GOLDEN DEEPS LIMITED
ABN 12 054 570 777

ASX ANNOUNCEMENT
11 October 2018

ASX code: **GED**

2012 JORC RESOURCE ESTIMATE UPDATE FOR THE ABENAB VANADIUM DEPOSIT

HIGHLIGHTS:

- **The Abenab vanadium deposit resource estimate has been updated by SRK Consulting and re-estimated following JORC Code (2012) guidelines.**
- **The deposit contains a total Inferred Mineral Resource of:**
  - **1.12 Mt grading 1.28% vanadium pentoxide (V_2O_5), 3.05% lead and 1.25% zinc.**
  - **As at the 4th October 2018 metal prices were:**
    - **Vanadium pentoxide $US 23-25lb (US$50,706- 55,115/tonne)**
    - **Lead US$ 2018-2020/tonne,**
    - **Zinc US$ 2695-2696/tonne**
- **Excellent potential exists to increase the resource by further drilling.**
- **Metallurgical test work in 2012 achieved concentrate grade up to 21% V_2O_5, 15% Zn and 53% Pb by simple gravity separation.**
- **Abenab was considered "World's Richest" Vanadium mine:**
  - **1.85 Mt ore mined @ 1.05% V_2O_5, plus lead and zinc**
  - **The Abenab Concentrator produced 102,000t of concentrate grading 18% V_2O_5, plus lead and zinc**

The Directors of Golden Deeps Limited (ASX: **GED**) ("GED" or the "Company") are pleased to announce that SRK Consulting has completed an update of the mineral resource estimate for the Abenab vanadium deposit in northern Namibia on behalf of the Company. The updated mineral resource estimate follows JORC Code (2012) guidelines.

The updated total Mineral Resource (see Table 1) is 1.12 million tonnes grading 1.28% vanadium pentoxide (V_2O_5), 3.05% lead and 1.25% zinc at a cut-off of 0.5% V_2O_5.

On the 4th October, the price for vanadium pentoxide (98% min., FOB China) was $US 23-25lb (US$50,706-55,115/tonne) (source Metal Bulletin), the lead price was US$2018-2020/tonne (source LME) and the zinc price was US$2695-2596/tonne (source LME).

Overview of the Abenab project

The Abenab project is located within the Groonfontein District of the Otjozondjupa Region of Northern Namibia (Figure 1). The previous open pit mine at Abenab is 32km north of Grootfontein, within the Otavi Mountainland. The Abenab mine was operated from 1921 to 1947 by the South West Africa Company as an open pit and underground mine. GED holds an 80% interest in the exploration licence (EPL5496) that covers the mine (Figure 2).

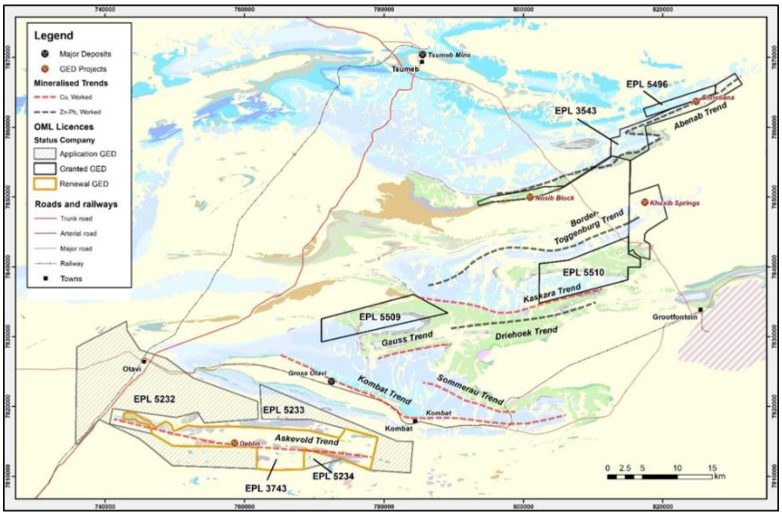

Figure 1: Grootfontein base metal project location (EPL5469) and other exploration tenure held by Golden Deeps

