

## **The Polymetallic Zn/Pb/Ag/V<sub>2</sub>O<sub>5</sub>/Ge/Ga Nxuu Deposit**

In answer to enquiries, the Company has assembled further data for the Nxuu Deposit to show the following:

- **Overall depth of Kalahari sand cover**, (Ref Figure 1).
- **Amount of Kalahari sand cover down to 7m** to be removed through the simple process of bulldozing or scrapers, without the need for drilling and blasting, (Ref Figure 1). Only deeper areas, ranging from 12m to 18m of four of the 48 holes shown, (NXDD002, NXDD039, NXDD033 and NXDD031) may need light blasting where a layer of calcrete is encountered.
- **Depth to commencement of mineralisation** immediately below the Kalahari sand cover, ranging from:
  - (a) **3m to 7m**, (holes shown within the continuous black lined area, Fig 1) and
  - (b) **7m to 14m** (holes shown within the dotted black lined area, Fig 1).Note: In order to increase productivity, a light blast may be desirable for the purpose of further loosening up the totally oxidized, weathered<sup>1</sup>, mineralised quartz-wacke. Within (a) and (b) there are 30 drill holes, being 62.5% of the total 48 drill holes.
- **Within the mineralisation below 14m**, if drilling and blasting is undertaken, it will be limited for the purpose of increasing productivity by further loosening up the totally oxidized, weathered, mineralised quartz wacke.

**For confirmation of the extent of weathering that has occurred within the oxide (not sulphide) quartz wacke**, refer to photos of the drill core from NXDD030, to the base of mineralisation (Figure 2). NXDD030, drilled within the centre of the deposit, is highlighted with a red star ★ on Figure 1 and Figure 3.

Typical cost of drill and blast in a sulphide deposit is in the region of 30% of the total mining costs. **Significant cost savings can be achieved when mining and processing weathered oxide material.**

**In conclusion, the Nxuu Deposit presents as a totally oxidized, weathered, shallow basin shaped, low cost, low risk operation, containing Zn/Pb/Ag/V<sub>2</sub>O<sub>5</sub>/Ge/Ga mineralisation.**

Test work conducted to date by the Company has shown that:

- 93% Zinc can be recovered on site through solvent extraction and electro-winning.
- Lead carbonate (Cerussite) can be recovered by gravity followed by flotation and will also recover silver minerals and inclusions within cerussite.
- Operations in Australia, USSR and the USA have been successful in developing processing circuits within concentrators in maximizing silver recovery.
- 82% Vanadium Pentoxide (V<sub>2</sub>O<sub>5</sub>) can be recovered on site through gravity separation, followed by subjecting the tail to flotation, using a hydroxamate acid for recovery.

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<sup>1</sup> Weathering is the deterioration and weakening of rocks, soils and minerals through contact with water, atmospheric gases, and biological organisms.

- Both Gallium and Germanium are hosted in micas and are responsive to flotation, the main process in producing a high mica recovery / removal. Metallurgical test work has still to be conducted to determine on site recoveries.

Figure 1, shows the depths of Kalahari sand cover, the depths to commencement of mineralisation and the depths to the base of mineralisation.

Figure 2, shows the totally oxidized, weathered drill core of NXDD030 from commencement to the base of mineralisation.

Figure 3, shows the grades of the various intersections of the Nxuu Deposit drill holes.

Figure 4, the Nxuu Drill Hole Map, shows the location of the various drill holes of the Nxuu Deposit.

## **Uses of $V_2O_5$ /Ge/Ga**

### **VANADIUM PENTOXIDE ( $V_2O_5$ )**

$V_2O_5$  is a key component for future clean energy and energy storage requirements. Given a recent push to replace petrol and diesel with electric power,  $V_2O_5$  has an exceptionally important part in power storage requirements.

Vanadium redox flow (VRF) batteries manufactured to incorporate  $V_2O_5$ , can store huge amounts of power, generated from wind and solar, for long periods of time. VRF batteries can be subject to radical changes in power storage levels within short spaces of time with little impact on battery deterioration. Power storage in Li-ion batteries must be maintained at constant levels to avoid battery deterioration.

### **GERMANIUM**

Germanium is used in fibre optics, infra-red optics, high brightness LEDs used in automobile head lights and in semi-conductors for transistors in thousands of electronic applications. Recently declared as a strategic metal by the US Government, it is also used for night vision and targeting at night.

Germanium is now the most efficient energy generator in solar panels which can convert more than 40% of sunlight into electricity. Silicon base solar cells have a maximum capacity of 20%.

### **GALLIUM**

Gallium, a soft metallic element, is currently used for semi-conductors, blue ray technology, light emitting diodes (LEDs), pressure sensors for touch switches, as an additive to produce low melting-point alloys and in mobile phones.

