Orion Minerals Limited
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Australian Company Number 098 939 274
ASX share code: ORN
JSE share code: ORN
ISIN: AU000000ORN1

Prieska Crown Pillar +105 Level Mineral Resource update results in improved definition and increased copper grade

- **Updated Mineral Resource estimate completed for the +105m Level Crown Pillar supergene and hypogene sulphide zones at the Prieska Copper Zinc Mine in South Africa, incorporating all 2023 drilling data and geological data gathered during trial mining.**
- **Updated total supergene and hypogene sulphide Mineral Resource of: 1.1 Mt @ 2.8% Cu and 2.2% Zn including an Indicated Resources of 0.8 Mt @ 2.84% Cu and 2.67% Zn and Inferred Resources of 0.3 Mt grading 2.6% Cu and 0.9% Zn.**
- **Improved definition of the mineralisation by separating out the higher grade more massive sulphide hangingwall unit for separate estimation has resulted in a 16% increase in the copper grade from 2.4% to 2.8%.**
- **Prieska's total Mineral Resource, reported and classified in accordance with the JORC Code (2012) is updated to 31 Mt grading 1.2% Cu and 3.6% Zn.**

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

"*Our 2024 trial mining exercise has delivered great results with improved geotechnical data and detailed geological observations that allowed the Mineral Resource to be re-estimated with improved results for mine design purposes.*

"*While the trial mining was focussed on the supergene sulphide ore, we also gained valuable data on the footwall host geology and geotechnical conditions, and we also exposed over 250m strike extent of transitional ore that demonstrated the remarkable consistent quality of the underlying hypogene ore.*

"*Our DFS for PCZM, which will be reported shortly, is expected to demonstrate the commercial value of this improved understanding of the +105 block, which is being labelled as the Uppers Project in the DFS study.*"

Orion Minerals Limited (**ASX/JSE: ORN**) (**Orion** or **Company**) is pleased to advise that it has taken another key step in its early mining strategy at the Prieska Copper Zinc Mine (**PCZM**) in the Northern Cape, South Africa with the completion of an updated Mineral Resource estimate (**MRE**) for the supergene sulphide and remnant hypogene sections of the near-surface +105 Level Crown Pillar reporting a combined Indicated and Inferred Mineral Resource of **1.1 Mt grading 2.8% Cu and 2.2% Zn** (Table 1).

The updated MRE is based on the incorporation of several additional holes drilled in 2023 and a reinterpretation of the geology by separating out the lower grade disseminated sulphides in the footwall unit from the higher-grade massive sulphide-dominated hangingwall unit made possible by extensive geological observation and data gathering during the trial mining program completed during Q1 and Q2 CY2024. The mining plan as part of the Definitive Feasibility Study (**DFS**) is focussed on the massive sulphide unit only.

The +105 Level Crown Pillar is located in close proximity to existing underground infrastructure and the northwestern section can be readily accessed via the trial mining underground infrastructure, allowing full scale mining activities to commence immediately with all required permits now in place.

The updated MRE for the +105 Level Crown Pillar brings the total Indicated and Inferred Mineral Resource including the Deep Sulphide Mineral Resource (refer ASX/JSE release 18 December 2018)[1] of the PCZM to **31 Mt grading 1.2% Cu and 3.6% Zn** (Figure 1, Table 3).

Updated +105m Level Crown Pillar Mineral Resource

The geological wireframe for the crown pillar has been updated to include additional drilling data from the 2023 reverse circulation (**RC**) drill campaign targeting metallurgical samples from the supergene sulphide zone and infilling of areas in the oxide zone. Geological mapping from the 2024 trial mining has also been used to modify the interpretation in this area.

Following an assessment of the trial mining information and drill hole data, there has been a review of the modelling parameters, resulting in separating out of the lower grade disseminated footwall unit from the hangingwall unit where higher grade massive sulphides dominate. This upper unit represents the planned mining cut in the mining plan to be reported in the DFS, with intended imminent release (Figure 2).

The MRE has been updated based on the additional drilling, geological mapping and observation in the trial mining, and resultant changes to the interpretation described above. This has resulted in changes to the MRE for the supergene sulphides and remnant hypogene zone from 1.3 Mt grading 2.4% Cu and 2.1% Zn (refer ASX/JSE release 25 July 2023) to **1.1 Mt grading 2.8% Cu and 2.2% Zn**, including Indicated Resources of **0.8 Mt grading 2.84% Cu and 2.67% Zn** and Inferred Resources of 0.3 Mt grading 2.6% Cu and 0.9% Zn. Significantly, while there is a 14% drop in the tonnage, the increase in copper grade results in the copper content remaining largely unchanged at approximately 30,000t.

