

ASX ANNOUNCEMENT

20 September 2023

Mt York Gold Project, Pilbara

# Metallurgical results show excellent recoveries from simple processing route

Recoveries of more than 91% provide more compelling evidence of strong technical and economic outlook for large-scale WA gold project

## <u>Highlights</u>

- Testwork confirms Mt York boasts straightforward, non-refractory metallurgical ore characteristics with fast leach recoveries
- This points to likely use of a simple processing route incorporating an industry-standard CIL cyanide leach plant
- Mt York has resources of 1.62Moz at a 0.5 g/t Au lower cutoff grade and 1.89Moz at a 0.3 g/t lower cutoff<sup>1</sup>
- Independent Metallurgical Operations Pty Ltd ('IMO') completed sighter testwork on four fresh representative composite samples across the whole strike length of the Mt York gold resource, with grades ranging from 0.51 to 1.71 g/t
- Round 1 leach tests show consistently fast leach kinetics with 86.5% to 99.6% gold recoveries after only 8 hours with notable low reagent consumption
- Total gold recoveries after 48 hours of 86.6% to 95.2% (average 91.3%)
- Round 2 CIL leach test results with added carbon show remarkably similar results (91.4%) to Round 1 results, confirming highly leachable, non-refractory ore characteristics
- Future testwork will optimise the process to improve recoveries further

Kairos Managing Director, Dr Peter Turner said: "These excellent metallurgical test work results are important because they confirm that the Mt York ore is amenable to a simple CIL processing route.

"They further de-risk what is a large Pilbara gold project, providing more firm evidence that it is set for a strong future.

<sup>1</sup> See ASX announcement dated 15 May 2023 entitled 'Resource increases to 1.6 Moz and remains open'

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"The chosen samples are representative of resource grade and geographical spread across the deposit and the test work objectives were delivered by IMO in a professional manner.

"We will continue to focus on resource growth, undertaking economic studies for an open pit operation and seeking approval for our mining lease applications".

Kairos Minerals (ASX: KAI) is pleased to announce excellent metallurgical test results for the Mt York Gold Project in the Pilbara of Western Australia.

The project, which is the subject of a mining lease application, has resources of **49.24 Mt @ 1.02 g/t Au for 1.62 Moz**<sup>2</sup> at a 0.5 g/t Au lower cutoff grade. At a 0.3 g/t Au lower cutoff grade, the resource increases to **70.17 Mt @ 0.84 g/t Au for 1.89 Moz**.

The Sighter test work was commissioned to understand two fundamental questions including 1) an optimal process route for fresh ore and 2) whether there is a refractory component to the mineralisation.

Independent Metallurgical Operations Pty Ltd ('IMO') were contracted to design and implement the study on four composite samples.

#### **Composite Samples Preparation**

A total of four (4) composite samples from 6 drill holes were selected from across the deposit including all three prospects of Main Hill, Breccia Hill and Gossan Hill (**Figure 1**). The samples were crushed duplicate samples that had already been analysed by Intertek Laboratories from diamond drilling conducted during the 2022 programme (**Figures 3 & 4**). All samples are fresh (unweathered), mineralised sequence banded iron formation (BIF).

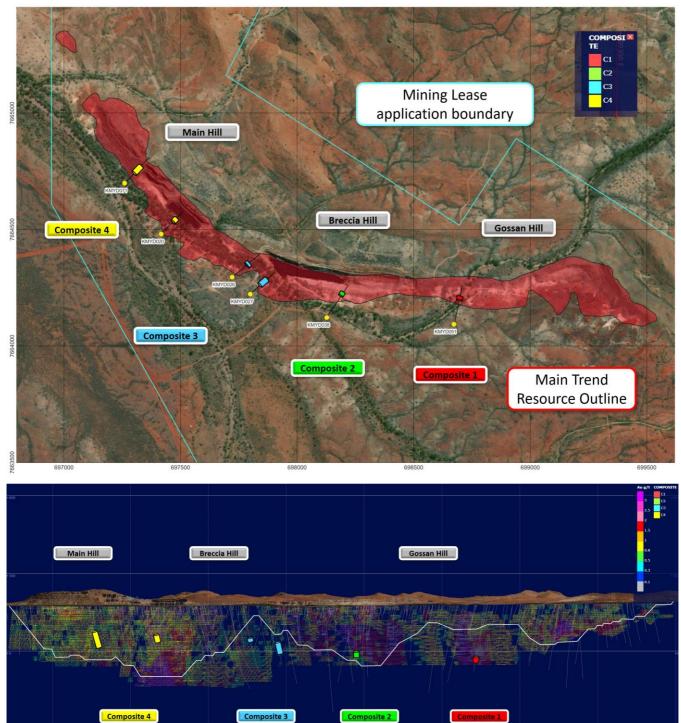
Composite	Prospect	Prospect Hole ID		Grade
			Kg	g/t
Composite 1	Gossan Hill	KMYD051	3.4	0.51
Composite 2	Breccia Hill	KMYD038	4.7	1.71
Composite 3	Main & Breccia Hill	KMYD026 & KMYD027	16.4	1.28
Composite 4	Main Hill	KMYD020 & KMYD071	11.4	0.85

**Table 1.** Composite locations and provenance. See **Figure 1** longsection for compositelocations. Full results from 1m resplits are shown in **Appendix A**.

Individual assay data for each metre interval for all composites are presented in **Appendix A**.

Testwork flowsheet is presented in **Appendix B**.

<sup>&</sup>lt;sup>2</sup> See ASX announcement dated 15 May 2023 entitled 'Resource increases to 1.6 Moz and remains open'



**Figure 1**. Plan view (top) and longsection (bottom) of the Mt York Gold Project showing composite provenace. Background image (bottom) is the resource model coloured on grade (>0.7 g/t Au). White line is the current, lowermost surface of the pit optimisation based on a \$2,500 gold price. **Figures 3**, **4 & 5** show the Mt York Gold Project prospects, 2022 drilling and regional location in the Pilbara respectively.



The four composites were thoroughly and individually homogenised and split into charges prior to being sent to Intertek for the following analysis (see testwork flowsheet in **Appendix B**):

- Duplicate 50g fire assay for Au;
- Four-acid digest with ICP-MS/OES finish;
- Total carbon, organic carbon, graphitic carbon, total sulphur and sulphate by Leco
- Preg-robbing Index Determination tests (completed by Metallurgy Pty Ltd).

#### **Composite Results**

Head assay grades for Round 1 composites are reported in **Table 2**. Head assays for each composite vary from **0.62**, **1.66**, **0.93** and **0.49** g/t Au for Composites 1, 2, 3 and 4 respectively. The variability of the single composite results from the estimated or expected grades based on the original assay intervals is likely to be due to nuggety gold.

Arsenic values are relatively high in the composites with values ranging between 1,561 to 6,414 ppm As. Arsenopyrite occurs within the mineralised sequence and this testwork demonstrates that the arsenopyrite is not refractory in nature.

Carbon grades are very low ranging from 0.03% to 0.19%. Sulphur grades range from 0.86% to 3.64% with all the S reporting to sulphide minerals. Deleterious elements copper, lead, antimony and zinc grades were low across all composites. This is considered very good news.

Element	Unit	LDL	Composite 1	Composite 2	Composite 3	Composite 4
Estimated Au	g/t		0.51	1.71	1.28	0.85
Au Average	g/t		0.62	1.66	0.93	0.49
Au	g/t	0.01	0.50	1.58	0.85	0.47
Au Duplicate	g/t	0.01	0.73	1.75	1.01	0.52
Ag	ppm	0.05	0.18	0.15	0.50	0.48
As	ppm	0.5	1,648	6,414	1,561	2,712
Total Carbon	%	0.01	0.03	0.14	0.19	0.07
Non-carbonate carbon	%	0.01	0.03	0.13	0.19	0.05
Carbonate	%	0.01	<0.01	<0.01	<0.01	<0.01
Cu	ppm	0.5	16.9	27.9	27.9	16.1
Fe	%	0.01	33.86	32.23	34.46	32.33
Pb	ppm	0.5	2.50	2.30	7.40	3.80
Sulphur	%	0.01	0.86	2.23	3.64	1.40
Sulphate	%	0.01	<0.01	<0.01	<0.01	<0.01
Sulphide	%	0.01	0.86	2.23	3.64	1.40
Sb	ppm	0.05	1.72	6.71	3.54	1.57
Te	ppm	0.2	<0.2	<0.2	<0.2	<0.2
Zn	ppm	1	162	88	80	99

**Table 2.** Head assay results summary. Note: Estimated Au is the estimated gold values from routine gold analysis during drilling and resource work (also completed by fire assay on a 50g charge at the Intertek laboratory).

#### Preg-Robbing Index Determination Test Results

Preg-Robbing Index Determination tests were conducted on all composites to assess the presence of preg-robbing material within the ore that can adsorb gold from solution, therefore hindering gold recoveries in a leach circuit. Results are provided in **Table 3**.

Preg-robbing factors range from 0.0% to 2.1% indicating all samples are not preg-robbing.

Composite	Preg-Robbing Factor			
Composite 1	1.4%			
Composite 2	2.1%			
Composite 3	1.4%			
Composite 4	0.0%			
Table 3. Preg-Robbing Index Determination Test Results				



### Cyanide Leach Testwork

#### Round 1 (Leach Kinetic Tests)

First round leach tests were based on single samples of each of the composites using the following conditions:

- Grind size of P<sub>80</sub> 53 microns;
- 48 hour leach duration
- Solids density of 45% w/w;
- pH of 10-10.5 maintained with lime;
- Initial NaCN concentration of 500ppm, maintained at 300ppm;
- Kinetics tests at 2, 4, 8, 24 & 48 hours.

