SOVEREIGN METALS LIMITED

For personal use only

DRILLING SIGNIFICANTLY INCREASES SCALE OF MALINGUNDE SAPROLITE-HOSTED GRAPHITE DEPOSIT

Thick zones of saprolite-hosted flake graphite mineralisation intersected

Highlights:

- Initial large diameter PQ diamond drilling has intersected soft saprolite (clay)-hosted graphite with vertical thicknesses well in excess of expectations, averaging 20-30m;
- The thickness and consistency of saprolite-hosted graphite in the 5 holes drilled to date therefore substantially increases the overall saprolite tonnage potential for the Malingunde flake graphite deposit;
- High-grade flake graphite has now been defined at Malingunde over 3.4km strike length with cumulative across strike widths averaging about 140m and saprolite depths averaging 20-30m;
- Soft saprolite-hosted flake graphite deposits are sought after as they generally have significantly lower capital and operational costs compared with hard rock operations. This is primarily due to their free-dig nature, very low life-of-mine stripping ratios and simplified processing plants that do not require more expensive crushing or primary milling circuits;
- Results from initial bench-scale metallurgical testwork on saprolite samples from Malingunde are pending and are expected to be available within days.

Figure 1. Typical high-grade, saprolite-hosted flake graphite MGDD0004: 22.5m downhole.

Managing Director Dr Julian Stephens commented, *"We are extremely encouraged by the initial diamond drilling results which have greatly exceeded our expectations. The significant thicknesses and consistency of saprolite-hosted graphite mineralisation substantially increases the scale of the Malingunde project and suggest it could be considered a potential stand-alone operation in its own right."*

