

## ASX ANNOUNCEMENT

02 December 2021

ASX code: **GED**

### **ANOTHER EXCEPTIONAL COPPER-VANADIUM-LEAD INTERSECTION AT NOSIB** *and step out hole extends copper-vanadium-lead mineralisation along strike to the NE*

- The second diamond drillhole completed at Nosib Prospect, NSBDD002, has produced exceptionally high-grade copper-lead-vanadium and silver intersections from surface, including:
  - NSBDD002: 20.85m @ 2.0% Cu, 1.54% V<sub>2</sub>O<sub>5</sub>, 6.0% Pb, 7.7 g/t Ag (6.4% CuEq\*) from 0m
  - incl. 12.10m @ 3.2% Cu, 2.54% V<sub>2</sub>O<sub>5</sub>, 9.8% Pb, 8.0 g/t Ag (10.3% CuEq\*) from 0m
  - incl. 3.00m @ 6.3% Cu, 7.82% V<sub>2</sub>O<sub>5</sub>, 21.9% Pb, 6.4 g/t Ag (25.9% CuEq\*) from 7.3m

\*See copper equivalent (CuEq) calculation Appendix 1
- NSBDD002 did not test the entire target zone due to bogged drill-rods, but still intersected an overall zone of 45.7m downhole/true thickness at average grade of 1.0% Cu, 0.72% V<sub>2</sub>O<sub>5</sub>, 2.8% Pb
- These exceptional diamond drillhole intersections are located within the shallow, supergene, zone of the Nosib deposit between previous very-high-grade copper, vanadium, lead and silver intersections, including:
  - NSBRC010<sup>2</sup>: 29m @ 1.54% Cu, 1.19% V<sub>2</sub>O<sub>5</sub>, 4.49% Pb, 6.97 g/t Ag (6.6% CuEq\*) from 2m
  - incl. 13m @ 2.83% Cu, 2.52% V<sub>2</sub>O<sub>5</sub>, 9.18% Pb, 6.57 g/t Ag (13.3% CuEq\*) from 3m
  - incl. 9m @ 3.66% Cu, 3.62% V<sub>2</sub>O<sub>5</sub>, 11.9% Pb, 7.70 g/t Ag (18.4% CuEq\*) from 3m
  - NSBRC007<sup>1</sup>: 24m @ 1.33% Cu, 1.37% V<sub>2</sub>O<sub>5</sub>, 4.77% Pb, 3.67 g/t Ag (5.0% CuEq\*) from 3m
  - incl. 10m @ 2.65% Cu, 3.12% V<sub>2</sub>O<sub>5</sub>, 10.7% Pb, 7.79 g/t Ag (11.0% CuEq\*) from 3m
  - incl. 6m @ 3.67% Cu, 4.40% V<sub>2</sub>O<sub>5</sub>, 14.9% Pb, 12.2 g/t Ag (15.4% CuEq\*) from 6m

\*See copper equivalent (CuEq) calculation Appendix 1
- In addition, diamond drillhole NSBDD004, a step-out hole to the northeast of NSBRC007<sup>1</sup>, has intersected "frequent pods and patches of malachite" (copper-carbonate) as well as copper-sulphide mineralisation from 24.5m to 46.5m (22m zone) with pXRF readings up to 4.4% copper
- Diamond drilling is continuing (NSBDD005) with a higher-capacity diamond drilling rig, testing down plunge of the previous intersection in NSBRC009<sup>2</sup> of 5m @ 2.58% Cu, 18.8 g/t Ag from 61m that indicates potential for a high-grade copper-silver sulphide zone at depth
- Diamond drilling is also planned to test down-plunge extensions of the very-high-grade Khusib Springs deposit, 15km east of Nosib, that previously produced 300,000t @ 10% Cu, 584 g/t Ag<sup>3</sup>

**Golden Deeps Limited (“Golden Deeps” or “Company”)** is very pleased to announce further, exceptional, copper-vanadium-lead-silver intersections from the second diamond drillhole at the **Nosib Block (“Nosib”) Prospect**, located in the **Otavi Mountain Land of northern Namibia** (see location Figure 3).

Diamond drillhole **NSBDD002** tested the shallow, supergene, zone of mineralisation (see cross section, Figure 1), producing exceptionally high-grade intersections from surface that include:

- **NSBDD002: 20.85m @ 2.0% Cu, 1.54% V<sub>2</sub>O<sub>5</sub>, 6.0% Pb, 7.7 g/t Ag (6.4% CuEq\*) from 0m**
- incl. 12.10m @ 3.2% Cu, 2.54% V<sub>2</sub>O<sub>5</sub>, 9.8% Pb, 8.0 g/t Ag, (10.3% CuEq\*) from 0m**
- incl. 10.30m @ 3.6% Cu, 2.82% V<sub>2</sub>O<sub>5</sub>, 10.5% Pb, 8.2 g/t Ag, (11.4% CuEq\*) from 0m**
- incl. 3.00m @ 6.3% Cu, 7.82% V<sub>2</sub>O<sub>5</sub>, 21.9% Pb, 6.4 g/t Ag, (25.9% CuEq) from 7.3m**

*\*CuEq = Copper Equivalent calculation (see Appendix 1), based on current metal prices and estimated recoveries.*

This second diamond drillhole at the Nosib Prospect, tested between previous reverse circulation (RC) holes, **NSBRC010<sup>2</sup>** and **NSBRC007<sup>1</sup>**, both of which intersected very high-grade copper, vanadium and lead mineralisation that was announced in June 2021<sup>1,2</sup> (see longitudinal projection, Figure 2).

The highest-grade intersections of vanadium, copper and lead are from surface to 10.3m and associated with faulting and heavy oxidation with the supergene minerals mottamite (copper-lead-vanadate) and malachite (copper-carbonate) on fracture surfaces. Deeper in the hole there are patches of malachite and/or specs of bornite (copper sulphide) to 46.3m (46.3m thick zone from surface), where the hole was terminated short of the entire target zone due to several drill-rods not being able to be removed from the hole. **The overall, incomplete, intersection from surface to end-of-hole in NSBDD002 is 45.7m @ 1.0% Cu, 0.72% V<sub>2</sub>O<sub>5</sub>, 2.8% Pb, 4.0 g/t Ag (3.0% CuEq\*) (Figure 1).**

In addition, diamond drillhole **NSBDD004**, a step-out hole to the northeast of **NSBRC007<sup>1</sup>** (See Figure 2) has **intersected “frequent pods and patches of malachite” (copper-carbonate) as well as copper-sulphide mineralisation from 24.5m to 46.5m (22m zone) with pXRF readings up to 4.4% copper.** The intersection of mineralisation in **NSBDD004** looks to have extended the shallow, high-grade, copper-vanadium-lead-silver zone, that remains open to the northeast.

