

10<sup>th</sup> February 2017

### MULTIPLE STACKED GOLD LODES INTERSECTED WELL BEYOND CURRENT RESOURCES AT MT YORK

Strong drill intercepts of up to 12.6g/t demonstrate that the gold system at Mt York is significantly larger than previously thought

#### Highlights

- Significant widths of gold mineralisation intersected within the previously untested +400m "Hinge Zone" between the historical Main Hill (66,000oz at 1.26g/t Au) and Breccia Hill (57,000oz at 1.4g/t Au) open pits.
- Mineralisation occurs as a series of stacked lodes within a 100m thick BIF (banded iron formation) unit previously considered to be barren, with three widely-spaced diamond holes returning significant intersections including:

 KMYD013A: 7.16m@ 1.67 g/t gold from 91.47m, including 4.13m@ 2.22 g/t gold from 92.57m. 13.3m@ 2.05 g/t gold from 125.68m
 11.16m@ 1.44 g/t gold from 171.30m, including: 8.41m@ 1.78 g/t gold from 171.30m, and 0.27m@ 12.6 g/t gold from 172.81m.
 NB: Intersections occur 50-100m below resource boundary.

 KMYD014:
 1.40m @ 3.11 g/t gold from 220.48m, including:

 0.40m @ 8.51 g/t gold from 220.48m
 5.51m @ 2.36 g/t gold from 236.78m

 3.92m @ 1.25 g/t gold from 277.08m, including:
 0.62m @ 5.28 g/t gold from 277.08m

 NB: intersections occur +200m down-plunge of Main Hill deposit

- KMYD015: 1.72m @ 0.91 g/t gold from 103m, including: 0.31m @ 2.1 g/t gold 0.23m @ 2.33 g/t gold from 120.29m 0.86m @ 1.02 g/t gold from 138m.
   NB: BIF host partially stoped-out by dolerite intrusive
- The stacked lodes are open both up- and down-dip, and importantly remain untested near-surface within the immediate footwall to the historical open pits providing an outstanding target for follow-up resource drilling.
- Reinterpretation of Old Faithful deposit highlights significant resource expansion opportunities, with assays from recent drilling awaited along with first-pass testing of several newly identified greenfields targets.



Kairos Minerals Limited (ASX: KAI; **Kairos** or **the Company**) is pleased to advise that its maiden diamond drilling program at the 100%-owned Mt York Gold-Lithium Project (see Figure 1) in WA has returned positive new results, demonstrating that the gold system is significantly larger than previously thought.

The results – from wide-spaced reconnaissance diamond drilling to test for BIF-hosted gold mineralisation along strike below and down-plunge of the Main Hill and Breccia Hill gold deposits has – confirmed the presence of **multiple stacked lodes of gold mineralisation** up to 200m below the known resources.

The discovery of multiple stacked lodes at Mt York highlights the potential to expand the JORC 2012 compliant Indicated and Inferred Mineral Resource for the Mt. York Project currently totalling **5.692Mt@ 1.42 g/t gold for 258,000 ounces of contained gold**.

The near-surface oxide zones of the deposits were partially mined historically by Lynas Gold NL in the mid-1990s as a series of shallow open pits to a maximum depth of only about 30m in conjunction with mining of the Iron Stirrup gold deposit, located further to the north.

Mining operations ceased as the result of a protracted period of record low world commodity prices.

This opens up a significant exploration opportunity for Kairos Minerals in the current strong gold price environment.



Figure 1. Mt York Gold-Lithium Project, Prospect locations and recent drilling "Hinge Zone" Drilling Results



The Main Hill deposit (current resource: 1.641Mt @ 1.26 g/t gold for 66,000 ounces) and Breccia Hill deposit (current resource: 1.269Mt @ 1.40 g/t gold for 57,000 ounces) define a zone of BIF-hosted gold mineralization which can be traced over a surface strike length of at least 1.5km and extends from surface to a maximum drilled depth of 250m.

The deposits remain open along strike to the north and south and at depth. A central "hinge zone" defined by a marked flexure in the mineralised horizon separates the two deposits. This "gap" remained untested and unmined due to a weakened surface expression and a perception by previous operators that the position was barren.

The Hinge Zone represents a data shadow of some 400m in strike (previously reported as 200m, refer KAI ASX Announcement 19 Dec 2015) which Kairos' technical team identified as a key structural target with the potential to rapidly expand the current resource, significantly improve future pit expansion/optimization opportunities and to host conceptual underground opportunities.

Late in the 2016 field season, Kairos completed three diamond drill-holes for a total of 762.5m in order to provide an initial test of the Hinge Zone target at depths of between 100m and 200m below surface.