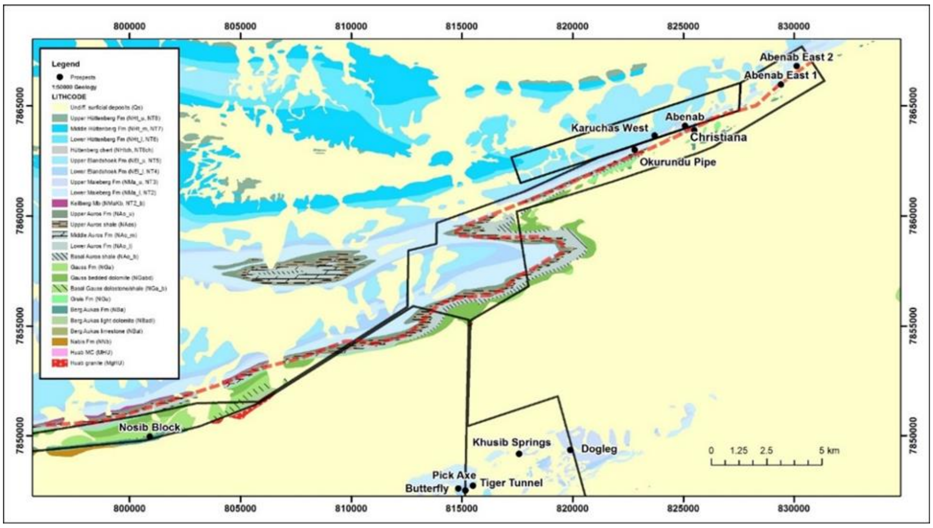

Figure 2: Golden Deeps Ltd tenure in Grootfontein District

Mineral Resource Estimate

An updated JORC (2012) Mineral Resource estimate has been completed for the Abenab vanadium deposit in northern Namibia by SRK Consulting.

The Inferred Mineral Resource estimate grade tonnage is set out in Table 1 below. The JORC Table 1 report for the Mineral Resource estimate is presented in Appendix 1.

Reporting lower cut-off (V_2O_5 %)	Tonnes (Mt)	V_2O_5 (%)	V (%)	Pb (%)	Zn (%)
0	1.12	1.28	0.72	3.05	1.25
0.25	1.12	1.28	0.72	3.05	1.25
0.5	**1.12**	**1.28**	**0.72**	**3.05**	**1.25**
0.75	1.07	1.31	0.73	3.12	1.28
1	0.87	1.40	0.78	3.34	1.36
1.25	0.35	1.78	1.00	4.11	1.70
1.5	0.17	2.21	1.24	4.85	2.01

Table 1: Mineral Resource statement grade and tonnage for the Abenab project at 27 September 2018 – Inferred Mineral Resource – preferred lower cutoff 0.5% V_2O_5

The previous Inferred Mineral Resource for Abenab reported by Avonlea Minerals Ltd in 2012 (*Avonlea Minerals (ASX:AVZ) ASX announcement 1st August 2012*) was 0.86Mt at 1.25% V_2O_5.

Commenting on the updated Mineral Resource estimate, GED Executive Chairman, Michael Minosora, said: *"The updated Mineral Resource represents a significant increase on the previous Mineral Resource reported in 2012 and GED considers there is excellent potential to increase the resource further with extension drilling along strike. Additionally, the Abenab resource is geologically separate from the Christiana Mine area, 200m to the south of Abenab, where the company has mapped and sampled surface indications of V-Pb-Zn mineralisation over a strike length of 1000m. The Company is currently compiling a 3D model of the mineralisation at Abenab and Christiana with a view to commencing a major drilling campaign designed to prove up an economically viable orebody"*

Mineral Resource Summary

Regional Geology

The Abenab project is located in the northeastern part of Namibia within the Otavi Mountainland region of the Damara Belt. The Otavi Mountainland is composed of carbonates and siliclastic units formed during rifting events of the Adamastor Ocean of the Cryogenian, with the Otavi Group platform carbonates composed of Abenab and Tsumeb Subgroups making up the Damara Supergroup. The Otavi Mountainland was deformed during the Damara Orogeny that folded the Damara Supergroup into east-west trending synclines and anticlines.

