



Orion Minerals

ASX/JSE RELEASE: 4 April 2018

Orion Receives Notification of Grant of Prospecting Rights Over the Strike Extension of the Prieska Zinc-Copper Deposit

- ▶ **Newly granted area which was extensively drilled by previous mine owners, covers south eastern strike continuation of the Prieska Zinc-Copper deep sulphide Mineral Resource.**
- ▶ **The south eastern extension now granted represents an increase of approximately 30% to Orion's original target area for the contiguous Prieska Deep Sulphides target.**
- ▶ **Newly granted prospecting rights also cover the Annex Zinc-Copper VMS discovery, which is a satellite occurrence to Prieska and presents a high priority target for exploration.**

Orion Minerals Limited (ASX/JSE: ORN) (Orion or the Company) is pleased to announce that two subsidiary companies, Vardocube (Pty) Ltd (70% Orion, 30% BEE) (**Vardocube**) and Bartotrax (Pty) Ltd (74% Orion, 26% BEE) (**Bartotrax**), have each received notice of grant of Prospecting Rights from the Department of Mineral Resources for important contiguous areas around the Prieska Zinc-Copper Project (**Prieska Project**). The newly granted rights include two important occurrences of volcanogenic massive sulphide (**VMS**) Zinc-Copper mineralisation that were historically the subject of extensive drilling by previous owners, Anglovaal Group (**Anglovaal**) during the 1970s and 1980s. Most importantly, the Vardocube right provides access to the known strike extension of the main Prieska Zinc-Copper massive sulphide and represents a 30% increase to the strike of the main deep massive sulphide target that was originally identified by Orion based on previous surface and underground drilling.

Vardocube and the South Eastern Deeps

The Vardocube Prospecting Right covers an area of 6,085ha (Figure 1) and includes the geological strike extension to the main Prieska Deep Sulphide deposit. Recent drilling by Orion within the Repli Prospecting Right on the border with Vardocube (Figures 2 and 3) returned some of the most successful results from the 2017 drilling campaign. Drill hole OCOD074 (refer ASX release 12 December 2017) intersected three zones of mineralisation, including a thick high-grade intersection of 26.17m at 6.51% Zn and 1.31% Cu from 1,103.63m downhole. This hole, together with historic data, including 42 diamond drill intersections drilled by previous mine owners Anglovaal, provides encouragement for high-grade extensions of the Prieska Deep Sulphide Mineral Resource onto the Vardocube Prospecting Right. The area is also accessed by decline roadways reaching back to the Hutchings Hoisting Shaft (Figure 4). Data is currently being compiled for assessment; with infill and verification drilling planned to commence in May 2018.

