

ASX Announcement

21 December 2021

NICKEL SULPHIDE MINERALISATION EXTENDED AT MAIBELE NORTH, BOTSWANA

Highlights

- Extension of AMT Survey completed across Maibele North Ni-Cu-Co-PGE Project
- Survey has defined and successfully extended anomalies from the initial survey
- New conductor targets have also been revealed
- Discussions ongoing in relation to several expressions of interest
- Approvals and drill commencement planned for next quarter

Si6 Metals Limited (ASX: Si6 or the Company) is pleased to provide an update on extensions to the Maibele AMT survey reported on in July 2021 (see ASX Announcement 14/07/2021). Si6 is exploring for base and precious metals within the Limpopo Mobile Belt in Botswana, a district known for hosting major nickel and copper producing operations.

The Company’s Botswana portfolio contains an advanced Ni-Cu-Co-PGE resource at Maibele North and drilled high-grade Cu-Ag discoveries at Airstrip and Dibete. Si6 has been undertaking a multi-faceted exploration campaign employing a variety of ground geophysical techniques designed to target deeper mineralisation for follow-up drill testing.

Si6 Executive Chairman, Patrick Holywell stated, “The Maibele AMT survey has proven very effective at mapping existing Ni-sulphide mineralisation at Maibele North and has delineated a number of exceptional target areas at depth, which to date, have not been drill tested. There is certainly great potential to make additional Ni-discoveries. The 2021 geophysical survey programs have now been completed with outstanding results achieved. Commencement of drilling is eagerly anticipated and we are cognizant of the fact that it has taken some time as a result of pending approvals. Nevertheless we are confident of a successful upcoming drilling campaign and look forward to the commencement.”

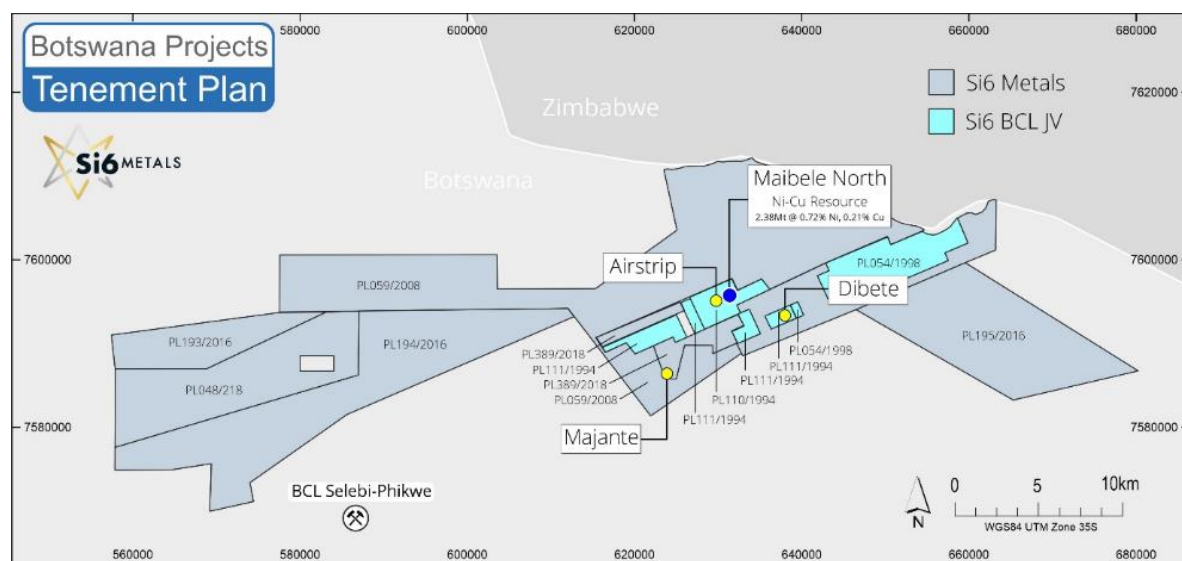


Figure 1: Si6 tenement portfolio in Eastern Botswana



MAIBELE PROJECT

Si6 completed an initial 27-line Audio frequency Magnetotellurics (AMT) survey across the Maibele North orebody mid-2021. AMT is an electromagnetic geophysical technique that measures local magnetic and electric fields which are used to determine in-phase and out of phase ground resistivity values and is often used to detect accumulations of sulphide mineralisation.

