Mtonya Uranium Deposit - High Grade Historic Results identified

- **The Mtonya deposit is located on the Mtonya-SWC trend on the Company's Mkuju Project in southern Tanzania, where field work recently commenced.**
- **Independent review of 2010-2012 drilling data for Mtonya shows that some of the thickest and highest grading intersections remain 'open' laterally. These are:**
  - 7.0m @ 549 ppm U_3O_8 in hole URAMT_241 from 49.3m depth
  - 8.5m @ 515 ppm U_3O_8 in hole URAMT_106 from 155.9m depth
  - 5.0m @ 341 ppm U_3O_8 in hole URAMT_110 from 126.2m depth
  - 2.9m @ 1172 ppm U_3O_8 in hole URAMT_087 from 171.3m depth
  - 3.0m @ 466 ppm U_3O_8 in hole URAMT_099 from 101.5m depth
  - 8.0m @ 400 ppm U_3O_8 in hole URAMT_300 from 157.5m depth
  - 3.5m @ 467 ppm U_3O_8 in hole URAMT_124 from 123.0m depth
- **Three zones are 'open' laterally, presenting obvious drill targets. Access roads and drill-pads are being prepared in readiness for drilling in early 2024.**
- **Field crews are also trenching at the SWC target 3.5 km to the northeast of Mtonya, on the same trend. Uranium mineralised sandstones have been uncovered in trenches (GLA announcement dated 29 September 2023).**
- **The Company is excited by the opportunity at Mtonya and the excellent indications at the nearby SWC target.**

Gladiator Resources Ltd (ASX: GLA) (**Gladiator** or the **Company**) is pleased to announce that a recent review of historic data by the MSA Group (independent technical resource consultants) revealed high-grade and thick intervals of uranium mineralisation at Mtonya that were not followed-up by previous workers, possibly due to a poor uranium market in 2012. This area is on trend and only 3.5 km from the strongly mineralised sandstones recently uncovered at the SWC target (refer GLA announcement dated 29 September 2023) which supports the Company's continued exploration program in this area and located only ~50 kms south of Mantra/Uranium One's world class Nyota deposit.

Unfinished Exploration

The previous drilling program was carried out by Uranium Resources Plc (URA) in 2011 and 2012 and used to support a mineral resource estimate, considered as a 'foreign estimate' and reported by Gladiator (refer GLA announcement dated 14 July 2022). A review of the data by the MSA Group revealed that some of the best zones of uranium mineralisation were left 'open' and that further drilling is required to test potential continuation of the uranium mineralisation. The URA drill-holes and the open zones are shown in Figure 1. It is unknown why additional drill-holes were not completed.