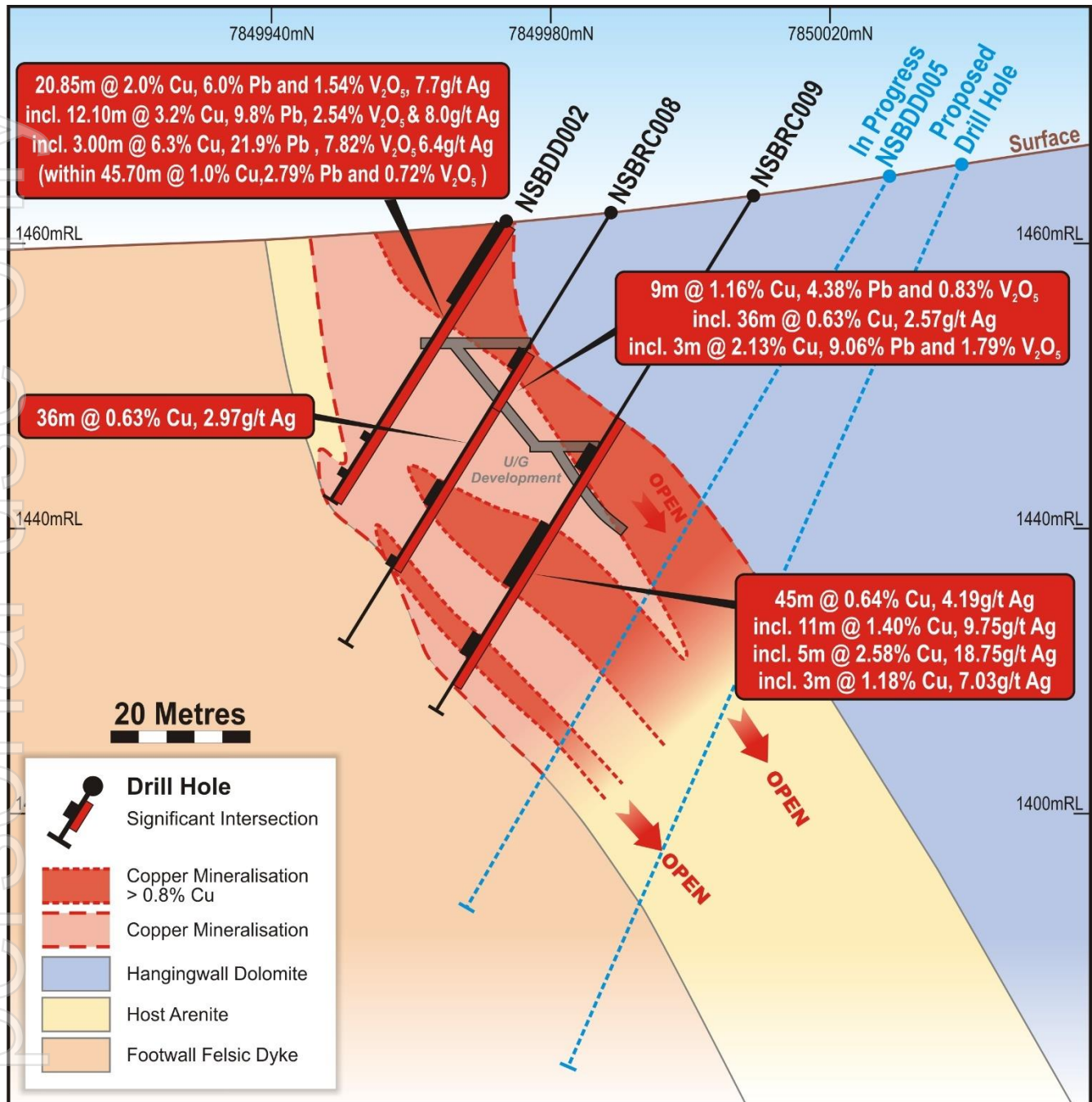
*The pXRF (portable XRF) spot-readings in NSBDD002 (see Appendix 3) were taken at approximate 0.5m intervals within each mineralised zone, apart from selected zones where visible sulphides are variably distributed and further readings may be taken. The range of values within the identified mineralised zone from 24.5m to 46.5m are from 0.01% Cu to 4.4% Cu readings, averaging approximately 0.3% Cu. The pXRF spot readings are considered an indication only and laboratory assays (ICP-MS/OES) are required to confirm grades and intervals.*

**Golden Deeps CEO, Jon Dugdale, commented:**

*“This second diamond drillhole at Nosib, NSBDD002, has produced exceptionally high-grade vanadium, copper and lead results that have surprised on the upside, given the initial lower levels detected in hand-held pXRF readings and the fact the hole failed to reach the footwall of the mineralised zone.*

*“Mineralisation has been intersected along strike to the northeast, extending the high-grade zone, and deeper drilling indicates that we may be on top of a high-grade copper-silver sulphide zone at depth.*

*“The completion of this important drilling program will provide Golden Deeps with an opportunity to advance towards development of on-site mining and processing facilities to feed key battery pre-cursors such as copper and vanadium to the rapidly growing EV and renewables markets.”*



