ASX ANNOUNCEMENT **ASX: GED**

21 June 2022

Golden Deeps Launches Major Development Study for High-Grade Vanadium with Copper-Lead-Zinc-Silver Projects in Namibia

Golden Deeps Limited ("Golden Deeps" or "the Company") is very pleased to announce that it has **launched a major, integrated, 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** of northern Namibia (location, Figure 1).

This two-stage, Scoping then Pre-Feasibility Study (PFS) Study, will examine the viability of mining high-grade vanadium (+/- copper, lead, zinc, silver) ore from the Abenab underground resource and a maiden Nosib open-pit resource to produce high-grade gravity concentrate on site. It is envisaged that the concentrate will be down-stream 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**.

Bara Consulting of Johannesburg, South Africa ("Bara"), have been appointed to initially carry out Stage 1 of the Study (the Scoping Study). This will integrate resource estimation work being carried out by Shango Solutions, also of Johannesburg, South Africa ("Shango"), with available metallurgical testwork and initial mining studies (Abenab underground and Nosib open pit) to provide preliminary mining, infrastructure and processing conceptual design and (capital and operating) cost inputs for Stage 2 of the Study, the PFS.

The scope of the PFS will be subject to the outcomes generated by the Stage 1 Scoping Study. The PFS will generate a fully integrated mining plan with schedules and cost information, that will be incorporated with infrastructure and processing designs, and capital and operating cost information, to produce the PFS cashflow model.

The PFS will establish the value and viability of developing this high-grade vanadium +/- copper, lead, zinc, silver operation and immediately support a definitive feasibility study (DFS) **in parallel with mining lease applications** to be made over the Company's Exclusive Prospecting Licences (EPLs) in the Otavi Mountain Land of Namibia (Figure 1).

Golden Deeps CEO Jon Dugdale said:

"We are very excited to initiate this major Study into the development of an integrated mining and processing battery-metals production project in the Otavi Mountain Land of Namibia.

"This Study will establish the viability of producing high-grade vanadium concentrate with copper, lead, zinc and silver, for downstream processing to produce high-value battery metals products for the rapidly growing renewable energy battery industries globally.

"We see this as just the start of our integrated development strategy, that, through establishing mining and processing operations in parallel with an aggressive exploration program, will grow our resource base and allow us to expand production from a centralised processing operation."

This very important, two-stage, project development Study for the Company's Otavi Mountain Land Battery Metals Projects will include the outcomes of the following key programs:

- **Abenab gravity concentration testwork**[1]:
  - This testwork is being carried out on an aggregated drill-core bulk sample from the Abenab resource that **assayed 0.9% V_2O_5, 2.1% Pb and 0.72% Zn**. This work is well advanced and designed to generate a 10 to 15 times upgraded gravity concentrate for further downstream hydrometallurgical testwork and provide key processing cost inputs to the Study.
- **Hydrometallurgical testwork and downstream processing studies**[1]:
  - The initial results from the processing studies produced **high-vanadium extractions of up to 95.4%**[1] into solution and demonstrated that direct ion-exchange can produce high-value vanadium products, with lead, zinc and copper by-products. A second stage of this program will be carried out on the new Abenab gravity concentrate sample referred to above.
- **Updated mining study**[2] **on an upgraded Abenab mineral resource model**:
  - To include an update of Bara's 2021 mining study[2], incorporating an updated resource model by Shango (including 2019 diamond drilling program[3]) with processing cost information from the gravity and hydrometallurgical testwork. Following further drilling and resource modelling, if necessary, detailed mine planning and scheduling would then be carried out for the PFS.
- **Maiden JORC 2012 Mineral Resource estimate for the Nosib:**
  - Shango are carrying out a maiden resource estimate for the Nosib high-grade, vanadium-copper-lead-silver deposit, incorporating the results of the recent, very successful drilling program that included diamond drilling intersections such as:
    - **53.52m @ 1.15% Cu, 0.62% V_2O_5, 3.49% Pb, 4.57 g/t Ag from surface in NSBDD008**[4]**.**
- **Metallurgical testwork on the Nosib mineralisation:**
  - The metallurgical testwork will be carried out on a bulk-sample of drill-core from recent drilling and material from a bulk sample recently excavated from surface. This new testwork will include gravity concentration and downstream hydrometallurgical tests based on a processing flowsheet to be developed for the Abenab resource[1].
- **Nosib open pit optimisation study for the maiden Mineral Resource:**
  - Bara to conduct optimisation of Nosib for the maiden Mineral Resource estimate. To be followed by detailed open-pit design and mine scheduling for the PFS.
- **Infrastructure design and costings:**
  - To include waste dumps, haul roads, tailings disposal and offices/accommodation, initially at conceptual level for the Scoping Study, then upgraded to PFS level during Stage 2 of the Study.
- **Integrated mining and processing cash-flow model**:
  - Preliminary cash-flow model for Scoping Study (Stage 1), to be upgraded following completion of all Study inputs to PFS level during Stage 2 of the Study.

About the Golden Deeps Otavi Mountain Land Projects and Programs:

The Company's key projects are located in the world-class Otavi Mountain Land District (OMLD) of Namibia on the Company's two Exclusive Prospecting Licences (EPLs) - EPL5496 and EPL3543 ("the Tenements", Figure 1).

