Positive outcome of In Situ Recovery (ISR) analysis for Likuyu North deposit

- **ISR is the preferred method for mining uranium deposits and accounts for over half of global uranium production[1]**
- **Lower capital, lower operating costs and less environmental impact are some of the typical advantages of ISR, versus conventional mining methods.**
- **ERM Australia Consultants Pty Ltd (ERM) have completed an assessment of Likuyu North and conclude that the deposit is favorable for ISR.**
- **Likuyu North can benefit from the development of Uranium One's Nyota deposit which is less than 30 km to the north.**
- **Further discoveries on the Project would further benefit the expected financial strength of an ISR operation.**

Gladiator Resources Ltd (ASX: GLA) (**Gladiator** or the **Company**) is pleased to provide an update on an assessment of the mining by In Situ Recovery (ISR) for the Likuyu North Deposit at its Mkuju Uranium Project, located in southern Tanzania.

Commenting on the drill results, Gladiator's Chairman Greg Johnson said:

"The ISR assessment by ERM highlights the opportunity to develop Likuyu North. The geological and hydrogeological characteristics of the deposit appear to be ideally suited to ISR which can support significantly stronger project economics than is possible with conventional mining methods. That the deposit is close to the advanced stage Mkuju River Project operated by Uranium One provides optionality. We are optimistic that Likuyu North can deliver robust economics in today's uranium market which is expected to strengthen further. We look forward to planning the next stage of work".

The In Situ Recovery (ISR) Mining method

ISR (also known as ISL) accounts for over 50% of the world's uranium production[1], all from sandstone hosted deposits such as Likuyu North. It involves the drilling of injection wells and production wells (or recovery wells) within the uranium deposit. The leaching solution (or lixiviant) is injected to react with the ore, dissolving the uranium. The uranium-bearing solution, known as the pregnant solution, is then brought to the surface for treatment and recovery of uranium.

[1] WNA (World Nuclear Association), 2024

Advantages of ISR are:

- No pit and no rock-dumps,
- No tailings disposal or storage requirement,
- No crushing and pulverizing ore,
- Power costs are less,
- Reduced labor costs,
- Safer mining operation,
- Restoration costs significantly less.

Consequently, it lowers the input costs, shortens the mining process, and reduces the environmental impact. ISR can significantly enhance the industrial value of sandstone-hosted uranium deposits.

Likuyu North meets the key ISR criteria:

- The deposit is hosted within permeable formations being largely sandstone (arkoses). ERM calculated that 74% of the mineralized intervals (defined as having a minimum grade thickness of 100 ppm-metres) are sandstone or grit/conglomerate.
- The mineralized layers are broad and gently dipping as shown in **Figure 1**.
- The bulk of the deposit is below the water table as shown in **Figure 1**. The parts above the water table can also be targeted using the 'infiltration method' of ISR, possible as there is a consistent water-saturated zone below it.
- Mineralised layers are within partially 'confined' aquifers, there being clay-rich units above and below. This is the case on the deposit-scale as evident in **Figure 1** and at the scale of individual layers which are typically between clays or sandstones with a clay-rich matrix (**Figure 2**).
- The uranium minerals are readily soluble in a weak acid, those recognized in microscopy studies being uraninite, autunite/meta autunite (**Figure 3**), and (probable) coffinite. Mineralogical work did not identify refractory phases in the samples.

ISR Test-work results at nearby Nyota deposit gave positive results

Pilot testing was carried out by Uranium One at the nearby Nyota Deposit in 2015-2016[2]. The testing was in an area with 780ppm U and with a thickness of 9.6 m. The top of the tested layer is at 27m depth and is without overlying or underlying aquitards. The following parameters were set out for the test: the distance between the injection and the recovery wells was 6m, screening interval of 25-35m for the whole thickness of the ore body, the

[2] IAEA URAM, 2018. The results of laboratory and field In-Situ Leaching test at the Nyota uranium deposit (United Republic of Tanzania) Yastrebkov A., Zharnikov A., Melnikov A., Inlev I., Markevich K., Kutueva O., Konstantinov V.

