mount burgess mining

ASX Code: MTB

28 May 2019

ORE SORTING TEST WORK ON NXUU DEPOSIT TO BE CONDUCTED BY STEINERT AUSTRALIA

Further to the Ultra Fine Dense Media Separation test work conducted by EXXARO, results of which were released to the market on 24 April 2019, the Company now intends to also trial Sighter Test Work for ore sorting

Ten samples weighing 20.66 kg from six HQ diamond core holes (see Figure 1 attached), drilled into the Nxuu Deposit have been sent for Sighter Test Work (ore sorting test work) to be conducted by STEINERT AUSTRALIA (STEINERT).

The purpose of this Test Work is to trial separating mineralised host quartz wacke from barren quartz wacke.

Each sample will be screened in order to conduct test work on the + 10mm size fraction. Each sample will then be separately scanned through a Fines Combination Sensor Sorter, a Colour 3D Laser Camera and X-ray Transmission Sensors, taking measurements of mineralised particles.

The data acquired will then be uploaded onto STEINERT's software for programme development.

STEINERT's ore sorting programmes have been developed to target material exhibiting dense spots/areas, likely to be detected by the X-ray Transmission Sensor. These dense spots/areas are those likely to be mineralised.

Sensor sorting will be applied to each of the ten samples through applying the sort programmes in order to generate ten mineralised concentrates separated from ten waste concentrates.

The ten mineralised concentrates and the ten waste concentrates will then be sent to a laboratory for assaying to confirm mineral recoveries and grades for Zinc, Lead, Silver, Germanium and Vanadium.

Results from this test work are likely to be available in late June or early July.

If successful, the separation of barren Quartz Wacke from mineralised Quartz Wacke, the host to the mineralisation in the Nxuu Deposit, will reduce tonnages for milling and treatment. This in turn will reduce power requirements, capital costs and overall treatment costs.

The samples the subject of this test work as shown in Figure 1, were originally brought to Australia for the purpose of conducting mineralogical and metallurgical test work on what is believed to be a likely Vanadium grade from Vanadium domains. The content of the Zinc, Lead and Silver in these samples therefore is not necessarily representative of the grades of the primary Zn, Pb, Ag domains which are different to the Vanadium domains. However, the purpose of this Sighter Test Work (ore sorting test work) is to see if it will be successful, regardless of the grade.

Figure 1

Samples used for STEINERT Ore Sorting Test Work

SECTION 2: NXDD030, 508,800E, 7,821,750N, Dip -90 Deg, Azimuth 0 Deg, EOH 41.95m, RL 1,132m.

INTERVAL (m)	Zn (%)	Pb (%)	Ag (g/t)	Ge (g/t)	V2O5 (%)	WEIGHT (g)
3.00 – 4.00	0.39	1.91	5.2	5	0.734	2,379.8
4.00 – 5.00	0.48	2.06	5.5	6	0.842	2,126.5
6.00 – 7.00	0.15	1.26	2.6	5	0.514	1,960.6
8.00 – 9.00	0.23	1.67	9.9	5	0.463	2,655.9
9.00 – 10.00	0.06	1.37	9.6	6	0.443	2,050.9
						11,173.7

The Zn/Pb/Ag content of the above samples was first reported on 5 February 2018, as part of a **7.00m** intersection from **3.00m – 10.00m,** yielding a Zn/Pb/Ag, Zn equivalent grade of **1.46%.**

The V2O5 content of the above samples was first reported on 10 January 2019, as part of a **22.00m** intersection from **3.00m – 25.00m**, yielding a V2O5 grade of **0.327%.**

SECTION 4: NXDD033, 508,900E, 7,821,750N, Dip -90 Deg, Azimuth 0 deg, EOH 56.95m, RL 1,132m.

INTERVAL (m)	Zn (%)	Pb (%)	Ag (g/t)	Ge (g/t)	V2O5 (%)	WEIGHT (g)
50.00 – 50.63	0.53	0.29	3.2	3	0.071	1,753.3

The Zn/Pb/Ag content of the above sample has not previously been reported as the grade is below the Zn equivalent grade of 1% low cut applied by the Company.

The V2O5 content of the above sample was first reported on 10 January 2019, as part of a **6.62m** intersection from **47.00m – 53.62m,** yielding a V2O5 grade of **0.118%.**

SECTION 1: NXDD037, 508,700E, 7,821,750N, Dip -90 Deg, Azimuth 0 Deg, EOH 41.95m, RL 1,133m.

INTERVAL (m)	Zn (%)	Pb (%)	Ag (g/t)	Ge (g/t)	V2O5 (%)	WEIGHT (g)
15.00 – 16.00	0.53	0.49	14.0	3	0.155	2,102.8

The Zn/Pb/Ag content of the above sample was first reported on 5 February 2018, as part of a **23.00m** intersection from **10.00m – 33.00m,** yielding a Zn/Pb/Ag, Zn equivalent grade of **1.47%.**

The V2O5 content of the above sample was first reported on 10 January 2019, as part of a **15.00m** intersection from **7.00m – 22.00m** yielding a V2O5 grade of **0.140%.**

SECTION 3: NXDD039, 508,850E, 7,821,750N, Dip -90 Deg, Azimuth 0 Deg, EOH 53.95m, RL 1,132m.