The OMLD includes major historic mines such as the **Tsumeb** deposit that historically produced **30Mt of ore grading 4.3% Cu, 10% Pb and 3.5% Zn**[5] from 1905 to 1996 (see Figure 1).

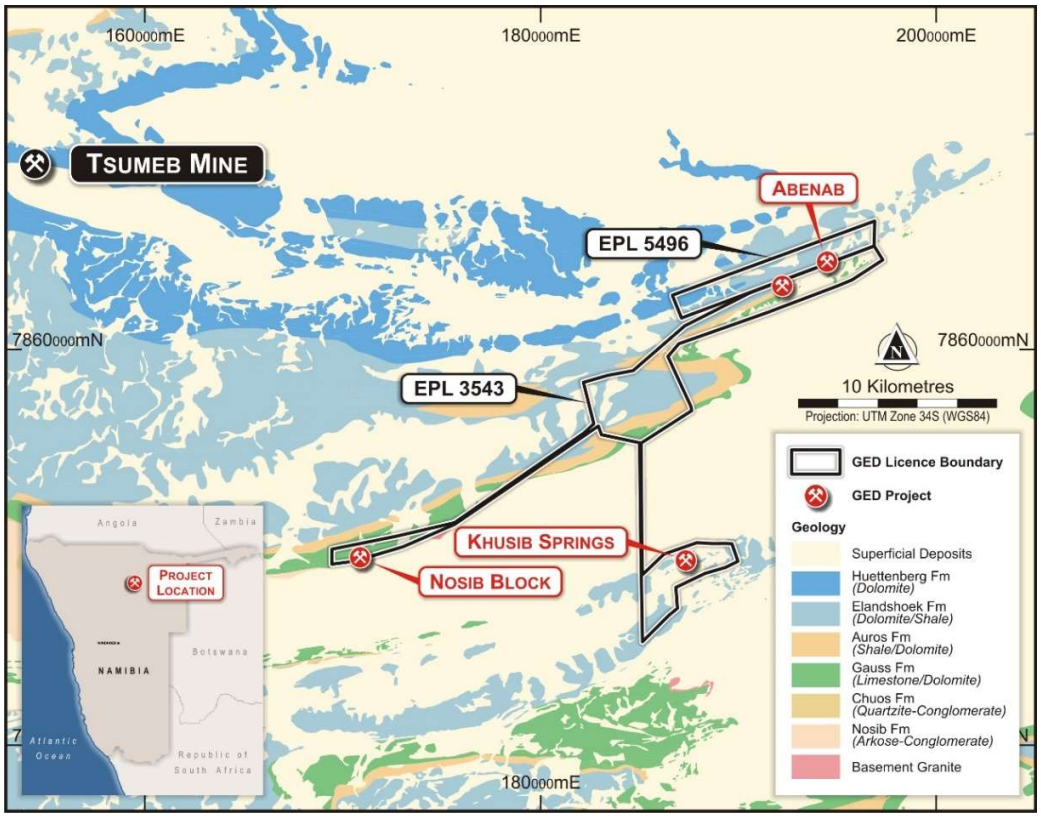

Figure 1: The Company's Otavi Mountain Land tenements with the location of tenements and key prospects.

The region is well served by sealed roads, rail to port, high voltage grid power, telephone lines and water, and is close to major towns and other mining processing facilities (e.g., Kombat Mine, Trigon Metals CVE:TM).

The focus of the Company's exploration and development programs are the **Abenab** high-grade vanadium-zinc-lead resource, the **Nosib** high-grade vanadium-copper-lead-silver discovery and the **Khusib Springs** very high-grade copper-silver mine (see locations, Figure 1). These three key prospects and the current exploration and development programs are described below:

Abenab High-Grade Vanadium (Lead-Zinc) Project:

The **Abenab Project** is located at the north-eastern end of the Company's EPL3543 (Figure 1) and was 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% V_2O_5, 13% Zn and 54% Pb**[6] in high-grade concentrate.

The Abenab mineralisation is hosted by carbonates of the Otavi Group and consists of a pipelike karst breccia of collapsed country rocks cemented by coarse calcite and descloizite-vanadinite concretions (see Photo 1 below). The Abenab Breccia Pipe lies on a steeply dipping sheared contact between massive dolomite and platy limestone (see Figure 2).

The vanadium mineralisation at Abenab is contained in the minerals descloizite (vanadium-lead-zinc hydroxide) and vanadinite (vanadium-lead chlorovanadate). The vanadium mineralisation takes several forms including breccia clast infill, fine grained fracture fill, open space crystal growth (see Photo 1 below) and clay-filled cavities.

Photo 1: Abenab Breccia with descloisite crystals (black) rimming brecciated dolomite fragments.

The Company produced a Mineral Resource estimate for the Abenab Project in January 2019 of an Inferred **2.80Mt @ 0.66% V_2O_5, 2.35% Pb, 0.94% Zn at a 0.2% V_2O_5 cut-off**[7,8], including the previously reported Inferred Resource estimate of **1.12Mt @ 1.28% V_2O_5, 3.05% Pb, 1.25% Zn at a 0.5% V_2O_5 cut-off**[7,8].

