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ASX Code: MTB

ULTRA-FINE DENSE MEDIA SEPARATION TEST WORK CONDUCTED ON THE NXUU Zn, Pb, Ag, Ge, V DEPOSIT, BOTSWANA

In late February 2019, the Company submitted 9.35 kg of crushed core samples from the Nxuu Deposit to EXXARO in South Africa for Ultra-fine Dense Media Separation (UFDMS) test work.

These samples were from four HQ diamond core holes drilled into the Nxuu Deposit in October/November 2017 (Refer Table 1 – samples selected and Figure 1 – Drill Hole Map) and broken down into five sample batches, as shown in Table 1 for UFDMS test work.

The purpose of this test work was to determine whether barren gangue Quartz Wacke, (which is the host rock of mineralisation) could be separated from mineralised Quartz Wacke, through UFDMS after crushing but prior to milling. If successful this could produce a mineralised concentrate which only then would need to be milled and processed, thereby reducing the tonnage required to be milled and treated which, in turn would reduce treatment and power costs.

Three size ranges of samples were selected for UFDMS laboratory scouting testwork in the form of Heavy Liquid Separation (HLS) These were $-300\mu m + 75\mu m$, $-1mm + 300\mu m$ and +1mm. The discussion of results is focussed on samples in the size range of $-1mm + 300\mu m$ as this size fraction is the typical size fraction used in UFDMS treatment.

The HLS was applied at Specific Gravity (SG) cut points of 2.96 and 2.6, in order to separate barren Quartz Wacke as floats and mineralised Quartz Wacke as sinks.

The SGs of the various minerals are as follows:

- Barren non-oxidised Quartz Wacke, 2.6 2.8
- Smithsonite, oxide host mineral of Zn, 4.4 4.5
- Host minerals for Ge, 5.3
- Host minerals for Ag, 5.57 5.62
- Descloizite, oxide host mineral for V, 6.16
- Cerussite, oxide host mineral for Pb, 6.58

Once assayed, the sinks from all five sample batches (Refer Table 1) showed the following:

- Greater than 88% recoveries were achieved for Pb and V. Sample 039 showed a mass rejection of 52.3% of the sample as gangue into floats and sample 040B showed a mass rejection of 72.4% as gangue into floats.
- The Zn, Ge, Ag showed little response to the HLS at a SG of 2.6. Sample 040B did however show upgrade for Zn with 51.4% being recovered from only 27.6% of the sinks mass.

As Zn, Ge and Ag have lower SGs than Pb and V, further test work will be conducted applying various SG cuts to the HLS, both lower and higher than a SG of 2.6, to develop a full UFDMS response curve.