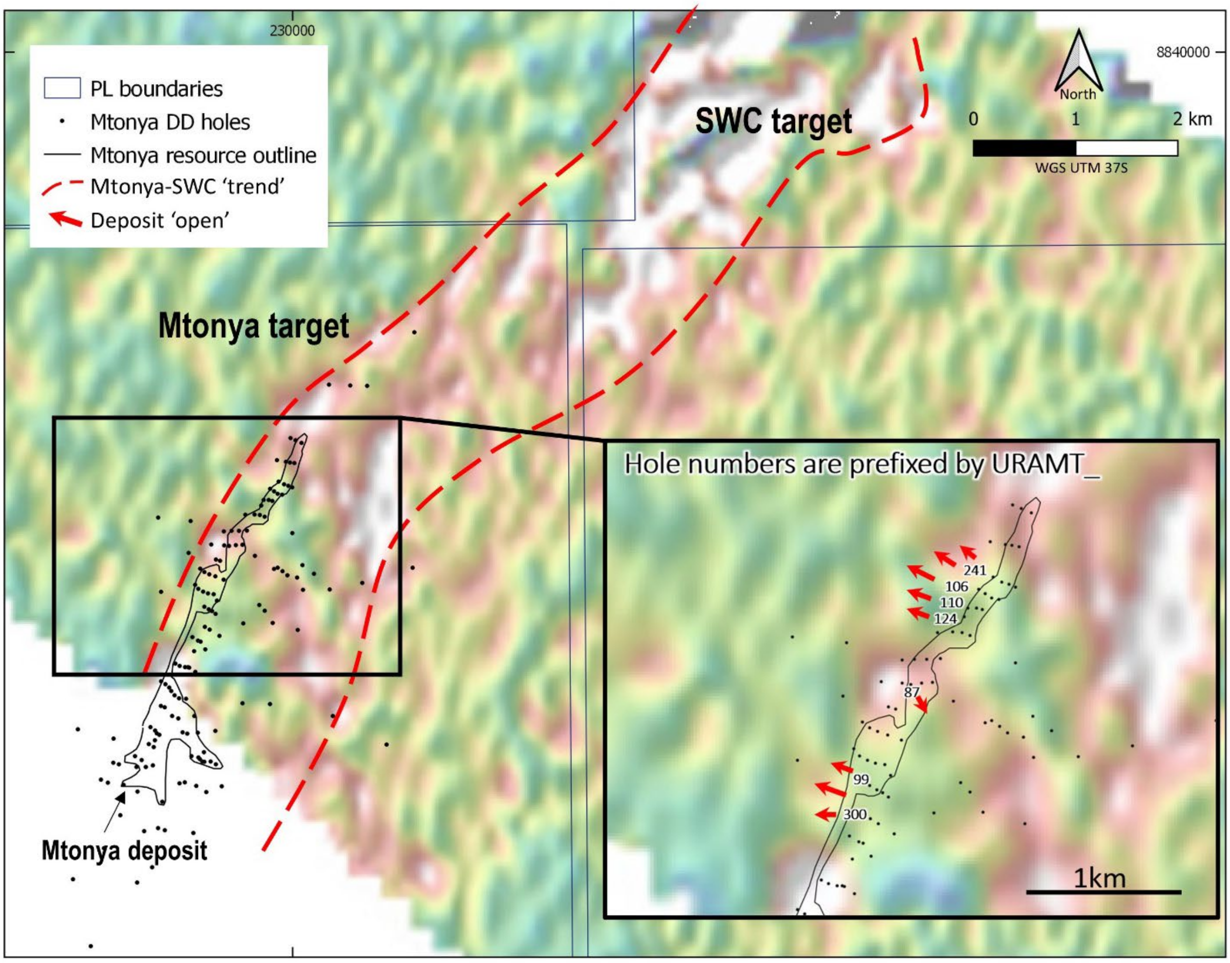

Figure 1. Radiometric (total count) map of the Mtonya-SWC trend with insert close-up of the areas that are 'open'

Gladiators planned drilling

Gladiator has commenced opening access tracks into the area and will prepare drilling pads so that drilling can commence as early in 2024 as possible after the seasonal rainy period.

Drilling will ‘step out’ on the holes listed above, to test the lateral continuation of the mineralisation in these holes. Figure 2 shows a cross-section through one of the areas that is open to the northwest and the position of the planned hole, to test the continuation of the 8.5m @ 815 ppm U_3O_8 in hole URAMT_106.