The +105m Level Mineral Resources shown in Table 1 are based on drilling data available for the Prieska Copper Zinc Mine (previously Repli) Mining Right NC30/5/1/2/2/10138MR. The Mineral Resources are reported in accordance with the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (**JORC Code (2012)**), with supporting information provided in Appendix 1, 2 and 3.

Table 1: Global Indicated and Inferred Mineral Resource statement for the +105m Level Resource Block of the PCZM.

Classification	Mineralised Zone	Tonnes	Cu (tonnes)	Cu (%)	Zn (tonnes)	Zn (%)
Indicated	HW Oxide	200,000	1,000	0.48	2,000	0.90
	Oxide	490,000	4,000	0.81	4,000	0.73
	Supergene Sulphide	720,000	22,000	2.99	17,000	2.42
	Hypogene	80,000	1,000	1.43	4,000	5.00
	Total	**1,500,000**	**28,000**	**1.86**	**27,000**	**1.79**
Inferred	HW Oxide	30,000	100	0.4	300	1.0
	Oxide	300,000	3,000	1.0	2,000	0.8
	Supergene Sulphide	200,000	6,000	2.6	2,000	0.8
	Hypogene	50,000	1,000	2.7	700	1.4
	Total	**600,000**	**10,000**	**1.8**	**5,000**	**0.9**
+105m Level Mineral Resource Total		**2,100,000**	**38,000**	**1.8**	**32,000**	**1.5**

Note: +105m Level Mineral Resource oxide mineralisation interpretation wireframe cut-off = 0.3% Equivalent Cu (CuEq = Cu% + Zn%/2). Resource stated at 0.3% Cu cut-off.
+105m Level Mineral Resource supergene sulphide and remnant hypogene mineralisation interpretation wireframe cut-off = 0.8% Cu. Resources stated at 0.7% Cu cut-off.
Numbers may not add up due to rounding in accordance with the JORC Code (2012).

[1] Mineral Resource reported in ASX release of 18 December 2018: "Landmark Resource Upgrade Sets Strong Foundation" available to the public on www.orionminerals.com.au/investors/market-news. Competent Person: Orion's Mineral Resource: Mr. Sean Duggan. Orion confirms it is not aware of any new information or data that materially affects the information included above. For the Mineral Resources, the Company confirms that all material assumptions and technical parameters underpinning the estimates in the ASX release of 18 December 2018 continue to apply and have not materially changed. Orion confirms that the form and context in which the Competent Person's findings are presented here have not materially changed.