Composite		Composite 1	Composite 2	Composite 3	Composite 4
		composite i		composites	composite 4
Leach Test	Units				
Calc'd Head Grade	g/t	0.48	1.70	1.05	0.56
Assay Grade	g/t	0.62	1.66	0.93	0.49
2 Hr Gold Recovery	%	77.1	69.2	72.6	63.0
4 Hr Gold Recovery	%	85.7	84.2	86.9	81.0
8 Hr Gold Recovery	%	99.6	89.2	94.3	86.5
24 Hr Gold Recovery	%	101.7	91.1	95.9	93.0
48 Hr Gold Recovery	%	95.2	90.7	92.5	86.6
Leach Residue Grade	g/t	0.02	0.16	0.08	0.08
Leach Gold Recovery	g/t	0.46	1.54	0.97	0.48
48 Hr Cyanide Cons'	kg/t	0.25	0.50	0.70	0.30
48 Hr Lime Cons'	kg/t	0.24	0.33	0.50	0.47

Excellent results were seen in each composite and are summarised below in **Table 4**.

**Table 4**. Round 1 Cyanide Leach Test Results. Cons' is an abbreviation for Consumption. It should be noted that the Composite 1 24 hour gold recovery of over 100% is a result of assay error in conjunction with the reduced 48 hour gold solution grade impacting the final calculated head. The Cyanide Leach Test Kinetic Curves are shown in **Figure 2**.



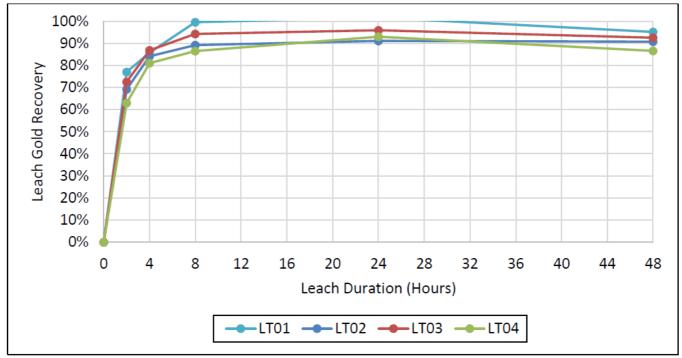


Figure 2. Round 1 Cyanide Leach Test Kinetic Curves for the four composites.

### Round 2 (CIL Tests)

Based on the excellent results of the Round 1 leach tests, IMO recommended a further leach test involving the upfront addition of carbon (Round 2) on all composites to mimic the industry-standard Carbon-In-Leach or **CIL** process route.

The tests can determine if there are any preg-robbing affinities with the samples and help optimise gold recovery.

Round 2 leach tests were based on single samples of each of the composites using the following conditions:

- Grind size of P<sub>80</sub> 53 microns;
- Carbon addition of 20g/L;
- 48 hour leach duration
- Solids density of 45% w/w;
- pH of 10-10.5 maintained with lime;
- Initial NaCN concentration of 500ppm, maintained at 300ppm;

With CIL tests, no leach recoveries after 2, 4, 8 and 24 hours are possible as for the Round 1 tests.

The Round 2 CIL leach tests are shown in **Table 5** and are very similar to Round 1 results, indicating that there are no impacts of carbon on the final gold recoveries. The firm conclusion of IMO is that all four composites do not contain preg-robbing materials.



Composite		Comp	osite 1	Comp	osite 2	Comp	osite 3	Comp	osite 4
Leach Test	Units	LT01	LT05	LT02	LT06	LT03	LT07	LT04	LT08
Calc'd Head Grade	g/t	0.48	0.47	1.70	1.53	1.05	0.88	0.56	0.63
Assay Grade	g/t	0.	62	1.	66	0.	93	0.4	49
48 Hr Gold Recovery	%	95.2	93.8	90.7	89.4	92.5	91.3	86.6	91.0
Leach Residue Grade	g/t	0.02	0.03	0.16	0.16	0.08	0.08	0.08	0.06
Leach Gold Recovery	g/t	0.46	0.44	1.54	1.37	0.97	0.80	0.48	0.57
48 Hr Cyanide Cons'	kg/t	0.25	0.30	0.50	0.42	0.70	0.57	0.30	0.46
48 Hr Lime Cons'	kg/t	0.24	0.30	0.33	0.24	0.50	0.35	0.47	0.16

**Table 5**. Round 2 Cyanide Leach Test Results. Cons' is an abbreviation for Consumption. LT01, LT02, LT03 and LT04 refer to Leach Test results conducted in Round 1. LT05, LT06, LT07 and LT08 refer to Leach Tests conducted in Round 2 (CIL) and are shown in bold.

Round 2 results confirm:

- Final leach recoveries range from 89.4% to 93.8% (average of 91.4%, compared to an average of 91.3% for Round 1)
- Final leach recoveries are within 1.5% of the Round 1 results for Composites 1-3 whilst Composite 4 gave a 4.4% increase in recovery;
- Final leach residue grades were low and consistent between Round 1 and 2 tests;

The results are very pleasing and give confidence that the ore across the deposit is consistent and behaves similarly during leaching.

#### <u>Conclusions</u>

IMO undertook a two stage metallurgical testwork programme involving kinetic leaching of four composites (Round 1) and leaching with the addition of carbon to assimulate CIL conditions (Round 2).

Major findings are:

- Four composites are representative of the ore across the whole deposit;
- Head grade analysis was undertaken on each composite prior to each test;
- Despite the grade variation across the samples (0.48 to 1.70 g/t Au in Round 1, 0.49 to 1.66 g/t Au in Round 2) the gold leaching recovery test work was extremely consistent and high (average of 91.4%/91.3% during Round 1 and 2 respectively);
- No preg-robbing characteristics were determined in any of the composites, qualified by the very low Preg-Robbing Factors of 0% to 2.1%;
- The ore is suitable to simple, industry-standard CIL processing based on this testwork.



#### **Next Steps**

- IMO recommend testwork to further improve recoveries using lead nitrate; also to vary cyanide concentrations to determine optimum gold recovery
- Assess the impact of varying grind size on metallurgical samples to look for significant milling & energy cost savings
- Mining Lease application process update
- Programming of drill testing gold anomalies for near-surface resource additions

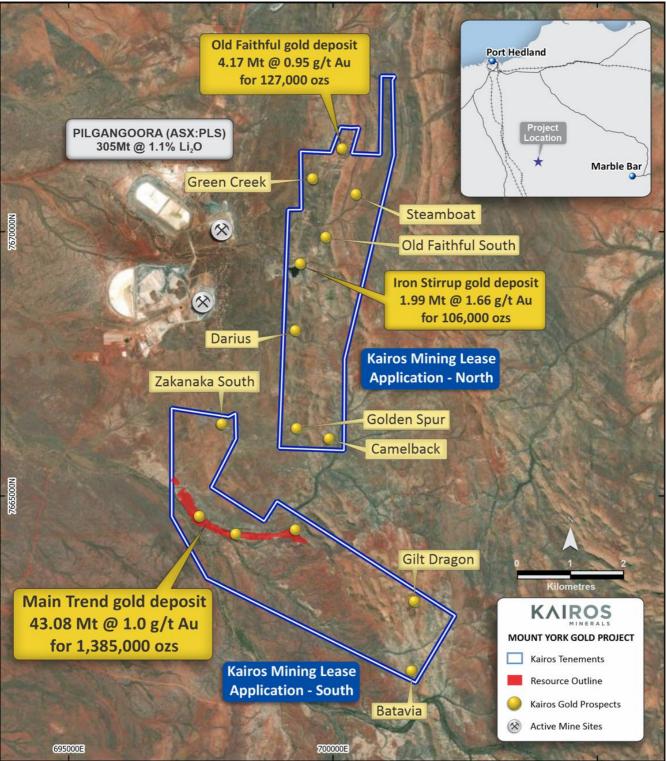
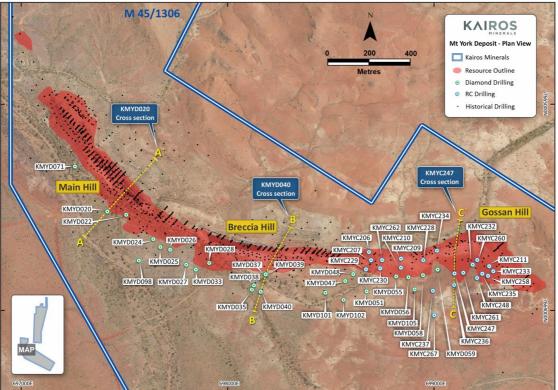
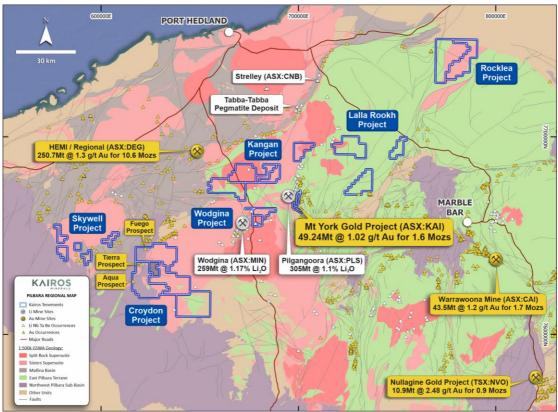


Figure 3: Location of the Mt York gold resources and gold exploration prospects.