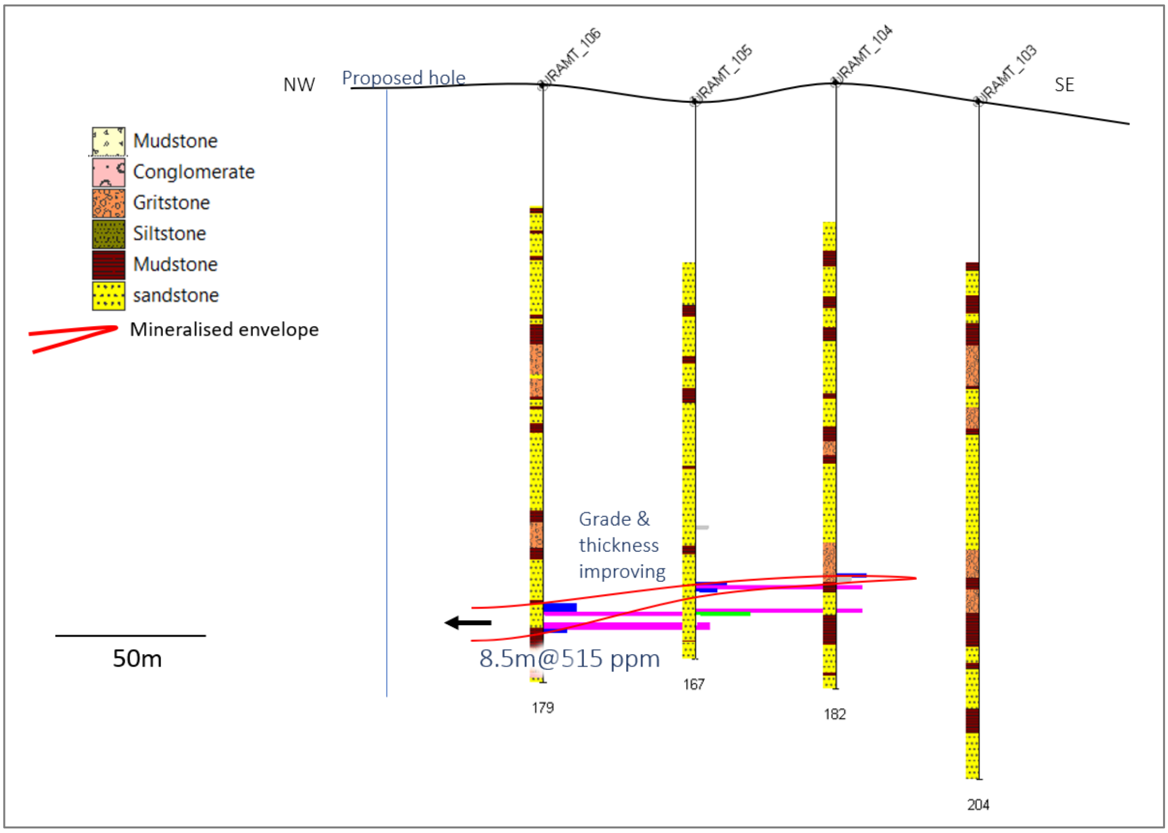

Figure 2. Cross-section through part of the Mtonya deposit with proposed new drill-hole shown.

In-Situ Recovery (ISR)

Roscoe Postle Associates Inc. (RPA) who were the consultants to URA at that time, considered In-Situ Recovery (ISR) method as a potential means for extraction of the uranium. ISR currently accounts for over 50% of the world’s uranium production. Gladiator will investigate ISR as the preferred extraction method as it can bring significant economic and environmental benefits.

Table 1. Historical drillhole positions. WGS 84 UTM zone 37 S

Hole-ID	LOCATIONX	LOCATIONY	LOCATIONZ	LENGTH
URAMT_087	229375.9	8835161	831	200.3
URAMT_099	229133.5	8834565	808	188.5
URAMT_106	229778.2	8835721	787	179.4
URAMT_110	229714.4	8835612	793	174.1
URAMT_124	229690.8	8835558	800	200.5
URAMT_241	229860.9	8835792	784	161.3

URAMT_300	229138.3	8834368	808	218.5

Released with the authority of the Board

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

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 (e.g., 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 (e.g., '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 (e.g., submarine nodules) may warrant disclosure of detailed information.*	• Samples were of half core and intervals were generally 1 metre occasionally less to a minimum of 0.3 m. Large samples of up to 4 metres length were allowed for barren zones, as guided by a scintillometer. Where marked geological or mineralised contacts were evident the sample intervals were adjusted to these. • At the preparation laboratory samples were crushed, pulverised by the PREP32 method: crush entire sample so that >70% is less than 2mm then riffle split and pulverise 1.5 kg to 85% passing 75 micron screen.
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).*	• The reported intersections were all drilled in 2012 by diamond core drilling of unknown diameter.

Criteria	JORC Code explanation	Commentary
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.*	• No records of recovery are available and so the CP cannot make comment on representivity or if there is a relationship between recovery and grade. • In the 2013 NI 43-101 report by RPA they do state 'In RPA's opinion, there are no drilling, sampling, or drill core recovery factors that could materially impact on the accuracy and reliability of the results.'
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.*	• A qualitative lithological log is available for all core holes which provides lithology only. Additional logged information such as colour, oxidation state, grainsize, %organic material etc which can be helpful in uranium exploration may have been logged but are not in the database. • Downhole gamma-ray logging was completed in drillholes and generally supports the assay grades though gamma-ray logging can be inaccurate due to radiation disequilibrium. • No photographs are available. • All core was logged.
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.*	• Core was cut in half. Half-core samples were sent to an ALS in Mwanza. • This is an appropriate sub-sampling method. • The core diameter is unknown but it is likely that the samples were of sufficient size being generally 1 metre in length.

