

## Hydrothermal specimen gold within Fuego Prospect

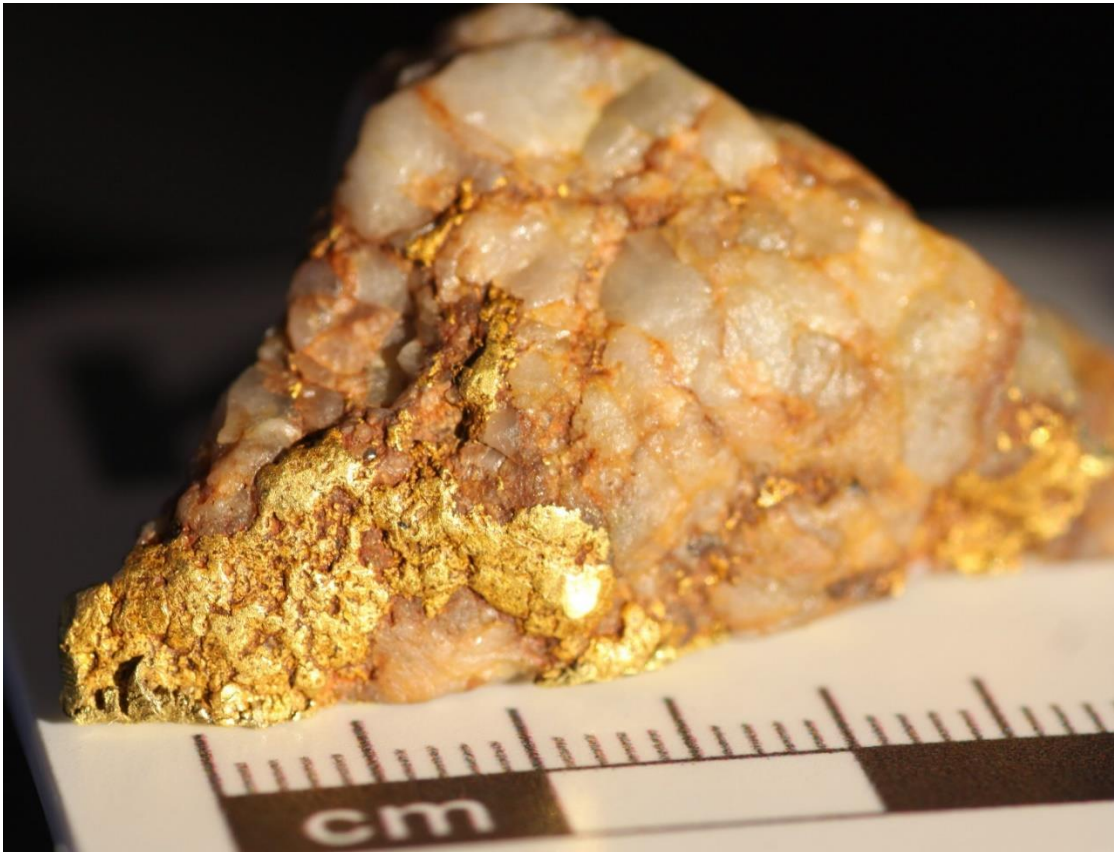
*Analysis of specimen gold from within the high-tenor gold-in-soil anomaly represents a significant exploration breakthrough at the Fuego Prospect within the Croydon Project WA.*

### Highlights

- 10km long gold anomaly defined at the Fuego Prospect by soil sampling results above 30ppb Au
- Includes a 1.1km long core of over 100ppb Au (0.1g/t) and up to a peak of 648ppb (0.64g/t)
- Soil anomalism associated with sedimentary units of the Hardey Formation, also host to the Paulsens gold deposit in the Pilbara
- Analysis of the specimen gold within the quartz arenite (sandstone) highlighted by a consistency of the silver/gold ratio, the presence of galena (lead sulphide) and the celadonite (mica) associated with the gold are indicative that the gold is primary and not redeposited (nuggets).
- No gold nuggets have been found within the Fuego Prospect
- Given the tenor, scale and coherent nature of the gold anomaly, this presents as an important new exploration focus for Kairos.
- All government and Heritage approvals are in place for both trenching and drilling
- EIS government grant of \$150,000 awarded for RC and diamond drilling