**Figure 4**: Plan view of the Main Hill deposits showing the outline of the resource, historic drilling, and the location of all drillholes completed during 2022 that form the basis for the resource update.



**Figure 5**: Kairos' Gold & Lithium Projects over the central Pilbara regional geology showing the position of the Mt York Project.

#### About Kairos Minerals

Kairos Minerals (ASX:KAI) owns 100% of the flagship 1.6 Mozs **Mt York Gold Project** that was partially mined by Lynas Gold NL between 1994 and 1998. Kairos has recognised that the resource has significant potential to grow further from its current 1.62 Moz base with significant exploration potential existing within the Mt York project area. Pre-feasibility work will progress rapidly underpinned by the resource expansion work that will collect important information for metallurgical testwork, mining and process engineering to determine viability and optimal pathway to develop a sustainable, long-lived mining project. Current resources at a 0.5 g/t Au cutoff grade above 325m depth are shown in the table below.

	Indicated			Inferred			Total		
Deposit	Tonnes (MT)	Au (g/t)	Ounces (kozs)	Tonnes (MT)	Au (g/t)	Ounces (kozs)	Tonnes (MT)	Au (g/t)	Ounces (kozs)
Main Trend	20.25	1.06	690	22.83	0.95	697	43.08	1.00	1385
Iron Stirrup	1.28	1.72	70	0.71	1.54	35	1.99	1.66	106
Old Faithful	2.17	1.07	75	2	0.81	52	4.17	0.95	127
Total	23.7	1.10	835	25.54	0.95	784	49.24	1.02	1618

Kairos has recently discovered spodumene-bearing pegmatites adjacent to the Mt York Gold Project and is evaluating their potential to become part of a value-adding lithium project into the future.

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. Kairos has also discovered a 2,800m long Li-Cs-Rb soil anomaly in an exciting and emerging lithium province that will be drill-tested.

This announcement has been authorised for release by the Board.

## Peter TurnerZane LewisManaging DirectorNon Executive Director

#### For Investor Information please contact:

Paul Armstrong – Read Corporate 0421 619 084

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

The information in this report that relates to Exploration Results or Mineral Resources is based on information compiled and reviewed by Mr Mark Falconer, who is a full-time employee of Kairos Minerals Ltd and who is also a Member of the Australian Institute of Geoscientists (AIG). Mr Falconer has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' (the JORC Code 2012). Mr Falconer has consented to the inclusion in the report of the matters based on their information in the form and context in which it appears.

The Mineral Resources were first reported in the announcement date 15 May 2023 (Announcement). The Company confirms that it is not aware of any new information or data that materially affects the information included in the Announcement and, in the case of estimates of mineral resources, that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

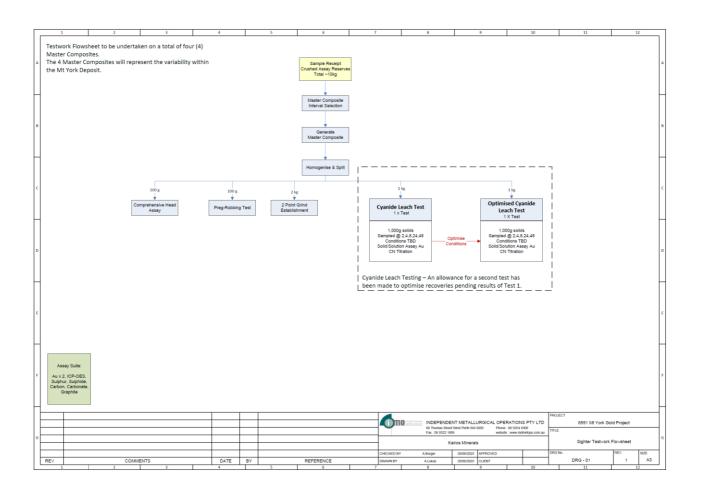
### Appendix A – Individual Composite Sample 1m Interval details

Sample ID	Hole ID	Project	From	То	Interval	Composite	Mass	Au
Sample ID	Hole ID	Project				composite		
KD12284		MtYork	251	m 252	1 1	C1	g 299	ppm
KD12384	KMYD051	MtYork	251		1			1.98
KD12385	KMYD051		252	253	1	C1	299	0.63
KD12386	KMYD051	MtYork	253	254	1	C1	301	0.62
KD12387	KMYD051	MtYork	254	255	1	C1	468	0.31
KD12388	KMYD051	MtYork	255	256	1	C1	453	0.03
KD12389	KMYD051	MtYork	256	257	1	C1	464	0.36
KD12390	KMYD051	MtYork	257	258	1	C1	462	0.05
KD12391	KMYD051	MtYork	258	259	1	C1	325	0.05
KD12396	KMYD051	MtYork	262	263	1	C1	299	1.30
Composite 1							3,370	0.51
COMPOSITE 2 Sample ID	Hole ID	Project	From	То	Interval	Composite	Mass	Au
Sample ID	Hole ID	Project	m	m		composite		
KD10169	KMYD038	MtYork	219	220		C2	g 377	ppm 0.57
KD10103	KMYD038	MtYork	213	220	1	C2 C2	386	1.69
KD10171 KD10173	KMYD038	MtYork	221	222	1	C2 C2	458	0.43
KD10175	KMYD038	MtYork	225	224	1	C2 C2	229	4.60
						C2 C2		
KD10176	KMYD038	MtYork	226	227	1		221	0.08
KD10177	KMYD038	MtYork	227	228	1	C2	310	0.64
KD10178	KMYD038	MtYork	228	229	1	C2	596	1.55
KD10181	KMYD038	MtYork	230	231	1	C2	626	5.73
KD10187	KMYD038	MtYork	236	237	1	C2	413	0.99
KD10188	KMYD038	MtYork	237	238	1	C2	573	0.99
KD10189	KMYD038	MtYork	238	239	1	C2	466	0.34
Composite 2							4,655	1.71
COMPOSITE 3	Hole ID	Ductort	Fuene	То	Interval	Commonito	Mass	۸.,
Sample ID	Hole ID	Project	From		Interval	Composite	Mass	Au
KD11669	KMYD026	MtYork	m 150	m 151	1 1	62	g 180	ppm
					1	C3 C3		0.35
KD11670	KMYD026	MtYork MtYork	151	152	_	1 1	350	1.02
KD11674	KMYD026	MtYork	155	156	1	C3	204	0.18
KD12262	KMYD027	MtYork	173	174	1	C3	465	4.08
KD12263	KMYD027	MtYork	174	175	1	C3	388	2.50
KD12265	KMYD027	MtYork	175	176	1	C3	929	2.21
KD12266	KMYD027	MtYork	176	177	1	C3	500	2.86
KD12267	KMYD027	MtYork	177	178	1	C3	1,010	2.90
KD12268	KMYD027	MtYork	178	179	1	C3	750	8.16
KD12269	KMYD027	MtYork	179	180	1	C3	861	0.29
KD12270	KMYD027	MtYork	180	181	1	C3	692	0.14
KD12271	KMYD027	MtYork	181	182	1	C3	742	0.15
KD12279	KMYD027	MtYork	189	190	1	C3	530	0.12

KD12281	KMYD027	MtYork	190	191	1	C3	646	0.12
KD12282	KMYD027	MtYork	191	192	1	C3	667	0.34
KD12283	KMYD027	MtYork	192	193	1	C3	495	0.35
KD12284	KMYD027	MtYork	193	194	1	C3	760	0.72
KD12285	KMYD027	MtYork	194	195	1	C3	622	0.11
KD12303	KMYD027	MtYork	211	212	1	C3	837	0.27
KD12305	KMYD027	MtYork	213	214	1	C3	628	0.09
KD12306	KMYD027	MtYork	214	215	1	C3	430	1.24
KD12307	KMYD027	MtYork	215	216	1	C3	1,001	1.10
KD12308	KMYD027	MtYork	216	217	1	C3	875	0.86
KD12309	KMYD027	MtYork	217	218	1	C3	295	0.42
KD12310	KMYD027	MtYork	218	219	1	C3	481	0.61
KD12311	KMYD027	MtYork	219	220	1	C3	639	0.40
KD12313	KMYD027	MtYork	220	221	1	C3	469	0.39
Composite 3							16,444	1.28
COMPOSITE 4				1		1		•
Sample ID	Hole ID	Project	From	То	Interval	Composite	Mass	Au
-		-	m	m	m		g	ppm
KD11143	KMYD020	MtYork	139	140	1	C4	596	3.85
KD11144	KMYD020	MtYork	140	141	1	C4	571	0.14
KD11145	KMYD020	MtYork	141	142	1	C4	942	0.22
KD11146	KMYD020	MtYork	142	143	1	C4	565	0.67
KD11147	KMYD020	MtYork	143	144	1	C4	608	0.02
KD11168	KMYD020	MtYork	162	163	1	C4	307	0.26
KD11169	KMYD020	MtYork	163	164	1	C4	358	0.31
KD11846	KMYD071	MtYork	117	118	1	C4	641	0.36
KD11847	KMYD071	MtYork	118	119	1	C4	265	0.30
KD11848	KMYD071	MtYork	119	120	1	C4	412	0.32
KD11851	KMYD071	MtYork	121	122	1	C4	428	0.84
KD11852	KMYD071	MtYork	122	123	1	C4	245	0.03
KD11859	KMYD071	MtYork	129	130	1	C4	261	0.04
KD11860	KMYD071	MtYork	130	131	1	C4	258	0.88
KD11862	KMYD071	MtYork	132	133	1	C4	259	0.07
KD11863	KMYD071	MtYork	133	134	1	C4	257	0.20
KD11864	KMYD071	MtYork	134	135	1	C4	416	0.45
KD11866	KMYD071	MtYork	135	136	1	C4	265	0.88
KD11870	KMYD071	MtYork	139	140	1	C4	854	3.57
KD11871	KMYD071	MtYork	140	141	1	C4	263	1.37
KD11872	KMYD071	MtYork	141	142	1	C4	268	0.08
KD11874	KMYD071	MtYork	143	144	1	C4	421	0.15
KD11875	KMYD071	MtYork	144	145	1	C4	242	2.32
KD11876	KMYD071	MtYork	145	146	1	C4	402	0.59
KD11876 KD11895	KMYD071	MtYork	163	140	1	C4 C4	258	0.15
KD11895 KD11898	KMYD071	MtYork	165	166	1	C4 C4	265	0.13
KD11898 KD11902	KMYD071 KMYD071	MtYork	169	100	1	C4 C4	259	0.92
KD11902 KD11904	KMYD071 KMYD071	MtYork	109	170	1	C4 C4	263	0.92
KD11904 KD11906	KMYD071 KMYD071	MtYork	171	172	1	C4 C4	265	0.84
Composite 4	KWID0/1	WITTOIK	1/3	1/4	-	<u> </u>		0.39
composite 4							11,409	0.85