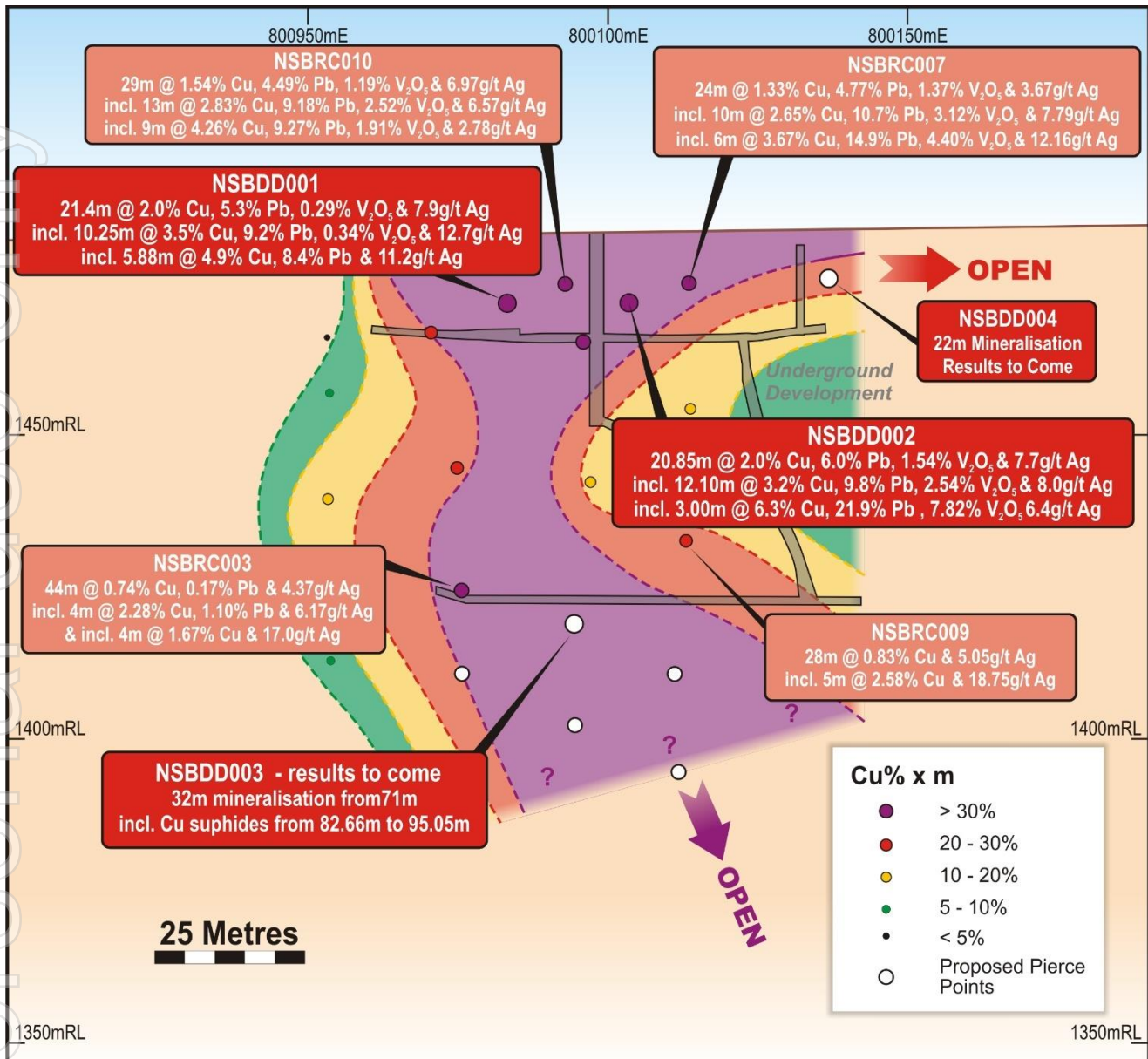
**Figure 1: Nosib oblique cross section through NSBDD002 and deeper holes testing the copper-silver sulphide zone**

A larger capacity diamond drilling rig has been brought to site and has commenced deeper diamond drillhole, NSBDD005, that is testing down plunge of the previous intersection in NSBRC009<sup>2</sup> that included a **5m sulphide intersection grading 2.58% Cu, 18.8 g/t Ag from 61m<sup>2</sup>**. This intersection indicates that copper-silver grades are improving with depth and that there is potential for a high-grade copper-silver sulphide zone down-plunge from the near surface supergene (Cu-V-Pb) zone.

NSBDD005 is targeting the deeper copper-silver zone to the east of previous hole, **NSBDD003<sup>11</sup>**, that intersected pods and patches of malachite (copper-carbonate), after copper-sulphides, from 71.3m downhole followed by a zone from 82.66m to 101.9m (total >30m zone) of variably developed copper-sulphide mineralisation including **occasional semi-massive bornite associated with chalcopyrite<sup>11</sup>**.

NSBDD003 has been logged and samples despatched for sample preparation in Namibia then processing and analyses at Intertek, Perth.





**Figure 2: Nosib Prospect, longitudinal projection with NSBDD001 intersection and planned pierce points**

Upon completion of the Nosib diamond drilling program and receipt of all results, selected samples of drill core will be submitted for metallurgical test work to determine amenability to gravity concentrate production as well as second stage leaching testwork.

The leaching test-work program will be based on the outcomes of the current testing being conducted on the Abenab high-grade vanadium (lead, zinc +/- copper, silver) deposit<sup>5</sup>. The historical Abenab high-grade vanadium mine is located approximately 20km along strike to the east of the Nosib prospect (Figure 5) and has a current JORC 2012 Inferred Mineral Resource of **2.80Mt @ 0.66% V<sub>2</sub>O<sub>5</sub>, 2.35% Pb, 0.94% Zn** (0.2% V<sub>2</sub>O<sub>5</sub> cut-off)<sup>10</sup>.

Subject to receipt of results demonstrating continuity of the mineralisation and preliminary metallurgical test-work results, the Company will aim to generate a maiden Mineral Resource estimate for the Nosib, high-grade, copper-lead-vanadium-silver deposit.

Following completion of the Nosib diamond drilling program, drilling is also planned at **Khusib Springs** deposit, located 15km to the southeast of Nosib (Figure 5).

The program at Khusib springs is designed to test for a repeat of the very-high-grade Khusib Springs shoot, that produced approximately **300,000t at 10% Cu and 584 g/t Ag<sup>3</sup>** to only 300m depth from the 1990s, closing in 2003. The decline at this mine remains accessible for possible extension in the future.

### About the Nosib Block and Khusib Springs Drilling Programs:

The Nosib and Khusib Springs prospects are located approximately 15km apart, within EPL3543 (Figure 5), in the world-class Otavi Mountain Land (Otavi) Copper District of Namibia (see Figure 3). The Otavi Copper District includes major historic mines such as the Tsumeb deposit, 40km to the northwest of Nosib (Figure 3), that produced **30Mt of ore grading 4.3% Cu, 10% Pb and 3.5% Zn<sup>3</sup>** between 1905 and 1996.

The diamond drilling program at Nosib, currently underway, includes up to eight diamond drillholes for approximately 1,000m of drillcore.

The program includes three holes testing the shallow, high-grade, copper-lead-vanadium zone, both within the defined shoot for definition and metallurgical purposes, as well as along strike where the zone is open to the east.

A further, up to five, diamond drillholes are testing extensions of the thick, stratabound, copper-silver zone that has produced significant true-width intersections of copper-silver mineralisation over 45m thick, across the entire thickness of the arenite/conglomerate host unit<sup>1,2</sup>.

