

ASX ANNOUNCEMENT 13 May 2021

# Multiple intrusive-related gold targets defined at Kairos' Skywell Project in the Pilbara

<u>Highly encouraging results from geochemical sampling combined with data-processing of airborne</u> geophysics generates new "Hemi-style" targets

#### **Highlights**

- Analysis of the results from geochemical and geophysical surveys completed last year has defined multiple intrusion-related gold targets at the Skywell Project.
- Follow-up geochemical sampling program planned to start immediately following completion of the first-stage geochemical sampling program at Mt York Project.
- A heritage survey has been requested for the Skywell Project with initial air-core drilling expected to start at the end of the June 2021 Quarter.
- Heritage surveys completed for the Mt York and Kangan projects, with earthmoving starting next week at both projects to prepare drilling locations.
- RC drilling is expected to start next week at Mt York and air-core drilling next month at Kangan.



Figure 1: Skywell Project area.



Kairos' Executive Chairman, Terry Topping, said: "We have now completed detailed analysis of the extensive geochemical and geophysical work undertaken across our Pilbara Gold Project last year, and we are excited to have defined multiple gold targets at Skywell. Six of the new targets are associated with intrusive-style gold mineralisation and represent priority targets for air-core drilling, which is scheduled to commence by the end of this quarter.

"Our 2021 exploration field season is now well and truly stepping up a gear, with activity levels increasing across all of our key projects. The current drill program at the Roe Hills Project is going very well, and we expect to provide an update on that in the near future. Earthmoving will begin at the Mt York and Kangan Projects next week to prepare drill sites, and we expect to see drilling underway at Mt York very soon with our planned 20,000m program. And heritage surveys have been requested ahead of planned initial air-core drilling to test the intrusion-related targets at Kangan. Multiple targets, multiple news-flow streams and, we hope, multiple opportunities to make a significant discovery!"

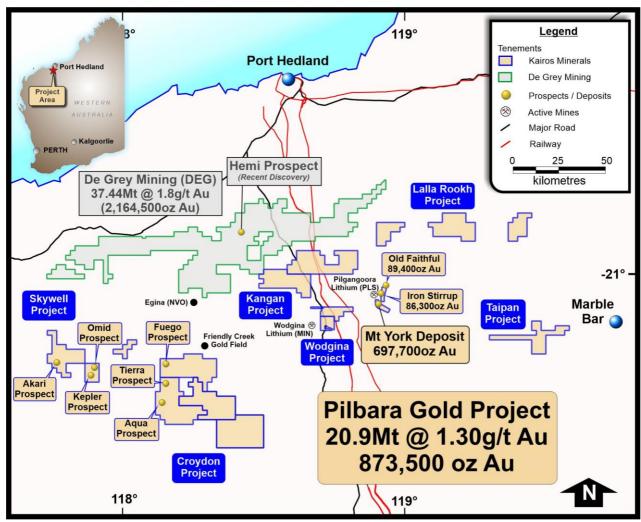


Figure 2: Pilbara Gold Project, WA.

Kairos Minerals Ltd (ASX: KAI; "Kairos" or "the Company") is pleased to advise that it has received and analysed all the remaining results from the geochemical sampling programs at its 100%-owned **Skywell Project**, located 50km south of Whim Creek and 70km south-west of the new Hemi gold discovery by De Grey Mining Limited (ASX: DEG). Skywell forms part of Kairos' Pilbara Gold Project (Figure 2).

A total of nine new targets have been generated at Skywell, six of them associated with intrusive-style gold mineralisation.



#### **Skywell Exploration**

Kairos' geologists conducted a detailed study for potential intrusion-related gold systems (IRGS) within the Skywell Project area. Nine new targets were generated, amounting to a total of **12 targets**, including the three targets generated last year (Figure 3).

