

27 OCTOBER 2022

ASX/MEDIA RELEASE

Spodumene confirmed in multiple pegmatite dykes at the Tambourah Lithium Project, WA

Regional mapping and rock chip program in progress to define drill targets across multiple pegmatites identified from historic data and recent exploration

Highlights

- Multiple lithium-bearing pegmatite dykes confirmed to host spodumene at Trek's 100%-owned Tambourah Project in the Pilbara region of Western Australia.
- Historic rock chip results highlight a large, fractionated LCT pegmatite swarm prospective for lithium, with a good correlation to both the previously reported anomalous stream sediment data and mapped pegmatites on the ground.
- Known pegmatite swarms, with multiple stacked pegmatites, extend over an area of at least 4km² and are up to 1.6km long, with high-grade lithium identified in outcrop.
- Fertility indicators for LCT pegmatites suggest that a significant portion of these mapped pegmatites are prospective for lithium mineralization.
- Assays are awaited from a recent program of rock chip and soil sampling undertaken across areas selected due to highly anomalous lithium stream sediment results, rock chip fertility indicators and multiple mapped outcropping pegmatite dykes.
- The Tambourah Project is under-explored for lithium and has never been drill tested, highlighting a significant opportunity to make a greenfields lithium discovery.
- The greater Tambourah area is currently a hive of activity for Lithium-Caesium-Tantalum pegmatite exploration, with three other exploration companies – Riversgold (ASX: RGL), Infinity Mining (ASX: IMI) and Minrex (ASX: MRR) – all presenting evidence of lithium mineralisation within the large pegmatite swarms at Tambourah.

Trek Metals Limited (ASX: **TKM**) ("**Trek**" or the "**Company**") is pleased to advise that following an expanded field exploration program at its 100%-owned Tambourah Lithium Project (E45/5839 & E45/5484) in the Pilbara region of Western Australia, Trek confirmed the presence of spodumene within an extensive pegmatite system which has never been drill tested.

Trek CEO Derek Marshall said:

"The Tambourah Project is an exceptional greenfields lithium exploration opportunity, located in the heart of one of the world's premier mining districts. Despite its Tier-1 location, the Project has never had a single drill hole into it – a remarkable opportunity for Trek!"



Figure 1: Spodumene confirmed in lithium-bearing pegmatite dyke from Tambourah North (E45/5839) in sample TKL0046A (laboratory assays pending, with spodumene occurrence confirmed by Raman spectral analysis – refer Table 1 & Figure 4).