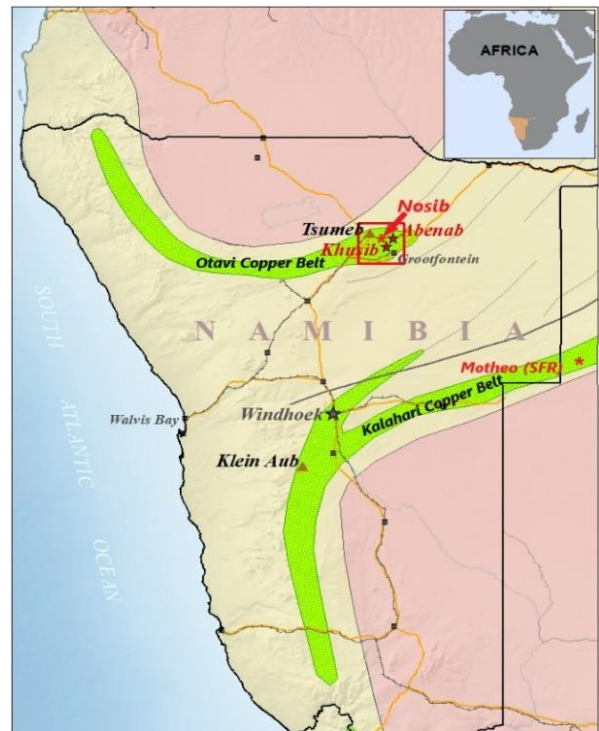
The diamond drilling aims to define and extend the shallow copper-lead-vanadium zone to determine the scope of the open-pit resource target. The deeper drilling will test potential for a major, stratabound, copper-silver deposit at depth.

The Company previously announced high-grade intersections of copper, vanadium and lead with silver from shallow depth<sup>1,2</sup>, including:

- **NSBRC007<sup>1</sup>: 24m @ 1.33% Cu, 4.77% Pb, 1.37% V<sub>2</sub>O<sub>5</sub>, 3.67g/t Ag from 3m  
incl. 6m @ 3.67% Cu, 14.9% Pb, 4.40% V<sub>2</sub>O<sub>5</sub>, 12.16g/t Ag from 6m**
- **NSBRC010<sup>2</sup>: 29m @ 1.54% Cu, 4.49% Pb, 1.19% V<sub>2</sub>O<sub>5</sub>, 6.97g/t Ag from 2m  
incl. 9m @ 3.66% Cu, 11.91% Pb, 3.62% V<sub>2</sub>O<sub>5</sub>, 7.70g/t Ag from 3m**

At **Khusib Springs** (see location, Figure 5), previous targeting work by South African based geological consultancy, Shango Solutions, in January 2021<sup>8</sup>, indicated that, in addition to the potential for remnant zones of copper-silver mineralisation on the margins of the mined stopes<sup>10</sup>. There is also significant potential for a repeat of the very-high grade Khusib Springs copper-silver orebody at depth, to the north of an apparent normal fault that is interpreted to have offset the mineralised zone.

**Mineralisation has been intersected previously to the north of the fault and deeper diamond drilling is planned to further test this highly prospective zone for a repeat of the very-high-grade Khusib Springs copper-silver ore-body** (see oblique cross section, Figure 4, below).



**Figure 3: Golden Deeps Projects in Namibia**



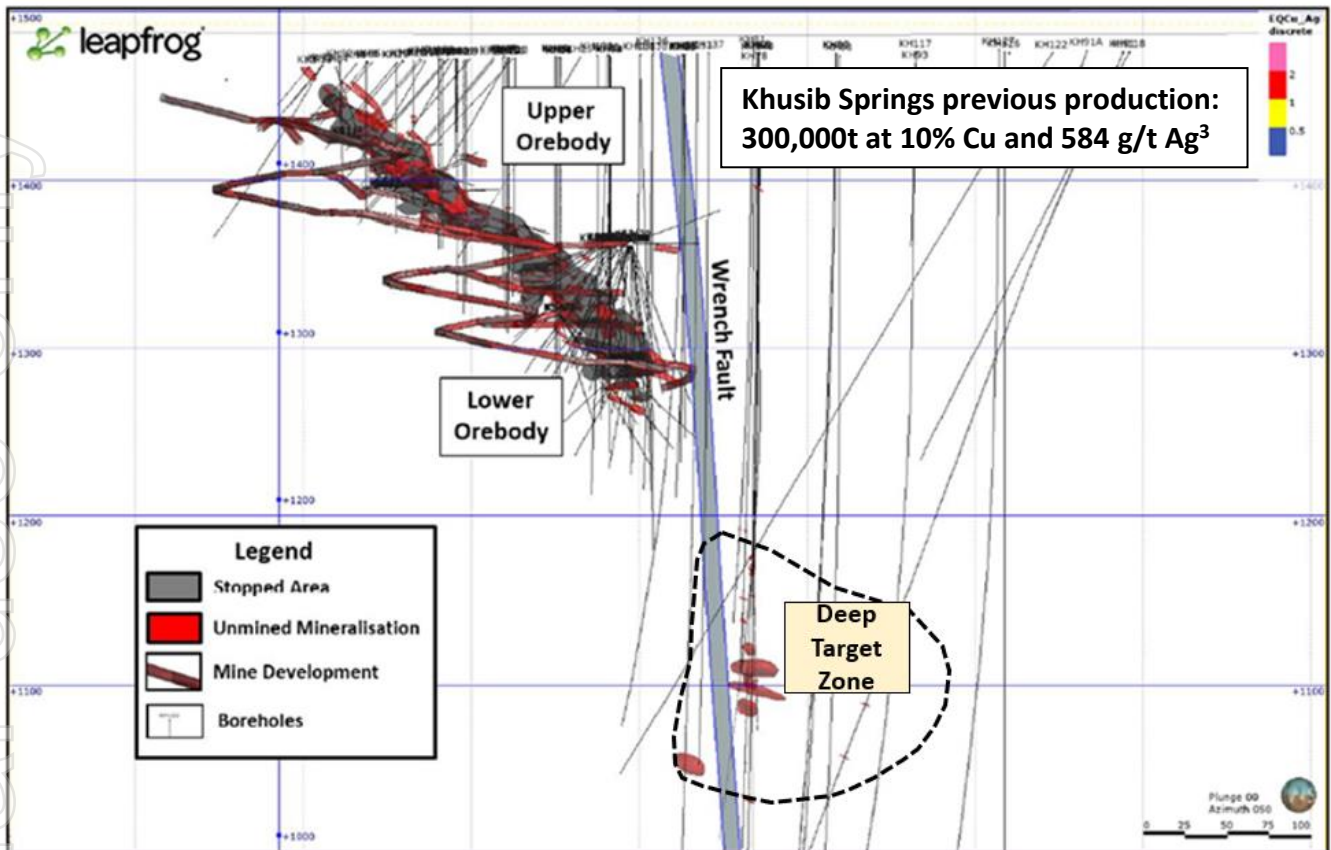


Figure 4: Cross section of Khusib Springs Mine showing developed and stoped areas and un-mined zones