Local Geology and Mineralisation

The Abenab mineralisation is hosted by carbonates of the Otavi Group. The deposit consists of a pipelike karst structure filled with a breccia of collapsed country rocks associated with compacted red muds and cemented by coarse calcite and decloisite-vanadinite concretions. The Abenab pipe lies on a steeply dipping bedding-parallel structural contact.

The vanadium mineralisation at Abenab takes several forms including breccia clast infill, fine grained fracture fill, open-space crystal growth and clay-filled cavities (Figure 3). The main oxide vanadium-lead-zinc bearing minerals are descloisite ($Pb,Zn(VO_4)(OH)$) and vanadinite ($Pb_5(VO_4)_3Cl$).

Figure 3: Descloisite-carbonate breccia sample from Abenab surface dumps

Mining Operations and Past Exploration

The Abenab Mine was operated as an open pit and underground mine from 1921 to 1947 by South West Africa Company primarily for the lead-zinc. The open pit was mined to 60m below surface and the underground levels were developed to ~215m. Following the mine closure exploration was conducted by companies including Tsumeb Corporation, Anglo American, Japanese International Cooperation Agency (JICA) and Avonlea Minerals. Work conducted comprised several phases of RC and diamond drilling, trenching and geological mapping. In the period 2011 to 2012 Avonlea drilled nine diamond holes for 2,597m over two campaigns.

Drilling and Sampling

Drill hole collars for holes drilled by Avonlea Minerals and Tsumeb Corporation were located by handheld GPS with the rig aligned by sighting compass. The accuracy of the hole collars is suitable for an Inferred Mineral Resource. Downhole surveys were completed on all Avonlea holes at 30m intervals.

Drill core recovery and rock quality designation (RQD) was measured and recorded within a separate drill log sheet and may assist with potential mine design studies.

Sampling of HQ core was completed with half core samples ranging from 0.3m to 1.2m in length corresponding to geological contacts defined by the logging geologist. Samples were submitted for analysis to Intertek Genalysis in Walvis Bay Namibia for sample preparation. A split of the samples was sent to Genalysis Maddington, Perth, Western Australia. Samples were analysed using method FP1/MS and FP1/OE with a sodium peroxide fusion with an induced coupled plasma-mass spectrometry and optical spectrometry (ICP-MS/OES) for elements including vanadium, lead, zinc, copper, titanium and silver.

Bulk density samples were submitted to Genalysis from one diamond drill hole, ABD008, with all 257 samples measured. Bulk density was determined using the water immersion method.

The Mineral Resource used diamond holes drilled by Avonlea Minerals. Avonlea inserted standards at a rate of 1 in every 20 samples submitted to the laboratory. A total of 54 standards were submitted for analysis with core samples. All samples report within three standard deviations of the expected values except one. No field duplicates were taken.

Estimation Methodology

The estimate was completed using Ordinary Kriging (OK) for grade interpolation. Mineralisation boundaries were treated as hard boundary domains, meaning that model cells were estimated using only the samples in the same domain.

Prior to grade and statistical interpolation, the assay data were downhole-composited to 1m lengths. The compositing process was controlled to ensure that composites did not span lithological boundaries.

Estimates were made to the (notional) location of the parent cell using a 5m x 5m x 3m discretisation matrix. The Kriging weights were calculated from variogram parameters derived from search ellipses oriented parallel to the general mineralisation/ domain orientation. The drill coverage was observed to be fairly uniform over the interpreted extents of the lodes.

