

## 26 MAY 2022

### ASX/MEDIA RELEASE

# **Lithium Pegmatites Identified at Tambourah**

Recent field exploration confirms hard rock lithium potential, providing evidence of outcropping pegmatites associated with extensive stream sediment anomalism

## **Highlights**

- Multiple lithium-bearing pegmatite dykes confirmed by reconnaissance exploration within Trek's 100%-owned Tambourah tenement package in the Pilbara, WA.
- Historical assay results indicate the presence of highly fractionated pegmatites with enriched lithium-caesium-tantalum chemistry, including grades of >1.0% Li<sub>2</sub>O from rock chip sampling.
- The potential to host a significant hard rock lithium pegmatite system is further supported by extensive stream sediment anomalism coincident with the mapped pegmatites.
- Field crew scheduled to relocate Trek's remote field camp to Tambourah to commence follow-up work to define drill targets in the coming weeks.

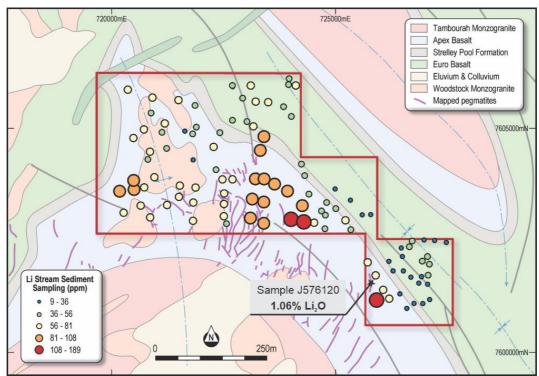


Figure 1: Stream sediment data from FMG identifies a large area highly anomalous in lithium (and other pathfinder elements) at Tambourah North (E45/5839) correlating with extensive mapped outcropping pegmatites, including rock chip sample J576120 with better than 1% Li₂O, highlighting the potential for a significant accumulation of LCT pegmatite.



Trek Metals Limited (ASX: **TKM**) ("**Trek**" or the "**Company**") is pleased to advise that recent field exploration has confirmed the potential to discover hard rock lithium mineralisation within its 100%-owned **Tambourah Project** in the Pilbara region of Western Australia.

As a result, Trek's exploration field team will shortly be re-deployed to the Tambourah Project undertake follow-up work aimed at defining drill targets for the second half of 2022.

## Commenting on the lithium potential at Tambourah, Trek CEO Derek Marshall said:

"This is an exciting development, which builds on a combination of historical exploration work reinforced by recent field exploration which has confirmed the presence of significant outcropping lithium-caesium-tantalum or LCT pegmatites at Tambourah.

"FMG defined a very large stream sediment anomaly which contains highly anomalous lithium and other classic pathfinder elements for LCT pegmatites. Despite the scale of this exploration target, there had been very little follow-up exploration, and no historical drilling targeting lithium.

"Given that the lithium potential of the Tambourah Project fits squarely with our battery metals focus we decided to prioritise follow-up work as part of our ongoing 2022 field season.

"Our board and senior leadership team has a very strong track record in lithium exploration, having identified the potential of the Pilgangoora Project to host a large-scale lithium pegmatite system. The Pilgangoora discovery ultimately became the driver of Pilbara Minerals' growth and success.

"We are looking forward to leveraging the experience of our board and executive management team in lithium exploration as we get to grips with the opportunity at Tambourah. We are looking forward to establishing a field camp in the near future and defining targets for initial drilling."

#### **Lithium Potential**

A review of historic data has highlighted the potential for lithium-bearing pegmatite mineralisation on both of Trek's Tambourah Project tenements (E45/5484 & E45/5839 – see Figure 2) in the Pilbara region of Western Australia.

Fortescue Metals Group (FMG) undertook a significant stream sediment sampling program that identified a large area with anomalous lithium, and other pathfinder elements such as caesium, rubidium and tantalum (Figure 1 & 2, *refer JORC Table 1 – WAMEX A124826*) on what is now Trek's tenure.

Rock chip samples taken by FMG also support the LCT potential with sample J576120 returning an assay result of 1.06% Li<sub>2</sub>O within E45/5839 (Figure 1, *refer JORC Table 1 – WAMEX A124826*).

Trek's first reconnaissance trip to evaluate the lithium potential was completed during April 2022 and confirmed the presence of multiple outcropping pegmatites in the area of stream sediment anomalism (Figure 3).

Samples collected have been submitted for analysis with assays currently pending.