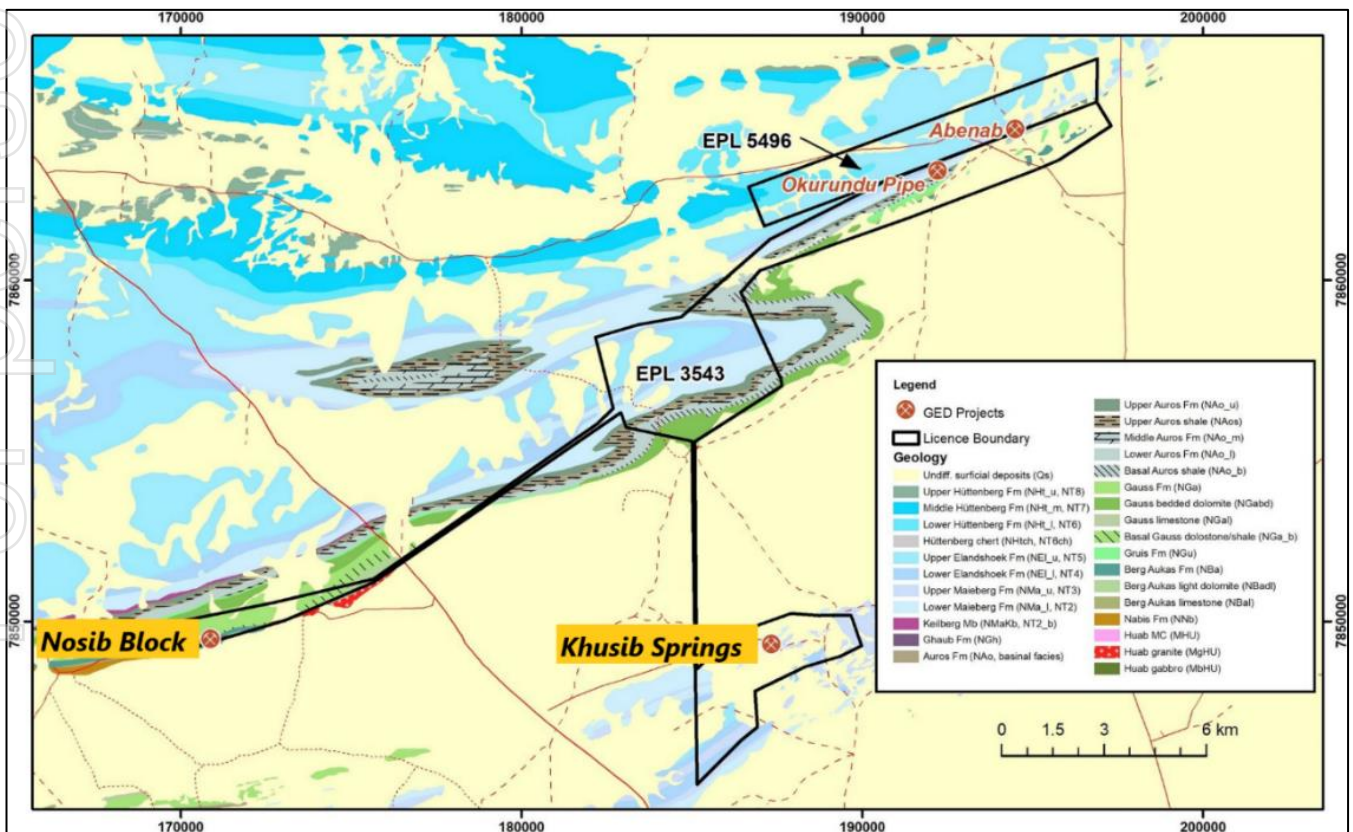


Figure 5: Location plan EPL3543 showing the location of the main prospects

Appendix 1 shows the copper equivalent (CuEq) calculations. Appendix 2 includes details of drilling completed to date with mineralised intervals. Appendix 3 includes pXRF spot-readings on NSBDD003 drillcore and Appendix 4 includes JORC Table 1, Sections 1 and 2.

**Table 1: Nosib diamond drilling intersections, NSBDD002:**

Hole ID	From	To	m	Cu %	V <sub>2</sub> O <sub>5</sub> %	Pb %	Ag g/t	Zn %	CuEq%	Cut-off
NSBDD002	0.00	45.70	45.70	1.0	0.72	2.8	4.0	0.06	3.0	<0.1% Cu
NSBDD002	0.00	20.85	20.85	2.0	1.54	6.0	7.7	0.12	6.4	0.4% Cu
incl.	0.00	12.10	12.10	3.2	2.54	9.8	8.0	0.20	10.3	1.0% Cu
incl.	0.00	10.30	10.30	3.6	2.82	10.5	8.1	0.23	11.4	2.0% Cu
incl.	7.30	10.30	3.00	6.3	7.82	21.9	6.4	0.21	25.9	5.0% Cu
NSBDD002	35.00	45.70	10.70	0.3	0.05	0.2	1.4	<0.01	0.5	0.1% Cu
incl.	35.00	36.00	1.00	0.4	0.43	1.8	1.3	<0.01	1.7	0.4% Cu
incl.	41.03	42.07	1.04	1.8	0.01	0.0	7.0	<0.01	1.9	1.0% Cu

## References

- <sup>1</sup> Golden Deeps Ltd announcement, 21st June 2021. Nosib More Exceptional Copper, Lead, Vanadium intersections.
- <sup>2</sup> Golden Deeps Ltd announcement, 15<sup>th</sup> June 2021. Nosib Exceptional Copper, Lead & Vanadium intersections.
- <sup>3</sup> Melcher, F. et. al. 2005. Geochemical and mineralogical distribution of germanium in the Khusib Springs Cu-Zn-Pb-Ag sulphide deposit, Otavi Mountain Land, Namibia.
- <sup>4</sup> King C M H 1995. Motivation for diamond drilling to test mineral extensions and potential target zones at the Khusib Springs Cu-Pb-Zn-Ag deposit. Unpublished Goldfields Namibia report.
- <sup>5</sup> Golden Deeps Ltd announcement, 11<sup>th</sup> June 2021. Abenab Vanadium Project, Positive Results of Mining Study.
- <sup>6</sup> Golden Deeps Ltd announcement, 26<sup>th</sup> August 2013. High-grade copper and lead at Nosib Block.
- <sup>7</sup> Tsumeb, Namibia. PorterGeo Database: [www.portergeo.com.au/database/mineinfo.asp?mineid=mn290](http://www.portergeo.com.au/database/mineinfo.asp?mineid=mn290)
- <sup>8</sup> Golden Deeps Ltd announcement, 5<sup>th</sup> February 2021. New High-Grade Copper-Silver Targets at Khusib Springs Mine.
- <sup>9</sup> Sandfire Resources Ltd announcement, 29 July 2021. Sandfire June 2021 Quarterly Report Presentation
- <sup>10</sup> Golden Deeps Ltd ASX release 31 January 2019: Golden Deeps confirms major Resource Upgrade at Abenab Vanadium project
- <sup>11</sup> Golden Deeps Ltd announcement, 30 November 2021. Very high-Grade Copper-Lead-Silver intersections at Nosib.

