjacent to Kali's tenements, including road, rail, water, and gas pipelines.

The rock chip lithium result (Figure 6) was sampled from Dave's Claim prospect and sampled was taken from a partially outcropping LCT pegmatite.

The Higginsville Lithium District's soils program covering the entire 8km strike length is planned for the coming months.

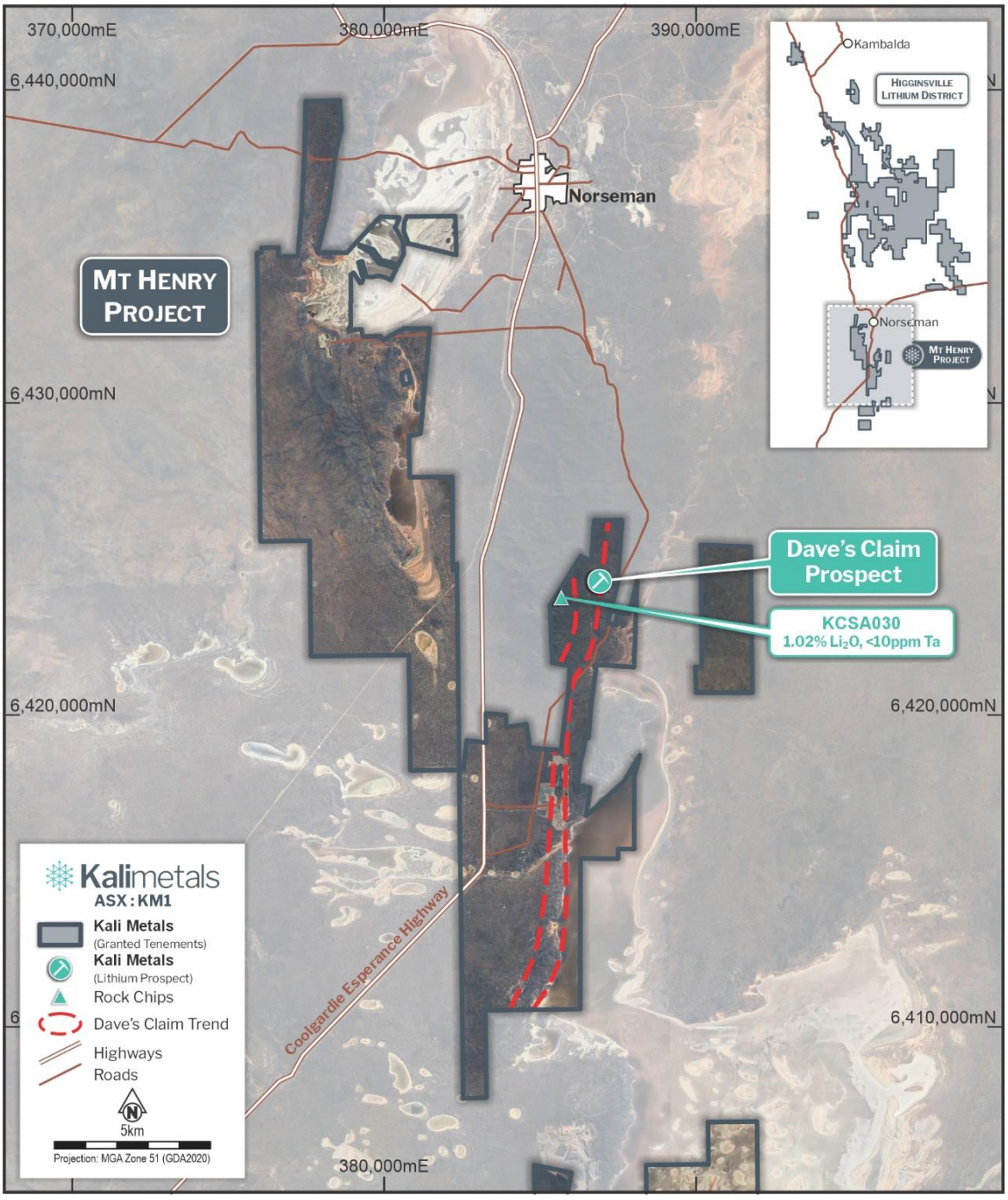

Figure 6: Mt Henry Project, pegmatite trends and sample location

Authorised for release by the Board of Kali Metals Limited.