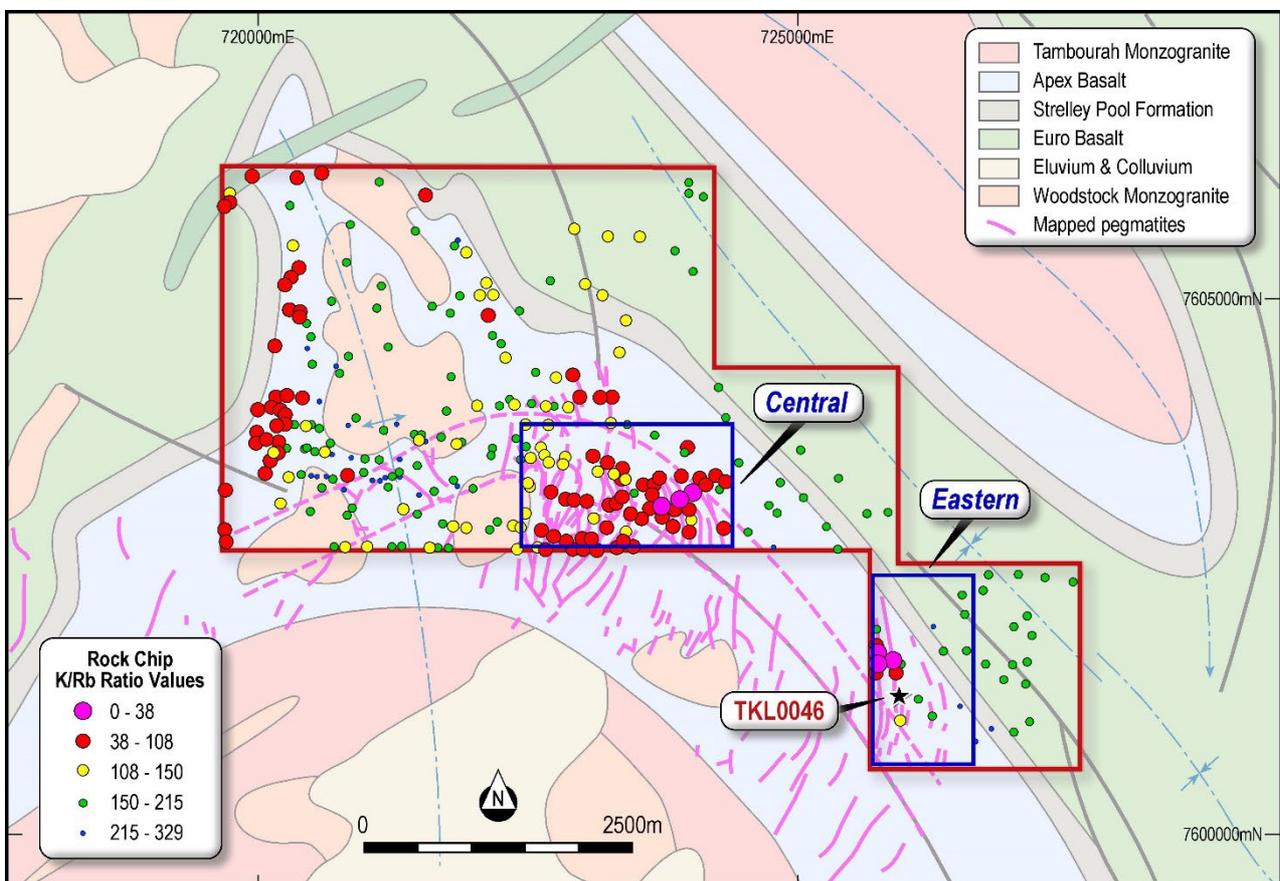


Figure 2: K/Rb fertility ratios in historic rock chip results indicate a large, fertile pegmatite swarm at Tambourah North (K/Rb<150, i.e. magenta, red & yellow dots are considered prospective!) including the large Central Prospect with similar ratios to those in the Eastern Prospect where Spodumene has been confirmed.

“Confirmation that we have multiple pegmatites of significant scale on the tenement is an exciting development, and we are looking forward to fully evaluate this potential.

“We know there is lithium in outcrop, the lithium potential is further supported by the historic stream sediment samples and rock chip fertility ratios, and the district is currently seeing a big increase in lithium exploration by ASX-listed companies such as Riversgold, Infinity and Minrex.

“We are looking forward advancing the project to the next stage with the definition of drill targets and progressing agreements and approvals required to get a rig turning as soon as practicable. Given the current and forecasted demand for lithium, we intend to elevate this Project as a priority opportunity for Trek within our battery metals focused portfolio.”

