

31 July 2018

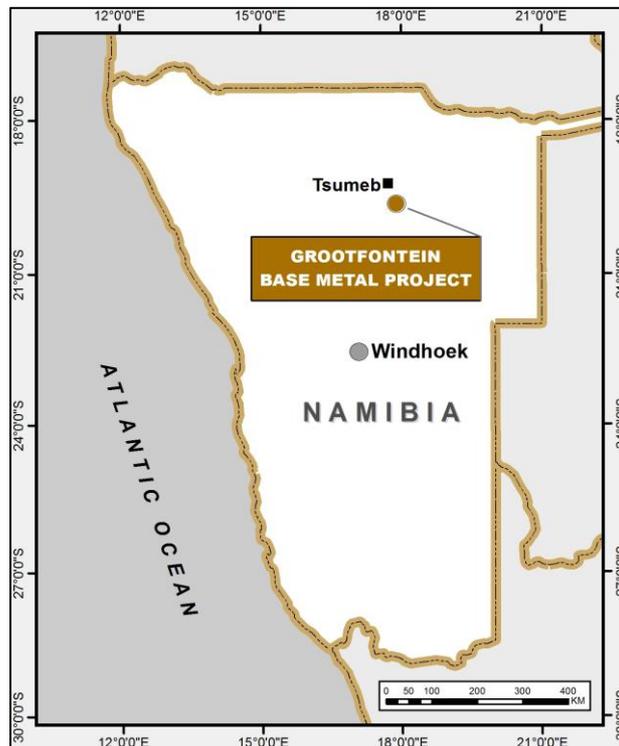
## Quarterly Activities Report

for the Period Ended 30 June 2018

### HIGHLIGHTS

- Planning for a 4,600 metre RC percussion drilling program at the Christiana deposit began during the quarter
- Preparation for surveying and sampling vanadium mineralised surface stockpiles and tailings at the Abenab/Christiana Project commenced during the quarter
- Planning for metallurgical testwork utilising gravity separation methods to follow drilling
- Golden Deeps acquired a 70% interest in the Professor and Waldman high-grade cobalt-silver projects in the Cobalt Mining Camp in Ontario, Canada
- Golden Deeps completed a private Placement to raise \$2,200,000 (gross) via the issue of 36,666,667 fully paid ordinary shares at an issue price of \$0.06 per share

### GROOTFONTEIN VANADIUM AND BASE METAL PROJECT



**Figure 1 - Location of the Company's Grootfontein Project in Namibia**

The Company holds an 80% interest in the Grootfontein Vanadium and Base Metal Project. The Project is located in the Otavi Mountain Land (OML), north east Namibia (Figure 1) approximately 400 km north of the capital Windhoek. The OML is a globally significant base metal province with production coming from several mines, including the now closed Tsumeb, Kombat, Abenab, and Berg Aukas.

The Project comprises a total of five exclusive prospecting licences (EPL's), four of which are granted and one is still under renewal. A further three EPL's have been applied for but are not yet granted (Figure 2). The Project area is accessed via the main highway north from Windhoek and major roads connecting the towns of Otavi, Kombat, Tsumeb and Grootfontein.