This announcement was authorised for release by the Board of Directors.

**\*\*\*ENDS\*\*\***

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### **Cautionary Statement regarding Forward-Looking information**

*This document contains forward-looking statements concerning Golden Deeps. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.*

*Forward looking statements in this document are based on the company's beliefs, opinions and estimates of Golden Deeps Ltd as of the dates the forward looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.*

### **Competent Person Statement**

*The information in this report that relates to exploration results has been reviewed, compiled and fairly represented by Mr Jonathon Dugdale. Mr Dugdale is the Chief Executive Officer of Golden Deeps Limited and a Fellow of the Australian Institute of Mining and Metallurgy ('FAusIMM'). Mr Dugdale has sufficient experience, including over 34 years' experience in exploration, resource evaluation, mine geology and finance, relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ('JORC') Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Dugdale consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.*

*The Abenab resource estimate stated in this release was compiled by Mr Manie Swart of Shango Solutions and announced to the ASX on January 31, 2019. Mr Swart is a Member of the South African Council for Natural Scientific Professions and a full-time employee of Shango Solutions. Mr Swart has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Swart consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.*

*The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.*



## Appendix 1: Copper Equivalent Calculation

### i) Equivalent Copper (CuEq) Calculation

The conversion to equivalent copper (CuEq) grade must take into account the plant recovery and sales price (net of sales costs) of each commodity.

Approximate recoveries and payabilities are based on preliminary and conservative leaching information<sup>5</sup> from equivalent mineralogy samples from the Abenab vanadium, lead, zinc +/- copper, silver deposit located approximately 20km along strike from the Nosib Block Prospect.

The prices used in the calculation are based on current market price at 24<sup>th</sup> November 2021, for Cu, Pb, Zn and Ag sourced from the website [www.kitco.com](http://www.kitco.com). The price for V<sub>2</sub>O<sub>5</sub> was obtained from [www.vanadiumprice.com](http://www.vanadiumprice.com), of approximately \$7.80/lb (\$17,191/t). The saleable vanadium product is assumed to be Vanadium Pentoxide, V<sub>2</sub>O<sub>5</sub> (98% pure).

**Table 2** below shows the grades, process recoveries and factors used in the conversion of the poly metallic assay information into an equivalent Copper Equivalent (CuEq) grade percent.

Metal	Average grade (%)	Metal Prices		Overall Recovery (%)	Factor	Factored Grade (%)
Cu	2.00	\$4.41/lb	\$9720/t	0.60	1.00	2.00
V <sub>2</sub> O <sub>5</sub>	1.54	\$7.80/lb	\$17,191/t	0.62	1.82	2.80
Zn	0.12	\$1.50/lb	\$3,306/t	0.54	0.31	0.04
Pb	6.03	\$1.03/lb	\$2,270/t	0.62	0.24	1.45
Ag	0.000773	\$23.5/oz	\$755,863/t	0.80	103.69	0.08
					<b>CuEq</b>	<b>6.4%</b>

Using the factors calculated above the equation for calculating the Copper Equivalent (CuEq) % grade is:

$$\text{CuEq\%} = (1 \times \text{Cu\%}) + (1.82 \times \text{V}_2\text{O}_5\%) + (0.24 \times \text{Pb\%}) + (0.31 \times \text{Zn\%}) + (104 \times \text{Ag\%})$$

In the example above:

$$(1 \times 2.00\%) + (1.82 \times 1.54\%) + (0.24 \times 6.03\%) + (0.31 \times 0.12\%) + (104 \times 0.000773\%) = 6.4\% \text{ CuEq}$$

**APPENDIX 2: Current drillhole details and mineralisation referred to in this release:**

Drillhole	Coordinates UTM		RL	Grid Orientation		Depth		Mineralisation		
Hole_ID	East	North	Mts	Dip°	Azi.°	From	To	Mineralisation in interval	From	To
NSBDD001	800,985	7,849,966	1,465	-59.7	176.2	0.00	80.80	Pervasive malachite associated with specs of born and chalc	6.87	12.33
								Pervasive malachite	17.8	21.0
								Fracture-fill malachite, poorly distributed	32.7	34.7
								Malachite, fracture coating	45.2	45.7
NSBDD002	801,005	7,849,970	1,465	-60	180	0.00	46.30	Mineralised rubble from surface to ~4m, malachite, azurite and mottramite.	0.0	4.0
								6.5-7.30m Strongly fractured (recovered core=.37m), ferruginous unit with mottramite	6.5	7.3
								Poorly disseminated specs of bornite	37.35	37.85
								Fracture-veener malachite, poorly distributed	38.75	39.39
								Fracture-fill/veener malachite, well distributed	41.03	42.07
								Fracture-fill/veener malachite, well distributed	44.51	46.3
NSBDD003	800,993	7,850,028	1,460	-60.6	172.7	0.00	141.10	Pods and patches of malachite, poorly to moderately distributed	71.3	71.82
								Finely disseminated specs of sulphides, predominantly covellite, associated with chalcopryite at times	71.82	75.78
								Malachite veneer in fractures, poorly distributed	75.78	82.66
								Visible sulphide traces, well disseminated. Specs of covellite, chalcopryite, bornite and pyrite. Occasional Semi-massive bornite associated with chalcopryite, grading up to 6% Cu (XRF)	82.66	93.05
								Vug-fill malachite, poorly to moderately distributed and occasional sulfide specs, predominantly bornite.	93.71	95.74
								Vug-fill malachite, poorly to moderately distributed and occasional sulfide specs, predominantly bornite.	97.23	97.78
								Pods and Patches of mal, occasionally associated with bornite and fracture-veener mal	100.87	103.44