Criteria	JORC Code explanation	Commentary
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*	• Samples were analysed at ALS Global Vancouver, British Columbia, Canada (ALS Vancouver). ALS Chemex laboratories in North America are registered to ISO 9001:2000 for the provision of assay and geochemical services by QMI Quality Registrars. In addition, ALS Chemex's main North American laboratory in North Vancouver is accredited by the Standards Council of Canada (SCC) for specific tests listed in their Scope of Accreditation No. 579. This accreditation is based on international standards (ISO 17025) and involves extensive site audits and on-going performance evaluations. • Initially, the method was the ALS ME-ICP61 method but later switched to the more precise ME-MS41 method in 2012. Uranium was reported as parts per million of U. Samples with greater than 10,000 ppm U_3O_8 were assayed by the XRF 07 method. • URA inserted CRMs and quarter-split duplicates in each sample batch at the rate of one CRM and one duplicate per every 40 samples. During the 2010-2011 drilling, a rate of 1:20 for CRMs and duplicates was used. In accordance with industry standards, ALS Vancouver inserted CRMs and duplicates for QC purposes. Results were routinely reviewed. RPA was of the opinion that the assay results are reliable. • The CP reviewed charts in the RPA report for the four CRMs used and finds them acceptable. It appears that no blanks were inserted which should be done so in future. • The performance of core duplicates was poor exhibiting poor repeatability. RPA also noted this and suggested an investigation of possible causes. It may be that the duplicate sample was quarter core which can lead to poor duplicate performance. Or it may be that a larger core diameter is required.
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.*	• RPA geologist visited site and used a scintillometer to confirm the mineralised intervals. • Uranium measured as U in the database was converted to U3O8 by multiplying by 1.1792 as is correct according to molecular weights of U and O.
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*	• Collar locations for all holes were determined by Garmin handheld GPS (60Csx and 62s models). Multiple readings of each collar were measured and

Criteria	JORC Code explanation	Commentary
	Mineral Resource estimation. • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	averaged. Elevation values at a given drill range from one metre to more than 10 m. • All holes are positioned using WGS84 UTM zone 37S. • There has been no topographic survey. • The positioning is satisfactory for the reporting of exploration results.
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.*	• The drillholes were drilled on NW-SE lines between 90 and 150 metres apart. On these lines holes were spaced 40-60 m apart. • No sample compositing was applied.
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.*	• No information is available on orientation of the mineralised intervals but it can be reasonably assumed that they are either horizontal or gently dipping, reflecting the aspect of the sedimentary layering. • Holes were drilled vertically and so they are expected to have intersected the mineralised layers approximately perpendicular.
1.11 Sample security	• *The measures taken to ensure sample security.*	• Samples were taken to ALS Mwanza by URA personnel.
1.12 Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• RPA reviewed the sampling and database.
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.*	• The Mtonya target is within Prospecting Licence (PL) PL/17793/2021 granted on the 22 September 2021 and is valid for 4 years. • The target is within the Mbarang'andu National Community Forest Reserve. GLA are not aware of 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.*	• Uranium exploration in Tanzania dates back to the late 1970s when the Tanzanian Government commissioned Geosurvey International GmbH of Munich, Germany to conduct a country-wide airborne radiometrics and magnetometrics program. The program was flown in east-west oriented lines, one kilometre apart, taking measurements at 50 m intervals. • The airborne survey data were processed and interpreted by Uranerzbergbau GmbH (Uranerz), which selected 78 anomalies for follow-up, 53 of which were subsequently ground-checked by geological mapping and geochemical sampling. Mtonya was one of the anomalies selected for ground-check but was not trenched or drilled. • In 2005, URA selected and applied for several Prospecting Licences including the Mtonya Project. • In April 2006, URA entered into a farm-in agreement with Western Metals of Australia. Western Metals focused exploration on the near-surface uranium mineralization at Mtonya. In 2007, Western Metals commissioned NRG of Johannesburg, South Africa to carry out a combined airborne radiometric and magnetic survey over its tenements in Tanzania. Lnes were flown southeast-northwest and spaced at 250 m and readouts taken two metres. Tie lines were flown southwest-northeast at 5,000 m spacing. • Between 2005 and 2006, Western Metals collected approximately 325 grab samples, conducted ground mapping and radiometrics, and trenching. • A total of 28 trenches for a total length of 250 m were dug at Mtonya, principally to expose mineralization at surface to better understand the morphology and

