

#### **ASX ANNOUNCEMENT**

August 30, 2022

# Mt York Project, Pilbara Gold resource increases 26% to 1.1Moz

Substantial scope for further growth with mineralisation open in all directions and resource constrained only by drilling; 20,000m drilling program set for Dec quarter

# **Highlights**

- Mt York emerges as a top-shelf WA gold project with genuine scale and ongoing growth potential
- The 26% increase in the resource stems from recent highly successful drilling campaign; ~15,000m of drilling completed in 2021
- 1,104,000 ozs Au resource increases to 1,329,000 ozs Au at 0.5 g/t Au lower cutoff
- Resource growth also reflects extension of assumed pit depth to take into account significant mineralisation excluded from previous inventory
- 20,000m drilling contract signed with Orlando Drilling; Drilling set to start within days targeting further significant resource growth
- Drilling will take place in parallel with geotechnical assessment and metallurgical test work

Kairos Managing Director, Dr Peter Turner said: "This substantial resource increase is a game-changer for Kairos on several levels.

"Mt York now has genuine scale at 1.1Moz in a tier-one location. And the results demonstrate the huge potential for further increases, with the mineralisation open in all directions and constrained only by drilling.

"Our resource optimisation work on the Main Trend outlines a single 3km-long pit constrained only by drilling at depth.

"A major 20,000m drilling program has started with the aim of continuing to grow the inventory along strike and at depth and between the current optimal pit shells.

"We will also undertake important geotechnical and metallurgical work in preparation for a pre-feasibility study".



# **Mt York Resource Estimate Update**

The current resource estimate was completed by Christopher Speedy of Encompass Mining Consultants using wireframes built by Kairos's technical team and based on a 0.3 g/t Au envelope of mineralisation. The resource includes an additional 14,988m of drilling at all prospects in late 2021 by the company. The resource includes the continuous and contiguous deposits of Main Hill, The Gap, Breccia Hill and Gossan Hill that form an arcuate form with mineralisation dipping moderately to steeply to the south to south-west, herein referred to as **The Main Trend** (see **Figure 1**).

Project	Resource Category	Tonnes (Mt)	Grade Au g/t	Ounces (Kozs)
	Indicated	2.55	1.15	97
Main Hill	Inferred	7.93	1.1	280
	Indicated + Inferred	10.48	1.12	377
	Indicated	1.81	1.22	71
The Gap	Inferred	1.15	0.94	35
	Indicated + Inferred	2.96	1.11	106
	Indicated	4.83	1.31	203
Breccia Hill	Inferred	2.78	1.34	120
	Indicated + Inferred	7.61	1.32	323
	Indicated	1.82	1.27	74
Gossan Hill	Inferred	0.4	1.34	17
	Indicated + Inferred	2.22	1.28	92
	Indicated	1.18	1.81	69
Iron Stirrup	Inferred	0.63	1.66	34
	Indicated + Inferred	1.81	1.76	102
	Indicated	1.73	1.19	66
Old Faithful	Inferred	1.19	0.96	38
	Indicated + Inferred	2.93	1.1	103
	Indicated	13.93	1.3	581
Totals	Inferred	14.08	1.15	523
	Indicated + Inferred	28.01	1.23	1,104

**Table 1.** Mineral Resource Estimate for the Mt York Gold Project using a 0.7 g/t lower cutoff. The deposits of Main Hill, The Gap, Breccia Hill and Gossan Hill are contiguous orebodies with Iron Stirrup and Old Faithful being satellite deposits 4.5km and 6.5km to the north respectively (see **Figure 1**).



	Mt York Global									
	Grade		Indicate	d		Inferred			Total	
	<b>Cut Off</b>	Tonnes	A / .	Ounces	Tonnes	A / .	Ounces	Tonnes	A / .	Ounces
	(>)	(Mt)	Au g/t	(Kozs)	(Mt)	Au g/t	(Kozs)	(Mt)	Au g/t	(Kozs)
	0.1	23.52	0.97	733	27.10	0.84	729	50.62	0.90	1,462
	0.2	23.39	0.97	732	26.87	0.84	728	50.27	0.90	1,460
	0.3	22.94	0.99	728	26.16	0.86	722	49.10	0.92	1,450
	0.4	21.14	1.04	709	23.90	0.91	697	45.04	0.97	1,405
	0.5	18.96	1.11	677	20.87	0.97	653	39.82	1.04	1,330
	0.6	16.22	1.21	629	17.57	1.05	595	33.79	1.13	1,224
1	0.7	13.93	1.30	581	14.08	1.15	523	28.01	1.23	1,104
1	0.8	11.99	1.39	535	11.23	1.26	455	23.22	1.33	990
1	0.9	10.10	1.49	484	8.77	1.38	388	18.87	1.44	872
1	1.0	8.31	1.61	430	6.47	1.53	318	14.78	1.57	748
	)) 1.1	6.83	1.73	380	5.18	1.65	275	12.01	1.70	655
	1.2	5.75	1.84	340	4.16	1.78	238	9.91	1.81	578
	1.3	4.96	1.93	308	3.33	1.91	205	8.29	1.92	513
7	1.4	4.10	2.06	272	2.83	2.01	183	6.94	2.04	455
J,	1.5	3.56	2.15	246	2.41	2.11	164	5.97	2.14	410
-	1.6	3.01	2.26	219	1.99	2.23	143	5.00	2.25	362
	1.7	2.65	2.34	200	1.75	2.31	130	4.40	2.33	330
	1.8	2.27	2.44	178	1.45	2.43	114	3.72	2.44	292
=	1.9	1.86	2.58	154	1.17	2.58	97	3.03	2.58	251
$\int_{\mathbb{L}}$	2.0	1.66	2.65	142	1.00	2.68	86	2.66	2.66	228
	2.1	1.42	2.76	126	0.80	2.83	73	2.22	2.79	199
	2.2	1.17	2.89	109	0.71	2.92	67	1.88	2.90	176
	)) 2.3	1.02	2.99	98	0.67	2.97	64	1.68	2.98	161
	2.4	0.85	3.12	85	0.59	3.06	58	1.44	3.09	143
	2.5	0.75	3.20	78	0.55	3.10	55	1.31	3.16	133
	2.6	0.66	3.29	70	0.52	3.14	52	1.18	3.22	122
	2.7	0.60	3.36	65	0.48	3.17	49	1.08	3.28	114
=	2.8	0.48	3.51	54	0.33	3.35	36	0.81	3.45	90
	2.9	0.44	3.57	51	0.26	3.48	29	0.71	3.54	80
	3.0	0.39	3.66	45	0.22	3.57	26	0.61	3.63	71

**Table 2**. Grade-tonnage table using different lower grade resource cutoffs for all gold deposits at Mt York. The reported resource estimations for 0.5 and 0.7 g/t Au lower cutoffs are discussed in the release.

The resource estimation method applied was ordinary kriging that is considered a robust method for grade interpolation where geological and mineralisation control is well constrained. The resource estimate by resource category is shown in **Table 1** above and constrained by a 0.7 g/t Au cutoff grade.



For a 0.5 g/t lower cutoff grade, the resource estimate increases **52%** to **1.33 Mozs** (**39.82 MT @ 1.04 g/t Au for 1.329,000 ounces**). Detailed resource investigations looking at the lower cutoff grades will be investigated during the pre-feasibility study when all mining & processing costs are reviewed.