### Appendix B – Testwork Flowsheet





### Appendix C – Composite Head Assays



Client:	Kairos Minerals					
Client ID:	6591					
Date:	21/07/2023					
Sample:	Composite Characterisation					

Element	Unit	LDL	Composite 1	Composite 2	Composite 3	Composite 4
Composite Hole ID			KMYD051	KMYD038	KMYD026 &	KMYD020 &
Composite Hole ID			KIVITDOST	KIVIT D038	KMYD027	KMYD071
Estimated Au Grade	g/t		0.51	1.71	1.28	0.85
Preg-Rob Factor	%		1.4%	2.1%	1.4%	0.0%
Au Average	g/t		0.62	1.66	0.93	0.49
Au	g/t	0.01	0.50	1.58	0.85	0.47
Au Duplicate	g/t	0.01	0.73	1.75	1.01	0.52
Ag	ppm	0.05	0.18	0.15	0.50	0.48
As	ppm	0.5	1,648.2	6,414.4	1,560.8	2,711.9
Total Carbon	%	0.01	0.03	0.14	0.19	0.07
Non-Carbonate Carbon	%	0.01	0.03	0.13	0.19	0.05
Carbonate	%	0.01	<0.01	<0.01	<0.01	0.02
Cu	ppm	0.5	16.9	27.9	27.9	16.1
Fe	%	0.01	33.86	32.23	34.46	32.33
Pb	ppm	0.5	2.5	2.3	7.4	3.8
Sulphur	%	0.01	0.86	2.23	3.64	1.40
Sulphate	%	0.01	< 0.01	<0.01	<0.01	< 0.01
Sulphide	%	0.01	0.86	2.23	3.64	1.40
Sb	ppm	0.05	1.72	6.71	3.54	1.57
Te	ppm	0.2	<0.2	<0.2	<0.2	<0.2
Zn	ppm	1	162	88	80	99
Al	ppm	50	2,821	1,977	1,556	2,440
Ba	ppm	0.1	44.40	35.80	26.90	22.50
Be	ppm	0.05	2.57	7.26	2.56	3.63
Bi	ppm	0.01	0.04	0.13	0.90	0.12
Са	ppm	50	2,652	4,643	5,283	4,734
Cd	ppm	0.02	0.19	0.05	0.11	0.09
Ce	ppm	0.01	5.37	5.92	5.50	5.35
Со	ppm	0.1	6.5	6.5	5.6	6.7
Cr	ppm	1	7	11	7	10
Cs	ppm	0.05	13.86	7.50	3.33	8.77
Ga	ppm	0.05	<0.05	<0.05	<0.05	< 0.05
Ge Hf	ppm	0.1	0.6	1.0	1.4	1.6
In	ppm	0.05	0.06	<0.05 0.05	<0.05 0.06	0.06
ĸ	ppm	20	1,063	661	601	894
La	ppm ppm	0.01	3.39	4.15	3.56	3.36
Li	ppm	0.1	2.0	1.6	1.8	9.8
Mg	ppm	20	19,619	18,536	21,209	21,275
Mn	ppm	1	6,851	6,300	5,706	6,434
Мо	ppm	0.1	0.5	0.6	0.3	0.6
Na	ppm	20	231	214	161	330
Nb	ppm	0.05	0.29	0.20	0.26	0.51
Ni	ppm	0.5	35.4	36.6	32.2	34.9
Р	ppm	50	61	245	327	261
Rb	ppm	0.05	12.26	7.37	5.17	17.15
Re	ppm	0.002	< 0.002	< 0.002	< 0.002	<0.002
Sc	ppm	0.1	0.7	0.5	0.4	0.6
Se	ppm	0.5	<0.5	0.8	<0.5	<0.5
Sn	ppm	0.1	0	2	2	3
Sr	ppm	0.05	4.33	9.64	7.36	8.20
Та	ppm	0.01	0.03	0.04	0.07	0.31
Th	ppm	0.01	0.24	0.17	0.18	0.20
Ti	ppm	5	88	85	60	77
TI	ppm	0.02	0.34	0.21	0.11	0.26
U	ppm	0.01	0.08	0.05	0.05	0.09
V	ppm	1	6	6	3	5
W	ppm	0.1	1.0	8.8	46.8	1.2
Y	ppm	0.05	13.16	11.37	13.08	13.27
Zr	ppm	0.1	2.3	1.0	1.1	1.7

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### Appendix D – Preg-Robbing Results

Amo	EVERYTH IN G METALLURGY	
	Since 1998	

Client:	Kairos Minerals
Client ID:	6591
Date:	21/07/2023
Sample:	Composite Preg-Robbing Testwork

Composite	Initial Au Conc	Final Au Conc	Preg-Rob Factor
	ppm	ppm	%
Composite 1	10.04	9.90	1.4%
Composite 2	10.04	9.82	2.1%
Composite 3	10.04	9.90	1.4%
Composite 4	10.04	10.04	0.0%



### Appendix E – Cyanide Leach Datasets



Client Code	M712
Client	IMO - Kairos Minerals
Job Request	JR005
Test Number	LT-01
Sample	Composite 1
Date	1/08/2023
Grind Size (P80)	53

	Parameters	
рН	Initial	10.50
	Maintained	10-10.5
NaCN	Initial	500
(ppm)	Maintained	300
Pulp Density	Pulp Density (%solids)	
Oxygen or A	Oxygen or Air	
Dissolved O	Dissolved Oxygen (ppm)	

#### CYANIDE LEACH TESTWORK

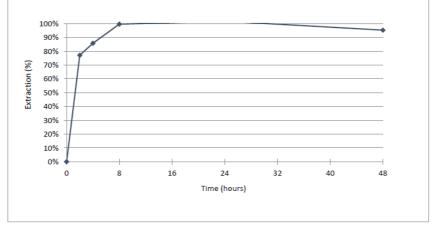
	Additions					Solution Data						Extraction (%)
Time	Ore (solids)	Water	Lime	NaCN	Pb(NO <sub>3</sub> ) <sub>2</sub>	Sample	p	H	D.O.	NaCN	Au	Au
(hours)	(g)	(g)	(g)	(g)	(g)	(g)	Found	Left	(ppm)	(ppm)	(ppm)	
0	1,000	1,222	0.17	0.61	0.000	0.0	10.50	10.50	6.30	0	0.000	0%
2		1,209	0.00	0.00	0.000	45.5	10.13	10.13	8.60	360	0.305	77.1%
4		1,201	0.00	0.00	0.000	50.5	10.07	10.07	8.50	320	0.330	85.7%
8		1,188	0.07	0.04	0.000	38.6	9.65	10.21	8.30	260	0.375	99.6%
24		1,177	0.00	0.02	0.000	43.5	10.01	10.30	8.00	280	0.375	101.7%
48		1,176	0.00	0.00	0.000	50.0	10.00	0.00	7.80	300	0.335	95.2%
TOTAL			0.24	0.67	0.00							
											0.040	

	Removed In Sample								
NaCN	Au	Au	Au Vessel	Au Total					
(mg)	(µg)	(µg) Cum.	(µg)	(µg)					
0.0									
16.4	14	14	355	369					
16.2	17	31	380	410					
10.0	14	45	431	476					
12.2	16	61	425	486					
15.0	17	78	377	455					
69.7	78								

	Hour	8	24	48
TOTAL NaCN added (g)		0.61	0.65	0.67
NaCN remaining in solution (g)		0.31	0.33	0.35
NaCN removed during sampling (g)		0.04	0.05	0.07
TOTAL NaCN consumed (g	TOTAL NaCN consumed (g)		0.27	0.25
TOTAL NaCN consumed (kg/to	TOTAL NaCN consumed (kg/tonne)		0.27	0.25
TOTAL lime consumed (kg/tonne)		0.24	0.24	0.24

REAGENT CONSUMPTION	N
	kg/tonne
TOTAL NaCN addition (kg/tonne)	0.67
TOTAL NaCN consumed (kg/tonne)	0.25
TOTAL lime consumed (kg/tonne)	0.24
COMMENTS	