INTERVAL (m)	Zn (%)	Pb (%)	Ag (g/t)	Ge (g/t)	V2O5 (%)	WEIGHT (g)
49.07 – 50.00	2.43	0.36	3.6	3	0.026	1,859.8

The Zn/Pb/Ag content of the above was first reported on 5 February 2018, as part of an **18.02m** intersection from **33.60m – 51.62m**, yielding a Zn/Pb/Ag, Zn equivalent grade of **2.94%.**

The V2O5 content of the above was first reported on 10 January 2019, as part of a **2.55m** intersection from **49.07m – 51.62m** yielding a V2O5 grade of **0.107%.**

SECTION 2: NXDD040, 508,900E, 7,821,850N, Dip -90 Deg, Azimuth 0 Deg, EOH 38.35m, RL 1,131m

INTERVAL (m)	Zn (%)	Pb (%)	Ag (g/t)	Ge (g/t)	V2O5 (%)	WEIGHT (g)
29.88 – 31.00	0.85	1.47	3.7	4	0.463	1,735.9

The Zn/Pb/Ag content of the above was first reported on 5 February 2018, as part of an **11.86m** intersection from **21.14m – 33.00m**, yielding a Zn/Pb/Ag, Zn equivalent grade of **2.82%.**

The V2O5 content of the above was first reported on 10 January 2019, as part of a **4.12m** intersection from **29.88m – 34m**, yielding a V2O5 grade of **0.393%.**

SECTION 1: NXDD043, 508,750E, 7,821,800N, Dip -90 Deg, Azimuth 0 Deg, EOH 38.35m, RL 1,131m

INTERVAL (m)	Zn (%)	Pb (%)	Ag (g/t)	Ge (g/t)	V2O5 (%)	WEIGHT (g)
15.00 – 16.00	0.43	0.98	7.1	3	0.302	2,036.9

The Zn/Pb/Ag content of the above was first reported on 5 February 2018, as part of a **4.43m** intersection from **15.00m – 19.43m**, yielding a Zn/Pb/Ag, Zn equivalent grade of **2.23%.**

The V2O5 content of the above was first reported on 10 January 2019, as part of a **7.43m** intersection from **12.00m – 19.43m**, yielding a V2O5 grade of **0.127%.**

The total weight of all of the above samples submitted for Sighter Test Work amounts to 20.66 kg.

*For details of the above Drill Holes refer to **Figure 2** which is followed by Drill Hole Section diagrams.*

CALCULATION OF THE NXUU DEPOSIT RECOVERABLE VANADIUM PENTOXIDE (V_2O_5) GRADE

- Through applying the factor of 1.785 to all previous Vanadium metal assay grades reported under both the 2004 and 2012 JORC Codes, the Company has calculated the VANADIUM PENTOXIDE **V_2O_5** grades (as shown in **Figure 2**, Sections 1, 1A, 2, 3 and 4).

- Based on metallurgical test work recovery results confirmed by ALS Laboratories, the Company has then discounted the **V_2O_5** grades to 80% to show the **V_2O_5 RECOVERABLE** grades as shown **(in brackets)** in Sections 1, 1A, 2, 3 and 4.

The Vanadium mineral DESCLOIZITE can be treated on site to produce **V_2O_5** which can then be sold as a marketable product

CALCULATION OF THE NXUU DEPOSIT RECOVERABLE ZINC EQUIVALENT GRADE APPLYING A 1% ZINC EQUIVALENT LOW CUT

The Zinc Equivalent Grade for the Nxuu Deposit includes grades of Zinc, Lead and Silver (as shown in **Figure 1 and Sections 1, 1A, 2, 3 and 4**) calculated by applying the average of five trading days LME closing prices for Zinc and Lead and the five trading days of USA closing prices for Silver from 22 to 26 January 2018. Zinc and Lead grade values were then discounted to 93% to reflect the **RECOVERABLE** value based on metallurgical test work conducted by AMMTEC. The Silver grade values were then discounted to 70% to reflect the **RECOVERABLE** value of Silver as achieved in similar deposits. (See Estimated Silver Recovery below)

- LME average closing Zinc price of US$ 3,464/t, being US$ 34.64 per 1% was reduced to **US$32.21 per 1%** to reflect a recovery of 93% as demonstrated in previous metallurgical test work conducted by AMMTEC.
- LME average closing Lead price of US$ 2,611/t, being US$ 26.11 per 1% was reduced to **US$24.28 per 1 %** to reflect a recovery of 93% as demonstrated in previous metallurgical test work conducted by AMMTEC.
- USA average Day Trade closing Silver price of US$ 17.23/oz, being US$ 0.55/g reduced to **US$0.38/g** to reflect a recovery of 70% based on recovery performance of similar deposits. (Refer to Estimated Silver Recovery below)

Combined total discounted US$ value of each assay including any or all of Zinc, Lead and Silver was then divided by the discounted calculated Zinc price of US$32.21 per 1% to arrive at the **RECOVERABLE** Zinc Equivalent Grade. Only resulting grades of over 1% Zinc Equivalent grade were then applied in determining widths of mineralised intersections reported to ASX.

