

ASX RELEASE

17 August 2022

Celsius improves recoveries of Cobalt and Copper at Opuwo

HIGHLIGHTS

- **First roasting and leaching test completed at Mintek Laboratories with encouraging results of 95% cobalt and 98% copper recovery from a concentrate**
- **36kg of Co-Cu mineral concentrate produced by Maelgwyn Mineral Services for further roasting & tank leach test work at Mintek Laboratories**
- **Drilling has been completed to obtain metallurgical samples for further optimisation work – nine PQ holes for a total of 1,089m, producing 2 tonnes of fresh metallurgical samples for future test works**
- **Work is continuing on a hydrometallurgical processing pathway**

Celsius Resources Limited (“Celsius” or “the Company”) is pleased to announce it has received improved cobalt and copper recovery results from the ongoing metallurgical work program at its Opuwo Cobalt Project (“Opuwo”), which is held under its Namibian subsidiary Opuwo Cobalt Holdings (Pty) Ltd.

The metallurgical work program intends to examine and enhance the commercial viability of the Opuwo project through the application of tailored metallurgical processing. The Company is currently examining two downstream processing methods: a hydrometallurgical route and a roasting & tank leach route.

The preliminary roasting & tank leach test work results show recoveries up to 95% for cobalt and 98% for copper for this processing step. This is an improvement from the 2018 autoclave leaching test results with historical recoveries of 72.6% cobalt and 74.1% copper and demonstrates that Opuwo is amenable for simple roasting & tank leach downstream processing.

Celsius is undertaking further test work to delineate the roasting and tank leach parameters which may further improve cobalt recovery. The Company is also continuing to progress the test work for a hydrometallurgical downstream processing method. Samples for hydrometallurgical testing have now been dispatched to Australia so that test work can commence. It is anticipated that initial test results could be available by September 2022.

“It is encouraging to see that the Opuwo team has completed metallurgical drilling and is making good progress with its work program,” said Celsius Executive Chairman Mr. Martin Buckingham.

“The results from the initial roasting and tank leaching test work look very positive and have produced an upside in the project’s economics from the test work previously undertaken in 2018.

We look forward to seeing the results of the planned hydrometallurgical test work program in Australia in September 2022 to determine the preferred way forward in downstream ore processing.”

OPUWO COBALT-COPPER PROJECT

The Opuwo Cobalt-Copper Project is located about 730km north-west of the Namibian capital city, Windhoek.

The project is of a very large scale and located in a mining-friendly, politically stable, and safe location with excellent infrastructure. It has ample access to grid power, water, and services allowing a range of development options.

Aligned with Celsius Resources’ strategy of continuing to identify and develop world class, high-grade assets, Opuwo represents significant potential.

The updated Mineral Resource Estimate as announced by CLA on 1 July 2021 was based on all drilling completed by Celsius at Opuwo and comprises 225.5 million tonnes at a grade of 0.12% cobalt, 0.43% copper, and 0.54% zinc.

The Mineral Resource Estimate represents contained cobalt of 259,000 tonnes and contained copper of 970,000 tonnes and is classified as:

- **45.3 million tonnes** at a grade of **0.11% cobalt, 0.44% copper and 0.51% zinc** in the **Indicated** category, and a further;
- **180.2 million tonnes** at a grade of **0.12% cobalt, 0.43% copper and 0.55% zinc** in the **Inferred** category.

2022 Metallurgical Drilling Program

A drill program composed of nine large diameter (PQ) diamond drill holes for a total of 1,089m was recently completed. The drill holes were designed to obtain metallurgical samples for future optimisation work. Therefore, core samples had to (a) reflect possible variability along strike of the strongly stratabound ore body, (b) intercept the ore zone below oxidation which usually reaches 20 to 50m in depth, and (c) optimise sample mass recovery in each hole by intercepting the ore zone under a very shallow angle from the hanging wall to the footwall. The obtained drill core is regarded as representative for the DOF (Dolostone Ore Formation) and wider DOF mineralisation of the Opuwo Cobalt deposit.