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About Kali Metals Limited

Kali Metals' (ASX: KM1) portfolio of assets represents one of the largest and most prospective exploration packages across Australia's world leading hard-rock lithium fields. Kali's ~3,854km^2 exploration tenure is located near existing, emerging, and unexplored lithium and critical minerals regions in WA including the Pilbara and Eastern Yilgarn and the Lachlan Fold Belt in NSW and Victoria.

Kali Metals has a team of well credentialed professionals who are focused on exploring and developing commercial lithium resources from its highly prospective tenements and identifying new strategic assets to add to the portfolio. Lithium is a critical component in the production of electric vehicles and renewable energy storage systems. With the rapid growth of these industries, the demand for lithium is expected to increase significantly in the coming years. Kali Metals is committed to playing a key role in meeting this demand and powering the global clean energy transition.

Forward Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Kali Metals Limited's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential", "should," and similar expressions are forward-looking statements. Although Kali Metals Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

Competent Person Statement

Exploration Results

The information in this announcement that relates to Exploration Results for Kali Metals, Higginsville Lithium District and complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results and is based on, and fairly represents, information and supporting documentation prepared by Mr Stuart Peterson, a fulltime employee of Kali Metals Limited. Mr Peterson is a member of the AusIMM and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Peterson considers that the information contained in this announcement is an accurate representation of the available data and studies for the mining project. Mr Peterson consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Appendix 1

Highlighted pegmatite rock chip assay results from reconnaissance sampling program.

Project Area	Prospect	Sample ID	Easting (m)	Northing (m)	Li_2O (%)	Ta (ppm)
Spargoville	Parker-Grubb	KCSA049	352630	6540057	3.69	349
Spargoville	Flynn-Giles	KCSA037	355000	6541831	1.63	258
Spargoville	Flynn-Giles	KCSA039	354996	6542015	1.02	<10
Spargoville	Green Flame	KCSA043	354970	6539854	1.27	41
Mt Henry	Dave's Claim	KCSA030	385665	6423745	1.24	136

Table of rock chips from initial field trip to Higginsville District Project

Sample ID	Easting	Northing	Be	Cs	Li20	Li	Rb	Sn	Ta
	GDA1994	GDA1994	ppm	ppm	%	ppm	ppm	ppm	ppm
KCSA030	385665	6423745	21.7	433	1.24	5781	>5000	643	136
KCSA031	385655	6423725	67.8	59.4	0.03	164	1252	202	165
KCSA032	385642	6423757	16.9	156	0.29	1350	3272	652	129
KCSA035	380408	6430551	138	495	0.03	141	>5000	136	138
KCSA036	380426	6430587	173	477	0.02	120	4188	140	338
KCSA037	355000	6541831	330	3170	1.62	7570	>5000	188	258
KCSA038	354995	6541994	Pending	Pending	Pending	Pending	Pending	Pending	Pending
KCSA039	354996	6542015	3.8	409	1.02	4745	>5000	49	<10
KCSA040	354939	6542247	41.5	61.8	0.01	77.7	998	<10	<10
KCSA041	355105	6540008	Pending	Pending	Pending	Pending	Pending	Pending	Pending
KCSA042	355104	6540005	5.3	19	0.01	32.7	130	<10	<10
KCSA043	354970	6539854	11.6	1914	1.26	5901	>5000	276	41
KCSA044	351971	6538735	2.5	59.8	0.00	21	1555	<10	<10
KCSA045	352104	6540712	2.2	13.5	0.02	115	704	16	<10
KCSA046	352470	6541240	6.4	12.2	0.01	26.1	98.1	<10	<10
KCSA049	352630	6540057	30.6	>5000	3.69	17182	>5000	206	349
KCSA051	355117	6539980	2.1	90.1	0.01	36.3	207	<10	<10

JORC Code, 2012 Edition – Table 1

Section 1: Sampling Techniques and Data

Criteria	*JORC Code Explanation*	Commentary
Sampling techniques	*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 3kg 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.*	Surface Samples Samples reported in this release are surface rock chips collected from various pegmatite bodies across the project area and are representative of the outcrop they were collected from, given the nature of pegmatites having variable grain size and mineralogy. The rock samples collected were between 0.5kg and 3kg in weight. Drill Samples No drill samples are reported in this announcement.
Drilling Techniques	*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).*	No drill samples are reported in this announcement.
Drill Sample Recovery	*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.*	No drill samples are reported in this announcement. Other samples reported in this release are individual rock chips and recovery is not relevant.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate*	Rock chips were collected as part of a detailed surface geological mapping *program*. Qualitative field logging of the rocks is completed