Enquiries: ***Dr Julian Stephens – Managing Director*** ***+618 9322 6322***

For personal use only

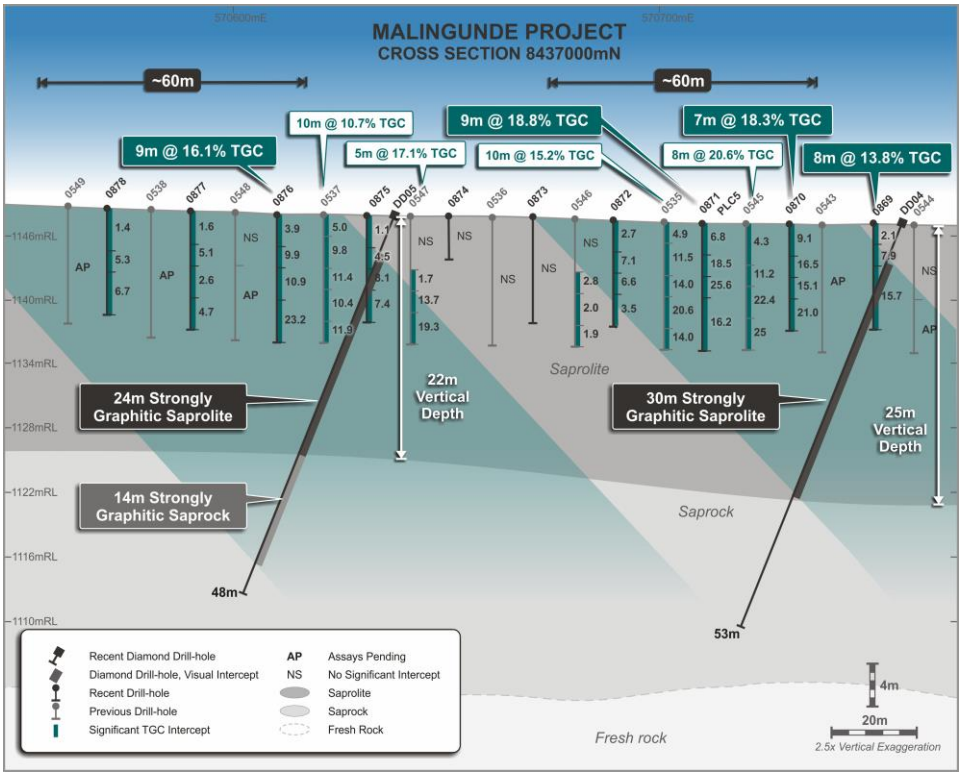

Figure 2. Malingunde drilling cross-section 8,437,000mN

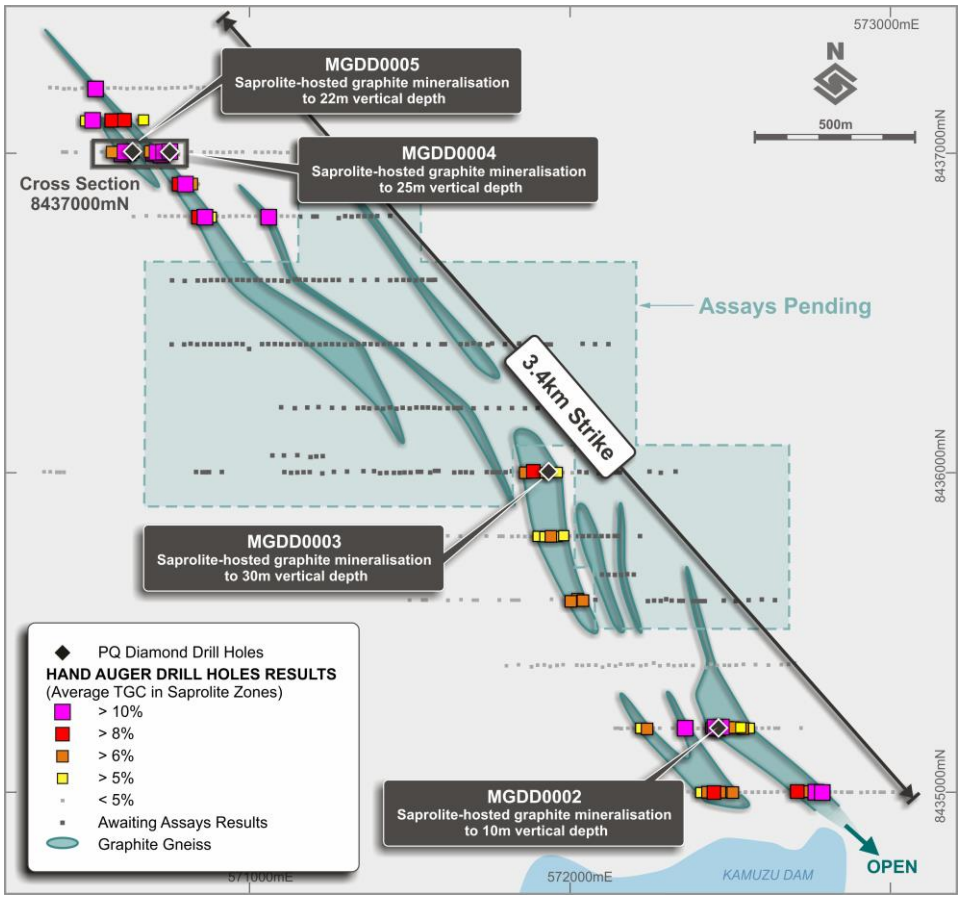

Figure 3. Malingunde map - mineralised saprolite-hosted graphite zones, hand auger and diamond drill-holes

Diamond drilling results

Sovereign's Malingunde saprolite-hosted flake graphite deposit is located on the Lilongwe Plain which is underlain by a paragneiss basement rock package containing extensive graphitic units. This area has a largely preserved, deep tropical weathering profile containing significant thicknesses of saprolite (highly weathered basement) (Figures 1 and 2). Because graphite is inert, during the weathering process it is preserved whilst most of the silicate gangue minerals are altered to clays.

Sovereign originally discovered the Malingunde saprolite-hosted deposit through a combination of ground EM (electromagnetic) methods, regolith mapping and systematic hand auger drilling to a maximum depth of 12m. Analysis of hand auger results so far shows mineralisation over 3.4km of strike with combined across strike widths up to 200m and averaging around 140m. Using a notional 5% TGC lower cut-off grade, all mineralised saprolite intervals from the hand auger drilling average around 8% TGC. However, there are also a number of discrete, high grade zones within the deposit that exceed well over 10% TGC on average.

