



29 November 2021

**ASX CODE: MTB**

## **UPDATE ON DRILLING AT THE POLYMETALLIC NXUU DEPOSIT, BOTSWANA**

PQ and HQ diamond core in-fill drilling is currently being conducted with two drill rigs at the Company's polymetallic Nxuu Deposit on Prospecting Licence PL43/2016, in Western Ngamiland, Botswana. Refer to Appendix A.(See Figure 1 - Nxuu Deposit, Completed and Proposed Drill Holes)

### **Nxuu Deposit Characteristics**

The Nxuu Deposit is a shallow basin-shaped polymetallic deposit where Zinc (Zn), Lead (Pb), Silver (Ag), Vanadium (V) and Germanium (Ge) mineralisation is hosted within a totally oxidised quartz wacke, situated in a barren dolostone basin.

Prior to the current drilling programme, 28 holes previously drilled by the Company found as follows:

- To a large degree the boundaries of the mineralised domain have now been determined
- Mineralisation was intersected from as shallow as 3.0m below surface (NXDD030 on Section 15) and was intersected at depths to 64.0m (NXDD048 on Section 11) – Refer to Figure 2
- Overall, the average depth to base of mineralisation in the 28 holes drilled is 40.0m
- On average 54% of the 28 drill hole lengths contains mineralisation above cut-off grades
- Of the remaining 46% 17.5% is Kalahari cover, leaving only 28.5% as low grade or barren quartz wacke

### **Current Drilling Programme**

To date three PQ diamond core holes have been completed, one of which was a twin hole and sixteen HQ diamond core holes have been completed, three of which were twin holes, in the Nxuu Deposit NW Zone (Figure 2). To date two HQ diamond core holes have been completed in the Nxuu Deposit NE zone (Figure 3)

The completed holes have been marked as 'DONE', or 'DONE & TWIN' shown in red.

It is anticipated that drilling will continue after the Christmas break.

## **HQ and PQ Diamond Core for assaying and further confirmatory Test Work**

Half HQ diamond core will be sent for assaying. All assay results will be reported to the market as they become available.

Half PQ core together with portions of quarter HQ core can be used to determine operating characteristics of the minerals involved to progress the process route to a Pre-feasibility study, including:

- Mineralogy to assess the economic liberation of mineral assemblage throughout the process
- Confirmation of previous test work and refinement of on-site process requirements

