

Amendment to ASX Announcement

New Mineral Resources for Otavi V-Cu-Pb-Zn-Ag Deposits

Golden Deeps Limited (ASX:GED or “the Company”) wishes to advise that it has provided additional information material to understanding the Mineral Resource Estimates in the announcement titled “New Mineral Resources for Otavi V-Cu-Pb-Zn-Ag Deposits” released on 24 June 2024 (Announcement).

The following additional information has been provided in the announcement released on 25 June 2024:

- Additional information listed below has been provided for the maiden Mineral Resource reported for the Nosib deposit including;
 - Criteria for classification
 - Sample analysis
 - Estimation methodology
 - Cut-off grade (including basis)
 - Sampling and sub-sampling techniques
 - Mining and metallurgical factors

This additional can be found on pages 6 – 8 of the amended announcement.

- Additional information listed below has been provided for the updated Mineral Resource reported for the **Abenab** deposit including;
 - Criteria for classification
 - Sample analysis
 - Estimation methodology
 - Sampling and sub-sampling techniques
 - Mining and metallurgical factors

This additional can be found on pages 11-13 of the amended announcement.

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For further information, please refer to the Company’s Website, [Goldendeeps.com](https://goldendeeps.com), or contact:

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**See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1*

Substantial New Mineral Resources for the Otavi Mountain Land Vanadium, Copper, Lead, Zinc and Silver Deposits

- **Critical Step to finalising integrated mining and processing development study**
 - **Potential identified to extend 'open' copper-silver sulphide resources**

Golden Deeps Ltd (Golden Deeps, or, the Company) is pleased to report a substantial Mineral Resource upgrade for its key Nosib and Abenab vanadium, copper, lead, zinc and silver deposits on its Otavi Mountain Land (OML) Projects in northern Namibia (see location, Figure 1).

- Measured, Indicated & Inferred Mineral Resources for the Company's OML Projects are now:
 - 3.01Mt @ 1.07% V₂O₅Eq* (0.5% V₂O₅, 1.39% Pb, 0.56% Zn, 0.19% Cu, 0.97 g/t Ag).
- The new JORC 2012 Mineral Resource estimates for the OML Projects include:
 - A maiden Measured, Indicated & Inferred Mineral Resource estimate for Nosib (Table 1) of:
 - 707,660t @ 1.06% CuEq* (0.67% Cu, 0.15% V₂O₅, 0.84% Pb, 0.04% Zn, 3.56g/t Ag).
 - A new, majority Indicated Mineral Resource estimate for Abenab (Table 2) of:
 - 2.30Mt @ 1.11% V₂O₅Eq* (0.61% V₂O₅, 2.66% Pb, 1.04% Zn, 0.06% Cu).
- The new Mineral Resources represent an increase of 210,000 tonnes and an upgrade from entirely Inferred Mineral Resources to two thirds (66.6% by metal) of the Mineral Resources now in the Measured and Indicated categories, compared to the previous, January 2019, Inferred Mineral Resource reported for the Abenab vanadium-lead-zinc deposit¹.
- 84% of the Nosib maiden Mineral Resource is within an optimised pit shell (see 3-d model, Figure 2) and predominantly (90%) is oxide mineralisation – associated with the vanadium-copper-lead hydroxide mineral mottramite, which metallurgical testwork has shown is readily recoverable using gravity concentration to produce a high-grade concentrate².
- At the base of the pit Nosib oxide mineralisation transitions to a copper-silver stratabound arenite hosted sulphide deposit, which is open to the west where the grade and thickness increases. The most westerly intersection of 44.22m @ 0.6% CuEq* (0.50% Cu, 3.2 g/t Ag) from 34.8m in NBSDD007³ includes a massive sulphide zone of 0.49m @ 10.3% Cu, 56.9 g/t Ag (Figure 3). Further drilling is planned to extend this zone, targeting a substantial Cu-Ag sulphide Mineral Resource.
- The Company has also upgraded the Mineral Resource for the Abenab vanadium, lead, zinc deposit from entirely Inferred (ASX, January 2019¹) to predominantly Indicated Mineral Resources (75% by metal tonnes), by incorporating more recent diamond drilling results and re-modelling the mineralisation. The Abenab Mineral Resource has been optimised for underground mining.
- The Abenab vanadium-lead-zinc mineralisation is hosted by a collapse breccia in carbonate rocks associated with the vanadium-lead-zinc hydroxide descloizite, which metallurgical testwork has shown is readily recoverable using gravity concentration to produce high-grade concentrate⁴.
- The Nosib optimised open-pit resource is being combined with the Abenab underground resource to produce an integrated mining and processing development study for the production of high-grade vanadium-copper-lead-zinc-silver concentrate. This concentrate can be processed by hydrometallurgical leaching⁵ to produce high-value vanadium products such as electrolyte for vanadium redox flow batteries (VRFBs) as well as Cu, Pb, Zn and Ag by-products.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

Golden Deeps CEO Jon Dugdale commented:

"The release of these new, upgraded, vanadium-copper-lead-zinc-silver Mineral Resources for the Company's Nosib and Abenab deposits is an important milestone for Golden Deeps.

"Key development studies into an integrated vanadium, copper, lead, zinc silver, concentrate production project are being completed. At the same time, further drilling is planned to extend copper-silver sulphide resources at Nosib and other targets such as the high-grade Khusib Springs deposit.

"The Company sees near term potential to develop high-grade concentrate production to supply downstream producers of renewable energy products, as well as potential to establish substantial copper-silver sulphide resources for a longer term project. The Company is looking to take advantage of the positive price trajectory for these important commodities for the global renewable energy transition."

Golden Deeps Ltd ("Golden Deeps" or "the Company") (ASX: GED) is pleased to announce a **maiden Mineral Resource for the Nosib copper-vanadium-lead-silver deposit** and an **upgrade from Inferred to predominantly Indicated Mineral Resource for the Abenab high-grade vanadium-lead-zinc deposit** on the Company's Otavi Mountain Land projects in northern Namibia (see locations, Figure 1, below).

The Mineral Resource estimates have been prepared by Shango Solutions of RSA (Shango) and include:

- i) A maiden Measured, Indicated & Inferred Mineral Resource estimate for **Nosib** (see Table 1) of:
707,660t @ 1.06% CuEq* (0.67% Cu, 0.15% V₂O₅, 0.84% Pb, 0.04% Zn, 3.56g/t Ag)
 incl. 51,560t @ 4.36% CuEq* (1.85% Cu, 1.01% V₂O₅, 5.86% Pb, 0.11% Zn, 6.21g/t Ag) Measured
 incl. 582,170t @ 0.77% CuEq* (0.54% Cu, 0.08% V₂O₅, 0.49% Pb, 0.03% Zn, 3.11g/t Ag) Indicated
 incl. 73,930t @ 0.94% CuEq* (0.85% Cu, 0.02% V₂O₅, 0.07% Pb, 0.01% Zn, 5.26g/t Ag) Inferred
- ii) A new, majority Indicated Mineral Resource estimate for **Abenab** (see Table 2) of:
2.30Mt @ 1.11% V₂O₅Eq* (0.61% V₂O₅, 2.66% Pb, 1.04% Zn, 0.06% Cu) - 0.2% V₂O₅ cut-off
 incl. 1.15Mt @ 1.34% V₂O₅Eq* (0.76% V₂O₅, 1.86% Pb, 0.75% Zn, 0.05% Cu) Indicated
 incl. 1.15Mt @ 0.88% V₂O₅Eq* (0.45% V₂O₅, 1.26% Pb, 0.70% Zn, 0.03% Cu) Inferred

The combined Measured, Indicated & Inferred Mineral Resources for the Company's Otavi Mountain Land Projects is now: **3.01Mt @ 1.07% V₂O₅Eq* (0.5% V₂O₅, 1.39% Pb, 0.56% Zn, 0.19% Cu, 0.97 g/t Ag).**

This represents an increase of 210,000t and an upgrade to two thirds (66.6% by metal) of the new Mineral Resources now in the Measured and Indicated categories, compared to the previous, January 2019, entirely Inferred Mineral Resource of 2.8Mt @ 0.66% V₂O₅, 2.35% Pb, 0.94% Zn (0.2% V₂O₅ cut-off) for Abenab¹, estimated prior to the 2019 diamond drilling program.

The drill-defined **Nosib** deposit includes stratiform sulphide copper-silver mineralisation hosted by the Nosib Group arenites and diamictite/conglomerate, which underlies the carbonate units of the Tsumeb and Abenab sub-groups which host the majority of the mineral deposits in the Otavi region. Overprinting the sulphide deposit is a supergene-oxide zone of vanadium-copper-lead-zinc-mineralisation which represents the majority of the Mineral Resources estimated from surface to approximately 80m vertical depth (see Figure 2, 3-D block model of the Nosib Mineral Resource).

Nosib is predominantly (75% by metal) oxide Mineral Resources and 84% (by metal) within the optimised open pit shell.

The Nosib oxide mineralisation transitions to a copper-silver stratabound sulphide deposit hosted by the Nosib Formation arenite and conglomerate sedimentary horizon at the base of the optimised open pit (see 3-d block model, Figure 2). The most westerly intersection from recent diamond drilling intersected **44.22m @ 0.6% CuEq* (0.50% Cu, 3.2 g/t Ag)** from 34.8m in NBSDD007², which included a massive sulphide zone of **0.49m @ 10.3% Cu, 56.9 g/t Ag** (Figure 3). **The stratabound sulphide mineralisation is open to the west where the grade and thickness increases down-plunge. Further drilling is now planned to the west and at depth to test potential for a sizeable resource of stratabound copper-silver mineralisation** (see Figure 3).

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

The **Abenab** mineralisation is hosted by carbonates of the Otavi Group and consists of a pipelike karst breccia of collapsed country rocks on a steeply dipping sheared contact between massive dolomite and platy limestone (see Figure’s 4 and 5). The vanadium mineralisation at Abenab is predominantly contained in the mineral descloizite (vanadium-lead-zinc hydroxide).

Overall the Mineral Resources are predominantly (>90% by metal) secondary (oxide) mineralisation associated with the secondary vanadium bearing hydroxide minerals descloisite (Pb,Zn(VO₄,OH)) at Abenab and Mottramite (Pb,Cu(VO₄,OH) at Nosib. Metallurgical test-work indicates that these vanadate minerals are highly amenable to gravity beneficiation to produce high-grade concentrate^{2,4}.