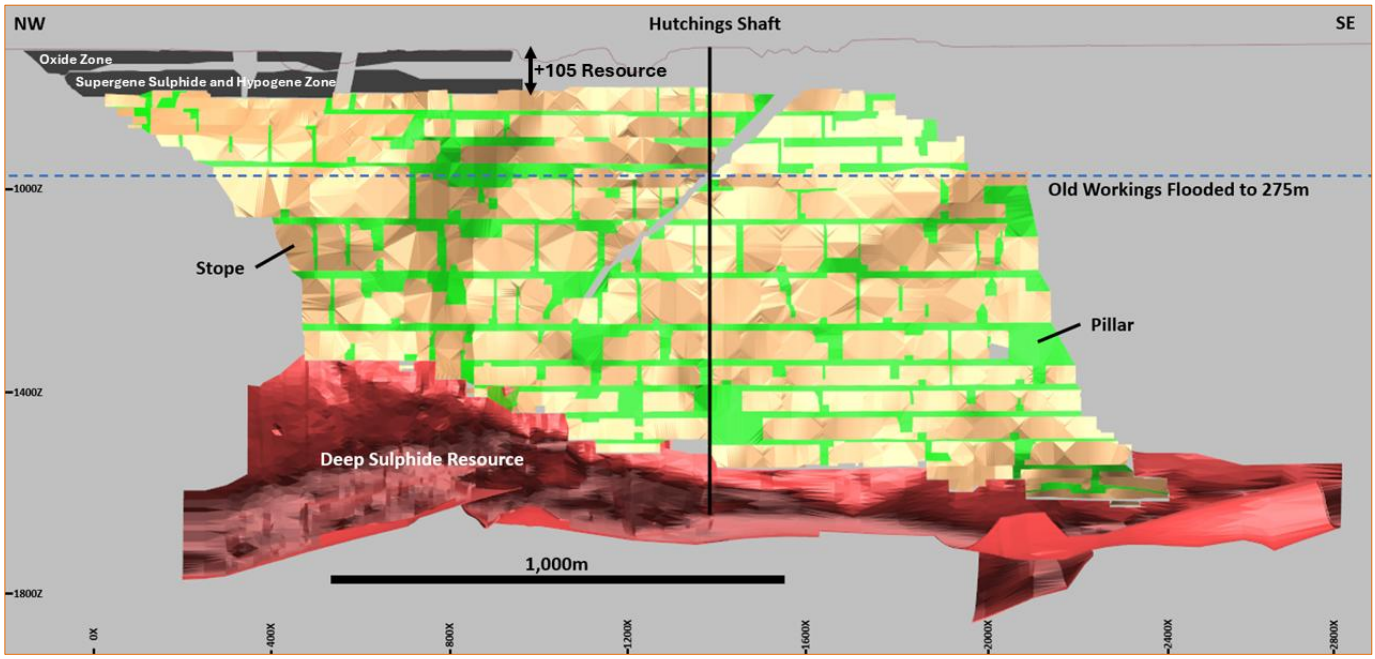

Figure 1: Longitudinal schematic section showing the historically mined area and the +105m Level Mineral Resource (oxide zone, supergene sulphide and hypogene zones) at the PCZM, with the Deep Sulphide Mineral Resource.

Since the previous +105m Level MRE (refer ASX/JSE release 25 July 2023), 29 RC holes comprising 1,277m were targeted to intersect oxide mineralisation (Figure 4, Tables 2, 4, 5, 6). Two of these holes intersected the mineralisation deeper than anticipated in the supergene sulphide zone. Holes intersecting the oxide and leach zones were also used to modify the overall crown pillar interpreted geometry, which had an effect on the interpretation of the downdip trend into the supergene sulphide zone.

A further four RC holes comprising 345m were drilled for metallurgical samples from the supergene sulphide zone (Table 2). While these metallurgical holes were not sampled and assayed, logging and preliminary measurements from a handheld Niton XL3t 500 XRF analyser were used to further guide the geological interpretation in these areas.

In compliance with ASX Listing Rule 5.8.1, the following sections present a summary of all information material to understanding the reported Mineral Resource estimates:

Geology & Geological Interpretation

The Prieska Cu-Zn Deposit is a volcanogenic massive sulphide (**VMS**) deposit which is situated in the southernmost exposures of the north-northwest trending Kakamas Terrain, which forms part of the Mid-Proterozoic Namaqualand Metamorphic Complex. The deposit is hosted by the Copperton Formation of the Areachap Group.

The structural sequence at the mine consists of a footwall Smouspan Gneiss Member, Prieska Copper Mines Assemblage, which hosts the sulphide mineralisation, and the hangingwall Vogelstruisbult Gneiss Member.

The +105m Level Resource occurs above the upper limit of the historically mined Prieska Cu-Zn Deposit at approximately 105m depth below surface, up to surface. It has a strike length of approximately 1km and thicknesses vary between 1.5m and 23m.

The +105m Level Resource Block comprises five defined zones (Figure 4).

- Haematite-goethite-quartz oxide zone (gossan) from surface to approximately 33m. A separate zone of elevated Cu and Zn values in the oxides in the hangingwall to the main +105m Level crown pillar is present in the northwest of the deposit for approximately 300m strike.
- Clay (kaolinite)/leach zone developed in places below 33m.
- Chalcocite dominant supergene sulphide zone between approximately 42m and 70m.
- Mixed supergene-hypogene sulphide zone between approximately 70m and 100m below surface. This has a relatively sharp contact with the underlying hypogene massive sulphides.

- Hypogene sulphide zone consisting of the unaltered, fresh massive sulphides.

The Mineral Resource update includes the supergene sulphide zone, the transition zone between the supergene sulphides and the hypogene, and the remnant hypogene above the historical stopes.

Drilling Techniques

Drilling in the supergene sulphide and hypogene was undertaken during five distinct periods:

- Surface diamond drilling by the Anglovaal Group (**Anglovaal**) from 1968 to 1971;
- Surface diamond drilling by Repli full name (**Repli**) in 2012;
- Surface diamond drilling, surface RC drilling and underground diamond drilling by Orion in 2017;
- Underground diamond drilling by Orion in 2022; and
- Surface RC drilling by Orion in 2023.

A summary of the drilling is shown in the Table 2 below.

Table 2: Summary of drilling undertaken at +105m Level Resource Block of the PCZM.

Company	Year	No Holes	Total Metres	Drill Type	Core Size	Location
Anglovaal	1968-1971	12	1,812	Surface DD	BQ	+105m Level Block
Repli	2012	11	785	Surface DD	NQ	+105m Level Block
Orion	2017	27	3,173	Surface DD	NQ	+105m Level Block
	2017	20	1,297	Surface RC	140mm diameter	+105m Level Block
	2017	13	889	Underground DD	NQ	Supergene Sulphide Zone
	2022	19	1,147	Underground DD	NQ	Supergene Sulphide Zone
	2023	4	345	Surface RC	140mm diameter	Supergene Sulphide Zone (metallurgical sample)
	2023	29	1,277	Surface RC	140mm diameter	Oxide zone
Total		**135**	**10,725**			

Drilling of the original Anglovaal surface exploration holes was carried out at a 200m to 250m line spacing.