recovery and the injection flowrates with ratio of 5. Concentration of sulphuric acid was 30 g/l and maintained at this level throughout the test. The test duration was 10 months. Based on the results, according to uranium leaching dynamics, liquid-to-solid ratio of 4 could have been achieved after approximately 460 days. By that time uranium recovery is modelled to achieve approximately 85% and the final sulphuric acid consumption 70 kg/kgU. Average uranium content in pregnant solutions is expected to be about 60-90 mg/l which is well above the minimum. These results are positive and bode well for ISR at Likuyu North.

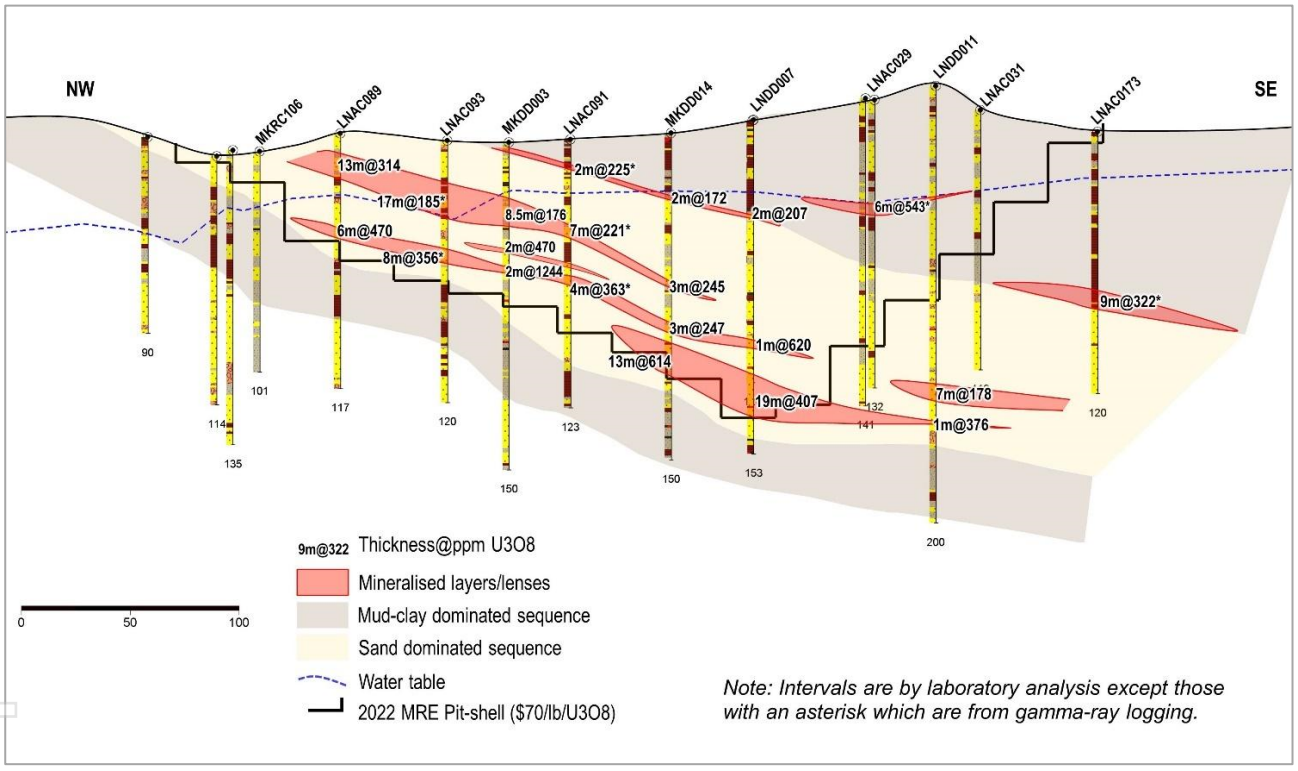

Figure 1. *Cross-section through the Likuyu North deposit*

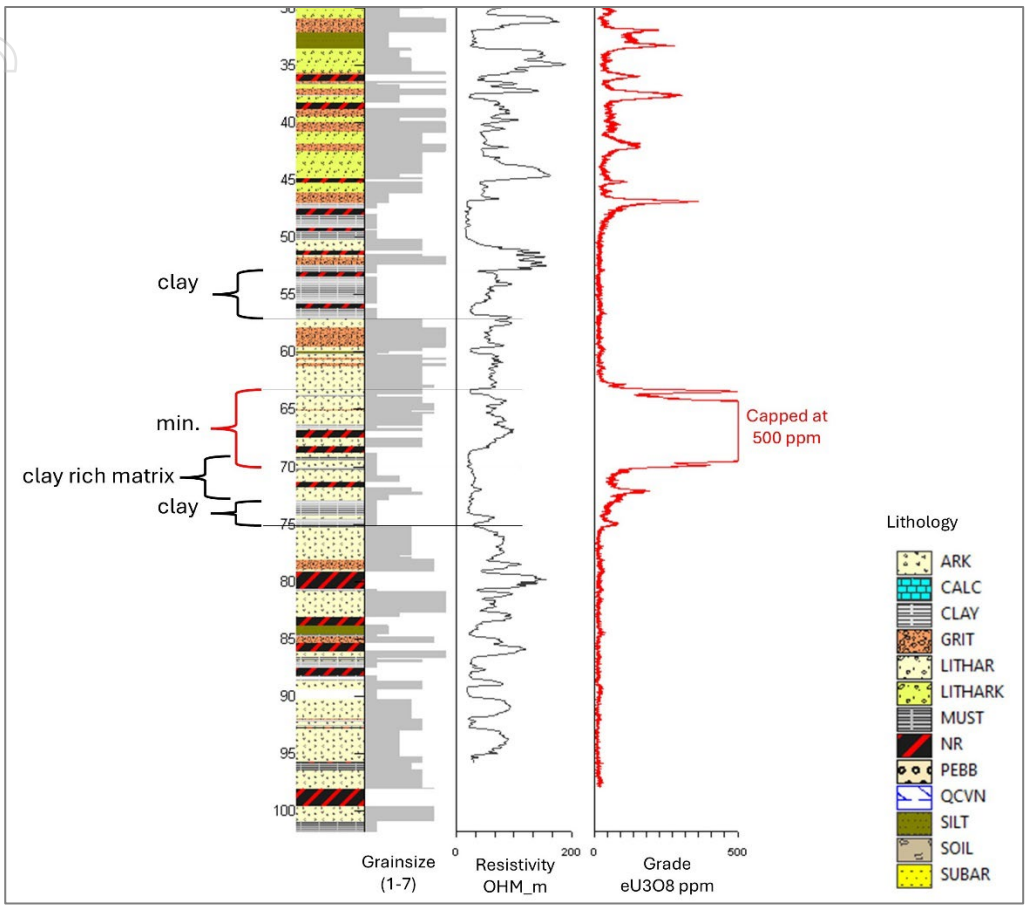

Figure 2. *Graphic log for a drillhole with mineralized interval at Likuyu North*