Recent testwork by the Company produced high concentrate grades of up to **15.6% V₂O₅, 11.2% Zn, 38.2% Pb and 0.8% Cu for the Abenab mineralisation⁴** and **4.5% V₂O₅, 18.9% Pb, 5.9% Cu, 0.18% Zn for the Nosib mineralisation²**. These concentrate grades are well in excess of what is achievable for high-cost vanadium-bearing magnetite ore processing, the predominant vanadium deposit style globally.

Underground mining studies on the Abenab Mineral Resources and an open pit mining study on the Nosib Mineral Resource, in progress, are being integrated with the metallurgical/processing studies^{2,4,5}, to produce a development study (the Study) for the production of high-grade vanadium-copper-lead-zinc-silver concentrate. The Company’s testwork has shown that the concentrate can be downstream processed by acid leaching⁵ to **produce high-value vanadium products such as vanadium electrolyte for vanadium redox flow batteries (VRFBs) as well as copper, lead, zinc and silver by-products.**

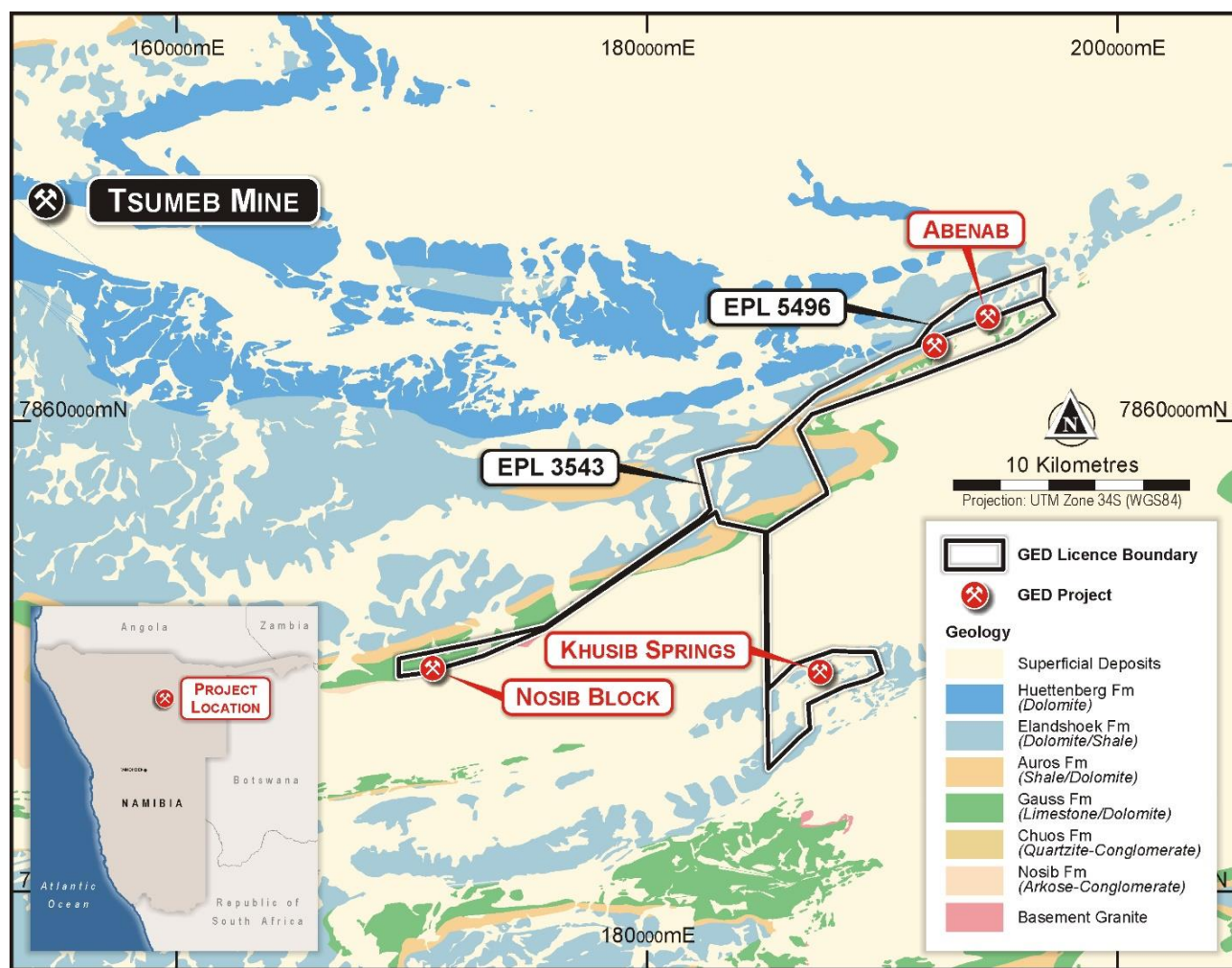


Figure 1: Golden Deeps Otavi Copper Belt licences with location of Nosib, Abenab and Khusib Springs deposits

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

The New Mineral Resource Estimates:

Nosib Maiden Mineral Resource Estimate

The Maiden Mineral Resource estimate for the Nosib copper-vanadium-lead-zinc-silver discovery has been prepared by Shango Solutions of South Africa (Shango) and is summarised in Table 1 below:

Table 1: Nosib Prospect, Maiden Mineral Resource estimate:

NOSIB MINERAL RESOURCE									
Zone	Cut-Off	Tonnage	V ₂ O ₅	Pb	Zn	Cu	Ag	CuEq	Metal
	CuEq%		%	%	%	%	g/t	%	CuEq
Measured Mineral Resource									
Oxide	0.2	51,560	1.01	5.86	0.11	1.85	6.21	4.36	2,247
Total Measured	0.2	51,560	1.01	5.86	0.11	1.85	6.21	4.36	2,247
Indicated Mineral Resource									
Oxide	0.2	385,840	0.12	0.71	0.04	0.5	2.67	0.82	3,182
Sulphide	0.2	196,330	0.02	0.07	0.01	0.63	3.96	0.71	1,385
Total Indicated	0.2	582,170	0.08	0.49	0.03	0.54	3.11	0.77	4,567
Inferred Mineral Resources									
Oxide	0.2	24,550	0.02	0.09	0.02	0.67	4.13	0.75	185
Sulphide	0.2	49,380	0.02	0.06	0.01	0.93	5.83	1.02	503
Total Inferred	0.2	73,930	0.02	0.07	0.01	0.85	5.26	0.94	688
Total Mineral Resource									
Oxide	0.2	461,950	0.21	1.25	0.05	0.66	3.14	1.21	5,614
Sulphide	0.2	245,710	0.02	0.06	0.01	0.69	4.34	0.77	1,888
Total Meas., Ind. & Inf.	0.2	707,660	0.15	0.84	0.04	0.67	3.56	1.06	7,502
Open Pit shell	0.2	596,060	0.17	0.99	0.04	0.61	3.09	1.06	6,296
Underground	0.2	111,600	0.02	0.07	0.02	0.96	6.08	1.06	1,206
Total Meas., Ind. & Inf. OP & UG	0.2	707,660	0.15	0.84	0.04	0.67	3.56	1.06	7,502

The Mineral Resource estimate utilised Reverse Circulation (RC) and diamond drilling (DD) carried out by the Company from 2021 to late 2023, including 15 RC holes and 20 DD holes for a total 2,757m of drilling on approximately 20m spaced sections.

The Mineral Resource estimates for copper (Cu), lead (Pb), vanadium (V₂O₅), zinc (Zn) and silver (Ag) were performed in accordance with The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012). Shango verified and prepared the Golden Deeps database for 3-d modelling and Mineral Resource estimation by means of applying industry best practices.

The drill-defined Nosib deposit includes stratiform sulphide copper-silver mineralisation hosted by the Nosib Group arenites and diamictite/conglomerate, which underlies the carbonate units of the Tsumeb and Abenab sub-groups and hosts the majority of the mineral deposits in the Otavi region.

Overprinting the sulphide deposit is a supergene-oxide zone of vanadium-copper-lead-zinc-mineralisation which represents the majority of the Mineral Resources estimated from surface to approximately 80m vertical depth (see Figure 2, 3-d block model of the Nosib Mineral Resource).

The open-pit Mineral Resource estimates were generated via an optimised pit shell (60-degree slope) and declared on the basis of reasonable prospects of eventual economic extraction.

In addition to the open pit Mineral Resources, underground Mineral Resources have also been declared, which are open to the west and at depth and represent a stratiform Cu-Ag sulphide target for further drilling, targeting underground Mineral Resources sufficient to support an underground development (Figure 3). A geological loss of 5% was applied to the respective Mineral Resource categories.

The Mineral Resource includes 91% (by metal) Measured and Indicated Mineral Resources, 75% (by metal) Oxide Mineral Resources and 84% (by metal) open pit Mineral Resources.

Copper Equivalent (CuEq) has been calculated based on current pricing (see Appendix 1).