The aim of the AMT survey was to search for deep extensions of mineralisation below and along strike of the current Maibele North Resource (for Resource details see Supplementary Appendix). Evidence of deeper mineralisation at Maibele North has previously been confirmed by Si6, with two adjacent holes on the Eastern section of the prospect, MADD0153 and MARD0094, where Nickel sulphides were intersected at depth in both holes (see ASX Announcement 19/03/2021).

The results of the initial survey over Maibele North provided great encouragement for the effectiveness of the AMT to detect further mineralisation and potentially extend the orebody deeper below the current resource envelope. A number of prominent anomalies were detected on the edge of the survey and Si6 recently completed a series of extensions and extra lines to close off these zones in preparation for drill targeting.

The results of the extension survey have confirmed the existence of several deep target zones and resolved some of the edge effects of the initial survey. Three notable zones are evident as follows (Figures 2 to 4):

1. A strong conductor extending vertically to depth beneath the thickest section of the Maibele North orebody
2. A large, south-dipping zone starting below, and to the south of, the main orebody and extending to edge of the survey
3. A large, south-dipping anomaly that extends mostly eastwards from the deep sulphide mineralisation intersected in holes MARD 0094 and MADD0153.

All three zones represent excellent, large drill targets and provide real potential to increase the Ni-Cu-Co-PGE sulphide mineralisation at Maibele North.