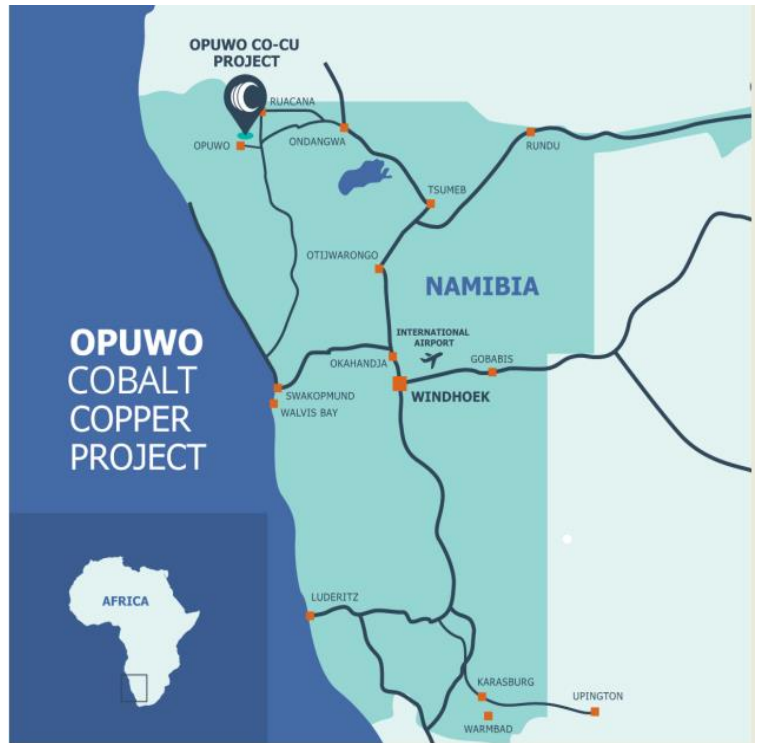


Figure 1. Location of the Opuwo Cobalt-Copper Project in Namibia.

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The prepared core samples will be sent to Maelgwyn Mineral Services in Johannesburg, South-Africa for analysis, with blending and further optimisation flotation test work to be carried out along with metallurgical test work to support future feasibility studies.

Hole No.	Section	UTM_E	UTM_N	EOH	Plunge	Azi true N	Wider DOF from (m)	DOF from (m)	DOF to (m)	DOF intercept (m)
DOFD0282	370100mE	370101	8026310	121,30	-70	-8,2	86,00	107,10	112,90	5,80
DOFD0283	370100mE	370099	8026314	129,59	-67	-8,2	91,30	115,30	121,20	5,90
DOFD0284	371300mE	371307	8026161	103,30	-70	-8,2	50,40	80,80	93,53	12,73
DOFD0285	371300mE	371307	8026156	139,31	-63	-8,2	73,35	124,50	139,31	14,81
DOFD0286	365550mE	365549	8026606	94,30	-70	-8,2	32,00	37,72	59,00	21,28
DOFD0287	365550mE	365549	8026622	136,30	-65	-8,2	50,80	117,00	131,65	14,65
DOFD0288	365950mE	365951	8026510	102,75	-70	-8,2	27,50	70,50	86,50	16,00
DOFD0289	365950mE	365951	8026518	149,57	-65	-8,2	100,00	133,50	147,50	14,00
DOFD0290	365950mE	365951	8026512	112,43	-67	-8,2	46,48	84,48	106,55	22,07

Table 1: Drill statistics of the 2022 metallurgical drilling program at the Opuwo Cobalt Project

Metallurgical Test Work

The metallurgical test work commenced this year after it was halted in 2019 due to low cobalt prices. Approximately 1 tonne of a blended sulphide ore composite was retrieved from historical RC samples. A 36kg concentrate sample was produced by rougher flotation at Maelgwyn Mineral Services Laboratory. Optimisation of flotation was not included in the current scope of work.