GOLD EXT	RACTION	CALCUL	ATIONS	
			Gold	
		Assay	Mass	Distrib
Product	Quantity	(ppm)	<mark>(µg)</mark>	
Solids (g)	994.8	0.0230	23	4.8%
Solution (g)	1,126.3	0.335	377	78.9%
Solution Samples	1,12010	0.000	78	16.3%
solution sumples				10.570
Extraction				95.2%
Total			478	100%
Calculated Grade (ppm)			0.481	
Assay Grade (ppm)			0.617	



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Client Code	M712
Client	IMO - Kairos Minerals
Job Request	JR005
Test Number	LT-02
Sample	Composite 2
Date	1/08/2023
Grind Size (P80)	53
Water	Perth Tap

	Parameters	
рН	Initial	10.50
	Maintained	10-10.5
NaCN	Initial	500
(ppm)	Maintained	300
Pulp Density	/ (%solids)	45%
Oxygen or Air		Air
Dissolved Oxygen (ppm)		8-10 ppm

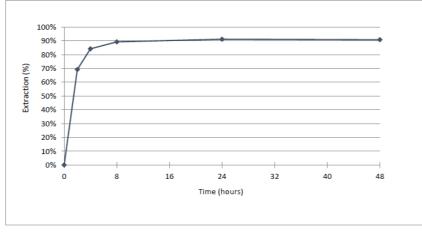
	Additions						Extraction (%)					
Time	Ore (solids)	Water	Lime	NaCN	Pb(NO <sub>3</sub> ) <sub>2</sub>	Sample	p	Н	D.O.	NaCN	Au	Au
(hours)	(g)	(g)	(g)	(g)	(g)	(g)	Found	Left	(ppm)	(ppm)	(ppm)	
0	1,000	1,222	0.13	0.61	0.000	0.0	10.50	10.50	5.70	0	0.000	0%
2		1,210	0.00	0.00	0.000	44.6	10.20	10.20	7.90	320	0.965	69.2%
4		1,198	0.00	0.07	0.000	51.6	10.00	10.00	8.40	240	1.15	84.2%
8		1,189	0.07	0.04	0.000	43.4	9.75	10.17	8.70	260	1.18	89.2%
24		1,179	0.13	0.07	0.000	44.7	9.88	10.41	8.00	240	1.18	91.1%
48		1,178	0.00	0.00	0.000	49.7	9.94	0.00	7.60	200	1.13	90.7%
TOTAL			0.33	0.79	0.00							
											0.050	

Hour	8	24	48
TOTAL NaCN added (g)	0.68	0.72	0.79
NaCN remaining in solution (g)	0.31	0.28	0.24
NaCN removed during sampling (g)	0.04	0.05	0.06
TOTAL NaCN consumed (g)	0.33	0.39	0.50
TOTAL NaCN consumed (kg/tonne)	0.33	0.39	0.50
TOTAL lime consumed (kg/tonne)	0.20	0.33	0.33

	Removed In Sample							
NaCN	Au	Au	Au Vessel	Au Total				
(mg)	(µg)	(µg) Cum.	(µg)	(µg)				
0.0								
14.3	43	43	1125	1168				
12.4	59	102	1319	1421				
11.3	51	154	1352	1506				
10.7	53	206	1332	1538				
9.9	56	262	1270	1532				
58.6	262							

GOLD EXTRACTION CALCULATIONS						
		Gold				
	1 1					
Product	Quantity	(ppm)	(µg)			
Solids (g)	995.7	0.157	156	9.3%		
Solution (g)	1,128.6	1.13	1270	75.2%		
Solution Samples	-,		262	15.5%		
ooladon oumpies			202	101070		
Extraction				90.7%		
Total			1,688	100%		
Calculated Grade (ppm)			1.70			
Assay Grade (ppm)			1.66			

REAGENT CONSUMPTION	
	kg/tonne
TOTAL NaCN addition (kg/tonne)	0.79
TOTAL NaCN consumed (kg/tonne)	0.50
TOTAL lime consumed (kg/tonne)	0.33
COMMENTS	



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Client Code	M712
Client	IMO - Kairos Minerals
Job Request	JR005
Test Number	LT-03
Sample	Composite 3
Date	1/08/2023
Grind Size (P80)	53
Water	Perth Tap

Parameters						
рН	Initial	10.50				
	Maintained	10-10.5				
NaCN	Initial	500				
(ppm)	Maintained	300				
Pulp Density	45%					
Oxygen or A	Air					
Dissolved O	xygen (ppm)	8-10 ppm				

#### CYANIDE LEACH TESTWORK

	Additions				Solution Data					Extraction (%)		
Time	Ore (solids)	Water	Lime	NaCN	Pb(NO <sub>3</sub> ) <sub>2</sub>	Sample	р	H	D.O.	NaCN	Au	Au
(hours)	(g)	(g)	(g)	(g)	(g)	(g)	Found	Left	(ppm)	(ppm)	(ppm)	
0	1,000	1,222	0.19	0.61	0.000	0.0	10.50	10.50	6.00	0	0.000	0%
2		1,210	0.00	0.12	0.000	46.4	10.11	10.11	8.70	320	0.625	72.6%
4		1,201	0.00	0.00	0.000	51.8	10.05	10.05	8.40	320	0.730	86.9%
8		1,189	0.12	0.02	0.000	42.1	9.73	10.14	8.60	280	0.770	94.3%
24		1,177	0.19	0.12	0.000	46.3	8.96	10.27	7.90	200	0.765	95.9%
48		1,177	0.00	0.00	0.000	43.5	10.21	0.00	7.90	100	0.705	92.5%
TOTAL			0.50	0.87	0.00							
											0.060	

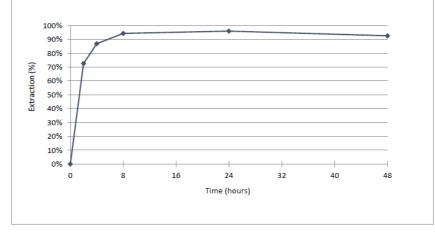
5 0.87
4 0.12
5 0.06
6 0.70
6 0.70
0 0.50

		-		
NaCN	Au	Au	Au Au Vessel	
(mg)	(µg) (µg) Cum. (µg)		(µg)	(µg)
0.0				
14.8	29	29	727	756
16.6	38	67	839	905
11.8	32	99	883	982
9.3	35	135	865	1000
4.4	31	165	799	964
56.8	165			
30.0	105			

Removed In Sample

GOLD EXTRACTION CALCULATIONS						
	Gold					
Product	Quantity	(ppm)	(µg)			
Solids (g)	990.5	0.0785	78	7.5%		
Solution (g)	1,133.6	0.705	799	76.7%		
Solution Samples	1,100.0	01700	165	15.9%		
Solution Samples			105	15.5%		
Extraction				92.5%		
			1.040			
Total			1,042	100%		
Calculated Grade (ppm)			1.05			
Assay Grade (ppm)			0.931			

TOTAL NaCN addition (kg/tonne)	kg/tonne
	0.87
TOTAL NaCN consumed (kg/tonne)	0.70
TOTAL lime consumed (kg/tonne)	0.50
COMMENTS	



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Client Code	M712
Client	
	IMO - Kairos Minerals
Job Request	JR005
Test Number	LT-04
Sample	Composite 4
Date	1/08/2023
Grind Size (P80)	53
Water	Perth Tap

Parameters						
рН	Initial	10.50				
	Maintained	10-10.5				
NaCN	Initial	500				
(ppm)	Maintained	300				
Pulp Density	Pulp Density (%solids)					
Oxygen or A	Air					
Dissolved O	Dissolved Oxygen (ppm)					

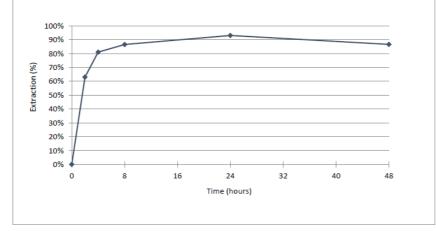
		Additions			Solution Data			Extraction (%)				
Time	Ore (solids)	Water	Lime	NaCN	Pb(NO <sub>3</sub> ) <sub>2</sub>	Sample	р	H	D.O.	NaCN	Au	Au
(hours)	(g)	(g)	(g)	(g)	(g)	(g)	Found	Left	(ppm)	(ppm)	(ppm)	
0	1,000	1,222	0.18	0.61	0.000	0.0	10.50	10.50	6.40	0	0.000	0%
2		1,212	0.00	0.00	0.000	46.5	10.25	10.25	8.30	360	0.290	63.0%
4		1,201	0.00	0.02	0.000	49.9	10.15	10.15	8.60	280	0.365	81.0%
8		1,186	0.09	0.00	0.000	43.7	9.80	10.27	8.40	320	0.380	86.5%
24		1,176	0.20	0.00	0.000	42.7	8.97	10.33	8.00	300	0.400	93.0%
48		1,175	0.00	0.00	0.000	53.0	10.23	0.00	7.70	220	0.355	86.6%
TOTAL			0.47	0.63	0.00							
											0.045	

Hour	8	24	48
TOTAL NaCN added (g)	0.63	0.63	0.63
NaCN remaining in solution (g)	0.38	0.35	0.26
NaCN removed during sampling (g)	0.04	0.06	0.07
TOTAL NaCN consumed (g)	0.21	0.22	0.30
TOTAL NaCN consumed (kg/tonne)	0.21	0.22	0.30
TOTAL lime consumed (kg/tonne)	0.27	0.47	0.47