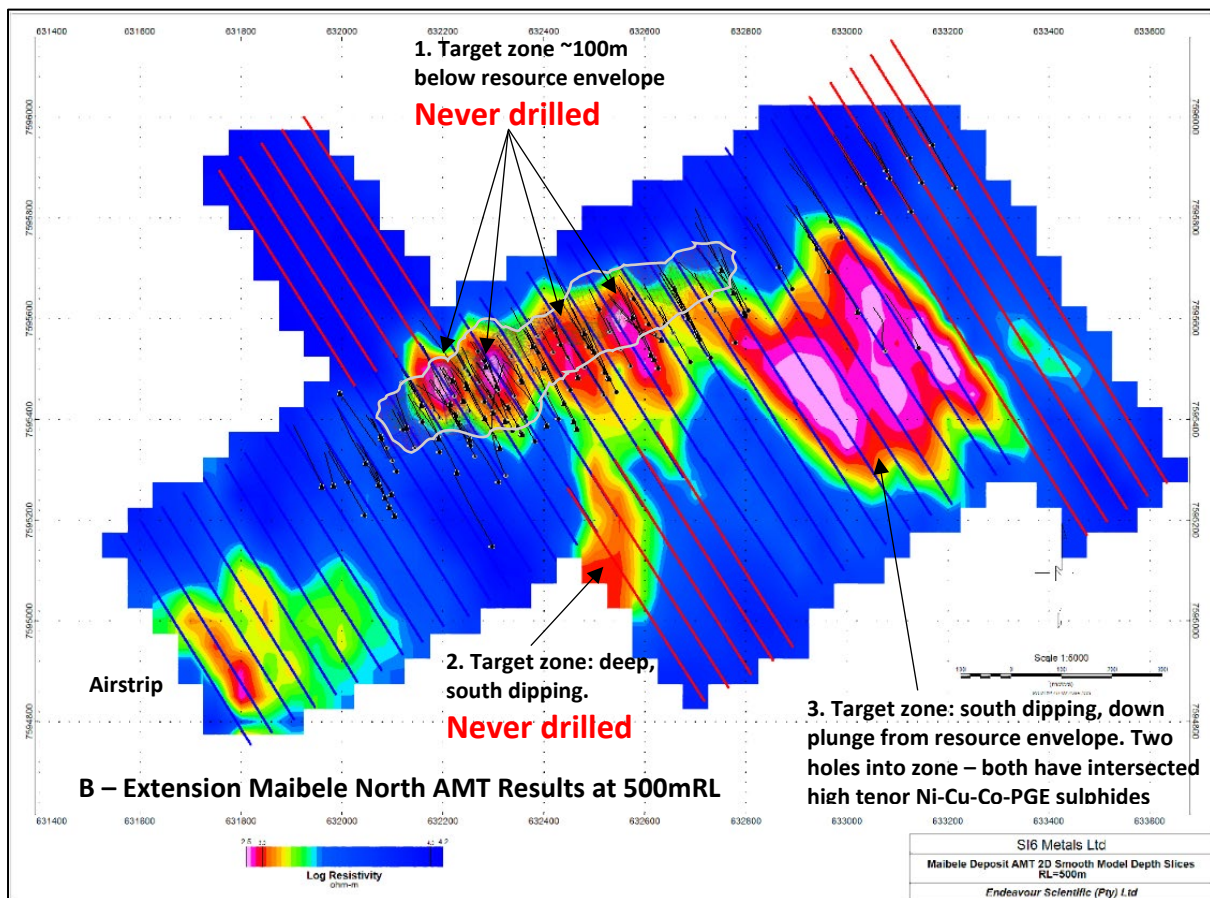
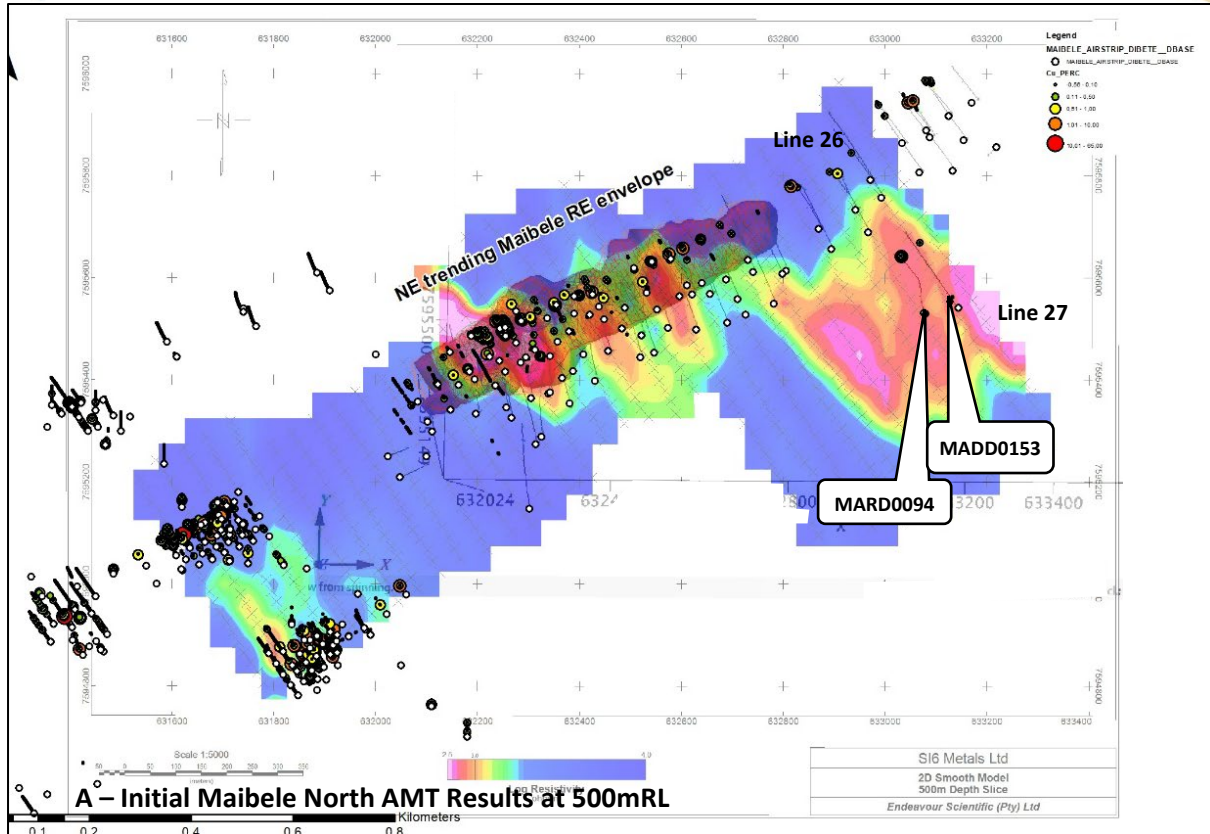


Figure 2: 500mRL Depth slice of AMT results for A) Initial Maibele North (& part of Airstrip) and B) Maibele North extension at 350m vertical depth. Extension lines are marked in red. Note the multiple targets generated by the AMT, with the extension survey revealing a new target zone south of the main resource envelope. The Maibele North MRE envelope as generated by MSA extends to ~250m vertical depth, some 100m above the depth slice.