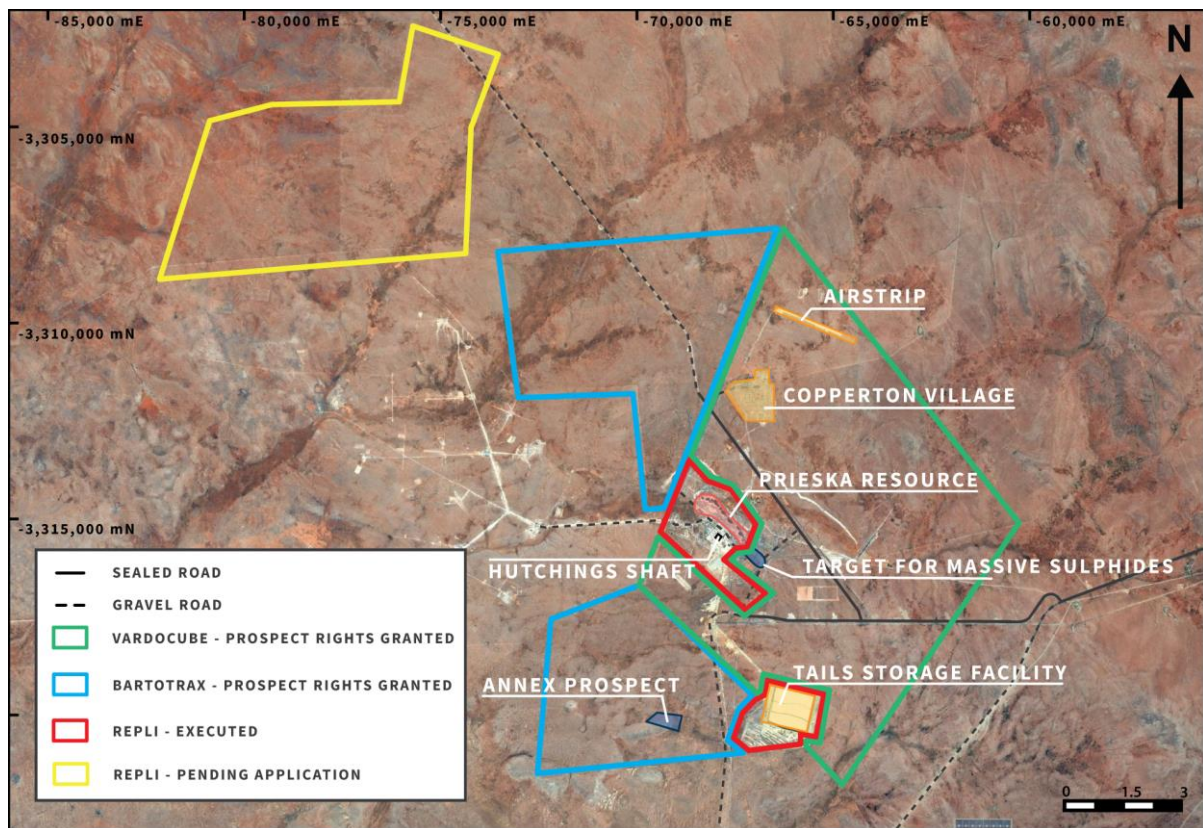


Figure 1: Map showing the Vardocube and Bartotrax Prospecting Rights, with known locations of advanced stage targets.

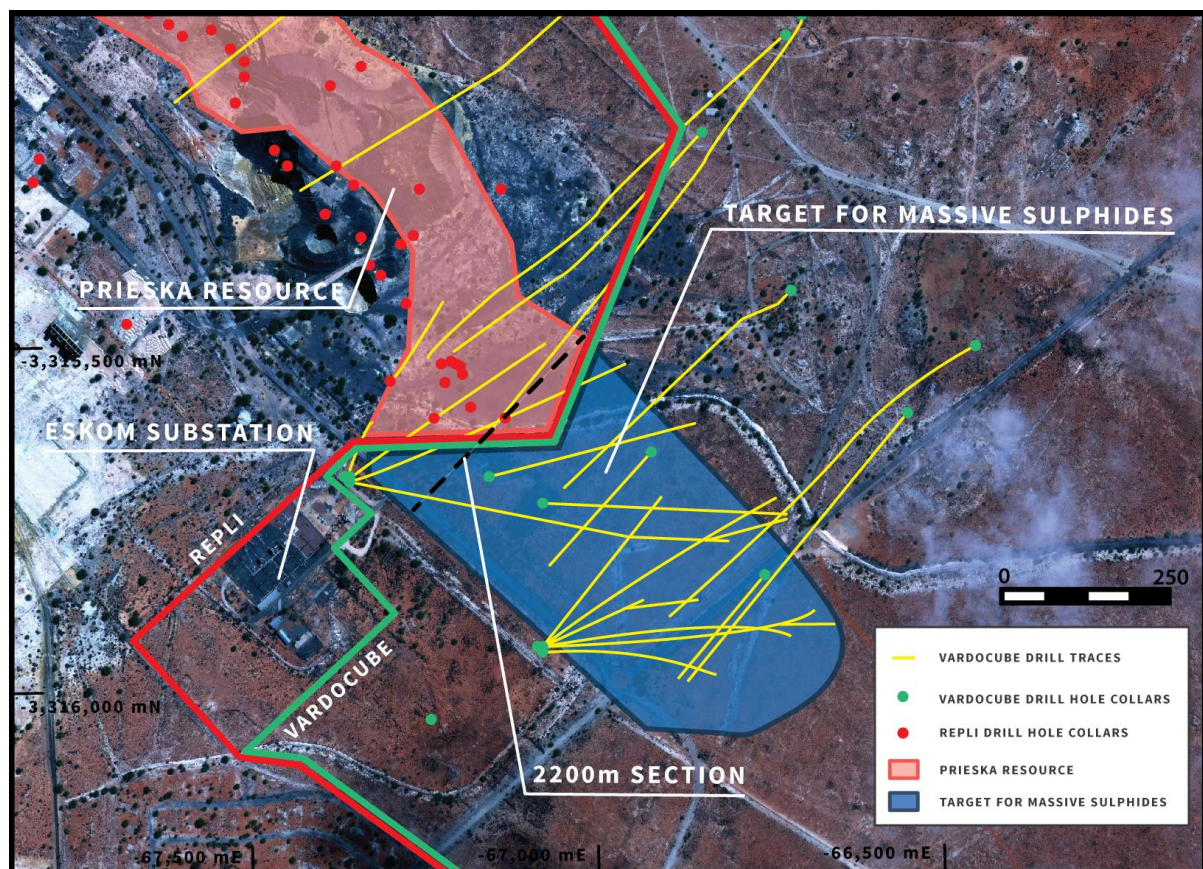


Figure 2: Outline of the Mineral Resource on Repli (refer ASX release 8 February 2018) and the strike extension target area located on Vardocube, with historic drilling supporting the drill target area and section line 2,200m with recent Orion drill hole OCOD074.