**Figure 1: Primary Gold-Quartz-Arenite (polished face) from the Fuego Prospect, found in the Hardey Formation sediments.**



**Figure 2: Primary Gold-Quartz-Arenite from the Fuego Prospect, found in the Hardey Formation sediments.**

Kairos' Executive Chairman, Terry Topping, said: *"We are excited to locate specimen gold within a very large gold-arsenic anomaly at the newly named Fuego prospect, within the Croydon Project.*

*"The detailed analysis of this sample now indicates that it is of primary origin, unlike the numerous nuggets located in 2019 from 5-10 km to the southeast. It also highlights the potential for high grade mineralisation within a very large drill ready target. Late last year the company also completed heritage surveys and now has all government approvals for both trenching and drilling. This systematic and detailed exploration was also rewarded with the approval of \$150,000 from the State Government Exploration Initiative Scheme which is a peer reviewed grant. We look forward to getting back up to the Pilbara to continue this exciting exploration in the coming months within an all time high Australian gold price environment.*

Kairos Minerals Ltd (ASX: KAI; "Kairos" or "the Company") is pleased to advise that it has discovered an extensive gold-in-soil anomaly at the Croydon Project, located within the central portion of the 100% owned Pilbara Gold Project, WA (Figure 7) ~100km to the west of the Mt York Gold-Project.

The 150m to 200m wide anomaly extends over a strike length of 10km above a 30ppb Au cut-off and includes a high-grade 1.1km long core above a 100ppb Au cut-off which has returned peak values of up to 648ppb gold (0.64g/t).

The new discovery represents a significant step forward in Kairos' ongoing gold exploration program in the Pilbara. Given its scale, coherent nature and high tenor, the anomaly has the potential to represent a significant conventional gold exploration target alongside the well-established gold potential of the area.

There is typically minimal dispersion effect associated with gold-in-soil anomalism across the Pilbara, which means that a large and coherent anomaly such as this has strong potential to be associated with bedrock gold mineralisation.

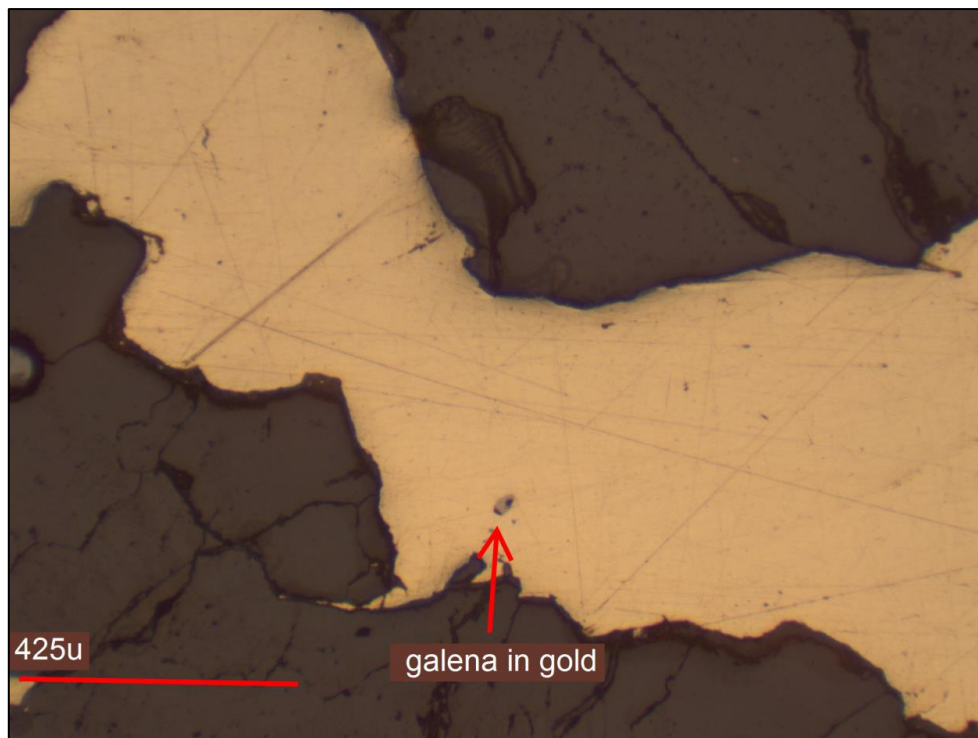
### **Petrography/Mineralogy of the Gold-Quartz-Arenite**

At the end of the 2019 exploration program, a total of 14 rock chip samples were dispatched for petrography and mineralogy analysis. These samples were collected within the significant soil results to test for hydrothermal signatures within the newly named-Fuego Prospect.