The recent upgrade of cellular networks to 5<sup>th</sup> generation (5G) has created high volumes of international data transmission. These increased volumes generate extremely high temperatures which can be effectively controlled through the use of Gallium computer chips that are more efficient at higher temperatures than traditional silicon-based chips.

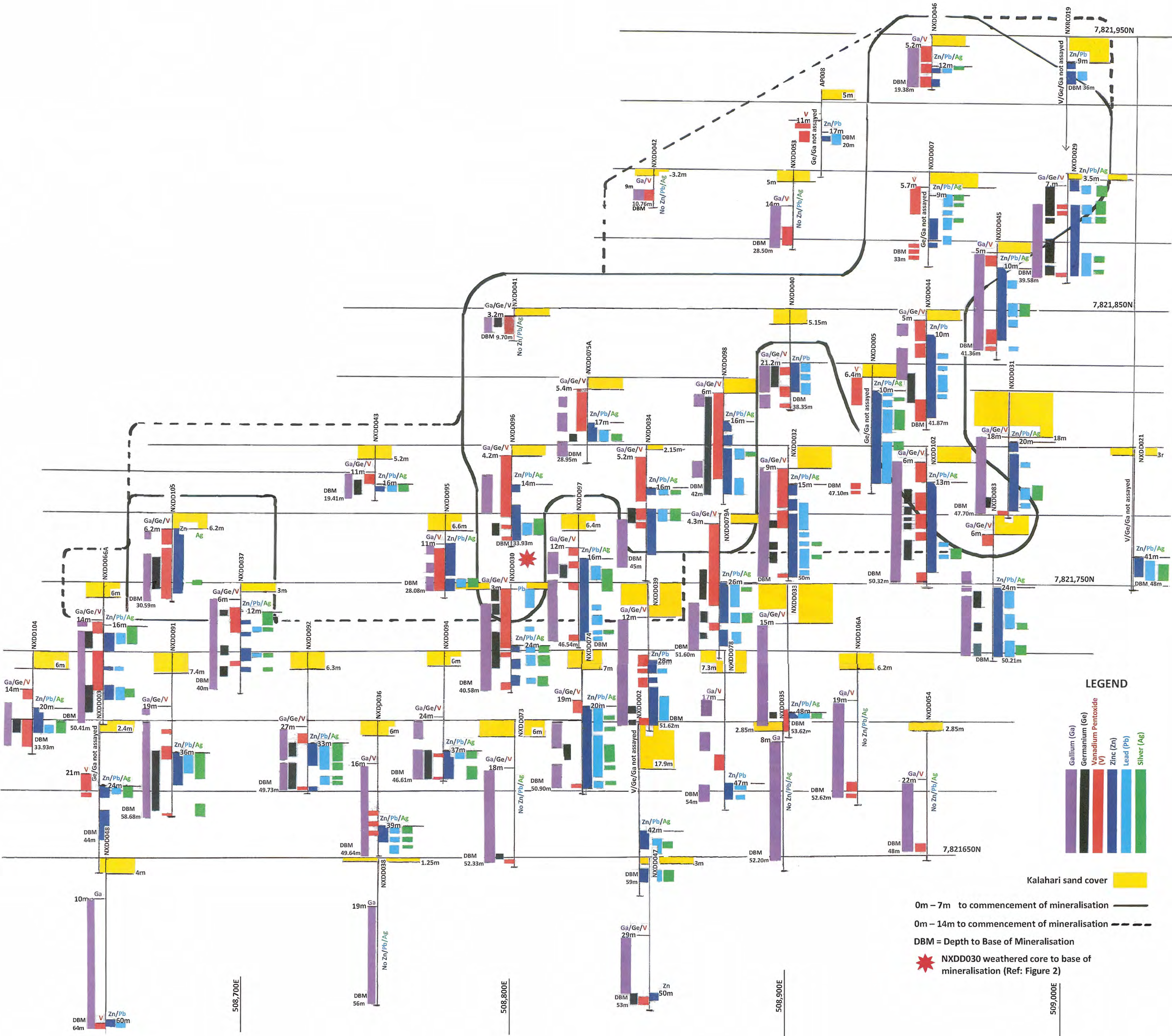
The Fraunhofer Institute System and Innovation Research, expects that by 2030, the worldwide demand for Gallium will be six times higher than the current production rate of around 720 tonnes per annum.

Recently an international team of scientists led by Professor Konrosh Kalantar-Zadeh at the University of New South Wales, School of Chemical Engineering in Australia, has developed a reactor that uses Gallium and nano-sized silver rods to break down  $CO_2$  into constituent elements.

**Quote** “Our liquid metal technology offers an unprecedented(ed) process for capturing and converting  $CO_2$  at an exceptionally competitive cost” said Kalantar-Zadeh. “We are very hopeful that this technology will emerge as the cornerstone of processes that will be internationally employed for mitigating the impact of greenhouse emissions”. (Metal Tech News 27/09/22).