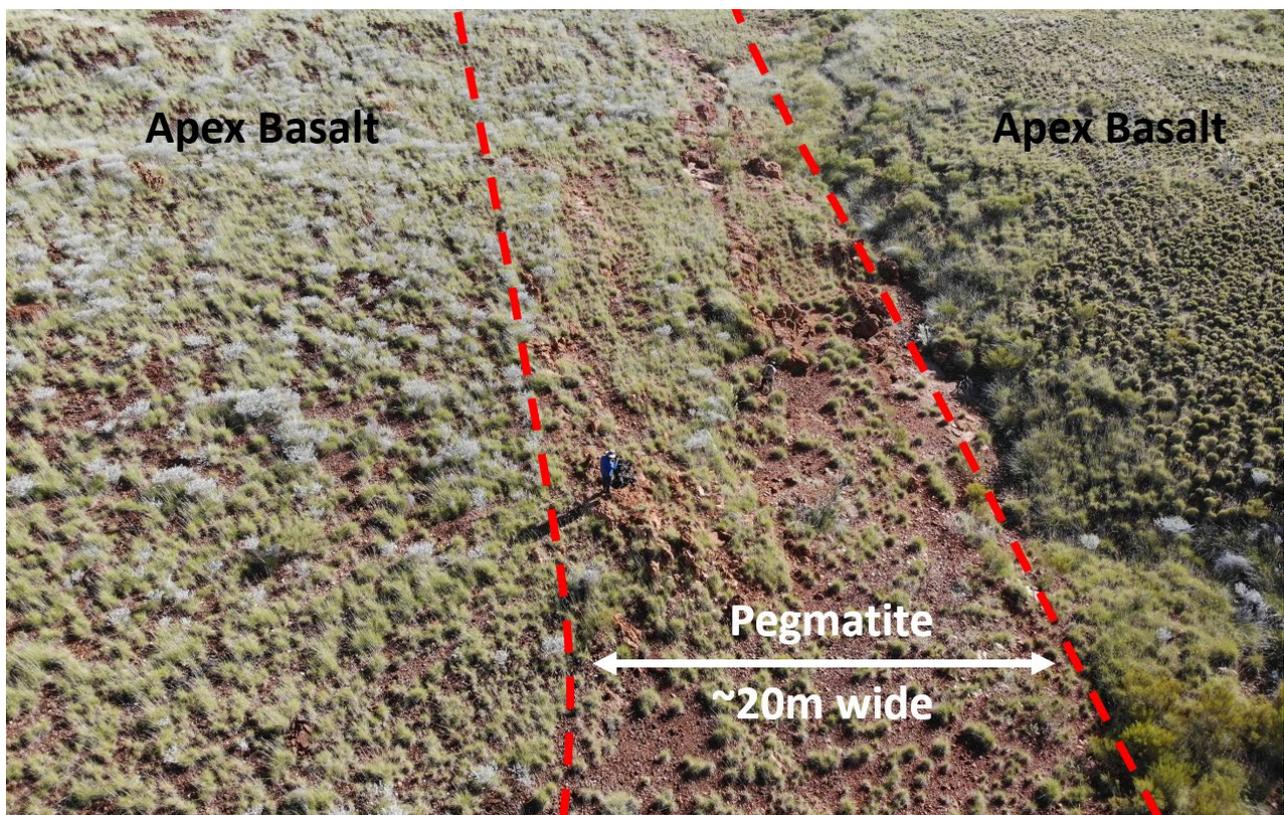


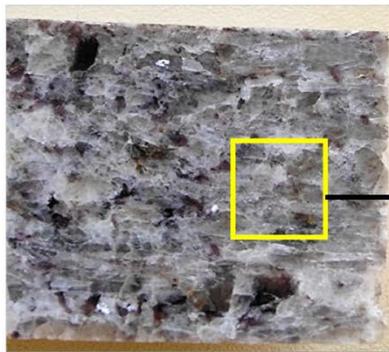
Figure 3: Large pegmatite outcrop of approx. 20m width, within the Central Prospect area which hosts intense pegmatite swarms with K/Rb ratios indicative of highly fractionated LCT pegmatites prospective for Lithium.

Four rock chip samples collected by Trek were analysed by Raman spectroscopy at The University of Western Australia’s Centre for Microscopy, Characterisation and Analysis (CMCA), with all samples confirmed to contain spodumene (Table 1 & Figure 4). This is of particular importance as spodumene is a highly valued lithium ore mineral within hard rock lithium mines, such as the world-class Pilgangoora Deposit, located approx. 70km to the north-west in Pilbara region of WA.

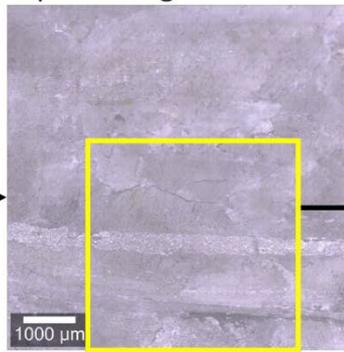
Table 1: Rock chip Raman spectral analysis results undertaken at the CMCA confirm the presence of spodumene from three sub-parallel pegmatite dykes in an area of approx. 250 x 140m at the Eastern Prospect

Sample ID	Easting	Northing	Mineralogy
TKL0042	725,905	7,601,249	Spodumene , Quartz & Albite
TKL0046	725,968	7,601,214	Spodumene , Quartz & Albite
TKL0046A	725,968	7,601,214	Spodumene , Quartz & Albite
TLK0085	725,834	7,600,992	Spodumene , Quartz & Albite

