

# TEM | Rocky Hill Update - Multiple geochemical anomalies in initial fieldwork

# **Key Points**

- Multiple anomalous geochemical zones detected in first fieldwork at Rocky Hill Project
- Lithium grades in soil up to 60.3 ppm and warrant further investigation
- Lithium-caesium-tantalum ('LCT') and pathfinder elements detected in high ranges in soil samples
- New application expands footprint over potential new target extensions

# **News Item**

Tempest Minerals Ltd (TEM) is pleased to update the market on exploration at the Company's Rocky Hill project. Recent exploration work at the project has identified multiple geochemical anomalies including trace elements consistent with rocks known to host Lithium Pegmatites. Tempest has lodged applications to increase the landholding in the area.

# **Rocky Hill Project**

#### Background

Rocky Hill is 100% TEM owned tenure (29km<sup>2</sup> granted tenure, 250km<sup>2</sup> pending) located approximately 100km from Perth within the exciting new exploration front known as the South West Terrane. Neighbours of the Rocky Hill leases include Newmont Corporation.

In addition to the recent Orion discovery <sup>1</sup> at the flagship Meleya Project near Yalgoo, Tempest retains

significant exposure to the global lithium market <sup>2</sup> with strategic de-risked positions including a number of Western Australian greenfields projects. The Rocky Hill Project is part of this project pipeline suite, known collectively as the Yilgarn Lithium Projects (YLP).

The project is primarily a lithium exploration target however and there is potential for other minerals including gold, magnesium and high purity alumina (HPA).

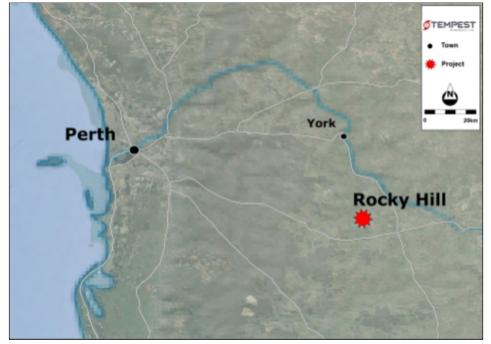




Figure 01: Rocky Hill project location.

#### **Fieldwork Results**

Tempest previously announced <sup>3</sup> the commencement of fieldwork where more than 60 surface samples were taken across the project at strategic locations and submitted for analysis.

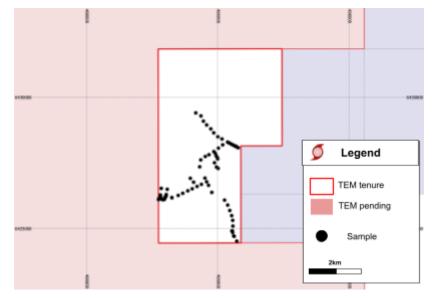


Figure 02: Sample locations within the Rocky Hill project.

The results of these reconnaissance soil samples have now been received and preliminary scrutiny has yielded multiple exciting geochemical anomalies.

A peak value of 60.3 ppm Lithium is recorded above a coincident magnetic low and elevated Be-Cs-Sr-Sn-Nb (lithium pegmatite pathfinder elements) (Target 1, Figure 3). The target also returned anomalous Cu values which sit within a magnetic feature that is at least 850 m strike length and extends into Tempest's untested pending tenure.

Despite the identification of a number of anomalies in this initial exploration campaign, the majority of the tenure **remains untested** and the significant addition of additional tenure to the north, west and south will facilitate further understanding and extension of the identified anomalies.

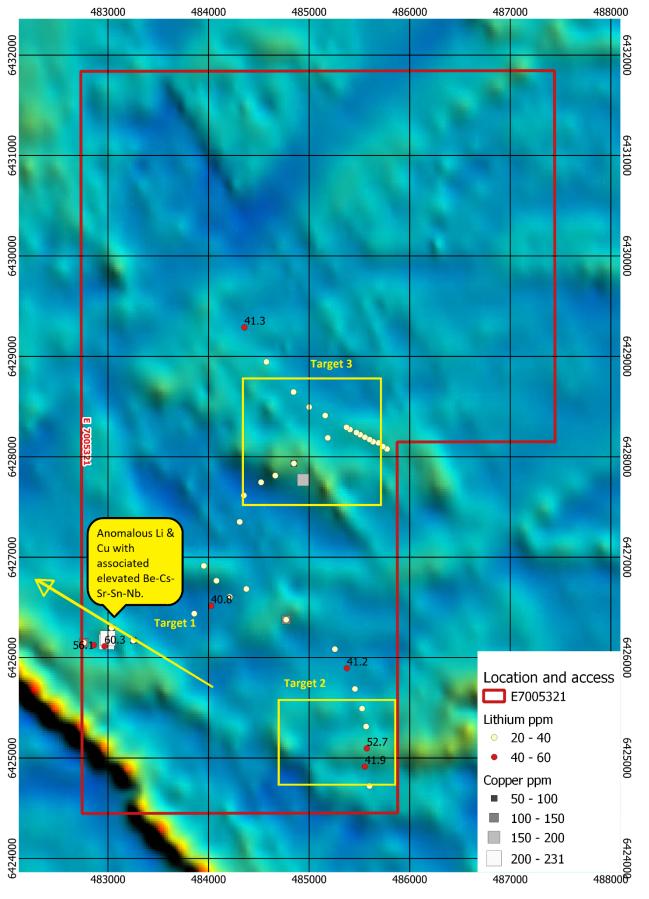
Figure 03 shows an overview of sampling done to date with highlighted lithium and copper results plotted.