Further diamond drilling in 2019 produced high-grade intersections including **ABRCD011: 23m @ 1.34% V_2O_5, 3.33% Pb, 1.25% Zn from 167m**[3] (see Figure 2) that confirmed the grade and geometry of the mineralisation but are not included in the current resource estimate.

The Abenab resource model is being reviewed, re-modelled and upgraded by Shango Solutions, incorporating the 2019 diamond drilling information. Further drilling may be required to upgrade to Indicated Resource for the PFS stage of the Study.

Metallurgical Testwork:

Previous gravity concentration testwork on high-grade underground resource material by Avonlea Minerals Ltd in 2012 **produced high concentrate grades of 21% V_2O_5, 14% Zn and 53% Pb**[9]. Further, Phase 1, gravity testwork for Golden Deeps by Mintek - South Africa, utilised historical low-grade surface stockpiles and tailings material grading 0.30% V_2O_5, 1.29% Pb and 1.14% Zn to generate an overall concentrate grade of up to **8.9 % V_2O_5, 30.5% Pb, 8.95% Zn, which represents a 30x upgrade of Vanadium**[10]**.**

The Company commenced down-stream hydrometallurgical leach testwork on the Abenab concentrate with Core Resources ("Core") in Brisbane in mid-2021[1]. The objective of this work is to generate an economic flowsheet to process vanadium-lead-zinc (+/- copper, silver) gravity concentrate from the Abenab deposit and produce down-stream high-value products such as vanadium electrolyte for vanadium redox flow batteries (VRFBs) as well as allow further processing to produce Vanadium Pentoxide (V_2O_5).

Phase 1 of this testwork produced high-vanadium extractions of up to 95.4%[1] into solution and demonstrated that direct ion-exchange can separate the vanadium from lead and zinc to produce downstream high-value vanadium products, with lead, zinc and potentially copper as by-products.

Following the success of the Phase 1 testwork (which was based on the low-grade surface material) it was decided to produce a new batch of concentrate from the much higher grade Abenab underground Mineral Resource material and subject it to similar testwork.

A new bulk sample of existing drillcore representative of the Abenab Mineral Resource (including ABRCD011) was recently provided to Nagrom Laboratories in Perth, Western Australia for a second phase of gravity concentrate metallurgical testwork[1]. This three-stage program is in progress and consists of:

i) Grinding sighter tests using various grind sizes, followed by water-based gravity separation.
ii) Gravity separation optimisation using spirals with water table cleaning, and,
iii) Final concentrate production of 3 to 5kg of high-grade concentrate.

The bulk sample provided to Nagrom was 157kg and assayed **0.9% V_2O_5, 2.1% Pb and 0.7% Zn**, which is close to the targeted resource grade at the cut-off derived from the initial Abenab Mining Study[2].

The results of grinding sighter tests have determined that a grind size of 0.5mm is optimum. Nagrom has completed a bulk grind prior to gravity spiral concentration testing that has now commenced.

Following several stages of gravity spiral concentration, final concentrate grades, mass and recovery information will be generated. This will target a 10 to 15 times upgrade (to between 10% and 15% V_2O_5) and 3 to 5kg of material for further downstream hydrometallurgical testwork.

A quote has been received from Core Metallurgy for a second phase of downstream hydrometallurgical testwork to be carried out on the Abenab gravity concentrate sample produced by Nagrom.

Key operating and capital cost information will be derived from this gravity testwork for input to the Study.