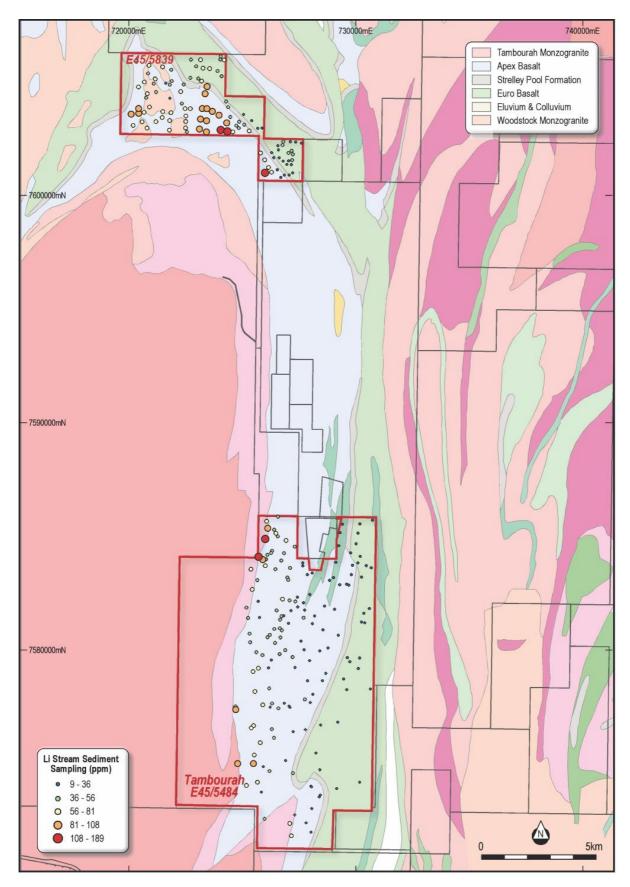


Figure 2: Trek Metals' large tenement holding at Tambourah, with highly anomalous lithium (and other pathfinder elements) at both Tambourah North (E45/5839) and South (E45/5484) in FMG stream sediment data.

There has never been any drilling targeting lithium at the Project.





Figure 3: Trek geologist on the ground at Tambourah during initial lithium potential reconnaissance trip in April 2022. Rock chip samples have been submitted with assays currently pending.

Following completion of the current soil sampling program at Pincunah, the team will re-locate to the Tambourah Project, where a number of mineral systems have been identified that warrant follow-up, including the high-grade gold rock chips collected by Trek in 2021 (Figure 4 & refer TKM ASX Release: 2 August 2021) and the priority LCT pegmatite mineral system.



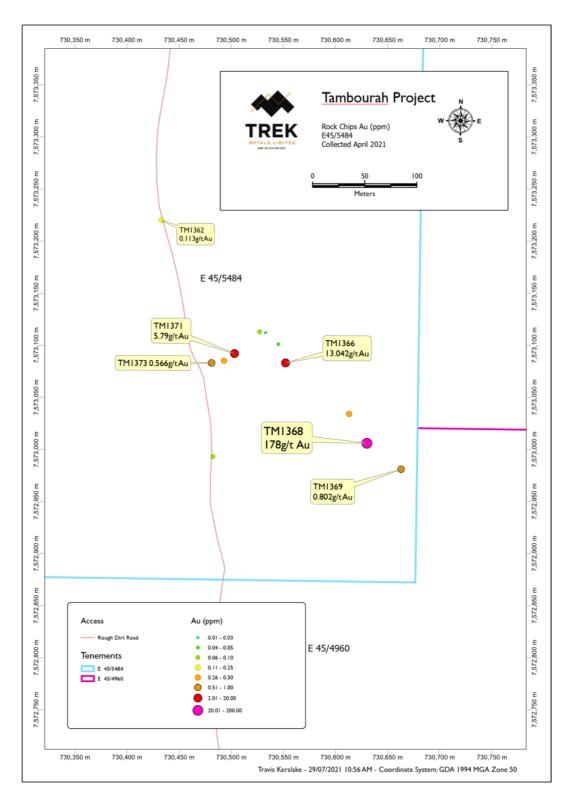


Figure 4: High-grade gold in rock chips on Tambourah South (E45/5484) with a peak value of 178g/t Au supported by nearby samples including 13.0g/t and 5.79g/t Au. Refer TKM ASX Release: 2 August 2021 for additional information.



#### **About the Tambourah Project**

The Tambourah Project (E45/5484 & E45/5839, Figure 5) is considered highly prospective for gold & Lithium Caesium Tantalum (LCT) pegmatite deposits. 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 mineral exploration by FMG has defined anomalous Lithium, Caesium, Rubidium (and other pathfinder elements) indicative of a fertile LCT pegmatite environment at Tambourah. Results included a rock chip sample with > 1% Li<sub>2</sub>O on E45/5839.

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.