NXUU DEPOSIT  
DEPTH TO COMMENCEMENT OF MINERALISATION






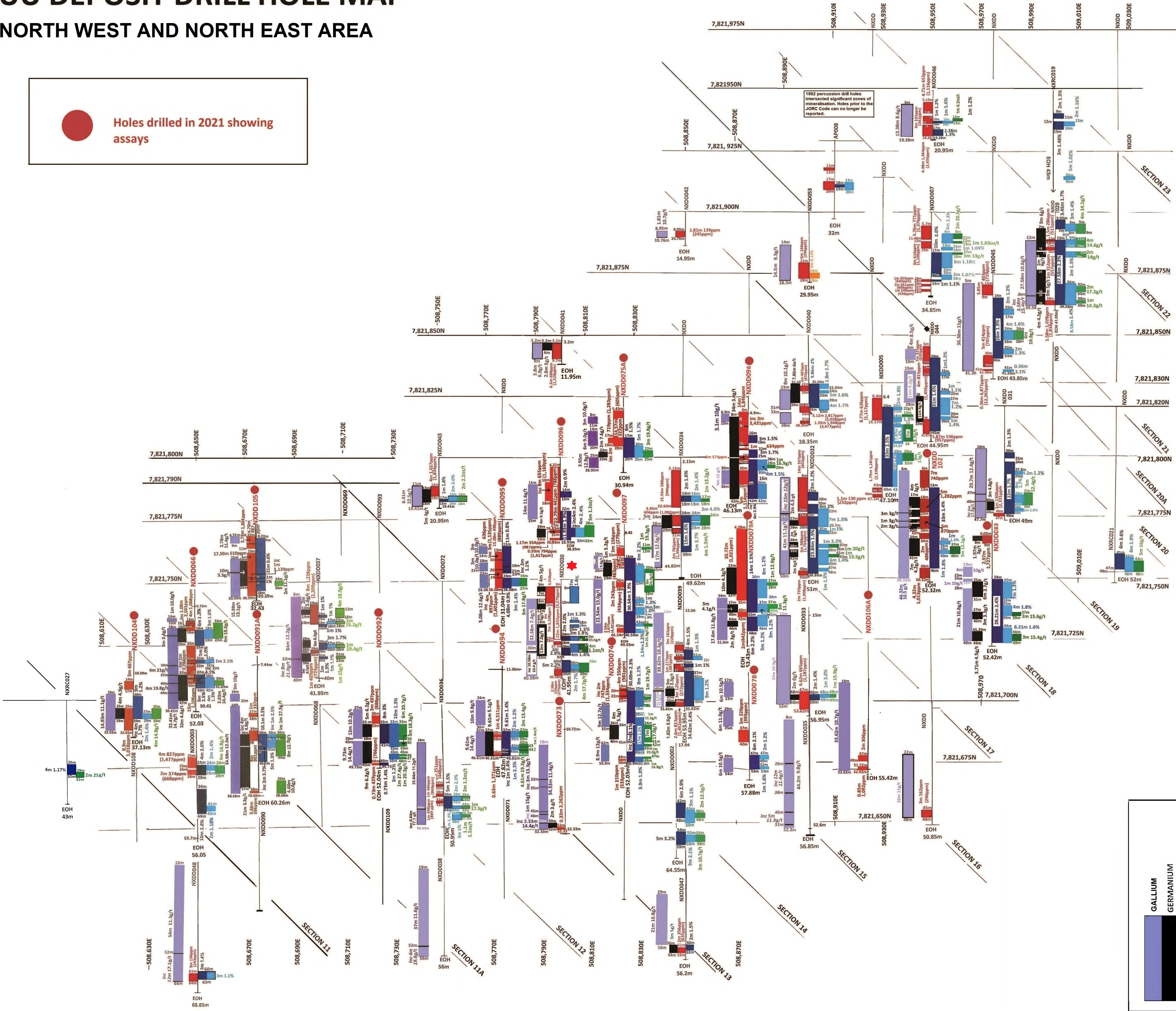




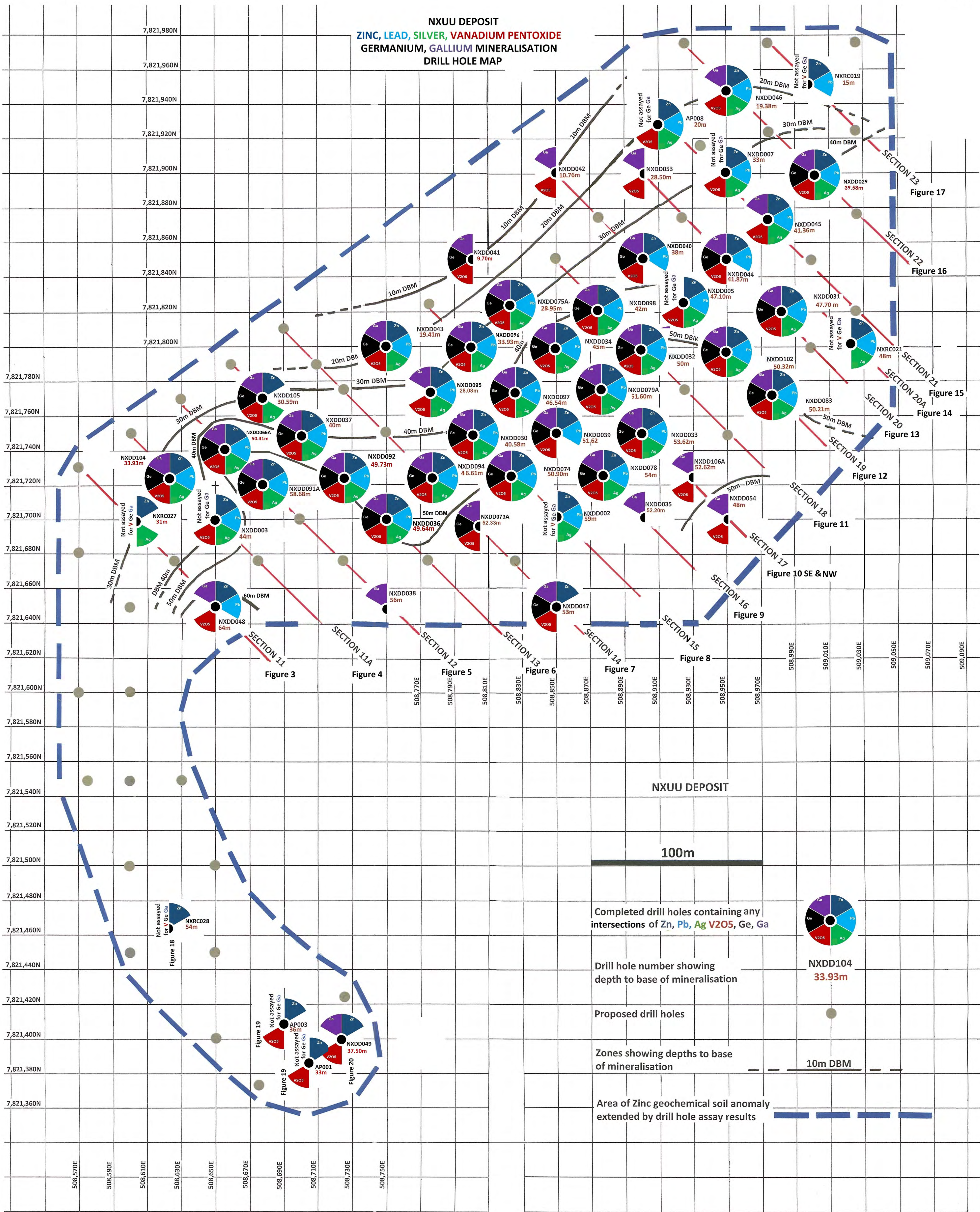
# NXUU DEPOSIT DRILL HOLE MAP

## NORTH WEST AND NORTH EAST AREA

 Holes drilled in 2021 showing assays



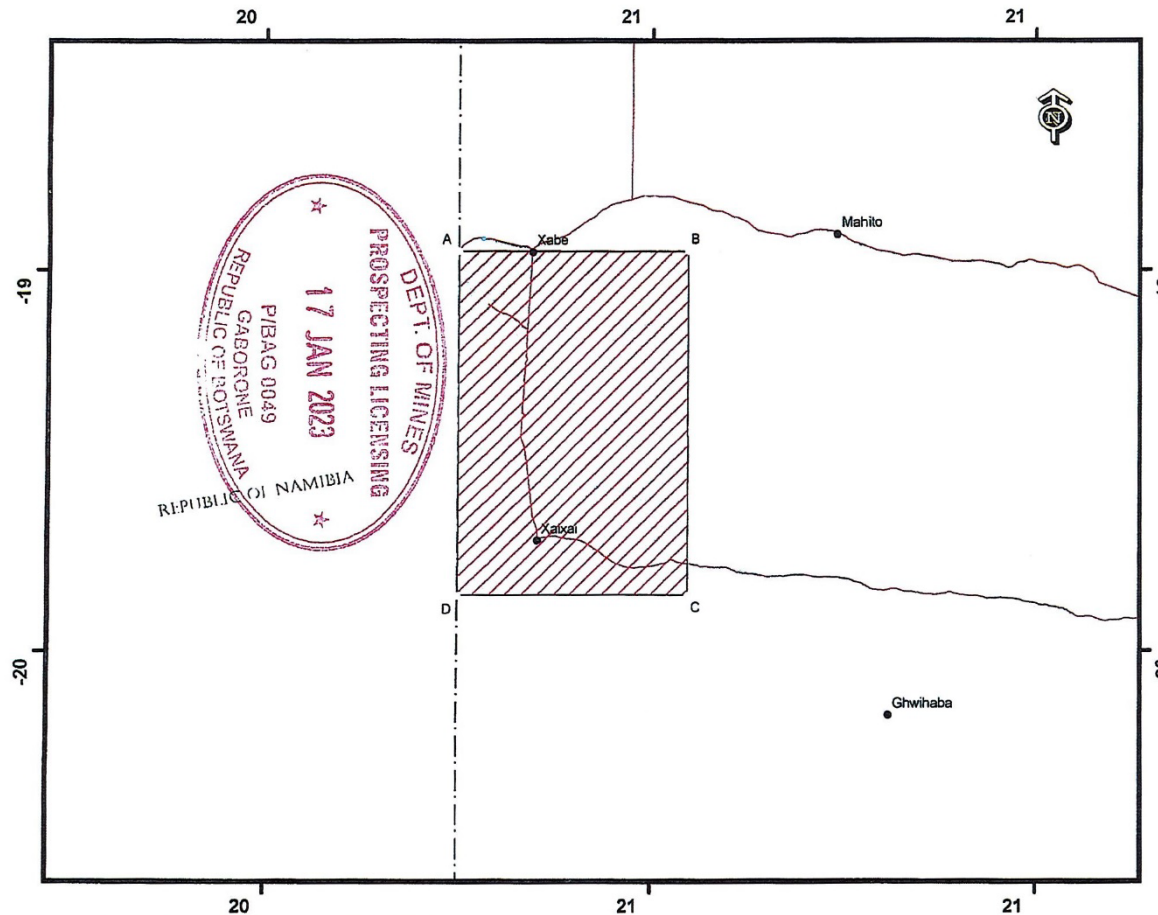






# MOUNT BURGESS (BOTSWANA) (PTY) LTD

Prospecting Licence No.043/2016



The licence area is nine hundred and ninety five point nine square kilometers (995.9Km<sup>2</sup>) defined by boundary lines in the North West District, which shall be straight unless otherwise stated, joining successive points at the following coordinates.

Coordinate System: GCS WGS 1984  
Datum: WGS 1984  
Units: Degree

POINT	LONGITUDE	LATITUDE
A	20.999710	-19.580740
B	21.237820	-19.580820
C	21.238060	-19.941390
D	20.999700	-19.941390

Total Area =995.9 Km<sup>2</sup>

**Legend**

- Points
- Settlements
- Road
- Licence Area
- International Boundary
- Water Body

1:750,000

0 15 30 60 Kilometers

Drawn on the 11/01/2023

By Kelvin Ketshabile

Checked By P. Matlotse

Department of Mines

## **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 Person's Statements**

The information in this report that relates to drilling results at the 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 mineralogical/metallurgical test work results conducted on samples from the Nxuu Deposit fairly represents information and supporting documentation approved for release by Mr R Brougham (FAusIMM). 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 in the report of the matters, based on the information in the form and context in which it appears.

## JORC Table 1

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><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></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>HQ and PQ 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 in Perth for assaying via ICPMS/OES for Ag/Pb/Zn/V/Ge/Ga.</li> <li>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 in Perth for assaying via ICP/OES for Ag/Co/Cu/Pb/Zn.</li> <li>The remainder of the crushed samples were then sent from Intertek Genalysis Randburg to Intertek Genalysis in Perth 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.</li> <li>Based on the distribution of mineralisation the core sample size is considered adequate for representative sampling.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>HQ and PQ diameter triple tube was generally used for diamond core drilling at Nxuu.</li> <li>RC chips were collected over 1m intervals, and two-stage riffle split to produce a sample for dispatch to the assay laboratory.</li> </ul>