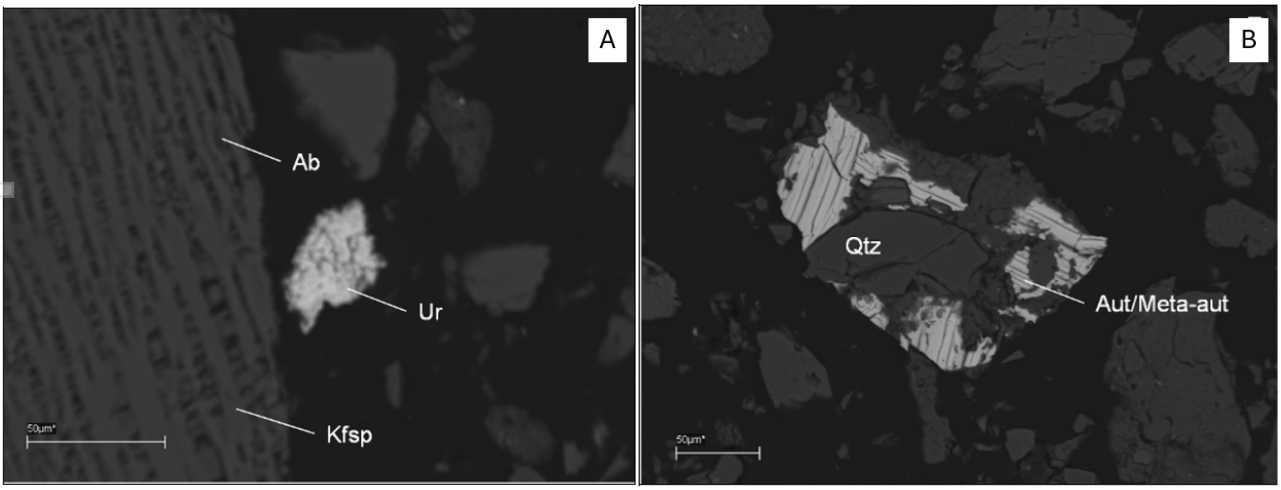

Figure 3. *Backscattered electron micrograph images of Likuyu North samples. Uraninite (Ur) and autunite/meta-autunite (Aut/Meta-aut) grains and gangue minerals Albite (Ab), K-feldspar (Kfsp) and Quartz (Qtz)*