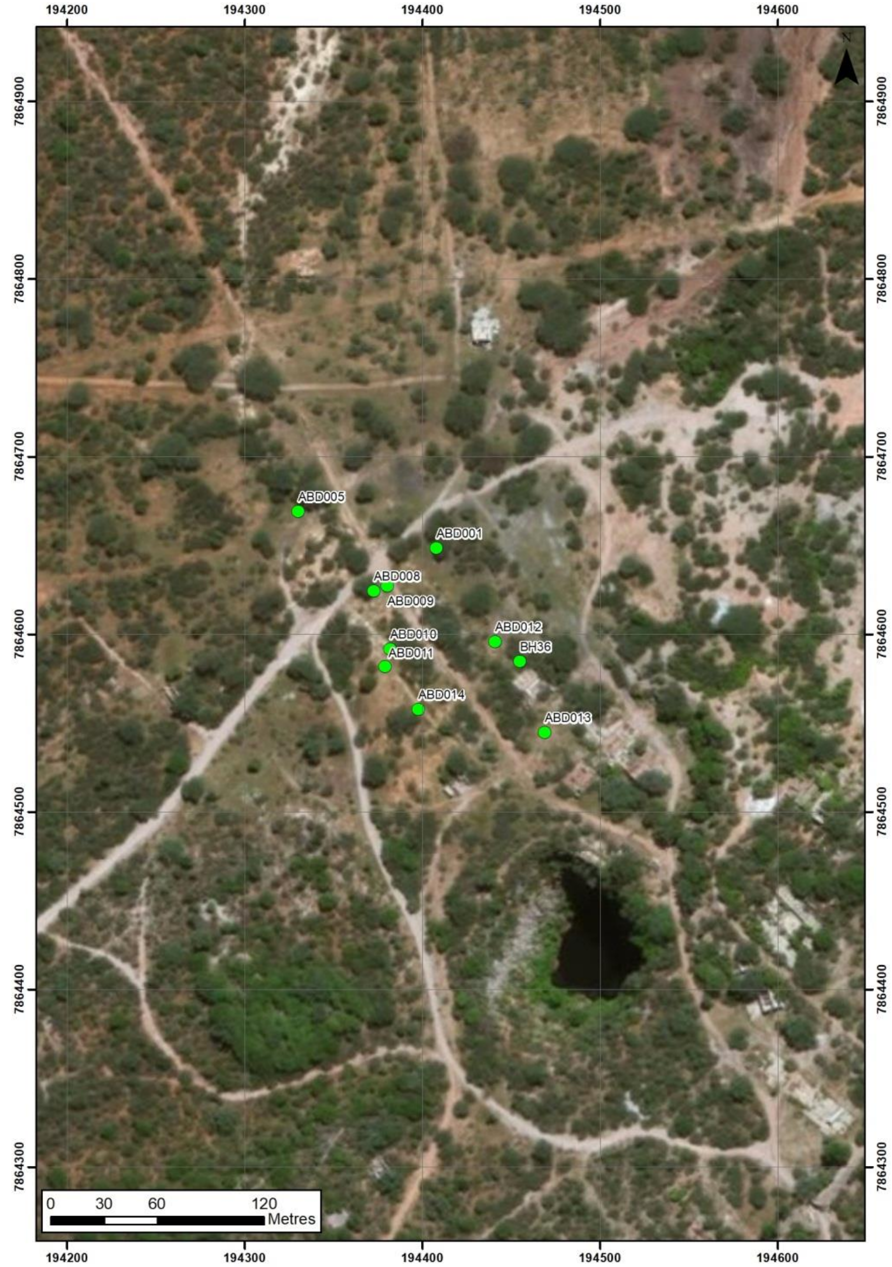

Figure 4: Drill holes in Plan View used in estimation

A multi-pass search strategy was implemented, which entails conducting the first interpolation pass using stringent sample selection parameters. For subsequent passes less stringent parameters are used to estimate the grades of the cells that did not meet the first-pass criteria. This ensures that cells are estimated using the maximum number of appropriate samples.