The current diamond drilling program was designed to test the vertical thicknesses of mineralised saprolite, as well as provide substantial volumes of core for ongoing metallurgical test-work. So far, five large diameter PQ diamond holes have been completed for a total of 196m (Table 1). These indicate that the vast majority of saprolite-hosted graphite mineralisation within the Malingunde deposit has vertical depths of between 20m and 30m. A small portion over the southern 400m or so of strike appears to have a shallower preserved saprolite thicknesses due to truncation of the weathered profile. Processing of all drill core is currently in progress and assay results for the diamond drilling will be reported in due course.

Numerous and significant additional saprolite-hosted prospects have been identified along strike to the south-east of Malingunde. Further, Sovereign controls a very large ground holding to the north of Malingunde, interpreted to have the same paragneiss basement rock package containing substantial graphitic units. This area has yet to be tested by any modern exploration for saprolite-hosted deposits and provides immense additional exploration potential.

Concluding Comments

A unique and substantial, high-grade saprolite-hosted flake graphite deposit has been confirmed at Malingunde. Initial diamond drilling indicates significant saprolite thicknesses to between 20m and 30m vertical depth.

An initial bench scale metallurgical program has commenced, with results imminent, and an aircore drilling program is planned for later in 2016 to delineate an initial JORC resource for the Malingunde deposit.

The Company is highly enthused about the potential for a low capital and operating cost project producing premium flake graphite products at Malingunde.