Removed In Sample							
NaCN	Au	Au	Au Au Vessel				
(mg)	(µg)	(μg) Cum.	(µg)	(µg)			
0.0							
16.7	13	13	338	351			
14.0	18	32	420	452			
14.0	17	48	434	482			
12.8	17	65	453	519			
11.7	19	84	398	483			
69.1	84						

GOLD EXT	GOLD EXTRACTION CALCULATIONS							
	Assay	Mass	Distrib					
Product	Quantity	(ppm)	(µg)					
Solids (g)	998.4	0.0750	75	13.4%				
Solution (g)	1,122.5	0.355	398	71.5%				
Solution Samples	1,122.00	0.000	84	15.1%				
Solution Samples				13.1%				
Extraction				86.6%				
Total			558	100%				
Calculated Grade (ppm)			0.558					
Assay Grade (ppm)			0.494					

REAGENT CONSUMPTION							
	kg/tonne						
TOTAL NaCN addition (kg/tonne)	0.63						
TOTAL NaCN consumed (kg/tonne)	0.30						
TOTAL lime consumed (kg/tonne)	0.47						
COMMENTS	COMMENTS						







Client Code	M712
Client	IMO - Kairos Minerals
Job Request	JR006
Test Number	LT-05 (Round 2 Test 1)
Sample	Composite 1
Date	15/08/2023
Grind Size (P80)	53
Water	Perth Tap

Parameters						
рН	Initial	10.50				
	Maintained	10-10.5				
NaCN	Initial	500				
(ppm)	Maintained	300				
Pulp Density	(%solids)	45%				
Oxygen or A	ir	Air				
Dissolved O	xygen (ppm)	8-10 ppm				

		Additions				Solution Data					Extraction (%)	
Time	Ore (solids)	Water	Lime	NaCN	Pb(NO <sub>3</sub> ) <sub>2</sub>	Sample	р	H	D.O.	NaCN	Au	Au
(hours)	(g)	(g)	(g)	(g)	(g)	(g)	Found	Left	(ppm)	(ppm)	(ppm)	
0	1,000	1,248	0.30	0.61	0.000	0.0	10.50	10.50	6.10	0	0.00	0%
2		1,247	0.00	0.00	0.000	34.7	10.50	10.50	8.20	480	0.05	
4		1,244	0.00	0.00	0.000	32.9	10.47	10.47	8.50	460	0.01	
8		1,234	0.00	0.00	0.000	37.1	10.50	10.50	9.20	400	0.00	
24		1,216	0.00	0.00	0.000	47.5	10.50	10.50	8.20	300	0.01	
48		1,214	0.00	0.00	0.000	34.3	10.50	0.00	9.80	200	0.00	93.8%
TOTAL			0.30	0.61	0.00							

	Removed In Sample							
NaCN	Au	Au	Au Vessel	Au Total				
(mg)	(µg)	(μg) Cum.	(µg)	<mark>(µg)</mark>				
0.0								
16.6	2	2	61	62				
15.1	0	2	12	14				
14.9	0	2	0	2				
14.3	0	3	12	14				
6.9	0	3	0	3				
67.7	3							

	Hour	8	24	48
TOTAL NaCN added (g)		0.61	0.61	0.61
NaCN remaining in solution	(g)	0.49	0.36	0.24
NaCN removed during samplin	og (g)	0.05	0.06	0.07
TOTAL NaCN consumed (g)		0.07	0.18	0.30
TOTAL NaCN consumed (kg/to	onne)	0.07	0.18	0.30
TOTAL lime consumed (kg/tor	nne)	0.30	0.30	0.30

Г

GOLD EXT	GOLD EXTRACTION CALCULATIONS						
	Gold						
	Assay	Mass	Distrib				
Product	Quantity	(ppm)	(µg)				
Solids (g)	989.3	0.029	29	6.2%			
Carbon (g)	24.0	18.0	431	93.2%			
Solution (g)	1,179.2	0.000	0	0.0%			
Solution Samples			3	0.5%			
Extraction				93.8%			
Total			462	100%			
Calculated Grade (ppm)			0.467				
Assay Grade (ppm)		0.617					

#### REAGENT CONSUMPTION

	kg/tonne
TOTAL NaCN addition (kg/tonne)	0.61
TOTAL NaCN consumed (kg/tonne)	0.30
TOTAL lime consumed (kg/tonne)	0.30
COMMENTS	





Client Code	M712
Client	IMO - Kairos Minerals
Job Request	JR006
Test Number	LT-06 (Round 2 Test 2)
Sample	Composite 2
Date	15/08/2023
Grind Size (P80)	53
Water	Perth Tap

Parameters						
рН	Initial	10.50				
	Maintained	10-10.5				
NaCN	Initial	500				
(ppm)	Maintained	300				
Pulp Density	(%solids)	45%				
Oxygen or A	ir	Air				
Dissolved O	Dissolved Oxygen (ppm)					

	Additions					Solution Data					Extraction (%)	
Time	Ore (solids)	Water	Lime	NaCN	Pb(NO <sub>3</sub> ) <sub>2</sub>	Sample	р	н	D.O.	NaCN	Au	Au
(hours)	(g)	(g)	(g)	(g)	(g)	(g)	Found	Left	(ppm)	(ppm)	(ppm)	
0	1,000	1,248	0.24	0.61	0.000	0.0	10.50	10.50	5.30	0	0.00	
2		1,246	0.00	0.00	0.000	28.9	10.47	10.47	8.00	460	0.12	
4		1,241	0.00	0.00	0.000	58.3	10.45	10.45	8.10	420	0.03	
8		1,234	0.00	0.00	0.000	42.1	10.30	10.30	8.40	300	0.02	
24		1,223	0.00	0.12	0.000	47.4	10.30	10.30	8.00	200	0.00	
48		1,221	0.00	0.00	0.000	37.2	10.20	0.00	9.60	200	0.00	89.4%
TOTAL			0.24	0.73	0.00							

	Removed In Sample								
NaCN (mg)			Au Vessel (μg)	Au Total (μg)					
	(P6/	(µg) Cum.	(184)	(146)					
0.0									
13.3	3	3	146	150					
24.5	2	5	35	41					
12.6	1	6	24	30					
9.5	0	6	0	6					
7.4	0	6	0	6					
67.4	6								

GOLD EXT	GOLD EXTRACTION CALCULATIONS								
		Gold							
		Assay	Mass	Distrib					
Product	Quantity	(ppm)	(µg)						
Solids (g)	989.4	0.163	161	10.6%					
Carbon (g)	24.1	56.0	1350	89.0%					
Solution (g)	1,184.2	0.000	0	0.0%					
Solution Samples			6	0.4%					
Extraction				89.4%					
Total			1,517	100%					
Calculated Grade (ppm)			1.53						
Assay Grade (ppm)			1.66						

	Hour	8	24	48
TOTAL NaCN added (g)		0.61	0.61	0.73
NaCN remaining in solution	(g)	0.37	0.24	0.24
NaCN removed during samplin	g (g)	0.05	0.06	0.07
TOTAL NaCN consumed (g		0.19	0.31	0.42
TOTAL NaCN consumed (kg/to	nne)	0.19	0.31	0.42
TOTAL lime consumed (kg/tor	ine)	0.24	0.24	0.24

REAGENT CONSUMPTION	-
	kg/tonne
TOTAL NaCN addition (kg/tonne)	0.7
TOTAL NaCN consumed (kg/tonne)	0.4
TOTAL lime consumed (kg/tonne)	0.2
COMMENTS	





Client Code	M712
Client	IMO - Kairos Minerals
Job Request	JR006
Test Number	LT-07 (Round 2 Test 3)
Sample	Composite 3
Date	15/08/2023
Grind Size (P80)	53
Water	Perth Tap

	Parameters			
рН	Initial	10.50		
	Maintained	10-10.5		
NaCN	Initial	500		
(ppm)	Maintained	300		
Pulp Density	(%solids)	45%		
Oxygen or A	ir	Air		
Dissolved O	Dissolved Oxygen (ppm)			

		Solution Data					Extraction (%)					
Time	Ore (solids)	Water	Lime	NaCN	Pb(NO <sub>3</sub> ) <sub>2</sub>	Sample	р	H	D.O.	NaCN	Au	Au
(hours)	(g)	(g)	(g)	(g)	(g)	(g)	Found	Left	(ppm)	(ppm)	(ppm)	
0	1,000	1,247	0.35	0.61	0.000	0.0	10.50	10.50	4.90	0	0.00	
2		1,246	0.00	0.00	0.000	35.5	10.43	10.43	8.60	420	0.03	
4		1,246	0.00	0.00	0.000	30.8	10.40	10.40	8.40	360	0.00	
8		1,236	0.00	0.04	0.000	41.3	10.30	10.30	8.50	260	0.00	
24		1,227	0.00	0.17	0.000	44.3	10.10	10.10	8.20	160	0.02	
48		1,226	0.00	0.00	0.000	38.5	10.30	0.00	10.00	160	0.00	91.3%
TOTAL			0.35	0.82	0.00							

	Removed In Sample								
NaCN	Au	Au Au		Au Total					
(mg)	(µg)	(µg) Cum.	(µg)	(µg)					
0.0									
14.9	1	1	36	37					
11.1	0	1	0	1					
10.7	0	1	0	1					
7.1	1	2	24	26					
6.2	0	2	0	2					
50.0	2								