Drillhole	Coordinates UTM		RL	Grid Orientation		Depth		Mineralisation		
Hole_ID	East	North	Mts	Dip°	Azi.°	From	To	Mineralisation in interval	From	To
NSBDD004	801,035	7,849,973	1,465	-60.8	172.1	0.00	81.3	Frequent pods and patches of malachite staining, at times, parallel to bedding.	24.51	35.96
								Well distributed fine sulphide specs, bornite, chalcopyrite & pyrite occasionally associated with malachite.	35.96	39.00
								Well distributed pods and Patches of malachite, occurring as fracture coatings at times.	44.04	46.47
								Poorly distributed specs of malachite, frequently in small vugs & seldomly occurring as fracture veneer	46.47	52.36



**APPENDIX 3: Hand held p-XRF spot readings on drill-core, NSBDD003**

Date	Reading #	Hole_ID	Depth_m	V_%	Cu_%	Zn_%	Pb_%
23-Nov-21	2	NSBDD004	24.51		0.15		0.01
23-Nov-21	3	NSBDD004	25.01		1.54		
23-Nov-21	4	NSBDD004	25.51		0.16		
23-Nov-21	5	NSBDD004	26.01		0.01		
23-Nov-21	6	NSBDD004	26.51		0.08		0.01
23-Nov-21	7	NSBDD004	27.01		0.10		0.01
23-Nov-21	8	NSBDD004	27.51		0.14		
23-Nov-21	9	NSBDD004	28.01		0.27		
23-Nov-21	10	NSBDD004	28.51		0.07		
23-Nov-21	11	NSBDD004	29.01				
23-Nov-21	12	NSBDD004	29.51		0.14		
23-Nov-21	13	NSBDD004	30.01	0.06	1.35		
23-Nov-21	14	NSBDD004	30.51		0.40		
23-Nov-21	15	NSBDD004	31.01		0.16		
23-Nov-21	16	NSBDD004	31.51		0.04		
23-Nov-21	17	NSBDD004	32.01	0.04	0.18		
23-Nov-21	18	NSBDD004	32.51	0.04	0.06		
23-Nov-21	19	NSBDD004	33.01		0.32		
23-Nov-21	20	NSBDD004	33.51		0.08		
25-Nov-21	3	NSBDD004	34.01		0.53		
25-Nov-21	4	NSBDD004	34.51		0.15		0.01
25-Nov-21	5	NSBDD004	35.01		0.11		
25-Nov-21	6	NSBDD004	35.51		0.01		
25-Nov-21	7	NSBDD004	36.01		0.16		
25-Nov-21	8	NSBDD004	36.51		0.22		
25-Nov-21	9	NSBDD004	37.01		0.06		
25-Nov-21	10	NSBDD004	37.51		0.04		
25-Nov-21	11	NSBDD004	38.01		0.06		
25-Nov-21	12	NSBDD004	38.51		0.04		
25-Nov-21	13	NSBDD004	39.01		0.04		
25-Nov-21	14	NSBDD004	39.51		0.02		

Date	Reading #	Hole_ID	Depth_m	V_%	Cu_%	Zn_%	Pb_%
25-Nov-21	15	NSBDD004	40.01		0.05		
25-Nov-21	16	NSBDD004	40.51		0.02		
25-Nov-21	17	NSBDD004	41.01		0.02		
25-Nov-21	18	NSBDD004	41.51		0.05		
25-Nov-21	19	NSBDD004	42.01		0.01		
25-Nov-21	20	NSBDD004	42.51		0.02		
25-Nov-21	21	NSBDD004	43.01		0.02		
25-Nov-21	22	NSBDD004	43.51		0.03		
25-Nov-21	23	NSBDD004	44.01		0.05		
25-Nov-21	24	NSBDD004	44.51		0.06		
25-Nov-21	25	NSBDD004	45.01		0.51		
25-Nov-21	26	NSBDD004	45.51	0.05	0.67		
25-Nov-21	27	NSBDD004	46.01		<b>4.42</b>		
25-Nov-21	28	NSBDD004	46.51		0.04		
25-Nov-21	29	NSBDD004	47.01		0.04		
25-Nov-21	30	NSBDD004	47.51				
25-Nov-21	31	NSBDD004	48.01		0.08		
25-Nov-21	32	NSBDD004	48.51		0.02		
25-Nov-21	33	NSBDD004	49.01		0.02		
25-Nov-21	34	NSBDD004	49.51		0.05		
25-Nov-21	35	NSBDD004	50.01		0.01		
25-Nov-21	36	NSBDD004	50.51		0.29		
25-Nov-21	37	NSBDD004	51.01		0.07		
25-Nov-21	38	NSBDD004	51.51				
25-Nov-21	39	NSBDD004	52.01	0.04	0.01		
25-Nov-21	40	NSBDD004	52.51		0.09		

*Note: Readings are taken at intervals of 0.5m of actual core length within each min zone. Readings are taken at bottom of core, unless core orientation cannot be determined. p-XRF measurements are taken in Mining Mode. The values for copper (Cu) are indicative only. Lead (Pb), Zinc (Zn) and Vanadium (V) values are not accurate or reliable and give very limited indication of final values expected in lab analyses.*