On its tenements and applications,

**Golden Deeps Limited** (ABN 12 054 570 777)

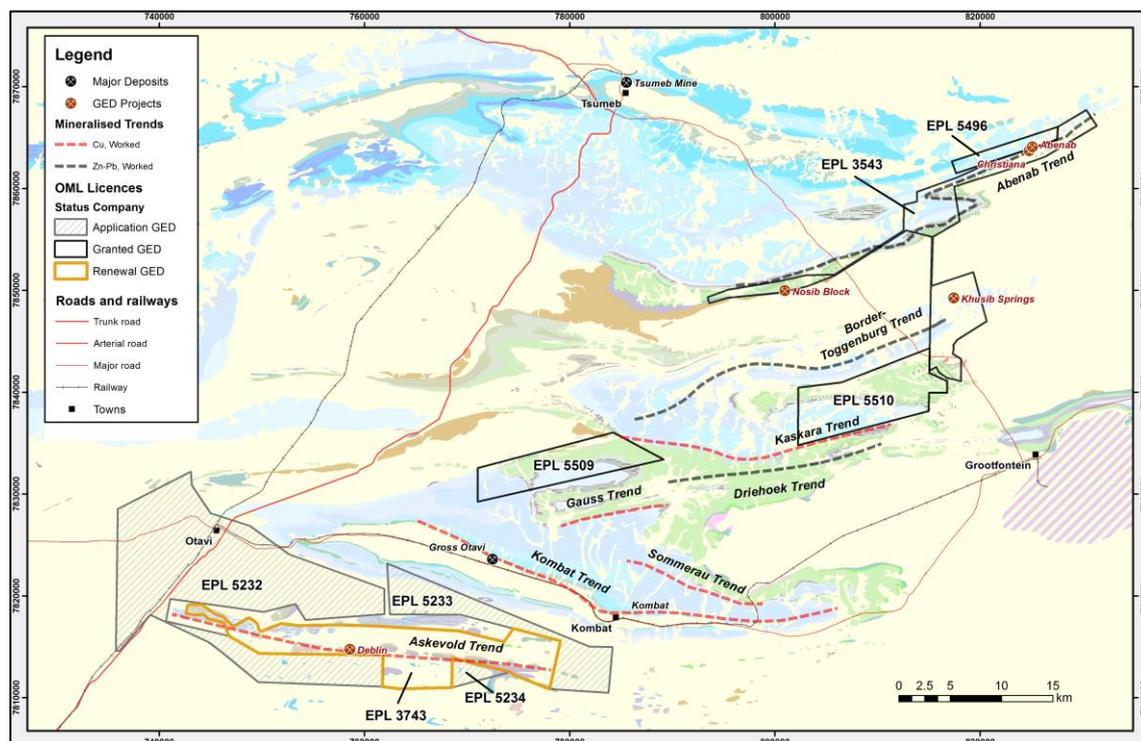


Golden Deeps holds two of the five historically important mines of the Otavi Mountain Land – Abenab and Christiana (formerly Abenab West). Both mines have only been tested over short strike lengths, with significant exploration upside available to GED.

### Activities during the Quarter

GED has identified the opportunity to define near-surface vanadium-lead-zinc resources and to re-open or extend the adjacent historical Abenab and Christiana mines. The unusual, high grade vanadate mineralogy of the deposits is unlike any operating or proposed vanadium mines and is amenable to simple, very low cost gravity-based processing methods to produce an exceptionally high grade and high value multi-metal concentrate rich in vanadium pentoxide ( $V_2O_5$ ), lead and zinc.

Abenab mine historical production was approximately **102,000 tonnes of concentrate grading 18%  $V_2O_5$ , 13% zinc and 42% lead**. Christiana mine produced approximately **74,000 tonnes of concentrate grading 13%  $V_2O_5$  and 72% lead**.



**Figure 2 - Location and tenement status map of the Grootfontein Base Metal Project, showing the location of historical mines and key prospect areas**

### Abenab-Christiana Project

The Abenab-Christiana Project is situated at the north-west end of 40 km long zone mineralised carbonate stratigraphy, which hosts a large number of historical mining centres and untested vanadium and base metal (zinc, lead and copper) geochemical anomalies defined by systematic soil sampling (Figure 3). The Company controls all the key mines along the trend, including Abenab, Christiana (formerly known as Abenab West), Abenab East, Karuchas West, Okurundu Pipe and Nosib Block.



The region is easily accessible and has excellent infrastructure, including road, power and mobile telephone network.

The Abenab group of deposits was discovered in the early 20<sup>th</sup> century, and mined up until 1958. The Abenab and Christiana (Abenab West) mines were known as the “world’s richest” and largest known deposits of base metal vanadate ore, producing a substantial amount of very high-grade concentrate.

