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20 November 2023

#### **ASX RELEASE**

# Further significant uranium results from exploration at Mkuju in Tanzania; diamond rig mobilising

#### **Highlights**

• Stage 1 drilling up to 3,000m and associated rock chip and soil sampling exploration program continues at the Mkuju Uranium Project, in southern Tanzania has returned further high grade U₃O<sub>8</sub> results including:

MKGS056(soil) 652ppm U<sub>3</sub>O<sub>8</sub>

MKGS056(rock chip) 1,344ppm U<sub>3</sub>O<sub>8</sub>

MKGS057(rock chip) 549ppm U<sub>3</sub>O<sub>8</sub>

- Mkuju comprises a 730sq km licence area immediately adjacent to the world class Russian-owned Nyota uranium project.
- A hand-held spectrometer is also being used as part of the Mkuju program and is producing highly elevated radiation readings in and around the same sample areas.
- These results provide further confirmation of potentially significant uranium mineralisation across the historical radiometric survey conducted over the Mkuju Project area.
- Diamond drilling rig is now at being mobilised towards the first drill hole location – planned drilling pending weather and access conditions before end of 2023.

#### **Cautionary Statement**

The Company uses a Delta Olympus portable hand-held pXRF analyzer and an RS230 gamma ray spectrometer to screen all samples for mineralisation before submitting samples to the lab for assay. This allows for some understanding of the distribution of mineralisation prior to sampling to better ensure that samples submitted for analysis are representative of the type and style of mineralisation. The hand-held XRF and spectrometer units provide confirmation that mineralisation is present



however it is not an accurate determination of the elemental concentration within the sample anlaysed. Limitations include: very small analysis window, possible inhomogeneous distribution of mineralisation, analytical penetration depth, possible effects from irregular rock surfaces. Accordingly, results obtained from the hand-held pXRF and spectrometer units are indicative only and may not be representative of elemental concentration within the material sampled. The pXRF and spectrometer readings published in this release are subject to confirmation by chemical analysis from an independent laboratory.

AuKing Mining Limited (ASX: AKN) continues to identify significant soil and rock samples as part of its Stage 1 exploration and drilling program at the Mkuju Uranium Project in southern Tanzania, as diamond drilling is about to commence.

**AuKing's CEO, Mr Paul Williams,** said Mkuju was emerging as a possible major extension of the world class nearby Nyota Uranium Project that was sold by previous owner Mantra Resources in 2011 for \$1.16Bn.

"We are pleased to be mobilizing a diamond rig able to commence a drilling program at Mkuju in order to test the extent of mineralization to depths of at least 100m. With the wet season forecast to commence in December, we are aiming to drill as many diamond holes as possible over the next few weeks," Mr Williams said.

"Off the back of the initial results reported in October, it is pleasing to see further significant results from soil and rock chip sampling activities. These results continue to demonstrate a correlation with the historical Mantra radiometric anomaly. We will continue to carry out preliminary pXRF and spectrometer measurements on the drilling and other samples prior to their dispatch for assay," he said.

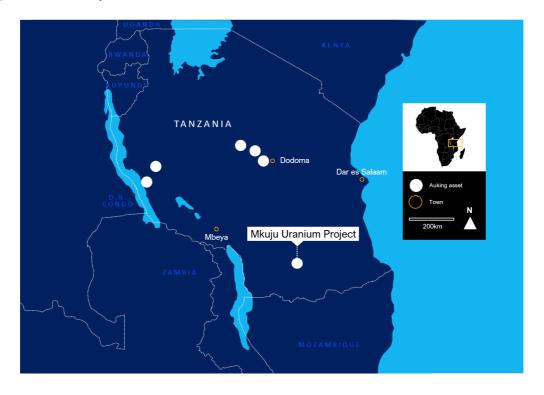


Figure 1 – Mkuju Project Location



#### Further Mkuju Exploration Results

A summary further results achieved from the Stage 1 exploration program at Mkuju (since those reported to ASX on 16 October 2023) are as follows:

The more targeted soil and rock chip sampling program has produced a total of 58 sample results, full details of which are set out in Annexure A below and with highlighted results shown in Table 1 and Figure 2 below, including a pXRF result of 1,344ppm U from rock chip sample MKGS056:

Samples Details					Spectrometer		XRF
Sample Code	Sample Type	Eastings	Northings	RL	CPS	U308(ppm)	PPM
MKGS030	Soil	245895	885302	729	4,098	213.6	<lod< td=""></lod<>
MKGS031	Soil	245907	8852974	717	10,752	571.9	39
MKGS033	Soil	245714	8853345	724	4,433	194.5	<lod< td=""></lod<>
MKGS036	Soil	244438	8854056	742	3,828	180.9	<lod< td=""></lod<>
MKGS040	Soil	246207	8852549	709	3,176	158.3	<lod< td=""></lod<>
MKGS043	Soil	244228	8860510	711	20,700	1,294	156
MKGS044	Soil	244563	8861238	706	1,764	496	<lod< td=""></lod<>
MKGS052	Soil	241342	8860709	759	14,495	767.2	<lod< td=""></lod<>
MKGS054	Soil	244558	8860970	692	7,850	412.2	<lod< td=""></lod<>
MKGS055	Soil	244628	8860960	710	10,300	562.7	42
MKGS056	Soil	245345	8863661	722	21,336	1139	652
MKGS056	Rock chip	245345	8863661	722	21,336	1139	1,344
MKGS057	Soil	245327	8863658	723	624	28.5	327
MKGS057	Rock chip	245327	8863658	723	624	28.5	549
MKGS058	Soil	245326	8863593	725	5,282	260.1	<lod< td=""></lod<>

Table 1 – Mkuju Soil and Rock Chip Sample Results

- These highlighted results continue to demonstrate a close correlation with the radiometric survey undertaken by Mantra Resources Limited in 2007 – thereby leaving open a significant prospective area for future drilling activities; and
- Shallow drilling with the auger drilling rig continues to be hampered by technical faults, although work continues to bring this rig up to steady operating condition – thereby allowing drill holes up to around 30m to be conducted in less accessible areas at Mkuju.

#### Mobilising diamond rig

AuKing has mobilized a track-mounted diamond drilling rig to carry out a short estimated 600m drilling program at Mkuju prior to the end of the year. The aim of the program will be to test for uranium mineralization at depths of a maximum 100m. Certain high priority holes have been targeted for this activity, based on the rock chip, soil sampling and shallow auger drilling exploration activities that have been conducted at Mkuju over the past two months. Initial pXRF and spectrometer results on the diamond drill core samples should be available almost immediately.