## **Mineralogical and Metallurgical Test Work conducted to date**

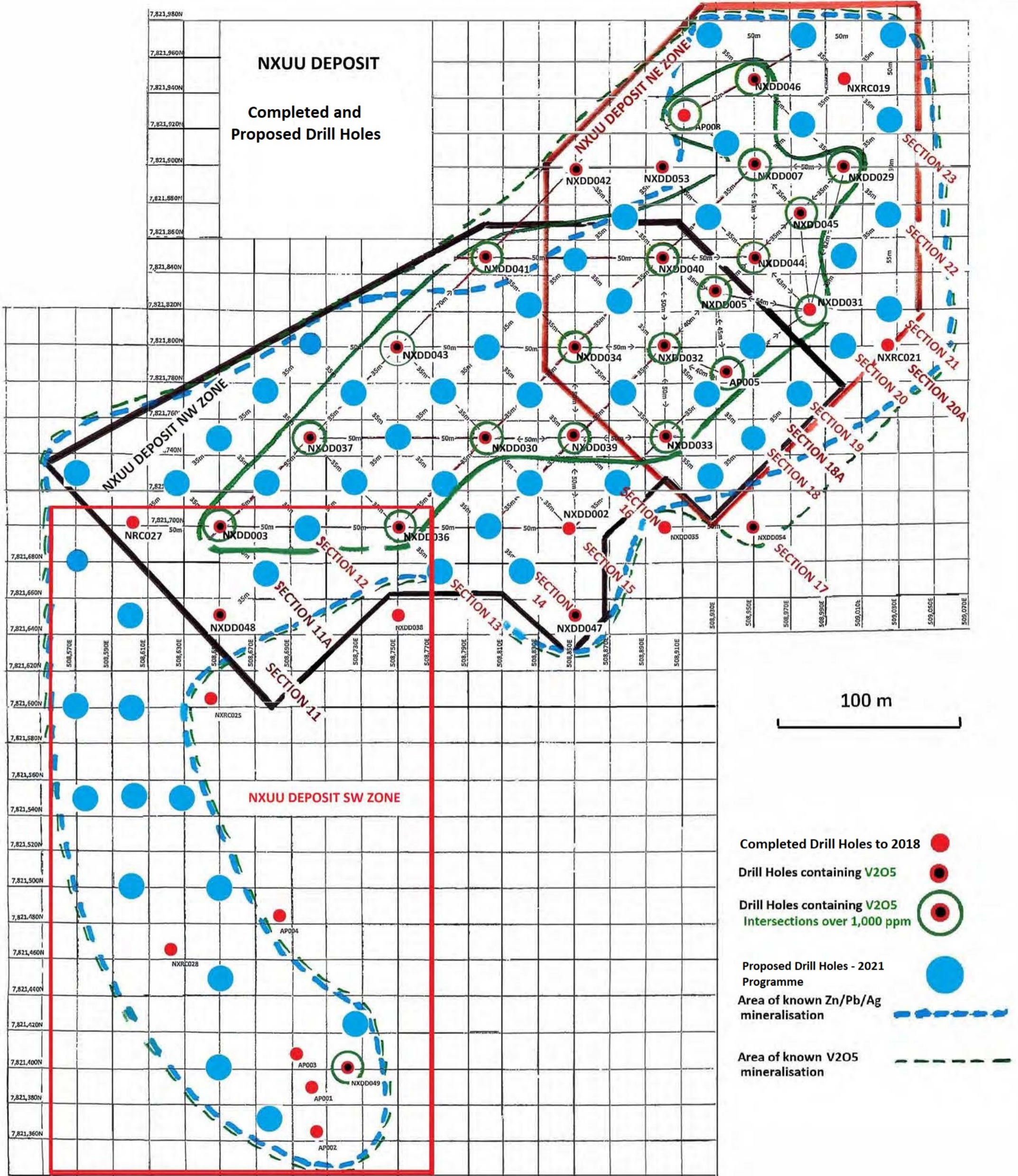
Mineralogical test work conducted to date has confirmed that:

- Zinc is hosted in the oxide mineral Smithsonite
- Vanadium is hosted in the oxide mineral Descloizite, where the mass of Vanadium Pentoxide ( $V_2O_5$ ) is 1.785 times the mass of Vanadium