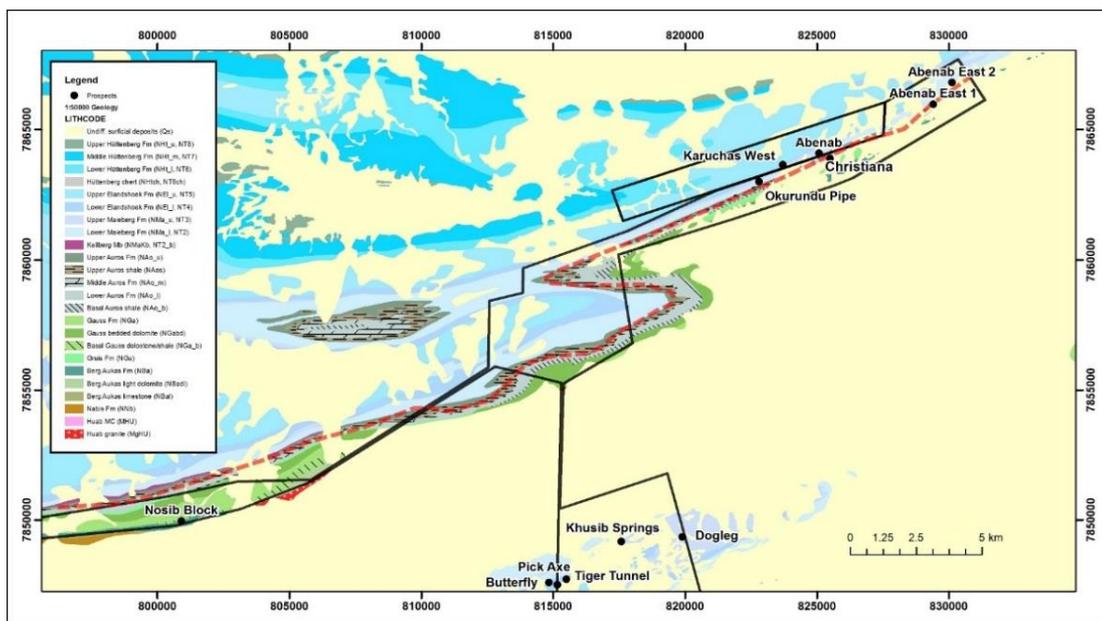
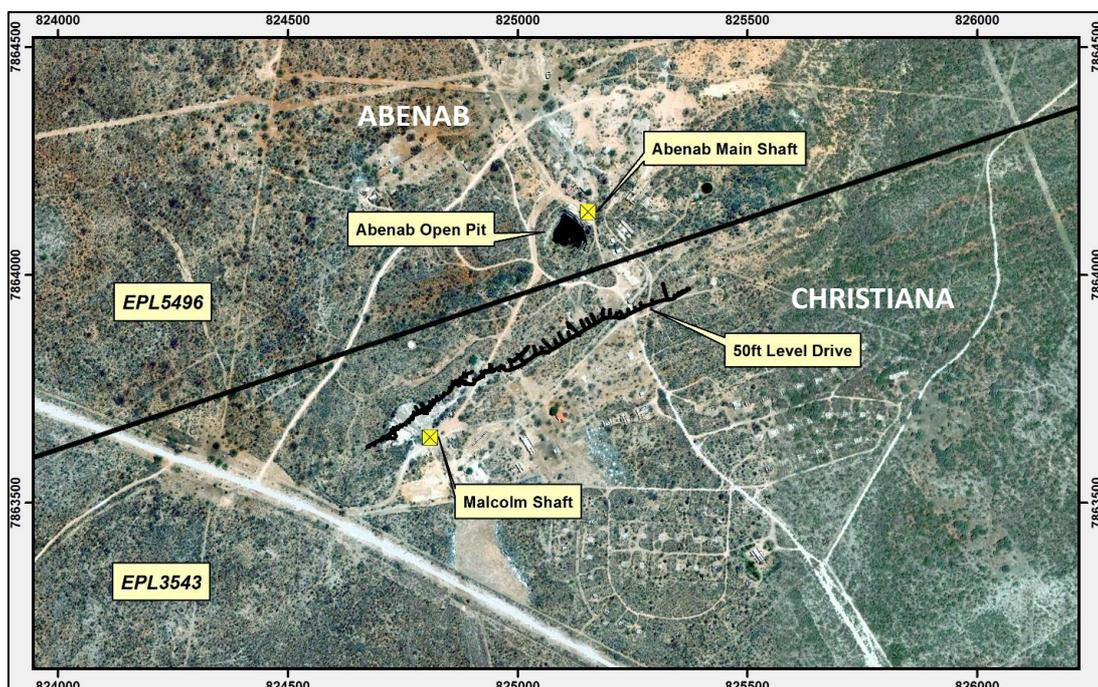


Figure 3 - Diagram of the Abenab-Nosib Trend showing the location of key historical mines, prospect areas and the Company's tenements.

The Abenab and Christiana Mines are located only a few hundred metres apart (Figure 4). Prior exploration by GED and others (refer to GED announcement dated 8 May 2018) indicates that the deposits have potential for the discovery of further vanadium-base metal mineralisation that can be developed and processed in a similar way to the historical operations.





