

# Major Lithium-Caesium-Tantalum (LCT) targets identified at Wodgina Project

## <u>Two high-priority targets identified from preliminary Ultrafine+ soil geochemistry results less than</u> <u>3km from the world-class Wodgina Lithium Mine</u>

## <u>Highlights</u>

- Coherent and robust LCT anomalies outlined by Ultrafine+<sup>™</sup> soil sampling at the 100%-owned Wodgina Project in the Pilbara Region of WA.
- Pegmatites have been mapped within the LCT anomalous areas, with a nearby historical rock chip sample that returned an assay result of 1.6% Li<sub>2</sub>O.
- The two high-priority LCT targets are located less than 3km from the world-class Wodgina Lithium Mine, which is set to recommence spodumene concentrate production next year.
- Results are still pending for just over one-third of the soil samples collected.
- A follow-up mapping and rock chip program is planned once all the results have been received.

Kairos' Executive Chairman, Terry Topping, said: "We always had high hopes for the lithium prospectivity of our Wodgina Project given its location immediately adjacent to one of the world's most significant lithium mines, which is set to restart production next year. I think it's fair to say these early results utilising the state-of-the-art Ultrafine+ soil sampling methodology have exceeded our expectations.

"With results received for around two-thirds of the program, we have been able to delineate two large lithiumcaesium-tantalum (LCT) targets, one of which extends over a strike length of some 1.7km and is supported by the presence of mapped pegmatites and high-grade spodumene rock chip samples.

"These are outstanding targets for lithium exploration and will now be prioritised as part of our broader ongoing exploration efforts in the Pilbara. We are still awaiting results from around a third of the samples and, once we have received and analysed these, we will start an extensive mapping and rock chip program to further refine the targets and identify potential drilling locations for next year.

"This adds another exciting dimension to our Pilbara exploration portfolio in the shape of an advanced lithium exploration opportunity in a Tier-1 district to our existing gold exploration projects at the 873,500oz Mt York Project and more broadly across the Pilbara Gold Project, where we are targeting Hemi-style mineralisation."

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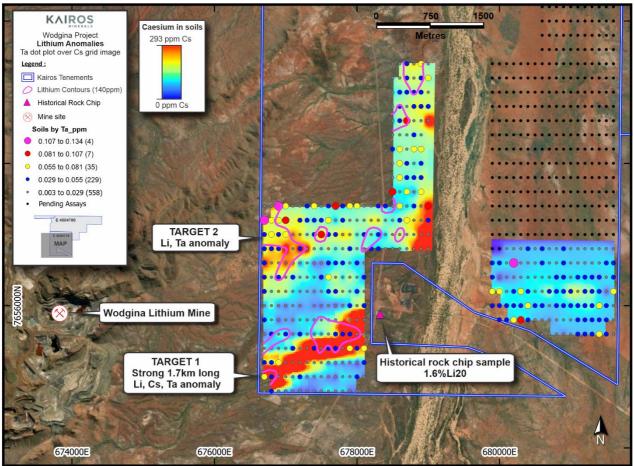


Figure 1: Geochemical sampling results at Wodgina Project.

Kairos Minerals Ltd (ASX: KAI "Kairos" or "the Company") is pleased to advise that it has identified extensive new Lithium-Caesium-Tantalum (LCT) targets at its 100%-owned **Wodgina Project**, located 90km south of Port Hedland in WA.

The targets were identified following receipt of partial results from a recent successful geochemical sampling program, where 1,517 soil samples were collected at 200m x 100m spacing and submitted for Ultrafine+<sup>m</sup> analysis at the Labwest Laboratory in Perth. Kairos has received results for 837 samples to date.

Two high-priority LCT targets are located less than 3km from the Wodgina Lithium Mine, owned by Mineral Resources and Albemarle Corporation (ASX: MIN and NYSE: ALB). The mine is set to recommence spodumene concentrate production during the third quarter of 2022 (MIN's ASX announcement 25 October 2021). See Figure 1 for the location of the LCT targets relative to the Wodgina Lithium Mine. Further information on these initial targets is provided below.

## Target 1

A new 1.7km long target area was defined by coherent and robust LCT anomalies, with values of up to **238ppm Li, 293ppm Cs and 78ppb Ta** returned from Ultrafine+<sup>™</sup> soil analysis with coincident elevated rubidium, indium and tungsten. Samples from this target area returned the highest values for lithium, caesium, rubidium and tungsten of all the samples results received to date.