TKL0042



Optical Image



Raman Map

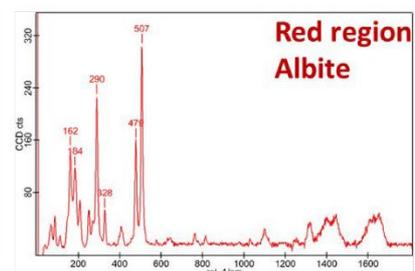
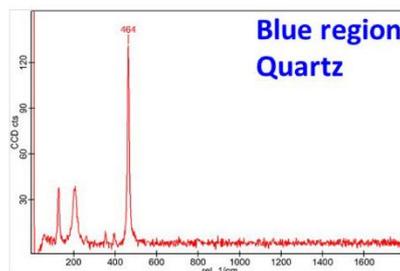
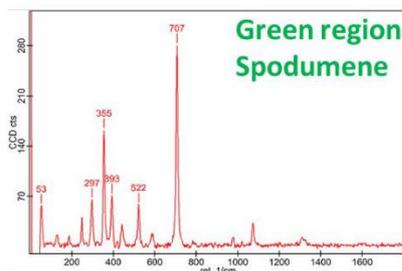
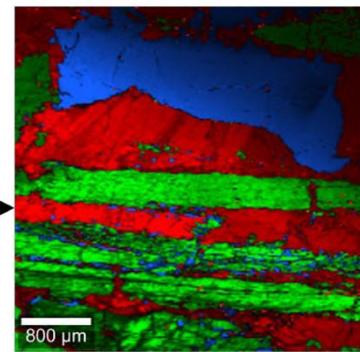


Figure 4: Confirmation of spodumene in sample TKL0042 by Raman spectroscopy at The University of Western Australia's Centre for Microscopy, Characterisation and Analysis (CMCA) with camera, optical image, Raman map and Raman spectra. Green = Spodumene, Blue = Quartz & Red = Albite

A total of 66 rock chip samples were taken targeting LCT pegmatites across both Tambourah licences and have been submitted for analysis with assays currently pending.

Geochemical data represents the most important tool for providing vectors towards LCT pegmatites, with element ratios indicating the most fractionated zones that have the highest likelihood of being enriched in incompatible elements of economic interest (such as lithium and tantalum). These fertility ratios have been calculated from historical rock chip data collected by FMG (*refer JORC Table 1 for additional information*).

Of particular interest is the K/Rb ratio (Figure 2), noting that other ratios such as Nb/Ta and Zr/Hf also show similar patterns which indicate that highly fractionated pegmatites occur not only in the Eastern Prospect area, where spodumene bearing lithium mineralisation has been observed in outcropping pegmatites, but also in the much larger and more widespread pegmatites in the Central Prospect area (Figures 2, 3 & 5) – which have the same ratios, highlighting their prospectivity.

Pathfinder elements (e.g., Ta, Cs, Sn & Rb) are also enriched in rock chips from this area. Stream sediment data also suggests the presence of elevated lithium in the Central Prospect area with comparable values to those taken from streams in the Eastern Prospect area (Figure 7). While Trek has not yet located any lithium mineralisation in the Central Prospect area, the fertility indicators, the elevated lithium values in the stream sediment data and the large volume of pegmatites in outcrop all add weight to this being a highly prospective area for lithium mineralisation and thus being ranked highly as a drill target area.