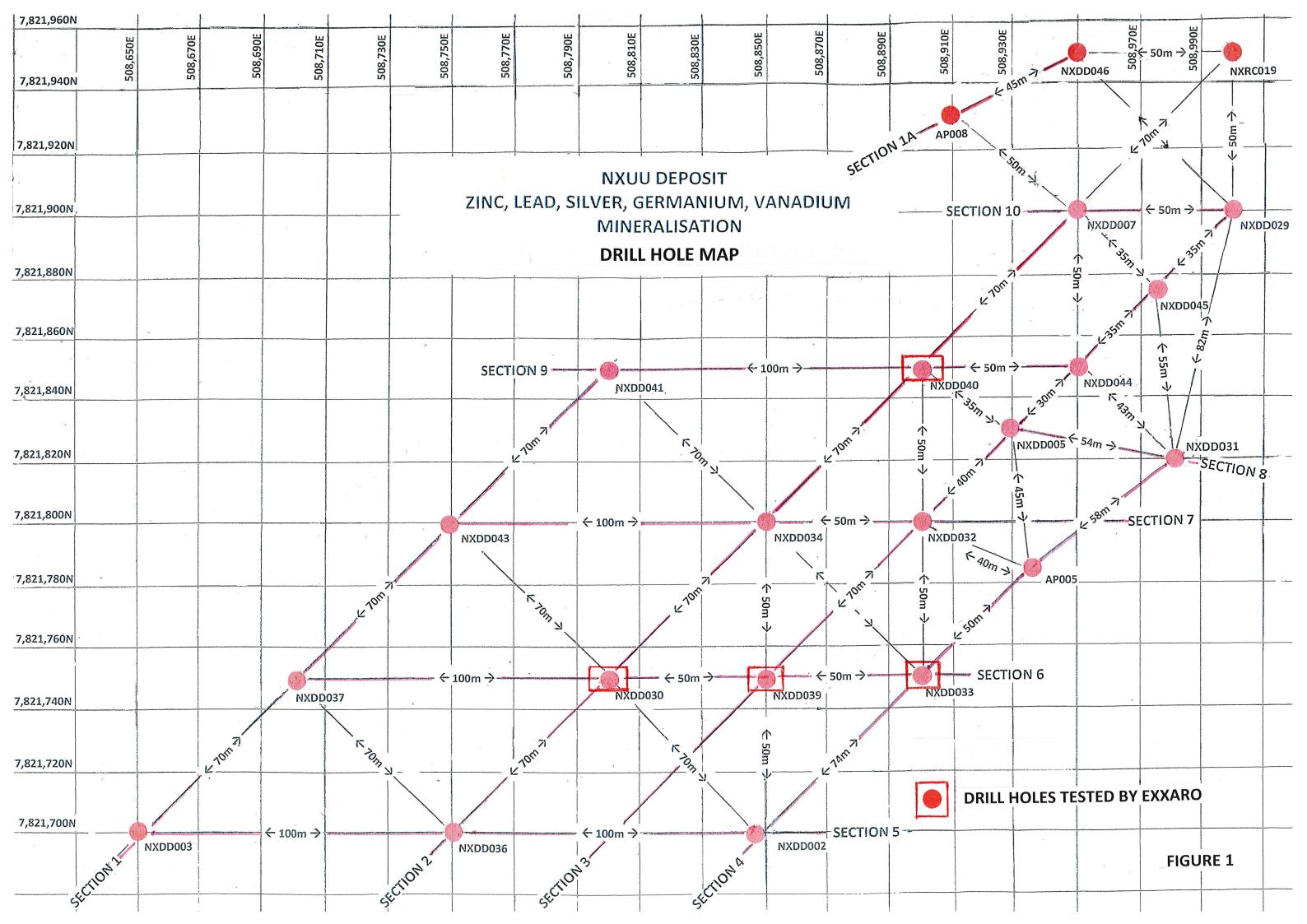
The fact that the host rock Quartz Wacke is totally oxidised in the Nxuu Deposit, could likely mean that the oxidisation has caused a reduction in rock densities, due to porosity. This could mean that the SG of the oxidised barren Quartz Wacke is much lower than 2.6 (2.6 is the SG of non-oxidised Quartz Wacke) and could explain why the proportions of Zn, Ge and Ag mineralisation in the porous oxidised Quartz Wacke are included in the SG cut of 2.6.

By applying the HLS at a SG lower than 2.6 could result in greater separation of barren Quartz Wacke gangue into floats. This in turn could result in higher proportions of Zn, Ge and Ag then being separated into sinks. However, EXXARO concludes that more test work will be needed to refine the optimum processing size and SG cut point to be applied to the UFDMS, as well as define the potential yield envelope.

If the planned further test work shows that Zn, Ge and Ag doesn't respond to UFDMS, then the most likely process route will consist of a UFDMS concentration step, allowing for the Pb and V sinks (UFDMS Product) to go through to a recovery circuit. This in turn will then enable the Zn, Ge, Ag floats (UFDMS Tails) to go through to a separate recovery circuit.