A historical rock chip sample collected at the eastern end of this target area returned an assay result of 1.6% Li<sub>2</sub>O where pegmatites have been previously mapped.



### Target 2

This target area is defined by coincident lithium, tantalum and rubidium anomalies. Analysis of aerial images indicate the possible presence of pegmatites in the area, and a field reconnaissance trip is planned for when all the results from this geochemistry program are received.

### Next Steps

- Remaining geochemistry sampling results from the Wodgina Project.
- Geochemistry sampling results from the Kangan, Skywell and Croydon Projects.
- Second-stage geochemistry sampling program at Mt York Project.
- Additional heritage surveys at Kangan and Skywell Projects.
- Assay results from the Mt York RC drilling.
- Assay results from the Kangan AC drilling.

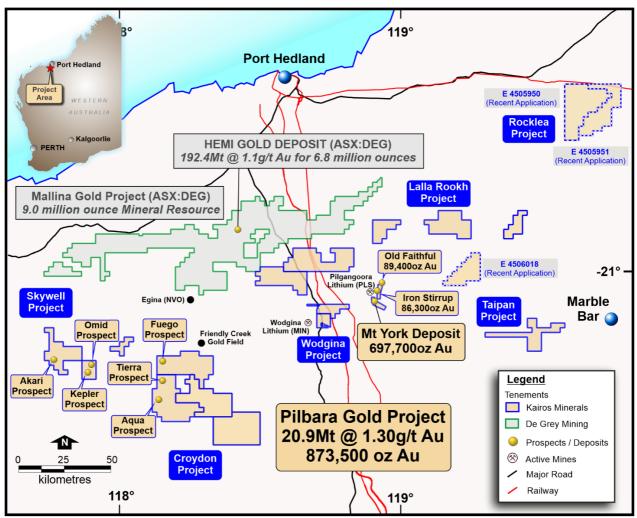


Figure 2: Pilbara Gold Project, WA.

#### **About Kairos Minerals**

Kairos Minerals (ASX: KAI) is a diversified West Australian-based exploration company which is focused on the exploration and development of two key project hubs located in WA's premier mining districts.

The Company's 100%-owned Pilbara Gold-Project has its central "hub" located  $\sim$ 100km south of Port Hedland in the world-class Pilgangoora district immediately adjacent to the major lithium-tantalum projects owned by Pilbara Minerals, which is currently in production.

Since acquiring the Project in early 2016, Kairos has established a JORC Indicated 8.56Mt at 1.3 g/t for 366,000oz and Inferred 12.36Mt at 1.28 g/t for 507,000oz for a Total Mineral Resource of 20.93Mt @ 1.3g/t Au for 873,500oz (ASX announcement, 4 March 2020). The Project encompasses the historical Lynas Find gold project, which produced over 125,000oz of gold between 1994 and 1998.

Kairos's 100%-owned Roe Hills Project, located 120km east of Kalgoorlie in WA's Eastern Goldfields, comprises an extensive tenement portfolio where the Company's recent exploration work has confirmed the potential for significant discoveries of high-grade gold, nickel and cobalt mineralisation. Kairos' tenure adjoins the emerging Lake Roe gold discovery, owned by Breaker Resources (ASX: BRB).

In the Pilbara, Kairos also holds 2,026 square kilometres of tenure (granted and applications) which is highly prospective for gold and lithium-caesium-tantalum pegmatite discoveries.

Kairos has been well recognised for its industry leading technical team that includes its Chairman Terry Topping (Taipan Resources NL, Cauldron Energy Ltd), Technical Director Neil Hutchison (Poseidon Nickel, Jubilee Mines) and consulting specialists.

With the authority of the Board.

#### For further information, please contact:

Investors:	Media:
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#### **COMPETENT PERSON STATEMENT:**

Competent Person: The information in this report that relates to Exploration Results or Mineral Resources is based on information compiled and reviewed by Mr Terry Topping, who is a Director of Kairos Minerals Ltd and who is also a Member of AusIMM. Mr Topping has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' (the JORC Code 2012). Mr Topping has consented to the inclusion in the report of the matters based on their information in the form and context in which it appears.

The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.