These rocks samples consist of nine arenites, five of which are rudaceous nature, three conglomerates, one wacke and one mylonite. The gold-quartz-arenite was collected on the northern portion of the Fuego Prospect, within the Hardey Formation, and was sent to Townend Laboratory in Perth for petrographic description and SEM analysis.

The rock sample is essentially composed of quartz and gold (Figure 1 and 2). There are areas of recrystallized quartz arenite with no evidence of euhedralism to support a vein origin. The gold has a consistent silver content, around 6 percent, and is host to traces of fine galena.

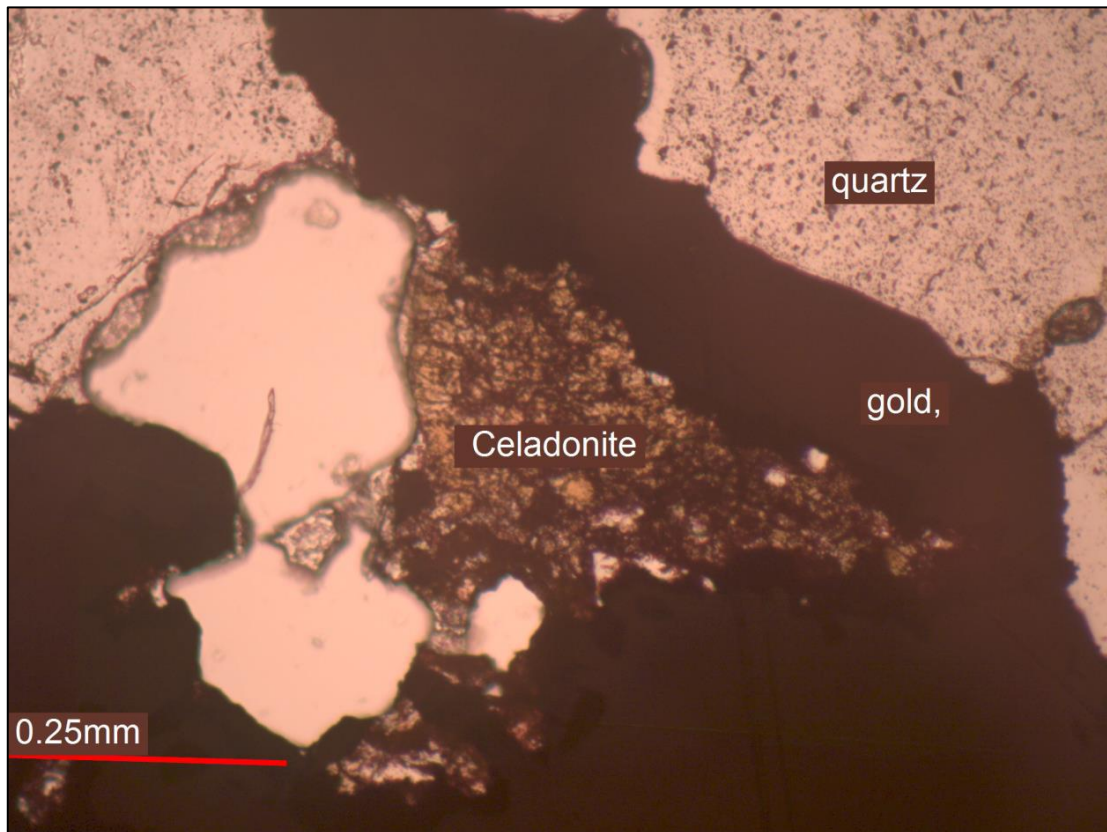
The presence of silver and the consistency of the gold/silver composition suggests that the gold is primary and has not been subjected to leaching or been redeposited. This is supported by the inclusions of galena (Figure 3).