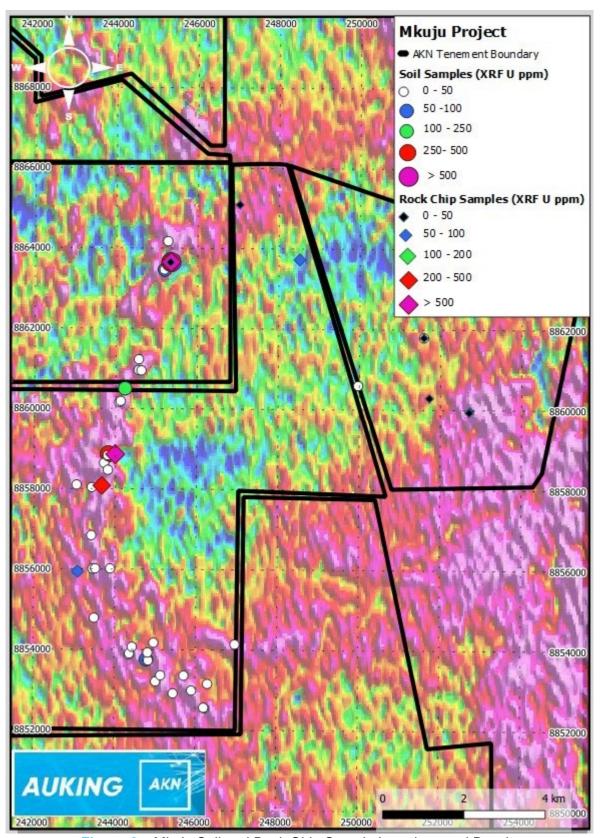


Figure 2 - Mkuju Soil and Rock Chip Sample Locations and Results

#### Mkuju Licences

AuKing holds seven granted PLs in the Mkuju region covering an area of 730sq kms. All of these licence areas are situated across Mantra's historical radiometric anomaly and provide



an opportunity to identify a substantial extent of additional uranium mineralization than what has previously been identified at Nyota.

### This announcement has been authorised by Paul Williams, CEO, AuKing Mining Limited.

#### For more information, please contact:

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#### **About AuKing Mining**

AuKing Mining (ASX:AKN) is a mining exploration company focused on uranium, copper and zinc projects in both Tanzania and Australia.

AuKing is focussed on the exploration and development of six uranium and copper projects in Tanzania including:

*Mkuju* – near to the world class Nyota uranium project in southern Tanzania; the subject of significant previous exploration

*Manyoni/Itigi* – the subject of significant exploration situated in central Tanzania, just west of Dodoma *Mpanda/Karema* – prospective copper areas in western Tanzania that were the subject of historic mining operations but largely untouched by modern exploration methods.

The Company also holds the Koongie Park Copper Zinc Project in Western Australia's Halls Creek Region hosts a JORC resource and is neighboured by several significant mining and development operations including Nicholson's Gold Mine and Savannah Nickel Mine. Koongie Park has already been the subject of significant exploration drilling and analysis since the 1970's, hosting over 300 RC and diamond drill holes consisting of more than 60,000m of drilling in total.

AuKing recently announced the results of its Koongie Park Scoping Study on a proposal to commence mining operations around a central processing facility at Sandiego.

## For further information www.aukingmining.com





#### Competent Persons' Statement

The information in this report that relates to exploration results at the Mkuju Project is based on information compiled by Mr Chris Bittar who is a member of the Australasian Institute of Mining and Metallurgy. Mr Bittar is an employee of AuKing Mining Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Mr Bittar consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**ANNEXURE A – Mkuju rock chip and soil samples (Full Table)** 