Target 1 displays a linear north-west trending lithium and copper anomaly coinciding with local magnetic and gravity highs

Target 2 shows elevated Li-Be-Nb-Cs-Sr and is coincident with a magnetic high.

Target 3 comprises Li- Ta-W-Sr-Nb anomalism coincident with discrete magnetic highs.









#### Geology

Rocky Hill geological setting is within a current industry hotspot the South West Terrane <sup>4</sup> which is part of the Geological Survey of Western Australia (GSWA) current Accelerated Geoscience Program <sup>5</sup>. The project area has been mapped historically as greenstones and meta-intrusives with thin soil cover.

Recent field work at the project largely confirms these historical observations with occasional outcrops of strongly foliated meta-intrusives within thin cover. The soil cover was sampled and analysed by LabWest in Perth using Ultrafine soil assay techniques for a range of elements.

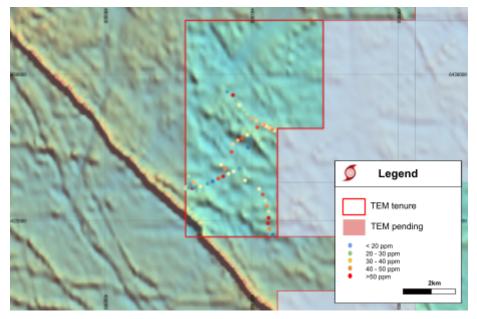


Figure 04: LCT SnWNb assay data plotted upon total magnetic intensity

TEM target geology for this campaign was to test the potential for LCT pegmatites. LCT pegmatites are known to occur within intrusive igneous rocks which have undergone extreme fractionation <sup>6</sup> which results in various elements to be concentrated and give off geochemical 'signatures' which can be detected via relatively standard geochemical exploration strategies <sup>7</sup>.

The presence of multiple indicator elements at very high (up to 4x) average crustal abundance in early soil samples is encouraging. Although the initial field visit to the tenement highlighted several anomalous areas, the majority of the tenement remains untested. It is clear that the extensive granitoids in the area have lithium-bearing potential and the geochemical and geophysical characteristics observed in the first pass are consistent with LCT pegmatites.

#### **Next Steps**

- Further study of geochemistry of samples received
- Further geochemical sampling and mapping in planning
- Expansion of tenure in application in progress



The Board of the Company has authorised the release of this announcement to the market.

## About TEM

Tempest Minerals Ltd is an Australian based mineral exploration company with a diversified portfolio of projects in Western Australia considered highly prospective for precious, base and energy metals.

The Company has an experienced board and management team with a history of exploration, operational and corporate success.

Tempest leverages the team's energy, technical and commercial acumen to execute the Company's mission - to maximise shareholder value through focussed, data-driven, risk-weighted exploration and development of our assets.

#### Contact

 For more information, please contact:

 Don Smith

 Managing Director

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#### **Forward-looking statements**

This document may contain certain forward-looking statements. Such statements are only predictions, based on certain assumptions and involve known and unknown risks, uncertainties and other factors, many of which are beyond the company's control. Actual events or results may differ materially from the events or results expected or implied in any forward-looking statement.

The inclusion of such statements should not be regarded as a representation, warranty or prediction with respect to the accuracy of the underlying assumptions or that any forward-looking statements will be or are likely to be fulfilled. Tempest undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date of this document (subject to securities exchange disclosure requirements).

The information in this document does not take into account the objectives, financial situation or particular needs of any person or organisation. Nothing contained in this document constitutes investment, legal, tax or other advice.

#### **Competent Person Statement**

The information in this announcement that relates to Exploration Results and general project comments is based on information compiled by Rachel Backus who is a Consultant Geologist to Tempest Minerals Ltd. Rachel has sufficient experience relevant to the style of mineralisation under consideration and to the activities undertaken 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'. Rachel consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



## Appendix A: References

- 1. TEM ASX announcement dated 28 March 2022 "Meleya Update Significant discovery"
- 2. TEM ASX announcement dated 3 November 2021 "Lithium Update"
- 3. TEM ASX announcement dated 08 February 2022 "Rocky Hill Update Fieldwork Commenced"
- 4. De Gromard R.Q., Ivanic T.J., Zibra I (2021) Pre-Mesozoic interpreted bedrock geology of the southwest Yilgarn, 2021 <accelerated geoscience program>
- 5. DMP website <accessed 07 February 2022> http://www.dmp.wa.gov.au/Geological-Survey/Accelerated-Geoscience-Program-29033.aspx
- 6. Cerny P., Meintzer R.E., Anderson A.J. (1985) Extreme refractionation in rare-earth element granitic pegmatites selected examples of data and mechanisms
- 7. Steiner B.M (2019) Tools and Workflows for Grassroots Li-Cs-Ta (LCT) Pegmatite Exploration



# Appendix B: JORC Table 1

(Criteria in this section apply to all succeeding sections.)