TABLE 1 - SUMMARY OF SAMPLES SUBMITTED TO EXXARO

Hole	Intersection	Weight	Zn	Pb	Ag	Ge	V ₂ 0 ₅
Number	(m)	(Grams)	(%)	(%)	(g/t)	(ppm)	(ppm)
NXDD030	3.00 - 4.00	400	0.39	1.91	5.2	5	7,336
	4.00 - 5.00	400	0.48	2.06	5.5	6	8,422
	5.00 - 6.00	400	0.12	1.48	3.6	5	4,861
	6.00 - 7.00	400	0.15	1.26	2.6	4	5,143
	7.00 – 7.45	400	0.24	1.21	1.8	3	4,921
Total		2,000					
NXDD033	48.00 – 49.00	400	1.46	2.94	15.9	7	259
	49.00 – 50.00	667	1.30	0.42	4.0	5	1,382
	52.46 – 53.00	667	1.12	1.21	0.5	Х	4,354
Total		1,734					
NXDD039	49.07 – 50.00	667	2.43	0.36	3.6	3	264
	50.00 – 51.00	667	3.10	0.46	5.9	4	766
	51.00 - 51.62	667	2.52	0.76	5.7	5	2,774
Total		2,001					
NXDD040 (a)	29.88 – 31.00	400	0.85	1.47	3.7	4	4,627
	31.00 – 31.50	400	0.89	2.90	1.8	3	10,598
	31.50 – 32.00	400	0.21	1.43	6.6	5	4,188
	32.00 – 32.61	400	0.19	1.06	5.8	4	3,495
	32.61 – 33.00	400	0.43	0.73	3.1	2	2,053
Total		2,000					·
NIVDD040 /l-)	27.00 27.00	1.000	0.42	0.50	0.0	1	2 204
NXDD040 (b)	37.00 – 37.98	1,000	0.43	0.56	0.9	1	2,294
	37.98 – 38.35	600	0.45	1.70	0.6	Х	6,862
Total		1,600					
Total We	eight of Samples	9,355					



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.

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Competent Person's Statement:

Mr Chris Campbell-Hicks, Metallurgist, FAusIMM (CP Metallurgy), MMICA, Non-Executive Director of the Company, who reviewed the content of the announcement, has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2102 Edition of the JORC Code and has consented to the inclusion in respect of the matters based on the information in the form and context in which it appears.

Mr Campbell-Hicks has for a number of years whilst working with Coffey Mining and other consultancies and companies made contributions to numerous Scoping Studies, Pre-feasibility Studies and Feasibility Studies under the 2004 JORC Code, the 2012 JORC Code and the Canadian National Instrument (NI 43-101). As such he qualifies as a Competent Person for reporting on matters pertaining to metallurgy, process engineering and interpretation of test work results and data for the establishment of Design Criteria for such studies.

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.	Mount Burgess Mining Diamond Core Holes 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/Ga/Ge/In/Pb/V/Zn. Mount Burgess Mining Diamond Core Samples submitted to EXXARO for Metallurgical Test Work 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 of four drill holes NXDD030, NXDD033, NXDD039, and NXDD040 as shown in Table 1 Summary of Samples Submitted to EXXARO, were selected by the Company for submission to EXXARO Resources Ltd South Africa for metallurgical test work. These samples were chosen to determine if ultra-fine dense media separation (UFDMS) technology developed by EXXARO could be used to pre-concentrate zinc, lead, silver, germanium and vanadium pentoxide mineralization prior to milling and flotation. The results of this test work are reported in this announcement.
	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).	Mount Burgess Mining Diamond Core Holes HQ diameter triple tube was used for diamond core drilling. As all holes drilled into the Nxuu deposit were vertical holes the diamond core was not orientated.
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	Mount Burgess Mining Diamond Core Holes Sample recoveries were in general high and no unusual measures were taken to maximise sample recovery other than the use of triple tube core. Mount Burgess believes there is no evidence of sample bias due to preferential loss/gain of fine/coarse material.
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.	Mount Burgess Mining Diamond Core Holes 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.