# Appendix 1 – Kairos Minerals – Wodgina Project JORC Code, 2012 Edition – Table 1

# 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>A total of 1,517 individual soil samples were collected as ~500grams, from <i>in situ</i> soil horizons at between 5-20cm depth.</li> <li>The samples were sieved -2mm in the field and submitted to Labwest Minerals Analysis Pty Ltd. laboratory in Perth.</li> <li>The ultrafine soil samples from Wodgina Project are part of the CSIRO research program that utilises the latest advanced technologies for geochemical mapping and targeting.</li> <li>Ultrafine+ is designed to analyse the clay sized fraction (&lt;2µm) for gold exploration, and multi-element analysis for major and trace elements, salinity (EC) and pH, and clay mineralogy.</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).	• No drilling results from Kairos Minerals are reported in this announcement.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	• No drilling results are reported in this announcement.
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>	<ul><li>The basic 'nature of soil and site' information were registered.</li><li>All sample sites were described.</li></ul>
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 prepared and analysed by independent certified laboratory, Labwest Mineral Analysis Pty Ltd in Perth.</li> <li>The sample size was appropriated to analyse ultrafine particles (&lt;2μm).</li> <li>Most of the samples were dry.</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>	• Ultrafine gold and multi-element analysis are by microwave assisted aqua regia digestion, ICPOES/ICPMS.
Verification of sampling	• The verification of significant intersections by either	• All data is received and stored securely in digital format

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	<ul> <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>	• Final data is rigorously interpreted by Kairos' geoscientific personnel.
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. Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Kairos soil samples were surveyed by handheld GPS with an accuracy of +/- 5m.</li> <li>All location data are in MGA94 Zone 51 (GDA94).</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>	• The soil sampling program was conducted on a 200m line spacing by 100m sample intervals.
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>	• The soil sampling was undertaken across the strike of the known geology and structures within the project area.
Sample security	• The measures taken to ensure sample security.	<ul> <li>The sample chain of custody is managed by Kairos.</li> <li>All samples were collected in the field at the project site in number coded calico bags/secure labelled poly weave sacks by Kairos' geological and field personnel.</li> <li>All samples were delivered to Labwest laboratory in Perth for final analysis as part of the Ultrafine+ Program in partnership with CSIRO.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits have been completed.

# Section 2 Reporting of Exploration Results

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>Kairos Minerals owns 100% of the Tenements that define the Wodgina Project.</li> <li>The project consists of two EL's, E45/4715 and E45/4780.</li> <li>Kairos is not aware of any existing impediments nor of any potential impediments which may impact ongoing exploration and development activities at the project site.</li> </ul>
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Atlas Iron conducted detailed field mapping of the tenement as part of their iron ore evaluation.</li> </ul>
Geology	• Deposit type, geological setting, and style of mineralisation.	• The Wodgina Project comprises a portion of the Wodgina Greenstone belt, a roughly triangular shaped unit with a strike extent (north-south) of about 15km. It forms an elevated but steeply dissected plateau that strongly contrasts with the surrounding granitic terrain.
		• The stratigraphic sequence is made up of ultramafic rocks, cherts and basalts of the Warrawoona Group. Above this sequence is a succession of clastic sediments. The greenstone lithologies are surrounded by the granitic rocks of the Yule Batholith to the south and the Carlindi Batholith to the south and the Carlindi Batholith to the north. The structure of the project area is described in literature as being similar to that of the Pilgangoora Syncline which hosts Altura's and Pilbara Minerals Li/Li-Ta Deposits 20 km's to the east.
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:	• Not applicable.
	<ul> <li>easting and northing of the drill hole collar</li> </ul>	

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	<ul> <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> </ul>	
	ullet down hole length and interception depth	
	• hole length.	
	<ul> <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>	
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> </ul>	• Not applicable.
	• 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.	
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercent lengths	• These relationships are particularly important in the reporting of Exploration Results.	• Not applicable.
intercept lengths	<ul> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	
	<ul> <li>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').</li> </ul>	
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• Relevant diagrams have been reported in thi document.
Balanced reporting	<ul> <li>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.</li> </ul>	• All relevant results at this stage have been 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.	• All relevant and meaningful data has been reported.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale stepout 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>	• Second-stage geochemical sampling program at M York.
		• Remaining results from the geochemistry sampling program at Wodgina Project.
		<ul> <li>Results from soil sampling program at the Kangan and Skywell projects.</li> </ul>
		• Results from air-core drilling at the Kangan Project.
		• Heritage survey at Kangan and Skywell projects.