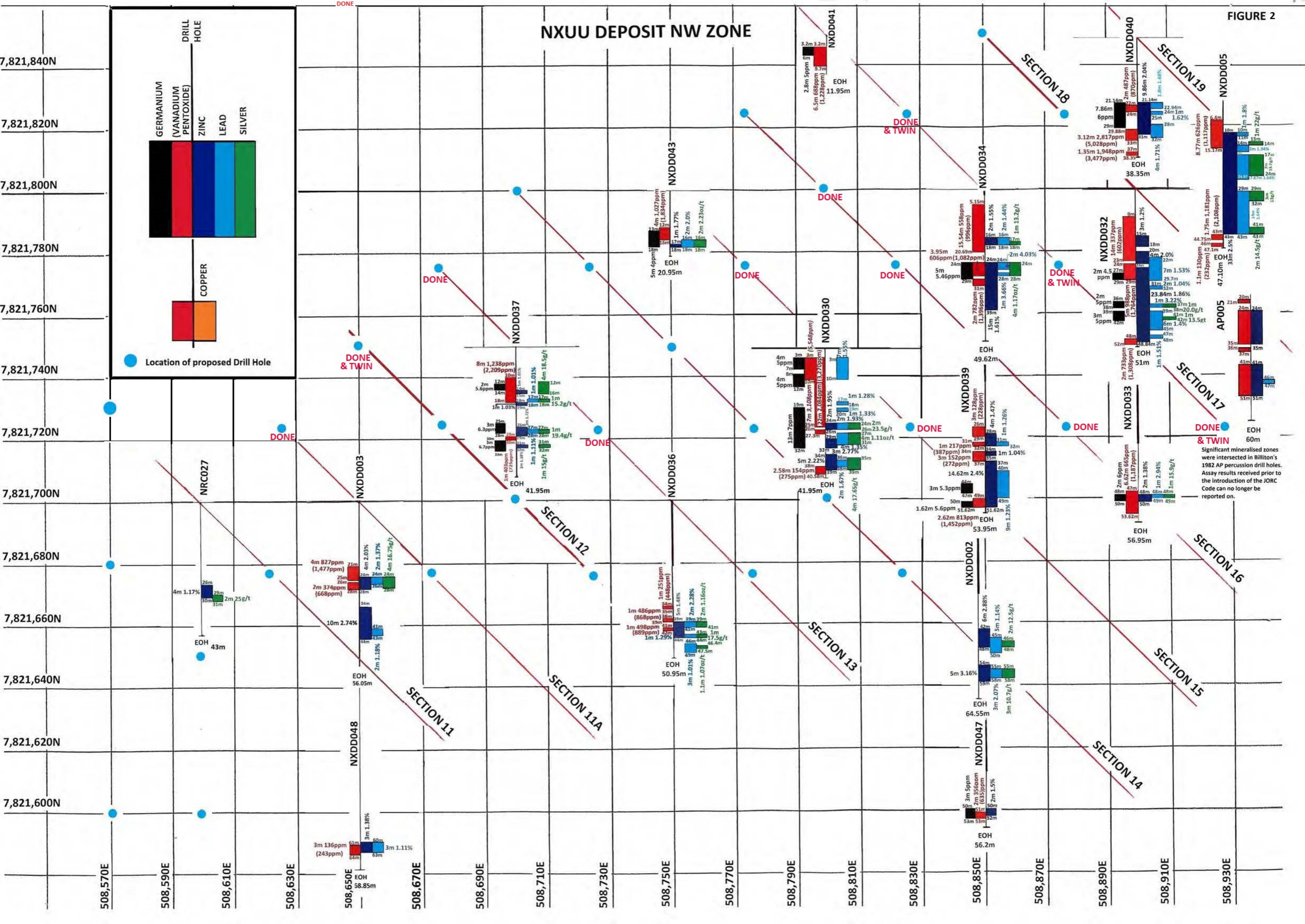
Metallurgical test work conducted to date has confirmed that:

- 93% of Zinc metal can be recovered on site by acid leaching, followed by solvent extraction and electro-winning (SX/EW)
- 81% Vanadium Pentoxide can be recovered on site, initially by gravity separation, followed by flotation using hydroxamate acid as reagent for recovery to a concentrate.