**Figure 4: Image of the Abenab-Christiana mine site showing some of the important workings and local infrastructure.**

### **Metallurgical Testwork**

Preliminary metallurgical testing of mineralisation sourced from surface stockpiles at Abenab has confirmed that simple coarse grinding (-1 mm) and gravity separation of the vanadium-rich mineralisation (over a wet table) is an effective liberation process, and essentially replicates the historical processing method. **Exceptional concentrate grade up to 21% V<sub>2</sub>O<sub>5</sub>, 14% Zn and 53% Pb has been reported** (refer to GED announcement dated 8 May 2018), with potential to increase vanadium recovery up to +80% through further gravity test work such as regrind work, spiral tests or by de-sliming the composite head sample.

Further metallurgical testwork has been planned, using mineralisation from both Abenab and Christiana, to assist in treatment process design based on gravity separation using modern advances in processing technology. Samples for testwork will be collected concurrently with the proposed surveying and drilling programs in the Project area (see below).

### **Surveying and Sampling**

The Company is currently commencing a detailed surface survey of the Abenab and Christiana sites to determine the size and volume of the mineralised stockpiles and tailings impoundments already at surface. Combined with appropriate sampling programs, GED intends to quantify the tonnage and grade of the mineralisation currently on surface.

**The Company has previously reported exploration targets of between 100,000 and 130,000 tonnes at a grade of 0.8% to 1.5% V<sub>2</sub>O<sub>5</sub> for Abenab mineralised stockpiles, and an additional 80,000 to 100,000 tonnes at a grade of 0.25-0.35% V<sub>2</sub>O<sub>5</sub>, 1.3-2.0% Pb and 1.5-2.5% Zn for the main Abenab tailings impoundment (refer to GED announcement dated 8 May 2018)<sup>1</sup>.**

Options for trial processing, using the existing surface stockpiles of mineralisation and tailings, are currently being investigated.

### **Drilling Programs**

At Christiana, GED already has all the necessary environmental permits and a reverse circulation (RC) percussion drilling program comprising approximately 53 drill holes for a nominal 4,600 m of drilling has been planned for the September quarter to quantify the extent, grade and continuity of the mineralised zone (Figure 5). Initial drilling will target depths of up to 120 m depth below surface along the trend of the known workings.

Previous surface and underground channel sampling at Christiana by GED has defined a linear zone of near-surface mineralisation over at least 500 m strike, up to 70 m apparent thickness and over 30 m in vertical extent. High grade mineralisation has been sampled within this zone (for full details, refer to GED announcement dated 8 May 2018), such as:

- ABUG0021, 12m @ 5.36% Pb+Zn (3.08% Zn and 2.28% Pb) and 0.85% V<sub>2</sub>O<sub>5</sub>

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<sup>1</sup> Note that the Company has not yet obtained the sampling data, nor verified the methods used to evaluate the potential quantity and grade of the stockpiles and tailings at the Abenab Mine. The potential quantity and grade of the stockpiles and tailings are therefore conceptual in nature. There has not been sufficient exploration to estimate a mineral resource for the stockpiles or tailings and it is uncertain if further exploration will result in the estimation of a mineral resource.



- including 1m @ 28.35% Pb+Zn (8.65% Zn and 19.70% Pb) and 7.02% V<sub>2</sub>O<sub>5</sub>
- ABUG0022 44m @ 22.11% Pb+Zn (20.39% Zn and 1.72% Pb) and 0.53% V<sub>2</sub>O<sub>5</sub>  
including 25m @ 33.39% Pb+Zn (31.06% Zn and 2.34% Pb) and 0.76% V<sub>2</sub>O<sub>5</sub>

Drilling is intended to provide sufficient detail along this mineralised zone to enable the estimation of a vanadium-lead-zinc mineral resource.

GED has obtained quotations for the drilling program from Namibian drilling contractors and its Namibian-based technical team is preparing to implement and supervise the drilling.

A program of RC percussion and diamond drilling is also proposed at Abenab to infill and extend the mineralisation discovered adjacent to the mine area in 2012. The Company has commenced the process to obtain the statutory environmental approvals that are required on the EPL 5496 licence before any ground disturbing exploration activities can be undertaken.