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

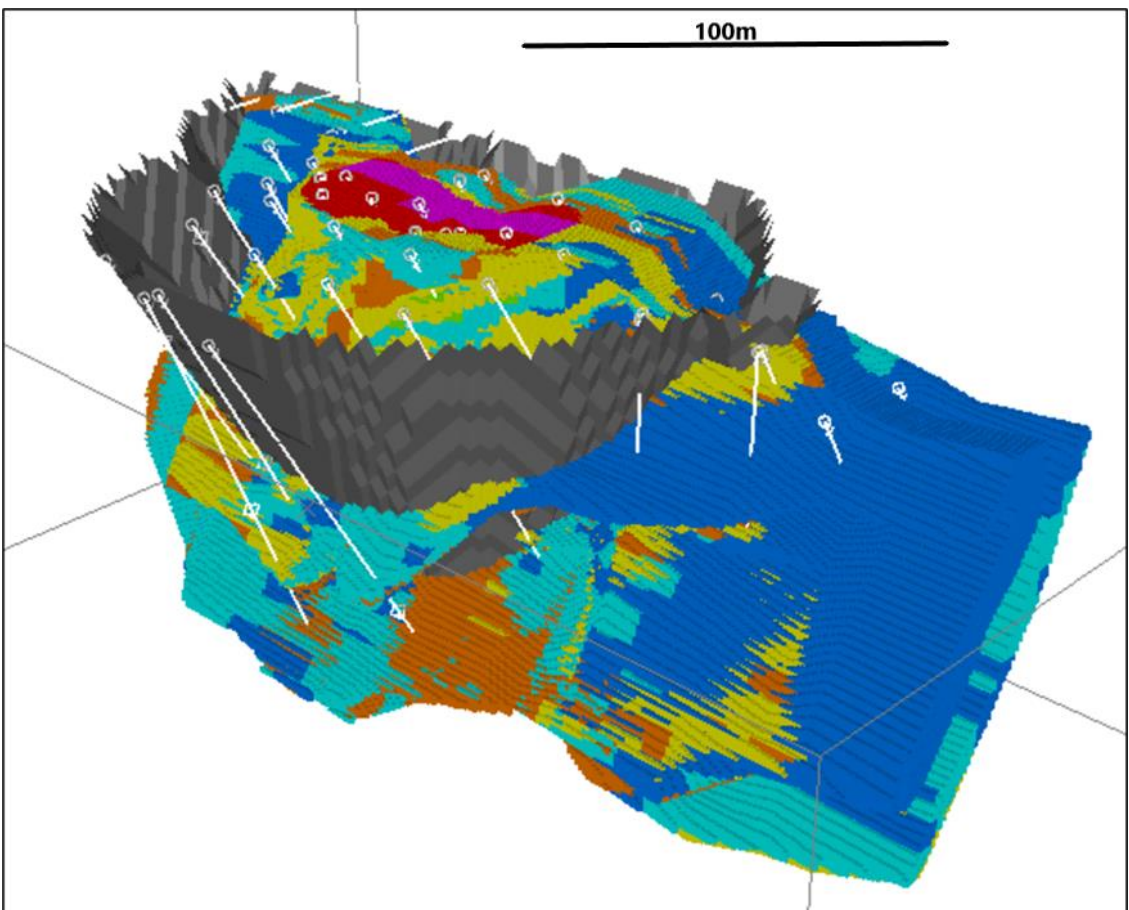


Figure 2: Nosib Prospect, 3-D view of block-model, optimised pit shell and drill-traces, looking southeast

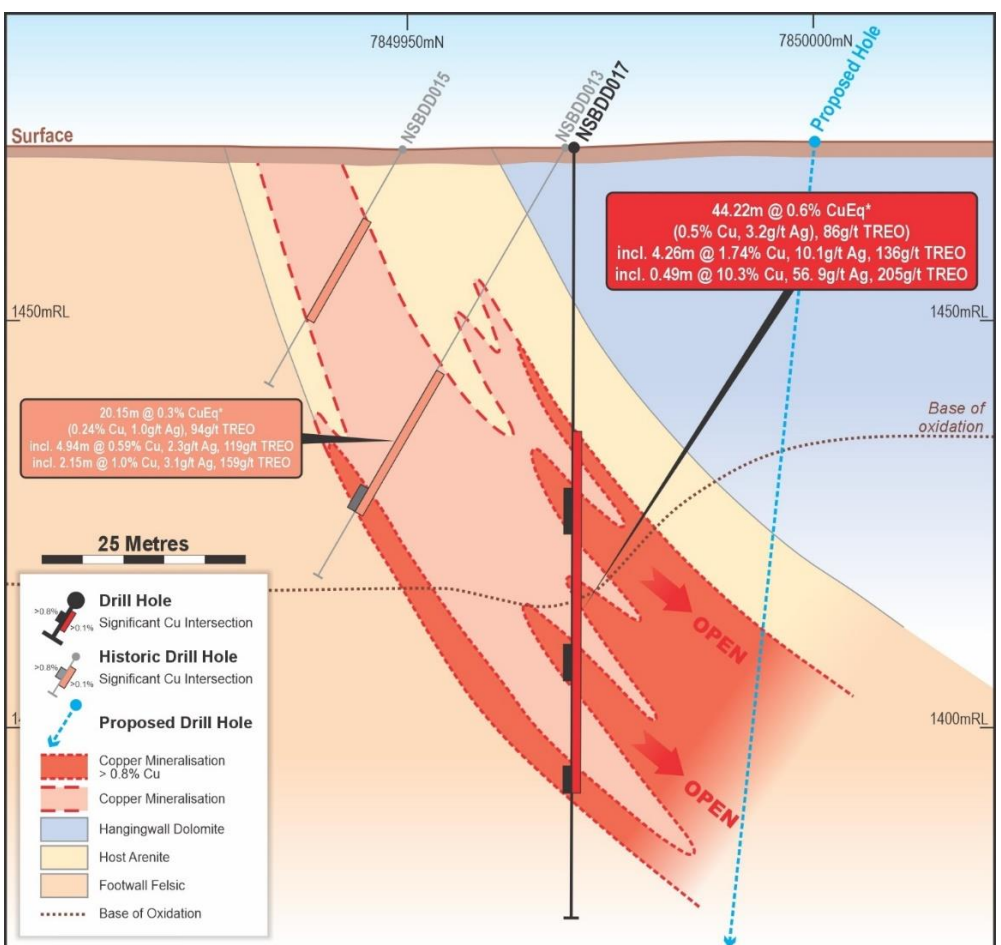


Figure 3: Nosib Prospect, cross section 800,920mE showing NSBDD017 copper-silver intersection

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

Summary of Information Material to Understanding Reported Mineral Resource Estimates – Nosib¹²

• Criteria for classification

The majority of the Nosib Mineral Resource estimate is reported in the Measured and Indicated category. Data clearly indicates geological continuity of mineralisation between boreholes which are drilled on an average of 25 m line spacing. No cross-cutting structures or dykes affect the estimated area at Nosib and therefore the geological losses in each Mineral Resource estimation category are expected to be very similar. The Mineral Resource categories are therefore solely based on estimation criteria, rather than geology.

The Mineral Resource was classified according to the following criteria:

- 1) Sampling – QA/QC
 - a. Measured: high confidence, no problem areas;
 - b. Indicated: high confidence, some problem areas with low risk;
 - c. Inferred: some aspects might be of medium to high risk;
- 2) Geological confidence
 - a. Measured: high confidence in the understanding of geological relationships, continuity of geological trends and sufficient data;
 - b. Indicated: good understanding of geological relationships;
 - c. Inferred: geological continuity not established;
- 3) Number of samples: used to estimate a specific block
 - a. Measured: at least 12 drillholes within semi-variogram range;
 - b. Indicated: at least eight drillholes within semi-variogram range;
 - c. Inferred: less than three drillholes within the semi-variogram range;
- 4) Distance to sample (Semi-variogram Range)
 - a. Measured: at least within 60% of semi-variogram range;
 - b. Indicated: within semi-variogram range;
 - c. Inferred: further than semi-variogram range;
- 5) Kriging efficiency
 - a. Measured: >60%;
 - b. Indicated: 20 – 60%;
 - c. Inferred: <20%;
- 6) Regression slope
 - a. Measured: >90%;
 - b. Indicated: 60 – 90%; and
 - c. Inferred: <60%.

By applying the criteria detailed above, the Mineral Resources for the Nosib orebody are therefore classified as Measured, Indicated and Inferred.

• Sample analysis

The Nosib Mineral Resource estimate utilised Reverse Circulation (RC) and diamond drilling (DD) carried out by the Company from 2021 to late 2023, including 15 RC holes and 20 DD holes for a total 2,757m of drilling on approximately 20m spaced sections.

All samples were submitted to the Intertek sample preparation facility at the Tschudi Mine near Tsumeb, Namibia where pulp samples are prepared. The pulp samples were transported to Intertek Perth Australia for analysis.

The pulp samples were digested with a mixture of four acids namely, Hydrofluoric, Nitric, Hydrochloric and Perchloric acids for a total digest. Cu, Pb, Zn, V, Ag were determined by Inductively Coupled Plasma (ICP) Mass Spectrometry. The results obtained from Intertek Perth were imported,

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

analysed and interpreted utilising the QAQC Reporter tool from Datashed. Pulp samples were digested with a mixture of four Acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric Acids for a total digest.

QA/QC samples were inserted into the sample stream during the preparation of the RC and diamond drilled samples. A QA/QC sample was introduced in the sample batch at a ratio of one QA/QC sample in a series of 10 samples. The standards were randomly selected and inserted in the routine samples at a ratio of 1:20.

- **Estimation methodology**

The various metal grades were estimated into a 3D block model. The final CuEq (%) grade is derived from the estimated Ag, Cu, Pb, Ag, V and Zn values. The V_2O_5 is derived from the estimated V value. There were sufficient data on a spacing that allowed statistical and spatial variance analyses for Ordinary Kriging (OK). Kriging Neighbourhood Analysis (KNA) determined the optimal block size, minimum and maximum number of samples, as well as the search ranges to be applied.

- Mineral Resource estimation was performed in three dimensions utilising StudioRM
- Shango conducted iterative visual and internal peer reviews to validate the estimate.
- The spatial continuity was inferred from the geological model and supported by an experimental variogram.
- There are distinct high and low grade zones within the Nosib orebody. During Mineral Resource estimation these two populations were separated into distinct geozones to prevent the smearing of high grades into areas of lower grade. The delineation of the high and low grade zones was performed using the Indicator Kriging method.
- Outliers (high values) or values that do not fit the statistical distribution were either capped (kriging process) or top cut (variography) to limit smearing of these values into larger areas. Normal probability plots, in conjunction with the histogram plots, were used to determine a capping value for the estimation process.

- **Cut-off grade (including basis)**

An optimised pit shell (60-degree slope) was utilised for the basis of reasonable prospects of eventual economic extraction for an open pit scenario. Mineral Resources are declared within the optimised pit shell at a zero V_2O_5 cut-off grade in order to capture all polymetallic information within the interpreted domains. An average 0.2% CuEq grade was determined from optimisation studies by Bara consulting. A potential underground portion that extends from the pit shell, was modelled at a 0.3% CuEq grade (reflecting approximate processing cost).

- **Sampling and sub-sampling techniques**

RC Drilling:

All particulate drilling samples were collected on a metre basis via a 3-way cone split mounted on the cyclone. The drillers were responsible for putting on and taking off the pre-written sample bags from the cyclone, under the supervision of the responsible geologist and the field staff. At each meter interval sub-samples of equal weight (~2.5 kg) were collected in two 250 mm x 400 mm x 250mic plastic bags on either side of the cone splitter and a reject sample was collected in a 600 mm x 900 mm x 150mic plastic bag with an average weight of 30 kg at the bottom centre of the splitter/cyclone.

Diamond Drilling:

Sample preparation of drill core was carried out at Golden Deep's premises. The geologist delineated the sections of the core to be sampled and recorded the meter intervals in an Excel spreadsheet. An additional 10 meters was also sampled respectively at the start and at the end of the mineralised

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V_2O_5 Eq) calculation, Appendix 1

zone. Each sample was limited to an interval range between 0.20 m and 1.20 m and restricted within lithological contacts.