Main Hill & Breccia Hill Exploration Drilling Results												
Collar Location and Orientation									Intersection Summary			
						Total	From					
Hole	MGA_E	MGA_N	RL	Dip	Azimuth	Depth (m)	(m)	To (m)	Length	@	Grade	
KMYD013A	697524	7664446	175.8	-57	38.6	240.85	91.47	98.63	7.16m	@	1.67g/t Au	
						Including	92.57	96.7	4.13m	@	2.22g/t Au	
							125.68	138.98	13.3m	0	2.05g/t Au	
							171.3	182.9	11.16m	@	1.44g/t Au	
						Including	171.3	179.71	8.41m	0	1.78g/t Au	
						and	172.81	173.08	0.27m	0	12.6g/t Au	
KMYD014	697649	7664267	179.7	-62	45	322.7	220.48	221.88	1.4m	@	3.11g/t Au	
						Including	220.48	220.88	0.4m	@	8.51g/t Au	
							236.78	242.29	5.51m	@	2.36g/t Au	
							277.08	281	3.92m	@	1.25g/t Au	
						Including	277.08	277.7	0.62m	@	5.28g/t Au	
KMYD015	697784	7664287	178.3	-61	43.2	198.88	103	104.72	1.4m	0	0.91g/t Au	
						Including	103	103.31	0.31m	@	2.1g/t Au	
							120.29	120.52	0.23m	@	2.33g/t Au	
							138	138.86	0.86m	@	1.02g/t Au	

The results are set out below:

#### **Table 1: Significant Assays**

The holes confirmed the presence of both a thickening of the host BIF sequence (>100m thickness) and the presence of a stacked series of gold mineralised lodes well beyond the limits of the known deposits, confirming that the mineralised BIF sequence is significantly larger than was previously recognized.

Importantly, the up-dip position of the footwall lodes remains untested immediately adjacent to (north of) the existing open pits and represents a high priority near-surface target for drill testing later in the year.

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Figure 2. Main Hill – Breccia Hill – Gossan Hill Prospects: recent drilling.

The results of this drilling support Kairos' view that the Main Hill and Breccia Hill deposits are part of a much larger, more extensive mineralised system than was previously recognized and that the two are connected. In addition two historical drill holes (GRC2440, GRC2686) located approximately 1km east of the Breccia Hill pit have significant gold intersections highlighting the exploration potential within close proximity to the existing resources (refer to Figure 2):

- GRC2440: 24m @ 1.1g/t Au
- GRC2686: 14m @ 2.38g/t Au

Refer to ASX announcement dated 19<sup>th</sup> December 2016 "Further Strong Results from Mt York"

Figure 2 shows the location of the completed drill-holes in relation to the Main Hill and Breccia Hill open pits.

Figure 3 shows the pierce points of the drill-hole intercepts in vertical longitudinal projection in relation to the historical pits and the limits of Kairos' recent JORC 2012 compliant resource boundary.





Figure 3: Main Hill - Breccia Hill vertical longitudinal projection.



Figure 4: Main Hill- Breccia Hill Deposits, schematic cross section 5,870mE.

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Figure 5: Main Hill- Breccia Hill Deposits schematic cross section 6,110mE.



Figure 6: Main Hill- Breccia Hill Deposit schematic cross section 6,170mE.

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#### **Summary and Management Comment**

Kairos' Managing Director, Mr Joshua Wellisch, said the recent drilling targeting the Hinge Zone had clearly demonstrated the potential of the Mt York Project to host a substantial gold deposit.

"Our strong belief was that the existing shallow oxide resources at Main Hill and Breccia Hill – which were partially exploited back in the mid-1990s in a much lower gold price environment – only represented part of the story at Mt York.

"The deeper diamond holes have vindicated this belief, highlighting the presence of multiple stacked lodes of ore grade mineralization which remain open both up and down-dip," he said.

"The presence of multiple stacked lodes is always a major advantage for any gold project, as it significantly increases the potential ounces per vertical metre and therefore enhances the economics of both a future open pit and underground mining scenario.

"We are very encouraged and excited by these results, which opens up the potential for expansion in the existing resource base at Mt York. These results clearly justify follow-up shallow RC drilling to trace these lodes to surface – and additional diamond drilling to test the potential for a possible underground mining scenario."

"We are still awaiting assay results from Old Faithful and from some of the other regional prospects we have recently tested. We will then collate all the data from the 2016 exploration program and plan the next phase of exploration at Mt York."