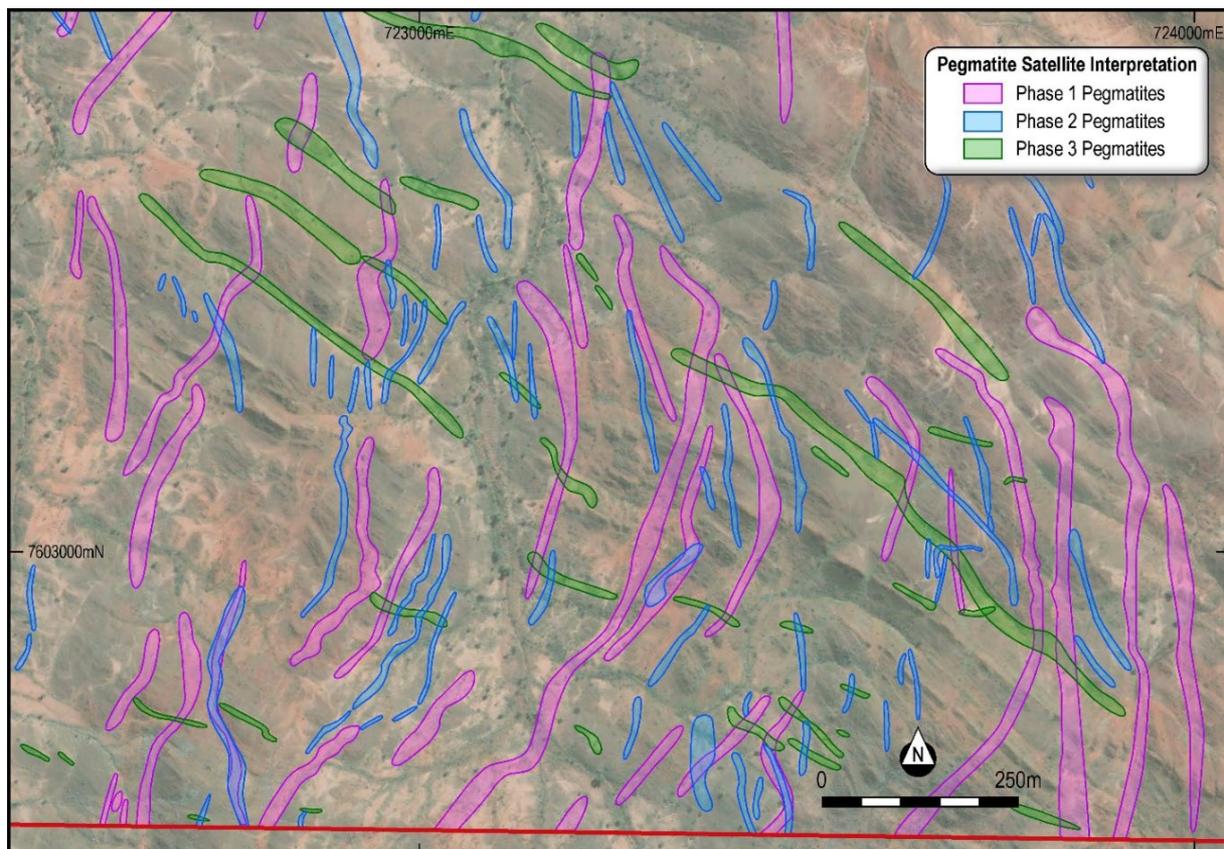


Figure 5: Interpreted pegmatites over satellite imagery highlight the intensive pegmatite swarm at the Central Prospect. Rock chips contain anomalous pathfinder elements and ratios that indicate a highly fractionated LCT pegmatite system prospective for lithium in this area (see Figure 2). Field mapping has commenced in this area to ground truth the interpretations, collect additional rock chips for analysis and define drill targets.

Trek is rapidly progressing towards drill target definition and gaining the required agreements and approvals to allow drill testing of this exciting large hard rock lithium mineralised system in the Pilbara region of Western Australia.

Tambourah Lithium Project

The Tambourah Lithium Project is located 70km southeast of Pilbara Minerals' (ASX: PLS) world-class Pilgangoora lithium mine site in the Pilbara region of Western Australia (Figure 6). Trek's extensive landholding at Tambourah comprises two Exploration Licences (E45/5484 & E45/5839) which are 100%-owned by ACME Pilbara Pty Ltd, a wholly owned subsidiary of Trek Metals Ltd.

The Project encompasses the central portion of the 15km long Western Shaw Greenstone Belt, which occurs on the eastern limb of an anticline folded around the Tambourah Dome. The greenstone rocks comprise Archean-aged metavolcanic, metasedimentary, and various granitoids with associated pegmatitic phases.

Historic exploration data highlighted the potential for lithium-bearing pegmatite mineralisation on both of Trek's Tambourah Project tenements (*refer ASX: TKM 26th May 2022 for additional information*). With both stream sediment (Figure 7) and rock chip data (Figure 2) indicating the presence of highly fractionated Lithium-Caesium-Tantalum (LCT) pegmatites with the potential for lithium mineralisation. Historic rock chip data also confirmed the presence of high-grade lithium mineralisation with sample J576120 returning >1% Li₂O (Figure 6).