The bulk sulphide concentrate was submitted for roasting & tank leach test works to Mintek Laboratories. The potential cobalt and copper extraction was determined after roasting at about 680°C and leaching using sulphuric acid.

Initial results for the primary roasting & tank leach test work demonstrated recoveries up to 95% for cobalt and 98% for copper. This is a significant improvement from the 2018 autoclave leaching metallurgy test results for the sulphide ore compared to the historical recoveries of 72.6% Co and 74.1% Cu.

The roasting & tank leach test work results are encouraging and demonstrate that the Opuwo ore is amenable to this downstream processing method. Further delineation testing of the roasting & tank leach parameters will be undertaken at Mintek to finalise the process flow sheet.

Samples for hydrometallurgical testing have now been dispatched to Australia so that test work can commence. It is anticipated that initial test results will be available in September 2022.

This announcement has been authorised by the Board of Directors of Celsius Resources Limited.

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Listing Rule 5.23 Disclosure

The Company confirms that it is not aware of any new information or data that relates to Exploration Results and Mineral Resources at the Opuwo Cobalt Project and that all material assumptions and technical parameters underpinning the Mineral Resource continue to apply. The Company notes that, as disclosed in this announcement and in previous announcements, the drilling program has been completed at the Opuwo Project, and metallurgical test work is ongoing of which the results will feed into future optimisation work to update the Scoping Study and future feasibility studies.

Competent Person's Statement

Information in this report relating to Exploration Results is based on information reviewed and compiled by Dr Rainer Ellmies, who is a European Geologist (EurGeol) and Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and the Principal Geological Advisor for the Opuwo Project of Celsius Resources. Mr. Ellmies discovered the Opuwo deposit in 2012 and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Ellmies consents to the inclusion of the data in the form and context in which it appears.

Appendix 1: The following tables are provided to ensure compliance with the JORC Code (2012) requirements for the reporting of Exploration Results for the Opuwo Project.

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"> 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 	<p>Exploration and resource drilling was designed to intersect the stratiform DOF horizon based on mapped or interpreted location.</p> <ul style="list-style-type: none"> Reverse Circulation (RC) and Diamond Core (DC) drilling using standard equipment. Sampling was undertaken at one metre intervals for RC and based on lithology/mineralisation changes for DC. <ul style="list-style-type: none"> Reverse Circulation samples were collected by cyclone 3-tier riffle splitter. Each meter sample was divided into an A (for submission to the laboratory), B (reference sample), and C (large remainder sample). Chips were logged and a small sample of about 100 g was collected for immediate portable XRF analysis on-site. RC samples ranged between

Criteria	JORC Code explanation	Commentary
	<p><i>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.</i></p>	<p>2-3 kg.</p> <ul style="list-style-type: none"> ○ Drill Core was sampled according to lithologies over a length between 20 cm and 100 cm for the NQ or HQ drill core, as half core samples. <p>Metallurgical drilling was designed to intercept the ore zone below oxidation which usually reaches 20 to 50 m in depth, and to optimize sample mass recovery in each hole by intercepting the ore zone under a very shallow angle from the hanging wall to the footwall.</p>
<p><i>Drilling techniques</i></p>	<ul style="list-style-type: none"> • <i>Drill type (e.g., 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> 	<ul style="list-style-type: none"> • Reverse circulation (RC) percussion and oriented Diamond Core (DC). • DC drilling for metallurgical sampling was done using PQ sizes • DC drilling for exploration and resource drilling was done using a standard tube, at HQ and NQ size. • DC was oriented using a Reflex EZ-TRAC tool.
<p><i>Drill sample recovery</i></p>	<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"> • Sample recovery was generally recorded as good, with poor recovery in a small number of samples due to groundwater in fault zones or karstic cavities. • All drilling was supervised by a suitably qualified geologist, trained to monitor sample representivity, including evenness of samples being collected from the RC rig, and routine cleaning/flushing of the cyclone on the drill rig. • No relationship exists between sample recovery and grade.
<p><i>Logging</i></p>	<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"> • Drilling logged in detail on a metre by metre basis for RC and on lithology/mineralisation for Diamond Core. • Lithology, alteration and oxidation logged qualitatively. • Sulphide and quartz vein content logged quantitatively. • All Diamond Core holes are photographed, and a representative record of RC samples are placed in chip trays. • A Niton portable XRF analyser was used to assist in determining mineralised horizons. • All chips/core intervals were logged for rock type, colour, alteration, mineralisation style, core recoveries, and any measurable structures were recorded.