Criteria	JORC Code explanation	Commentary
		local controls of the mineralization. The trenches were logged and sampled in vertical channels. • Western Metals completed 265 reverse-circulation holes (16,271 m) at Mtonya between 2007 and 2008. The drilling targeted known airborne anomalies on surface. Holes ranged in depth from 20 m to 146 m, with the median depth being 60 m. • The RC program was designed to test airborne radiometric anomalies confined to the ridge crests. • URA commenced drilling in June 2010 that comprised 12 holes for 4,170 m. The holes were typically between 300 m and 500 m deep. Twenty-seven diamond drill holes totalling 7,936 m were drilled in 2011. The 2012 drilling program completed in October 2012 consisted of 120 diamond drill holes totalling 26,485 m covering an area of 7,000 m by 500 m and tested the uranium mineralization in Tiers 1 and 2 at depths of approximately 150 m and 250 m respectively.
2.3 Geology	• *Deposit type, geological setting and style of mineralisation.*	• Most 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. • At Mtonya the uranium mineralisation is within the Mbarangandu Formation which are Braided stream sediments; laterally not persistent cycles of mainly medium and coarse grained, sandstones with calcareous concretions. • In the upper 80 m, Mtonya hosts secondary uranium mineralization (metauranocircite and autunite) in the pervasively oxidized Mbarangandu sandstone. The "near-surface" mineralization is altered and remobilized, forming discrete lenses associated primarily with topography highs, similar to Uranium One's Nyota deposit. • Below the water table (70 m to 80 m depth), the mineralization is primarily coffinite and uraninite and exhibits the features suggesting roll-front settings including lenticular, tabular, and planar mineralized bodies one metre to 15 m thick along the redox interface in the very coarse- to fine-grained arkosic

Criteria	JORC Code explanation	Commentary
		sandstone with mudstone beds and local calcareous intercalations. The host rock is invariably poorly consolidated and friable. • The sandstone-hosted mineralization at Mtonya is thought to be a roll-front uranium deposit, similar to those in Wyoming in the United States or the Chu-Sarysu Basin in Kazakhstan. These deposits are typically found in intracontinental rift basins where uranium occurs as extended lenticular orebodies emplaced at a redox interface in sandstones containing detrital carbonaceous material or diagenetic sulfides. Oxygenated meteoric waters migrate from the valley slopes towards the thalweg.
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.*	• The drillhole information is provided in the table in the announcement. All holes were drilled vertically.
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.*	• Length weighted averages were calculated for the reported intersections. • While there is some variation of grade between samples, none of the intervals are unduly influenced by a small part (sample) of each interval. • No truncation was applied.

Criteria	JORC Code explanation	Commentary
2.6 Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect 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').*	• The mineralised layers at Mtonya have been modelled in 3D and are gently dipping, not more than 20 degrees. The drillholes are vertical and so the intercept lengths are a close reflection of the thickness of the mineralisation.
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 tabulations are provided in the announcement. A cross-section is also included.
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.*	• The reporting is considered balanced. Only those holes that are considered to have mineralisation that is open 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.*	• There is no other data available other than that which has been reported.
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.*	• Drilling to 'step-out' from the reported intersections to test their lateral continuation. • It is recommended that the holes are diamond core so that maximum geological information is obtained. • Care should be taken to understand what lithological features/characteristics are associated with mineralisation. • Ideally marker horizons or other means of correlation between holes should be established as this will aid interpretation. • The cause of the poor repeatability between duplicate samples should be investigated.