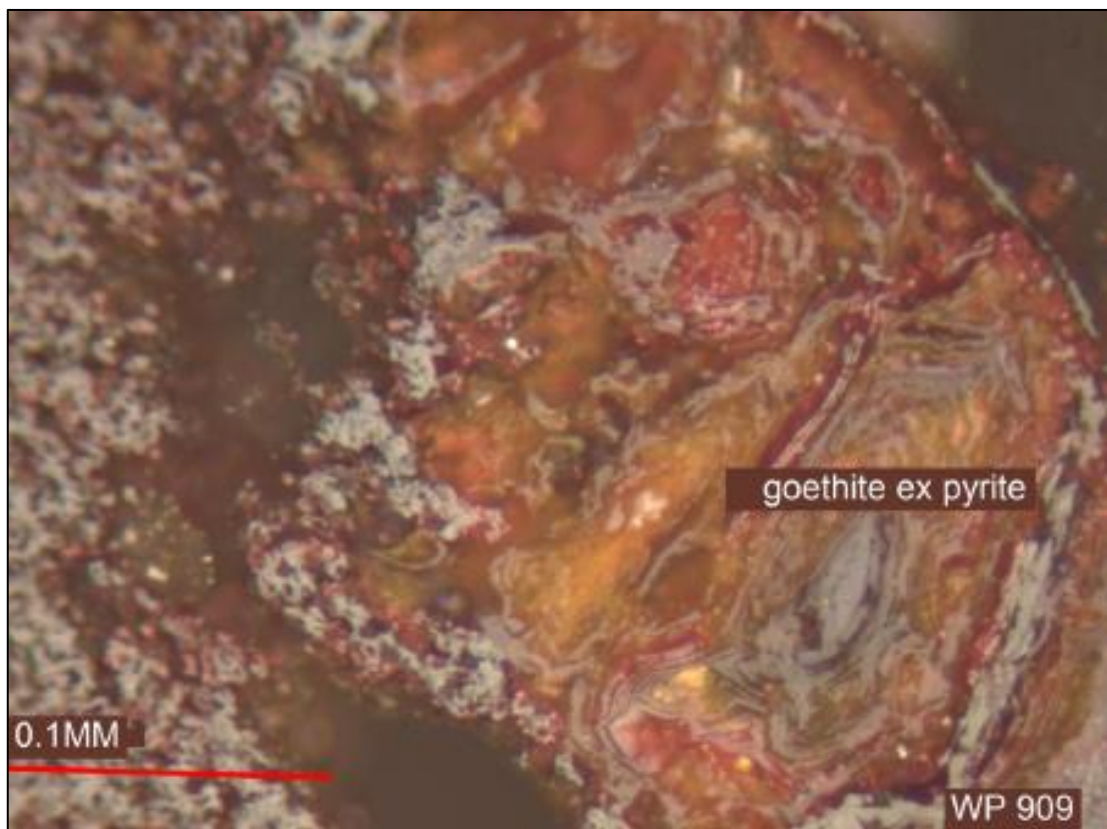
**Figure 3: Slide of the gold-quartz-arenite and the galena in gold.**

There is a trace of silicates attached to the gold, with the composition of celadonite, which forms under a wide range of conditions including hydrothermal alteration (Figure 4).