Criteria	JORC Code explanation	Commentary
<p><i>Sub-sampling techniques and sample preparation</i></p>	<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"> • PQ DC drill core for metallurgical test work was cut in half using a core saw. For each borehole, half core of the intercepts of the mineralized “DOF” and “Wider DOF” were sampled separately. After analyses of the individual intercepts a blended sample will be produced for further metallurgical test work. • RC drill samples were split using a rig mounted riffle splitter below the cyclone; • Diamond Core (DC) was cut using a core saw. Generally, half core was submitted to the laboratory, except where a duplicate sample was taken, in which case quarter core was submitted for each; • Field duplicates were collected and analysed to confirm the representativity of sampling from both RC and DC drilling; • Sample size is deemed appropriate for the grain size of the material being sampled.
<p><i>Quality of assay data and laboratory tests</i></p>	<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> 	<ul style="list-style-type: none"> • Samples were prepared at Activation Laboratories Limited (ACTLABS) Windhoek laboratory, and assayed at ACTLABS in Ancaster, Canada. A 4 acid digestion sample preparation method and ICP finish were utilised. • No geophysical tools were used to determine any element concentration in these results. • A Niton handheld XRF analyser was used to assist in the selection of samples to be sent to the laboratory for formal analysis (No portable XRF data was reported or used in resource estimation). • The drilling program included field duplicates, standards and blanks that were inserted into the drill sequence, in addition to the standard QA/QC samples and procedures used by the laboratory. • Field duplicates, blanks and standards were submitted in approximately a 1:20 ratio. • A second (umpire) laboratory was utilised to provide additional verification of key mineralised zones prior to resource modelling and estimation. • One of the field inserted standards occasionally reported marginally outside acceptable tolerances for cobalt analysis, however, after subsequent enquiries with the laboratory regarding the sample digestion methods, and considering analysis by an additional laboratory, the data was deemed to be acceptable. • The field and laboratory duplicates revealed good repeatability. • The field inserted blanks generally confirmed appropriate sample hygiene techniques were employed by the laboratory.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Mineralised zones reported in assays correspond well with the zones as logged in the field, and the tenor of grades is consistent with previous drilling and surface sampling. Several RC/DC twin holes have been completed, and do not show any systematic bias towards one drilling method or another. Further twin holes will be completed as part of future drilling programs. An electronic database containing collars, geological logging and assays is maintained by consultants external to the Company. Data is collected in Excel spreadsheets in the field, and then loaded and validated by the Company's external database managers. Validation of assay data against field logging and mineralised zones determined in the field using a portable XRF is undertaken, prior to reporting. No adjustment to assay data has been made.
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All sampling located initially by hand held GPS; UTM grid WGS84 Zone 33 (South); Holes have been surveyed using Differential GPS (DGPS) prior to resource modelling; Downhole surveys to measure hole deviation were routinely completed.
Data spacing and distribution	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drill spacing in the initial phase of drilling was approximately every 500 – 1,000 meters along the strike of the DOF horizon (based on mapping/interpretation). Current closer spaced drilling was completed on a nominal 200 metres x 100 metres grid. The average sample spacing and its distribution is sufficient to adequately delineate geological and grade continuity. Actual sample spacing in three-dimensional space has a mean of 75m which is appropriate for Mineral Resource estimation. Samples were composited at 1 metre intervals within the modelled wireframe only.
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 	<ul style="list-style-type: none"> Drilling of angled holes aimed to test approximately perpendicular to DOF horizon. All resource definition drill holes were angled at 55 degrees, which, based on visual observations in the drill core, usually intersects the mineralisation approximately perpendicular. Drilling, and geological modelling, has more accurately defined the orientation of the geological features and mineralisation and has not introduced a sampling bias.