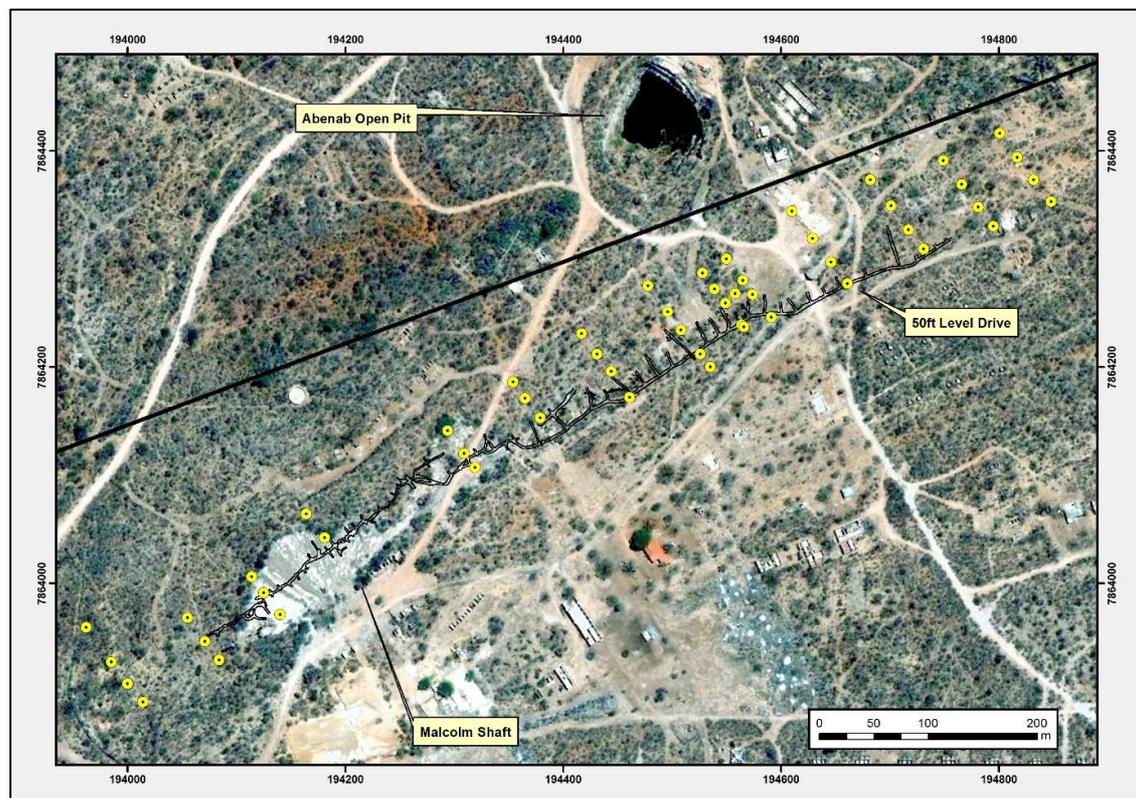


Figure 5: Proposed RC percussion drill hole collar locations (yellow dots) overlain on aerial photograph and projected 50ft underground development level at the Christiana Mine.

### Historical Data

GED has obtained extensive historical records and data regarding the geology, mineralisation and mines at Abenab-Christiana. The Company is continuing to compile the results of more recent exploration that will be critical to report known resources in compliance with the JORC 2012 Code and to assist with planning of further exploration drilling.



## Tenement Status (EPL 3743 – Askevold)

EPL3743 (Askevold) is currently undergoing the process of renewal and the Company has been liaising with the MME regarding this tenement. The licence is of interest for copper exploration around the historical Deblin copper mine. The Company is confident that this renewal will be granted in due course.

## ONTARIO COBALT-SILVER PROJECTS

In late 2017 Golden Deeps Limited (ASX: **GED** or the Company) entered into a binding agreement to acquire up to a 100% interest in each of the Professor and Waldman Cobalt-Silver Projects located in Ontario, Canada (*refer to GED announcement dated 7 December 2017*). The Projects are located within the Cobalt Mining Camp which is historically the most prolific silver-cobalt mining camp in Canada, with some 50 million pounds of cobalt and 600 million ounces of silver mined over a 60-year period with peak production from 1919 to 1931.



During the quarter, the Company completed the next stage in the acquisition of the Projects, through the cash payment of CAD\$90,000 to the vendors. Golden Deeps now holds a 70% interest in the Projects and has the right to acquire a 100% interest (*refer to GED announcement dated 29 June 2018*).