For personal use only

For personal use only

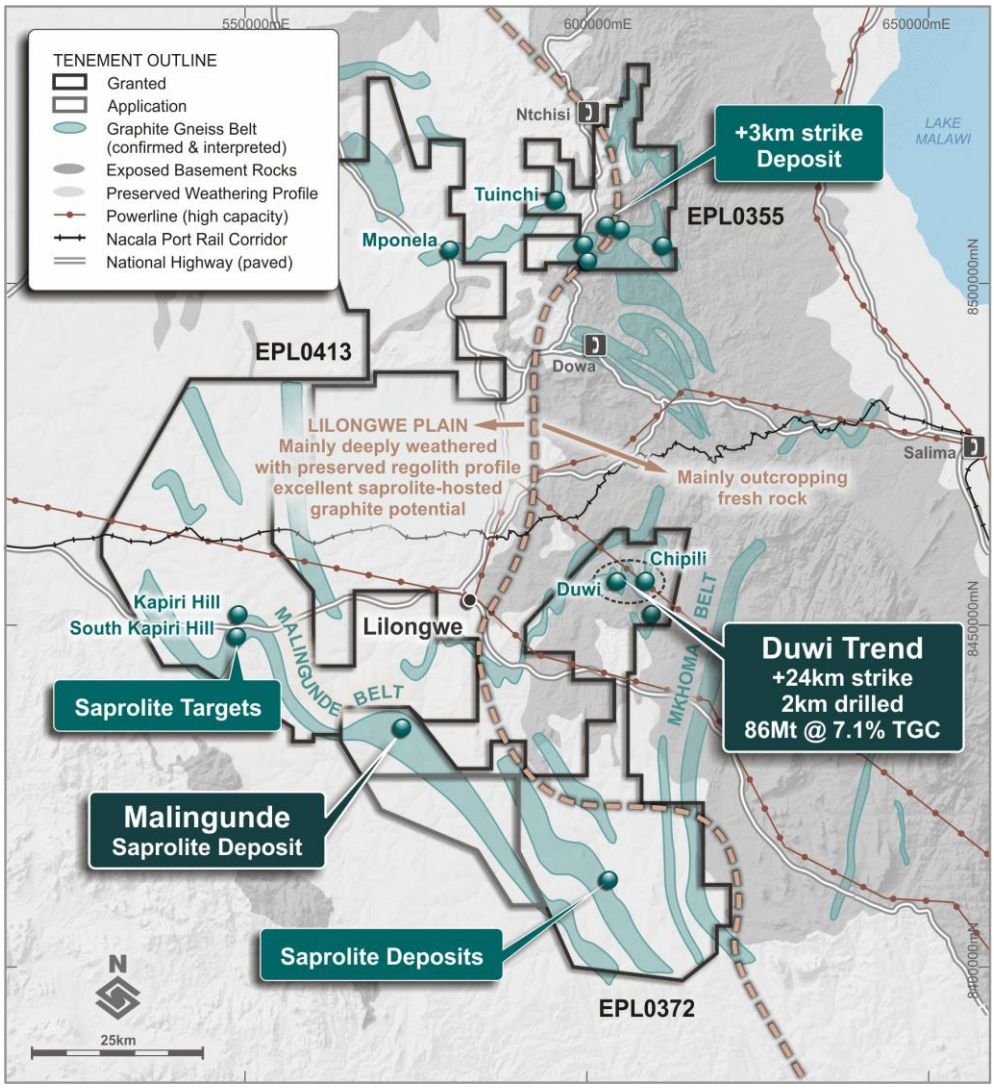

Figure 4. Map showing Sovereign's large 3,788km^2 ground package in Central Malawi with the major flake graphite deposits and target areas shown

Table 1. Malingunde diamond drill-hole information.

Hole ID	E	N	RL (m)	Depth (m)	Azimuth	Dip	Comments
MGDD0001	570752	8437002	1151	11.6	270	-45	Hole abandoned, redrilled as MGDD0004
MGDD0002	572464	8435201	1115	35.7	360	-90	Saprolite-hosted graphite mineralisation to 30m vertical depth
MGDD0003	571934	8436002	1140	47.6	360	-90	Saprolite-hosted graphite mineralisation to 10m vertical depth
MGDD0004	570753	8437001	1151	53.8	270	-45	Saprolite-hosted graphite mineralisation to 25m vertical depth
MGDD0005	570637	8437002	1150	47.5	270	-45	Saprolite-hosted graphite mineralisation to 22m vertical depth

Competent Person Statement

The information in this report that relates to Diamond Drilling Results is based on information compiled by Dr Julian Stephens, a Competent Person who is a member of the Australian Institute of Geoscientists (AIG). Dr Stephens is the Managing Director of Sovereign Metals Limited and a substantial holder of shares, a holder of options and performance rights in Sovereign Metals Limited. Dr Stephens has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken, 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'. Dr Stephens consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Hand Auger Drilling Results, is extracted from the report entitled 'Further High-Grade Hand Auger Results at Malingunde' dated 29 August 2016. This report is available to view on www.sovereignmetals.com.au. The information in the original ASX Announcement that related to Hand Auger Drilling Results was based on, and fairly represents, information compiled by Dr Julian Stephens, a Competent Person who is a member of the Australasian Institute of Geoscientists (AIG). Dr Stephens is the Managing Director of Sovereign Metals Limited and is also a holder of shares, options and performance rights in Sovereign Metals Limited. Dr Stephens has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken, 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'. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this Report that relates to Mineral Resources is extracted from the report entitled 'Maiden JORC Resource Confirms Duwi as one the World's Largest Graphite Deposits' dated 17 October 2014. The announcement is available to view on www.sovereignmetals.com.au. The information in the original ASX Announcement that related to Mineral Resources was based on, and fairly represents, information compiled by Mr David Williams, a Competent Person, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Williams is employed by CSA Global Pty Ltd, an independent consulting company. Mr Williams has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is 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'. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Forward Looking Statement

This release may include forward-looking statements, which may be identified by words such as "expects", "anticipates", "believes", "projects", "plans", and similar expressions. These forward-looking statements are based on Sovereign's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Sovereign, which could cause actual results to differ materially from such statements. There can be no assurance that forward-looking statements will prove to be correct. Sovereign makes no undertaking to subsequently update or revise the forward-looking statements made in this release, to reflect the circumstances or events after the date of that release.