In line with the positive results update at Mt York the Company advises that subsequent to the purchase of P45/2987, P45/2989, P45/2990, P45/2991, P45/2994 and P45/2996 (Tenements), the former owner of the Tenements entered into an agreement with a third party which purports to regulate the mining operations undertaken on the Tenements. The Company has only recently become aware and is considering the implications (if any) of this agreement for the Company's future plans.

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#### COMPETENT PERSON STATEMENT:

For further information, please contact:

Competent Person: The information in this report that relates to Exploration Results or Mineral Resources is based on information compiled and reviewed by Mr Steve Vallance, who is the Technical Manager for Kairos Minerals Ltd and who is a Member of The Australian Institute of Geoscientists. Mr Vallance has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' (the JORC Code 2012). Mr Vallance has consented to the inclusion in the report of the matters based on his



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.

Main Hill & Breccia Hill Exploration Drilling Results											
Collar Location and Orientation							Intersection >0.4 ppm Au				
	Sample Total Depth						From			Au	
Hole	Туре	Х	Y	RL	Dip	Azimuth	(m)	(m)	To (m)	Length	ppm
KMYD013A	Core	697524	7664446	175.81	-57	38.6	240.85	89.74	90.69	0.95	0.485
								91.47	91.63	0.16	1.073
								91.63	92.57	0.94	0.468
								92.57	93.31	0.74	2.085
								93.31	94.1	0.79	1.063
								94.1	94.29	0.19	1.81
								94.29	94.65	0.36	0.948
								94.65	94.82	0.17	0.865
								94.82	95.59	0.77	1.168
								95.59	96.7	1.11	4.538
								96.7	97.63	0.93	0.44
								97.63	98.03	0.4	1.459
								98.24	98.63	0.39	2.994
								111	112	1	0.643
								112.62	113.72	1.1	0.519
								115	115.86	0.86	0.652
								116.83	117.25	0.42	0.605
								125.68	125.9	0.22	5.979
								125.9	127	1.1	6.687
								127	127.48	0.48	2.435
								128	128.6	0.6	0.438
								128.6	129	0.4	1.531
								129	129.75	0.75	0.952
								129.75	130.42	0.67	1.999
								130.42	131.14	0.72	0.54
								131.14	132.36	1.22	2.69
								132.36	133	0.64	1.303
								133	134	1	2.798
								134	135.1	1.1	1.83
								135.1	136	0.9	1.056
								137.58	138.47	0.89	3.617
								138.47	138.59	0.12	2.085
								142.05	142.00	0.39	1.165
								142.95	143.08	0.13	0.585
								165 7	166 42	0.75	0.620
								166 / 2	167	0.75	0.029
								171 2	171 5	0.57	4 022
								171.5	172	0.2	0.663
								172.81	173 08	0.5	12.6
								175.26	176.28	1.02	0.905
								176.28	176.9	0.62	5,323
								176.9	177.14	0.24	1.067
								177.14	177.8	0.66	1.114
								177.8	178.52	0.72	3.514
								178.52	179.71	1.19	1.986
								182.19	182.46	0.27	1.262
								194.98	195.22	0.24	0.425
								195.9	196.2	0.3	0.704
								198.36	198.52	0.16	4.081
								214.52	214.76	0.24	0.565
											2.2.00



KMYD014	Core	697649	7664267	179.69	-62	45	322.7	198.88	199.2	0.32	0.41
								220.48	220.88	0.4	8.513
								220.88	221.88	1	0.945
								227.39	228	0.61	0.465
								233.71	233.91	0.2	0.597
								236 78	237.8	1.02	1 248
								237.8	238.1	0.3	1 705
								237.0	220.1	1 20	2.040
								230.1	259.59	1.29	2.049
								239.39	239.88	0.49	5.694
								239.88	240.4	0.52	3.287
								240.4	240.6	0.2	6.251
								240.6	241.29	0.69	1.654
								241.29	241.85	0.56	1.467
								241.85	242.29	0.44	1.931
								242.29	243.14	0.85	0.471
								243.98	244.82	0.84	0.648
								244.82	245.82	1	0.556
								252.34	253.16	0.82	0.65
								260.42	260.87	0.45	3.316
								260.87	261.53	0.66	0.964
								262.84	263.08	0.24	1.689
								277.08	277.7	0.62	5.284
								279.93	281	1.07	1.094
								282	283	1	0.618
								295.25	295.53	0.28	0.927
								304.9	305.17	0.27	1.335
8								305.17	305.48	0.31	0.449
	<u></u>	607704	7664207	470.00	64	42.2	100.0	102	104.12	1.10	0 775
KIVIYD015	Core	697784	7664287	178.32	-61	43.2	198.9	103	104.12	0.31	2.095
								120.29	120.52	0.23	2.334
								132	133.03	1.03	0.45
								138	138.86	0.86	1.018
								161.47	162.75	1.28	0.402
								162.75	163.3	0.55	0.699
								168	169	1	0.422