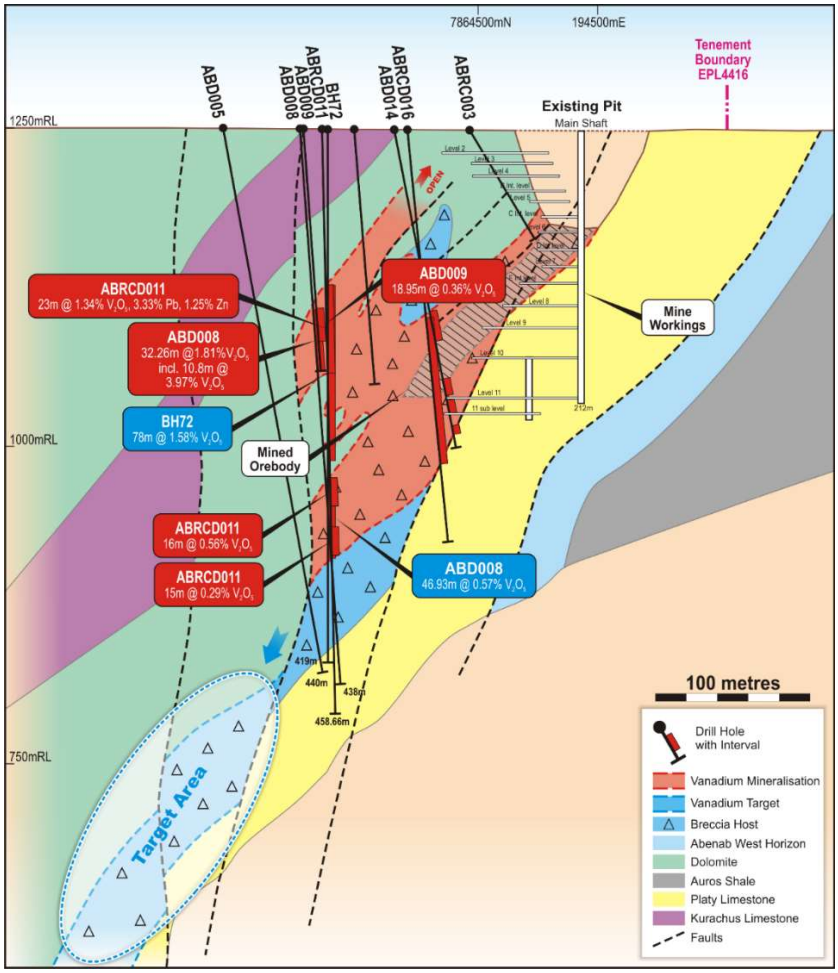

Figure 2: Cross section through Abenab breccia showing previous workings, 2019 drilling and high-grade vanadium mineralisation (looking east).

Upgraded Mining studies:

The preliminary Abenab Mining Study in June 2021[2] established that there is potential for a viable underground mining operation focused on the higher-grade portions of the current resource[7,8] (Figure 2) at a targeted mining production rate of 14,500 tonnes per month (tpm) or 174,000 tonnes per annum (tpa) of high-grade vanadium-lead-zinc ore.

Mining costs were estimated based on mechanised cut and fill methodology and with high-level processing cost assumptions, an effective Run of Mine (ROM) break-even cut-off grade was determined of approximately 0.7% V_2O_5. This resulted in a resource mining inventory target of approximately **0.9Mt @ 1% V_2O_5, 3% Pb, 1% Zn**[2].

The option of establishing a new decline from surface and maintaining the existing shaft for ventilation is favoured due to flexibility of production rate should additional ore-sources be brought into production.

A **new mining study will now be carried out by Bara** based on the upgraded Abenab mineral resource model and processing cost information from the gravity concentrate and down-stream hydrometallurgical processing testwork.

Evaluation of the new study will determine if further diamond drilling is required for geotechnical information and Indicated Resource definition prior to detailed mine planning and scheduling for the PFS.

Nosib High-Grade Vanadium-Copper-Lead-Silver Project:

The Nosib prospect is located at the western end of the Company's EPL3543 (Figure 1), 20km southwest of Abenab. Nosib is a new discovery that has produced a number of exceptional, thick and high-grade, vanadium-copper-lead-silver RC and diamond drilling intersections over the last 12 months.

The Nosib mineralisation is hosted by an arenaceous to conglomeratic unit which is poorly exposed and lies at the base of the Damara sedimentary sequence, overlain by the dolomitic units that host the majority of the base metal mineralisation in the OMLD.

Drilling has identified and defined two distinct zones of mineralisation at Nosib:

i) A shallow, high-grade, vanadium-copper-lead-silver supergene enriched zone that has produced a series of high-grade intersections of copper, vanadium and lead with silver including:

- **53.52m @ 1.15% Cu, 0.62% V_2O_5, 3.49% Pb, 4.57 g/t Ag**[4] from surface in NSBDD008 incl. **11.74m @ 2.67% Cu, 1.42% V_2O_5, 9.21% Pb, 7.12 g/t Ag.**
- **45.70m @ 1.0% Cu, 0.72% V_2O_5, 2.8% Pb, 4.00 g/t Ag**[11] from surface in NSBDD002 incl. **12.10m @ 3.2% Cu, 2.54% V_2O_5, 9.8% Pb, 8.0 g/t Ag**, and,

ii) a thick, stratabound, copper-silver sulphide zone at depth that has produced significant true-width intersections of sulphide mineralisation up to 45m thick, across the entire thickness of the northerly dipping arenite/conglomerate host unit, including in NSBDD003[12]:

- **44.54m @ 0.38% Cu, 3.6 g/t Ag** from 62.3m **incl. 11.10m @ 0.70% Cu, 5.6 g/t Ag**

Nosib Resource, Mine Development and Processing Study Work:

The main focus of the Mineral Resource modelling and estimation process by Shango Solutions will be the supergene vanadium-copper-lead-silver zone at Nosib, which has been drill defined at 10m to 20m spacing with RC and diamond drilling over a 100m strike length and to approximately 80m vertical depth (Figure's 3 and 4).

The supergene mineralisation at Nosib includes the secondary vanadium minerals descloisite and mottramite. Descloisite is the same lead-zinc-vanadium hydroxide mineral that occurs at Abenab and Mottramite is a copper-lead vanadium hydroxide. Both these minerals are expected to respond very well to gravity concentration – subject to testwork to be carried out shortly.