	Hour	8	24	48
TOTAL NaCN added (g)		0.61	0.65	0.82
NaCN remaining in solution	(g)	0.32	0.20	0.20
NaCN removed during sampli	ng (g)	0.04	0.04	0.05
TOTAL NaCN consumed (g	g)	0.25	0.41	0.57
TOTAL NaCN consumed (kg/to	onne)	0.25	0.41	0.57
TOTAL lime consumed (kg/to	nne)	0.35	0.35	0.35

GOLD EXTRACTION CALCULATIONS						
			Gold			
		Assay	Mass	Distrib		
Product	Quantity	(ppm)	(µg)			
Solids (g)	993.8	0.0770	77	8.7%		
Carbon (g)	24.2	33.0	798	91.0%		
Solution (g)	1,187.6	0.000	0	0.0%		
Solution Samples			2	0.2%		
Extraction				91.3%		
Total			876	100%		
Calculated Grade (ppm)		0.882				
Assay Grade (ppm)			0.931			

	kg/tonne
TOTAL NaCN addition (kg/tonne)	0.82
TOTAL NaCN consumed (kg/tonne)	0.57
TOTAL lime consumed (kg/tonne)	0.35
COMMENTS	





Client Code	M712	
Client	IMO - Kairos Minerals	
Job Request	JR006	
Test Number	LT-08 (Round 2 Test 4)	
Sample Composite 4		
Date	15/08/2023	
Grind Size (P80)	53	
Water	Perth Tap	

Parameters							
рН	pH Initial						
	Maintained	10-10.5					
NaCN	Initial	500					
(ppm)	Maintained	300					
Pulp Density	Pulp Density (%solids)						
Oxygen or A	Air						
Dissolved O	8-10 ppm						

	Additions						Solutio	on Data			Extraction (%)	
Time	Ore (solids)	Water	Lime	NaCN	Pb(NO <sub>3</sub> ) <sub>2</sub>	Sample	р	н	D.O.	NaCN	Au	Au
(hours)	(g)	(g)	(g)	(g)	(g)	(g)	Found	Left	(ppm)	(ppm)	(ppm)	
0	990	1,257	0.16	0.61	0.000	0.0	10.50	10.50	6.20	0	0.00	
2		1,256	0.00	0.00	0.000	53.9	10.41	10.41	8.30	440	0.03	
4		1,251	0.00	0.00	0.000	52.2	10.38	10.38	8.40	340	0.01	
8		1,240	0.00	0.02	0.000	55.9	10.20	10.20	8.90	280	0.01	
24		1,230	0.00	0.09	0.000	39.2	10.20	10.20	8.60	220	0.00	
48		1,230	0.00	0.00	0.000	28.4	10.20	0.00	9.70	160	0.00	91.0%
TOTAL			0.16	0.72	0.00							

Hour	8	24	48
TOTAL NaCN added (g)	0.61	0.63	0.72
NaCN remaining in solution (g)	0.35	0.27	0.20
NaCN removed during sampling (g)	0.06	0.07	0.07
TOTAL NaCN consumed (g)	0.21	0.29	0.45
TOTAL NaCN consumed (kg/tonne)	0.21	0.30	0.46
TOTAL lime consumed (kg/tonne)	0.16	0.16	0.16

Removed In Sample					
NaCN	Au	Au	Au Vessel	Au Total	
(mg)	(µg)	(µg) Cum.	(µg)	(µg)	
0.0					
23.7	2	2	36	38	
17.7	1	2	12	14	
15.7	1	3	12	15	
8.6	0	3	0	3	
4.5	0	3	0	3	
70.3	3				

GOLD EXT	GOLD EXTRACTION CALCULATIONS						
		Gold					
	Assay	Mass	Distrib				
Product	Quantity	(ppm)	(µg)				
Solids (g)	982.4	0.0565	56	9.0%			
Carbon (g)	24.3	23.0	559	90.6%			
Solution (g)	1,201.3	0.000	0	0.0%			
Solution Samples			3	0.4%			
Extraction				91.0%			
Total			617	100%			
Calculated Grade (ppm)		0.628					
Assay Grade (ppm)		0.494					

REAGENT CONSUMPTION	
	L.

	kg/tonne
TOTAL NaCN addition (kg/tonne)	0.72
TOTAL NaCN consumed (kg/tonne)	0.46
TOTAL lime consumed (kg/tonne)	0.16
COMMENTS	

## KAIROS

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

#### **Section 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>Sampling was undertaken using diamond drilling, percussion and reverse circulation (RC) drilling.</li> <li>All drilling and sampling was undertaken using industry standard methods.</li> <li>Diamond drilling depths and run lengths were measured and recorded by the driller and written on core blocks and inserted into the core trays. Rod counts were conducted to verify drill hole and sample depths</li> <li>Percussion and RC drilling depths were monitored by the driller using 1m depth intervals calibrated and marked on the drilling equipment. Sample lengths were also verified by Kairos personnel through visual assessment of individual sample volumes.</li> <li>Diamond drill core was logged geologically, marked up for sampling, and photographed. Samples were selected on nominal 1m intervals in and around mineralised zones, with variations to interval lengths based on geological boundaries.</li> <li>RC holes were sampled on a 1m basis with samples collected in calico bags from a cyclone-mounted cone splitter located at the drill rig.</li> <li>Sampling was carried out under Kairos Minerals sampling protocols and QAQC procedures. See further details below.</li> <li>The samples are considered representative and appropriate for the methods of drilling used.</li> <li>Diamond core and RC samples were assayed for gold by fire assay at Intertek Genalysis Laboratory in Perth.</li> <li>This announcement refers to metallurgical testwork that was undertaken on crushed diamond drill core reject material for the intervals referred to in Appendix A. Not all consecutive sample intervals were available for this testwork.</li> </ul>
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by	<ul> <li>RC drilling was conducted using a 5 ½ inch bit and face sampling hammer</li> <li>Diamond drilling was conducted using HQ3 diameter (61mm) drilling to fresh rock with NQ2 diameter (51mm) drilling for the</li> </ul>

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KAIROS

Criteria	JORC Code explanation	Commentary
	what method, etc).	<ul> <li>remainder of the hole.</li> <li>A number of deeper drillholes consisted of RC pre-collars with NQ2 diameter diamond tails.</li> <li>All NQ drill core was oriented using a Reflex digital orientation tool at the drill site, and then joined and marked up by Kairos field personnel</li> </ul>
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>Recoveries from historical sampling techniques are unknown.</li> <li>Drill core recovery is measured for each drilling run by the driller and recorded on core blocks inserted into the core trays. These measurements are verified by the geological staff during the mark up and logging process by physical measurement with a tape measure.</li> <li>RC samples were visually assessed for recovery.</li> <li>The majority of RC samples were dry. Some deeper drillholes encountered water and efforts were made by the drillers to minimise the amount of water in the sample and to maximise recovery.</li> <li>Recovery of RC samples is considered good, with some minor sample loss near the very top of some holes outside of mineralisation.</li> <li>RC samples were collected directly from a cone splitter on the drill rig cyclone and are considered representative in nature.</li> <li>No sample bias is observed.</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>All RC chips and drill core were geologically logged by company geologists using the Kairos Minerals logging scheme.</li> <li>Logging of diamond core and RC chips records colour, lithology, grain size, structure, mineralalogy, alteration, weathering and various other features of the samples.</li> <li>All holes were logged in full.</li> <li>All diamond core was photographed both dry and wet in core trays after logging and prior to cutting and sampling.</li> <li>All RC chips were photographed in labelled chip trays.</li> <li>A total of seven diamond holes were fully logged geotechnically by an external geotechnical consultant in preparation for mining studies.</li> <li>The detail and quality of the logging, once all the data was converted into a similar logging</li> </ul>

Criteria	JORC Code explanation	Commentary
Sub	• If some whether set on set 1 1 1	format (data ranges from 1986 – 2022) has enabled the competent person to be able to define appropriate domains, based on geology, appropriate for Mineral Resource Estimation
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>NQ and HQ drill core samples were cut in half, with half core samples submitted for analysis and the other half retained on site in core trays. Half core drill samples typically ranged in weight from 2.7kg – 3.6kg.</li> <li>RC samples were sampled using a cone splitter mounted on the drill rig cyclone, with an average 2.5kg to 3.5kg sample collected directly into a numbered calico bag. &gt;95% of samples were collected dry</li> <li>The quality of RC samples was ensured through monitoring of sample volumes and by regular cleaning of the cyclone and cone splitter on the drill rig.</li> <li>All drill core cutting and RC sampling was conducted at the Mt York project site.</li> <li>Samples were prepared at Intertek Genalysis in Perth. Samples were dried, crushed and then pulverised to a pulp with 85% passing &lt;75 µm. A sub-sample of approximately 200g was retained.</li> <li>Sample sizes are considered appropriate for the material sampled.</li> <li>The metallurgical testwork undertaken for this announcement was under the auspices of IMO Pty Ltd and Metallurgy Pty Ltd. Procedures and shown in the respective Appendices.</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>Kairos samples were analysed by Intertek Genalysis in Perth. The analytical method used was a 50g fire assay for gold, followed by an ICP-OES finish with laboratory code FA50/OE04 and a quoted lower detection limit of 0.005ppm Au. The analysis method is considered appropriate for the nature of the material and mineralisation.</li> <li>A 48 element analysis was conducted on RC and diamond samples at a minimum rate of 1:20 samples using Intertek Genalysis method 4A/MS48 involving a four-acid digest and ICP-MS and ICP-OES finish</li> <li>Certified standards and blanks were regularly inserted into the sample sequence at a minimum rate of 1:30 for standards and 1:30</li> </ul>