Criteria	JORC Code explanation	Commentary
		The remainder of the sample was bagged and kept on site for access pending assay results; with washed chip samples for each metre also collected in chip trays for logging and later reference.
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Sample recoveries have in general been good and no unusual measures were taken to maximise sample recovery other than the use of triple tube for diamond core drilling. In the event of unacceptable core loss MTB drills twin holes. MTB believes there is no evidence of sample bias due to preferential loss/gain of fine/coarse material for holes being reported on.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Holes were logged in the field by qualified geologists on MTB's log sheet template and of sufficient detail to support Mineral Resource estimation: qualitative observations covered lithology, grain size, colour, alteration, mineralisation, structure. Quantitative logging included vein percent. SG measurements were obtained at approximately 5m intervals on DD holes.</li> <li>All core is photographed wet and dry.</li> <li>All drill holes are logged in full.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>HQ and PQ 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 number 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.</li> <li>RC chips were collected over 1m intervals, and two-stage riffle split to produce a sample for dispatch to the assay laboratory. The remainder of the sample was bagged and kept on site for access pending assay results; with washed chip samples for each metre also collected in chip trays for logging and later reference.</li> <li>All samples currently being reported on were assayed for Ag/Pb/Zn/V/Ge/Ga.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<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, 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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Samples prior to 2008 were dispatched to the Ongopolo Laboratory situated in Tsumeb, Namibia. Check samples were also sent to Genalysis in Perth.</li> <li>Samples since 2008, when originally assayed, were sent to Intertek Genalysis Perth, for assaying according to the following standard techniques.</li> <li>Diamond core samples were analysed for: (a) Ore grade digest followed by ICPMD – OES finish for Silver, Lead, Zinc, Vanadium/Germanium/Gallium; (b) Also 4 acid digest for silver, lead, zinc followed by AAS.</li> <li>RC samples were analysed with Ore grade digest followed by ICP-OES for Ag/Co/Cu/Pb/Zn.</li> <li>MTB quality control procedures include following standard procedures when</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>sampling, including sampling on geological intervals, and reviews of sampling techniques in the field.</p> <ul style="list-style-type: none"> <li>The current laboratory procedures applied to the MTB sample preparation include the use of cleaning lab equipment with 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.</li> <li>Intertek inserts QA/QC samples (duplicates, blanks and standards) into the sample series at a rate of approx. 1 in</li> <li>20. These are tracked and reported on by MTB 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 MTB. Acceptable overall levels of analytical precision and accuracy are evident from analyses of the routine QAQC data.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>A selection of the original digital assay files from MTB has been checked and verified against the supplied database.</li> <li>Numerous twin, and close spaced holes have been drilled. Results show close spatial and grade correlation.</li> <li>All drilling logs were validated by the supervising geologist.</li> <li>Adjustments to assay data included converting assays recorded in ppm to percent for Zn, Pb, Cu and V; the conversion of V to V2O5 and the conversion of negative or below detection limit values to half detection limit.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><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></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>All drill hole collars were surveyed using DGPS equipment in WGS84 UTM Zone 34S coordinates.</li> <li>Drill holes were routinely down hole surveyed using Eastman single shot magnetic survey instruments, with the dip and azimuth monitored by the driller and site geologist to ensure the hole remained on track within the stipulated guidelines. Readings were obtained at approximately 25m intervals down hole.</li> <li>Topographic control was derived from collar surveys. The Nxuu area is overlain by Kalahari Sand cover and is predominantly flat.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><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></li> <li><i>Whether sample compositing has been</i></li> </ul>	<ul style="list-style-type: none"> <li>Data spacing (drill holes) is variable and appropriate to the geology. Sections are spaced at 30m intervals, with hole spacings predominantly 30m on section.</li> <li>The spacing is considered sufficient to establish geological and grade continuity appropriate for a Mineral Resource estimation.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>applied.</i>	<ul style="list-style-type: none"> <li>Samples were composited to 1m intervals prior to estimation.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation is sub-horizontal, therefore holes were drilled vertically.</li> <li>The drill holes may not necessarily be perpendicular to the orientation of the intersected mineralisation.</li> <li>Reported intersections are down-hole intervals and are generally representative of true widths.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>MTB's exploration geologists continually reviewed sampling and logging methods on site throughout the drilling programs.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>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 MTB. The title is current to 31 December 2022 at the time of release of this report, with an extension application until December 2024 lodged with the Department of Mines in September 2022.</li> <li>PL 43/2016 is in an area designated as Communal Grazing Area.</li> <li>The Tenement is current and in good standing.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>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. MTB first took ownership of the project in 2003 and has undertaken exploration activities on a continual basis since then.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Kihabe-Nxuu Project lies in the north-western 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.</li> <li>The Nxuu deposit mineralisation occurs in a flat-lying quartz wacke unit situated on the contact of a barren dolomite basement unit.</li> </ul>