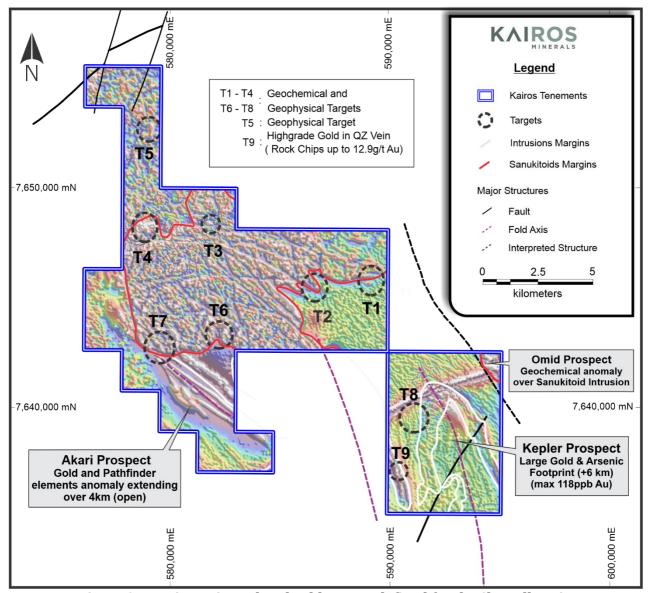


Figure 3: New intrusive-related gold targets defined for the Skywell project area.

This study combined all of the data received from the fieldwork conducted in 2020, which comprised 80 rock chip samples, 2,094 Ultrafine+ soil samples, geological mapping, and the airborne magnetic and radiometric survey. With these data now to hand, Kairos' geologists conducted a regional study of the known intrusions from DeGrey Mining, including their intrusion targets.

The Company then conducted extensive research over IRGS worldwide along with a study of the intrusions in the Pilbara region. A Sanukitoid intrusion known as Jallogoonina Stock from the Indee Suite – Sisters Supersuit, is mapped within the Skywell project area. Several magnetic features were observed near-margin and within the intrusion, with six of them already covered by a broad-spaced soil sampling program returning coincident geochemical anomalies. More importantly, this Sanukitoid intrusion has the Mallina basin sediments as the host rocks, the same characteristic of Degrey's mineralised intrusions (Hemi, Towerana, Calvert, Geemas, Charity Well).



The Towerana Deposit (356k oz Au) is the closest intrusion-related gold deposit to the Skywell Project area. It sits at 28km from Kairos' Skywell project area and, as several other intrusions within the DeGrey's tenement package, is associated with structural features such as fold axis and major faults.

The first-pass soil sampling program at the Skywell Project defined three major geochemical anomalies that defined the Akari, Kepler and Omid prospects (see ASX announcement 22 September 2020). These prospects' areas are right next to fold axis and major structures and showed strong soil anomalies, up to 118ppb Au from ultrafine sample SWS548. The in-fill soil sampling program confirmed and refined these anomalies.

The last phase of the geochemical sampling program of 2020 covered a large area in a 400m line spacing by 160m sampling spacing to test some geophysical targets and the Sanukitoid intrusion margins, as well as the Mallina Basin sediments near the intrusions. In addition, two small areas were selected to test geophysical anomalies. Four new targets were generated from this last phase (T1 to T4), with one more new target added from the new detailed geophysical interpretation (T5).

Kairos has requested heritage surveys to be conducted over two distinct areas at the Skywell Project area, with the northernmost area expected to be conducted first for the planned air-core drilling program.

#### **Mt York Exploration**

At the end of April, Kairos commenced a mapping program and a geochemical sampling program at the Mt York project to assist the new target generation within the project area. Strong gold-in-soil anomalies from historical geochemical surveys were investigated and an in-fill and extensional soil sampling program is currently being conducted to better define drilling targets. The Batavia prospect was determined based on the historical results (see Figure 4). Kairos has now completed a heritage survey over these target areas.

Drilling at Mt York project is due to start next week, with two RC rigs expected to be on-site next month.