Repli and Orion drilling was carried out on approximately 25m-30m spaced lines along strike and at approximately 50m intervals. There were however holes drilled in between these lines. Underground holes, where possible, were spaced along 50m lines.

Sampling and Sub – Sampling Techniques

For diamond drilling carried out by Anglovaal between 1968 and 1971, there is limited information available on sampling techniques for core. However, with exploration and resource management being carried out under the supervision of Anglovaal, it is considered by the Competent Person that there were likely procedures in place to the industry best practice standard at that time. This is based on the Competent Persons knowledge of exploration carried out by Anglovaal and discussions with personnel employed by Anglovaal.

- Anglovaal's mineral resource management was under the professional supervision of Dr Danie Krige, an internationally recognised expert of the time who published peer-reviewed papers based on the sampling data. The sampling was successful in defining a resource estimate which was used as the basis of successful mine development and operation over a 20-year period.
- Surface drill exploration samples were all sent to Anglovaal Research Laboratory at Rand Leases Mine.
- No records are available on the sampling methodology.
- Although no formal QA/QC samples were inserted at the time by the Anglovaal geologists on the exploration site or the mine, the Anglovaal Research Laboratory developed their own standards, certified by other commercial laboratories and those were used internally in the laboratory. Duplicate samples were also inserted to check for repeatability.

Sampling by Repli in 2012 and by Orion between 2017 and 2023 was carried out using industry-standard procedures:

- Diamond core was cut at the core yard, and half core was taken as the sample.

- In friable ore, where core splitting was not possible, half of the broken friable material was sampled using a spoon and scraper.
- Diamond core was sampled on 1m intervals where possible, sample lengths were adjusted to ensure samples did not cross geological boundaries or other features.
- RC samples were collected at 1m intervals via a cyclone and collected in poly weave bags. Each sample was split via a 3-tier splitter, followed by a single splitter to produce two samples of approximately 2.5kg each (an 'original' and a 'duplicate'). 2m compositing of zones outside the main identified mineralised zone was carried out in the 2023 oxide drilling program.
- Sampling was undertaken under the supervision of a qualified geologist and intervals were selected on the basis of mineralogy, textures and concentrations of specific minor minerals. A handheld Niton XRF instrument was used as guide during sampling.
- Samples were submitted for analysis to Genalysis South Africa (Pty) Ltd (Genalysis) (Repli) and ALS Chemex Pty Ltd (ALS) (Orion). Samples were pulverised in their entirety and split to obtain a 30g sample for digestion and analysis.
- Quality control samples were inserted under the direct supervision of a geologist at pre-determined points within the sampling stream.

Sample Analyses

For Anglovaal, surface drill exploration samples were all sent to Anglovaal Research Laboratory at Rand Leases Mine.

- Atomic Absorption method was used with a Nitric-bromide digest.
- Although no formal QC samples were inserted with the drill samples, the Anglovaal Research Laboratory developed their own standards, certified by other commercial laboratories, and those were used internally in the laboratory. Duplicate samples were also inserted to check for repeatability.

For Orion and Repli, three laboratories were used to analyse samples. Repli used Genalysis and Orion used ALS with SGS Laboratory used as the referee laboratory.

- Analyses were done using acid digestion and the inductively coupled plasma and optical emission spectroscopy ("ICP-OES") methodology.
- Initially ALS used a three-acid digest but changed to an aqua-regia digest in November 2017. Genalysis used a four-acid digest. SGS used an aqua-regia digest.
- Quality control samples were inserted under the direct supervision of a geologist at pre-determined points within the sampling stream. Sample results of the duplicates and CRMs were examined on a regular basis by the responsible geologist and any discrepancy was taken up with the laboratories.
- CRM samples showed excellent accuracy and precision, and duplicate samples showed acceptable precision with no obvious bias. Blank samples indicated no contamination, within the pre-determined thresholds, during the sample preparation process.
- External laboratory checks between ALS and SGS were done by submission of duplicate samples. These showed excellent accuracy and precision.

Estimation Methodology

The wireframe of the +105m Level Block used in the 2023 Mineral Resource update (refer ASX/JSE release 25 July 2023) was constructed utilising Cu% values greater than or equal to 0.3% and Zn% values greater than or equal to 0.6%. Surfaces were created to subdivide the mineralised zone into the various domains.

For the 2025 Mineral Resource update an additional surface was created for the supergene sulphide and hypogene zones delineating the contact between the footwall unit disseminated sulphides ("disseminated zone") and the hangingwall unit where massive sulphides ("massive zone") dominate. A 0.8% Cu cut-off was selected to model this surface based on an analysis of the sample population and a review of drill hole geological logging.