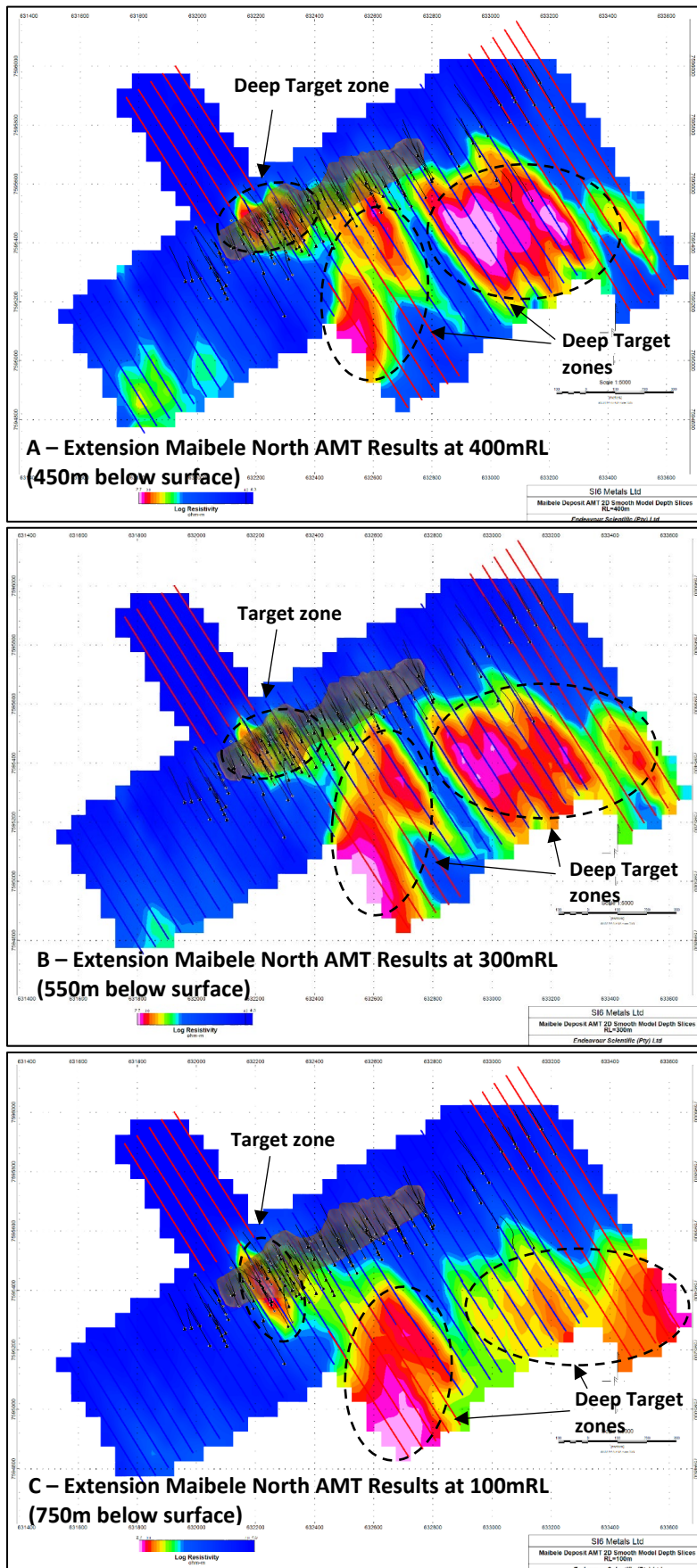


Figure 3: Series of deep depth slices of the complete Maibele North AMT survey showing the scale and intensity of south-dipping conductor targets to the south and southeast of the existing Maibele North resource. The three images represent the response from A) 450m, B) 550m and C) 750m vertically below the ground surface.