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> <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>for blanks to assess the accuracy of the analysis method.</li> <li>The laboratory performed regular performance checks through analysis of laboratory standards, repeats, and control blanks.</li> <li>QAQC performance was monitored by Kairos staff with action taken with the laboratory if required.</li> <li>Acceptable levels of accuracy and precision have been established through monitoring and assessment of QAQC performance.</li> <li>Specific Gravity measurements were performed on selected whole and half core samples by Intertek Genalysis in Perth using the Archimedes water displacement method with laboratory quartz standards of known density.</li> <li>Metallurgical testwork in this release was prepared Intertek under the auspices of IMO Pty Ltd and procedures described in the release.</li> <li>Significant mineralised intersections were checked by the Exploration Manager and validated against the drill core and logging in the case of diamond drilling, and against the logging and RC chips in the case of RC drilling. Additional checks were performed by other members of the Kairos geology team.</li> <li>No twinned drillholes were completed for this program.</li> <li>All assay and geological data is stored in an electronic database hosted by acQuire and managed by the company's database consultant.</li> <li>Primary laboratory data is emailed directly to the company's database.</li> <li>Results are checked and verified by company geologists.</li> <li>No adjustments have been made to the assay data.</li> <li>Assay intersections are reported on a lengthweighted basis.</li> </ul>



		MINERALS
Criteria	JORC Code explanation	Commentary
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>Kairos drillholes from 2022 - diamond and RC collars were surveyed postdrilling with a RTK DGPS system operated by a qualified surveyor supplied by an external survey company, with expected accuracies of +/-20mm horizontally and +/- 30mm vertically.</li> <li>All Mount York hole collars are in MGA94 Zone 50 (GDA94)</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 control is through a DTM generated through stereoscopic photogrammetry of 5cm resolution aerial imagery. The accuracy of the DTM is estimated as better than 0.5m in elevation.</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>Nominal Kairos drill spacing ranges from 100m x 100m for extensional exploration drillholes down-dip and along strike, to 50m x 50m and 50m x 100m for infill and local extensional holes.</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 classification applied under the 2012 JORC Code</li> <li>No compositing of samples has been applied.</li> <li>Metallurgical samples were selected along the deposit to gain the maximum geographic spread whilst selecting representative geological samples of the deposit with grade variations represented within the resource grade.</li> <li>Four composite samples were created for the purposes of the metallurgical testwork</li> </ul>
Orientation of data in relation to geological structure	<ul> <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>Drilling was oriented approximately perpendicular to the strike and dip of mineralisation.</li> <li>Drill holes were angled between -50° and -65° to provide good intersection angles with mineralisation that dips between -40° to -70°.</li> <li>No biases have been identified based on drilling angles and known structures.</li> <li>The drill orientation is considered appropriate and representative.</li> </ul>



Criteria	JORC Code explanation	Commentary
Sample security	• The measures taken to ensure sample security.	<ul> <li>Unknown for historical samples</li> <li>All Kairos samples were collected in the field at the project site in number-coded calico bags and placed within secure, labelled polyweave bags by company field personnel.</li> <li>All samples were delivered directly to a freight contractor for secure transport to Intertek Genalysis in Perth for final analysis.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>QAQC data was reviewed internally.</li> <li>No external QAQC reviews or audits have been conducted.</li> </ul>

### **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Mt York project comprises 12 Prospecting Licences P45/2987 - 2998 inclusive.</li> <li>Kairos Minerals Limited owns 100% of the 12 Prospecting Licences that define the Mt York Gold Project through its wholly-owned subsidiary Mount York Operations Pty Ltd. The security of the tenements is in good standing.</li> <li>Kairos Minerals is in the process of converting the Prospecting Licences into Mining Leases, and has submitted Mining Lease applications over the existing Prospecting Licences to DMIRS (as reported to the ASX on 31/01/2023 -'Quarterly Report for the Period Ending 31 December 2022').</li> <li>The project is located on Wallareenya and Strelley Pastoral Co Leases.</li> <li>Kairos is not aware of any existing impediments which may impact ongoing exploration and development activities at the project site.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Significant past work has been carried out by other parties including open pit mining of previously defined gold resources.</li> <li>During the early to mid-1970's, the Lynas Find project area was part of a large area held and explored for volcanogenic base metal deposits, initially by McIntyre Mines Pty Ltd, and then by Esso Minerals. Esso completed some induced polarization and ground magnetic geophysical surveys, and some diamond drilling over the area including the Main Trend at Mt York.</li> <li>The Main Trend at Mt York was discovered by</li> </ul>

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Criteria	JORC Code explanation	Commentary
		<ul> <li>Carpentaria Exploration Company Pty Ltd in 1986. Lynas Gold NL acquired the project in the early 1990's and mined a number of deposits as a successful open pit operation by that company between 1994 – 1998. Other companies to have explored the area include Austamax, MIM and Trafford Resources.</li> <li>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.</li> <li>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.</li> <li>Metallurgical testwork was completed by previous explorers, notably Lynas Gold NL between 1986-1989, 1994 and 1997. All work was completed at Ammtec in Perth but other laboratories including Amdel, EL Bateman, Nedpac Engineering, Kappes Cassiday, GMS, Wamtech and Hydrometallurgical Research were also involved in specific investigations. Signet Engineering conducted metallurgical reviews and completed design studies for the comminution and leaching circuits.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Regional Geology</li> <li>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.</li> <li>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.</li> <li>Local Geology</li> <li>The Mt York main trend geology comprises (from NE to SW) – felsic volcanics and cherts, mafic-ultramafic volcanics and amphibolite, banded iron formation (BIF), and fine to coarse-grained sediments.</li> <li>The sequence has been metamorphosed to</li> </ul>

		<u> </u>
Criteria	JORC Code explanation	Commentary
Drill hole	• A summary of all information material to	<ul> <li>amphibolite facies and has been broadly folded. The dominat mineralogy of the BIF consist of magnetite and Fe-rich grunerite amphibole.</li> <li>Gold mineraliation is hosted primarily within the BIF sequence, and is associated with weak to strongly disseminated arsenopyrite and disseminated to massive pyrrhotite associated with visible folding and deformation of the BIF layering.</li> <li>The coordinates and other attributes of all</li> </ul>
Information	<ul> <li>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 Goordinates and other attributes of an 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 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>18/12/2018 - 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 - Exceptional high-grade gold zones intersected at Mount York</li> <li>23/11/2021 - Further high-grade gold zones intersected at Mount York</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>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> <li>10/10/2022 - Drilling Update at Mt York, Pilbara WA</li> <li>09/02/2023 - Outstanding intersections below 1.1Moz Resource point to further inventory growth</li> <li>27/02/2023 - Strong drilling results extend known mineralisation below 1.1Moz Resource.</li> <li>05/04/2023 - More wide intersections pave way for update on 1.1Moz Resource.</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 clearly stated.</li> </ul>	<ul> <li>Exploration results are not being reported.</li> <li>Not applicable as metallurgical testwork is being reported.</li> <li>Metal equivalent values have not been used.</li> </ul>
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	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	• Refer to Figures and Tables provided in the body of this announcement.
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.



		MINERALS
Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>All interpretations for the Mt York - Main Trend are consistent with observations made and information gained during previous mining of the open pits.</li> <li>All interpretations for the Mt York - Main Trend deposit, are consistent with observations made in historic reports.</li> <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> <li>Groundwater and detailed geotechnical studies have commenced in preparation for mining studies.</li> <li>Metallurgical testwork results are reported herein and all methodology, workflows and results are reported in the body of the release.</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>	<ul> <li>Mineralisation at Mt York remains open at depth and along strike and additional RC and diamond drill holes are being planned to extend the known mineralisation.</li> <li>Future metallurgical testwork has been discussed in the bosy of the release.</li> </ul>

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

Criteria	JORC Code explanation	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	• Comment on any site visits undertaken by the Competent Person and the	• The most recent site visits were conducted by Mark Falconer in February 2023. Drilling,

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Criteria	JORC Code explanation	Commentary
	outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	logging, and sampling procedures were reviewed, and no issues were encountered.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral 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>The confidence in the geological interpretation is considered to be high.</li> <li>Geological logging has been used to assist 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 Mt York – Main Trend gold deposit 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</li> </ul>	No mineral resource is being reported in the release

Criteria	JORC Code explanation	Commentary
	<ul> <li>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> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	No moisture values were reported
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	Not applicable
<i>Mining factors or assumptions</i>	• 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.	• Not applicable
<i>Metallurgical factors or assumptions</i>	• 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.	<ul> <li>Crushed reject from selected diamond core from Kairos's 2022 drilling programme was used for the metallurgical test work reported here.</li> <li>All work flows are contained in Appendix B and discussed in the body of the release.</li> <li>Metallurgical testwork was discussed with IMO Pty Ltd to understand the leach test kinetics (Round 1) and amenability of the ore to CIL (Round 2)</li> </ul>

		MINERALS
Criteria	JORC Code explanation	Commentary
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 environmental impacts of the 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.	<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>
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>	No bulk densities were measured for thie release
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>	• No Mineral Resource is reported
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• No audits or review of the metallurgy has been conducted outside of the main consultants
Discussion of relative accuracy/ confidence	• 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	• Not applicable.

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## Criteria

#### **JORC Code explanation**

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.

- The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.
- These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.

Commentary