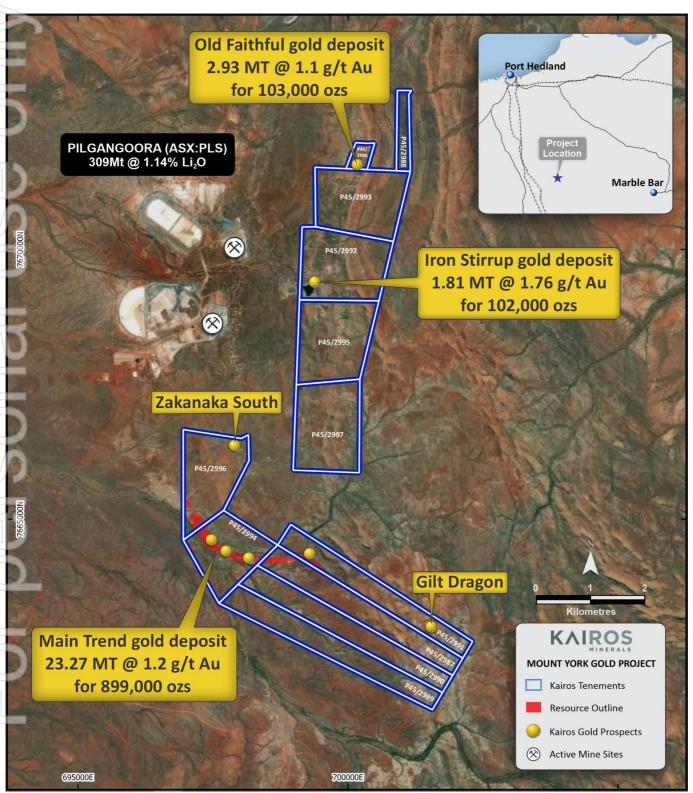
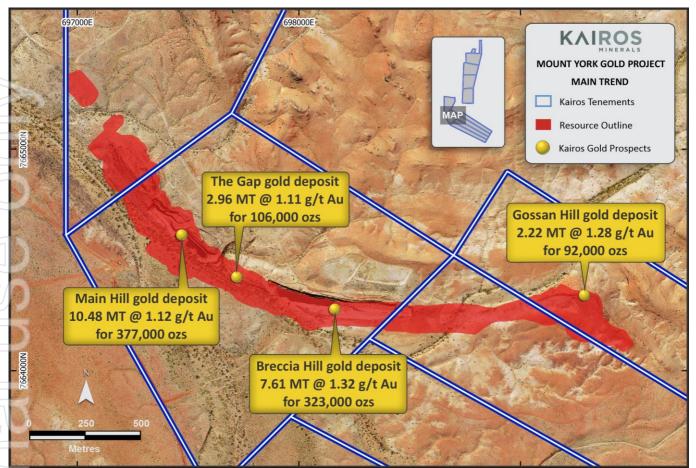


Figure 1. Location of Main Trend, Iron Stirrup and Old Faithful gold deposits





**Figure 2.** Extent of the Main Trend (Main Hill-The Gap-Breccia Hill-Gossan Hill) mineralisation (red polygon) extending for a continuous 2,800m.

The resource wireframes were extended to a consistent -135mRL (average surface level is +175mRL) from Main Hill, The Gap and Breccia Hill. This equates to a vertical wireframe depth of **310m below surface**. However, the resource (indicated + inferred, blue and green areas on **Figure 5**) extends to only a maximum depth 200-225m below the average surface level and importantly, the drilling only extends to an average depth of about **150m** below the surface along the entire resource area. The pit shell developed on a \$2,500 gold price bottoms-out on the drilling (and the indicated resource category – blue on **Figure 5**) meaning that there is scope to significantly increase the resource downdip if the mineralisation is intercepted below the current pit shell. This extensional drilling below the current pit shell is a clear and obvious target and is the subject of the new 20,000m of drilling along the entire 2,800m strike length of the Main Trend resource (**Figures 4, 8 & 9**). The Kairos Technical Team firmly believe that extending the resource significantly below the current level is extremely realistic and achievable.

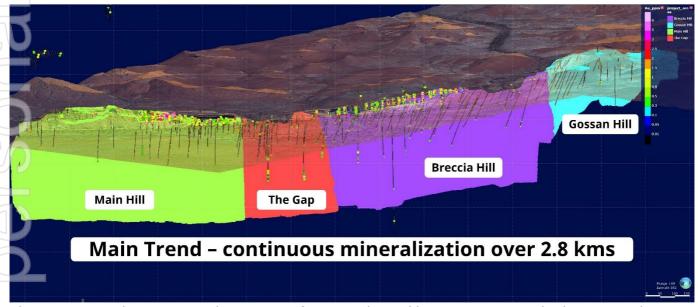
At Gossan Hill (and the eastern end of Breccia Hill), the maximum wireframe depths range from - 40mRL in the west to +125mRL in the east with an average surface RL of approximately +190mRL giving a vertical wireframe depth range of 230m and 65m respectively (blue and green areas, **Figure 5**). Drilling is limited to a maximum vertical depth of approximately **100m** below surface (**Figures 3**, **4**, **5 & 6**) and many holes are planned beneath the optimal pit shell base in this area (**Figures 8 & 9**).



It is also worth noting that the Main Trend mineralised wireframe is a continuous wireframe of some 2,800m long without breaks. This is a reflection of the continuous nature of the mineralisation in reality.

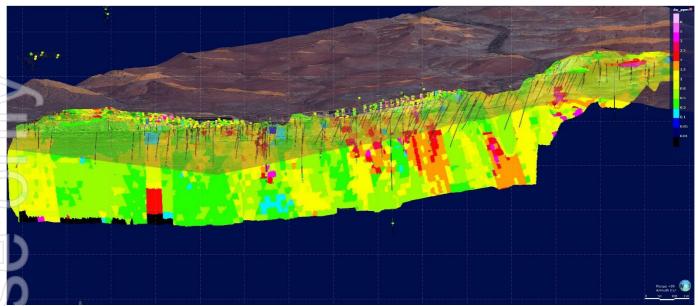
There is an obvious lack of drilling below **150m** along the whole Main Trend. Much of the resource below **150m** at Main Hill, The Gap and Breccia Hill is either inferred or unclassified. Unclassified resources are <u>not</u> included in the mineral resource estimate (red category in **Figure 5**) but qualify as obvious targets to increase the resource inventory along the base of the entire Main Trend.

The mineral resource estimate is not constrained at depth. The pit optimisation work by Intermine Engineering Consultants (see section called 'Pit Optimisations') has resulted in a series of pit shells that, on inspection, show that the current base of pit shells do not extend deeper than the drilling in most cases along the entire Main Trend (and at Iron Stirrup and Old Faithful) (See **Figure 7**). This indicates that further drilling below the optimal pit shell is required. At this stage there is not enough deeper drilling into the estimated and reported resource in indicated and inferred categories to determine the lower limit of likely economic extraction by open pit methods. The recommendation by both Encompass and Intermine is that further, deeper drilling is required to find the natural depth limit of mineralisation that can likely be economically extracted.

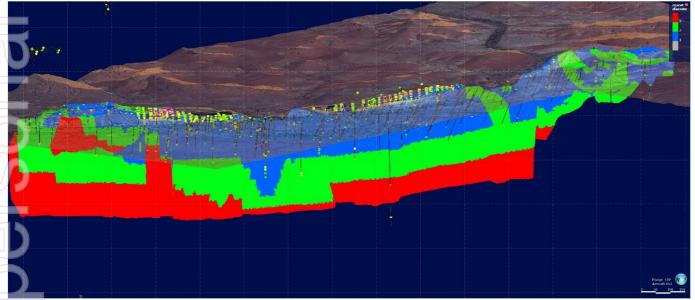


**Figure 3**. Mt York new mineralisation wireframes coloured by prospect. View looking NE with topography translucent. All drilling coloured by Au assay grade shown.