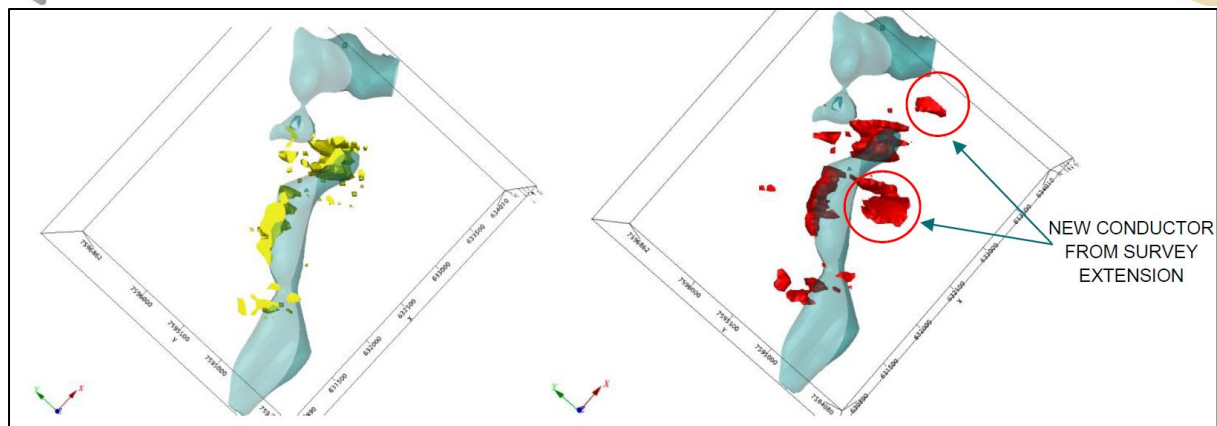


Figure 4: Modelled 2D smooth model conductor response shown in 3D with modeled mafic-ultramafic rock (green) seen from above. The conductors are located predominantly in the footwall of the mafic-ultramafic body. The red model represents the complete survey with the extension data and shows the additional conductor targets revealed.

Corporate Update and Future Work Program

The 2021 geophysical survey programs have now been completed with outstanding results achieved. The Company has been progressing its drilling plans which will likely include a combination of reverse circulation drilling and diamond drilling. Contemporaneously, the Company has continued discussions with a number of parties in relation to obtaining necessary approvals (e.g. joint venture partner and Department of Mines) and is cognizant of the delays. Further progress will be communicated to the market in due course with drilling planned to commence next quarter.

In September 2021, Premium Nickel Resources ("PNR") executed a definitive asset purchase agreement with the Liquidator of BCL Limited (Si6's Joint Venture partner) to acquire the Selebi and Selebi North Ni-Cu-Co assets and related infrastructure formerly operated by BCL. PNR is a private Canadian company, dedicated to the exploration and development of high-quality nickel-copper-cobalt resources. The Selebi and Selebi North assets are located nearby to Si6's tenement package which includes a resource of 2.4Mt at 0.72% Ni and 0.21% Cu. PNR's redevelopment plan incorporates the use of less power and water to reach an exportable commodity (separate copper and nickel-cobalt concentrates) with a much lower environmental impact when compared to the legacy BCL processing and smelting.

The Board of Si6 is focused on unlocking the value of the highly prospective Botswanan project through exploration whilst also entertaining potential corporate and strategic transactions. Several expressions of interest in the project and the company have arisen and engagements with relevant parties are ongoing. However there is no guarantee that any of these discussions will lead to a successful transaction.

Appendix 1 - JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

CRITERIA	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> - <i>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.</i> - <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> - <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> - <i>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.</i> 	<ul style="list-style-type: none"> • No sampling referred to in the document.
Drilling techniques	<ul style="list-style-type: none"> - <i>Drill type (eg core, reverse circulation ,open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face sampling bit or other type, whether core is oriented and if so, by what method, etc).</i> 	No new drilling referred to in the document.
Drill sample recovery	<ul style="list-style-type: none"> - <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> - <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> - <i>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.</i> 	<ul style="list-style-type: none"> • No sampling or drilling referred to in the document.
Logging	<ul style="list-style-type: none"> - <i>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.</i> - <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> - <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • No sampling or drilling referred to in the document.

CRITERIA	JORC Code Explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> - <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> - <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> - <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> - <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> - <i>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.</i> - <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> • No sampling or drilling referred to in the document.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> - <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> - <i>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.</i> - <i>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.</i> 	No previously unreported assay results referred to in the document.
Verification of sampling and assaying	<ul style="list-style-type: none"> - <i>The verification of significant intersections by either independent or alternative company personnel.</i> - <i>The use of twinned holes.</i> - <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> - <i>Discuss any adjustment to assay data.</i> 	No previously unreported assay results referred to in the document.
Location of data points	<ul style="list-style-type: none"> - <i>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.</i> - <i>Specification of the grid system used.</i> - <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • A handheld GPS was used to locate each sample point. Accuracy of +/- 5m is considered reasonable • The grid system for the project WGS 84 / UTM zone 35S
Data spacing and distribution	<ul style="list-style-type: none"> - <i>Data spacing for reporting of Exploration Results.</i> - <i>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.</i> - <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • AMT survey completed on 50 m line spacing, 50 m dipole spacing and a vector array configuration. • 32kHz high frequency and 1024 kHz high frequency band. • The spacing is deemed appropriate for testing the mineralisation along strike.