Interpolated cell grades were visually compared to the drill hole sample composites to ensure that the cell grade estimates appear consistent with the drill hole data. Comparisons were made in cross section and long section.

Cut-off Grades

The Mineral Resource estimate derived from the Abenab mineral resource model is stated at various cut-off and is shown in Table 1. SRK considers 0.5% V_2O_5 to be the optimum reporting lower cut-off because it is similar to the potential economic criteria.

Metallurgical Testwork

The Abenab mine was considered to be the "world's richest" vanadium mine. It produced 1.85 Mt of ore at an average grade of 1.05% V_2O_5 plus lead and zinc.

The ore was concentrated by simple gravity separation. The Abenab Concentrator (using both Abenab ore and ore from Abenab West) produced concentrate grading 18% V_2O_5, 42% Pb and 13% Zn.

In 2012, metallurgical testing of Abenab ore by Avonlea Minerals Ltd, (now AVZ Minerals Ltd[1]), achieved results superior to the results achieved by historical production. **A concentrate grade of 21% vanadium pentoxide (V_2O_5), 53% lead and 15% zinc was achieved using simple modern gravity separation techniques.**

The Abenab concentrate has the attribute of exhibiting a uniquely high tenor (or superior vanadium concentrate levels of 20%). This characteristic together with the lack of impurities (from simple gravity separation) enables it to be more cheaply and easily refined into high purity V_2O_5. Other vanadium deposits are typically magnetite hosted and exhibit a tenor of only 1 to 3% V_2O_5.

[1] Avonlea Minerals Limited (ASX:AVL) ASX announcement 19th July 2012: Key vanadium assay and metallurgical results Abedab project, Namibia.

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For further information, please contact:

Graham Baldisseri	Martin Bennett
Company Secretary	**Exploration Manager**
P: +61 8 9481 7833	P: +61 8 9481 7833
E: gbaldisseri@kmm.com.au	E: mbennett@ kmm.com.au

Caution Regarding Forward-Looking Information

Competent Person Statements

The information in this announcement that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. Alex Aitken and Mr David Slater of SRK. Mr Slater and Mr Aitken are consultants to Golden Deeps Limited and both are members of the Australian Institute of Geoscientists (AIG). Mr Aitken takes responsibility for data collection and geological interpretation aspects and Mr Slater takes responsibility for the estimation aspects. Mr Aitken and Mr Slater have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Aitken and Mr Slater consent to the inclusion in this report of the matters based on their information in the form and context in which it appears.

The information in this announcement that relates to metallurgical test work is based on information compiled by Mr. Martin Bennett. Mr Bennett is a consultant to Golden Deeps Limited and is a member of the Australian Institute of Geoscientists (AIG). Mr Bennett has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bennett consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

JORC Code 2012 Edition – Table 1

APPENDIX 1

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 downhole 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.	• Diamond core samples were taken from half-cut HQ core with sample lengths between 0.3 m and 1.2 m. Core samples intervals were selected so as not to cross geological boundaries. • Samples were representative of the geology and mineralisation • Samples in one drill hole, BH036, were taken from a historical cross section from Tsumeb Corporation, but were not used in resource estimation (used to guide interpretation only).
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.).	• HQ core drilling from surface was used. • Core was orientated each run using the spear method.
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.	• Sample recovery was logged by Avonlea Minerals Ltd (AVZ) geological team into Microsoft Excel spreadsheets. • Good recovery was encountered (87% in total) in the drilling, with cavities and core loss marked by drillers within core trays. • There is no known bias between core recovery and grade.
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.	• Detailed lithological and structural logging was carried out by AVZ geologists using company standard protocols. • Lithology, alteration, mineralisation and structure were captured in the logging. • All drill core was photographed prior to cutting after geological logging with sample mark-up and orientations preserved.