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.</li> <li>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>Two to three kg soil samples were collected from the top of the B horizon and placed directly into calico bags. They were sent to Labwest Minerals Analysis Pty Ltd for Ultrafine+ analysis.</li> <li>The Ultrafine+ analysis process uses the reactive 2-micron clay fraction, with microwave digestion and analysis with low detection level ICPMS technology.</li> <li>Some rock chip sampling was also conducted during reconnaissance mapping, using a geopick to collect approx 1 kg fresh sample from outcrop, which was placed into a calico sample bag for submission to the laboratory for analysis.</li> </ul>
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).	<ul> <li>Soil samples were collected using a shovel to dig down to the top of the B horizon and all fractions of the soil sample were placed directly into calico bags in the field.</li> <li>Rock chip samples were collected by using a geological pick to collect a fresh sample from outcropping rock.</li> </ul>
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> </ul>	• N/A



	<ul> <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>	
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>	• Soils and rock chip samples were qualitatively logged, including lithology, regolith, colour and texture.
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>Soil samples were collected uniformly from the top of the B Horizon and sampled in their entirety.</li> <li>Rock chip fragments were sampled in their entirety.</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>The Ultrafine+ technique - developed by Labwest Minerals Analysis Pty in conjunction with Minerals Research Institute of Western Australia - was used to prepare and analyse soil samples. The technique delivers multi element analysis, mineralogy and several related parameters derived from the ultrafine (&lt; 2 µm) fraction of soil samples. Concentration of gold and related metals in the ultrafine fraction gives stronger signals, generally well above instrumental detection limits, and increased signal-to-background ratios.</li> <li>Rock chip samples were dried, crushed, split, and pulverised. And analysed via aqua-regia digest with low-level Au (0.5 ppb DL) by ICP-MS or microwave digest, HF/multiacid with ICP-MS/OES finish.</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>	• N/A
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>Sample locations were recorded directly into a mapping application (Grid) on a Samsung Galaxy A11 with A-GPS, GLONASS, GALILEO, BDS. Sample location accuracy ranged between 3.7 and 4.2 metres.</li> <li>Data location is recorded in GDA94-UTM Zone 50.</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>	• Rock chip samples were taken on an as-needed basis, and soil samples were spaced between 50 and 200 metres.
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>	• Soil and rock chip sample points were located perpendicular to the general strike of geological formations, where known.
Sample security	• The measures taken to ensure sample security.	• Samples were transported directly to the laboratory on completion of the program by the geologist.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Results were confirmed using routine laboratory QAQC, no standards or blanks were inserted as the samples are not used in determining the size or volume of mineralisation.



#### 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 licence to operate in the area.</li> </ul>	<ul> <li>Soil and rock chip samples were collected on E70/5321, which is wholly owned by Tempest Minerals Limited.</li> </ul>
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Previous exploration in the area has focussed on bauxite, with desk studies, rock chip sampling and vacuum drilling completed during the last decade.</li> <li>Significant bauxite laterite deposits were discovered in the Darling Range by Western Mining Corporation (WMC) in 1957. Drilling and sampling of the duricrust revealed significant deposits in the Jarrahdale–Dwellingup region to the southeast of Perth, which were later exploited after Aluminium Company of America (Alcoa) joined the joint venture to become Alcoa World Alumina Australia in 1977. Extensional, in-fill and grade-control drilling in subsequent years further defined bauxite resources in that area.</li> <li>From 1968 to 1971, Pacminex drilled 9,820 vacuum holes for 52,650 metres, at 13 prospect areas in the Chittering/Muchea area.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	• The tenement is situated over granite and granite gneiss of the Western Gneiss Terrain (Yilgarn Craton). This terrain forms an arcuate belt along the western margin of the Yilgarn Block. It is bounded by the Darling Fault system in the west and by the greenstones belts of the Southern Cross and Murchison Provinces in the east. The resultant landform is a scarp elevated above the Perth Basin that sits along the west coast. The Darling Scarp often has preserved lateritic surfaces from deep weathering.



		<ul> <li>The project area contains mafic dykes and schists as well as regional and local quartz veining, and is overlain by soil cover and outcrops of lateritic duricrust.</li> <li>Economic bauxite mineralisation is confined to the historical upland of the geomorphological Darling Range or Plateau. The distribution, composition, thickness and extent of these deposits are the result of interacting depositional and erosional controls related to climate, parent rocks, drainage, topography and vegetation.</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>	• N/A
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>	• N/A
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 nature should be reported.</li> </ul>	• N/A



widths and intercept lengths	• 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	<ul> <li>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.</li> </ul>	<ul> <li>Included in announcement.</li> </ul>
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.	• N/A
Other substantive exploration data	<ul> <li>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.</li> </ul>	• N/A
Further work	<ul> <li>The nature and scale of planned further work (eg 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 future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Further surface sampling and detailed mapping has been recommended.</li> </ul>