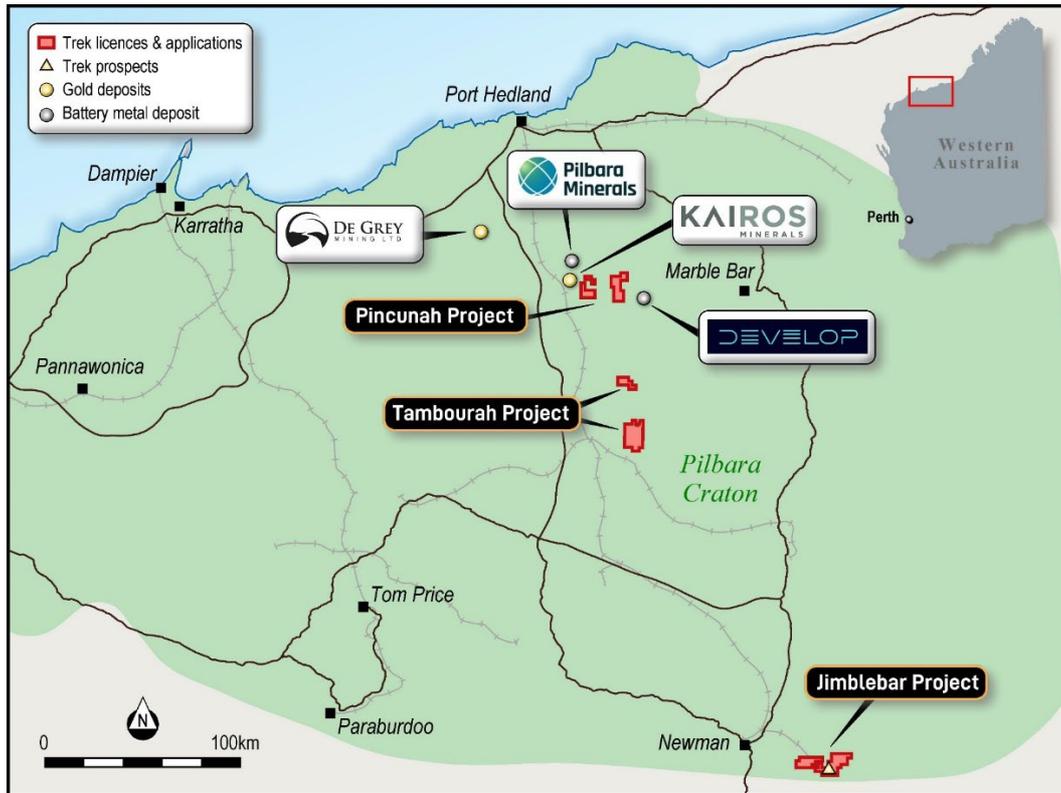


Figure 6: Location of Trek's Pilbara Projects, including Tambourah – located approx. 70km SE of Pilbara Minerals Pilgangoora Lithium mine