Criteria	JORC Code explanation	Commentary
		The deposit is weathered, with base metal mineralisation occurring as a series of sub-horizontal units overlying the barren dolomite unit.
<b>Drill hole information</b>	<ul style="list-style-type: none"> <li>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"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration results are not being reported.</li> <li>All information has been included in the appendices. No drill hole information has been excluded.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration results are not being reported.</li> <li>Not applicable as a Mineral Resource is being reported.</li> <li>ZnEq=Zinc equivalent grade, which is estimated based on Kitco prices as of 21<sup>st</sup> October 2022 and calculated with the formula: <math display="block">\text{ZnEq} = \frac{[(\text{Zn\%} \times 3,000) + (\text{Pb\%} \times 2,000) + (\text{Ag g/t} \times (20.0/31.1035)) + (\text{V2O5\%} \times 16,000)]}{(3,000)}</math> </li> <li>MTB is of the opinion that all elements included in the metal equivalent calculation have reasonable potential to be recovered and sold.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation at Nxuu is sub-horizontal. Holes are drilled vertically.</li> <li>Reported hole intersections generally represent true width.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Relevant diagrams have been included within the Mineral Resource report main body of text.</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Maps showing individual hole locations are included in the report.</li> <li>Exploration results are not being reported.</li> </ul>
<b>Other substantive</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not</li> </ul>	<ul style="list-style-type: none"> <li>Results were estimated from drill hole assay data, with geological logging used to aid</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>exploration data</b>	<i>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.</i>	<p>interpretation of mineralised contact positions.</p> <ul style="list-style-type: none"> <li>Geological observations are included in the report.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large- scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Follow up drilling will be undertaken to improve confidence.</li> <li>Drill spacing is currently considered adequate for the current level of interrogation of the Project.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Data validation procedures used.</i></li> </ul>	<ul style="list-style-type: none"> <li>The database has been systematically audited by MTB geologists.</li> <li>The database used for estimation was cross checked with original records where available.</li> <li>Ashmore performed initial data audits in Surpac. Ashmore checked collar coordinates, hole depths, hole dips, assay data overlaps and duplicate records.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li><i>If no site visits have been undertaken indicate why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>Ashmore has not undertaken a site visit to the Relevant Assets by the CP as at the date of this report. Ashmore notes that it plans to conduct a site visit as part of the future works and upgrade of the Mineral Resource to higher categories.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li><i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></li> <li><i>Nature of the data used and of any assumptions made.</i></li> <li><i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li> <li><i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li> <li><i>The factors affecting continuity both of grade and geology.</i></li> </ul>	<ul style="list-style-type: none"> <li>The confidence in the geological interpretation is considered to be good and is based on visual confirmation within drill hole intersections.</li> <li>Geochemistry and geological logging have been used to assist identification of lithology and mineralisation.</li> <li>The Nxuu deposit consists of sub-horizontal units. Alternative interpretations are highly unlikely.</li> <li>Infill and extensional drilling has supported and refined the model and the current interpretation is considered robust.</li> <li>Observations from the host rocks; as well as infill drilling, confirm the geometry of the mineralisation.</li> <li>Infill drilling has confirmed geological and grade continuity.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Nxuu Mineral Resource area extends over an northeast strike length of 730m, has a maximum width in plan view of 265m and includes the 80m vertical interval from 1,155mRL to 1,075mRL.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation</i></li> </ul>	<ul style="list-style-type: none"> <li>Using parameters derived from modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades in three passes using Surpac software. Linear grade</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>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.</i></p> <ul style="list-style-type: none"> <li>• <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li>• <i>The assumptions made regarding recovery of by-products.</i></li> <li>• <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> <li>• <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li>• <i>Any assumptions behind modelling of selective mining units.</i></li> <li>• <i>Any assumptions about correlation between variables.</i></li> <li>• <i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li>• <i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li>• <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></li> </ul>	<p>estimation was deemed suitable for the Nxuu Mineral Resource due to the geological control on mineralisation. Maximum extrapolation of wireframes from drilling was 30m along strike and down-dip. This was equal to the drill hole spacing in these regions of the Project. Maximum extrapolation was generally half to one drill hole spacing.</p> <ul style="list-style-type: none"> <li>• Zn (%), Pb (%), Ag (ppm), Cu (%), V<sub>2</sub>O<sub>5</sub> (%), Ga (ppm) and Ge (ppm) were all interpolated.</li> <li>• Reconciliation could not be conducted as no mining has occurred.</li> <li>• It is assumed that Zn, Pb and Ag can be recovered in a Zn concentrate and V<sub>2</sub>O<sub>5</sub> can be recovered in a V<sub>2</sub>O<sub>5</sub> concentrate. In addition, Ga and Ge may be recovered as by-products.</li> <li>• It is assumed that there are no deleterious elements when considering the proposed processing methodology for the Nxuu mineralisation.</li> <li>• The parent block dimensions used were 15m EW by 15m NS by 5m vertical with sub-cells of 3.75 by 3.75m by 1.25m. The model was rotated to align with the strike of the deposit of 045°. The parent block size dimension was selected on the results obtained from Kriging Neighbourhood Analysis that suggested this was the optimal block size for the dataset.</li> <li>• An orientated 'ellipsoid' search was used to select data and adjusted to account for the variations in lode orientations, however all other parameters were taken from the variography. Up to three passes were used for each domain. The first pass had a range of 50m, with a minimum of 8 samples. For the second pass, the range was extended to 100m, with a minimum of 4 samples. For the final pass, the range was extended to 150m, with a minimum of 2 samples. A maximum of 20 samples was used for all three passes.</li> <li>• No assumptions were made on selective mining units.</li> <li>• Zn and Pb, as well as Pb and Ag had moderate positive correlations. Zn and Ag had a moderate positive correlation.</li> <li>• The mineralisation was constrained by Mineral Resource outlines created in Surpac software, based on logged geology and mineralisation envelopes prepared using a nominal 0.5% combined Zn and Pb cut-off grade with a minimum down-hole length of 2m. The wireframes were applied as hard boundaries in the estimate.</li> <li>• After review of the project statistics, it was determined that high grade cuts were required for Ag and V<sub>2</sub>O<sub>5</sub> within some domains.</li> <li>• Validation of the model included detailed comparison of composite grades and block</li> </ul>