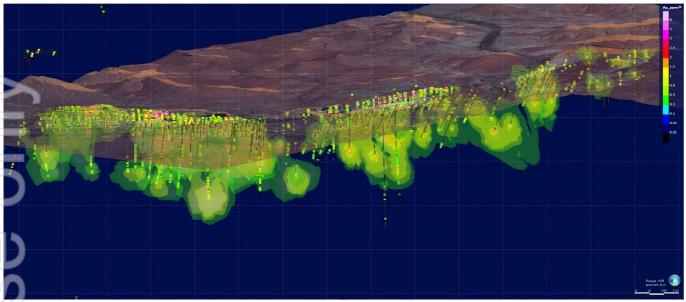


**Figure 4.** Mt York mineral resource estimate coloured by grade (key on righthandside). Highergrade zones shown by warmer colours. Legend shown top right.

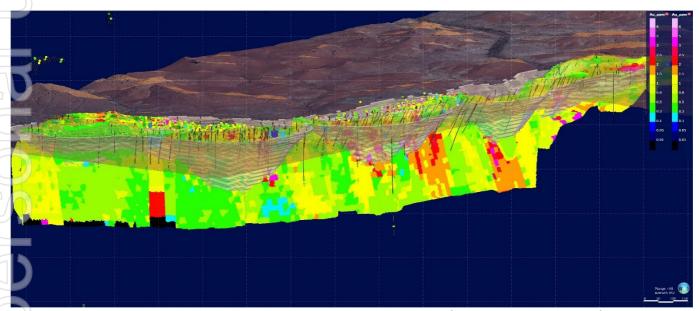


**Figure 5.** Mt York mineral resource estimate coloured on resource category. Indicated is blue, Inferred is green and Unclassified is red. *Note that Unclassified resources are not reported in the mineral resource estimate.* 





**Figure 6**. Mt York Leapfrog™ generated grade shells with drilling shown.



**Figure 7**. Mt York mineral resource estimate coloured by grade (key on righthandside) showing the optimal pit developed on A\$2,500 gold price, 55 degree pit wall angles, 3 MTPA process rate. Note that the pit shell does not generally extend below the current drilling indicating that more drilling is required to understand the expected depth of likely economic extraction for open pit mining.

# Resource Estimate 2020 v 2022

The current resource estimate was based on mineralised envelopes developed on a 0.3 g/t Au lower cutoff whereas the previous estimate was based on wireframes developed on a guideline cutoff grade of 0.5 g/t Au (see KAI Press Announcement dated 4 March 2020).

Indicated and inferred resource estimate of **20.9 MT @ 1.30 g/t Au for 873,500 ozs** has been superceded by a resource of **28.01 MT @ 1.23 g/t Au for 1,104,000 ozs**. The 2020 resource model had a 0.5 g/t lower cutoff grade applied whereas the current model has a 0.7 g/t Au lower cutoff applied (see **Table 2**).



A resource of **39.82 MT @ 1.04 g/t Au for 1,329,000 ounces** is estimated using a 0.5 g/t Au lower cutoff on the current resource model, giving a **52%** increase in contained ounces (see **Table 2**).

The March 2020 resource was constrained by RL (see KAI Press Announcement dated 4 March 2020 for more detail), the rationale behind this being that the author considered it necessary to impose a restricton due to the likelihood and 'realistic chance of [the resource] being extracted by open pit' methods. The current resource estimation has not been constrained by RL as the deposit has yet to be sufficiently drilled at depth and between pit shell boundaries to be able to satisfactorily determine the depth economic threshold. This, combined with the fact that cutoff grades used to quantify economically viable mineralisation are influenced by many factors including gold price and throughput rates for the project which have yet to be determined and analysed in detail. To date, it is the opinion of the Kairos Team, Encompass Mining Consultants and Intermine Engineering Consultants that further drilling below the current pit shells is necessary before any sensible constraints can or should be applied to the Mt York resource estimate.

Increases in the current resources are experienced across each of the prospects but particularly at the Main Trend. The contained ounces across all deposits have increased from **873,500** ounces to **1,104,000** ounces, representing a **26%** increase. The Main Trend contained ounces has increased from **698,000** ounces to **899,000** ounces, an increase of **201,000 ounces** or **29%**. Tonnage increases of **34%** and **35%** for global and Main Trend deposits are seen in the current resource.

Increases in resources were attributed to the wide, higher-grade intercepts at The Gap prospect with new results of **49m @ 1.75 g/t Au from 135m** (KMYC196) and **24m @ 3.14 g/t Au** from 100m (KMYC198) (see KAI Press Announcement dated 25 May 2022) extending the previous resource model in that area. All of the higher-grade mineralised trends are open at depth and are being targeted in the next round of drilling.

### Pit Optimisation

Intermine Engineering Consultants completed pit optimisation work on the updated mineral resource models for the Main Trend (Main Hill-The Gap-Breccia Hill-Gossan Hill), Iron Stirrup and Old Faithful deposits. Pit optimisations are often used to define the most profitable pit shell for a given set of economic parameters like gold price, mining and administration costs, processing costs, pit wall angles, ore recoveries, ore production through-put rates etc. In the case of Mt York, Kairos has used optimal pit shells with realistic costs and inputs in the past to:

- 1) Determine possible economic zones of mineralisation;
- 2) Determine approximate grades and tonnages of in-pit resources;
- 3) Determine whether drilling campaigns have been successful in capturing new mineralised zones in-pit;
- 4) Guide the next drilling campaign.

Intermine completed a series of pit optimisations using up-to-date mining and administration costs and inputs for a gold mine based in the Pilbara. All pit shells developed have been examined in 3D software against all drilling across all mineralised zones and enabled the Kairos team to plan the next round of significant drilling, placing the emphasis on core drilling, to gain maximum geological



and metallurgical information. Although some of the planned drill holes may change slightly due to accessibility, the 20,000m drill programme is <u>targeting a significant increase in resources below and between all pits</u> and to increase the confidence of inferred resources to the indicated category in preparation for the next round of resource estimation and pre-feasibility study.

## **Drill Campaign**

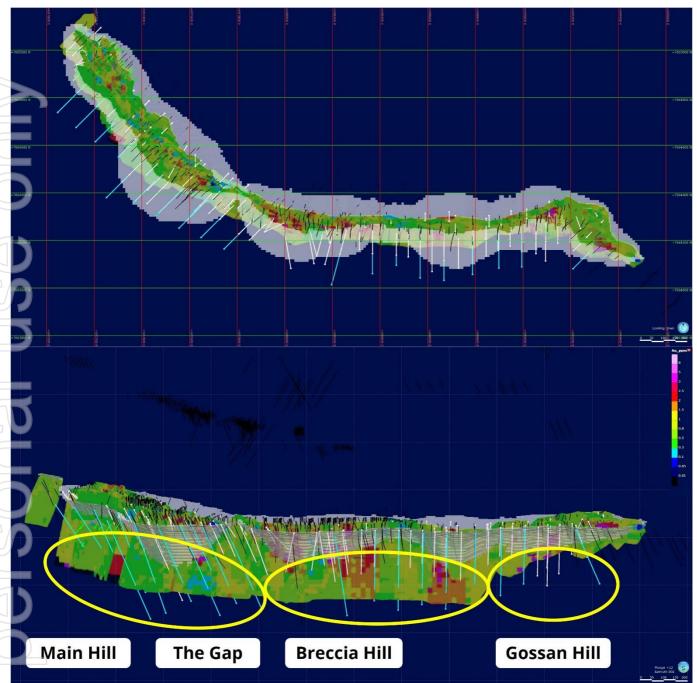
A contract to drill 20,000m (nominally 7,000m of RC and 13,000m of NQ/HQ core) has been signed with Orlando Drilling. Drilling is set to commence in the first week of September or earlier and is targeting a significant increase in the global resource including all higher-grade plunging shoots that remain open at depth (see **Figure 8**) and increasing confidence in all categories of resource (conversion of inferred to indicated and unclassified to inferred resource categories) (**Figure 9**) in preparation for a pre-feasibility study. It has been designed to acquire all geotechnical information required by the geotechnical engineers for open pit design and for all metallurgical samples for ore process studies and design.