**Figure 4: Slide of the gold-quartz-arenite and the celadonite on gold.**

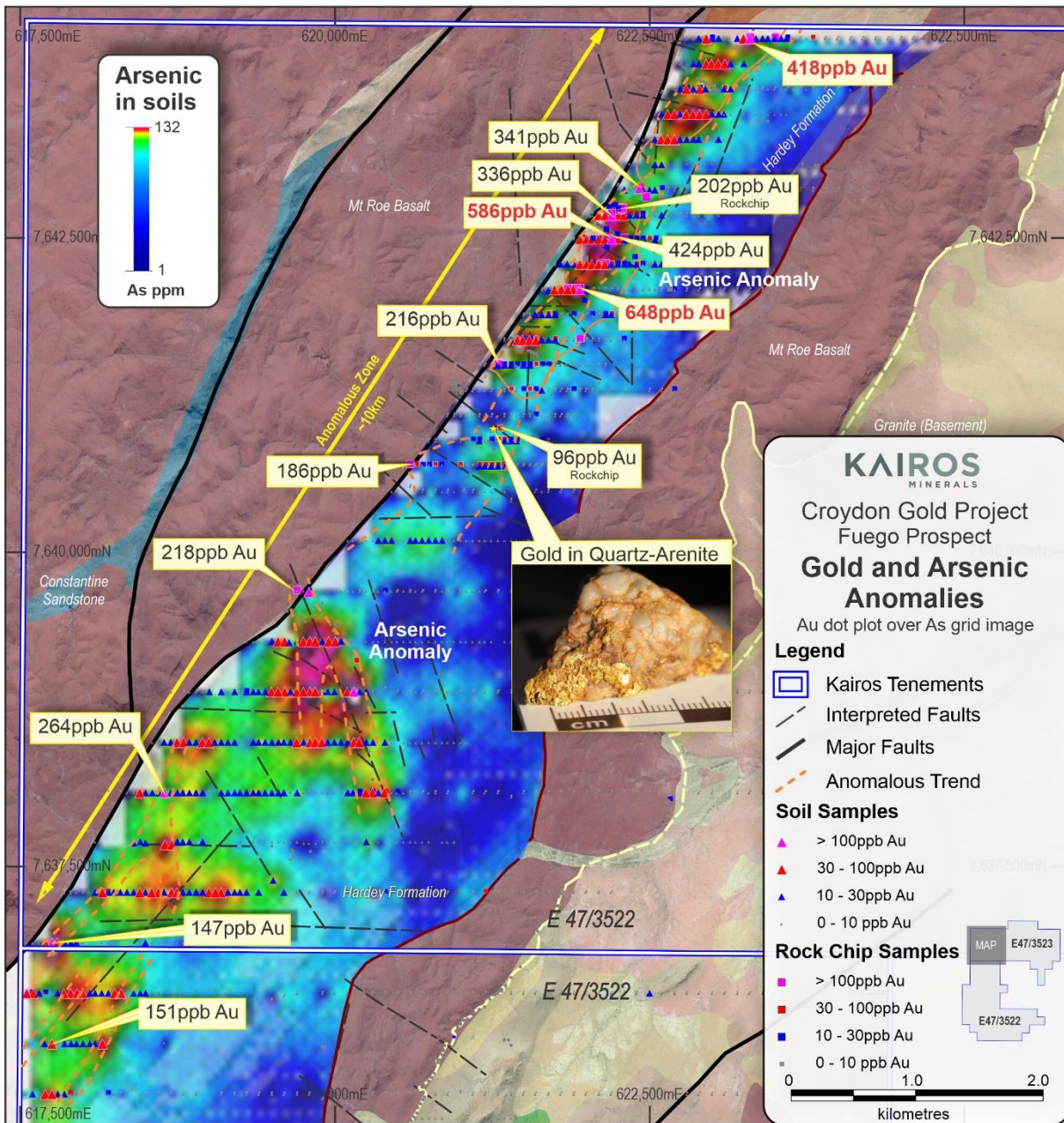


**Figure 5: Goethite after pyrite within quartz arenites of the Fuego Prospect**



There are several indicators of hydrothermalism within this batch of rock chips samples. The majority of the samples presented chlorite, sericite and carbonate alteration within their matrix, with the eventual presence of sphalerite, chalcopyrite, galena, pyrite (goethite) and gold, indicating hydrothermal alteration, (Figure 5).

**In summary, the consistency of the silver/gold ratio, the presence of galena and the celadonite associated with the gold are all indicative that the gold is primary and not redeposited (nuggets). The gold is interpreted to have been emplaced directly into the quartz-arenite host as part of a structurally-controlled hydrothermal process.**