Zinc Equivalent Recoverable Grade - Calculation Formula

- US$ Zinc price/t divided by 100 = US $ Zinc price per 1% X 93% Recovery X Zinc Grade % = US$A
- US$ Lead price/t divided by 100 = US $ Lead price per 1% X 93% Recovery X Lead Grade % = US$B
- US$ Silver price/oz divided by 31.1 = US $ Silver price per gram X 70% Recovery X Silver Grade g/t = US$C

US$A + US$B + US$ C divided by US$A = Zinc Equivalent Grade

Metallurgical Recovery Test Work for Zn/Pb from the Nxuu Deposit

Five metres of halved HQ drill core (34m – 39m) from drill hole NXDD003 and eight metres of halved HQ drill core (17m – 25m) from drill hole NXDD005 (Refer to **Figure 2 and Sections 1 and 3**), which holes are 308m apart, were composited and subjected to metallurgical test work conducted by AMMTEC in 2010 and 2011. This showed that at 75 micron grind size 93% Zinc was recovered to solution in 12 hours through tank acid leaching at 25 deg C (ambient Botswana temperature) using 30kg/t acid suitable for solvent extraction/electrowinning (SX/EW), together with a lead compound. Both the lead compound and zinc metal recovered on site can be transported in bulk to a railhead.

This information has previously been released to the market as follows:

11 February 2010. The Company released to the market results from mineralogical test work conducted by AMMTEC. This confirmed that Zinc was contained in the Zinc oxide mineral Smithsonite.

5 March 2010. The Company released to the market results from metallurgical test work conducted by AMMTEC. This confirmed that the Zinc oxide mineral Smithsonite was amenable to on site solvent extraction/electro winning with a recovery rate of 93%.

30 January 2012. The Company released to the market in its December 2011 Quarterly Report results from further test work conducted by AMMTEC. This further confirmed that 93% Zinc was recoverable through on site solvent extraction/electro winning and that a compound containing 93% of the Lead was recoverable from Cerussite which was able to be transported from site in bulk.

12 April 2012. The Company advised that at the request of ASX and in accordance with the JORC Code requirements, further information in respect of metallurgical recoveries was included in the Kihabe–Nxuu Resource Statement (2004 JORC Code). Since that time, when quoting the 2004 JORC Code resource, the following has been included:

- **Nxuu Metal Recoveries**

  In the Nxuu Deposit which is totally oxidised 93% Zn and 93% Pb mineralisation is recovered in 12 hours through acid leach (bench scale test work AMMTEC) with the potential to produce Zn metal on site through SX/EW

Estimated Silver Recovery

The estimated silver recovery at the totally oxidised Nxuu Deposit and the Oxide Zone of the Kihabe Deposit is based on the silver recoveries achieved at the Minera San Christobal Mine's totally oxidised Toldos ore body in Bolivia. In 2016 Joselyn Riquelme PhD, did extensive mineralogical, metallurgical and selective flotation test work on Toldos ore at the University of Queensland, achieving a Silver recovery rate of 83.80%. (University of Queensland, Improved process development for complex silver ores through systematic, advanced mineral characterisation; Jocelyn Andrea Quinteros Riquelme, B. Eng (Mineral Processing) and Metallurgical Engineer, December 2014).

The Company is of the opinion that all the elements included in the RECOVERABLE Zn equivalent calculations for the Nxuu Deposit have reasonable potential to be recovered and sold.

R&D Tax Incentive Refund

The Company has now received $70,000 as an R&D Tax Incentive Refund for costs incurred during the year to 30 June 2018.

These costs were relative to the subsequent mineralogical and metallurgical test work conducted by ALS Laboratories on the Vanadium content of the Nxuu Deposit. The results of the mineralogical test work were released to the market on 12 December 2018 and the initial results of the metallurgical test work were released to the market on 10 January 2019.

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.

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

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.