and sample preparation as Continuous Continu	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 duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled •The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total •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. • nature of quality control procedures adopted (e.g. standards, blanks,	HQ 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. All samples currently being reported on were assayed for Ag/Co/Cu/Ga/Ge/In/Pb/V/Zn. All Mount Burgess Samples All samples were sent to Intertek Genalysis Perth, for assaying according to the following standard techniques: (a) Ore grade digest followed by ICP – OES finish for Silver, Lead, Vanadium & Zinc
assay data and laboratory tests r	procedures used and whether the technique is considered partial or total •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. •	All samples were sent to Intertek Genalysis Perth, for assaying according to the following standard techniques:
laboratory tests p	•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. •	
c	duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	(b) Nitric acid/hydrofluoric acid specific digest for Germanium and Indium (c) Also 4 acid digest for silver, lead, zinc, germanium and gallium followed by AAS Mount Burgess quality control procedures include following standard procedures when sampling, including sampling on geological intervals, and reviews of sampling techniques in the field. 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. 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
sampling and a assaying C	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.	All Mount Burgess Samples Assay results for samples were received electronically from Intertek Genalysis and uploaded into MTB's database managed by MTB at its Perth Office. Analytical results for Vanadium (V) from diamond core holes when converted to V2O5 (Vandium Pentoxide) are multiplied 1.785, as the Vis hosted in Descloizite where the V2O5 content is 1.785 times the content of V.
	Accuracy and quality of surveys used to locate drill holes (collar and down-	All Mount Burgess Holes
F	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.	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 not conducted.

Data spacing	Data spacing for reporting of Exploration Results. • Whether the data	All Mount Burgess Holes
and distribution	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.	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.
		Additional drilling is planned to determine the extent of mineralisation and estimate a Mineral Resource compliant with the 2012 JORC Code. Sample compositing was conducted on the four Nxuu deposit drill holes, following receipt of assays from Intertek Genalysis, for the purpose of metallurgical test work conductor by EXXARO.
Orientation of	Whether the orientation of sampling achieves unbiased sampling of possible	All Mount Burgess Holes
data in	structures and the extent to which this is known, considering the deposit	
relation to	type. • If the relationship between the drilling orientation and the	Mineralisation was typically intersected at -90 degrees at the Nxuu Deposit and the Company believes that
geological	orientation of key mineralised structures is considered to have introduced a	unbiased sampling was achieved.
structure	sampling bias, this should be assessed and reported if material.	
Sample	The measures taken to ensure sample security.	All Mount Burgess Holes
security		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.
Audits or	The results of any audits or reviews of sampling techniques and data.	All Mount Burgess Holes
reviews		
		An independent Geologist was engaged to review sampling and logging methods on site at the commencement of the program.

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	ownership including agreements or material issues with third parties such as joint ventures,	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 to 31 December 2020 with a right to apply for a further two year renewal to 31 December 2022.
	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.	PL 43/2016 is in an area designated as Communal Grazing 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. 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	Mount Burgess is provided in the text of the public announcements released to

Criteria	JORC Code Explanation	Commentary
	down hole length and interception depth hole length	
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	All Mount Burgess Holes No data aggregation methods have been used. Vanadium results are reported without a top cut but the Company has used 100 ppm as a bottom cut. Vanadium Pentoxide results are reported by multiplying the Vanadium results by 1.785 as the host mineral is Descloizite.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	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').	All Mount Burgess Holes The geometry of the mineralisation with respect to the drill hole angle is typically at -90 degrees at the Nxuu Deposit which is considered representative from a geological modelling perspective.
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.	Billiton Percussion Holes pre-fixed AP The Company has no available information for these holes other than collar and survey data and assay results All Mount Burgess Holes Appropriate maps, sections and mineralised drill intersection details are provided in public announcements released to the ASX. Refer to the Company's website www.mountburgess.com .

Criteria	JORC Code Explanation	Commentary
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.	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.	
Further work	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.	mapping at the Kihabe-Nxuu Zinc/Lead/Silver/Germanium and Vanadium Project.