**Figure 6: Fuego Prospect gold in soil anomaly over arsenic anomaly**

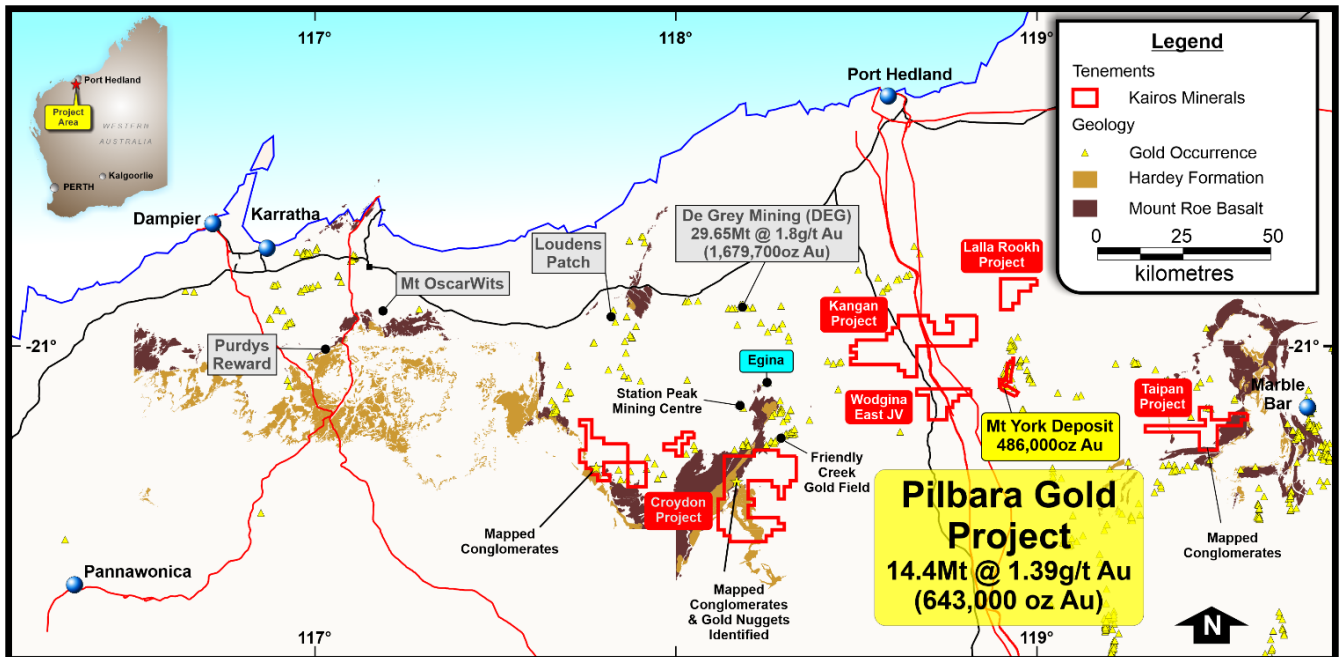


Figure7: Pilbara Gold Project with regional geology

## Next Steps

- Government Approvals and Heritage surveys now completed
- Access tracks and field camp to be established in March(after wet season).
- Trenching and RC drilling, Q2 2020

## **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 ~100km south of Port Hedland in the world-class Pilgangoora district immediately adjacent to the major lithium-tantalum projects owned by Pilbara Minerals and Altura Mining which are both currently in production.

Since acquiring the project in early 2016, Kairos has rapidly established a JORC Indicated 6.84Mt at 1.3 g/t for 285,000oz and Inferred 7.53Mt at 1.47 g/t for 358,000oz for a Total Mineral Resource of 14.4Mt @ 1.39g/t Au for 643,000oz (ASX announcement, 23 April 2018) by re-evaluating the previously known resources from the historical Lynas Find gold project, which produced over 125,000oz of gold between 1994 and 1998 and by executing highly focussed, cost effective exploration in its own right.

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 1,158 square kilometres of tenure which is highly prospective for gold discoveries. The Company's portfolio includes ~100 strike kilometres of prospective lower Fortescue Group rocks including both the base of the Hardey Formation and the basal sequence of the Mount Roe Basalt. Major exploration programs are underway targeting these highly prospective stratigraphic horizons, which have been associated with a number of recent high-profile gold discoveries in the Pilbara.

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.