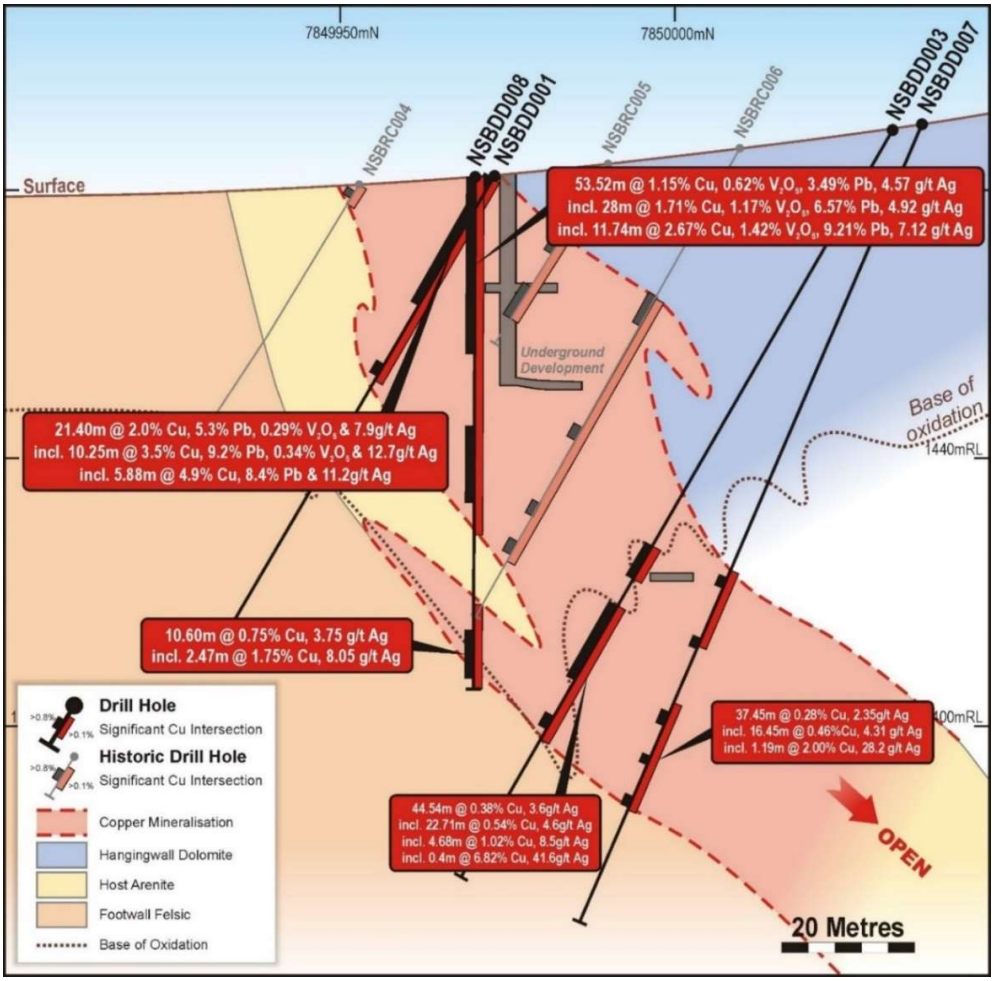

Figure 3: Nosib cross section 800,990mE with key intersections (looking west)

Samples of diamond drill-core from NSBDD008 at Nosib with other previous intersections (e.g., NSBDD002[2]) and material from a recent bulk sample excavated from the top of the Nosib supergene mineralisation (see Photo 2 below) have been aggregated to produce a bulk sample for gravity concentration testwork based on the flow-sheet developed for the Abenab resource material. This will aim to generate >5kg of concentrate, targeting a 10 to 15 times upgrade of vanadium, lead and copper.

Photo 2: Nosib Project bulk sample excavation for metallurgical testwork - with geologist, Elvis Akawa and the CEO for scale.

Following gravity testwork the Nosib concentrate sample will undergo hydrometallurgical leach testwork, based on the results of the Abenab program, to determine vanadium leach rates and recoveries to high-value vanadium products as well as copper, lead, zinc and silver by-products.

Open cut optimisation of the Nosib Mineral Resource estimate, incorporating cost inputs derived from initial metallurgical testwork, will provide initial mining production targets for the Scoping Study.

Subject to the results of the Scoping Study and completion of the metallurgical testwork, open pit mine design will then be carried out to generate detailed open-pit mining schedules and cost information for the PFS.

Nosib Exploration Targeting:

In addition to the resource modelling, Shango Solutions is examining the exploration potential of the deeper, stratiform, copper-silver sulphide target at Nosib.

Diamond drilling has intersected wide zones of stratiform copper-silver mineralisation, that includes higher grade zones of semi-massive sulphides including bornite and chalcopyrite in places. The resource model will include the deeper stratiform mineralisation and target potential down-plunge extensions for further drilling.

The Nosib Formation is poorly exposed and this is the first significant discovery of stratiform copper-silver mineralisation identified in the Otavi Mountain Land. This possibly represents a new target style that may be amenable to bulk underground mining should sufficient material be identified.

The Company is considering carrying out an induced polarisation (IP) survey to detect the Nosib sulphide mineralisation, and then examine regional scale magnetics to generate drilling targets for a repeat and/or extensions of this new, stratabound, copper-silver discovery.

