

18 August 2021

Major nickel-copper and gold targets identified at Roe Hills Project, east of Kalgoorlie

~1km long anomaly identified from Ultrafine+ soil geochemistry in a previously untested area

<u>Highlights</u>

- Highly encouraging assay results received from the 2,221 soil samples collected at the 100%owned Roe Hills Project, located east of Kalgoorlie in WA.
- A new ~1km long target area has been defined by coherent and robust nickel-copper anomalies, with values of up to 3,120ppm Ni and 403ppm Cu returned from Ultrafine+[™] soil with coincident elevated gold, platinum, and palladium.
- The new target area is located approximately 1.4km south of the Talk Lake prospect, where minimal historical exploration has been carried out.
- The results from the Ultrafine+[™] soil sampling program have also identified possible extensions of the gold mineralisation at the Caliburn prospect.
- Re-processing of regional geophysical datasets highlights regional structures associated with the soil anomalies.
- The geochemical soil sampling program is part of Kairos' extensive collaboration with the CSIRO soil research initiative using Ultrafine+ analysis and interpretation.
- RC drilling is planned for Q4, 2021.

Kairos' Executive Chairman, Terry Topping, said: "The identification of these extensive nickel-copper and gold targets are a very exciting development which stems from our ongoing collaboration with the CSIRO in utilising their proprietary Ultrafine+ geochemical sampling technique.

"It's rare to see such a large, strong and coherent nickel-copper and gold target from geochemical sampling and this represents a compelling drill target in a completely unexplored area 1.4km south of our Talc Lake nickel prospect, where recent drilling has encountered nickel sulphides.

"The Caliburn prospect continues to grow as a gold target with this new geochemistry adding to the recent RC drilling results released to ASX in July. This area is now a priority target for further RC drilling in the coming months"

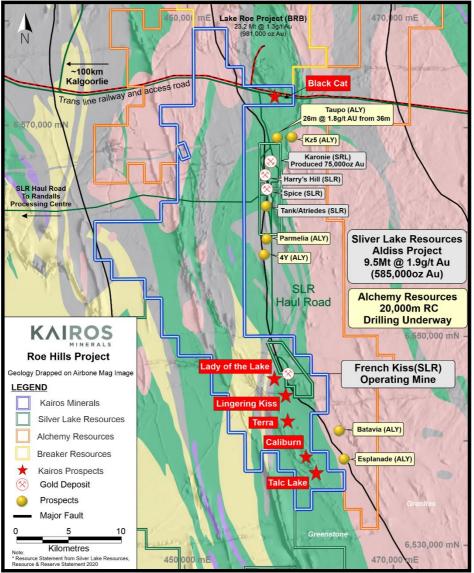


Figure 1: Roe Hills Project prospect locations.

Kairos Minerals Ltd (ASX: KAI; "Kairos" or "the Company") is pleased to advise that it has identified an extensive new nickel-copper and gold targets at its 100%-owned **Roe Hills Project**, located east of Kalgoorlie in WA.

The targets were identified following receipt of results from a recent successful geochemical sampling program, where 2,221 soil samples were collected and submitted for Ultrafine+ $^{\text{M}}$ analysis at Labwest Laboratory in Perth.

The new \sim 1km long target area was defined by coherent and robust nickel-copper anomalies, with values of up to **3,120ppm Ni and 403ppm Cu** returned from Ultrafine+TM soil with coincident elevated gold, platinum, and palladium.

Minimal historical exploration has been carried out within this target area with only one historical hole drilled where it could be the footwall of the mineralized feature.

In addition, the soil geochemical program has defined possible extensions of the gold mineralization at the Caliburn prospect.



Soil Geochemistry Program

Kairos has now received all the results from its soil geochemical program conducted at Roe Hills Project.

A total of 2,221 soil samples were collected and submitted to Labwest in Perth for Ultrafine+ Analysis with this geochemical program forming part of the regional CSIRO soil research initiative. Soil sampling was conducted on a 200m line spacing by 50m sample intervals testing extensions of targets defined by previous exploration results and regional geophysics.

Initial interpretation of the Ultrafine gold and multi-element results has generated a high-priority target located 1.4km south of Talc Lake prospect, where minimal historical exploration has been carried out (Figures 2 and 3).

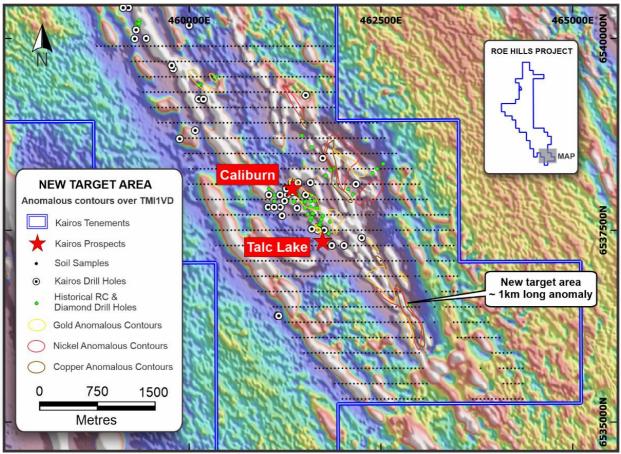


Figure 2: Anomalous contours for Ni, Cu, Au over the recently reprocessed TMI1VD image.