Criteria	JORC Code explanation	Commentary
	<i>should be assessed and reported if material.</i>	
<i>Sample security</i>	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> Drill samples were delivered to the laboratory by senior Celsius Resources or Gecko Namibia staff.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> A review of drilling methods and sampling procedures has been undertaken by the Company's external Resource Geologists. No significant issues were identified.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

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 Opuwo Cobalt Project comprises two Exclusive Prospective Licenses EPLs 4346, and 4540. Celsius has a 95% ownership of the Project. EPL 4346 has been renewed until March 2023 and hosts the entire Mineral Resource. There are currently no known impediments to developing a project in this area.
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"> Previous work carried out by Kunene Resources included geological mapping, outcrop sampling, soil sampling, high resolution magnetic and radiometric data and hyperspectral data. Two holes were drilled in 2015, which intersected cobalt, copper and zinc mineralisation.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Kaoko Orogen (Kaokobelt) consists of metasedimentary rocks of the Damaran Supergroup deposited on the passive margin of a Late Proterozoic continental rift system. The Damaran sediments overlie the Congo Craton with its Archean to Early Proterozoic basement rocks of the Epupa and Huab Complexes. The key tectonic and sedimentary events in the Kaokobelt are: <ul style="list-style-type: none"> Rifting at the southern Congo Craton between 900-840 Ma including local rift-related continental intrusives and extrusives (e.g. Oas syenite and Lofdal carbonatites 840-756 Ma) Deposition of a 1 to 4 km thick siliciclastic transgression sequence: Nosib Group including Ombombo Formation in the upper part with increasing carbonate sedimentation (and the DOF horizon), 880-712 Ma Chuosi glaciation with deposition of tillites and cold water shales and marlstones 712-692 Ma Deposition of carbonate dominated sediments on the shallow Kunene Platform: Otavi Group Ghaub glaciation at 638-635 Ma (Hoffmann et al., 2004) Deposition of carbonate dominated sediments on the shallow Kunene Platform: Tsumeb Subgroup 635-550 Ma Collision of Kalahari and Congo Craton 550 Ma (Alkmim et al. 2001)

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> ○ Peak metamorphism 530 Ma. ● Mineralisation at Opuwo is hosted in the Neoproterozoic sediments of the Kaoko Belt, which is interpreted as a western extension of the Copper Belt in the DRC and Zambia. ● The Dolostone Ore Formation (DOF) is a carbon rich, marly dolomitic horizon in a sequence of clastic and carbonate lithologies in the upper Ombombo Subgroup. The carbon rich nature of the ore bearing horizon is interpreted to have facilitated the precipitation of the metals of interest, namely cobalt, copper and zinc. ● Cobalt, copper and zinc sulphide mineralisation is present predominantly as linnaeite, chalcopyrite and sphalerite respectively. Minor zones of oxidised and partially oxidised mineralisation occur in the upper portion of the deposit.
<p><i>Drill hole Information</i></p>	<ul style="list-style-type: none"> ● <i>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:</i> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth</i> ○ <i>hole length.</i> ● <i>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.</i> 	<ul style="list-style-type: none"> ● All information detailed in Appendix 1. Drillholes have been accurately surveyed using DGPS for resource modelling. ● Drill hole results have previously been released in ASX Announcements dated 20/04/2017, 27/04/2017, 8/5/2017, 8/6/2017, 2/8/2017, 6/11/2017, 12/12/2017, 29/12/2017, 16/01/2018, 1/02/2018, 19/02/2018, 13/03/2018, 07/06/2018, 10/08/2018, 5/09/2018, 4/10/2018, 16/10/2018, 7/01/2019 and 18/03/2019.
<p><i>Data aggregation methods</i></p>	<ul style="list-style-type: none"> ● <i>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.</i> ● <i>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</i> 	<ul style="list-style-type: none"> ● Simple length weighted averages were used for reporting of significant intercepts. Significant intercepts were reported using a cutoff grade of 0.05% (or 500 ppm) cobalt.