### Project Location

The Professor Cobalt-Silver Project and the Waldman Cobalt-Silver Project are both located in the historic Cobalt Mining Camp approximately 400 km north of Toronto (Figure 6) and 5 km south-southeast of the town of Cobalt, Ontario (Figure 7).

**Figure 6: Location of Cobalt-Silver Projects in Ontario, Canada**

The Projects exhibit similar geology to other past operating and producing mines in the region, such as the University Mine, Silverfields Mine and Cleopatra Mine.

## Activities During the Quarter

An exploration program for the Professor and Waldman Projects is being prepared for implementation during the 2018 field season in Ontario.

The Company has submitted relevant permitting applications for a comprehensive program of fieldwork on the Professor and Waldman claim blocks with the Ontario Ministry of Northern Development and Mines (MNDM). Permitting requirements for accessing historical workings such as the Professor Adit in order to conduct further sampling are also being progressed with the MNDM.



The Company has obtained regional airborne magnetic and electromagnetic (EM) survey data for the project areas, which have been reprocessed to modern standards to provide a basis for broad-scale geological and structural interpretation.

Modern geophysical exploration techniques such as detailed induced polarisation (IP), magnetics and gravity have not historically been utilised in the Cobalt District. Nor has systematic structural analysis been applied to the mineralised veins in order to discover non-outcropping “blind” mineralisation. This presents a significant opportunity for an accelerated exploration program to discover further deposits.

Golden Deep has obtained quotations for the completion of both detailed airborne magnetic/EM surveys and for ground IP surveys over the claim blocks and is currently evaluating the implementation of these surveys.