The new target is defined by elevated nickel and copper values extending over a strike length of 800m, plus a gold anomaly extending over a strike length of 1km. The highest nickel and copper values from the entire survey returned from samples collected in the core of the anomaly, 3,120ppm Ni and 403ppm Cu.

A grid image with nickel anomalies was generated with a secondary anomaly observed approximately 2km north-northwest of the new target area (Figure 3). The secondary anomaly area recorded peak value of 1,590ppm for nickel and 338ppm for copper.

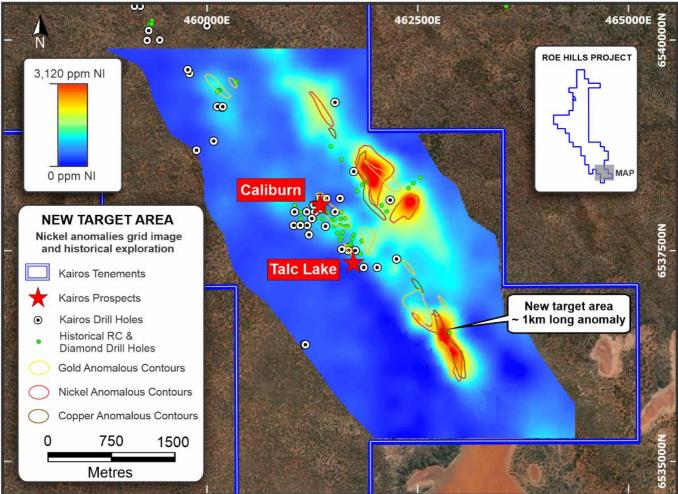


Figure 3: Nickel anomalies grid image and historical exploration.

Only one historical hole was drilled in the new target area. The hole ORTL4 was collared to the east of the anomalies and drilled to the 50 degrees azimuth. The stratigraphy preferentially dips to the west within the project area and it is believed that this drill hole has not intercepted any geological unit or structures that could be related to the current soil anomalies.

In addition, elevated platinum and palladium returned from samples collected within the new target area that warrants further investigation for PGE mineralisation.

Kairos is conducting a review of a ground electromagnetic survey conducted in the area in 2015 to assist with the next round of drilling, which is being planned for Q4, 2021.

Caliburn Prospect

The Caliburn Prospect is located towards the southern end of the Roe Hills Project tenure, just north of Talc Lake and about 5km south-southeast of Silver Lake's French Kiss gold deposit.

Kairos recently completed 10 holes for 1,149m at the Caliburn prospect (see ASX announcement 13 July 2021). Drilling was carried out along four sections spaced 40m apart with drill holes on three of the sections returning mineralised intercepts.



Significant assay results include:

RHRC105

- 8m @ 1.32g/t Au from 32m, including:
 4m @ 2.29g/t Au from 36m, and
- 8m @ 1.29g/t Au from 56m, including:
 5m @ 1.85g/t Au from 58m

RHRC106

- **15m @ 0.81g/t Au** from 44m, including:
 4m @ 2.07g/t Au from 52m, and
- 16m @ 1.27g/t Au from 80m, including:
 4m @ 3.17g/t Au from 84m

RHRC109

16m @ 1.36g/t Au from 80m, including:
 4m @ 3.90g/t Au from 92m

The results from the Ultrafine+[™] soil sampling program have identified possible extensions of the mineralisation at the Caliburn prospect. A new anomalous area is defined to the southeast of the current mineralized strike, where no previous drilling has been conducted (Figure 4). Interpretation of the recently reprocessed geophysical data is supporting the generation of new targets for the next round of drilling.

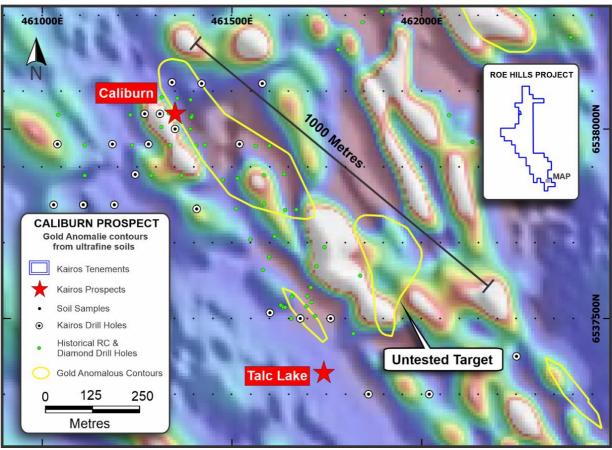


Figure 4: Gold anomaly contour generated from the Ultrafine+[™] soil sampling program results over the recently reprocessed TMI1VD image.