The resultant estimation domains for the disseminated and massive zones were not extrapolated any significant distance in the northwest but were terminated by the interpreted shallow dipping limits of the pitch of the mineralisation (Figure 4). In the southeast the mineralised zones were extrapolated approximately 80m beyond the last drill hole to where they intersect the sinkhole. The intersection of the mineralised body can be clearly observed on the northwest face of the sinkhole.

Samples were composited to 1m. The exceptionally high assay values for all variables were capped to selected thresholds using the Parker methodology. A block model with cells of 25m X by 25m Y by 2m Z was used for the supergene sulphide and hypogene zone, with a sub-cell size of 1m x 1m x 1m.

Data from the supergene sulphide and hypogene massive zones were analysed together with an interpreted 'soft boundary'. The same was done for the disseminated zone. Following a spatial analysis, the composite data was used to estimate the block grades for the massive zone using ordinary kriging (**OK**). For the disseminated zone, due to the lower density of sample data, block grades were estimated using a moving average estimate.

For the supergene sulphide and hypogene massive zones, neighbourhood analysis resulted in an optimum first pass search neighbourhood of 100m x 7.2m for local block estimation, corresponding to the variogram range. The second and third pass estimates were calculated from the pass 1 OK estimates using a moving average technique, with the search radii increased to 200m / 7m and 400m / 20m respectively. 80% of blocks were estimated by the first pass.

Bulk densities (t/m^3) were determined using the water displacement method. There are 203 density measurements in the supergene sulphide and hypogene domain. The entire sample (normally 1m length) was measured, or where the formation was highly fractured, a shorter length was measured.

Local block estimates of density for the massive zone were produced using OK in areas of close-spaced sampling. A second pass with longer search radii was utilised and the remaining blocks were populated using grid filling. For the disseminated zone a zonal mean value of 2.59t/m^3 was applied to all blocks due to the lack of density data.

Datamine™ was utilised to create a block model and measure individual block volumes within each zone and these data were imported into Isatis™ for further geostatistical analysis.

The massive sulphides for the supergene sulphide and hypogene zones are reported separately in the Mineral Resource statement. The disseminated zone is all below the 0.7% Cu cut off.

Resource Classification

The geology of the two zones (massive and disseminated) making up the updated Mineral Resource is relatively uncomplicated, and the key issues relate to the delineation of the domain boundaries (not geology), and uncertainties in the interpretation where there is less data.

The massive zone of the supergene sulphide and hypogene domains is predominantly classified in the Indicated category with some areas in the Inferred category. There is a shallow pitch to the mineralisation in the northwest which marks the limit of the resource. In the southeast, 230m up to where the mineralisation intersects the sinkholes, there is less drilling and resulting uncertainties in the geometry of the mineralised zone, and this area has been classified as Inferred.

The disseminated zone has not been included in the Mineral Resource due to the lower density of data and because it is all below the cut-off grade for mine planning. However, the mineralised material will be included in future detailed mine scheduling as mining dilution.

For the massive zone, the geological model is defined to a reasonable level and there is sufficiently accurate data coverage to produce local block estimates using OK. In parts of the massive zone there are sufficient data for reasonably accurate local block estimates of grade (~80% of blocks populated by 1st pass kriging). Local block estimation for density with reasonable accuracy was possible. The kriging performance parameters, e.g. slope of regression, together with an assessment of the areas of blocks that were populated by 1st pass kriging, were utilised to make a distinction between the Indicated and Inferred classifications.

The results conform to the view of the Competent Person.

Changes in +105m Level supergene sulphide and hypogene zone Mineral Resources

Given the changes in the interpretation of the supergene sulphide and hypogene mineralised domain, a direct comparison of updated and previous (2023) resource figures is difficult. However, the total tonnes (Indicated and Inferred classification categories) are 1.1M, which is a decrease from 1.3M tonnes in 2023. There is no notable change in the contained Cu tonnes. The contained Zn tonnes have decreased by 3,000t.

The 14% decrease in overall tonnes can be largely attributed to the exclusion of the lower grade disseminated footwall unit. There was an increase in estimated density from 2.94 tonnes per m^3 for the previously combined disseminated and massive zones to 3.00 tonnes per m^3 for the separated massive zone. The estimated density for the separated disseminated zone is 2.59 tonnes per m^3. The separation of the disseminated footwall unit has resulted in an increase in copper grade of 16% in the massive unit. The overall copper content has not materially changed from the 2023 estimate. The zinc content is more significant in the excluded disseminated footwall unit, explaining the loss in 3,000 tonnes.

Metallurgy

Mixed oxide, supergene and hypogene sulphide ore, including ore extracted from the +105 mineralised zone, was successfully treated by froth flotation to produce separate copper and zinc concentrates during historical production in the 1980s[2].

Metallurgical tests conducted by Orion on supergene sulphide mineralisation at the Brisbane Metallurgical Laboratory in 2024 indicated the potential for producing a bulk concentrate. A simpler non-cyanide bulk concentrate flow sheet was proposed.