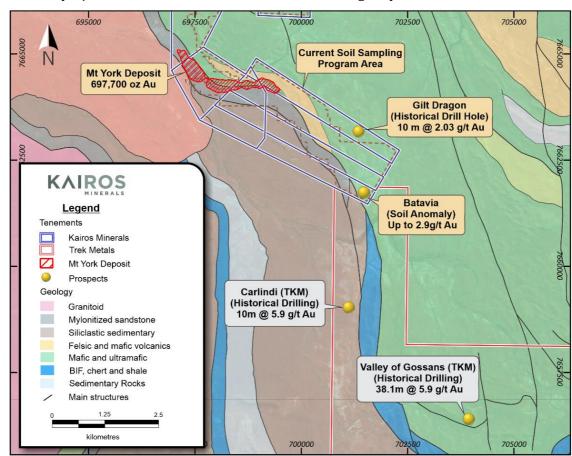


Figure 4. Area of the current geochemical survey at the Mt York project



#### **Kangan Exploration**

Kairos has completed the first heritage survey for the Kangan Project area. Earthmoving is expected to start next week and the Company has secured an air-core rig for an approximately 5,000m program due to start in Iune.

The first-pass air-core drilling program will test the Target 1 area (see Figure 5), where a large geochemical anomaly is coincident with a north-south magnetic feature and with an interpreted intrusion margin.

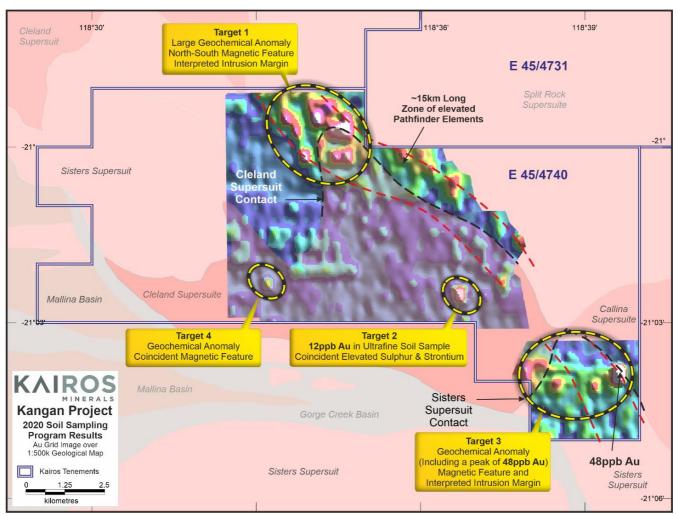


Figure 5: Targets over the Au grid image and the 500k GSWA Tectonic Map.

#### **Next Steps**

- Roe Hills RC drilling.
- Mt York RC drilling.
- Mining studies for the Mt York Project.
- Geochemistry sampling program at the Mt York Project.
- In-fill and extensional soil sampling program at the Skywell Project.
- Air-core drilling at the Kangan Project.
- Heritage survey and air-core drilling at the Skywell Project.



#### **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 1,547 square kilometres of tenure (granted and applications) which is highly prospective for gold 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.

Released with the authority of the Board.

#### 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 – Skywell, Mt York and Kangan Project JORC Code, 2012 Edition – Table 1

**Section 1 Sampling Techniques and Data** 

| Criteria  | JORC Code explanation  | Commentary   |
|---|--|--|
| Sub-sampling techniques  Sub-sampling techniques and sample preparation | <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> <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 are adopted for all sub-sampling stages to maximize the representativity of samples.</li> <li>Measures are 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>Individual soil samples are collected as ~500grams, -2mm sieved samples, from in situ soil horizons at between 15-20cm depth, on 200m and 400m spaced lines and 160m and 80m spaced samples.</li> <li>Samples were submitted to Labwest in Perth for gold and multi-element analysis utilizing the Ultrafine method. The ultrafine soil samples from the Skywell project are part of the CSIRO research program that utilizes 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> <li>The soil geochemistry in Mount York a 100g sample of 80 Mesh fractions was taken from a depth of between 5 and 20cm below surface.</li> <li>Mt York samples were delivered by Kairos personnel to RGR Road Haulage in Port Hedland for transport to Intertek Minerals Laboratory in Perth WA for final analysis.</li> <li>All samples were submitted for Acqua Regia Analysis for Gold and Multi-Elements.</li> <li>Soil sampling: the samples were sieved to the desired fraction in the field.</li> <li>Ultrafine sample preparation and analysis were conducted by an independent certified laboratory, Labwest Mineral Analysis Pty Ltd in Perth.</li> <li>The 80 Mesh fraction soil samples were prepared and analysed by the independent certified laboratory Intertek Minerals Laboratory in Perth WA.</li> </ul> |
| Quality of assay<br>data and laboratory<br>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>Soil samples were submitted to Labwest in Perth for gold and multi-element analysis utilizing the Ultrafine method. The ultrafine soil samples from the Skywell project are part of the CSIRO research program that utilizes the latest advanced technologies for geochemical mapping and targeting.</li> <li>Ultrafine gold and multi-element analysis is by microwave-assisted aqua regia digestion, ICPOES/ICPMS.</li> <li>Soil geochemistry in Mount York was applied the analytical technique Aqua-Regia digest. Analysed by Inductively Coupled Plasma Mass Spectrometry (ICP).</li> <li>Laboratory QA/QC includes the use of internal standards (Certified Reference Material), blanks and replicates.</li> <li>Laboratory QA/QC analysis demonstrated good accuracy and no biased data.</li> <li>Standards and laboratory checks have been assessed. Most of the standards show results within acceptable limits of accuracy, with good precision in most cases. Internal laboratory checks indicate very high levels of precision.</li> </ul>  |