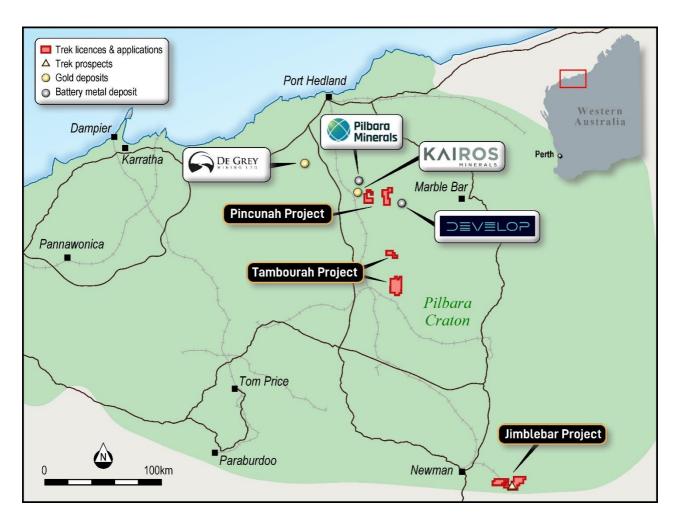


Figure 5: Location of Trek's Pilbara Projects



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> <li>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.</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. 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.</li> </ul>	<ul> <li>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 for analysis, with assays currently pending at the time of writing</li> <li>Refer TKM ASX Release: 2 August 2021 for additional information regarding rock chip samples taken by Trek targeting gold mineralisation</li> <li>Stream sediments collected by Fortescue Metal Group (FMG) were analyzed by MAICP &amp; FP6/MS at Intertek Genalysis, readers are referred to WAMEX report A124826 for additional information</li> <li>Rock chips collected by FMG were analyzed by ICP304 at Ultratrace and MAICP at Intertek Genalysis, readers are referred to WAMEX report A124826 for additional information</li> <li>WAMEX reports and associated data can be downloaded from <a href="https://www.dmp.wa.gov.au/WAMEX-Minerals-Exploration-1476.aspx">https://www.dmp.wa.gov.au/WAMEX-Minerals-Exploration-1476.aspx</a>)</li> </ul>
Drilling techniques	Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	Not applicable, no drilling reported
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.	Not applicable, no drilling reported
Logging	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.	Qualitative geological descriptions were recorded by a Trek geologist and recorded in the database
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 subsampling stages to maximise representivity of samples.	Sampling technique not recorded in WAMEX report A124826



Criteria	JORC Code explanation	Commentary
	<ul> <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>	
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Stream sediments collected by Fortescue Metal Group (FMG) were analyzed by MAICP &amp; FP6/MS at Intertek Genalysis, readers are referred to WAMEX report A124826 for additional information</li> <li>Rock chips collected by FMG were analyzed by ICP304 at Ultratrace and MAICP at Intertek Genalysis, readers are referred to WAMEX report A124826 for additional information</li> <li>These methods are considered appropriate for lithium exploration</li> </ul>
Verification of sampling and assaying	<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>Not applicable, no drilling reported</li> <li>All company data has been verified and included in the company database</li> <li>Lithium results in rock chips was converted from elemental Li to Li<sub>2</sub>O for the purpose of reporting. The conversion used was Li<sub>2</sub>O = Li x 2.153</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>	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 (note sample collected in 2021 were collected in GDA94 and transformed)     Surface RL data is collected using GPS
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>	Sampling is not regular and follow geological features which is considered appropriate for this early stage of mineral exploration
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>	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	The measures taken to ensure sample security.	Chain of custody is managed by the Company. Samples are freighted directly to the laboratory with the appropriate documentation
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	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> <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 license to operate in the area.</li> </ul>	<ul> <li>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</li> <li>The Project is located on Palyku Country and intersects two determined claims WAD23/2019: Palyku and Palyku #2 (WCD2021/003) &amp; WAD23/2019: Palyku Part A (WCD2019/002) both represented by the Palyku-Jartayi Aboriginal Corporation</li> <li>E45/5484 has 29% overlap with Class C Reserve R 21802 Pastoral Research Station</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	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	Deposit type, geological setting and style of mineralisation.	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, ceasium, tin, rubidium and tantalum) and last to crystallize components of certain granitic melts
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:  a 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.	Not applicable, no drilling reported
Data aggregation methods	<ul> <li>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.</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> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No data aggregation or truncations were performed. All historic stream sediment data has been presented. All samples collected by Trek have been submitted for analysis with assays currently pending     No metal equivalents values have been reported
Relationship between mineralisation	<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</li> </ul>	The true width of mineralization is not currently known due to the early-stage nature of the exploration



Criteria	JORC Code explanation	Commentary
widths and intercept lengths	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').	
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.	See relevant maps in the body of this announcement
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>All exploration data and results conducted by Trek to date have been reported</li> <li>All stream sediment data available from FMG has been reported in the two relevant figures in the body of the announcement</li> <li>Only one rock chip sample taken by FMG has been reported. The total number of rock chips taken on what is now Trek tenure was 193 samples, the range of values was 2.6 - 4,904.0ppm Li. The targeting criteria for the rock chip sampling is not known. Readers are referred to WAMEX Final Surrender Report A124826 for additional information</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.	Exploration data for the project continues to be reviewed and assessed and new information will be reported if material
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	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