Figure 4. *Typical host lithologies, in this case medium grained arkose.*

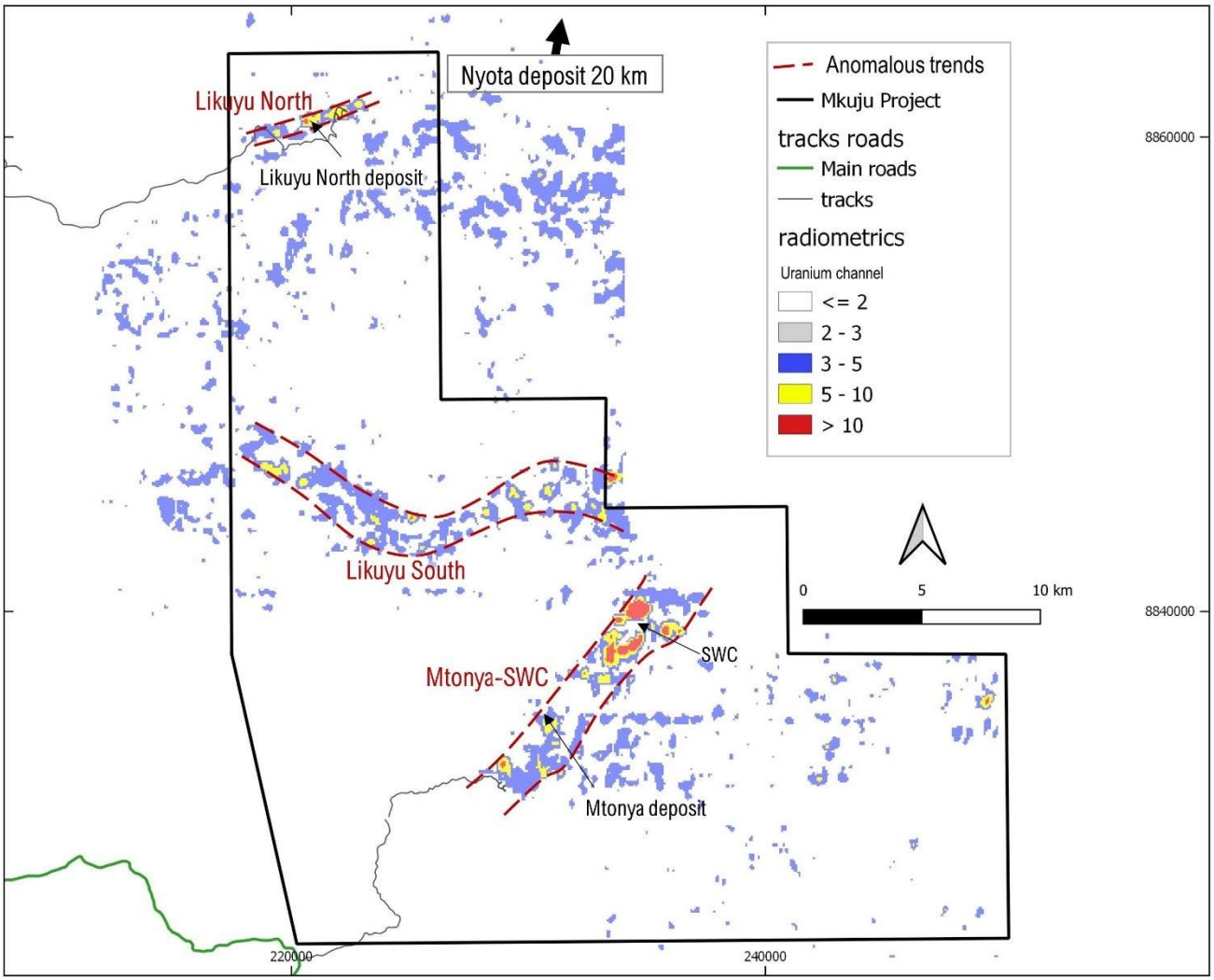

Figure 5:Map showing radiometric anomalies within the Mkuju Project and targets/deposits.

Table 1: Mineral Resource Estimate for Likuyu North reported in accordance with the JORC Code 2012 edition.

100 pm U3O8 cut off	**Tonnes (millions)**	**grade U3O8 ppm**	**contained U3O8 Mlbs**
Indicated	3.1	333	2.3
Inferred	4.6	222	2.3
Total Inferred + Indicated	7.7	267	4.6
200 pm U3O8 cut off	**Tonnes (millions)**	**grade U3O8 ppm**	**contained U3O8 Mlbs**
Indicated	1.9	448	1.9
Inferred	1.9	326	1.4
Total Inferred + Indicated	3.8	387	3.2

1. Effective date 27 April 2022
2. Note that these are not in addition to each other, the 200ppm cut-off MRE is a portion of the 100ppm cut-off MRE.
3. The MRE assumes open pit mining within a conceptual pit shell based on a USD70/lb U3O8 and 88% recovery.
4. Figures have been rounded to the appropriate level of precision for the reporting of Mineral Resources, totals may not add up exactly
5. The MRE are stated as in situ dry metric tonnes.

Released with the authority of the Board.

Contact: **Greg Johnson**
Non-Executive Chairman **greg@gladiatorresources.net**

Disclaimer

This ASX announcement (Announcement) has been prepared by Gladiator Resources Limited ("Gladiator" or "the Company"). It should not be considered as an offer or invitation to subscribe for or purchase any securities in the Company or as an inducement to make an offer or invitation with respect to those securities. No agreement to subscribe for securities in the Company will be entered into on the basis of this Announcement.

This Announcement contains summary information about Gladiator, its subsidiaries, and their activities, which is current as at the date of this Announcement. The information in this Announcement is of a general nature and does not purport to be complete nor does it contain all the information which a prospective investor may require in evaluating a possible investment in Gladiator.

By its very nature exploration for minerals is a high-risk business and is not suitable for certain investors. Gladiator's securities are speculative. Potential investors should consult their stockbroker or financial advisor. There are many risks, both specific to Gladiator and of a general nature which may affect the future operating and financial performance of Gladiator and the value of an investment in Gladiator including but

not limited to economic conditions, stock market fluctuations, commodity price movements, regional infrastructure constraints, timing of approvals from relevant authorities, regulatory risks, operational risks and reliance on key personnel.