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NXUU DEPOSIT
ZINC, LEAD, SILVER, GERMANIUM, VANADIUM MINERALISATION
DRILL HOLE MAP

7,821,960N
7,821,940N
7,821,920N
7,821,900N
7,821,880N
7,821,860N
7,821,840N
7,821,820N
7,821,800N
7,821,780N
7,821,760N
7,821,740N
7,821,720N
7,821,700N

508,650E 508,670E 508,690E 508,710E 508,730E 508,750E 508,770E 508,790E 508,810E 508,830E 508,850E 508,870E 508,890E 508,910E 508,930E 508,970E 508,990E

SECTION 1A
AP008
45m
NXDD046
50m
NXRC019
50m
70m
50m
SECTION 10
NXDD007
50m
NXDD029
35m
35m
70m
50m
NXDD045
35m
82m
SECTION 9
100m
NXDD041
50m
NXDD040
NXDD044
35m
30m
43m
55m
70m
70m
70m
50m
35m
NXDD005
54m
NXDD031
SECTION 8
40m
45m
58m
SECTION 7
100m
NXDD043
50m
NXDD034
NXDD032
40m
AP005
70m
70m
70m
70m
50m
50m
50m
SECTION 6
100m
NXDD037
50m
NXDD030
50m
NXDD039
NXDD033
70m
70m
70m
70m
50m
74m
100m
NXDD003
100m
NXDD036
100m
NXDD002
SECTION 5
SECTION 1
SECTION 2
SECTION 3
SECTION 4

DRILL HOLES BEING TESTED BY STEINERT

FIGURE 2

NXUU DEPOSIT — SECTION 1

NATURAL SURFACE

KALAHARI SAND

MINERALISED OXIDISED QUARTZ WACKE

DOLOSTONE BASEMENT

NXDD003

7,821,700N — 508,650E

EOH 56.05m

2.40m

16.85m
2.15m @ 205 ppm (164 ppm)
18.00m

20.92m
5.08m @ 1,216 ppm (972 ppm)
26.00m

27.00m
1.00m @ 817 ppm (654 ppm)
28.00m

29.00m
1.00m @ 195 ppm (156 ppm)
30.00m

23.08m @ 2.56%

39.00m
5.00m @ 4.21%
44.00m

39.00m
40.00m
1.00m @ 186 ppm (149 ppm)

NXDD037

7,821,750N — 508,700E

EOH 41.95m

3.00m

7.00m
3.00m @ 0.43%
10.00m

23.00m @ 1.47%

33.00m
4.00m @ 0.46%
37.00m

7.00m
15.00m @ 1,398 ppm (1,118 ppm)

22.00m
23.00m
1.00m @ 210 ppm (168 ppm)
24.00m
25.42m

4.58m @ 305 ppm (244 ppm)
30.00m

31.00m
3.00m @ 325 ppm (260 ppm)
34.00m

36.00m
1.00m @ 232 ppm (186 ppm)
37.00m

39.00m
40.00m
1.00m @ 298 ppm (238 ppm)

NXDD043

7,821,800N — 508,750E

EOH 20.95m

5.15m

6.95m
2.05m @ 186 ppm (149 ppm)
9.00m

12.00m

15.00m
4.43m @ 2.23%
19.43m

17.00m
1.00m @ 5.27%
18.00m

7.43m @ 1,269 ppm (1,015 ppm)
19.43m

284m

NXUU DEPOSIT — SECTION 1

NXDD043

7,821,800N — 508,750E

EOH 20.95m

5.15m

6.95m
2.05m @ 186 ppm (149 ppm)
9.00m

12.00m

15.00m
4.43m @ 2.23%
19.43m

17.00m
1.00m @ 5.27%
18.00m

7.43m @ 1,269 ppm (1,015 ppm)
19.43m

NXDD041

7,821,850N — 508,800E

EOH 11.95m

3.20m

4.00m
5.00m @ 0.47%
9.00m

9.70m

6.50m @ 1,153 ppm (922 ppm)