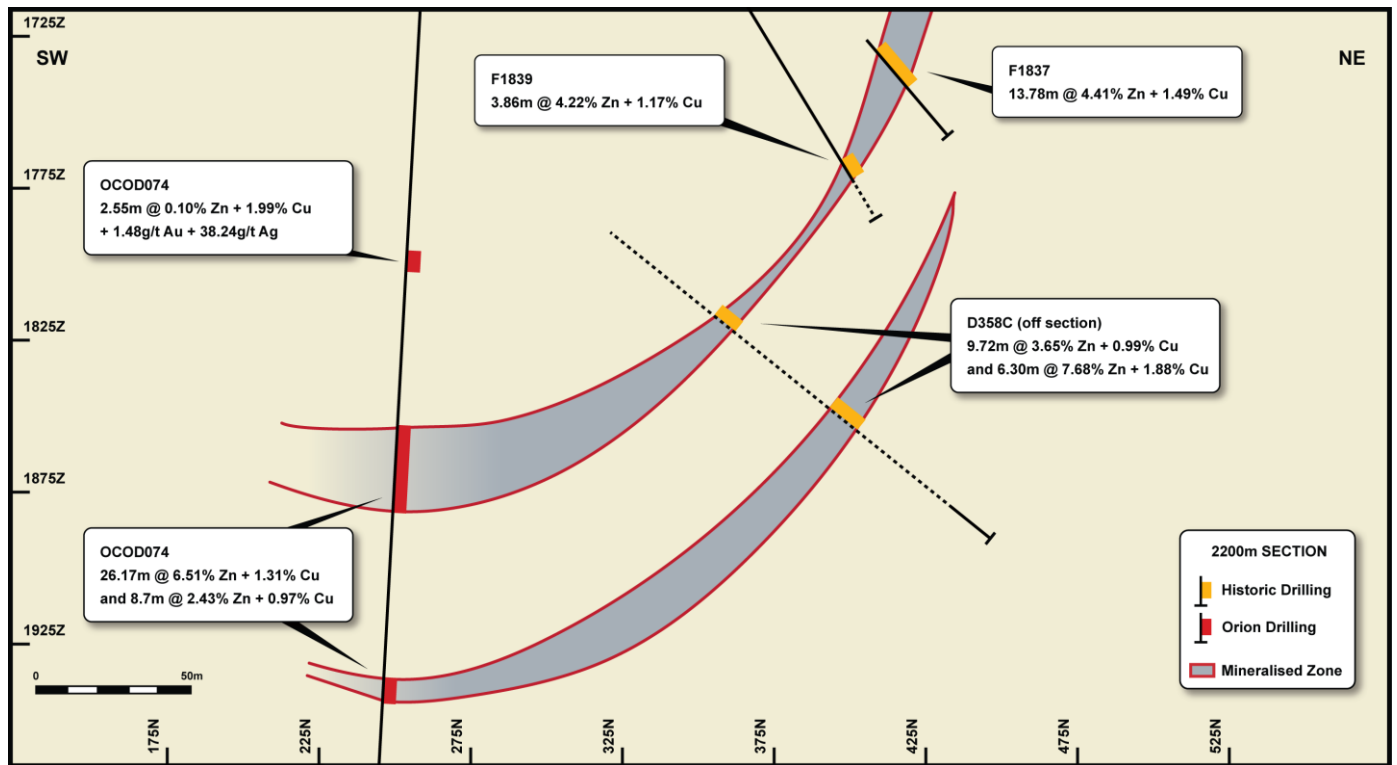


Figure 3: Section Line 2200m along the Vardocube Repli border showing the three mineralised zones intersected (refer ASX release 12 December 2017).