Certain statements contained in this announcement, including information as to the future financial or operating performance of Gladiator and its projects, are forward-looking statements that: may include, among other things, statements regarding targets, estimates and assumptions in respect of mineral reserves and mineral resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions; are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Gladiator, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; and, involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.

Gladiator disclaims any intent or obligation to update publicly any forward-looking statements, whether because of new information, future events, or results or otherwise. The words 'believe', 'expect', 'anticipate', 'indicate', 'contemplate', 'target', 'plan', 'intends', 'continue', 'budget', 'estimate', 'may', 'will', 'schedule' and similar expressions identify forward-looking statements. All forward-looking statements made in this announcement are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantee of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein. No verification: although all reasonable care has been undertaken to ensure that the facts and opinions given in this Announcement are accurate, the information provided in this Announcement has not been independently verified.

Competent Person (CP) Statement

Information in this "ASX Announcement" relating to Exploration Targets, Exploration Results and Mineral Resources has been compiled by Mr. Andrew Pedley who is a member in good standing with the South African Council for Natural Scientific Professions (SACNASP). Mr. Pedley has sufficient experience that is relevant to the types of deposits being explored for and qualifies as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code 2012 Edition). Mr. Pedley consents to the inclusion in this document of the matters based on the information in the form and context in which it appears. The market announcement is based on, and fairly represents, information and supporting documentation prepared by the Competent Person. Mr. Pedley is a non-executive director of Gladiator Resources Limited.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
1.1 Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, 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.*	• Not applicable as no new exploration results are reported.
1.2 Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diametre, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Not applicable as no new exploration results are reported
1.3 Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Not applicable as no new exploration results are reported

Criteria	JORC Code explanation	Commentary
1.4 Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Not applicable as no new exploration results are reported
1.5 Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Not applicable as no new exploration results are reported
1.6 Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (lack of bias) and precision have been established*	• Not applicable as no new exploration results are reported

Criteria	JORC Code explanation	Commentary
1.7 Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Not applicable as no new exploration results are reported
1.8 Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Not applicable as no new exploration results are reported
1.9 Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Not applicable as no new exploration results are reported
1.10 Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Not applicable as no new exploration results are reported
1.11 Sample security	• *The measures taken to ensure sample security.*	• Not applicable as no new exploration results are reported
1.12 Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Not applicable as no new exploration results are reported

Criteria	JORC Code explanation	Commentary
Criteria	JORC Code explanation	Commentary
2.1 Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Likuyu North is within Prospecting License (PL)11705/2021 which is valid. • The area is within the Mbarang'andu National Community Forest Reserve. Gladiator has informed the CP that there are no restrictions to operate in this Reserve as per section 95 of the Mining Act 2019. • If developed as a mining project detailed Environmental and Social Impact Assessment (ESIA) and an Environmental Management Plan (EMP) would be required to be completed and approved.
2.2 Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• During the period 1978 to 1981, Uranerzbergbau GMBH (Uranerz) carried out ground examination of about 110 radiometric anomalies identified by an airborne survey in joint venture with the Tanzanian government and the United Nations as part of a uranium evaluation program. • The work resulted in the identification of many uranium occurrences and prospects throughout Tanzania. Much of their work was within a large area in the south of Tanzania they termed 'block A', targeting 'continental sandstones'. Within this area based on the radiometric anomalies, work focused on two areas, the Madaba River and the Mkuju River area, the latter centred on the Mkuju River approximately 35 km NNE of Likuyu North. The Likuyu North deposit and surrounds is just southwest of the area covered by Uranerz. • The Uranerz work included radiometric-geological investigations at a scale of 1:500,000 and was helicopter supported. Geologists completed 4-week long traverses on foot. Geological mapping, stream sediment collection. Detailed geology and 50-200 m radiometry on lines was carried out at certain airborne radiometric anomalies. This work led to the discovery of the Madaba River occurrences and the discovery of the world class Nyota deposit in 1979/1980. • In 2008 to 2010 Uranex NL (Uranex) acquired the prospecting licenses covering the Likiyu North and surrounding areas (but not covering the Nyota deposit). In total they held 12 licenses and other applications. • Uranex's exploration commenced in 2008 and included an airborne radiometric survey with a line spacing of 250m. The survey data was reprocessed by