The core sections to be sampled were cut in half and then quartered. Three quarters of the core was retained in the core tray and one quarter was prepared to be submitted to the laboratory for analysis. For each drill core sample, specific gravity (SG) measurements were carried out and recorded in an Excel spreadsheet. After the SG measurements were recorded, the samples (weighing between 1 kg – 3 kg) were placed in clearly labelled calico bags along with unique sample identification numbers. The samples were then packaged into polywoven bags after QA/QC samples were added to the batch.

Sample preparation involved dividing the samples sequentially in groups of 10, whereby the geologist and a geology assistant verified that the numbering of the samples is accurate and correspond to the information recorded in the log sheet. Once the verification of sample numbers was completed, the geologists generally inserted certified reference material (CRM's) and blanks at intervals of 10 and 40 samples, respectively and duplicate samples were prepared at a frequency of 40 samples. The CRMs comprise of different elements with various concentrations, the grade and element type determines the position at which the standard will be inserted with the sample batches. High-grade standards were inserted within zones of mineralisation deemed to be of high concentration of a specific element and vice versa for low-grade standards.

The samples were divided in batches of 150 samples, as per the laboratory guidelines and bagged in 50 kg polyweave bags, each bag containing ~10 samples. Subsequently a submission sheet was prepared for the laboratory, whereby each submission sheet represents a batch of a maximum of 150 samples. Each submission sheet indicates the sample number interval and the quantity of samples in each polyweave bag, the required sample analysis method, detection of limit of specific elements, the sample types (core, soils, et al.).

- **Mining and metallurgical factors**

Mining pit-optimisation was carried out by Bara Consulting based on the Mineral Resource block model provided by Shango consulting. Equivalent grades and revenue potential was produced based on prices and average recoveries derived from metallurgical test-work tabulated below:

Pit slopes were estimated based on typical parameters and field examination of drill-core.

A separate “underground” resource was modelled based on a higher-cut off of 0.3% CuEq, reflecting processing costs.

Cut-off grade calculation		
	Selective	Comments
Cu price (\$/t)	10000	
Mining cost (\$/t mined)	0	Marginal ore
Processing cost and GSA(\$/t milled)	20.00	Nosib scoping study
Total operating cost (\$/t milled)	20	
Recovered breakeven CuEq%	0.2%	
Plant recovery	61.6%	Nosib metallurgical study
RoM breakeven	0.3%	
Mining dilution	5%	
In-situ breakeven (Cu Eq%)	0.34%	

Pricing and recovery information is shown in Appendix 1, CuEq estimation.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

Abenab Mineral Resource Upgrade

The **Abenab Project** is located at the northeastern end of EPL3543 (Figure 1) and operated as an open pit and underground mine from 1921 to 1947 by the South West Africa Company. **Historical production from Abenab included 176kt of 16% V₂O₅, 13% Zn and 54% Pb⁷** in high-grade concentrate.

The new Mineral Resource estimate for the Abenab vanadium-lead-zinc deposit has been prepared by Shango Solutions of South Africa (Shango) and is summarised in Table 2 below:

Table 2: Abenab Project, Mineral Resource estimate:

ABENAB MINERAL RESOURCE									
Zone	Cut-Off V ₂ O ₅ %	Tonnage t	V ₂ O ₅ %	Pb %	Zn %	Cu %	Ag g/t	V ₂ O ₅ Eq. %	Metal V ₂ O ₅ Eq t
Indicated Mineral Resource									
Total Indicated	0.2	1,150,426	0.76	1.86	0.75	0.05	0.32	1.34	15,417
Total Indicated	0.5	791,378	1.00	2.44	0.93	0.06	0.31	1.74	13,809
Inferred Mineral Resource									
Total Inferred	0.2	1,151,455	0.45	1.26	0.70	0.03	0.04	0.88	10,151
Total Inferred	0.5	153,054	1.52	3.84	1.63	0.08	0.15	2.71	4,147
Total Mineral Resource									
Total Indicated & Inferred	0.2	2,301,882	0.61	1.56	0.72	0.04	0.18	1.11	25,568
Total Indicated & Inferred	0.5	944,432	1.08	2.66	1.04	0.06	0.29	1.90	17,956

Shango also prepared the previous, January 2019, Mineral Resource estimate of 2.8Mt at 0.66% V₂O₅, 2.35% Pb and 0.94% Zn (0.2% V₂O₅ cut-off)¹, which utilised historical drilling by Avonlea Minerals Ltd¹.

The new Mineral Resource estimate follows further drilling by GED in 2019 which included 18 RC and diamond drillholes for 3,266m⁸ which was designed to infill and extend definition of the Inferred Mineral Resource areas identified in the 2019 model. During late 2022 to early 2023 Shango updated the Abenab model in Datamine (all previous models were created in Leapfrog Geo) incorporating the 2019 drilling results for the purposes of refining and optimising the wireframes and block models (see 3-d models, Figure 4, below). In addition, Shango included vertical (normal?) faults, as observed by Shango in the pit wall, which are interpreted to have controlled the secondary vanadium-lead-zinc mineralisation.

The Abenab mineralisation is hosted by carbonates of the Otavi Group and consists of a pipelike karst breccia of collapsed country rocks on a steeply dipping sheared contact between massive dolomite and platy limestone (see Figure 5). The vanadium mineralisation at Abenab is predominantly contained in the mineral descloizite (vanadium-lead-zinc hydroxide). The vanadium mineralisation takes several forms including breccia clast infill, fine grained fracture fill, open space crystal and clay-filled cavities.

Mining studies by Bara consulting⁹ and metallurgical gravity concentration⁴ and hydrometallurgical leaching testwork⁵ provided economic parameters to determine cut-off grade parameters for the reasonable prospects of economic extraction determination.

A 0.2% V₂O₅ envelope was delineated and Indicator Estimation was utilised to subdivide the two 3-D model envelopes, R4 and R5, into a high-grade zone (> 0.5% V₂O₅) and low grade zone (< 0.5% V₂O₅). The R4/R5 envelope had sufficient data and estimation confidence to declare an Indicated Mineral Resource (in accordance with the JORC Code, 2012). Two other, R2 and R3, blocks are categorised as inferred Resource (see Figure 4, below). A geological loss of 5% was applied to the respective Mineral Resource categories.

The new Abenab Mineral Resource estimate includes 77% (by metal) in the Indicated Mineral Resources category (compared to 0% previously). Vanadium Pentoxide (V₂O₅Eq.) has been calculated based on projected average pricing (see Appendix 1 for calculation).

The reduced tonnage relative to the 2019 0.2% V₂O₅ cut-off grade estimate³ is mostly a result of the mineralised zone being more tightly constrained along strike than previously anticipated, as indicated by the 2019 drilling program.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

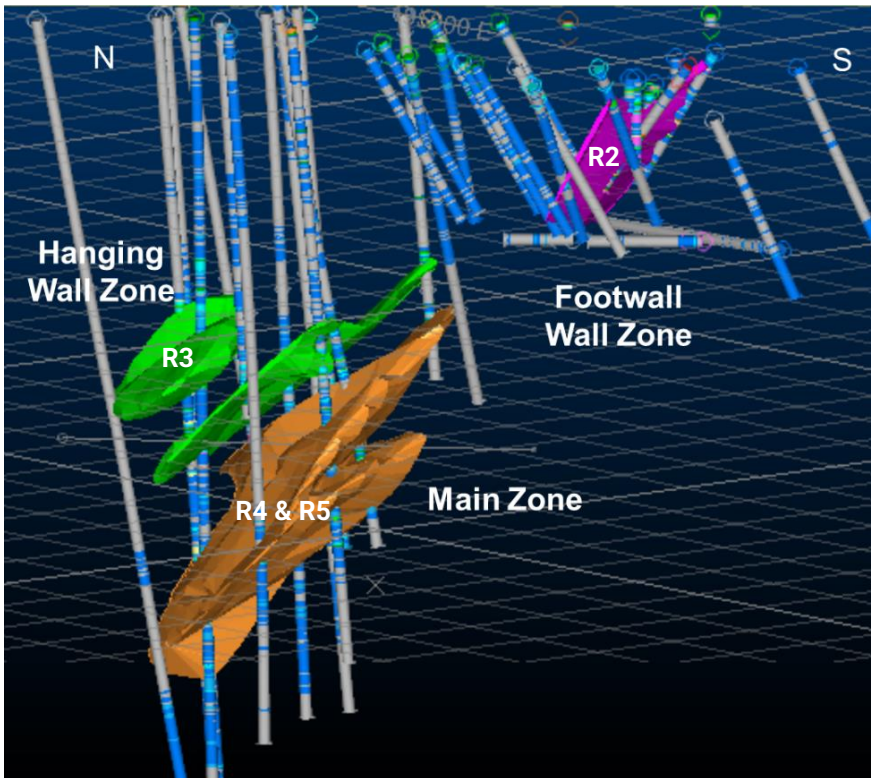


Figure 4: Abenab breccia mineralisation model zones (R2, R3 - Inferred and R4, R5 - Indicated).