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NXUU DEPOSIT NW ZONE



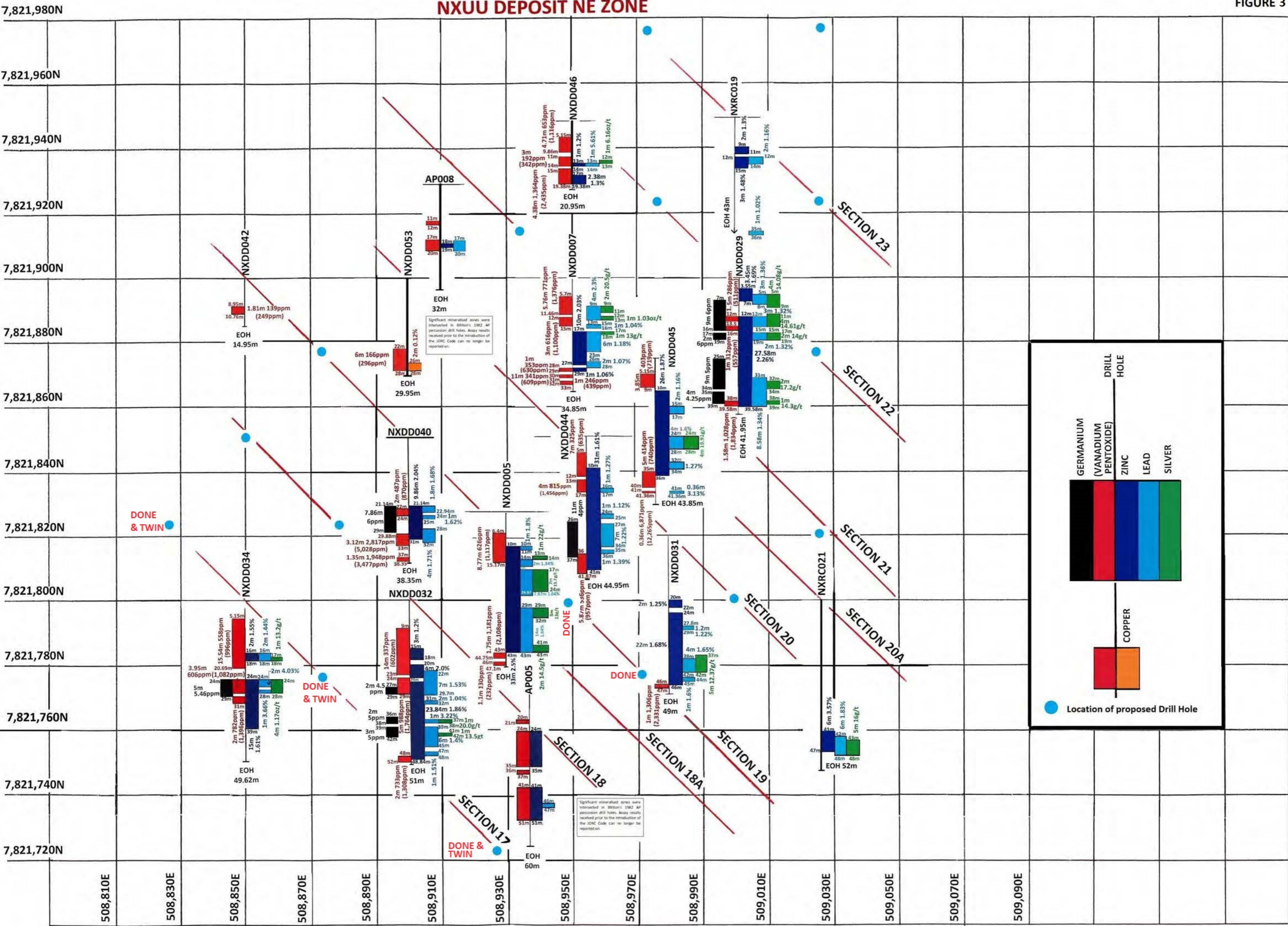
GERMANIUM (VANADIUM PENTOXIDE)  
ZINC  
LEAD  
SILVER

COPPER

Location of proposed Drill Hole

Significant mineralised zones were intersected in Billiton's 1982 AP percussion drill holes. Assay results received prior to the introduction of the JORC Code can no longer be reported on.

NXUU DEPOSIT NE ZONE



DONE

DONE & TWIN

DONE & TWIN

DONE

DONE

DONE & TWIN

## **Forward Looking Statement**

This report contains forward looking statements in respect of the projects being reported on by the Company. Forward looking statements are based on beliefs, opinions, assessments and estimates based on facts and information available to management and/or professional consultants at the time they are formed or made and are, in the opinion of management and/or consultants, applied as reasonably and responsibly as possible as at the time that they are applied.

Any statements in respect of Ore Reserves, Mineral Resources and zones of mineralisation may also be deemed to be forward looking statements in that they contain estimates that the Company believes have been based on reasonable assumptions with respect to the mineralisation that has been found thus far. Exploration targets are conceptual in nature and are formed from projection of the known resource dimensions along strike. The quantity and grade of an exploration target is insufficient to define a Mineral Resource. Forward looking statements are not statements of historical fact, they are based on reasonable projections and calculations, the ultimate results or outcomes of which may differ materially from those described or incorporated in the forward-looking statements. Such differences or changes in circumstances to those described or incorporated in the forward-looking statements may arise as a consequence of the variety of risks, uncertainties and other factors relative to the exploration and mining industry and the particular properties in which the Company has an interest.