Criteria	JORC Code explanation	Commentary
		Southern Geoscience. URANEX identified five key radiometric anomalies including Likuyu North. • From 2006 to 2009 Uranex carried out surface radiometric surveys, pitting, augering to generate drill targets. Two trenches were completed at Likuyu North. • Initial drilling on the Mkuju Project was RC 'scout' drilling carried out in 2008 and 2009 on various targets including a number at Likuyu North. Some of those at Likuyu North were promising such as MKRC0089 which intersected 1m grading 776 ppm U3O8 from 18 m depth. Most RC holes were stopped at 80 or 100 m depth. • In 2011 and 2012, 245 AC holes were completed at Likuyu North on an approximate 50x50 m grid with the aim of providing data to support maiden MRE. • In September 2011, 16 DD holes were drilled mostly as 'twin' holes to a selection of the AC holes, positioned 2-3 m from the existing AC hole to provide core for geological observations and to provide high-quality samples for assay to allow a comparison with the AC radiometric grade data. • The maiden Mineral Resource Estimate (MRE) work was completed by CSA Global Pty Ltd (CSA) with effective date 25 April 2012, prepared in accordance with the JORC CODE 2004 edition. • In May 2012 SRK carried out geological mapping over selected parts of the Mkuju Project area. • In 2022 the MSA Group of South Africa completed and review and update to the MRE. It was re-stated and reported in accordance with the JORC Code 2012 edition, with effective date 27 April 2022.
2.3 Geology	• *Deposit type, geological setting and style of mineralisation.*	• A large number of the uranium deposits and occurrences in eastern and southern Africa occur within the Karoo Supergroup, a thick sequence of continental clastic sediments which are from late Carboniferous to Jurassic in age. Sandstones are the dominant lithology, with lesser amounts of conglomerate, siltstone, and mudstone. • In southern Tanzania the Karoo sediments are within the NNE trending Selous Basin, a rift basin that extends over a length of about 550km and a width of up to 180km. The host rocks at Likuyu North is a sandstone dominated sequence of the Lower Mkuju Series. These are mostly medium to coarse braided

Criteria	JORC Code explanation	Commentary
		and meandering channel sediments, with lesser alluvial fans. These are lower in the stratigraphy than the Nyota deposit (20kms north) which is within the Upper Mkuju Series, comprised of similar lithologies. ● The uranium is hosted in stacked lenses and layers that appear to be controlled by the interplay of a roll-front with the tabular sediments. The dominant host-rock is arkose with some organic and clay clasts. ● Mineralogical work on representative samples identified uraninite and suggest that coffinite is also present, along with autunite and meta-autunite at shallower depths. The uranium occurs as coatings and grains within the matrix of the sandstones.
2.4 Drill hole Information	● *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in meters) 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 case.*	● Not applicable as no new exploration results are reported
2.5 Data aggregation methods	● *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.* ● *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* ● *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	● Not applicable as no new exploration results are reported
2.6 Relationship between mineralisatio	● *These relationships are particularly important in the reporting of Exploration Results.* ● *If the geometry of the mineralisation with respect*	● Not applicable as no new exploration results are reported

Criteria	JORC Code explanation	Commentary
n widths and intercept lengths	*to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').*	
2.7 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.*	• Maps and a cross-section are provided in the announcement.
2.8 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.*	• Not applicable as no new exploration results are reported
2.9 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.*	• Testwork by ANSTO in 2012 on a 500kg bulk sample (with grade 410 ppm U3O8, gave positive metallurgical results based on acid leaching. Uranium extraction of 86% was achieved for the bulk scrubbed sample and the overall combined base case bottle roll (coarse) and leach (fines) tests.
2.10 Further work	• *The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Consider carrying out a scoping study • Further exploration aimed at testing areas with potential, at Likuyu North, Likuyu South and Mtonya