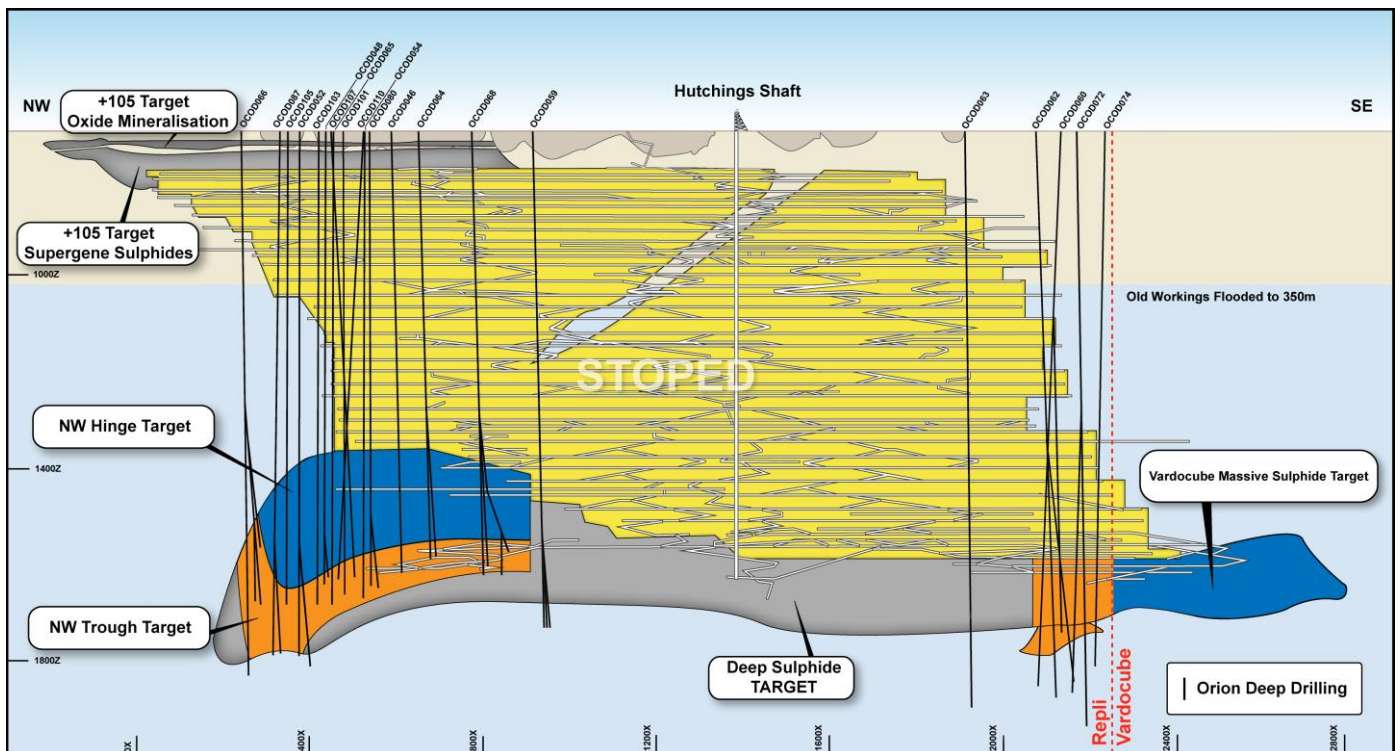


Figure 4: Long section through the Prieska Zn-Cu deposit showing the Vardocube Massive Sulphide target extension accessed by primary mine development from Repli.

The stacked lenses of massive sulphides (sulphide content > 40%) identified on the southern extension of the Repli Prospecting Right and extending into Vardocube presents a particularly important target for addition to the maiden Mineral Resource of 24.2Mt containing 874,000 tonnes Zn at 3.47% Zn and 297,000 tonnes Cu at 1.23% Cu recently announced by Orion (refer ASX release 8 February 2018). While the strike of the target area increases by approximately 30%, the existence of stacked sulphide lenses presents the opportunity to identify substantial additional tonnage in this area.

Bartotrax and the Annex VMS body

The Annex satellite VMS body (Figure 5) was discovered by Anglovaal in 1980 using electromagnetic (**EM**) surveys. The Zn-Cu-bearing massive sulphide (> 40% sulphide) is covered by a 35m-thick Dwyka tillite deposit and was tested by 42 diamond drill holes. This drilling was done contemporaneously to the final stages of drilling by Anglovaal on the Prieska deep sulphides and is expected to be of similar quality. Orion is compiling the extensive Annex data and assessing the quality of the available information. The Company expects to be able to provide an update on this information shortly. Ground EM, infill and verification drilling on this near-surface target is also expected to commence in May 2018 with drill rigs already available on site. The refolded stratigraphy between the Prieska Deposit and the Annex discovery is rated as a high-priority exploration area by Orion and has not been tested by modern geophysical methods such as those intended to now be applied. Modern EM techniques with higher power transmitters and more sensitive receivers provide more accurate surveying and modelling of massive sulphide bodies to greater depths than previous generations of the technology.