For personal use only

For personal use only

Annexure A - JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
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.*	PQ triple tube (PQ_3) Diamond Drilling (DD) was employed to obtain drill core from surface, which was subsequently geologically and geotechnically logged. Flake graphite mineralisation content has been visually estimated as volume % (% vv) of total whole core intervals recovered. Further processing of drill core including samples that will be submitted for assay is in progress and ongoing.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Core recovery was closely monitored during drilling particularly through the mineralised zones. Standard industry drilling mud mixtures were employed to improve core recovery especially through the softer upper clay rich material and underlying saprolite horizon.
	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.	A nominal lower cut-off of 5% visually estimated graphite content has been applied to define zones of 'mineralisation'. Sampling of ¼ DD PQ_3 core at nominal 2-metre interval has commenced. Samples will be shipped to Intertek-Genalysis sample preparation laboratory in Johannesburg or Perth, for TGC (Total Graphitic Carbon) analysis.
Drilling Techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	Conventional wireline PQ triple tube (PQ_3) Diamond Drilling (DD) was employed to obtain all drill core from surface. Drilling was undertaken with an Atlas Copco Christensen CT14 truck mounted drilling rig. The nominal core diameter is 83mm and the nominal hole diameter is 122mm. Coring was completed with standard diamond impregnated tungsten carbide drilling bits. Drill runs were completed employing either a 3.0 or 1.5m length PQ core barrel. Core from all drilling runs was orientated using a Reflex ACTIII electronic orientation device. The orientation and marking of the bottom of hole (BOH) orientation line along the core was completed whilst the core was still within the drilling split. Core was transferred from the drilling split into PVC splits which were then wrapped with plastic layflat material, securely sealed and placed into core trays.
Drill Sample Recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	At the completion of each drill run the steel splits containing the drill core were pumped out of the retrieved core tube. Core was then carefully transferred from the drill split into plastic sleeves (layflat) which were secured in rigid PVC splits. The layflat was securely bound and sealed with tape prior to transferring PVC splits into plastic core trays.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Core recovery was closely monitored during drilling particularly through the mineralised zones. Standard industry drilling mud mixtures were employed to improve core recovery especially through the softer upper clay rich material and underlying saprolitic horizon. Other measures such as adjusting the quantity of water used during drilling, the amount of rotation used and use of different drill bit types appropriate for soft formation drilling were employed during drilling to improve core recovery. Drill hole MGDD0004 and MGDD0005 were re-drilled due to core loss sustained through a number of mineralised zones. An overall core recovery of 89% was achieved for all drill holes (196.29m) and the core recovery through mineralised zones (>=5% vv) averages 90%. Excluding MGDD0004 and MGDD0005, core recovery overall increases to 91% and in mineralised zones (>=5%vv) averages 95%.
	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.	Drill hole MGDD0004 and MGDD0005 have been re-drilled due to core loss sustained through a number of the mineralised zones. Core recovery through the interpreted mineralised zones averaged 85% in these two drill holes compared with 85% in the non-mineralise zones. Intervals from these holes will not be sampled for assaying hence eliminating any biases that could have been introduced.
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.*	All DD core were geologically logged, recording relevant data to a standard template on a geological interval basis. Core has also been geotechnically logged, and the core is photographed for future record. All logged data was codified to a set company codes system. This offers sufficient detail for the purposes of geological interpretation, further data analysis and resource estimation.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is both qualitative and quantitative. All logging included lithological features, and volumetric visual estimates of mineralisation percentages and flake characteristics. All core is photographed.
	The total length and percentage of the relevant intersection logged	100% of drill-hole samples have been geologically logged.
Sub-sampling techniques	*If core, whether cut or sawn and whether quarter, half or all core taken.*	1/4 DD drill core will be manually split and/or cut using a motorised diamond blade core saw and sampled for laboratory analysis.