### **For further information, please contact:**

#### **Investors:**

Mr Terry Topping  
Executive Chairman  
Kairos Minerals Limited

#### **Media:**

Nicholas Read/Paul Armstrong  
Read Corporate  
Ph: 08 9388 1474

### **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 – Croyden Project**  
**JORC Code, 2012 Edition – Table 1**

**Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Individual soil samples are collected as ~2000grams, -2mm sieved samples, from insitu soil horizons at between 20-30cm depth. Sample points are selected to avoid areas of transported alluvium and colluvium.</li> <li>Rock chip samples are collected as &gt;1kg samples from outcrop, float and areas of interest</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>No drilling has been undertaken.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>No drilling has been undertaken.</li> </ul>
Logging	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The gold found is only qualitative and must be interpreted in combination with geological mapping of the target area based on a prospective geological unit being mapped in the vicinity.</li> <li>The information collected about soil and rock samples includes general geological observations, location and rock type.</li> </ul>
Sub-sampling techniques and	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul style="list-style-type: none"> <li>The gold specimen, is not considered to be representative as it was found in loose soil</li> </ul>



Criteria	JORC Code explanation	Commentary
sample preparation	<ul style="list-style-type: none"> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>and colluvium near the prospective geological units. The geological units remain to be sampled in detail.</p> <ul style="list-style-type: none"> <li>• The proximity of the gold near the prospective geological units is a positive indication the prospective units is the source of the gold.</li> <li>• Soil and rock chip samples are prepared and analysed by independent certified laboratory, Intertek Genalysis laboratories in Perth. Soils samples are dried and milled to 95% passing 75um, prior to gold and multi-element analysis by AR25/MS and CN2000/MS methods. Rock chip samples are dried, crushed and pulverised to 95% passing 75um prior to gold and multi-element analysis by AR25/MS, LW400/MS and LW1000/MS methods.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The soil and rock chip samples are submitted to independent certified laboratory, Intertek Genalysis in Perth for sample preparation and analysis for gold and multi-element analysis by AR25/MS and CN2000/MS methods for the soils and AR25/MS, LW400/MS and LW1000/MS methods for the rock chip samples.</li> <li>• Au_CN2000_MS: Twenty four hour Bulk Cyanide Leach (2kg sample). Analysed by Inductively Coupled Plasma Mass Spectrometry.</li> <li>• AR_25: Aqua-Regia digest. Analysed by Inductively Coupled Plasma Mass Spectrometry.</li> <li>• Repeats - LW400/MS and LW1000/MS: LeachWell for rockchips, 400g and 1000g.</li> <li>• Repeats - Au_CN2000_MS: Twenty four hour Bulk Cyanide Leach (2kg sample). Analysed by Inductively Coupled Plasma Mass Spectrometry.</li> <li>• Due to the early stage of exploration and type of work completed to date, no external, additional standards, blanks or duplicates have been used. QAQC relies on the supplied laboratory report</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Due to the early stage of exploration and type of work completed to date, no independent verification has been undertaken to date.</li> <li>• Sampling data is collected and collated by Kairos Geologists and entered into an electronic database</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Specification of the grid system used.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sample collected were surveyed by GPS with an accuracy of +/- 5m.</li> <li>• All samples are in MGA94 Zone 50 (GDA94).</li> <li>• There are no historic workings or drill hole in the area.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Due to the early stage of exploration and type of work completed to date, the gold nugget sampling is non-systematic nor representative for any future resource estimate.</li> <li>• Soil sampling is conducted on east – west oriented lines at 800m line spacings. Samples are collected at 50m spacings along lines. Infill sampling is conducted on 200m spaced lines over areas of interest.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The soil sampling is undertaken across the strike of the known geology and structures within the project area..</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All samples were collected in the field at the project site by Kairos personnel.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No audits have been completed</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Kairos Minerals owns the Tenements 100%</li> <li>The Croyden Project has 5 Exploration Licences 47/3519 to 47/3523</li> <li>The Tenements have been granted</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>No significant past work has been carried out by other parties.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The target is sediment hosted gold mineralisation.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>No drilling was completed.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Due to the early stage of exploration and type of work completed to date, no data aggregation has been undertaken.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>No drilling was completed.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Suitable summary plans have been included in the body of the report.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>All relevant results have been reported</li> </ul>
<b>Other substantive</b>	<ul style="list-style-type: none"> <li><i>Other exploration data, if meaningful and material, should be reported including</i></li> </ul>	<ul style="list-style-type: none"> <li>All relevant and meaningful data has been reported.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>exploration data</b>	<i>(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>	
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Further mapping, panning, metal detecting, geochemistry and rock chip sampling is planned</li> <li>Refer to diagrams in the body of the release</li> </ul>