Criteria	JORC Code explanation	Commentary
	<p><i>shown in detail.</i></p> <ul style="list-style-type: none"> The assumptions used for any reporting of metal equivalent values should be clearly stated. 	
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'). 	<ul style="list-style-type: none"> Orientation of drilling vs. dip of DOF horizon means that the downhole lengths reported for angled holes (-55 degrees) approximates true width. Holes drilled vertical (-90 degrees) overestimated true thickness in most cases. Oriented drillholes were used in modelling the mineralised zone in 3D space, thereby modelling the true thickness (width) of the zone.
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"> Not applicable for this announcement.
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"> All drillholes have been reported.
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"> Geophysical and geological datasets detailed in previous releases. Aeromagnetic data is used as a guide to determining the presence and location of the mineralised horizon where it is not outcropping.
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"> Closer spaced drilling will be undertaken at the DOF Prospect, with the aim of progressing the deposit to higher confidence categories of Mineral Resources. Extensional drilling, both laterally and at depth, will be undertaken, with the aim of increasing the size of the Mineral Resource. Exploration on other parts of the Project will comprise geophysical surveys and surface sampling to define targets for further drilling.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> All drill hole data was imported into an MS Access database, linked to Dassault Geovia Surpac and visually inspected for errors. The database was audited using Surpac's internal validation tools to check the sample intervals for overlaps. Collar positions were checked versus in field survey pick up records. Down hole survey and geology data were compared to drilling logs. Minor errors have been corrected.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> The Competent Person, Mr. Kerry Griffin, has not visited the site due to the restrictions on international travel because of Covid – 19. Detailed technical discussions have been held with the site supervising geologists and management.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> Confidence in the geological interpretation is considered to be moderate to high. Staff that supervised and collected field data have a high level of understanding of the deposit geology. The lithological logging and grade values obtained from the drillholes show good continuity of both geology and grade along strike and down dip. Faulting that defines significant structural blocks were modelled in three dimensions using the interpreted surface expressions of the fault traces and drill hole intercepts of the faults and inferred projection downward to encapsulate all of the mineralised zones. The mineralised DOF and WDOF was wireframed as a solid by coding the MIN (Mineralised) and NONMIN (non mineralised) drill hole intercepts within the database and modelling these zones within Leapfrog geo software. This wireframe has been sliced into the different structural blocks created by the fault model and then used to code and constrain data during the block model estimation. Only composites occurring within the modelled wireframe and individual fault blocks were used to estimate the block model within each mineralised fault block zone. The mineralised wireframes were also used to create a dip/dip direction model within Datamine Studio RM for use in directing the estimation search ellipses.