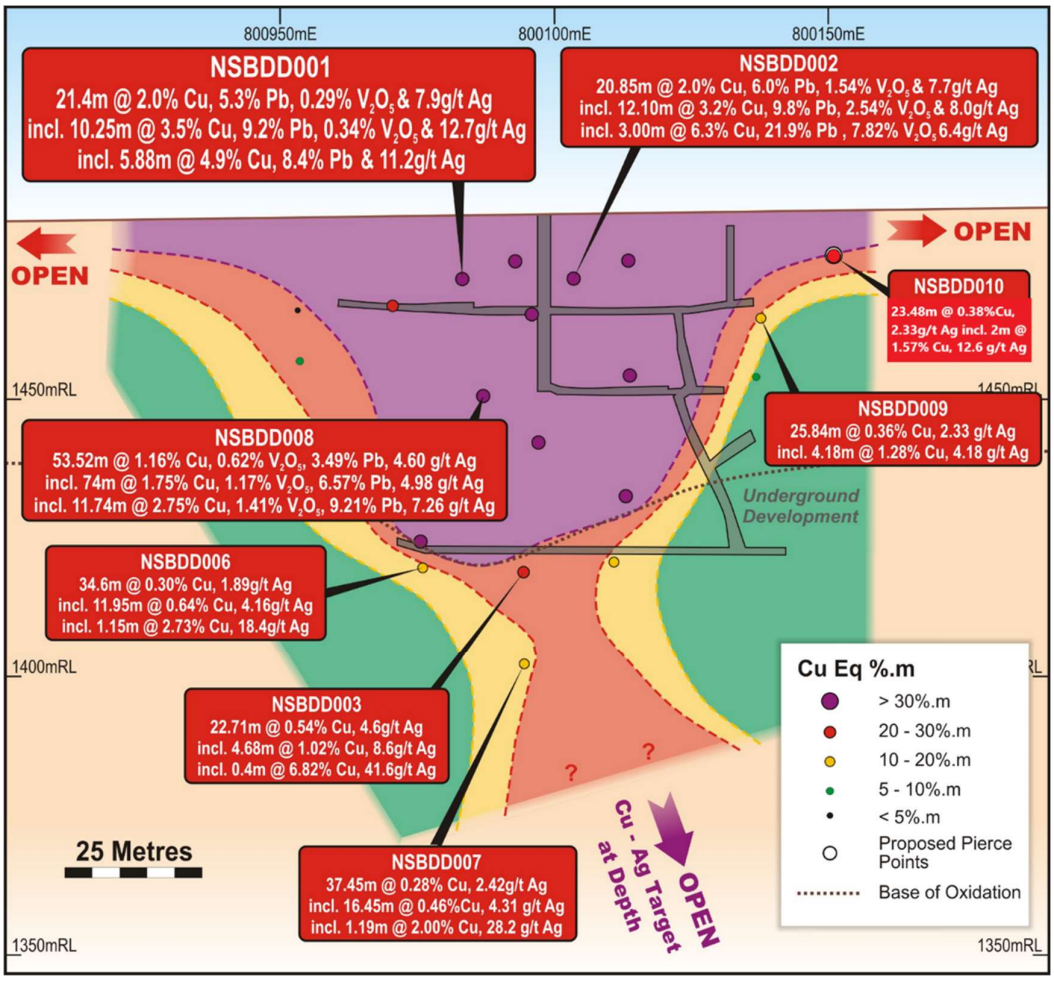

Figure 4: Nosib Prospect, longitudinal projection with NSBDD008 and other key intersections.

Summary of the Integrated Development Study on the OMLD Battery Metals Projects:

The outputs from the updated Abenab mining study and new processing testwork will be combined with the Nosib resource model, mining study and processing testwork outputs to produce an integrated mining schedule and mining and processing operating cost model for the PFS.

The Scoping Study and PFS to follow will be based on a project that mines both the Abenab and Nosib ore-bodies and processes the ore at a centralised processing plant to produce high-grade vanadium (+/- copper, lead, zinc and silver) concentrate on site.

It is envisaged that the high-grade concentrate produced on site would be transported to a downstream hydrometallurgical processing facility to produce high-value vanadium products such as vanadium electrolyte for VRFBs, as well as copper, lead, zinc and silver by-products.

"Our goal is to establish a centralised production hub in the Otavi Mountain Land to supply high grade, in demand, battery metals such as vanadium, copper, lead and zinc to renewable energy battery producers and other industries globally", concluded Mr Dugdale.

Khusib Springs High-Grade Copper-Silver Deposit – Drilling Planned:

At Khusib Springs (see location, Figure 1), previous targeting work by Shango Solutions in January 2021[13] indicated that there is significant potential for a repeat of the very-high grade Khusib Springs copper-silver orebody (past production **300,000t at 10% Cu and 584 g/t Ag**[3]) at depth, to the north of a normal/wrench fault that is interpreted to have offset the mineralised zone (see oblique section, Figure 5, below).