Table 2: Drill Assays



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

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
samping techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>PXRF Analysis on HQ/NQ2 core and RC chips using a handheld Olympus Innovex Delta Premium (DP4000C model) Portable XRF analyser. Measurements were taken on surface of the core and depth intervals recorded.</li> <li>HQ/NQ sized cores were sawn with manual brick saw and half split prior to sampling and submitted to the lab.</li> <li>Half core samples submitted for highest quality and best representation of the sampled material and sample intervals are checked by the supervising geologist and field technician throughout the sampling process.</li> <li>RC samples are split on a 1 metre sample interval at the rig cyclone.</li> <li>All sampling is based on either diamond drill core or RC chips. Sample selection is based on geological logging and sampled to geological contacts. Individual assay samples typically vary in length from a minimum of 0.2m and a maximum length of 1.2m for core samples and 1m individual or 2m composite samples for RC chips.</li> </ul>
Drilling techniques	<ul> <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> <li>All drilling carried out by DDH1 Drilling using a UDR top drive multi-purpose RC/diamond drill rig. Tri-cone rock roller bit was used to drill from surface till competent rock was encountered. The hole was then completed with a HQ3/HQ 3metre to NQ2 six metre barrel. Core is continually oriented using Reflex ACT II RD digital core orientation tool.</li> </ul>

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Criteria	JORC Code explanation	Commentary
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>	<ul> <li>Diamond core is logged in detail at site by supervising geologists and recorded in the Company's database. Overall recoveries are &gt;95% and there was no significant core loss or significant sample recovery problems. Diamond core was reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against depth given on core blocks during the drilling process by the Senior Driller.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Geologic logging is carried out on the core and recorded as qualitative description of colour, lithological type, grain size, structures, minerals, alteration and other features.</li> <li>All core is continually photographed using a hig resolution digital camera.</li> <li>Geotechnical logging comprises recovery and RQD measurements.</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>Cores were sawn and half split prior to sampling and submitted to the lab.</li> <li>Half core samples submitted for highest quality and best representation of the sampled material. Duplicates not required.</li> <li>Cut sheets prepared and checked by geologist and field technician to ensure correct sample representation.</li> <li>All samples were collected from the same side of the core to ensure consistent representative sampling.</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</li> </ul>	<ul> <li>Samples were submitted to Intertek Genalysis Laboratories Perth for sample preparation and multi-element analysis by sodium peroxide fusion followed by ICP-OES finish. Gold analyses were carried out via the FA 25/OE or MS technique</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<ul> <li>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>being Fire Assay with 25g lead collection fire assay in new pots, analysed by Inductively Coupled Plasma mass Spectometry.</li> <li>Standards, checks, blanks were introduced regularly throughout each sample batch.</li> <li>Field reading of multi-elements are estimated using Olympus Innovex Delta Premium (DP4000C model) handheld XRF analyser prior to laboratory analysis.</li> <li>Reading times employed was 15 sec/beam for a total of 30 sec using 2 beam Geochem Mode.</li> <li>Handheld XRF QAQC includes supplied standards and blanks</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Primary data was collected using Excel templates utilizing lookup codes on laptop computers by Senior Supervising Geologists.</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>Drill collars surveyed by GPS with an accuracy of +/- 5m.</li> <li>All Mt York hole collars are in MGA94 Zone 50 (GDA94).</li> <li>All Kairos holes are down hole surveyed with north seeking gyro</li> <li>Vertical control is defined by detail aerial survey +/- 25cm.</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>Minimal sample spacing for assay samples is 15cm and maximum sample spacing is 1.1m.</li> <li>Sample spacing width is dependent on geological or grade distribution boundaries.</li> <li>No sample compositing will be applied to diamond core.</li> <li>2-4m composites may be submitted as considered appropriate for initial phases of RC sampling.</li> </ul>
Orientation of data in relation	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Diamond drill holes oriented to both the west and east in order to effectively test variable dips.



Criteria	JORC Code explanation	Commentary
to geological structure	<ul> <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>	<ul> <li>Holes are designed to intersect the geological contacts as close to perpendicular as possible.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>All samples are collected in the field at the project site by Kairos personnel.</li> <li>All samples are delivered to the laboratory by reputable courier in secure numbered polyweave/calico bags.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• N/A