The drilling will be undertaken by two diamond drill rigs working double-shift and a single RC rig working on day shift only.

The programme is expected to be completed by early December with assay results announced to the market continuously throughout the programme.

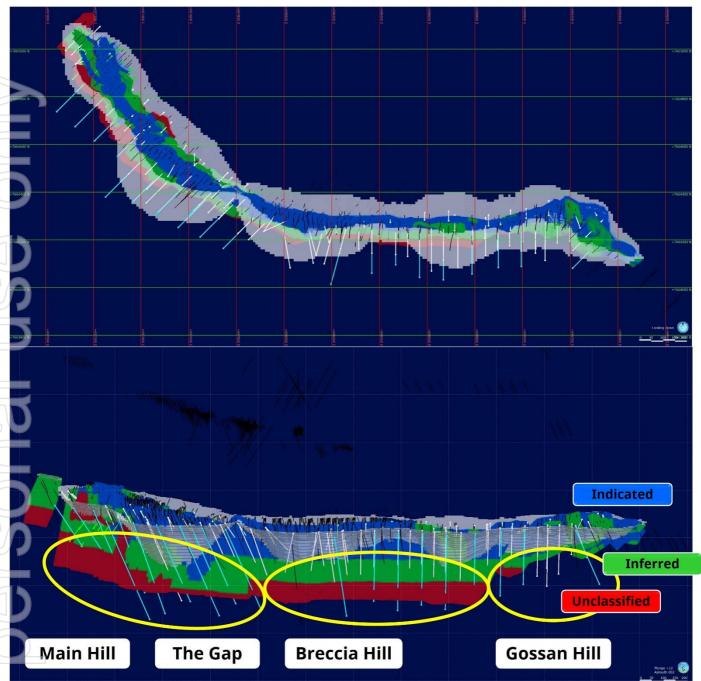
Planned drill holes are shown in **Figures 8 and 9**. Drilling the Main Trend only will be undertaken as it represents the largest single deposit and is considered to yield the highest and most significant resource increases.





**Figure 8**. Plan view (top) and oblique longsection (bottom) of the Main Trend of the Mt York Gold Project with planned RC and DDH holes shown in white, light blue and green. The coloured dataset is the ordinary kriged resource model coloured on gold grade (see key top right). The optimal pit shells shown are based on a gold price of \$2,500/oz and a mill throughput rate of 3 MTPA. The planned drilling targets high-grade shoots below the current pit shell bases along the entire 2,800m mineralised trend and to convert the resources to a higher level of confidence (inferred to indicated, unclassified to inferred, see **Figure 9**).





**Figure 9**. Plan view (top) and oblique longsection (bottom) of the Main Trend of the Mt York Gold Project with planned RC and DDH holes shown in white, light blue and green. The coloured dataset is the ordinary kriged resource model coloured on resource category (blue is indicated, green is inferred, red is unclassified). The optimal pit shells shown are based on a gold price of \$2,500/oz and a mill throughput rate of 3 MTPA. The planned drilling targets high-grade shoots below the current pit shell bases along the entire 2,800m mineralised trend (see **Figure 8**) and to convert the resources to a higher level of confidence (inferred to indicated, unclassified to inferred).



# **Camp Construction**

The Board of Kairos has committed to build an exploration camp and covered core yard at Mt York. Clearing for the core yard and accommodation has been completed and camp buildings including two 40 ft modified containers have been moved to Port Hedland in preparation for their installment.

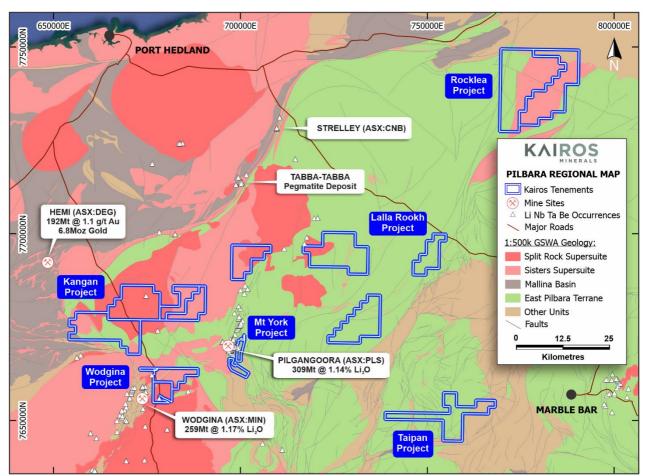


**Figure 10**. Exploration camp construction underway with levelling and compaction of 70m x 70m area in preparation for dome-sheltered core yard, accommodation, ablution block, workshop and offices. The prominent hill in the background is the part of the Main Hill prospect. View looking south.

# **Next Steps**

- Incorporation of structural mapping across the surface of the Main Trend mineralisation into the 3D model to determine optimal targets for drilling
- Camp establishment at Mt York ahead of major drilling campaign for both gold and lithium
- Drill pad preparation for the Lucky Sump spodumene pegmatite drilling expected in mid-September
- Core saw container transport to site
- Metallurgical sample protocol and laboratory selection





**Figure 11.** Kairos' Gold & Lithium Projects over the central Pilbara regional geology showing the position of the Mt York Project and nearby Pilgangoora & Wodgina Lithium-Tantalum mines. Note that Kairos' Croydon and Skywell Projects are to the west of this map.



## **About Kairos Minerals**

Kairos Minerals (ASX: KAI) is a diversified West Australian-based exploration company focused on the exploration and development of its 100%-owned, high-quality gold and lithium projects centred around the advanced Mt York Gold Project.

Kairos owns 100% of the flagship Mt York Gold Project that was partially mined by Lynas Gold NL between 1994 and 1998. Since acquiring the project in early 2016, Kairos has rapidly established a **1.1 Moz** JORC 2012 compliant gold mineral resource at a 0.7 g/t Au lower cutoff grade with the resource categories shown for each deposit shown in the Table below.

Project	Resource Category	Tonnes (Mt)	Grade Au g/t	Ounces (Kozs)
Mt York Main Trend	Indicated + Inferred	23.27	1.2	899
Iron Stirrup	Indicated + Inferred	1.81	1.76	102
Old Faithful	Indicated + Inferred	2.93	1.1	103
Totals	Indicated + Inferred	28.01	1.23	1,104

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 exploration work has confirmed the potential for significant discoveries of high-grade gold, nickel and cobalt mineralization in an exciting and emerging lithium province.