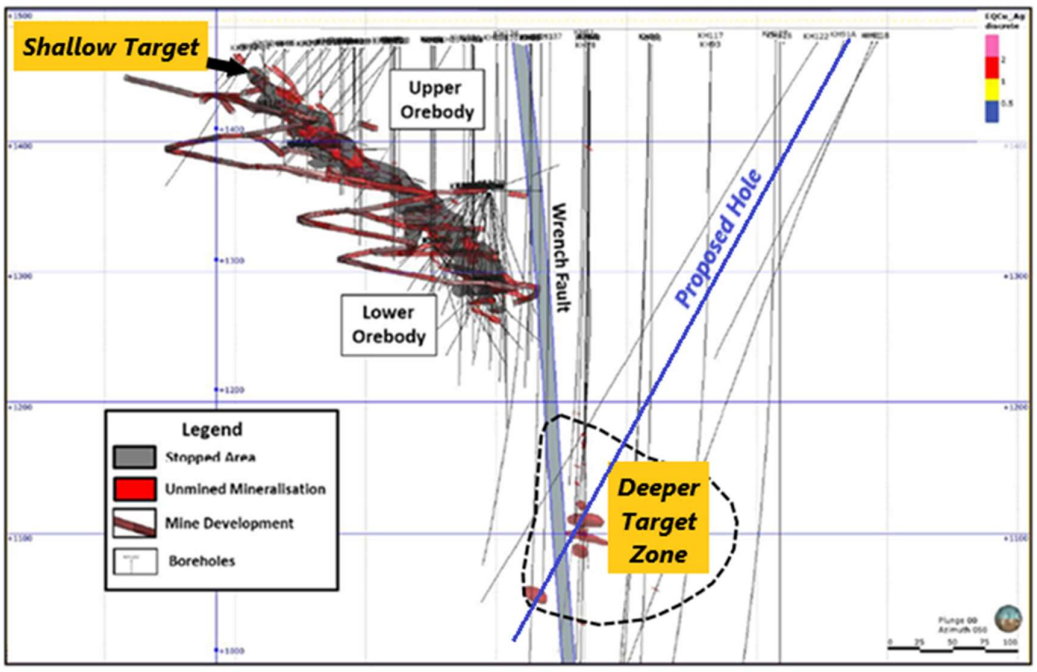

Figure 5: Cross section of Khusib Springs Mine showing developed and stoped areas, un-mined zones and targets.

High-grade copper-silver mineralisation has been intersected previously to the north of the fault, and deeper diamond drilling is now planned to further test this highly prospective zone for a repeat of the very high-grade Khusib Springs copper-silver orebody at depth (Figure 4).

Shango have carried out a re-evaluation of the Khusib Springs target model and recommended a series of deeper holes to test the offset target at Khusib Springs. The hole positions and targets are currently being evaluated and a diamond drilling contractor has been identified to carry out the program, subject to acceptance of quotes and finalising contract terms. Downhole electromagnetics (DHEM) is also planned to test for the extent of in-hole and/or off hole conductors in the vicinity of these planned holes.

References

[1] *Golden Deeps Ltd announcement, 21 March 2022. Outstanding Vanadium Extraction of up to 95% from Abenab.*

[2] *Golden Deeps Ltd announcement, 11 June 2021. Abenab Vanadium Project, Positive Results of Mining Study.*

[3] *Golden Deeps Ltd announcement, 17 September 2019: 7.8% V_2O_5 Intersected at Abenab Project (ABRCD011 results).*

[4] *Golden Deeps Ltd announcement 04 April 2022 Exceptional Copper-Vanadium Intersection at Nosib.*

[5] *Tsumeb, Namibia. PorterGeo Database: www.portergeo.com.au/database/mineinfo.asp?mineid=mn290*

[6] *www.goldendeeps.com/projects/abenab-mine-history/*

[7] *Golden Deeps Ltd announcement, 31 January 2019. Major Resource Upgrade at Abenab Vanadium Project.*

[8] *Golden Deeps Ltd ASX release 31 January 2019: Golden Deeps confirms major Resource Upgrade at Abenab.*

[9] *Avonlea Minerals Limited (ASX:AVZ) ASX release 08 March 2012: Positive Vanadium Gravity Separation Test Work.*

[10] *Golden Deeps Ltd announcement 22 August 2019: Pathway to Production Secured through 30x Increase in Vanadium Concentrate Grade from Existing Abenab Stockpiles.*

[11] *Golden Deeps Ltd announcement, 02 December 2021. Another Exceptional Copper-Vanadium Intersections at Nosib.*

[12] *Golden Deeps Ltd announcement, 22 February 2022. Nosib Very High-Grade Copper & Vanadium Intersected.*

[13] *Golden Deeps Ltd announcement, 05 February 2021. New High-Grade Copper-Silver Targets at Khusib Springs.*

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

*****ENDS*****

For further information, please refer to the Company's website or contact:

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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 Statement

The information in this report that relates to exploration results, mineral resources 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 34 years' experience in exploration, resource evaluation, mine geology and finance, relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ('JORC') Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Dugdale consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

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

APPENDIX 1

JORC 2012 Edition - Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (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.*	• Previous exploration drillholes at Khusib Springs and Nosib the reverse circulation drilling was used to obtain 1 m samples from which approximately 3 kg were pulverised from which a small charge will be obtained for multi-element analysis using the ICP-MS method. • Current diamond drilling sampled on approximately 1m intervals (varied subject to geological contacts) and analysed using the same procedure.
Drilling techniques	• *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).*	• Exploration drillholes at Khusib Springs and Nosib were Reverse Circulation percussion drilling method (RC drilling). • Current drilling is diamond drillcore, NQ sized core.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• 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 at Khusib Springs and Nosib were bagged on 1m intervals and an estimate of sample recovery has been made on the size of each sample.