Criteria	JORC Code explanation	Commentary
Dimensions	<ul style="list-style-type: none"> The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	<ul style="list-style-type: none"> The outcrop of the stratigraphy that hosts the mineralisation has been mapped extensively and this was utilised in the modelling of the mineralisation along strike for approximately 15 km, which is the extent of the drilling. The mineralisation has been modelled in wireframes from surface to down-dip up to 1.5km. The true mineralised thickness ranges from 2m to 25m – this was determined by cutting sections through the mineralisation wireframes at various places and measuring the thickness perpendicular to the average mineralisation dip.
Estimation and modelling techniques	<ul style="list-style-type: none"> The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or 	<ul style="list-style-type: none"> Grade estimation for Cu%, Co% and Zn% has been completed using Ordinary Kriging (OK) into the Mineralised wireframe using Geovia Surpac software version 6.8. Top cutting analysis was completed and it has been determined that there were no significant extreme grades that required grade cutting. Datamine Supervisor software was used to analyse the variography within each of the 9 structural blocks for Co, Cu and Zn individually. This revealed spatial anisotropy for all elements along strike for 500m and down-dip for 300m. Only composites within each of the wireframed structural blocks were allowed to inform that block's estimate. ie a hard boundary was applied for each block. Downhole compositing has been undertaken within these domain boundaries at 1m intervals. No assumptions have been made regarding recovery of any by-products nor were there any deleterious elements estimated. The drillhole data spacing ranges from 200m by 100m to 400m by 100m resource definition drillhole spacing. The block model parent block size is 10 m (X) by 5 m (Y) by 2 m (Z), which is considered appropriate for the dominant drillhole spacing. A sub-block size of 5 m (X) by 1.25 m (Y) by 1.0 m (Z) has been used to allow the estimate to fill the mineralisation edges. The grade estimation is completed at the parent block scale. The Mineral Resource estimate has been validated using visual validation tools such as sectional and plan views within surpac comparing the drill holes with the modelled blocks, and volume comparisons with each blocks wireframes, mean grade comparisons between the block model and composite grade means. Swath plots comparing the composite grades and block model grades by Northing, Easting and RL have also been evaluated.

Criteria	JORC Code explanation	Commentary
	<p><i>not using grade cutting or capping.</i></p> <ul style="list-style-type: none"> <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i> 	<ul style="list-style-type: none"> There has been no historical production at Opuwo. No selective mining units are assumed in this estimate. No correlation between variables has been assumed.
Moisture	<ul style="list-style-type: none"> <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i> 	<ul style="list-style-type: none"> No moisture content was taken into account – estimates are on a dry basis.
Cut-off parameters	<ul style="list-style-type: none"> <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> For the reporting of the Mineral Resource Estimate a cut-off grade of 600ppm Coeq was applied within a Whittle Pit shell. For the Underground portion of the resource a bench mark cut off grade of 1550ppm Coeq was applied.
Mining factors or assumptions	<ul style="list-style-type: none"> <i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i> 	<ul style="list-style-type: none"> A Whittle pit optimisation has been run in order to generate a pit shell wireframe for the reporting of open pitable resources. For underground resources a cut off grade has been calculated based on expected mining and development costs as well as standard dilution in mining of this nature. Costs have been estimated using a database of costs for similar mining operations within Africa.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i> 	<ul style="list-style-type: none"> Significant metallurgical test work has been completed on mineralisation from the Opuwo Project. Good to excellent recovery of cobalt, copper and zinc sulphides has been demonstrated using conventional flotation techniques. Leach extraction test work on Opuwo sulphide concentrates has demonstrated high leach extractions of approximately 95% for the metals of interest, into a sulphuric acid medium, under relatively low pressure and temperature conditions. All work to date has been completed on fresh, unweathered mineralisation, which is the dominant ore type in the Mineral Resource.
Environmental factors or	<ul style="list-style-type: none"> <i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining</i> 	<ul style="list-style-type: none"> Design of a tailings storage facility has been completed as part of the Scoping Study for the Project, with two options currently under consideration.