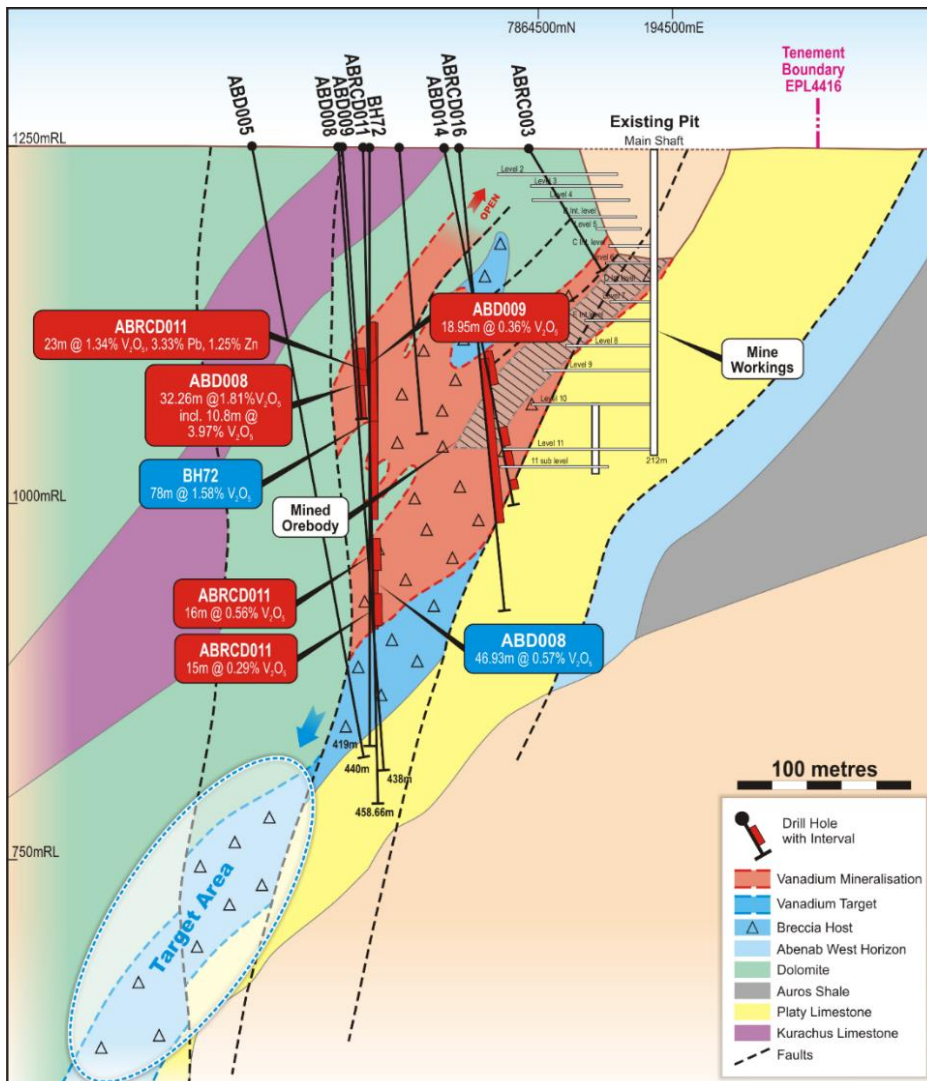


Figure 5: Cross section through Abenab breccia showing previous workings, 2019 drilling & vanadium mineralisation.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

Summary of Information Material to Understanding Reported Mineral Resource Estimates – Abenab¹³

- **Criteria for classification**

A 0.2% V₂O₅ envelope was delineated and four separate zones were delineated. The R4/R5 envelope had sufficient data and estimation confidence to declare an Indicated Mineral Resource. The R2 and R3 envelopes had insufficient data to declare Indicated Resources and were classified as Inferred.

The Mineral Resource was classified according to the following criteria:

- 1) Sampling – QA/QC
 - a. Measured: high confidence, no problem areas;
 - b. Indicated: high confidence, some problem areas with low risk;
 - c. Inferred: some aspects might be of medium to high risk;
- 2) Geological confidence
 - a. Measured: high confidence in the understanding of geological relationships, continuity of geological trends and sufficient data;
 - b. Indicated: good understanding of geological relationships;
 - c. Inferred: geological continuity not established;
- 3) Number of samples: used to estimate a specific block
 - a. Measured: at least 12 drillholes within semi-variogram range;
 - b. Indicated: at least eight drillholes within semi-variogram range;
 - c. Inferred: less than three drillholes within the semi-variogram range;
- 4) Distance to sample (Semi-variogram Range)
 - a. Measured: at least within 60% of semi-variogram range;
 - b. Indicated: within semi-variogram range;
 - c. Inferred: further than semi-variogram range;
- 5) Kriging efficiency
 - a. Measured: >60%;
 - b. Indicated: 20 – 60%;
 - c. Inferred: <20%;
- 6) Regression slope
 - a. Measured: >90%;
 - b. Indicated: 60 – 90%; and
 - c. Inferred: <60%.

The Mineral Resource classifications have been applied based on a consideration of the confidence in the geological interpretation, the quality and quantity of the input data, the confidence in the estimation technique, and the likely economic viability of the material. Model validation checks show a good match between the input data and estimated grades, indicating that the estimation procedures have performed as intended, and the confidence in the estimates is consistent with the classifications that have been applied. Based on the findings summarised above, it was concluded that the primary controlling factor for classification was sample coverage. A classification of Inferred and Indicated to the domained material was appropriate.

- **Sample analysis**

Shango also prepared the previous, January 2019, Mineral Resource estimate, which utilised historical drilling by Avonlea Minerals Ltd.

The new Mineral Resource estimate follows further drilling by GED in 2019 which included 18 RC and diamond drillholes for 3,266m.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

All samples were submitted to the Intertek sample preparation facility at the Tschudi Mine near Tsumeb, Namibia where pulp samples are prepared. The pulp samples were transported to Intertek Perth Australia for analysis.

The pulp samples were digested with a mixture of four acids namely, Hydrofluoric, Nitric, Hydrochloric and Perchloric acids for a total digest. Cu, Pb, Zn, V, Ag were determined by Inductively Coupled Plasma (ICP) Mass Spectrometry. The results obtained from Intertek Perth were imported, analysed and interpreted utilising the QA/QC Reporter tool from Datashed. Pulp samples were digested with a mixture of four Acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric Acids for a total digest.

QA/QC samples were inserted into the sample stream during the preparation of the RC and diamond drilled samples. A QA/QC sample was introduced in the sample batch at a ratio of one QA/QC sample in a series of 10 samples. The standards were randomly selected and inserted in the routine samples at a ratio of 1:20.

- **Estimation methodology**

The various metal grades were estimated into a 3D block model. There were sufficient data on a spacing that allowed statistical and spatial variance analyses. Kriging Neighbourhood Analysis (KNA) determined the optimal block size, minimum and maximum number of samples, as well as the search ranges to be applied.

- Mineral Resource estimation was performed in three dimensions utilising StudioRM.
- Shango conducted iterative visual and internal peer reviews to validate the estimate.
- The spatial continuity was inferred from the geological model and supported by an experimental variogram. There are distinct high and low grade zones within the Abenab orebody.
- During Mineral Resource estimation these two populations were separated into distinct geozones to prevent the smearing of high grades into areas of lower grade. The delineation of the high and low grade zones was performed using the Indicator Kriging method.
- Outliers (high values) or values that do not fit the statistical distribution were either capped (kriging process) or top cut (variography) to limit smearing of these values into larger areas. Normal probability plots, in conjunction with the histogram plots, were used to determine a capping value for the estimation process.

- **Sampling and sub-sampling techniques**

Diamond Drilling:

Sample preparation of drill core was carried out at Golden Deep's premises. The geologist delineated the sections of the core to be sampled and recorded the meter intervals in an Excel spreadsheet. An additional 10 meters was also sampled respectively at the start and at the end of the mineralised zone. Each sample was limited to an interval range between 0.20 m and 1.20 m and restricted within lithological contacts.

The core sections to be sampled were cut in half and then quartered. Three quarters of the core was retained in the core tray and one quarter was prepared to be submitted to the laboratory for analysis. For each drill core sample, specific gravity (SG) measurements were carried out and recorded in an Excel spreadsheet. After the SG measurements were recorded, the samples (weighing between 1 kg – 3 kg) were placed in clearly labelled calico bags along with unique sample identification numbers. The samples were then packaged into polywoven bags after QA/QC samples were added to the batch.

Sample preparation involved, dividing the samples sequentially in groups of 10, whereby the geologist and a geology assistant verified that the numbering of the samples is accurate and correspond to the information recorded in the log sheet. Once the verification of sample numbers was completed,

*See copper equivalent ($CuEq$) and/or vanadium pentoxide equivalent (V_2O_5Eq) calculation, Appendix 1

the geologists generally inserted certified reference material (CRM's) and blanks at intervals of 10 and 40 samples, respectively and duplicate samples were prepared at a frequency of 40 samples. The CRMs comprise of different elements with various concentrations, the grade and element type determines the position at which the standard will be inserted with the sample batches. High-grade standards were inserted within zones of mineralisation deemed to be of high concentration of a specific element and vice versa for low-grade standards.

The samples were divided in batches of 150 samples, as per the laboratory guidelines and bagged in 50 kg polyweave bags, each bag containing ~10 samples. Subsequently a submission sheet was prepared for the laboratory, whereby each submission sheet represents a batch of a maximum of 150 samples. Each submission sheet indicates the sample number interval and the quantity of samples in each polyweave bag, the required sample analysis method, detection of limit of specific elements, the sample types (core, soils, et al.).

- **Mining and metallurgical factors**

Mining studies have been carried out by Bara consulting. It is expected that ore will be extracted using conventional selective underground mining methods, which includes drilling and blasting, open-stope mining and dump truck haulage.

Initially selective cut and fill methodology was applied to the Mineral Resource model. However, a new interpretation at a lower (0.2% V₂O₅) cut-off grade produced large modelled resource shapes (R2, R3, R4 and R5) and a lower cost, open stoping methodology was applied to the final study.

Mining dilution assumptions have not been factored into the Mineral Resource estimates.

GED has carried out metallurgical test work which has indicated that high-grade gravity concentrate can be produced and that down-stream hydrometallurgical testwork can produce high-value intermediate products.

Equivalent grades and revenue potential was produced based on prices and average recoveries derived from metallurgical test-work tabulated below:

Pricing and recovery information is shown in Appendix 1, V₂O₅Eq estimation.

**See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1*

Next Steps for the Otavi Mountain Land Vanadium-Copper-Lead-Zinc-Silver Projects

Integrated Mine Development and Processing Study

The generation of these new Mineral Resource estimates are the critical step which will allow the **integrated, Mineral Resource upgrade, mine development and processing study** ("the Study") into the development of the Company's near surface, high-grade, vanadium with copper, lead, zinc and silver deposits in the Otavi Mountain Land to be completed.

Mining studies have been applied to the new Mineral Resource estimates by Bara Consulting of South Africa (Bara) and include an updated underground mining study on the Abenab Mineral Resource and a pit-optimisation and preliminary open-pit design for the maiden Nosib Mineral Resource. These mining studies have been combined with metallurgical test-work and processing studies to produce an integrated mining and gravity concentration processing schedule for the combined operation. Operating costs for mining and processing derived from the recent test-work is being integrated to produce a cash-flow model to examine the viability of mining high-grade vanadium (+/- copper, lead, zinc, silver) ore from the Abenab underground resource and the Nosib open-pit resource to produce high-grade vanadium-copper-lead-zinc-silver gravity concentrate on site. It is envisaged that the concentrate will be downstream processed off-site **to produce high-value vanadium products such as vanadium electrolyte for vanadium redox flow batteries (VRFBs) as well as copper, lead, zinc and silver by-products.**

The majority of the new Mineral Resources are (66.6%) in the Measured and Indicated Resource category, which will allow mining reserves to be generated on completion of the Study. The mining reserves will support planned **mining lease applications** to be made over the key prospect areas in the Otavi Mountain Land projects (see Figure 1).