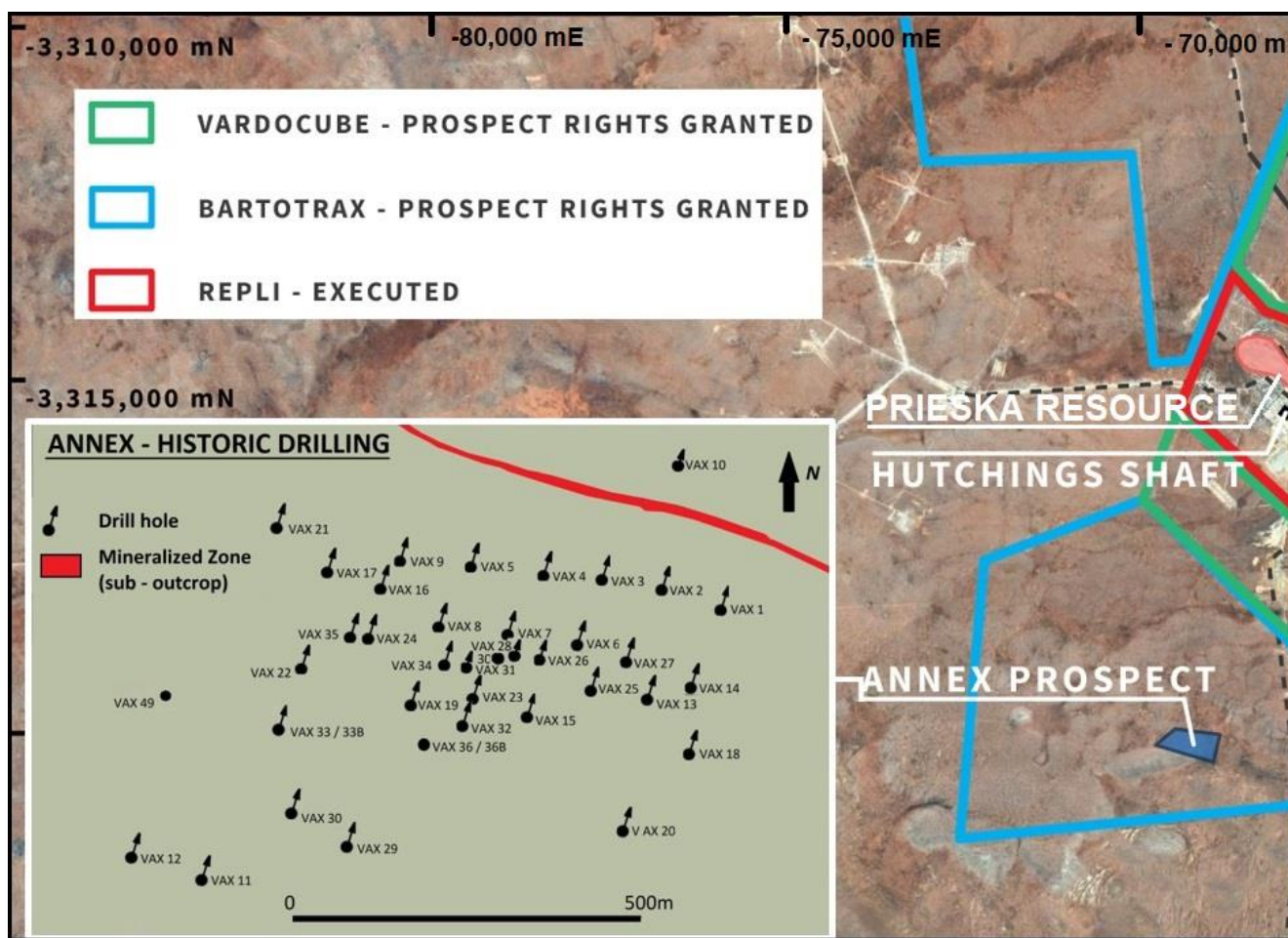


Figure 5: Drilling by Anglovaal on the Annex discovery (source: Prieska Mine Records).

Orion's Managing Director and CEO, Errol Smart, commented:

"Importantly, the new Prospecting Rights cover extensions to the Prieska deposit, which is already accessed by primary mine development. We are confident that the Vardocube extension will be included in the mining plan being developed as part of the Bankable Feasibility Study, which is on track for completion in Q4 2018."

Errol Smart
Managing Director and CEO

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ASX Listing Rule Compliance Requirement

The Company is not aware of any new information or data that materially affects the information included in the market announcements of 12 December 2017 and 8 February 2018 referred to in this announcement. With regards to the Mineral Resource, first reported on 8 February 2018, the Company confirms that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

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