Criteria	JORC Code explanation	Commentary
		grades by strike panel and elevation. Validation plots showed good correlation between the composite grades and the block model grades.
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnages and grades were estimated on a dry in situ basis.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>A ZnEq cut-off grade of 0.5% for Nxuu was utilised for reporting purposes, assuming an open pit mining method. The Statement of Mineral Resources has been constrained by the mineralisation solids and reported above a Zn equivalent ("ZnEq") cut-off grade of 0.5%. Zinc equivalent grades are estimated based on LME Zn/Pb prices, Kitco Silver Price for Ag, Live Vanadium Price for V2O5, Kitco Strategic Metals Prices for Ge/Ga, as at 21 October 2022. The ZnEq formula is shown below:</li> <li><math display="block">\text{ZnEq} = 100 \times \left[ \frac{(\text{Zn}\% \times 3,000) + (\text{Pb}\% \times 2,000) + (\text{Ag g/t} \times (20.0/31.1035)) + (\text{V2O5}\% \times 16,000)}{3,000} \right]</math></li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Ashmore has assumed that the Nxuu deposit could potentially be mined using open pit techniques. No assumptions have been made for mining dilution or mining widths. It is assumed that mining dilution and ore loss will be incorporated into any Ore Reserve estimated from a future Mineral Resource with higher levels of confidence.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Nxuu mineralisation was initially determined to be a zinc and lead sulphide deposit. Metallurgical test work involved the recovery of the zinc / lead by flotation. Initial results gave low zinc recoveries (67.5%), with low sulphur in the tails.</li> <li>Mineralogical evaluation of the tailings determined that the zinc was in an oxide form of baileychlore and the lead as a carbonate (cerussite). Further flotation tests were conducted, and the tailings subjected to leaching with sulphuric acid at 40 deg C for a zinc extraction rate of 89.5%.</li> <li>Recovery of zinc concentrate by floatation and leaching of the zinc oxides (baileychlore) in the tailings resulted in a zinc extraction of 89.5% giving an overall access availability to 94% of zinc within the ore. Additional testwork is recommended.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at</li> </ul>	<ul style="list-style-type: none"> <li>No assumptions have been made regarding environmental factors. MTB will work to mitigate environmental impacts as a result of any future mining or mineral processing.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>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>	
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> <li>• <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<ul style="list-style-type: none"> <li>• A total of 513 bulk density measurements were taken on core samples collected from diamond holes drilled at the deposit using the water immersion technique. Bulk densities for the transitional mineralisation were assigned in the block model based on a density and Zn regression equation. Average densities for weathered mineralisation were applied (2.40t/m<sup>3</sup> for oxide). Average waste densities were assigned based on lithology and weathering.</li> <li>• It is assumed that the bulk density will have some variation within the mineralised material types due to the host rock lithology and sulphide minerals present. Therefore, a regression equation for Zn and density was used to calculate density in the Nxuu transitional material.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>• <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li>• <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></li> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Mineral Resource estimate is reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC). The Mineral Resource was classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Indicated Mineral Resource was defined within areas of close spaced drilling of less than 30m by 30m, and where the continuity and predictability of the mineralised units was reasonable. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 30m by 30m and less than 60m by 60m; or where small, isolated pods of mineralisation occur outside the main mineralised zones.</li> <li>• 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 high level geological understanding producing a robust model of mineralised domains. This model has been confirmed by infill drilling which supported the interpretation. Validation of the block model shows good correlation of the input data to the estimated grades.</li> <li>• The Mineral Resource estimate appropriately reflects the view of the Competent Person.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Internal audits have been completed by Ashmore which verified the technical inputs, methodology, parameters and</li> </ul>



Criteria	JORC Code explanation	Commentary
		results of the estimate.
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul style="list-style-type: none"> <li>The geometry and continuity have been adequately interpreted to reflect the applied level of Indicated and Inferred Mineral Resource. The data quality is good and the drill holes have detailed logs produced by qualified geologists. A recognised laboratory has been used for all analyses.</li> <li>The Mineral Resource statement relates to global estimates of tonnes and grade.</li> <li>No historical mining has occurred; therefore, reconciliation could not be conducted.</li> </ul>

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