NXDD042

7,821,900N — 508,850E

EOH 14.95m

KALAHARI SAND

DOLOSTONE BASEMENT

1.81m @ 124 ppm

8.95m
10.76m

284m

SECTION ORIENTATION 45 deg

N

LEGEND

RECOVERABLE ZINC EQUIVALENT GRADE FOR Zn/Pb/Ag

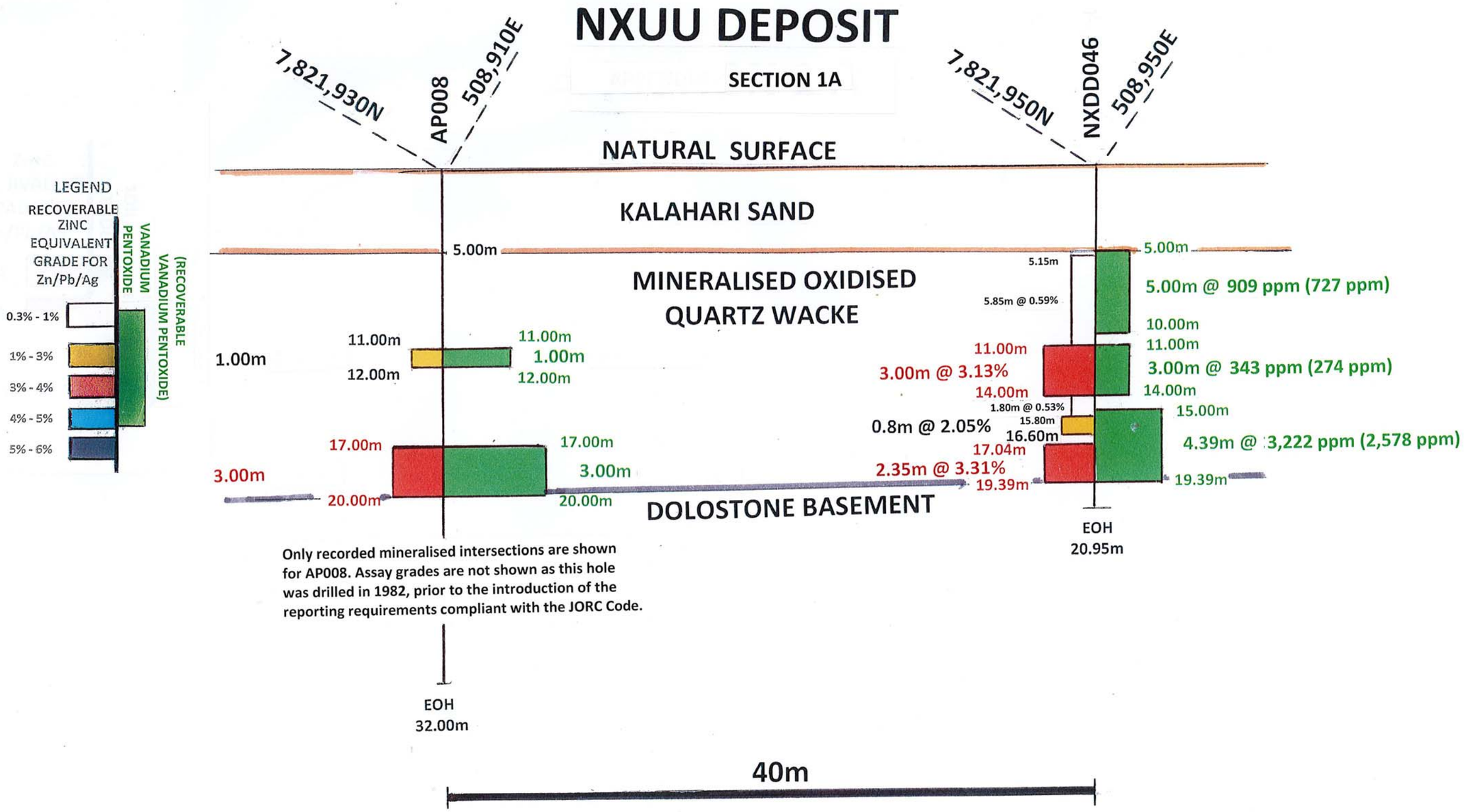
- 0.3% - 1%
- 1% - 3%
- 3% - 4%
- 4% - 5%
- 5% - 6%

(RECOVERABLE VANADIUM PENTOXIDE)

VANADIUM PENTOXIDE

NXUU DEPOSIT

SECTION 1A



NXUU DEPOSIT

SECTION 2

7,821,700N NXDD036 508,750E

NATURAL SURFACE

KALAHARI SAND

6.00m

MINERALISED OXIDISED QUARTZ WACKE

34.00m
← OPEN
5.00m @ 0.45%
2.00m @ 3.31%
39.00m
40.00m @ 2.77%
42.00m
5.00m
44.00m
0.70%
46.40m
3.24m @ 1.60%
49.64m
EOH 50.95m

34.00m 2.00m @ 295 ppm (236 ppm)
36.00m
38.00m 1.00m @ 867 ppm (694 ppm)
39.00m
41.07m 0.93m @ 889 ppm (711 ppm)
42.00m

DOLOSTONE BASEMENT

49.00m 0.64m @ 1,719 ppm (1,375 ppm)
49.64m

7,821,750N NXDD030 508,800E

3.00m
7.00m @ 1.46%
10.00m
7.00m @ 0.50%
17.00m
6.00m @ 1.06%
23.00m
24.00m
8.00m @ 3.07%
32.00m
2.00m @ 0.65%
34.00m
5.00m @ 3.17%
39.00m
1.58m @ 0.64%
40.58m
EOH 41.95m

3.00m 2.00m @ 7,879 ppm (6,303 ppm)
5.00m
2.00m @ 5,037 ppm (4,030 ppm)
7.00m
8.00m
2.00m @ 4,530 ppm (3,624 ppm)
10.00m
17.00m
3.00m @ 4,175 ppm (3,340 ppm)
20.00m
25.00m
26.00m
1.73m @ 534 ppm (427 ppm)
27.73m
29.00m
2.00m @ 4.85%
31.00m
34.00m
38.00m
2.58m @ 275 ppm (210 ppm)
40.58m