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assumptions	<p><i>reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></p>	<ul style="list-style-type: none"> • An Environmental Impact Assessment Scoping Report has been lodged with the Namibian Ministry of Environment and Tourism which outlines the environmental, social and hydrogeological considerations for the Project. • No significant negative issues have been identified to date. • The Company is currently updating the EIA Scoping Report including any public submissions. 																
Bulk Density	<ul style="list-style-type: none"> • <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i> • <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i> • <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<ul style="list-style-type: none"> • Initial tests to compare Bulk Density and Specific Gravity of the typical core samples revealed identical values due to the very low porosity of the mineralised rocks. • Specific Gravity was systematically measured on core from the mineralised zones. Wet core samples of a length between 15cm and 50cm were used. • Bulk density was estimated into the block model using the same parameters as Co. 																
Classification	<ul style="list-style-type: none"> • <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> • <i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i> • <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<ul style="list-style-type: none"> • The resource for the Opuwo Copper Cobalt Deposit has been classified as Indicated and inferred based on geological understanding, data quality, sample spacing and geostatistical analysis. • The Mineral Resource classification has been completed by weighting key parts of the estimate including, confidence in drillholes / wireframe location, number of contributing samples, the estimate pass, the number of contributing drillholes, Kriging Variance (KV), Kriging Efficiency (KE), and the Regression Slope (RS), to produce a Weighted Resource Category Score (WRCS). <table border="1" data-bbox="785 1877 1426 2038"> <thead> <tr> <th>Item / Weight</th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>Drillhole Confidence</td> <td>High</td> <td>Medium</td> <td>Low</td> </tr> <tr> <td>Pass</td> <td>1/3 var range</td> <td>2/3 var range</td> <td>3/3 var range</td> </tr> <tr> <td>Sample Numbers</td> <td>24-32</td> <td>16-23</td> <td>1 – 15</td> </tr> </tbody> </table>	Item / Weight	1	2	3	Drillhole Confidence	High	Medium	Low	Pass	1/3 var range	2/3 var range	3/3 var range	Sample Numbers	24-32	16-23	1 – 15
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		<table border="1" data-bbox="788 309 1426 465"> <thead> <tr> <th>Contributing Drillholes</th> <th>7</th> <th>4</th> <th>1</th> </tr> </thead> <tbody> <tr> <td>KV</td> <td><0.2</td> <td>0.2 to 0.4</td> <td>>0.4</td> </tr> <tr> <td>KE</td> <td>>=0.7</td> <td>0.3 to 0.5</td> <td><=0.3</td> </tr> <tr> <td>RS</td> <td>>=0.7</td> <td>0.2 to 0.6</td> <td><=0.2</td> </tr> </tbody> </table> <ul data-bbox="724 524 1493 1079" style="list-style-type: none"> • The MRE has been classified as Indicated where WRCS is between 1.2 and 2.2. • The Mineral Resource is classified as Inferred where WRCS is greater than 2 and the model estimates fall within 1 variogram range of informing drill holes. • The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition of mineralised zones is based on a good geological understanding producing a robust model of mineralised domains. This model has been confirmed by infill and extensional drilling which supported the interpretation. • The resource estimate appropriately reflects the view of the Competent Person, that the data quality and validation criteria, as well as the resource methodology and check procedures, are reliable and consistent with criteria as defined by the JORC Code. 	Contributing Drillholes	7	4	1	KV	<0.2	0.2 to 0.4	>0.4	KE	>=0.7	0.3 to 0.5	<=0.3	RS	>=0.7	0.2 to 0.6	<=0.2
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Audits or reviews	<ul data-bbox="328 1146 644 1227" style="list-style-type: none"> • <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul data-bbox="724 1146 1235 1173" style="list-style-type: none"> • No audits or reviews have been completed. 																
Discussion of relative accuracy/confidence	<ul data-bbox="328 1240 692 2049" style="list-style-type: none"> • <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i> • <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i> • <i>These statements of relative</i> 	<ul data-bbox="724 1240 1490 1644" style="list-style-type: none"> • The mineralisation geometry and continuity has been adequately interpreted to reflect the level of Indicated and Inferred Mineral Resources. • The data quality is considered very good and all drill holes have detailed logs produced by qualified geologists. An independent recognised laboratory has been used for all analyses. • The Mineral Resource statement relates to global estimates of tonnes and grade. • The deposit is not currently being mined, nor has it ever been mined, therefore there is no reconciliation data available for comparison. 																

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	<i>accuracy and confidence of the estimate should be compared with production data, where available.</i>	

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