Exploration Potential for Copper-silver Sulphide Deposits

Exploration potential has been identified at the Nosib deposit to extend the copper-silver stratabound sulphide deposit to the west and at depth. The most westerly intersection in the recent diamond drilling program intersected **44.22m @ 0.6% CuEq* (0.50% Cu, 3.2 g/t Ag)** from 34.8m in NBSDD007² and **included a massive sulphide zone of 0.49m @ 10.3% Cu, 56.9 g/t Ag** (Figure 3). **Further drilling is planned to extend this zone, to target a substantial stratabound Cu-Ag sulphide resource.**

The Company's diamond drilling programs have also identified wide zones of copper-silver mineralisation below the previously mined zone of the high-grade Khusib Springs copper-silver sulphide deposit (previous production **300,000t at 10% Cu and 584 g/t Ag¹⁰**). Results included a **90m copper-silver intersection grading 0.8% CuEq* (0.3% Cu, 52.3 g/t Ag, 0.06% Zn, 34.4 g/t Sb)¹¹** from 389m downhole in KHDD006⁹, including **28m @ 1.5% CuEq* (0.5% Cu, 101 g/t Ag, 0.1% Zn, 80.8 g/t Sb)** from 402m. Shango are currently modelling this thick mineralised zone to determine Mineral Resource potential and identify targets for further drilling.

The Company will also examine other opportunities in the Otavi Mountain Land region to secure additional brownfields vanadium as well as copper-silver (lead-zinc) sulphide prospects to further build the Company's growing resource base.

References

- ¹ Golden Deeps Ltd ASX 31 January 2019: Golden Deeps Confirms Major Resource Upgrade at Abenab Project.
- ² Golden Deeps Ltd ASX 13 November 2023: Exceptional Critical and Rare Earths Intersection at Nosib.
- ³ Golden Deeps Ltd ASX 12 December 2023: New Results up to 10.3% Copper Triple Extent of Nosib Deposit.
- ⁴ Golden Deeps Ltd, ASX 12 June 2023. Exceptionally High-Grade V-Zn-Pb Concentrate from Abenab.
- ⁵ Golden Deeps Ltd ASX announcement, 21 March 2022. Outstanding Vanadium Extraction of up to 95% from Abenab.
- ⁶ <https://www.ga.gov.au/scientific-topics/minerals/mineral-resources-and-advice/australian-resource-reviews/vanadium>
- ⁷ www.goldendeeps.com/projects/abenab-mine-history/
- ⁸ Golden Deeps Ltd ASX 17 September 2019: 7.8% V₂O₅ Intersected at Abenab Project (ABRCD011 results).
- ⁹ Golden Deeps Ltd announcement, 11 June 2021. Abenab Vanadium Project, Positive Results of Mining Study.
- ¹⁰ Golden Deeps Ltd announcement, 05 February 2021. New High-Grade Copper-Silver Targets at Khusib Springs.
- ¹¹ Golden Deeps Ltd ASX: 07 December 2022. Exceptional 90m Intersection of Copper-Silver at Khusib.
- ¹² Shango Solutions, 3D Modelling and Resource Estimation for the Nosib Project, Namibia, Issued 10 June 2024
- ¹³ Shango Solutions, Abenab Mineral Resource Update, Report, Issued 10 June 2024

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

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 Ltd. 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 Statements:

The information in this report that relates to exploration results and metallurgical information has been reviewed, compiled and fairly represented by Mr Jonathon Dugdale. Mr Dugdale is the Chief Executive Officer of Golden Deeps Ltd and a Fellow of the Australian Institute of Mining and Metallurgy ('FAusIMM'). Mr Dugdale has sufficient experience, including over 35 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 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 announcement.

The information in this announcement that relates to Mineral Resources estimation at Nosib and Abenab is based on, and fairly represents, information which has been compiled by Mr Hermanus (Manie) Berhadus Swart. Mr Swart is a full-time employee of Shango Solutions and is a member of the South African Council for Natural Scientific Professions which is a 'Recognised Professional Organisation' (RPO). Mr Swart has more than five years' experience that is relevant to the style of mineralisation and types of deposit described in this report and to the activity for which he is accepting responsibility and qualifies 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 his information in the form and context in which they appear.

ASX Listing rules Compliance:

In preparing this announcement the Company has relied on the announcements previously made by the Company as listed under "References". The Company confirms that it is not aware of any new information or data that materially affects those announcements previously made, or that would materially affect the Company from relying on those announcements for the purpose of this announcement.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

APPENDIX 1: Copper and Vanadium Pentoxide Equivalent Calculations

Copper Equivalent (CuEq) Calculation

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

Approximate (conservative) recoveries/payabilities and sales price are based on gravity concentrate testwork² and preliminary leaching information from equivalent mineralogy samples from the Abenab vanadium, lead, zinc +/- copper, silver deposit located approximately 20km to the east of the Nosib prospect.

The prices used in the calculation are based on market average and projected pricing for copper (Cu), vanadium (V₂O₅), zinc (Zn), lead (Pb) and silver (Ag).

Table 3 below shows the grades, process recoveries and factors used in the conversion of the poly metallic assay information into a Copper Equivalent (CuEq) grade percent.

Table 3: Grades, process recoveries and factors used in the conversion of Mineral Resources.

Metal	Average grade (%)	Average grade (g/t)	Metal Prices			Recovery (%)	Factor	Factored Grade (%)
			\$/oz	\$/lb	\$/kg			
Cu		0.67	72	4.50	9.85	61.6%	1.000	0.670
V ₂ O ₅		0.15	83	5.20	11.00	61.6%	1.117	0.168
Zn		0.04	1,300	1.31	2.80	54.4%	0.251	0.010
Pb		0.84	15	0.96	2.18	61.6%	0.221	0.186
Ag	3.560	0.000356	27	393.66	868	61.6%	0.009	0.031
							CuEq	1.06

Vanadium Pentoxide Equivalent (V₂O₅Eq) Calculation

The conversion to equivalent vanadium pentoxide (V₂O₅Eq) grade must take into account the plant recovery/payability and sales price (net of sales costs) of each commodity.

Approximate (conservative) recoveries/payabilities and sales price are based on gravity concentrate testwork⁴ and preliminary leaching information⁵ based on samples from the Abenab vanadium, lead, zinc +/- copper, silver deposit located approximately 20km east of the Nosib prospect.

The prices used in the calculation are based on market average and projected pricing for vanadium (V₂O₅), copper (Cu), zinc (Zn), lead (Pb) and silver (Ag).

Table 2 below shows the grades, process recoveries and factors used in the conversion of the poly metallic assay information into an equivalent vanadium pentoxide (V₂O₅Eq) grade percent.

Table 2: Grades, process recoveries and factors used in the conversion of Mineral Resource estimate:

Metal	Average grade (%)	Average grade (g/t)	Metal Prices			Recovery (%)	Factor	Factored Grade (%)
			\$/oz	\$/lb	\$/kg			
V ₂ O ₅		1.08	83	5.20	11.00	61.6%	1.000	1.081
Cu		0.06	72	4.50	9.85	61.6%	0.895	0.056
Zn		1.04	1,300	1.31	2.80	54.4%	0.225	0.234
Pb		2.66	15	0.96	2.18	61.6%	0.198	0.528
Ag	0.285	0.0000285	27	397.31	876	61.6%	0.008	0.002
							V₂O₅Eq	1.90

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

APPENDIX 2: JORC 2012 Table 1

JORC Code – Table 1 (Nosib)

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 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 (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. 	<ul style="list-style-type: none"> Reverse circulation drilling was used to obtain 1 m samples from which approximately 3 kg of sample was pulverised from which a small charge is obtained for multi-element analysis utilising the ICP-MS method. Samples were representative of the geology and mineralisation. Diamond drilling core is sampled on approximately 1 m intervals (varied subject to geological contacts) and analysed using the same procedure.
Drilling techniques	<ul style="list-style-type: none"> 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.). 	<ul style="list-style-type: none"> The exploration boreholes were drilled by means of the RC drilling method. Current drilling is diamond drillcore, NQ sized core.
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Diamond drilling recovery is reported in the detailed log. Where lost core is recorded assay grades are assumed to be zero. RC drilling from the exploration drillholes was bagged on 1 m intervals and an estimate of sample recovery has been made on the size of each sample. There is no known bias between core recovery and grade.
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All holes were logged for lithology, structure and mineralisation. Diamond drilling logging intervals are based on geological contacts. Logging of RC samples from exploration drillholes is based on 1 m intervals.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> The total length and percentage of the relevant intersections logged. 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. 	<ul style="list-style-type: none"> No information is provided on the sampling method for the historical drillholes. Exploration drillholes at Nosib: <ul style="list-style-type: none"> Each 1 m RC interval was sampled as a dry primary sample in a calico bag off the cyclone/splitter. Diamond drilling sampling half to quarter core sampled on approximately 1 m intervals using core-saw or splitter. Drill sample preparation: Intertek, Namibia. Sample analysis: Intertek, Perth, accredited laboratory. Field sample procedures involve the insertion of registered standards every 20 m, and duplicates or blanks generally every 25 m. Sampling is carried out using standard protocols as per industry best practice. Sample sizes range typically from 2 to 3 kg and are deemed appropriate to provide an accurate indication of mineralisation.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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, 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. 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. 	<ul style="list-style-type: none"> All samples were submitted to the Intertek sample preparation facility at the Tschudi Mine near Tsumeb, Namibia where pulp samples are prepared. The pulp samples were transported to Intertek Perth Australia for analysis. Pulp samples were digested with a mixture of four Acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric Acids for a total digest. Cu, Pb, Zn, V, Ag have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry. 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.
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The current Nosib drilling includes that all significant intercepts are reviewed and confirmed by two senior personnel before release to the market. No adjustments are made to the raw assay data. Data is imported directly to Datashed in raw original format. All data are validated using the QAQR validation tool with Datashed. Visual validations are then carried out by senior staff members. Vanadium results are reported as V₂O₅% by multiplication by the atomic weight factor of 1.785.
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The majority of the drill data was captured using the UTM33S grid. Location of the exploration drillholes are provided in the body of the technical report.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul style="list-style-type: none"> • Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied. 	<ul style="list-style-type: none"> • Exploration drillholes were drilled at close spacing, commonly 15 m to 20 m or less because of the relatively short strike length of the initial target and the plunging orientation of the Nosib mineralisation.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Holes were angled to best intersect the plunging mineralisation. • The majority of the angled holes were drilled on azimuth 143 magnetic / 180 degrees grid at a dip of -60 degrees (UTM33S grid).
Sample security	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • Golden Deeps ensured secure transport of samples to the registered laboratories via standard chain-of-custody procedures.
Audits or reviews	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> • All drill data relating to the Nosib project generated by Golden Deeps was reviewed and validated in detail by Shango Solutions. • The data review included scanning level plans and cross sections to verify the position of drill holes in the 3D model.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