This announcement has been authorised for release by the Board.

Peter Turner Zane Lewis
Managing Director Non Executive Director

# **For Investor Information please contact:**

Paul Armstrong Read Corporate 0421 619 084

#### **COMPETENT PERSON STATEMENT:**

Competent Person: The information in this report that relates to Mineral Resources is based on information compiled and reviewed by Christopher Speedy a fulltime employee of Encompass Mining Consultants who is also a Member of the Australian Institute of Geoscientists (AIG). Mr Speedy 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). The Resource Estimation has been prepared independently in accordance with the JORC Code. Mr Speedy has no vested interest in Kairos Minerals or its related parties, or to any mineral properties included in this report. Fees for the report are being levied at market rates and are in no way contingent upon the results. Mr Speedy has consented to the inclusion in the report of the matters based on their information in the form and context in which it appears.



# Appendix A - JORC Code, 2012 Edition – Table 1

Sect	ion 1 Sampling Techniques and	Data
Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</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>All drilling results presented by Kairos Minerals Limited (the "Company") for the Mt York Gold deposits are summarised from historical work completed by Carpentaria Exploration Company Pty Ltd and Lynas Gold NL during exploration and mining activities for the period 1985 to 1996.</li> <li>No comments can be made about the drilling recoveries prior to the Kairos drilling.</li> <li>The results were achieved via a combination of RAB, RC, and diamond drilling. Holes were generally angled towards grid east to provide optimum intersections through the targeted primary sequence.</li> <li>Samples were submitted to a contract laboratory for crushing, pulverizing to produce a 50g charge for fire assay.</li> <li>All sampling relevant to the work completed by Kairos and referred to in this release is based on either RC or diamond drilling.</li> <li>PXRF Analysis of RC chips for lithogeochemical purposes was carried out routinely using a handheld Olympus Innovex Delta Premium (DP4000C model) Portable XRF analyser.</li> <li>Samples were split on a 1 metre sample interval at the rig cyclone.</li> <li>Samples selection is based on geological logging and sampled to geological contacts. Individual assay samples typically vary in length from 1m individual to 4m composites.</li> <li>Sample recoveries are monitored to ensure RC samples weighed 2.5kg- 3.5kg, and field procedures are in place to ensure no contamination/loss/alteration of the sample occurs to minimise any sampling collection errors</li> <li>All samples were submitted for Four Acid Multi-Element Analysis (4A/OE33) and Fire Assay for Gold (FA/ICP-OES)</li> <li>No twinned holes exist currently in Main Trend or Iron Stirrup deposits, an assessment of representivity is unable to be made.</li> <li>All samples were dried, crushed and pulverised to get at least 85% passing 75µm</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,</li> </ul>	<ul> <li>All RC drilling completed by Kairos in 2017 – 2018 was carried out by Strike Drilling Pty Ltd using an X350 track mounted drill rig with track mounted Morooka support vehicle and booster compressor. 3.5" diameter drill rods, 106mm diameter blade bit, 104mm diameter face sampling hammer. DDH1 completed the</li> </ul>

etc).

diamond holes in 2016. Mt Magnet Drilling (MMD) completed the RC holes in 2020,



		MINERALS
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>Orlando Drilling completed the exploration program in 2021, using a track mounted rig.</li> <li>For deeper holes, RC holes were followed with diamond tails. Diamond drilling was mostly carried out with NQ2 sized equipment, using standard tube.</li> <li>All holes were surveyed by the Drilling Supervisor/Senior Driller at regular intervals downhole as the drilling progressed using a north seeking gyroscopic survey instrument.</li> <li>Recoveries from historical sampling techniques are unknown.</li> <li>Drilling and exploration standard operating procedures (SOPS) utilised by the drilling contractor, contracted to Kairos ensured all material ended in the correct bag. Use of drilling fluids was needed at times, with slow penetration rates experienced in deeper holes along with an increase of water ingress. Further booster air compression was brought onto site to remove the water to ensure dry samples.</li> <li>The drilling contractor had specific SOPS with regard to difficult drilling conditions to maximise recovery. If there was an issue in recovery, it was noted, and further analysis was undertaken after receipt of the sample and assay result to check for any bias. Sample recoveries for the RC holes are high, especially within the mineralised zones. No significant bias is seen.</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>Detailed geological logging of the entirety of each hole by Kairos geologists is carried out on the RC chips and diamond core and recorded as qualitative description of colour, lithological type, grain size, structures, minerals, alteration, and various other features.</li> <li>Representative material is sieved and collected as 1m individual samples in number coded plastic chip trays and stored at the Company's site storage facility or in Perth.</li> <li>Photography of chips is not routinely done.</li> <li>Detailed petrological studies are planned for selected samples to assist ongoing evaluation.</li> <li>The detail and quality of the logging, once all the data was converted into a similar logging format (data ranges from 1990 – 2021) has enabled the competent person to be able to define appropriate domains, based on geology, appropriate for Mineral Resource Estimation</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 proparation technique.</li> </ul>	<ul> <li>The majority of AC/RC samples were dry. Minor water ingress occurred during rod/bit changes however samples were generally dry once active drilling recommenced.</li> <li>Samples were collected as 1m intervals via onboard cone splitters then laid out on the ground in the case of AC or for RC work collected in large, numbered plastic bags.</li> </ul>

preparation technique.

Quality control procedures adopted for

large, numbered plastic bags

Sample quality was ensured by monitoring



		MINERALS
Criteria	JORC Code explanation	Commentary
	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.	<ul> <li>sample volume and by regularly cleaning the rig cyclone &amp; sample splitters.</li> <li>Sampling sheets were prepared and checked by Kairos' site geologists and field technicians to ensure correct sample representation.</li> <li>QAQC samples were included at the rates of 1:25 as field duplicate and 1:50, certified reference material (standard). These samples are analysed with the original sample and provide assessment of the representivity of the sample. From the analysed duplicate data values above 1.0 ppm showed a relatively poor repeatability. Due to the coarse nature of the deposit exhibiting a nugget effect, it is no surprise to see moderate repeatability.</li> <li>Sample sizes (1.5kg to 3kg) at Main Trend and Iron Stirrup are considered to be a sufficient size to accurately represent the gold mineralisation based on the mineralisation style, the width and continuity of the intersections, the sampling methodology, the coarse gold variability and the assay ranges for the gold. Field duplicates have routinely been collected to ensure monitoring of the sub- sampling quality.</li> <li>Laboratory duplicates (sample preparation split) were also completed roughly every 15th sample to assess the analytical precision of the laboratory. Acceptable level of repeatability and precision was noted for the historical assaying and Kairos testing</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>For the Carpentaria Gold &amp; Lynas Gold NL drilling, the analytical technique used was a 50g fire assay. Samples were analysed by the Australian Assay Laboratories Group in Perth, Western Australia.</li> <li>Kairos samples were submitted to Intertek Genalysis in Perth for Four Acid Multi-Element Analysis ICP- OES finish (4A/OE33). Gold analyses were carried out via the FA 25/OE or MS technique being Fire Assay with 25g lead collection fire assay in new pots, analysed by Inductively Coupled Plasma Mass Spectrometry.</li> <li>Fire Assay is industry standard for gold and considered appropriate.</li> <li>Certified Reference Material (CRM or standards) and blanks were inserted every 50th sample to assess the assaying accuracy of the external laboratories. Field duplicates were inserted every 25th sample to assess the repeatability from the field and variability of the gold mineralisation. Laboratory duplicates were also completed approximately every 15th sample to assess the precision of assaying. Evaluation of both the resource definition drilling submitted standards, and the internal laboratory quality control data, indicates assaying to be accurate and without significant drift</li> </ul>