- Feed grind ~ 80% passing 75 microns
- Concentrate Grade >20.5% Cu
- Copper recovery >85%
- Mass pull to concentrate ~ 10 – 12.5 % m/m
- Feed Cu : Zn ratio be controlled above 1

The above parameters guided the plant design, utilising established technology for the 2025 Definitive Feasibility Study (**DFS**) study released contemporaneously with this report. Other recent tests indicated that the separation of copper and zinc from the concentrate was complex, resulting in increased reagent usage; consequently, this method was avoided.

Cut-off Grades & Mining Methods

The +105m Level supergene sulphide and hypogene zones Mineral Resource is reported above a 0.7% Cu cut off. This is based on calculated breakeven calculations as part of the DFS.

The mineralised envelope was interpreted based on a 0.8% Cu cut off. This was based on geological observations for the distinct lower grade disseminated footwall unit and the higher-grade hangingwall unit

[2] Broekman B.R. and Penman D.W. The Prieska Experience: Flotation Developments in Copper-Zinc Separation. The Journal of South African Institute of Mining Metallurgy, volume 91, no. 8, Aug 1991, pp 257-265.

where more massive sulphides dominate (Figure 2). The two distinct units have two clear sample populations with a break at approximately 0.8% Cu. The massive sulphides occur as lenses but have been grouped together into the 'massive zone' to generate a viable domain for mineral resource estimation.

The proposed mining method in the DFS is long hole open-stoping (Figure 3). Stopes of dimensions 12m x 12m x 12m are planned with a 12m level spacing.

Total Prieska Copper Zinc Mine Mineral Resource

The Deep Sulphide Mineral Resource of the Prieska Deposit, which was announced in December 2018 (refer ASX/JSE release 18 December 2018), combined with the +105m Level Mineral Resource is summarised in Table 3 below.

Table 3 Global Mineral Resource for the combined +105m Level and Deep Sulphide Mineral Resources of the PCZM[1].

Resource	Classification	Tonnes	Cu (tonnes)	Cu (%)	Zn (tonnes)	Zn (%)
Deep Sulphide Resource	Indicated	19,000,000	220,000	1.17	670,000	3.60
	Inferred	10,000,000	120,000	1.1	420,000	4.1
+ 105m Level Oxides Resource	Indicated	700,000	5,000	0.73	5,000	0.77
	Inferred	300,000	3,000	1.0	2,000	0.8
+ 105m Level Supergene Sulphides and Hypogene Resource	Indicated	800,000	23,000	2.84	21,000	2.67
	Inferred	300,000	8,000	2.6	3,000	0.9
Total	**Indicated**	**20,000,000**	**240,000**	**1.22**	**690,000**	**3.47**
Total	**Inferred**	**11,000,000**	**130,000**	**1.2**	**420,000**	**3.9**
Grand Total		**31,000,000**	**370,000**	**1.2**	**1,120,000**	**3.6**

Note: Deep Sulphide Resource mineralisation interpretation wireframe cut-off = 3% Equivalent Zn (ZnEq = Zn% + Cu%x2). Resources stated at zero% Cu cut-off
+105m Level Mineral Resource oxide mineralisation interpretation wireframe cut-off = 0.3% Equivalent Cu (CuEq = Cu% + Zn%/2). Resource stated at 0.3% Cu cut-off
+105m Level Mineral Resource supergene sulphide and remnant hypogene mineralisation interpretation wireframe cut-off = 0.8% Cu. Resources stated at 0.7% Cu cut-off.
Numbers may not add up due to rounding in accordance with the JORC Code (2012).

For and on behalf of the Board.

Errol Smart
Managing Director and CEO

28 March 2025

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Competent Person's Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Paul Matthews (Pr.Sci.Nat.), a Competent Person who is a member of the South African Council for Natural Scientific Professionals, a Recognised Professional Organisation (**RPO**). Mr Matthews is a full-time employee of Orion. Mr Matthews 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 JORC Code. Mr Matthews consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based on information compiled by Mr Sean Duggan, a Competent Person who is a Director and Principal Analyst at Z Star Mineral Resource Consultants (Pty) Ltd. Mr Duggan (Pr.Sci.Nat) is registered with the South African Council for Natural Scientific Professionals (Registration No. 400035/01), an RPO. Mr Duggan 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 JORC Code. Mr Duggan consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Reference to Previous Reports

The Deep Sulphide Mineral Resource was reported in ASX/JSE Release of 18 December 2018: "Landmark Resource Upgrade Sets Strong Foundation for Development of Prieska Zinc-Copper Project" available to the public on http://www.orionminerals.com.au/investors/asx-jseannouncements/. Competent Person: Mr. Sean Duggan. Orion confirms it is not aware of any new information or data that materially affects the information related to the Deep Sulphide Mineral Resource included in the original market announcement. Orion confirms that all material assumptions and technical parameters underpinning the Deep Sulphide Mineral Resource in the ASX/JSE Release of 18 December 2018 continue to apply and have not materially changed. Orion confirms that the form and context in which the Competent Person's findings are presented here have not been materially modified from the original market announcement.