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	<ul style="list-style-type: none"> 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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> Drilling results are from the Nosib Block copper-vanadium-lead-silver prospect located on Golden Deeps Limited (Huab Energy Ltd) EPL3543 located near the town of Grootfontein in northeast Namibia. EPL3543 and EPL5496 both expired on 6th July 2022. Renewal applications have been submitted in April 2022 and mining lease applications are planned to ensure security of tenure. There are no material issues or environmental constraints known to Golden Deeps Ltd which may be deemed an impediment to the continuity of EPL3543 or EPL5496
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> No prior drilling was identified for the Nosib Block Prospect. Previous work is limited to underground sampling of historical workings.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> 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 mineralisation 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 mineralisation at Nosib cross-cuts the stratigraphy and also includes stratiform mineralisation with significant chalcopyrite, striking northeast-southwest and dipping moderately to the NW.
Drill hole Information	<ul style="list-style-type: none"> 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"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> Refer to the body of the Nosib technical report for the detailed list of boreholes.
Data aggregation methods	<ul style="list-style-type: none"> 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. Where aggregate intercepts incorporate short lengths of high grade results and 	<ul style="list-style-type: none"> 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. Voids/lost core intervals are incorporated at zero grade.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

Criteria	JORC Code explanation	Commentary
	<p><i>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.</i></p> <ul style="list-style-type: none"> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> The assumptions used for reporting of metal equivalent values are detailed in the body of the Nosib technical report.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>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').</i> 	<ul style="list-style-type: none"> Drill holes and drill traverses were designed to intersect the targeted mineralised zones at a high angle where possible. Intersections reported approximate true width.
Diagrams	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Refer to the main body of the report for relevant plans and sectional reviews.
Balanced reporting	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Refer to main the main body of report: Nosib database and Mineral Resource estimation for detail on reporting of exploration results.
Other substantive exploration data	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> No other data is material to this report.
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> Metallurgical test work on copper-vanadium-lead oxide mineralisation is planned. Deeper drill targeting is planned at Nosib for sulphide copper-silver mineralisation at depth.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> Mineral Resource data is stored in a Microsoft Access database and Microsoft Excel spreadsheets. Furthermore, the databases are stored within the company's Datashed management system. The data used in the Mineral Resource estimate has been cross referenced against the original geology logs and laboratory report files and is suitable for the Mineral Resource estimate.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> Mr Jon Dugdale, (Golden Deeps CP) has been on site numerous occasions. Mr Manie Swart (CP) who takes responsibility for Shango's Mineral Resource estimation has not been to site. However, two regional site visits have been conducted by Shango's technical expert, Mr Mark Watts, the most recent being in April 2024.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> Geological interpretation has been based on an extensive critique of available drillhole and available information spanning the duration of mining and exploration programmes. Geological modelling was conducted using StudioRM software. The geological model was constructed utilising the borehole data as well as underground mapping of lithological contacts.
Dimensions	<ul style="list-style-type: none"> The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	<ul style="list-style-type: none"> The upper central zone (approximately 50 m x 30 m x 30 m) is well mineralised whereas the remainder of the orebody is located along distinct zones of high and low grades.
Estimation and modelling techniques	<ul style="list-style-type: none"> The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of 	<ul style="list-style-type: none"> Mineral Resource estimation was performed in three dimensions utilising StudioRM Shango conducted iterative visual and internal peer reviews to validate the estimate. The spatial continuity was inferred from the geological model and supported by an experimental variogram. There are distinct high and low grade zones within the Nosib orebody. During Mineral Resource estimation these two populations were separated into distinct geozones to prevent the smearing of high grades into areas of lower grade. A CuEq of 1% was applied as a basis, but other metal values were also considered The delineation of the high and low grade zones was performed using the Indicator Kriging method. Outliers (high values) or values that do not fit the statistical distribution were either capped (kriging process) or top cut (variography) to limit smearing of these values into larger areas. Normal probability plots, in conjunction with the histogram plots, were used to determine a

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

Criteria	JORC Code explanation	Commentary
	<p><i>selective mining units.</i></p> <ul style="list-style-type: none"> • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	<p>capping value for the estimation process.</p> <ul style="list-style-type: none"> • The various metal grades were estimated into a 3D block model. The final CuEq (%) grade is derived from the estimated Ag, Cu, Pb and V values. There were sufficient data on a spacing that allowed statistical and spatial variance analyses for Ordinary Kriging (OK). Kriging Neighbourhood Analysis (KNA) determined the optimal block size, minimum and maximum number of samples, as well as the search ranges to be applied. • Mineral Resources for vanadium (V₂O₅%) were reported at various cut-offs. It is noted that the copper and vanadium Mineral Resources are not independent of each other. The vanadium Mineral Resource comprises the vanadium rich portion of the main orebody.
Moisture	<ul style="list-style-type: none"> • Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> • The Mineral Resource estimates are expressed on a dry tonnage basis, and in situ moisture content has not been estimated.
Cut-off parameters	<ul style="list-style-type: none"> • The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> • In the absence of an orebody optimisation study, Shango has employed a range of cut-off grades to illustrate the effect of a variable cut-off grade on Mineral Resource tonnages.
Mining factors or assumptions	<ul style="list-style-type: none"> • Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	<ul style="list-style-type: none"> • Detailed mining studies have not yet been completed. It is expected that ore will be extracted using conventional selective underground or open pit mining methods, which includes drilling and blasting, excavator mining, stope mining and dump truck haulage. Mining dilution assumptions have not been factored into the Mineral Resource estimates.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> • The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. 	<ul style="list-style-type: none"> • Metallurgical testwork on copper-vanadium-lead oxide mineralisation is planned.
Environmental factors or assumptions	<ul style="list-style-type: none"> • Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage 	<ul style="list-style-type: none"> • No known environmental factors or assumptions have been made at this stage of the project.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

Criteria	JORC Code explanation	Commentary
	<p><i>the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></p>	
Bulk density	<ul style="list-style-type: none"> • <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i> • <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</i> • <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<ul style="list-style-type: none"> • An average dry bulk density of 2.81t/m³ was applied to the mineralised material. • No allowance was made for open fissures which may exist within the orebody.
Classification	<ul style="list-style-type: none"> • <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> • <i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i> • <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<ul style="list-style-type: none"> • The Mineral Resource classifications have been applied based on a consideration of the confidence in the geological interpretation, the quality and quantity of the input data, the confidence in the estimation technique, and the likely economic viability of the material. • Model validation checks show a good match between the input data and estimated grades, indicating that the estimation procedures have performed as intended, and the confidence in the estimates is consistent with the classifications that have been applied. • Based on the findings summarised above, it was concluded that the primary controlling factor for classification was sample coverage. A classification of Inferred and Indicated to the domained material was appropriate.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> • No independent audits or reviews have been conducted on the Mineral Resource estimates carried out by Shango. Shango has also completed an internal peer review.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

Criteria	JORC Code explanation	Commentary
<p>Discussion of relative accuracy/confidence</p>	<ul style="list-style-type: none"> • Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<ul style="list-style-type: none"> • The Mineral Resource estimates have been prepared and classified in accordance with the guidelines that accompany the JORC Code (2012), and no attempts have been made to further quantify the uncertainty in the estimates. • The largest source of uncertainty is considered to be related to orebody interpretation. However, based on core logging, the general lode geometry is considered to be well understood, the likelihood of an alternative interpretation that would yield significantly different grade and tonnage estimates is considered to be low. • The Mineral Resource estimate and the accompanying model are considered suitable to support broad scoping mine planning studies, but are not considered suitable for detailed production planning.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

JORC Code – Table 1 (Abenab)

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 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 (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. 	<ul style="list-style-type: none"> Exploration results are based on industry best practices, including sampling, assay methods, and appropriate quality assurance quality control (QAQC) measures. Reverse Circulation (RC): RC drill chips were collected at 1 m intervals via a cone splitter in pre-numbered calico bags. The quantity of sample was monitored by the geologist during drilling. A sample of between 2-4 kg was sent to the laboratory. Diamond Core: The sections of the core that are selected for assaying are marked up and then recorded on a sample sheet for cutting and sampling. Samples of HQ core are cut in quarters along the axis of the core using a diamond core saw.
Drilling techniques	<ul style="list-style-type: none"> 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.). 	<ul style="list-style-type: none"> RC drilling was conducted using a face sampling hammer, with all holes drilled a -60 degrees. Diamond drilling was conducted in HQ mode. Diamond holes were either drilled from surface or from a RC pre-collar.
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> RC sample recovery is monitored by the field geologist. Low sample recoveries are recorded on the drill log. The geologist is present during drilling to monitor the sample recovery process. There were no significant sample recovery issues encountered during the drilling program. Diamond core recoveries are recorded on the geological log
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All logging is completed according to industry best practice. RC chips are logged at 1m intervals using a representative sample of the drill chips. Logging records include lithology, alteration, mineralisation, colour and structure. Diamond core is logged with lithology, alteration, mineralisation, veining and structure recorded for all holes.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> For all sample types, the nature, quality and appropriateness of the sample preparation technique is considered adequate as per industry best practice. RC samples of 2-4 kg are collected at 1m intervals using a cone splitter. The sample size is appropriate for the style of mineralisation and the grain size of the material being sampled. • Diamond core was cut into quarters using a core saw. Quarter core is appropriate for the style of mineralisation. RC samples are dried at the laboratory and then pulverised to 95% passing 105 microns. Diamond core is dry crushed to a nominal -3 mm and then pulverised to 95% passing 105 microns.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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, 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. 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. 	<ul style="list-style-type: none"> 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. Pulp sample(s) have been digested with a mixture of four Acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric Acids for a total digest. V, Cu, Pb, Zn, As have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry. A Field Standard, Duplicate or Blank is inserted every 10 samples. The Laboratory inserts its own standards and blanks at random intervals, but several are inserted per batch regardless of the size of the batch.
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All significant intercepts are reviewed and confirmed by at least two senior personnel before release to the market. No adjustments are made to the raw assay data. Data is imported directly to Datashed in raw original format. All data are validated using the QAQCR validation tool with Datashed. Visual validations are then carried out by senior staff members.
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All drill hole collars were located with a hand held GPS with a accuracy of +/-5m. At the completion of the drilling program all holes will be surveyed by DGPS. Downhole surveys were taken at 30m intervals using a Reflex single shot camera. The camera records the azimuth and dip of the hole. The survey co-ordinates are UTM34 South.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and 	<ul style="list-style-type: none"> Data spacing and distribution used to determine geological continuity is dependent on the deposit type and style under consideration. Where a mineral resource is estimated, the appropriate data spacing and