		MINERALS
Criteria	JORC Code explanation	Commentary
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> </ul>	<ul> <li>Results of the QAQC sampling were considered acceptable for an Archaean gold deposit. Substantial focus has been given to ensuring sampling procedures met industry best practise to ensure acceptable levels of accuracy and precision were achieved in a coarse gold environment.</li> <li>No laboratory audits were undertaken</li> <li>Primary data was collected using Excel templates utilizing lookup codes on laptop computers by Senior Supervising Geologists.</li> <li>No twin holes were drilled.</li> </ul>
	<ul> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic)</li> </ul>	<ul> <li>All data is received and stored securely in digital format in the Company's database.</li> <li>Final data is rigorously interpreted by Kairos'</li> </ul>
	<ul><li>protocols.</li><li>Discuss any adjustment to assay data.</li></ul>	<ul> <li>geoscientific personnel.</li> <li>Significant intersections are calculated by Kairos supervising geoscientists &amp; verified by senior management</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>The majority of the holes drilled by Lynas Gold NL in 1987 and 1988 were surveyed by Zuideveld &amp; Bennett (ZB) using a control point with an assumed RL of 500m. Holes from 1993 onwards were surveyed by Lynas Gold NL mine site staff surveyors. Lynas resurveyed all holes drilled by Carpentaria Gold. All drill hole coordinates were provided in local grid as well as in AMG. A simple translation has converted the drill hole coordinates to MGA Zone 50.</li> <li>In July 2018 Direct System (DS) Australia were contracted to pick-up all, and downhole survey, select holes drilled by Kairos Minerals. The surface pick-ups were done with CS16 Leica DGPS.</li> <li>Kairos drillholes from the 2019 – 2021 drilling campaigns were surveyed by GPS and then the AUSPOS GPS data processing facility provided by Geoscience Australia was used. All coordinates are computed in ITRF2014.</li> <li>All Mount York hole collars are in MGA94 Zone 50 (GDA94) before translation into local grids.</li> <li>All Kairos AC/RC/DD holes were surveyed down hole with north seeking gyroscopic survey instruments by the Supervising/Senior driller.</li> <li>Mine working cross checks support the locations of historic drilling.</li> <li>Topographic surface has been prepared from satellite and mine surveys. The existing pit floors have been provided by Kairos.</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> </ul>	<ul> <li>Main Trend - Nominal hole spacing of the Carpentaria Gold and Lynas Gold NL drilling is approximately 20 metres along strike and 5m across strike.</li> <li>The mineralised domains have sufficient grade continuity in both geology and grade to be considered appropriate for the Mineral Resource and Ore Reserve estimation procedures and</li> </ul>



Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul> <li>Whether sample compositing has been applied.</li> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>classification applied under the 2012 JORC Code.</li> <li>The majority of RC/DD holes were drilled at -60 deg to provide true width intersections of the targeted horizon at Main Trend.</li> <li>The targeted gold bearing structures are interpreted to be moderately to steeply dipping to the west.</li> <li>No sampling bias is known to exist, though it is not precluded</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Unknown for historical samples.</li> <li>For drilling completed by Kairos 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 polyweave sacks by Kairos' geological and field personnel.</li> <li>All samples were delivered directly to Toll Ipec Port Hedland by Kairos personnel prior to being transported to Intertek Genalysis laboratories in Perth WA for final analysis.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	•No review or audits have been conducted

# **Section 2 Reporting of Exploration Results**

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.	<ul> <li>The majority of RC/DD holes were drilled at -60 deg to provide true width intersections of the targeted horizon at Main Trend.</li> <li>The targeted gold bearing structures are interpreted to be moderately to steeply dipping to the west.</li> <li>No sampling bias is known to exist, though it is not precluded</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Unknown for historical samples.</li> <li>For drilling completed by Kairos 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 polyweave sacks by Kairos' geological and field personnel.</li> <li>All samples were delivered directly to Toll Ipect Port Hedland by Kairos personnel prior to being transported to Intertek Genalysis laboratories in Perth WA for final analysis.</li> </ul>
Audits or reviews	sampling techniques and data.	•No review or audits have been conducted
Section Criteria	on 2 Reporting of Exploration Re  JORC Code explanation	esults  Commentary
Mineral		10000 611
wiinerai	<ul> <li>Type, reference name/number, location</li> </ul>	<ul> <li>Kairos Limited owns 100% of the tenements.</li> </ul>
tenement and land tenure status	<ul> <li>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>that define the Pilbara Gold Project.</li> <li>The project consists of 12 PL's</li> <li>P45/2987 – 2998 inclusive</li> <li>The Project is Located on Wallareenya &amp; Strelley Pastoral Co Pastoral leases.</li> <li>Kairos is not aware of any existing impediments nor of any potential impediments which may impact ongoing</li> </ul>
land tenure	<ul> <li>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</li> </ul>	<ul> <li>that define the Pilbara Gold Project.</li> <li>The project consists of 12 PL's</li> <li>P45/2987 – 2998 inclusive</li> <li>The Project is Located on Wallareenya &amp; Strelley Pastoral Co Pastoral leases.</li> <li>Kairos is not aware of any existing impediments nor of any potential impediments which may impact ongoing exploration and development activities at the</li> </ul>



Criteria	JORC Code explanation	Commentary
		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, MIM and Trafford Resources.  The Old Faithful area was initially drilled by AMAX with one hole to test geochemical high and small workings. Lynas followed up with several programs of RAB, RC and diamond drilling from 1987 through to 1996.  Significant historical Au exploration including, surface geochemical sampling, airborne and ground electromagnetic geophysical surveys, RAB, AC, RC, and DD drilling. This is acknowledged in past ASX announcements and Company reports.
Geology	Deposit type, geological setting and style of mineralisation.	Regional Geology  The Pilbara Gold Project lies within the Pilgangoora Greenstone Belt of the Archaean Pilbara Craton. The Pilbara Craton is composed of greenstone and sediment units which have been deformed by tight isoclinal folds during the intrusion of diapiric granites.  The Pilgangoora Greenstone Belt is dominated by the Pilgangoora Syncline, which contains a sequence of steep dipping, inward younging volcano-sedimentary rocks belonging to the two lower groups of the Pilbara Supergroup, the Warrawoona, and Gorge Creek Groups.  Local geology  The Iron Stirrup ultramafic is the main host rock for gold mineralisation at the Mount York prospects. The unit is dominantly talccarbonate schist with some talc-carbonate-chlorite and talc-chlorite assemblages.  The Main Trend deposit tenements lie on the eastern limb of the Pilgangoora Syncline. The area contains the older Warrawoona Group of basalts, felsic volcanic, sediments and cherts and the younger Gorge Creek Group of medium to coarse-grained clastic sediments and schists. Gold mineralisation in the area is contained within an Archaean banded iron formation (BIF). between 150 to 450 m thick.  The BIF is unconformably overlain to the southwest by a lenticular pebble-cobble conglomerate horizon up to 15m thick belonging to the  Mineralisation  The gold mineralisation at Main Trend is contained within a well foliated Talccarbonate-magnetite-serpentite rock with associated pyrite and pyrrhotite, dipping approximately 60 degrees to the west  The mineralisation at Iron Stirrup extends to a vertically drilled depth of at least 125m, in