The +105 Level Mineral Resource (HW Oxide and Oxide) was reported in ASX/JSE Release of 25 July 2023: "Prieska Mineral Resource Increases Ahead of Trial Mining" available to the public on http://www.orionminerals.com.au/investors/asx-jseannouncements/. Competent Person: Mr. Sean Duggan. Orion confirms it is not aware of any new information or data that materially affects the information related to the +105 Level HW Oxide and Oxide Mineral Resources included in the original market announcement. Orion confirms that all material assumptions and technical parameters underpinning the +105 Level in the ASX/JSE Release of 25 July 2023 continue to apply and have not materially changed. Orion confirms that the form and context in which the Competent Person's findings are presented here have not been materially modified from the original market announcement.

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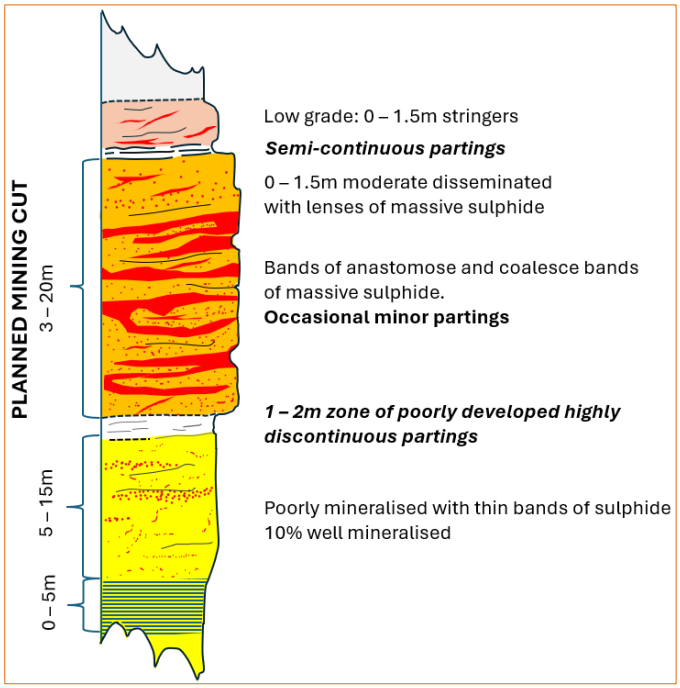

Figure 2: Typical stratigraphic column for the crown pillar area of the mineralised zone including an upper hangingwall unit dominated by massive sulphides, which forms the planned mining cut, and a lower footwall unit dominated by Zn-rich disseminated sulphides.