| Criteria                                    | JORC Code explanation   | Commentary  |
|---|---|---|
| Verification of<br>sampling and<br>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>All data is received and stored securely in digital forma<br/>in the Company's database.</li> <li>Final data is rigorously interpreted by Kairos'<br/>geoscientific personnel.</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>   | <ul> <li>Soil samples collected were surveyed by GPS with an accuracy of +/- 5m.</li> <li>The reference system is MGA94 Zone 50 (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> | <ul> <li>Soil sampling is conducted on east – west oriented lines at 400m, 200m and 100m line spacings. Samples are collected at 160m, 80m and 50m spacings along lines.</li> </ul>   |
| Sample security                             | The measures taken to ensure sample security.   | <ul> <li>All soils samples were collected in the field at the project site by Kairos personnel.</li> <li>All samples were delivered directly to RGR Road Haulage Port Hedland by Kairos personnel prior to being transported to Perth WA for final analysis.</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<br>tenement and land<br>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 the Tenements 100%.</li> <li>The Mount York Project has 11 granted Prospecting Licenses 45/2987 to 2989 and 45/2991 to 45/2998.</li> <li>Skywell Project has three granted Exploration Licences 47/3519, 47/3520 and 47/3521.</li> <li>Kangan Project has one granted Exploration Licence 45/4740.</li> </ul>   |
| Exploration done by other parties             | Acknowledgment and appraisal of exploration by other parties.  | <ul> <li>The Mt. York Lithium – Gold Project was discovered by Lynas Gold NL in the early 1990's and mined a number of deposits as a successful open pit operation by that company between 1994 – 1998. Other companies to have explored the area include Austamax, Carpenteria, MIM and Trafford Resources.</li> <li>No significant past work has been carried out by other parties in Skywell.</li> </ul>       |
| Geology                                       | Deposit type, geological setting, and<br>style of mineralisation.  | <ul> <li>Skywell relies in a potential intrusion-related gold system (IRGS) associated to Sanukitoid intrusions (Jallogoonina Stock) within Mallina basin sediments.</li> <li>Mount York Project is in the Strelley greenstone belt of Pilbara Craton. The local style indicates that the gold mineralisation is hosted mainly by the banded iron formation associated with quartz-veins and breccias.</li> </ul> |
| 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.</li> <li>locations and appropriate sectional views.</li> </ul>  | Suitable summary plans and a map have been included in the body of the report.  |
| Balanced reporting                            | <ul> <li>Where comprehensive reporting of all<br/>Exploration Results is not practicable,</li> <li>representative reporting of both low<br/>and high grades and/or widths should<br/>be practiced to avoid misleading<br/>reporting of Exploration Results.</li> </ul>   | All relevant results 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.   |



| Criteria        | JORC Code explanation   | Commentary  |
|-----------------|---|---|
| Further<br>Work | <ul> <li>The nature and scale of planned further work (e.g. 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 RC drilling, mining studies and geochemistry sampling program are planned in Mount York Project.</li> <li>In-fill and extensional soil sampling program, heritage survey and air-core drilling program are planned in Skywell Project.</li> <li>Refer to diagrams in the body of the release.</li> </ul> |