Criteria	JORC Code explanation	Commentary
		part of the zone and remains open at depth throughout most of the indicated strike length, and dips westerly at around 70-80°.  • The main structural control at Old Faithful is a strongly asymmetric synform with a moderately east-dipping west limb and a west limb which, in the central area, dipping flatly east but in the northern and southern area, dips more steeply. The primary mineralisation wireframe is split into two, to the south the mineralisation shows a gradual plunge to the north of 10 degrees. In Area C (as Lynas referred to it) the primary mineralisation is thrust downwards (inferred faults) another 20-30m before continuing its gradual plunge of 10 degrees to the north.  • Another secondary zone of mineralisation occurs in the north-east of the prospect where en-echelon shears occur within the talc-carbonate-chlorite-schist, and primarily dip to the east.
Drill hole Information	<ul> <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> <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> <li>The coordinates and other attributes of all drillholes relevant to the work being described are included in summary tables within the body and appendices of the release and previous ASX releases, please refer to the following announcements.</li> <li>20/06/2016 – Thick zones of high-grade gold identified Mount York</li> <li>01/08/2016 – Kairos Initial JORC Gold Resource of 135koz at Mount York (Old Faithful &amp; Iron Stirrup)</li> <li>05/10/2016 – Gold Resource Upgrade to 250koz – Mount York</li> <li>17/11/2016 – High-Grade Gold hits up to 20 g/t at Mount York Project in WA's Pilbara Region</li> <li>19/12/2016 – Further strong results from Mount York</li> <li>10/02/2017 – Multiple stacked gold lodes intersected week beyond current resources at Mount York</li> <li>29/05/2017 – Strong drilling results from Mount York</li> <li>30/11/2017 – Outstanding drill results confirm significantly larger gold system at Mount York Project</li> <li>18/12/2017 – Final strong results from Mount York Drilling</li> <li>02/10/2018 – New high-grade results confirm strong potential to expand 643koz Resource at Pilbara Gold Project, WA</li> <li>23/12/2020 – Pilbara Gold Project – Exploration Update</li> <li>17/02/2021 – High-grade gold hits of up to 6.37 g/t at Mount York Project</li> <li>15/09/2021 – Exceptional high-grade gold</li> </ul>



Criteria	JORC Code explanation	Commentary
Criteria	JORG Code explanation	
		<ul> <li>zone intersected at Mount York</li> <li>23/11/2021 – Further high-grade gold zones intersected at Mount York</li> <li>13/01/2022 – Significant new gold target identified at Mount York, with anomalous rock chip samples of up to 4.6 g/t Au</li> <li>25/05/2022 – Wide drill intersections highlight scope for significant resource upgrade at Mount York Gold Project in Pilbara</li> <li>29/07/2022 – Quarterly report for the period ending June 30, 2022</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be</li> </ul>	<ul> <li>Exploration results are not being reported.</li> <li>Not applicable as a Mineral Resource is being reported.</li> <li>Metal equivalent values have not been used.</li> </ul>
	clearly stated.	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>All intercepts reported are measured in down hole metres.</li> <li>All holes are oriented to provide intersections which are orthogonal to the respective targeted horizon.</li> </ul>
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	<ul> <li>Relevant diagrams have been included within this report.</li> </ul>
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.	Exploration results are not being 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	<ul> <li>All interpretations for the Main Trend and Iron Stirrup mineralisation are consistent with observations made and information gained during previous mining of the open pits.</li> <li>All interpretations for the Main Trend and Iron Stirrup deposits, are consistent with observations made in historic reports.</li> </ul>



Criteria	JORC Code explanation	Commentary
	density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>Exploration including mapping, geochemical sampling has been completed and has aided interpretations for the Mineral Resource Estimate.</li> <li>Geophysical surveys were designed and managed by Newexco Services Pty Ltd. Interpretation of the aeromagnetics, gravity and electromagnetic data was undertaken by Newexco Services Pty Ltd.</li> <li>Gold and multi-element analysis is being conducted routinely on all Kairos samples for a base metal suite and potentially deleterious elements including Al, As, Co, Cr, Cu, Fe, Mg, Ni, S, Ti, Zn plus Au, Pt, Pd &amp; Pd.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg 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>	A contract to drill 20,000m (nominally 7,000m of RC and 13,000m of NQ/HQ core) has been signed with Orlando Drilling. Drilling is set to commence in the first week of September or earlier and is targeting a significant increase in the global resource including all higher-grade plunging shoots that remain open at depth and increasing confidence in all categories of resource (conversion of inferred to indicated and unclassified to inferred resource categories) in preparation for a pre-feasibility study. It has been designed to acquire all geotechnical information required by the geotechnical engineers for open pit design and for all metallurgical samples for ore process studies and design.

# **Section 3 Estimate and Reporting of Mineral Resources**

	future drilling areas, provided this information is not commercially sensitive.	confidence in all categories of resource (conversion of inferred to indicated and unclassified to inferred resource categories) in preparation for a pre-feasibility study. It has been designed to acquire all geotechnical information required by the geotechnical engineers for open pit design and for all metallurgical samples for ore process studies and design.
Section Criteria	n 3 Estimate and Reporting of Min	neral Resources  Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Following importation, the data goes through a series of digital and visual checks for duplication and non-conformity, followed by manual validation by the Competent Person</li> <li>The database has been systematically audited by the CP. Original drilling records were compared to the equivalent records in the database. No major discrepancies were found</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The most recent site visits were conducted by Mark Falconer in July 2022. Drilling, logging, and sampling procedures were reviewed, and no issues were encountered.</li> <li>Resource Estimation was carried out by Christopher Speedy. Mr Speedy has yet to make a site visit, but is scheduled to visit in the upcoming drilling program.</li> </ul>
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral	<ul> <li>The confidence in the geological interpretation is considered to be high.</li> <li>Geological logging has been used to assist</li> </ul>



		MINERALS
Criteria	JORC Code explanation	Commentary
	<ul> <li>deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>identification of lithology and mineralisation.</li> <li>A model of the lithology and weathering was generated prior to the mineralisation domain interpretation commencing. The mineralisation geometry has a very strong relationship with the lithological interpretation and structure in both the oxide/fresh mineralisation. For the oxide/fresh mineralisation the weathered zones become important factors in mineralisation controls and have been applied to guide the mineralisation zone interpretation.</li> <li>Kairos drilling has supported and refined the model and the current interpretation is considered robust, infill drilling has confirmed geological and grade continuity</li> </ul>
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<ul> <li>The Main Trend gold deposit consists of three contiguous deposits, Breccia Hill, Main Hill, and Gossan Hill. Main Trend consists of approximately 3.5km of strike length with mineralisation extending from 250RL to -250m and is open at depth.</li> <li>The Iron Stirrup gold deposit is approximately 800m of strike length with mineralisation extending from 230RL to -100m and is open at depth.</li> <li>The Old Faithful deposit is ~1.0km of strike length (striking at 010) with mineralisation extending from 226RL to -20m.</li> </ul>
Estimation and modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g., sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> </ul>	<ul> <li>Grade estimation using Ordinary Kriging (OK) was undertaken using Surpac software. Detailed statistical and geostatistical investigations have been completed on the captured estimation data set (1.0m composites). This includes exploration data analysis, boundary analysis and grade estimation trials. The variography applied to grade estimation has been generated using Snowden Supervisor. These investigations have been completed on the ore domain and above-ore domain separately. KNA analysis has also been conducted in Snowden Supervisor in various locations on the ore domain to determine the optimum block size, minimum and maximum samples per search and search distance.</li> <li>One element, Au g/t was estimated using parent cell estimation, with density being assigned by lithology and oxidation state. Drill hole data was coded using three dimensional domains reflecting the geological interpretation based on the structural, lithological, alteration and oxidation characteristics of the Mineral Resource. One metre composited data was used to estimate the domains. The domains were treated as hard boundaries and only informed by data from the domain. The impact of outliers in the sample distributions used to</li> </ul>