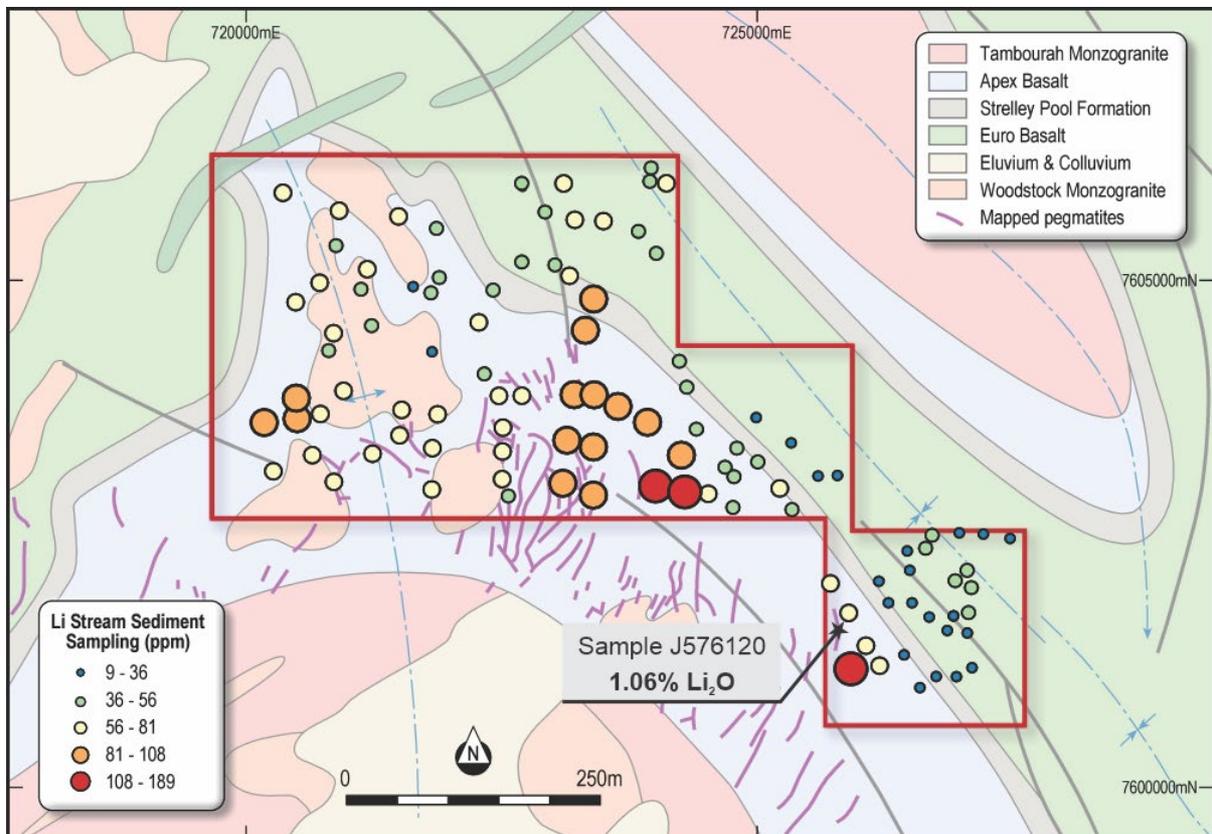


Figure 7: Stream sediment data from FMG identifies a large area highly anomalous in lithium (and other pathfinder elements) at Tambourah North (E45/5839) correlating with extensive mapped outcropping pegmatites, including rock chip sample J576120 with > 1% Li_2O , highlighting the potential for a significant accumulation of lithium bearing LCT pegmatite

Samples taken during Trek’s first reconnaissance trip to evaluate the lithium potential at Tambourah corroborated the lithium potential highlighted in the historical exploration results and confirmed the presence of multiple outcropping pegmatites in the areas of stream sediment anomalism, with new rock chip samples returning up to 1.04% Li₂O (ref ASX: TKM 21st July 2022).

Trek is currently focused on defining drill targets within the areas with anomalous lithium and other pathfinder elements such as caesium, rubidium and tantalum that were generated during historic exploration by Fortescue Metals Group (Figures 2 and 7 & refer ASX: TKM 26th May 2022 for additional information) on what is now Trek’s tenure.

Trek previously reported exceptional high-grade results of up to 178g/t Au from rock chip samples taken preliminary reconnaissance fieldwork on E45/5484 in 2021. The prospectivity of the area is supported by other high-grade results from nearby samples including 13.0g/t Au and 5.79g/t Au (refer ASX: TKM 2nd August 2021). There are at least 13 known gold occurrences and old mining workings located on the project.

¹ Steiner, B.M. Tools and Workflows for Grassroots Li–Cs–Ta (LCT) Pegmatite Exploration. Minerals 2019, 9, 499. <https://doi.org/10.3390/min9080499>

Authorised by the Board.

ENDS

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COMPETENT PERSONS STATEMENT

The information in this report relating to Exploration Results is based on information compiled by the Company’s Chief Executive Officer, Mr Derek Marshall, a competent person, and Member of the Australian Institute of Geoscientists (AIG). Mr Marshall has sufficient experience relevant to the style of mineralisation and to the type of activity described 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.” Mr Marshall has disclosed that he holds Performance Rights in the Company. Mr Marshall consents to the inclusion in this announcement of the matters based on his information in the form and content in which it appears.

DISCLAIMERS AND FORWARD-LOOKING STATEMENTS

This announcement contains forward looking statements. Forward looking statements are often, but not always, identified by the use of words such as "seek", "target", "anticipate", "forecast", "believe", "plan", "estimate", "expect" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions.

The forward-looking statements in this announcement are based on current expectations, estimates, forecasts and projections about Trek and the industry in which it operates. They do, however, relate to future matters and are subject to various inherent risks and uncertainties. Actual events or results may differ materially from the events or results expressed or implied by any forward-looking statements. The past performance of Trek is no guarantee of future performance.

None of Trek's directors, officers, employees, agents or contractors makes any representation or warranty (either express or implied) as to the accuracy or likelihood of fulfilment of any forward-looking statement, or any events or results expressed or implied in any forward-looking statement, except to the extent required by law. You are cautioned not to place undue reliance on any forward-looking statement. The forward-looking statements in this announcement reflect views held only as at the date of this announcement.