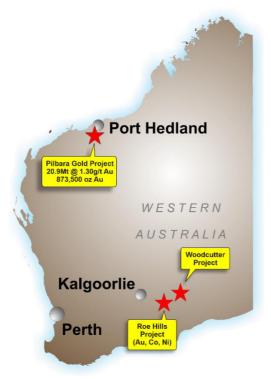


Figure 5. Kairos Project Locations.

Next Steps

- Interpretation of the results from the Roe Hills geochemical sampling program.
- 3D mineralisation modelling for Roe Hills gold Mineral Resource calculation.
- Mt York RC drilling.
- Mining studies for the Mt York Project.
- Results from the geochemistry sampling program at Mt York Project.
- Results from soil sampling program at the Wodgina Project.
- Results from air-core drilling at the Kangan Project.
- Geochemistry sampling program and mapping at the Skywell 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 ~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.

With the authority of the Board.

For further information, please contact:

Investors:	Media:
Mr Terry Topping	Nicholas Read/Paul Armstrong
Executive Chairman	Read Corporate
Kairos Minerals Limited	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 – Roe Hills Project JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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 gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	 A total of 2,221 individual soil samples were collected as ~500grams, from <i>in situ</i> soil horizons at between 5-20cm depth. The samples were sieved -2mm in the field and submitted to Labwest Minerals Analysis Pty Ltd. laboratory in Perth. The ultrafine soil samples from Roe Hills Project are part of the CSIRO research program that utilizes the latest advanced technologies for geochemical mapping and targeting. Ultrafine+ is designed to analyse the clay sized fraction (<2µm) for gold exploration, and multi-element analysis for major and trace elements, salinity (EC) and pH, and clay mineralogy.
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. The historical hole ORTL4 reported was a diamond drill core.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	• No drilling results are reported in this announcement.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	The basic 'nature of soil and site' information were registered.All sample sites were described.
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Soil samples were prepared and analysed by independent certified laboratory, Labwest Mineral Analysis Pty Ltd in Perth. The sample size was appropriated to analyse ultrafine particles (<2μm). Most of the samples were dry.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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. 	 Ultrafine gold and multi-element analysis are by microwave assisted aqua regia digestion, ICPOES/ICPMS.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	• All data is received and stored securely in digital format in the Company's database.

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	 Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	• Final data is rigorously interpreted by Kairos' geoscientific personnel.
Location of data points	 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. Specification of the grid system used. Quality and adequacy of topographic control. 	 Kairos soil samples were surveyed by handheld GPS with an accuracy of +/- 5m. All location data are in MGA94 Zone 51 (GDA94).
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	• The soil sampling program was conducted on a 200m line spacing by 50m sample intervals.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	• 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.	 The sample chain of custody is managed by Kairos. 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. All samples were delivered to Labwest laboratory in Perth for final analysis as part of the Ultrafine+ Program in partnership with CSIRO.
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	 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. 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. 	 Kairos Minerals owns 100% of the Tenements that define the Roe Hills Project. The project consists of 10 EL's, E28/1935, E28/2117, E28/2118, E28/2548, E28/2585, E28/2593, E28/2594, E28/2695, E28/2696 and E28/2697. 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.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	 Significant historical gold exploration including surface geochemical sampling, airborne and ground electromagnetic surveys, RAB, AC, RC, and DD drilling are acknowledged in previous ASX announcements.
Geology	• Deposit type, geological setting, and style of mineralisation.	 The Roe Hills Project lies within the Kurnalpi Terrane of the Eastern Goldfields, Eastern Yilgarn Craton (EYC). In gold, nickel, and cobalt prospective areas. Gold mineralisation is associated to the Aldiss Fault system. Massive nickel sulphide mineralisation is related with Kambalda-style – Komatiite/Ultramafic host rocks.
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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the 	• The historical diamond drill hole ORTL4 reported was 302.4m depth oriented 60 degrees azimuth and -60 degrees dip.

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	report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	• 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.	• 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.	
	 The assumptions used for any reporting of metal equivalent values should be clearly stated. 	
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results.	• Not applicable.
	• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	
	 If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• Relevant diagrams have been reported in this document.
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. 	• 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		• Interpretation of the results from the Roe Hills geochemical sampling program.
		• 3D mineralisation modelling for Roe Hills gold Mineral Resource calculation.
		• Continue the Mt York Project RC drilling program.
		• Mining studies for the Mt York Project.
		• Results from the geochemistry sampling program at Mt York Project.
		• Results from soil sampling program at the Wodgina Project.
		• Results from air-core drilling at the Kangan Project.
		• Geochemistry sampling program and mapping at the Skywell Project.
		• Heritage survey and air-core drilling program at the Skywell Project.