3.00m
22.00m @ 3,270 ppm (2,616 ppm)
25.00m

7,821,800N NXDD034 508,850E

2.15m
9.00m
7.00m @ 0.48%
16.00m
19.81m
4.19m @ 0.37%
24.00m
3.95m @ 4.21%
27.95m
15.00m @ 2.63%
36.48m
1.52m @ 3.37%
38.00m
39.00m
3.25m @ 0.55%.
42.25m
EOH 49.62m

5.15m
15.54m @ 996 ppm (797 ppm)
20.69m
24.00m
3.95m @ 1,082 ppm (865 ppm)
27.95m
29.00m
2.00m @ 1,396 ppm (1,117 ppm)
31.00m
44.00m
1.20m @ 320 ppm (256 ppm)
45.20m

LEGEND
RECOVERABLE ZINC EQUIVALENT GRADE FOR Zn/Pb/Ag
0.3% - 1%
1% - 3%
3% - 4%
4% - 5%
5% - 6%
(RECOVERABLE VANADIUM PENTOXIDE)
VANADIUM PENTOXIDE

284m

SECTION 2

7,821,800N NXDD034 508,850E

2.15m
9.00m
7.00m @ 0.48%
16.00m
19.81m
4.19m @ 0.37%
24.00m
3.95m @ 4.21%
27.95m
15.00m @ 2.63%
36.48m
1.52m @ 3.37%
38.00m
39.00m
3.25m @ 0.55%.
42.25m
EOH 49.62m

5.15m
15.54m @ 996 ppm (797 ppm)
20.69m
24.00m
3.95m @ 1,082 ppm (865 ppm)
27.95m
29.00m
2.00m @ 1,396 ppm (1,117 ppm)
31.00m
44.00m
1.20m @ 320 ppm (256 ppm)
45.20m

7,821,850N NXDD040 508,900E

NATURAL SURFACE

KALAHARI SAND

5.15m
19.00m
2.14m @ 0.69%
21.14m
1.80m @ 3.99%
22.94m
23.62m
11.68m @ 2.82%
5.67m @ 3.23%
29.29m
33.00m
34.00m
4.35m @ 0.57%
38.35m
EOH 38.35m

19.70m
1.44m @ 257 ppm (206 ppm)
21.14m
22.00m
1.62m @ 900 ppm (720 ppm)
23.62m
29.88m
4.12m @ 3,925 ppm (3,140 ppm)
34.00m
35.00m
3.35m @ 1,599 ppm (1,279 ppm)
38.35m

MINERALISED OXIDISED QUARTZ WACKE

DOLOSTONE BASEMENT

7,821,900N NXDD007 508,950E

5.70m
8.00m
21.00m
17.00m
4.00m @ 3.34%
21.00m
29.00m

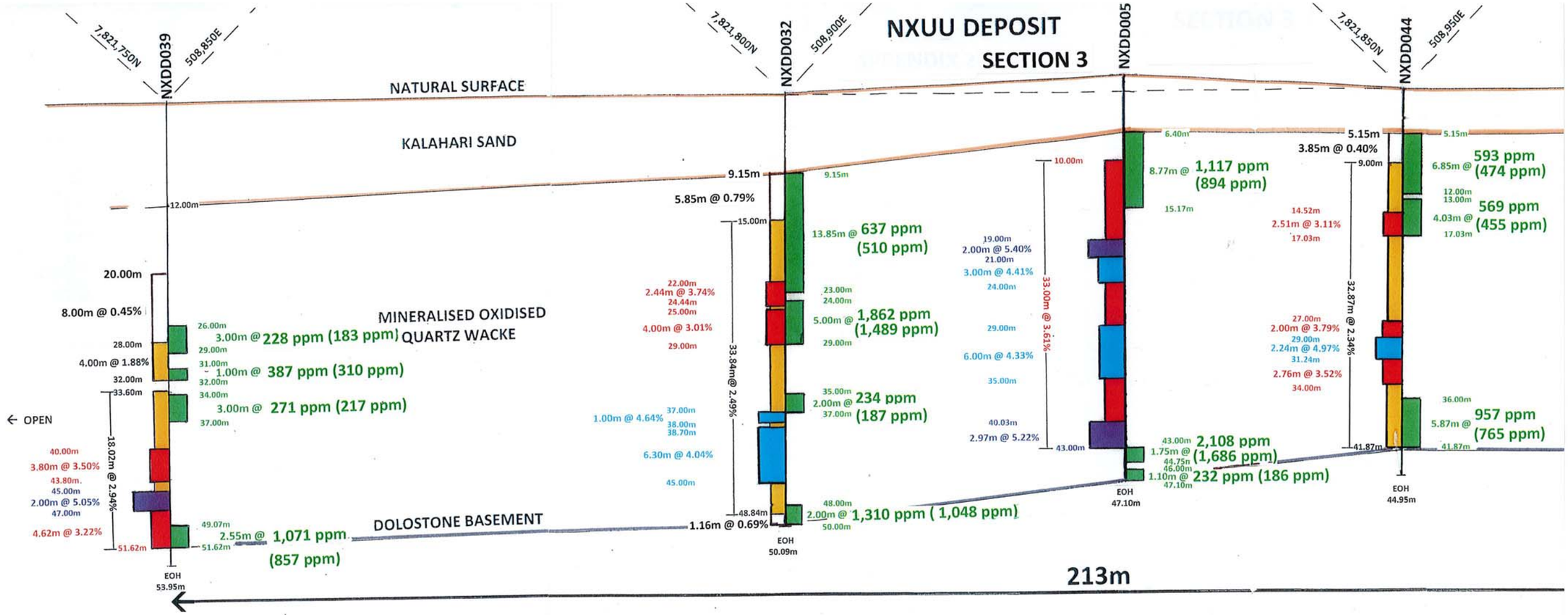
5.76m @ 771 ppm (617 ppm)
11.46m
12.00m
3.00m @ 616 ppm (493 ppm)
15.00m
OPEN →
28.00m 1.00m @ 353 ppm (282 ppm)
29.00m
30.00m
1.00m @ 609 ppm (487 ppm)
31.00m
32.00m 1.00m @ 246 ppm (197 ppm)
33.00m
EOH 34.85m