Criteria	JORC Code explanation	Commentary
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.	• Drill core samples have been half-core sampled from HQ core. • Sample intervals are 0.3 m to 1.2 m, with an average of 1 m. • Drill core was cut on site by AVZ personnel with samples confined to geological boundaries, unless <0.3 m, from logging as assigned by AVZ geologists. • No Field duplicates were taken. • Samples are considered to be representative of geology and mineralisation.
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 were submitted to Genalysis – Maddington, Perth, for analysis. Samples were transported to Genalysis - Walvis Bay, Namibia, for initial sample preparation and then forwarded to Maddington, Perth. • Samples were analysed for V, Pb, Zn, S, Cu, As, Ti, Ag using ICP/MS/OES methods with a sodium peroxide fusion method. • QA/QC was analysed from samples submitted to laboratory and found to be sufficient for the resource estimation. • Standards were routinely submitted with all assay batches at a rate of 1:20. • Standards used from Geostats Pty Ltd included GBM399-5 and GBM910-8, GBM311-3 and GBM909-11. • These are base metal standards certified for Pb, Zn and Cu. No V standards were used at the time of analysis due to lack of commercially available standards of similar characteristics; however, Pb, Zn and Cu standards validate the V data. • No field duplicate samples or blanks were used in the AVZ drilling programs.
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.	• No verification has been conducted on the samples. • No twin holes of the AVZ drilling has been completed. • No adjustment to the assay data has been made.

Criteria	JORC Code explanation	Commentary
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.	• Drill hole collars were located using GPS by AVZ geological staff with sufficient accuracy for this study.
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 Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	• Drill spacing for 2011-2012 drilling was 20–40 m, with holes drilled at 80˚ or 85˚ dip perpendicular to the known 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.	• Drill core was oriented were possible with structural data recorded as alpha/ beta measurements. • Drilling was orientated perpendicular to geological units and interpreted mineralised zone from mined-out areas.
Sample security	• The measures taken to ensure sample security.	• Samples were bagged and sealed and transported by AVZ field staff to the laboratory in Walvis Bay, Namibia, and then via registered international carrier to Genalysis in Perth.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No independent audit of sampling techniques has been completed; however, SRK has reviewed procedures supplied and found them to be appropriate.

Section 2 Reporting of Exploration Results

(Criteria listed in section 1 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.	• The Abenab project lies within one exploration licence, EPL5496. • The exploration licence is held by a Golden Deeps Ltd 80% owned Namibian subsidiary, Huab Energy (Pty) Ltd. • The Government of Namibia has a 3% royalty on any base metal production. • There are no material issues, native title or environmental constraints known to SRK which may be deemed an impediment to the continuity of the Abenab project.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• Previous exploration at the Abenab project has been completed by South West Africa Company, Tsumeb Corporation Ltd, Goldfields of Namibia, Japanese International Cooperation Agency, Kudu Minerals and Avonlea Minerals Ltd.
Geology	• Deposit type, geological setting and style of mineralisation.	• Abenab deposit is hosted within carbonate units of the Otavi Group rocks. Mineralisation is hosted on or near the contact between units of the Maiberg Formation. • Mineralisation is historically hosted as a pipe-like body described as a collapse breccia with clay. • Vanadium-lead-zinc mineralisation is hosted within an oxide mineral known as descloisite +- vanadinite.
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 drillholes: – easting and northing of the drillhole collar – elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar – dip and azimuth of the hole – downhole 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.	• No exploration results are reported.

Criteria	JORC Code explanation	Commentary
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.	• No exploration results are reported.
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. • If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	• No exploration results are reported.
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 drillhole collar locations and appropriate sectional views.	• See body of the report for relevant plan and sectional views.
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.	• Not applicable as no exploration results are reported.
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.	• Golden Deeps is assessing the geological data from previous companies to potentially expand the resource and geological knowledge of the Abenab and Christiana deposits.