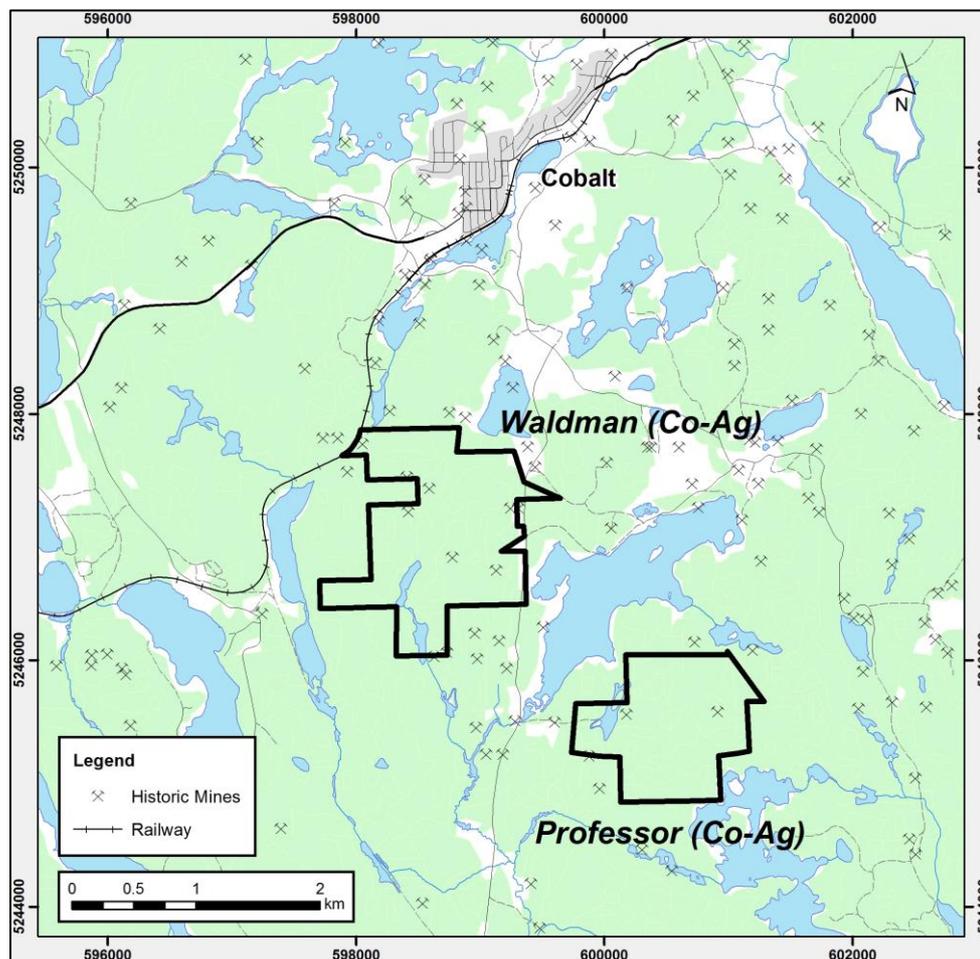


Figure 7 - Professor and Waldman Cobalt-Silver Projects Location Map

## CORPORATE

### Share Placement

During the quarter the Company successfully completed a Private Placement to raise \$2,200,000 (gross) via the issue of 36,666,667 fully paid ordinary shares at an issue price of \$0.06 per share (the Placement, refer to GED announcement dated 9 May 2018). Subscribers in



the Placement were also granted a free attaching option on a 1-for-1 basis, with each option having an exercise price of \$0.10 and an expiry date of 30 April 2019.

### **General Meeting**

A General Meeting of the Company was held on 6 July, 2018. All resolutions put to the meeting were passed (*refer to GED announcement dated 6 July 2018*).

**ENDS**

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### **Or consult our website:**

[www.goldendeeps.com](http://www.goldendeeps.com)

### **Competent Person Declaration**

The information in this report that relates to Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves is based on information compiled by Lachlan Reynolds, who is a consultant to Golden Deeps Limited and a member of The Australasian Institute of Mining and Metallurgy. Mr Reynolds has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves". Mr Reynolds consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Pursuant to ASX Listing Rule 5.23.2, the Company confirms that it is not aware of any new information or data that materially affects the information included in the announcements referenced in this report. 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.

### **Forward-Looking Statements**

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Golden Deeps Limited's planned exploration programme and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although Golden Deeps Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.



### APPENDIX I – Schedule of Tenements Namibia

Country	State/Region	Project	Tenement ID	Area km <sup>2</sup>	Grant Date	Expiry Date	Interest
Namibia	Otjozondjupa	Grootfontein Base Metals	EPL 3543	89	12/09/2006	11/09/2019	80%
			EPL 3743	120	28/08/2007	27/08/2015*	80%
			EPL 5232	260	Application	-	NA
			EPL 5233	63	Application	-	NA
			EPL 5234	8.4	Application	-	NA
			EPL 5496	13	07/04/2016	06/04/2019	100%
			EPL 5509	56	07/04/2016	06/04/2019	100%
			EPL 5510	73	07/04/2016	06/04/2019	100%

\* EPL currently under renewal

### APPENDIX II – Schedule of Tenements Canada

Country	State/Region	Project	Claim No.	Claim Type	Area ha	Expiry Date	Interest*
Canada	Ontario	Professor Co-Ag	A100	Patent	5.96	-	70%
			A96	Patent	7.71	-	70%
			C1000	Patent	8.48	-	70%
			C1376	Patent	6.78	-	70%
			C1383	Patent	8.28	-	70%
			C1384	Patent	6.61	-	70%
			C976	Patent	7.29	-	70%
			T18798	Lease	10.84	31/01/2019	70%
			T19086	Patent	7.90	-	70%
			T19481	Patent	7.29	-	70%
			T19492	Patent	8.77	-	70%
			T25837	Lease	7.83	31/07/2022	70%
			T25838	Lease	8.03	31/07/2022	70%
			T27896	Lease	8.26	31/08/2022	70%
			T27897	Lease	7.06	31/08/2022	70%
		T43067	Lease	10.23	30/04/2023	70%	
		Waldman Co-Ag	3007689	Mining Claim	2.85	22/06/2019	70%
			4275151	Mining Claim	7.98	19/01/2019	70%
			4275174	Mining Claim	70.13	30/10/2018	70%
			4276127	Mining Claim	9.33	19/01/2019	70%
			4278605	Mining Claim	5.56	24/02/2019	70%
			4278606	Mining Claim	8.35	24/02/2019	70%
			4278616	Mining Claim	21.15	8/12/2018	70%
4278619	Mining Claim		31.49	4/05/2019	70%		
4282360	Mining Claim	10.27	10/05/2019	70%			
4283637	Mining Claim	10.16	15/12/2019	70%			
4283638	Mining Claim	11.37	15/12/2019	70%			

\* Option to acquire 100% subject to terms of binding agreement