For personal use only

Criteria	JORC Code explanation	Commentary
and sample preparation	*If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.*	Not applicable for DD core.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Not applicable. Samples have not yet been submitted for assay.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field QC procedures involve the use of certified reference material assay standards, blanks, duplicates, replicates for company QC measures, and laboratory standards, replicate assaying and barren washes for laboratory QC measures. The insertion rate of each of these is nominally at the rate of 1 in 20.
	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.	Quarter core duplicate samples will be collected every 20th sample.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Quarter PQ3 core is considered appropriate for the material sampled. It is believed that grain size has no bearing on the grade of the sampled material.
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.*	Not applicable. Samples have not yet been submitted for assay.
	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.	No non-laboratory devices other than visual estimates of the volumetric graphite content will be used for analysis.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicate, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Not applicable. Samples have not yet been submitted for assay.
Verification of sampling & assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Significant mineralisation intersections were verified by alternative company personnel.
	The use of twinned holes.	Hole MGDD0004 and MGDD0005 have been re-drilled due to core loss through a number of mineralised zones.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All data is initially collected on paper logging sheets and codified to the Company's templates. This data was hand entered to spreadsheets and validated by Company geologists. This data was then imported to a Microsoft Access Database then validated automatically and manually.
	Discuss any adjustment to assay data.	No adjustments have been made to assay data.
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.*	Collars were tape measured from 20m separated DGPS surveyed auger holes and checked with handheld GPS units accurate to 3-5m. All collars will be picked-up by the Company's consulting surveyor used a Leica GPS System 1200 in RTK mode to define the drill-hole collar coordinates to centimetre accuracy. All down-hole surveying was carried out using a Reflex Ez-Trak multi-shot survey tool at 30m intervals down hole.
	Specification of the grid system used.	WGS84 UTM Zone 36 South
	Quality and adequacy of topographic control.	The Company's consulting surveyor used a Leica DGPS System 1200 in RTK mode to accurately locate the x, y, z of drill collars. Previous checking of Hand Auger holes with the Shuttle Radar Topographic Mission (SRTM) 1-arc second digital elevation data has shown that the Leica GPS System produces consistently accurate results. Given the low topographic relief of the area it is believed that this represents high quality control.
Data spacing & distribution	*Data spacing for reporting of Exploration Results.*	Hand auger holes at nominally 20m by 200m are deemed to be sufficient to intercept any graphite body of mineable width and for this early stage of exploration.
	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.	Not applicable. No Mineral Resource Estimate (MRE) has been completed for the Malingunde deposit.
	Whether sample compositing has been applied.	No sample compositing has occurred.
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*	No bias attributable to orientation of sampling upgrading of results has been identified.
	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 bias attributable to orientation of sampling upgrading of results has been identified.
Sample security	*The measures taken to ensure sample security*	Samples are securely stored at the Company's compound in Lilongwe.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data*	It is considered by the Company that industry best practice methods have been employed at all stages of the exploration.

For personal use only

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement & 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 environment settings.*	The Company owns 100% of 3 Exclusive Prospecting Licences (EPLs) in Malawi. EPL0355 granted in 2015 for 2 years, EPL0372 granted in 2016 for 2 years, EPL0413 granted in 2014 for 3 years. All EPLs are renewable for two additional periods of 2 years each upon expiry.
	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 tenements are in good standing and no known impediments to exploration or mining exist.
Exploration done by other parties	*Acknowledgement and appraisal of exploration by other parties.*	No other parties were involved in exploration.
Geology	*Deposit type, geological setting and style of mineralisation*	The graphite mineralisation occurs as multiple bands of graphite gneisses, hosted within a broader Proterozoic paragneiss package. In the Malingunde and Lifidzi areas specifically, a deep topical weathering profile is preserved, resulting in significant vertical thicknesses from near surface of saprolite-hosted graphite mineralisation.
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 northings 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; and hole length*	Refer Table 1.
	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, no information has been excluded.
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.*	A minimum 5% TGC cut-off grade was applied. Mineralisation occurring in soil or ferruginous pedolith is excluded from intercepts as it is considered the flake size is too fine to warrant future extraction in these zones.
	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.	Not applicable – no short lengths of high grades occur.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are used in this report.
Relationship between mineralisation widths & intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	Information gathered at a regional scale from 100K mapping and mapping of sparsely available outcrop suggest moderately to steeply dipping mineralised zones dominate. Diamond drilling referred to in this announcement would indicate a shallower dip on the sections drilled.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	At this stage of exploration and given the lack of outcrop in the field this relationship is somewhat uncertain. Diamond drilling referred to in this announcement would indicate a shallower dip on the sections drilled.
	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'.	Down-hole length, true width not known.
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 the drill collar locations and appropriate sectional views.*	See Figures 2 and 3 within the main text of this report.
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.*	Representative reporting of low and high-grades has been effected within this report.

Criteria	JORC Code explanation	Commentary
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 additional meaningful and material exploration data has been excluded from this report that has not previously been reported to the ASX.
Further work	*The nature and scale of planned further work (e.g. test for lateral extensions or depth extensions or large-scale step-out drilling).*	The next phase is to complete air core drilling and continue with hand-auger drilling to expand the lateral and vertical extents of currently outlined saprolite hosted flake graphite mineralisation.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	See Figures 3 and 4 within the main text of this report.

For personal use only