Samples Details				Spec	trometer	XRF	
Sample Code	Sample Type	Eastings	Northings	RL	CPS	U308(ppm)	PPM
MKGS027	Soil	244823	8853915	757	1,120	45.7	<lod< td=""></lod<>
MKGS028	Soil	245142	8853350	721	2,430	105.5	39
MKGS029	Soil	243499	8854772	758	1,945	88.5	<lod< td=""></lod<>
MKGS030	Soil	245895	885302	729	4,098	213.6	<lod< td=""></lod<>
MKGS031	Soil	245907	8852974	717	10,752	571.9	39
MKGS032	Soil	245452	8852902	697	2,122	107.5	38
MKGS033	Soil	245714	8853345	724	4,433	194.5	<lod< td=""></lod<>
MKGS034	Soil	244363	8853858	745	2,142	99.7	<lod< td=""></lod<>
MKGS035	Soil	244371	8853891	746	1,670	68.4	<lod< td=""></lod<>
MKGS036	Soil	244438	8854056	742	3,828	180.9	<lod< td=""></lod<>
MKGS037	Soil	244968	8854160	743	1,340	8.8	<lod< td=""></lod<>
MKGS038	Soil	246967	8854128	701	1,432	24.7	<lod< td=""></lod<>
MKGS039	Soil	246230	8852537	711	2,300	116.4	<lod< td=""></lod<>
MKGS040	Soil	246207	8852549	709	3,176	158.3	<lod< td=""></lod<>
MKGS041	Soil	244087	8860174	725	607	11.9	<lod< td=""></lod<>
MKGS042	Soil	244122	8860198	727	657	10.5	<lod< td=""></lod<>
MKGS043	Soil	244228	8860510	711	20,700	1,294	156
MKGS044	Soil	244563	8861238	706	1,764	496	<lod< td=""></lod<>
MKGS045	Soil	251583	8861806	692	2,660	21.7	<lod< td=""></lod<>
MKGS045	Rock chip	251583	8861806	692	2,660	21.7	<lod< td=""></lod<>
MKGS046	Rock chip	251724	8860303	684	1,401	11.9	<lod< td=""></lod<>
MKGS047	Rock chip	252723	8859984	687	839	30.7	<lod< td=""></lod<>
MKGS048	Rock chip	252714	8859976	688	1,784	36.6	58
MKGS049	Rock chip	252706	8859947	690	1,130	22.5	39
MKGS050	Soil	249967	8860607	693	1,617	15.3	<lod< td=""></lod<>
MKGS051	Soil	241921	8850203		596	17.8	<lod< td=""></lod<>
MKGS052	Soil	241342	8860709	759	14,495	767.2	<lod< td=""></lod<>
MKGS053	Soil	241346	8860697	763.15	584	13	<lod< td=""></lod<>
MKGS053	Rock chip	241346	8860697	763.15	584	13	<lod< td=""></lod<>
MKGS054	Soil	244558	8860970	692	7,850	412.2	<lod< td=""></lod<>
MKGS055	Soil	244628	8860960	710	10,300	562.7	42
MKGS056	Soil	245345	8863661	722	21,336	1139	652



MKGS056	Rock chip	245345	8863661	722	21,336	1139	1,344
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MKGS057	Rock chip	245327	8863658	723	624	28.5	549
MKGS058	Soil	245326	8863593	725	5,282	260.1	<lod< td=""></lod<>
MKGS059	Soil	245310	8863559	728	5,282	260	133
MKGS060	Soil	245244	8863555	727	1,886	89	<lod< td=""></lod<>
MKGS061	Soil	245003	8863377	725	5,247	285	30
MKGS062	Soil	248512	8863734	686	10,904	87	<lod< td=""></lod<>
MKGS062	Rock chip	248512	8863734	686	10,904	87	<lod< td=""></lod<>
MKGS063	Soil	247030	8865098	691	32,000	22	<lod< td=""></lod<>
MKGS063	Rock chip	247030	8865098	691	32,000	22	<lod< td=""></lod<>
MKGS064	soil	245819	8864076	698	2,409	120	36

#### [Note:

- Co-ordinate System WGS84/UTM zone 37s was applied for these results
  LOD denotes "Level of Detection"]



## JORC Code, 2012 Edition - Significant uranium results from initial exploration at Mkuju in Tanzania

#### **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. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 0.5 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>Rock chip sampling was undertaken over selected areas on both a visual basis and with the use of a handheld spectrometer (RS230) to confirm the geological interpretation.</li> <li>Soil samples were collected over specific target areas over a nominal 200m spacing.</li> <li>The rock chip and soil samples were analysed using a handheld Olympus Delta XRF unit and a handheld RS230 Spectrometer and have been reported in Annexure A of the Report.</li> </ul>
Drilling techniques	Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	AKN is currently conducting an auger drilling program and will shortly commence air core drilling over the target areas.
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>	AKN has not completed any Drill sampling.
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>	Logging was both brief qualitative description of individual rock chips.
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</li> </ul>	<ul> <li>No sub-sampling techniques employed.</li> <li>Field QAQC was undertaken using CRM's.</li> <li>The sample sizes are considered appropriate given the nature of the rock chips and soil samples collected.</li> </ul>