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Criteria	JORC Code explanation	Commentary
	<p>Ore Reserve estimation procedure(s) and classifications applied.</p> <ul style="list-style-type: none"> Whether sample compositing has been applied. 	<p>density is decided and reported by the competent person.</p> <ul style="list-style-type: none"> For Mineral Resource estimations, grades are estimated on composited assay data. The composite length is chosen based on the statistical average, usually 1m. Sample compositing is never applied to interval calculations reported to market. A sample length weighted interval is calculated as per industry best practice.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Orientation of sampling is as unbiased as possible based on the dominating mineralised structures and interpretation of the deposit geometry. If structure and geometry is not well understood, sampling is orientated to be perpendicular to the general strike of stratigraphy and/or regional structure.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> All samples remain in the custody of company geologists, and are fully supervised from point of field collection to laboratory drop-off.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No independent audit of sampling techniques has been completed. However, Shango Solutions has reviewed procedures supplied and found them to be appropriate.

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	<ul style="list-style-type: none"> 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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> This release relates to updated Mineral Resources on the Abenab Vanadium Project located on Golden Deeps Limited (Huab Energy Ltd) EPL3543 and EPL5496 located near the town of Grootfontein in northeast Namibia. EPL3543 and EPL5496 were due for renewal on 6th July 2022. Renewal applications were submitted in April 2022 and renewal is expected in the near future. Mining lease applications are planned to ensure security of tenure longer term. There are no material issues or environmental constraints known to Golden Deeps Ltd which may be deemed an impediment to the continuity of EPL3543 or EPL5496.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The Abenab Vanadium prospect was primarily drilled by Avonlea Resources Ltd with further drilling by Golden Deeps Ltd in 2019.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Abenab mineralisation is situated on the faulted contact between laminated grey limestone and grey dolomite. The ore bodies, which are cylindrical, spiral downwards to a depth of at least 425 m, are hosted by a pipe-like mass of cemented brecciated country rock. The base metal (Pb-Zn +/- Cu) mineralisation at Abenab is interpreted to have

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

		formed due to introduction of hydrothermal fluids along regional deep-seated thrust plane discontinuities during orogenesis and reverse faulting. The introduction of Vanadium is ascribed to later, supergene, processes where Vanadium minerals were precipitated within the sulphide-mineralised breccia under oxidising conditions from circulating groundwaters. Significant normal faulting has been observed in drill-core to have deformed and offset the sulphide mineralisation but have also acted as conduits for the secondary Vanadium mineralisation.
<i>Drill hole Information</i>	<ul style="list-style-type: none"> • 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"> ○ easting and northing of the drill hole collar ○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ○ dip and azimuth of the hole ○ down hole length and interception depth ○ hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> • No new exploration results in this ASX announcement. • Metallurgical composite samples of Abenab material were generated from 2019 diamond drilling intersections described in the GED ASX release of 14 August 2019: Phase 1 Drilling Complete - High-Grade Vanadium Intersected and the GED ASX release of 17 September 2019: 7.8% V₂O₅ Intersected at Abenab Project (ABRCD011 results).
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> • 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. • 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. 	<ul style="list-style-type: none"> • No new exploration results in this ASX announcement. • Details of 2019 drilling intersections referred to in this release are included in the GED ASX release of 14 August 2019: Phase 1 Drilling Complete. High-Grade Vanadium Intersected and the GED ASX release of 17 September 2019: 7.8% V₂O₅ Intersected at Abenab Project (ABRCD011 results)
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> • 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 (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> • No new exploration results in this ASX announcement. • The orientation of drillholes with respect to mineralisation varies from orthogonal to a low angle to the mineralisation as shown on Figure 4, a cross section through the Abenab mineralisation and resource.
<i>Diagrams</i>	<ul style="list-style-type: none"> • Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should 	<ul style="list-style-type: none"> • Refer to the body of the report for appropriate figures.

*See copper equivalent (CuEq) and/or vanadium pentoxide equivalent (V₂O₅Eq) calculation, Appendix 1

	<i>include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	
<i>Balanced reporting</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No new exploration results in this ASX announcement.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No new exploration results in this ASX announcement.
<i>Further work</i>	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. 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. 	<ul style="list-style-type: none"> GED is currently reviewing the previous exploration targeting and evaluating targets for deeper extensions of the Abenab deposit prior to planning deeper diamond drilling. Further drilling may also be proposed to further define the Abenab Mineral Resource, subject to the results of the current Mineral Resource estimation process.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section)

Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> Mineral Resource data is stored in a Microsoft Access database and Microsoft Excel spreadsheets. The data used in the Mineral Resource estimate has been cross referenced with original geology logs and laboratory report files and is suitable for the resource estimate.
<i>Site visits</i>	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> Mr Manie Swart (CP) who takes responsibility for Shango's Mineral Resource estimation has not been to site. However, two site visits have been conducted by Shango's technical expert, Professor Sybrand de Waal, during late 2018. Mr Mark Watts (Principal Geologist), who established the revised geological model, has been to site on two occasions during 2019.
<i>Geological interpretation</i>	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> Geological interpretation has been based on an extensive critique of available drillhole and historical information spanning the entire duration of mining and previous exploration programmes. Geological modelling was conducted utilising Studio RM software. Interpretation was guided by geological logging with mineralisation contained within the quartz-carbonate breccias and veins. Drillhole intersections have shown that the orebody displays lateral continuity across the host breccia-filled pipe.

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Dimensions	<ul style="list-style-type: none"> The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	<ul style="list-style-type: none"> The Mineral Resource is confined to the volume of breccia pipe which covers a plan area of approximately 125 × 160 m, by 520 m in vertical extent, commencing from 770 mamsl surface. The Mineral Resource is contained within a number of stacked and merging lenses of mineralisation which are understood to be approximately concordant with pre-brecciation bedding directions. The lateral extents of the Mineral Resource block model adequately cover the known mineralisation
Estimation and modelling techniques	<ul style="list-style-type: none"> The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	<ul style="list-style-type: none"> Mineral Resource estimation was performed in three dimensions utilising StudioRM. Shango conducted iterative visual and internal peer reviews to validate the estimate. The spatial continuity was inferred from the geological model and supported by an experimental variogram. There are distinct high and low grade zones within the Abenab orebody. During Mineral Resource estimation these two populations were separated into distinct geozones to prevent the smearing of high grades into areas of lower grade. The delineation of the high and low grade zones was performed using the Indicator Kriging method. Outliers (high values) or values that do not fit the statistical distribution were either capped (kriging process) or top cut (variography) to limit smearing of these values into larger areas. Normal probability plots, in conjunction with the histogram plots, were used to determine a capping value for the estimation process. The various metal grades were estimated into a 3D block model. There were sufficient data on a spacing that allowed statistical and spatial variance analyses for Ordinary Kriging (OK).
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> The Mineral Resource estimates are expressed on a dry tonnage basis, and in situ moisture content has not been estimated.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> In the absence of an orebody optimisation study, Shango has employed a range of cut-off grades to illustrate the effect of a variable cut-off grade on Mineral Resource tonnages.
Mining factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, 	<ul style="list-style-type: none"> Mining studies have been initiated. It is expected that ore will be extracted using conventional selective underground or open pit

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	<p>external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</p>	<p>mining methods, which includes drilling and blasting, excavator mining, stope mining and dump truck haulage. Mining dilution assumptions have not been factored into the Mineral Resource estimates.</p>
Metallurgical factors or assumptions	<ul style="list-style-type: none"> The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. 	<ul style="list-style-type: none"> GED is undertaking on-going metallurgical test work of surface mineralised materials and tailings to optimise process flow. Metallurgical composite samples of Abenab material were generated from 2019 diamond drilling intersections described in the GED ASX release of 14 August 2019: Phase 1 Drilling Complete - High-Grade Vanadium Intersected and the GED ASX release of 17 September 2019: 7.8% V2O5 Intersected at Abenab Project (ABRCD011 results)
Environmental factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	<ul style="list-style-type: none"> No known environmental factors or assumptions have been made at this stage of the project.
Bulk density	<ul style="list-style-type: none"> Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	<ul style="list-style-type: none"> An average dry bulk density of 2.81t/m³ was applied to the mineralised material. No allowance was made for open fissures which may exist within the orebody.
Classification	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. 	<ul style="list-style-type: none"> The Mineral Resource classifications have been applied based on a consideration of the confidence in the geological interpretation, the quality and quantity of the input data, the

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	<ul style="list-style-type: none"> • Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit. 	<p>confidence in the estimation technique, and the likely economic viability of the material.</p> <ul style="list-style-type: none"> • Model validation checks show a good match between the input data and estimated grades, indicating that the estimation procedures have performed as intended, and the confidence in the estimates is consistent with the classifications that have been applied. • Based on the findings summarised above, it was concluded that the primary controlling factor for classification was sample coverage. A classification of Inferred and Indicated to the domained material was appropriate.
Audits or reviews	<ul style="list-style-type: none"> • The results of any audits or reviews of Mineral Resource estimates. 	<ul style="list-style-type: none"> • No independent audits or reviews have been conducted on the Mineral Resource estimates carried out by Shango. Shango has also completed an internal peer review.
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> • Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<ul style="list-style-type: none"> • The Mineral Resource estimates have been prepared and classified in accordance with the guidelines that accompany the JORC Code (2012), and no attempts have been made to further quantify the uncertainty in the estimates. • The largest source of uncertainty is considered to be related to orebody interpretation. However, based on core logging, the general lode geometry is considered to be well understood, the likelihood of an alternative interpretation that would yield significantly different grade and tonnage estimates is considered to be low. • The Mineral Resource estimate and the accompanying model are considered suitable to support broad scoping mine planning studies, but are not considered suitable for detailed production planning.

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