## APPENDIX 4

### JORC 2012 Edition - Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g., 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g., '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 (e.g., submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Previous exploration drillholes at Khusib Springs and Nosib the reverse circulation drilling was used to obtain 1 m samples from which approximately 3 kg were pulverised from which a small charge will be obtained for multi-element analysis using the ICP-MS method.</li> <li>Current diamond drilling sampled on approximately 1m intervals (varied subject to geological contacts) and analysed using the same procedure.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., 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).</li> </ul>	<ul style="list-style-type: none"> <li>Exploration drillholes at Khusib Springs and Nosib were Reverse Circulation percussion drilling method (RC drilling).</li> <li>Current drilling is diamond drillcore, NQ sized core.</li> </ul>
<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>Drill recovery is reported in detailed log. Where lost core is recorded assay grades are assumed to be zero. Core recovery in NSBDD002 is 84% due to losses in cavities.</li> <li>Information from the exploration drillholes at Khusib Springs and Nosib regarding sample recovery will be provided upon receipt of results.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>RC drilling from the exploration drillholes at Khusib Springs and Nosib were bagged on 1m intervals and an estimate of sample recovery has been made on the size of each sample.</li> <li>The cyclone is shut off when collecting the sample and released to the sample bags at the completion of each metre to ensure no cross contamination. If necessary, the cyclone is flushed out if sticky clays are encountered.</li> <li>Samples were weighed at the laboratory to allow comparative analysis.</li> <li>In diamond drillhole NSBDD001, possible loss of fine material between fractures in the oxide zone may have resulted in loss of secondary minerals such as the vanadium mineral descloisite.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>All holes were logged for lithology, structure and mineralisation.</li> <li>Diamond drilling logging intervals based on geological contacts.</li> <li>Logging of RC samples from exploration drillholes at Khusib Springs and Nosib based on 1m intervals.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material</i></li> </ul>	<ul style="list-style-type: none"> <li>No information is provided on the sampling method for the historical drillholes.</li> <li>For exploration drillholes at Khusib Springs and Nosib             <ul style="list-style-type: none"> <li>Every 1m RC interval was sampled as a dry primary sample in a calico bag off the cyclone/splitter.</li> <li>Diamond drilling sampling half to quarter core sampled on approximately 1m intervals using core-saw or splitter.</li> <li>Drill sample preparation (Intertek, Namibia) and analysis (Intertek, Perth) carried out at registered laboratory.</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>being sampled.</i>	<ul style="list-style-type: none"> <li>Field sample procedures involve the insertion of registered Standards every 20m, and duplicates or blanks generally every 25m and offset.</li> <li>Sampling is carried out using standard protocols as per industry practice.</li> <li>Sample sizes range typically from 2 to 3kg and are deemed appropriate to provide an accurate indication of mineralisation.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>No information is provided on the assay method or the quality assurance quality control (QAQC) methods used by Goldfields Namibia for historical drilling.</li> <li>Information regarding assay method for the exploration drillholes at Khusib Springs and Nosib will be provided upon receipt of results.</li> <li>All samples are submitted to the Intertek Laboratories sample preparation facility at the Tschudi Mine near Tsumeb in Namibia where a pulp sample is prepared. The pulp samples are then transported to Intertek in Perth Australia for analysis.</li> <li>Pulp sample(s) have been digested with a mixture of four Acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric Acids for a total digest.</li> <li>Cu, Pb, Zn, V, Ag have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry.</li> <li>Hand-held XRF spot readings on drill-core are used to provide a guide regarding mineralised intervals and cannot be used for the purposes of estimating intersections.</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</i></li> </ul>	<ul style="list-style-type: none"> <li>No information is provided on the data management and verification procedures.</li> <li>All drill data relating to the Khusib Springs project (including holes KH06 and KH08) generated by Goldfields</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>verification, data storage (physical and electronic) protocols.</i> <ul style="list-style-type: none"> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<p>Namibia or other companies was reviewed and validated in detail by Shango Solutions, a geological consultancy based in South Africa. No significant errors were found in the data.</p> <ul style="list-style-type: none"> <li>For current Khusib Springs and Nosib drilling all significant intercepts are reviewed and confirmed by two senior personnel before release to the market.</li> <li>No adjustments are made to the raw assay data. Data is imported directly to Datashed in raw original format.</li> <li>All data are validated using the QAQCR validation tool with Datashed. Visual validations are then carried out by senior staff members.</li> <li>Vanadium results are reported as V<sub>2</sub>O<sub>5</sub> % by multiplication by atomic weight factor of 1.785.</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>The majority of the drill data was captured using the UTM33S grid.</li> <li>Location of the exploration drillholes at Khusib Springs and Nosib provided in Appendix 1, ii).</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 applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Exploration drill holes were drilled at close spacing, commonly 15m to 20m or less because of the relatively short strike length of the initial target and the plunging orientation of the orebody.</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</i></li> </ul>	<ul style="list-style-type: none"> <li>Holes were drilled vertically or were angled to best intersect the plunging orebody.</li> <li>The majority of the angled holes were drilled on azimuth 143 magnetic / 180 degrees grid at a dip of -60 degrees (UTM33S grid).</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>sampling bias, this should be assessed and reported if material.</i>	
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>No information is provided on the security of samples.</li> <li>Recent drilling at Khusib Springs and Nosib secure transport to registered laboratories.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>All previous drill data relating to the Khusib Springs project generated by Goldfields Namibia or other companies was reviewed and validated in detail by Shango Solutions, a geological consultancy based in South Africa.</li> <li>The data review included scanning level plans and cross sections to verify the position of drill holes in the 3D model.</li> </ul>

## JORC 2012 Edition - Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling results are from the Khusib Springs copper prospect located on Golden Deeps Limited (Huab Energy Ltd) EPL3543 located near the town of Grootfontein in northeast Namibia.</li> <li>EPL3543 expires 6<sup>th</sup> July 2022.</li> <li>There are no material issues or environmental constraints known to Golden Deeps which may be deemed an impediment to the continuity of EPL3543.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The Khusib Springs copper prospect was primarily drilled by Goldfields Namibia from 1993 onwards following the intersection of massive tennantite in drill holes KH06 and KH08.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Nosib Mine was worked historically to produce copper and vanadium. The deposit is arenite / sandstone-hosted with chalcopyrite, bornite, galena and pyrite as well as secondary descloizite (Lead-Vanadium hydroxide). The mineralization is associated with prominent argillic alteration and occurs within an upper pyritic zone of the Nabis Formation sandstone, which is locally gritty to conglomeratic. The main zone of mineralization at Nosib cross-cuts the stratigraphy and also includes stratiform mineralization with significant chalcopyrite, striking northeast-southwest and dipping moderately to the northwest.</li> <li>The Khusib Springs deposit is a small but high-grade pipe-like body that plunges steeply within brecciated carbonate rocks. The deposit resembles the Tsumeb deposit near the town of Tsumeb to the northeast.</li> </ul>

Criteria	JORC Code explanation	Commentary
<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>Refer to Appendix 2 of the ASX announcement for drillhole details.</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>All exploration results are reported by a length weighted average. This ensures that short lengths of high-grade material receive less weighting than longer lengths of low-grade material.</li> <li>Voids/lost core intervals are incorporated at zero grade.</li> <li>The assumptions used for reporting of metal equivalent values are detailed in Appendix 1 of this release.</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>Drill holes and drill traverses were designed to intersect the targeted mineralised zones at a high angle where possible. Intersections reported approximate true width.</li> </ul>

Criteria	JORC Code explanation	Commentary
<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>Refer to Figure 1, a representative cross section through the Nosib Block Prospect, Figure 2 for a longitudinal projection of the Nosib deposit and Figure 4 is an oblique section through the Khusib Springs deposit. Figure 5 is a regional scale plan-view showing geology and prospect locations.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <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>Intersections in all drillholes above designated cut-off grades are reported in Table 1 of the release.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>No other data is material to this report.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond drilling will be continued as outlined, to potentially extend the strike length of the defined mineralisation at Nosib block and test the stratabound copper-silver mineralisation at depth.</li> <li>Subject to the results of this program, further drilling may be carried out to further extend the deposit and infill drilling to define a Mineral Resource.</li> <li>Deeper drilling is also planned to test for deeper extensions of the Khusib Springs copper-silver orebody.</li> <li>Metallurgical testwork on copper-vanadium-lead oxide mineralisation is also planned.</li> </ul>