Such risks, uncertainties and other factors could include but would not necessarily be limited to fluctuations in metals and minerals prices, fluctuations in rates of exchange, changes in government policy and political instability in the countries in which the Company operates.

## **Other important Information**

**Purpose of document:** This document has been prepared by Mount Burgess Mining NL (MTB). It is intended only for the purpose of providing information on MTB, its project and its proposed operations. This document is neither of an investment advice, a prospectus nor a product disclosure statement. It does not represent an investment disclosure document. It does not purport to contain all the information that a prospective investor may require to make an evaluated investment decision. MTB does not purport to give financial or investment advice.

**Professional advice:** Recipients of this document should consider seeking appropriate professional advice in reviewing this document and should review any other information relative to MTB in the event of considering any investment decision.

**Forward looking statements:** This document contains forward looking statements which should be reviewed and considered as part of the overall disclosure relative to this report.

**Disclaimer:** Neither MTB nor any of its officers, employees or advisors make any warranty (express or implied) as to the accuracy, reliability and completeness of the information contained in this document. Nothing in this document can be relied upon as a promise, representation or warranty.

**Proprietary information:** This document and the information contained therein is proprietary to MTB.

## **Competent Persons' Statement**

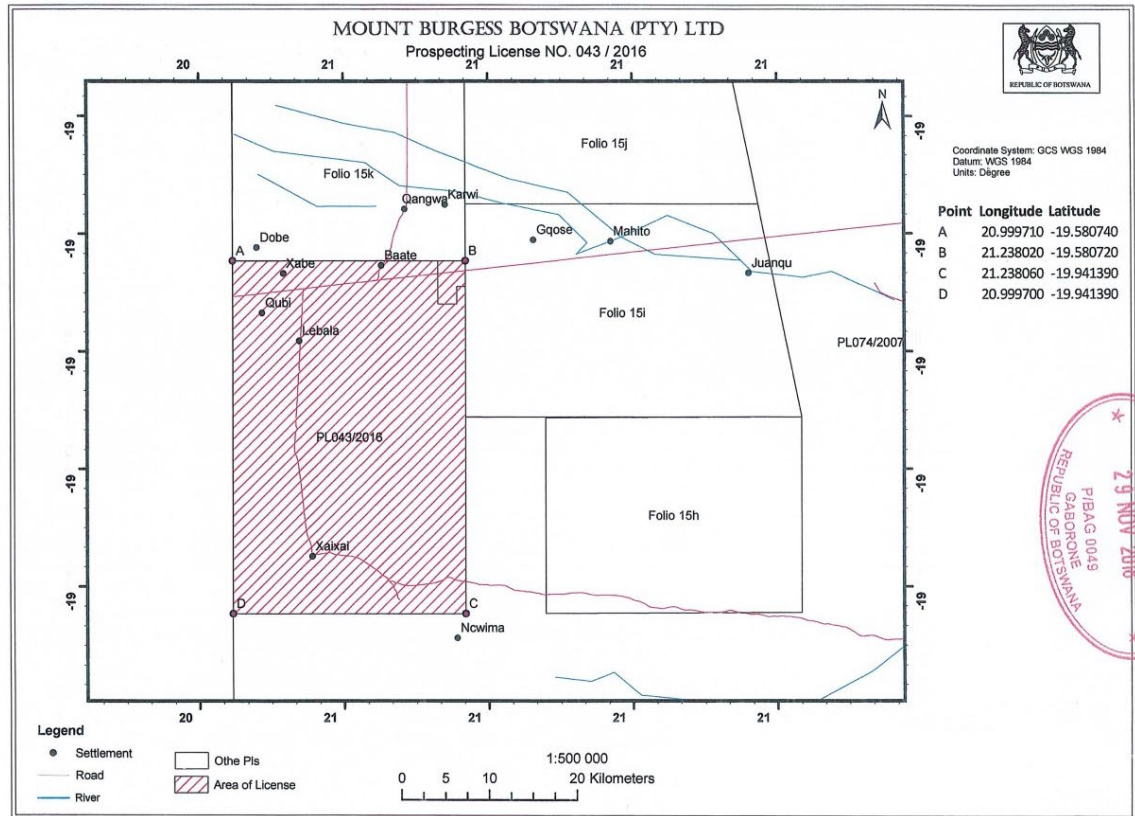
The information in this report that relates to drilling results at the Kihabe-Nxuu Deposit fairly represents information and supporting documentation approved for release by Giles Rodney Dale FRMIT who is a Fellow of the Australasian Institute of Mining & Metallurgy. Mr Dale is engaged as an independent Geological Consultant to the Company. Mr Dale 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 in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code)'. Mr Dale