Any assumptions about correlation between variables.     Description of how the geological interpretation was used to control the resource estimates.     Discussion of basis for using or not using grade cutting or capping.     The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.  A parent block size was selected for the Iron Stirrup and Old Faithful  A Parent block size was selected for the Iron Stirrup and Old Faithful gold deposits, with sub-blocking down to 2.50mEx 2.50mEx 2.50mN x 2.50mRL. A Parent block size was selected for the Iron Stirrup and Old Faithful gold deposits, with sub-blocking down to 1.25 x 2.50 x 1.25.  For Main Trend and Iron Stirrup a Search Pass 1 used a minimum of 12 samples and a maximum of 22 samples with an ellipsoid search. In the third pass an ellipsoid search. Search pass 2 was a minimum of 18 samples and a maximum of 22 samples in the first pass with an ellipsoid search. In the third pass an ellipsoid search. Search pass 1 used a minimum of 18 samples and a maximum of 22 samples in the first pass with an ellipsoid search. Search pass 1 used a minimum of 18 samples and a maximum of 22 samples in the first pass with an ellipsoid search. Search pass 2 was a minimum of 14 samples and a maximum of 22 samples in the first pass with an ellipsoid search. Search pass 1 used a minimum of 18 samples and a maximum of 24 samples with an ellipsoid search. The third pass and ellipsoid search. The third pass and ellipsoid search.
between variables.  • Description of how the geological interpretation was used to control the resource estimates.  • Discussion of basis for using or not using grade cutting or capping.  • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.  • A top cut of 23g/t was used for the Main Trend. A top cut of 13.00 Au g/t was used for Iron Stirrup and Old Faithful sub-locking down to 2.50mE x 2.50mN x 2.50mRL. A Parent block size was selected for the Iron Stirrup and Old Faithful gold deposit of 10mE x 20mN x 10mRL for both the deposits, with sub-blocking down to 1.25 x 2.50 x 1.25.  • For Main Trend and Iron Stirrup a Search Pass 1 used a minimum of 12 samples and a maximum of 22 samples with an ellipsoid search. Search pass 2 was a minimum of 8 and a maximum of 22 samples in the first pass with an ellipsoid search. Was used with a minimum of 8 and a maximum of 24 samples in the first pass with an ellipsoid search. Search Pass 1 used a minimum of 8 and a maximum of 24 samples in the first pass with an ellipsoid search. Search Pass 2 was a minimum of 18 samples and a maximum of 24 samples in the first pass with an ellipsoid search. Search Pass 2 was a minimum of 24 samples and a maximum of 24 samples in the first pass with an ellipsoid search. Search Pass 2 was a minimum of 24 samples and a maximum of 24 samples and a
search was used with a minimum of 8 and a maximum of 24 samples.  • A dynamic search strategy was used with the search ellipse oriented to the semi-variogram model. The first pass was at the variogram range, with subsequent passes expanding the ellipse by factors of 1.5 and 2, then a final factor of 3 was used to inform any remaining unfilled blocks. The majority of the Mineral Resource was informed by the first two passes, domains that were informed by the third and fourth pass were flagged with a lower resource classification or remain unclassified.  • No assumption of mining selectivity has been incorporated into the estimate.  • Only gold (Au) was estimated in the Mineral Resource.  • The deposit mineralisation was constrained by wireframes constructed using a 0.3g/t Au cutoff grade.  • Validation checks included statistical comparison between drill sample grades, the OK and ID2 estimate results for each domain. Visual validation of grade trends for each



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		element along the drill sections was completed and trend plots comparing drill sample grades and model grades for northings, eastings and elevation were completed. These checks show reasonable correlation between estimated block grades and drill sample grades.  No reconciliation data is available
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul> <li>Tonnages have been estimated on a dry in situ basis. No moisture values were reviewed.</li> </ul>
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>Mineral Resources are reported using a cut-off grade of 0.70 g/t Au and a full table of grade- tonnages for the resources at different cutoff grades is contained within the press release</li> </ul>
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	The Resource model assumes open cut mining is completed and a moderate to high level of mining selectivity is achieved in mining. It has been assumed that high quality grade control will be applied to ore/waste delineation processes using AC/RC drilling, or similar, at a nominal spacing of 10m (north – along strike) and 5m (east – across strike) and applying a pattern sufficient to ensure adequate coverage of the mineralisation zones.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	From historical test work and milling, it is assumed that extraction of gold will be achieved by gravity and cyanide leaching methods for the mineralisation, with recoveries expected equal to or greater than 90% based on these results.
Environmenta I factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential	<ul> <li>No assumptions have been made regarding environmental factors. Historical open-cut mining has occurred at the Breccia Hill, Main Hill, and Iron Stirrup deposits. The Company will work to mitigate environmental impact as a result of any future mining or mineral processing.</li> </ul>

environmental impacts of the



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	mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size, and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Bulk density assumptions used in the resource estimate were from testing in the exploration programs and subsequent mining by Lynas Gold NL.</li> <li>Specific gravity was determined by water displacement with wax coating.</li> <li>Fixed density values were assigned into the block model for each regolith unit. The density values were based on physical measurements taken historically and were 2.10 t/m3 for oxide, 2.39 t/m3 for transitional material and 2.90 t/m3 for fresh material for Main Trend</li> <li>Fixed density values were assigned into the block model for each regolith unit. The density values were based on physical measurements taken historically and were 2.60 t/m3 for transitional material and 2.90 t/m3 for fresh material for Iron Stirrup and Old Faithful.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e., relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity, and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	• The Mineral Resource estimate is reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC). The Main Trendresource was classified as Indicated, and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Indicated Mineral Resource was defined within areas of close spaced RC drilling of less than 60m by 60m, and where the continuity and predictability of the lode positions was good. The Inferred Mineral Resource was assigned to areas of the deposit where drill hole spacing was greater than 60m by 60m and up to a maximum spacing of 120m. The Iron Stirrup and Old Faithful resource was classified as Indicated, and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Indicated Mineral Resource was defined within areas of close spaced RC drilling of less than 40m by 40m, and where the continuity and predictability of the lode positions was good. The Inferred Mineral Resource was assigned to areas of the deposit where drill hole spacing



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		was greater than 40m by 40m and up to a maximum spacing of 60m.
		<ul> <li>The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition of mineralised zones is based on high level geological understanding producing a robust model of mineralised domains. This model has been confirmed by infill drilling which supported the interpretation. Validation of the block model shows good correlation of the input data to the estimated grades</li> </ul>
		<ul> <li>The Mineral Resource estimate appropriately reflects the view of the Competent Person</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul> <li>No audits or review of the Mineral Resource estimate has been conducted.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with</li> </ul>	<ul> <li>The lode geometry and continuity has been adequately interpreted to reflect the level of Indicated and Inferred Mineral Resource. The data quality is good, and the drill holes have detailed logs produced by qualified geologists.</li> <li>A recognized laboratory has been used for all analyses.</li> <li>The Mineral Resource statement relates to global estimates of tonnes and grade.</li> </ul>