CRITERIA	JORC Code Explanation	Commentary
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> - 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. 	<ul style="list-style-type: none"> • Surveys were completed perpendicular over geological strike.
Sample security	<ul style="list-style-type: none"> - The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • No sampling referred to in the document.
Audits or reviews	<ul style="list-style-type: none"> - The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> • The data were examined by the Competent person, Mr Steve Groves of Sydney in Australia and considered appropriate.

Section 2 Reporting of Exploration Results

(Criteria in this section apply to all succeeding sections.)

CRITERIA	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • The results reported in this announcement are located in PL110/94 which is a granted Exploration Licence held by African Metals Limited, a 100% owned subsidiary of Botswana Metals Limited. • PL110/94 is subject to a Joint Venture agreement with BCL Limited (currently in liquidation). • Due to the liquidation, PL110/94 is in suspension with approximately 18 months of term remaining and is in good standing. Si6 are allowed to continue exploration on PL110/94 during the suspension period.
Exploration done by other parties	<ul style="list-style-type: none"> • Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> • Interpretations and conclusions in this announcement refer in part to results generated by historic exploration work conducted by Roan Selection Trust, Falconbridge, Cardia Mining and Botswana Metals. • Botswana Metals considers all previous exploration work to have been undertaken to an appropriate professional standard.
Geology	<ul style="list-style-type: none"> • Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> • The Maibele Prospect is hosted within the Magogaphate Shear Zone - a major geological structural feature, generally considered to mark the boundary between the Archaean aged (>2.5 billion year old) Zimbabwean Craton and the Limpopo Belt or Limpopo Mobile Zone (LMZ). . The nickel-copper deposits of Selebi Phikwe lie within the northern part of the Central Zone of the Limpopo Mobile Belt, whilst the nickel copper deposits of Phoenix, Selkirk and Tekwane lie in the Zimbabwean Craton. The Central Zone of the LMZ comprises variably deformed banded gneisses and granitic gneisses, infolded amphibolites and ultramafic intrusions that that have the potential to host Ni-Cu sulphide mineralization. Cu-Ag mineralization at Dibete and Airstrip copper is

CRITERIA	JORC Code Explanation	Commentary
		spatially associated with dolerite intrusion
Drill hole Information	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> ○ 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 case. 	No previously unreported sampling or drilling referred to in the document.
Data aggregation methods	<ul style="list-style-type: none"> • In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. • 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. 	<ul style="list-style-type: none"> • No previously unreported assay results referred to in the document.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • 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 (eg 'down hole length, true width not known'). 	No previously unreported intercepts referred to in the document.
Diagrams	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Plan view and/or cross section maps of the reported results are included in this announcement.

CRITERIA	JORC Code Explanation	Commentary
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The results in this announcement are interpreted to lie within the plane of a mineralized trend that has been partially tested by previous drilling.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> There is no other material exploration considered material to the reported mineral estimate
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (eg 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. 	<ul style="list-style-type: none"> Should further geophysical surveying prove positive, follow up drilling would be required to further test the mineralisation.

Supplementary Information Appendix

Maibele Base Metals Project, Botswana, Resource Information

An initial JORC-compliant (2012) Inferred Resource was calculated at Maibele North by MSA South Africa in 2015 (see Table 1) using a 0.30% Nickel cut-off grade. See the ASX announcement on 28 April 2015 "Maiden Inferred Resource for Maibele North" for further information.

Maibele North Resource							
Tonnes (Mt)	Ni (%)	Cu (%)	Pt (g/t)	Pd (g/t)	Rh (g/t)	Ru (g/t)	Au (g/t)
2.38	0.72	0.21	0.08	0.36	0.04	0.05	0.10

Table 1: Inferred Resource calculated by MSA South Africa in 2015 to JORC 2012 compliance

Competent Persons Statement

The information in this report that relates to Exploration Targets and Exploration Results is based on recent and historical exploration information compiled by Mr Steven Groves, who is a Competent Person and a Member of the Australian Institute of Geoscientists. Mr Groves is a Director of Si6 Metals Limited. Mr Groves 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 the reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Groves consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Disclaimer

In relying on the above mentioned ASX announcement and pursuant to ASX Listing Rule 5.23.2, the Company confirms that it is not aware of any new information or data that materially affects the information included in the above announcement. No exploration data or results are included in this document that have not previously been released publicly. The source of all data or results have been referenced.

Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Si6's mineral properties, planned exploration program(s) and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward looking statements. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. Our audience is cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.



This announcement has been approved for release by the Executive Chairman of Si6 Metals Ltd, Mr Patrick Holywell.

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