JORC Table Section 1: Sampling Techniques and Data:

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Recent rock chip sampling conducted by Trek Metals Limited targeted visual pegmatite occurrences. Location of samples were recorded by handheld GPS. Samples have been submitted to Nagrom in Kelmscott for analysis. Selected samples were analysed at The University of Western Australia's Centre for Microscopy, Characterisation and Analysis (CMCA) utilizing RAMAN technology
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> Not applicable, no drilling reported
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Not applicable, no drilling reported
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Qualitative geological descriptions were recorded by a Trek geologist and recorded in the database
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Rock chips collected in field from outcrop sampling

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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. 	
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Selected rock chips collected by Trek were cut and polished, then analysed by RAMAN spectroscopy at the CMCA. Raman spectroscopy was conducted on a WITec Alpha 300RA+ system with an Andor iDUS 401 CCD maintained at -60°C and a 20x objective. An infrared (785nm) laser was used with 600mm⁻¹ grating. The Raman map size is 4mm x 4mm. The mineral identification was conducted by comparing the measured Raman spectra with spectra obtained from Spodumene reference materials. The comparison shows a clear overlap of both reference and measured spectra. A similar process was conducted to identify the other mineral faces. Rock chips collected by Trek will be analyzed by peroxide fusion digest with ICP finish (ICP004) at Nagrom in Kelmscott This method is considered appropriate for lithium exploration
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. 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. 	<ul style="list-style-type: none"> Not applicable, no drilling reported All company data has been verified and included in the company database Lithium results in rock chips was converted from elemental Li to Li₂O for the purpose of reporting. The conversion used was Li₂O = Li x 2.153
Location of data points	<ul style="list-style-type: none"> 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. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> Location of rock chip samples collected by Trek were recorded using a handheld GPS which is considered appropriate at this stage of exploration Grid projection system is GDA20 MGA Zone 50 Surface RL data is collected using GPS
Data spacing and distribution	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Sampling is not regular and follows geological features which is considered appropriate for this early stage of mineral exploration
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No orientation bias is considered to have an effect on the data, however this at this early stage of exploration the exact influence is unknown
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Chain of custody is managed by the Company. Samples are freighted directly to the laboratory with the appropriate documentation
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits or reviews of the sampling techniques or data has been carried out due to the early stage of exploration, it is considered by the Company that industry best practice methods have been employed at all stages of exploration to date

JORC Table Section 2: Reporting of Exploration Results:

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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 license to operate in the area. 	<ul style="list-style-type: none"> The Tambourah Project is located 80 km south-west of Marble Bar and comprises granted licences E45/5484 and E45/5839 held by ACME Pilbara Pty Ltd ("APP"), a 100% owned subsidiary of Trek Metals Ltd The Project is located on Palyku Country and intersects two determined claims WAD23/2019: Palyku and Palyku #2 (WCD2021/003) & WAD23/2019: Palyku Part A (WCD2019/002) both represented by the Palyku-Jartayi Aboriginal Corporation E45/5484 has 29% overlap with Class C Reserve R 21802 Pastoral Research Station
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> FMG (2016-2020): Mt Webber (Glacier Valley) Project carried out a stream sediment sampling and rock chip sampling targeting gold, base metal and lithium, tin and tantalum mineralisation. Refer WAMEX Final Surrender Report A124826
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> Mineralisation identified at Tambourah is interpreted to be Lithium-Caesium-Tantalum (LCT) pegmatite & orogenic gold LCT pegmatites represent the most highly differentiated (enriched in incompatible elements such as lithium, caesium, tin, rubidium and tantalum) and last to crystallize components of certain granitic melts LCT pegmatites at Tambourah are predominantly hosted in greenstones of the West Shaw Greenstone Belt, an Archean belt within the Pilbara Craton of Western Australia
Drill hole Information	<ul style="list-style-type: none"> 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 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. 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. 	<ul style="list-style-type: none"> Not applicable, no drilling reported
Data aggregation methods	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No data aggregation or truncations were performed. All historic stream sediment data has been presented. All rock chip samples collected by Trek have been reported No metal equivalent values have been reported

Criteria	JORC Code explanation	Commentary
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> • The true width of mineralization is not currently known due to the early-stage nature of the exploration
<i>Diagrams</i>	<ul style="list-style-type: none"> • <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> • See relevant maps in the body of this announcement
<i>Balanced reporting</i>	<ul style="list-style-type: none"> • <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i> 	<ul style="list-style-type: none"> • All exploration data and results conducted by Trek to date have been reported • All stream sediment and rock chip data available from FMG has been reported in the two relevant figures in the body of the announcement. Readers are referred to WAMEX Final Surrender Report A124826 for additional information
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> • <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i> 	<ul style="list-style-type: none"> • Exploration data for the project continues to be reviewed and assessed and new information will be reported if material
<i>Further work</i>	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <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> 	<ul style="list-style-type: none"> • Further work is detailed in the body of the announcement • Soil and rock chip sampling, in conjunction with mapping will be used to generate drill targets • First pass drilling will be undertaken by Reverse Circulation