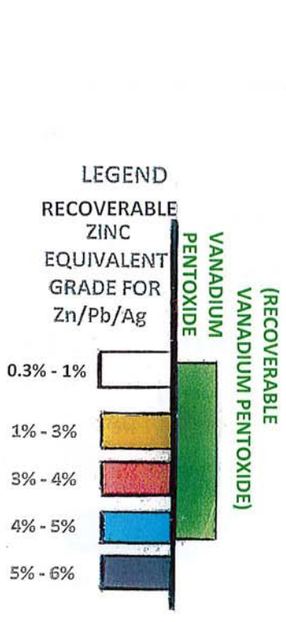
N

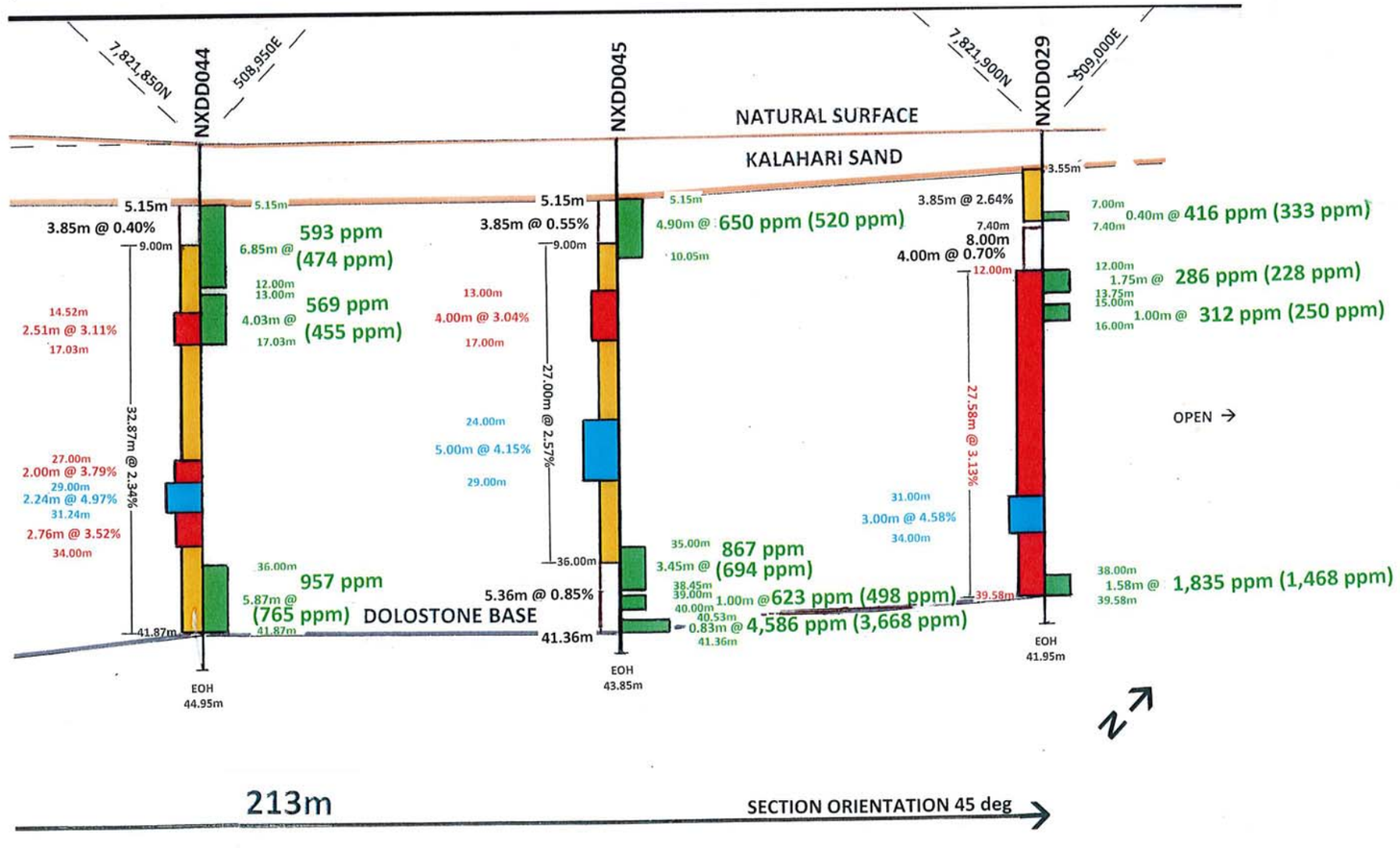
SECTION ORIENTATION 45 deg

284m

NXUU DEPOSIT
SECTION 3







NXU U DEPOSIT

SECTION 4

NXDD002 7,821,700N 508,850E

NXDD033 7,821,750N 508,900E

AP005 7,821,780N 508,955E

NXDD031 7,821,820N 508,980E

NATURAL SURFACE

KALAHARI SAND

17.94m

15.00m

3.00m

18.00m

1.00m

8.00m
1.00m
9.00m

1.00m

20.00m
1.00m
21.00m

24.00m

11.00m

33.00m
1.00m
34.00m

35.00m

36.00m
1.00m
37.00m

1.00m

41.00m

10.00m

46.00m
1.00m
47.00m

51.00m

EOH
53.00m

11.00m

10.00m

29.00m @ 2.09%

38.72m
3.28m @ 3.29%
42.00m

47.00m

OPEN →

46.00m
1.70m
47.70m

EOH
49.00m

1,723 ppm
(1,378 ppm)

MINERALISED OXIDISED
QUARTZ WACKE

43.00m
5.00m @ 4.14%
48.00m

← OPEN

53.00m
4.00m @ 4.28%
57.00m

42.00m

16.70m @ 3.00%

58.70m

58.95m
EOH

44.00m
3.00m @ 0.41%
47.00m

48.00m
1.00m @ 3.86%
49.00m

3.00m @ 2.21%

50.00m

3.62m @ 0.82%
53.62m

47.00m

6.62m @ 1,187 ppm (950 ppm)

53.62m

EOH
56.95m

DOLOSTONE BASEMENT

178m

SECTION ORIENTATION 45 deg

N

LEGEND

RECOVERABLE ZINC EQUIVALENT GRADE FOR Zn/Pb/Ag

0.3% - 1%

1% - 3%

3% - 4%

4% - 5%

5% - 6%

VANADIUM PENTOXIDE

(RECOVERABLE VANADIUM PENTOXIDE)

Only recorded mineralised intersections are shown for AP005. Assay grades are not shown as this hole was drilled in 1982, prior to the introduction of the reporting requirements compliant with the JORC Code.

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 STEINERT Australia 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 from six drill holes NXDD030, NXDD033, NXDD037, NXDD039, NXDD040 and NXDD043 as shown in Figure 1, were selected by the Company for submission to STEINERT Australia for metallurgical test work. These samples were chosen to determine if Sighter Test Work developed by STEINERT could be used to pre-concentrate zinc, lead, silver, germanium and vanadium pentoxide mineralization prior to milling and flotation. Results of the Metallurgical Test Work will be reported on once available:
	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.

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 duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled	**Mount Burgess Mining Diamond Holes** 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.
Quality of assay data and laboratory tests	•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, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	**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 (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
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.	**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 being reported on have now been converted to V2O5 (Vandium Pentoxide) by multiplying the Vanadium grades by 1.785.
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.	**All Mount Burgess Holes** 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 JORC Code. Sample compositing was conducted on four Nxuu deposit drill holes, following receipt of assays from Intertek Genalysis, for the purpose of mineralogical and metallurgical test work.
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.	**All Mount Burgess Holes** Mineralisation was typically intersected at -90 degrees at the Nxuu Deposit and the Company believes that unbiased sampling was achieved.
Sample security	The measures taken to ensure sample security.	**All Mount Burgess Holes** 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 reviews	The results of any audits or reviews of sampling techniques and data.	**All Mount Burgess Holes** 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	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 to 31 December 2020 with a right to apply for a further two year renewal 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	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
	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. The assumptions used for any reporting of metal equivalent values should be clearly stated.	**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.
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.	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.	
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.	Further works planned at the Project include additional drilling and surface mapping at the Kihabe-Nxuu Zinc/Lead/Silver/Germanium and Vanadium Project.