consents to the inclusion in this report of the drilling results and the supporting information in the form and context as it appears.

The information in this report that relates to metallurgical test work results conducted on samples from the Kihabe and Nxuu Deposits fairly represents information and supporting documentation approved for release by Mr R Brougham (FAusIMM). This information was reviewed by Mr Brougham when consulting to ProMet Engineers. Mr Brougham, non-executive Director of the Company, is a qualified person and has sufficient experience relevant to the process recovery under consideration and to the laboratory activity to which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition 'Australasian Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code)'. Mr Brougham consents to the inclusion of the stated recoveries in the report of the matters, based on the information in the form and context in which it appears.

# APPENDIX A

## TENEMENT HOLDING



Location	Project	Licence Number	Licence Size	Registered Holder	Nature of Interest
Western Ngamiland, Botswana	Kihabe/Nxuu Polymetallic Project	PL 043/2016	1,000 sq km	Mount Burgess Botswana (Pty) Ltd	100%



The following extract from the JORC Code 2012 Table 1 is provided for compliance with the Code requirements for the reporting of drilling results.

**Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections).**

Criteria	JORC code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	<p><b>Mount Burgess Mining Diamond Core Holes</b></p> <p>HQ Diamond Core was marked and collected in sample trays, visually logged and cut in half. Samples were collected as nominal 1m intervals but based on visible geology with minimum samples of 0.3m and maximum samples of 1.3m. Half of each core was retained on site in core trays and the other half was double bagged and sent to Intertek Genalysis Randburg, South Africa where they were crushed. A portion of each intersection sample was then pulverised to p80 75um and sent to Intertek Genalysis for assaying via ICPMS/OES for Ag/Co/Cu/Pb/Zn/V/Ge.</p> <p><b>Mount Burgess Mining Reverse Circulation Holes</b></p> <p>Individual meters of RC drill chips were bagged from the cyclone. These were then riffle split for storage in smaller bags, with selected drill chips being stored in drill chip trays. A trowel was used to select drill chip samples from sample bags to be packaged and sent to Intertek Genalysis, Randburg, South Africa where they were crushed. A portion of each intersection's sample was then pulverised to P80 75um and sent to Intertek Genalysis, Maddington, WA, for assaying via ICP/OES for Ag/Co/Cu/Pb/Zn.</p> <p><b>Mount Burgess Mining Diamond Core Samples submitted for Metallurgical Test Work</b></p> <p>The remainder of the crushed samples were then sent from Intertek Genalysis Randburg to Intertek Genalysis Maddington, Western Australia where they were then collected by the Company for storage. Samples from various intersections from drill holes were selected by the Company for submission for metallurgical test work.</p>
	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).	<p><b>Mount Burgess Mining Diamond Core Holes</b></p> <p>HQ diameter triple tube was generally used for diamond core drilling in the oxide zone of the Kihabe Deposit. NQ diameter was generally used in the sulphide zone. Down hole surveys were conducted on all DD holes.</p>
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material	<p><b>Mount Burgess Mining Diamond Core and RC Holes</b></p> <p>Sample recoveries were in general high and no unusual measures were taken to maximise sample recovery other than the use of triple tube core for diamond core drilling. Mount Burgess believes there is no evidence of sample bias due to preferential loss/gain of fine/coarse material.</p>
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	<p><b>Mount Burgess Mining Diamond Core Holes and RC Hole</b></p> <p>Holes were logged in the field by qualified Geologists on the Company's log sheet template and of sufficient detail to support future mineral resource estimation: Qualitative observations covered Lithology, grain size, colour, alteration, mineralisation, structure. Quantitative logging included vein percent. SG calculations at ~5m intervals were taken in the DD holes. All holes were logged for the entire length of hole. Logs are entered into MTBs GIS database managed by MTB in Perth.</p>
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field	<p><b>Mount Burgess Mining Diamond Holes and RC Hole</b></p> <p>HQ and NQ Core was sawn in half on site. Half of each core was retained on site in core trays and the other half was double bagged and labelled noting Hole# and interval both within the bag and on the bag. Sample bags were then placed in larger bags of ~40 individual samples and the larger bag also labelled describing the contents. Field duplicates were inserted at regular intervals.</p>

	duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled	<p>All RC sample bags were labelled with drill hole number and sample interval and collectively stored in larger bags with similar reference. Drill chip trays were all stored separately.</p> <p>All samples currently being reported on were assayed for Ag/Co/Cu/ Pb/Zn. Not all were assayed for V. Some samples from drill holes currently being reported on were also assayed for Ge.</p>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>•The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total</li> <li>•For geophysical tools, spectrometers, hand-held XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibration factors applied and their derivation etc.</li> <li>• nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks ) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<p><b>All Mount Burgess Samples</b></p> <p>All samples, when originally assayed, were sent to Intertek Genalysis Perth, for assaying according to the following standard techniques:</p> <p><b>Diamond Core Samples</b></p> <ul style="list-style-type: none"> <li>(a) Ore grade digest followed by ICP – OES finish for Silver, Lead &amp; Zinc</li> <li>(b) Also 4 acid digest for silver, lead, zinc followed by AAS</li> </ul> <p><b>RC Samples</b></p> <p>Ore grade digest followed by ICP-OES for Ag/Co/Cu/Pb/Zn</p> <p>Mount Burgess quality control procedures include following standard procedures when sampling, including sampling on geological intervals, and reviews of sampling techniques in the field.</p> <p>The current laboratory procedures applied to the Mount Burgess sample preparation include the use of cleaning lab equip. w/ compressed air between samples, quartz flushes between high grade samples, insertion of crusher duplicate QAQC samples, periodic pulverised sample particle size (QAQC) testing and insertion of laboratory pulp duplicates QAQC samples according to Intertek protocols.</p> <p>Intertek inserts QA/QC samples (duplicates, blanks and standards) into the sample series at a rate of approx. 1 in 20. These are tracked and reported on by Mount Burgess for each batch. When issues are noted the laboratory is informed and investigation conducted defining the nature of the discrepancy and whether further check assays are required. The laboratory completes its own QA/QC procedures and these are also tracked and reported on by Mount Burgess. Acceptable overall levels of analytical precision and accuracy are evident from analyses of the routine QAQC data</p>
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	<p><b>All Mount Burgess Samples</b></p> <p>Assay results for samples were received electronically from Intertek Genalysis and uploaded into MTB's database managed by MTB at its Perth Office.</p>
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control.	<p><b>All Mount Burgess Holes</b></p> <p>Drill hole collar locations were recorded at the completion of each hole by hand held Garmin 62S GPS with horizontal accuracy of approx. 5 metres • Positional data was recorded in projection WGS84 UTM Zone 34S. The accuracy provided by the system employed is sufficient for the nature of the exploratory program. Downhole surveys were also conducted.</p>
Data spacing and distribution	Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	<p><b>All Mount Burgess Holes</b></p> <p>Mount Burgess drilling campaigns were undertaken to validate historical drilling as well as to acquire further data for future resource estimation.. The data spacing and distribution is currently insufficient to establish the degree of geological and grade continuity appropriate for the estimation of Mineral Resources compliant with the 2012 JORC Code.</p> <p>Additional drilling will be required to determine the extent of mineralisation and estimate a Mineral Resource compliant with the 2012 JORC Code. Sample compositing was conducted on drill holes, following receipt of assays from Intertek Genalysis, for the purpose of mineralogical and metallurgical test work.</p>

Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	<p><b>All Mount Burgess Holes</b></p> <p>Mineralisation was typically intersected at -60 degrees and -90 degrees at the Kihabe Deposit and the Company believes that unbiased sampling was achieved.</p>
Sample security	The measures taken to ensure sample security.	<p><b>All Mount Burgess Holes</b></p> <p>Samples were taken by vehicle on the day of collection to MTB's permanent field camp, and stored there until transported by MTB personnel to Maun from where they were transported via regular courier service to laboratories in South Africa.</p>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<p><b>All Mount Burgess Diamond Core Holes</b></p> <p>A Company Geologist reviewed sampling and logging methods throughout the drilling programs.</p> <p><b>Mount Burgess RC Hole</b></p> <p>MTB's Exploration Geologists continually reviewed sampling and logging methods on site throughout the drilling programs.</p>

**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	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 Kihabe-Nxuu Project is located in north-western Botswana, adjacent to the border with Namibia. The Project is made up of one granted prospecting licence - PL 43/2016, which covers an area of 1000 sq km. This licence is 100% owned and operated by Mount Burgess. The title is current at the time of release of this report, with a renewal granted in November 2020 to 31 December 2022.  PL 43/2016 is in an area designated as Communal Grazing Area.
	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 licence is in good standing and no impediments to operating are currently known to exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Geological Survey of Botswana undertook a program of soil geochemical sampling in 1982. As a result of this program, Billiton was invited to undertake exploration and drilling activities in and around the project area. Mount Burgess first took ownership of the project in 2003 and has undertaken exploration activities on a continual basis since then.
Geology	Deposit type, geological setting and style of mineralisation.	The Kihabe-Nxuu Project lies in the NW part of Botswana at the southern margin of the Congo craton. The Gossan Anomaly is centred on an exposed gossan within the project. To the north of the project are granitoids, ironstones, quartzites and mica schists of the Tsodilo Hills Group covered by extensive recent Cainozoic sediments of the Kalahari Group. Below the extensive Kalahari sediments are siliciclastic sediments and igneous rocks of the Karoo Supergroup in fault bounded blocks.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:  easting and northing of the drill hole collar  elevation or RL (Reduced Level – elevation above sea level in 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	Information material to the understanding of the exploration results reported by Mount Burgess is provided in the text of the public announcements released to the ASX.  No material information has been excluded from the announcements.

Criteria	JORC Code Explanation	Commentary
	Competent Person should clearly explain why this is the case.	
Data aggregation methods	<p>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.</p> <p>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.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p><b>All Mount Burgess Holes</b></p> <p>No data aggregation methods have been used.</p>
Relationship between mineralisation widths and intercept lengths	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>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').</p>	<p><b>All Mount Burgess Holes</b></p> <p>The geometry of the mineralisation with respect to the drill hole angle is typically at -60 degrees at the Kihabe Deposit which is considered representative from a geological modelling perspective.</p>
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	<p><b>All Mount Burgess Holes</b></p> <p>Appropriate maps, sections and mineralised drill intersection details are provided in public announcements released to the ASX. Refer to the Company's website <a href="http://www.mountburgess.com">www.mountburgess.com</a>.</p>
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.	Exploration results reported in Mount Burgess public announcements and this report are comprehensively reported in a balanced manner.
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, ground water, geotechnical and rock characteristics, potential deleterious or contaminating substances.	

Criteria	JORC Code Explanation	Commentary
Further work	<p>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</p> <p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	Further works planned at the Project include additional drilling and surface mapping at the Kihabe-Nxuu Zinc/Lead/Silver/Germanium and Vanadium Project.

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29 November 2021