Criteria	JORC Code explanation	Commentary
	technique.	
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field	
	duplicate/second-half sampling.  Whether sample sizes are appropriate to the	
Ovality of	grain size of the material being sampled.	All VDC mandings from Missis ware
Quality of assay data and	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or	conducted in the field using an Olympus Delta XRF.
laboratory tests	total.  • For geophysical tools, spectrometers, handheld XRF instruments, etc, the	Suitable settings and standards were used
	parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	•
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	
Verification	<ul> <li>The verification of significant intersections by</li> </ul>	No verification conducted.
of sampling and assaying	either independent or alternative company personnel.	
	The use of twinned holes.	
	<ul> <li>Documentation of primary data, data entry procedures, data verification, data storage</li> </ul>	
	(physical and electronic) protocols.	
	Discuss any adjustment to assay data.	
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys),</li> </ul>	All location data is collected in WGS84/UTM Zone 37s.
	trenches, mine workings and other locations	Sample locations were surveyed with a
	used in Mineral Resource estimation.	handheld GPS unit.  RL's are not reported.
	<ul> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	RL's are not reported.
Data spacing	Data spacing for reporting of Exploration	
and distribution	Results.  Whether the data spacing and distribution is	over a variety of areas which resulted in considerable variation in the sample spacing
distribution	sufficient to establish the degree of geological	and orientation.
	and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation	
	procedure(s) and classifications applied.	radiometric anomalies.
	Whether sample compositing has been	
Orientation of	<ul> <li>applied.</li> <li>Whether the orientation of sampling achieves</li> </ul>	No orientation bias was considered.
data in	unbiased sampling of possible structures and	
relation to	the extent to which this is known, considering	
geological structure	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.	
Sample security	The measures taken to ensure sample security.	<ul> <li>The chain of custody is managed by AKN.</li> <li>The samples will be freighted directly to the relevant laboratories for analysis.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	



#### **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 license to operate in the area.</li> </ul>	The Mkuju project is located on PL 12184, PL12185, PL12186, PL12187, PL12189, PL12192, and PL12485 and all the tenements are in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>MRU completed a high-resolution helicopter- borne radiometric survey over the entire Mkuju River Project area in mid-2007 which resulted in the identification of several uranium anomalies requiring field evaluation. Geological mapping, ground radiometrics and trenching was completed on various target areas. Although preliminary in nature, the field observations were positive with visible uranium mineralisation being recorded in trenches at a number of the targets.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The regional geology is dominated by Karoo Basin siltstone and sandstone sediments.</li> <li>The mineralisation is interpreted to be analogous to 'roll-front' uranium deposits, specifically hosted in muti-stacked Karoo Basin sandstone and siltstone sequences.</li> </ul>
Drill hole information	A summary of all information material to the under-standing of the exploration results including a tabulation of the following information for all Material drill holes:  easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the	<ul> <li>No drilling information provided.</li> <li>The rock chip and soil sample results have been reported in Annexure A of the Report.</li> </ul>
Data aggregation methods	<ul> <li>case.</li> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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>No specific intervals are being reported.</li> <li>Metal equivalent values have not been used.</li> </ul>
Relationship between mineralisation widths and	<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> </ul>	No relationship between mineralisation widths and sample size or length.



Criteria	JORC Code explanation	Commentary
intercept lengths	<ul> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</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.	Relevant diagrams have been included within the main body of text.
Balanced Reporting	<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>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.</li> </ul>	<ul> <li>Anomalous XRF readings have been identified at Mkuju, these samples will be sent to the laboratory for an accredited assay, where the results will be tabulated for release.</li> <li>XRF and spectrometer readings should be considered a guide only.</li> <li>This reporting method has been deemed appropriate for this stage of the project.</li> </ul>
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No other substantive data exists.
Further work	<ul> <li>The nature and scale of planned further work         (e.g. tests for lateral extensions or depth         extensions or large- scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of         possible extensions, including the main         geological interpretations and future drilling         areas, provided this information is not         commercially sensitive.</li> </ul>	Once assay results have been received and reviewed, further drilling and geophysical work will be considered to assess the potential of the Mkuju project.