Criteria	JORC Code explanation	Commentary
		• The cyclone is shut off when collecting the sample and released to the sample bags at the completion of each metre to ensure no cross contamination. If necessary, the cyclone is flushed out if sticky clays are encountered. • Samples were weighed at the laboratory to allow comparative analysis.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All holes were logged for lithology, structure and mineralisation. • Diamond drilling logging intervals based on geological contacts. • Logging of RC samples from exploration drillholes at Khusib Springs and Nosib based on 1m intervals.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• No information is provided on the sampling method for the historical drillholes. • For exploration drillholes at Khusib Springs and Nosib - Every 1m 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 1m intervals using core-saw or splitter. - Drill sample preparation (Intertek, Namibia) and analysis (Intertek, Perth) carried out at registered laboratory. • Field sample procedures involve the insertion of registered Standards every 20m, and duplicates or blanks generally every 25m and offset. • Sampling is carried out using standard protocols as per industry practice. • Sample sizes range typically from 2 to 3kg and are deemed appropriate to provide an accurate indication of mineralisation.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, 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.*	• 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. • 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	• *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.*	• For current Khusib Springs and Nosib drilling 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 QAQCR validation tool with Datashed. Visual validations are then carried out by senior staff members. • Vanadium results are reported as V_2O_5 % by multiplication by atomic weight factor of 1.785.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• The majority of the drill data was captured using the UTM33S grid. • Location of the exploration drillholes at Khusib Springs and Nosib provided in Appendix 2.
Data spacing and distribution	• *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*	• Exploration drill holes were drilled at close spacing, commonly 15m to 20m or less because of the relatively

Criteria	JORC Code explanation	Commentary
	Resource and Ore Reserve estimation procedure(s) and classifications applied. • *Whether sample compositing has been applied.*	short strike length of the initial target and the plunging orientation of the Nosib mineralisation.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• 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	• *The measures taken to ensure sample security.*	• Recent drilling at Khusib Springs and Nosib - secure transport to registered laboratories.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• All previous drill data relating to the Khusib Springs project generated by Goldfields Namibia or other companies was reviewed and validated in detail by Shango Solutions, a geological consultancy based in South Africa. • The data review included scanning level plans and cross sections to verify the position of drill holes in the 3D model. • No previous exploration drilling is recorded for the Nosib prospect, apart from the work conducted by Golden Deeps Ltd.

JORC 2012 Edition - Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• 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 expire on 6th July 2022. Renewal applications will be 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	• *Acknowledgment and appraisal of exploration by other parties.*	• No prior drilling identified for the Nosib Block Prospect. Previous work limited to underground sampling of historical workings. • The Khusib Springs copper prospect was primarily drilled by Goldfields Namibia from 1993 onwards following the intersection of massive tennantite in drill holes KH06 and KH08.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Nosib Mine was worked historically to produce copper and vanadium. The deposit is arenite / sandstone-hosted with chalcopyrite, bornite, galena and pyrite as well as secondary descloizite (Lead-Vanadium hydroxide). The mineralization is associated with prominent argillic alteration and occurs within an upper pyritic zone of the Nabis Formation sandstone, which is locally gritty to conglomeratic. The main zone of mineralization at Nosib cross-cuts the stratigraphy and also includes stratiform mineralization with significant chalcopyrite, striking northeast-southwest and dipping moderately to NW.

Criteria	JORC Code explanation	Commentary
		• The Khusib Springs deposit is a small but high-grade pipe-like body that plunges steeply within brecciated carbonate rocks. The deposit resembles the Tsumeb deposit near the town of Tsumeb to the northeast.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *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.*
		• Refer to Appendix 2 of the ASX announcement for drillhole details.

Data aggregation methods	• *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.*	• 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 incporated at zero grade. • The assumptions used for reporting of metal equivalent values are detailed in Appendix 1 of this release.
Relationship between mineralisation widths and	• *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.*	• Drill holes and drill traverses were designed to intersect the targeted mineralised zones at a high angle where possible. Intersections reported approximate true width.

Criteria	JORC Code explanation	Commentary
intercept lengths	• *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').*	
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Refer to Figure 2, a representative cross section through the Abenab deposit; Figure 3, a representative cross section through the Nosib Block Prospect; Figure 4, a longitudinal projection of the Nosib deposit and Figure 5, an oblique section through the Khusib Springs deposit. Figure 1 is a regional scale plan-view showing geology and prospect locations.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Intersections in all drillholes above designated cut-off grades are reported in Table 1 of the release.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• No other data is material to this report.
Further work	• *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.*	• The diamond drilling results from the current program will now be interpreted and mineralised outlines modelled prior to a Mineral Resource estimate for the shallow high-grade mineralisation at Nosib. • Further metallurgical testwork on copper-vanadium-lead oxide mineralisation is also planned. • Deeper targeting is planned for sulphide copper-silver mineralisation at depth at Nosib and deeper extensions of the Khusib Springs copper-silver orebody.