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	• 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.	• Resource data are 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.
Site visits	• 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.	• No site visit was undertaken by SRK for this specific review; however, Alex Aitken, CP responsible for the geology model and data integrity in the Mineral Resource was on site during the AVZ drilling operations in 2010–2012. David Slater (CP) who takes responsibility for the Mineral Resource estimation has not been to site.
Geological interpretation	• 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.	• Geological interpretation has been conducted in the software package Vulcan with sectional and plan interpretation based on geological and grade data. • Interpretation was conducted by SRK and validated with the AVZ interpretation. • Interpretation was guided by geological logging with mineralisation contained within the quartz-carbonate breccia as descloisite mineralised breccias and veins.
Dimensions	• 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.	• The geological resource is confined to an area approximately 125 × 160 m, with six stacked lenses of mineralisation. • Resource block model has extents to adequately cover the known mineralisation.

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	• 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 drillhole data, and use of reconciliation data if available.	• The resource estimates were prepared using conventional block modelling and ordinary Kriging (OK) estimation techniques. Single models were prepared to represent the defined extents of the mineralisation for each deposit. The modelling study was performed using Vulcan and Supervisor software. • Kriging neighbourhood analyses (KNA) studies were used to assess a range of parent cell dimensions, and a size of 5 × 5 × 2 m (XYZ) was considered appropriate given the drill spacing, grade continuity characteristics, and the expected mining method. • The lode wireframes were used as hard boundary estimation constraints. The drill data did not show evidence of significant supergene enrichment or grade trending with depth, and for this reason, the weathering surfaces were not used as estimation constraints. • Probability plots and distribution disintegration plots were used to identify outlier values, with grade cuts applied accordingly. • The parent cell grades were estimated using OK. Search orientations and weighting factors were derived from variographic studies. A multiple-pass estimation strategy was invoked, with KNA used to assist with the selection of search distances and sample number constraints. • V_2O_5 is deemed to be the only constituent of economic importance, and by-products of Zn and Pb are expected. • The model does not contain estimates of any deleterious elements. • This study used swath plots, statistics, visual review and internal peer review to validate the estimate.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• The resource estimates are expressed on a dry tonnage basis, and in situ moisture content has not been estimated. A description of density data is presented below.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• Multiple lower cut-off grades have been reported by SRK; however, 0.5% V_2O_5 is considered by SRK to be representative of an economic cut-off grade.

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	• 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.	• 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	• 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.	• AVZ completed metallurgical testwork in 2012 from representative bulk samples taken from onsite stockpiles. • Gravity separation using a 1 mm crushed material using wet tables and spirals to produce a heavy mineral concentrate. • Process flow sheet defined from historical documents from the mine processing plant correlated with the AVZ metallurgical testwork. • Detailed metallurgical testwork is planned to be completed as part of further studies.
Environmental factors or assumptions	• 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.	• No known environmental factors or assumptions have been made at this stage of the project.
Bulk density	• 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.	• Bulk density was measured by Genalysis for the samples from ABD008 with a total of 257 samples, using the' water immersion' method. • An average dry bulk density of 2.81 t/m^3 was applied to the mineralised material.

Criteria	JORC Code explanation	Commentary
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • 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.	• The 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. • The 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. • Past mining activities in the area, and operations with similar mineralisation style and grade tenor within the region, support the potential economic viability of the deposits. • Based on the findings summarised above, it was concluded that the controlling factor for classification was sample coverage. A classification of Inferred was assigned to all domained material.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• No independent audits or reviews have been conducted on the resource estimates; however, Golden Deep personnel have reviewed SRK's estimate. SRK has also completed internal peer review.
Discussion of relative accuracy/ confidence	• 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.	• The 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 lode interpretation. However, based on pit exposures and core logging, 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. • In a lode system, the incorrect linking of individual lodes between drill lines is possible, but the relatively close drill spacing would mean that any such occurrences may impact upon the localised estimates, but are not expected to significantly affect the regional or global estimates. • The Mineral Resource estimate should be considered as a global estimate only. The accompanying model is considered suitable to support broad scoping mine planning studies, but is not considered suitable for detailed production planning.