	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.*	in the field including assessment of weathering, lithology, alteration, veining, mineralisation and mineralogy.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.* *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* *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.* *Whether sample sizes are appropriate to the grain size of the material being sampled*	*Surface Samples* No field sub-sampling techniques were employed. Sample preparation following standard industry practice was undertaken at SGS, Perth laboratory, where the samples received were sorted and dried. All rock chips were initially crushed and then pulverize using a vibrating disc pulveriser to produce a homogenous, representative sample. Samples were then weighed and sent for their respective analysis. Internal screen QAQC is done at 90% passing 75um. Rock chips were collected from outcropping pegmatite bodies with limited sampling of "float" material. Field geologists selected samples that best represented the geology of the pegmatite body sampled. Rocks collected were assessed for their representativeness with grainsize of each pegmatite taken in account to ensure the sample size was appropriate. The sample preparation followed industry best practice for base metals exploration.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* *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.* *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.*	*Surface Samples* All rock samples were analysed by methods: GE_FUS92A50 and GE_IMS92A50 – using Sodium Peroxide Fusion with analysis via ICP-OES and ICP-MS for a total of 57 elements *Drill samples* No Drill Samples were reported in this announcement These techniques are considered a total digest for all relevant minerals
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Primary data was collected by employees of the Company at the Project site. All measurements and observations were recorded

	The use of twinned holes. *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* *Discuss any adjustment to assay data*	digitally and entered into the Company's database. Data verification and validation is checked upon entry into the database. No adjustments or calibrations have been made to any assay data.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* *Specification of the grid system used.* *Quality and adequacy of topographic control.*	Sample locations are determined by handheld GPS with and accuracy of approximately 5m. The grid system used is MGA1994 zone 51.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.* *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.* *Whether sample compositing has been applied*	Sample spacing has been determined solely by geological mapping and no grade continuity is implied. No sample compositing has been applied.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* *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.*	No known sampling bias has been introduced.
Sample security	*The measures taken to ensure sample security*	Samples were placed in calico bags in the field. Calico bags were placed in a poly weave bag and cabled tied closed at the top. Poly weave bags were placed inside a large bulka bag prior to transport. Bulka bags were transported from the core shed to the ALS Minerals laboratory in Perth by a freight contractor.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No audits or reviews have been conducted in relation to surface rock sampling.

Section 2: Reporting of Exploration Results

Criteria	*JORC Code Explanation*	Commentary
Mineral tenement and land tenure status	*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.*	The Higginsville project is made up of 207 Mining leases, Exploration Licences and prospecting claims spread over 1,517 square km. Tenement details are available in the company's prospectus. The Company owns 100% of the Lithium and associated battery minerals rights through a JV agreement with Karora Resources. The tenement package is in good standing and managed by Karora resources tenement management team. There are no impediments to operate on the tenement holding outside the current requirements under DMIRS, national parks or the EPA.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Historical exploration and mining within the tenement holding has been ongoing since the turn of the 20th century with the main commodity explored and mined being Gold and Nickel. Very little Lithium exploration has been performed over the ground. The drilling and sampling database from the previous explorers will provide a large amount of information to assist in the exploration for Lithium.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Higginsville project includes elements of the Archean Kurnalpi and Kalgoorlie Terranes. Many of the project tenements occur west of the Boulder-Lefroy Fault within the Kalgoorlie Terrane. The tenements largely cover greenstone rocks which comprise ultramafic, mafic, and felsic volcanics, mafic intrusives and sediments
Drill hole information	*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:* • *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.*	No new drill hole locations are included in this report. Results outlined in this release are related to rock chip samples only. Surface rocks sampling information is included within the body of the report.

	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.	
Data aggregation methods	*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.* *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.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No data aggregation techniques have been applied.
Relationship between mineralisation widths and intercept lengths	*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').*	No relation is evident or applicable for rock chip sampling results.
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.*	Refer to figures in the body of the text.
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.*	The Company believes that the ASX announcement is a balanced report with all material results reported.
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.*	Everything meaningful and material is disclosed in the body of the report. Geological observations have been factored into the report.
Further work	*The nature and scale of planned further work (eg tests for lateral 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.*	Results from geochemical sampling and mapping programs will be synthesised to prioritise pegmatite bodies that required additional intensive sampling and mapping to determine their potential to support a drilling campaign.