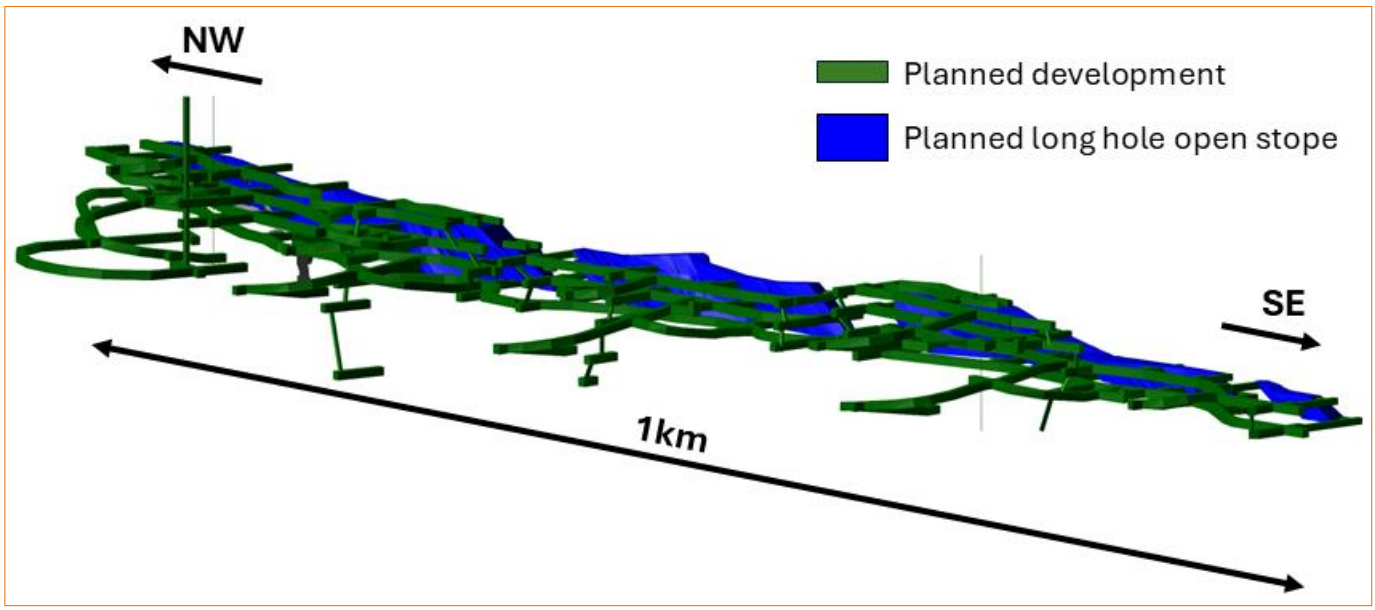

Figure 3: Conceptual Layout of +105 supergene sulphide long open stoping mining.

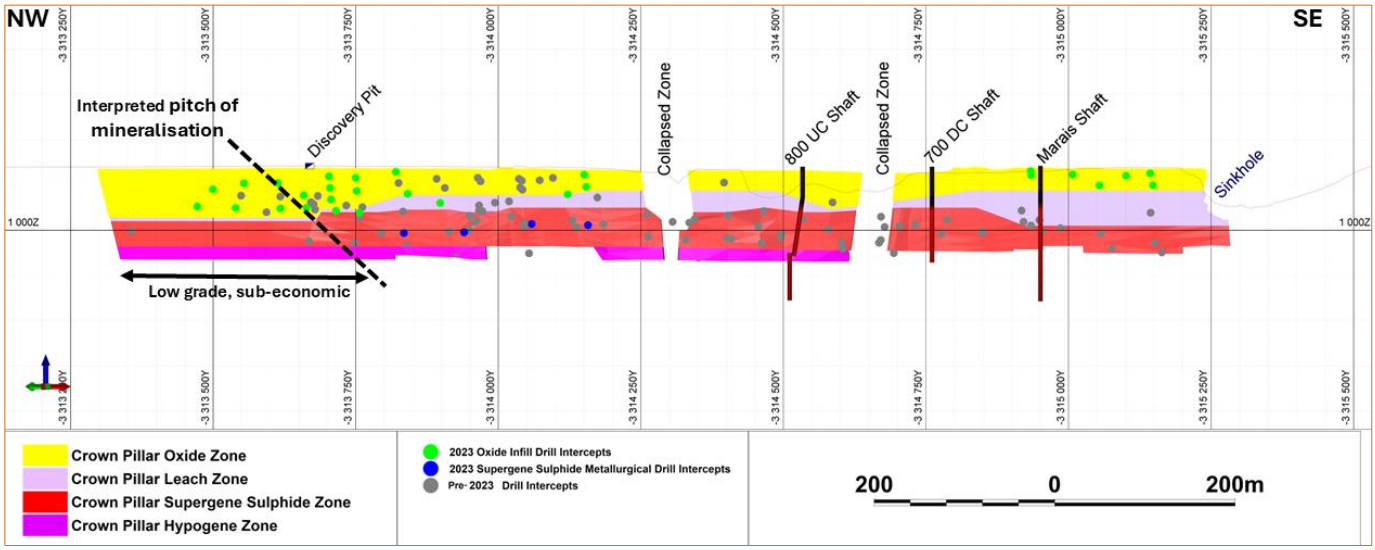

Figure 4: Longitudinal Section of the Crown Pillar +105 Level Mineral Resource area with drill hole coverage.

Appendix 2: Drill hole collar and intersection information from +105 Level Block drill program at Prieska Copper Zinc Mine.

Table 4: Collar table of 2023 PCZM +105 Level Crown Pillar Oxide zone drilling and metallurgical drilling. All holes drilled with reverse circulation by Orion.

Hole ID	Lo23 WGS84			Collar Azimuth	Collar Dip	Length(m)	Comments
	Easting	Northing	Elevation				
OCOR170	-68590.05	-3314304.36	1068.94	0.00	-90.00	90.00	Metallurgical Hole
OCOR171	-68637.90	-3314261.86	1069.66	0.00	-90.00	80.00	Metallurgical Hole
OCOR172	-68689.96	-3314204.30	1070.59	0.00	-90.00	90.00	Metallurgical Hole
OCOR173	-68733.08	-3314147.86	1070.84	0.00	-90.00	85.00	Metallurgical Hole
OCOR174	-68602.81	-3314313.40	1068.95	225.00	-55.00	41.00	
OCOR175	-68616.01	-3314328.91	1068.83	225.00	-55.00	15.00	
OCOR176	-68615.72	-3314295.97	1069.18	225.00	-55.00	47.00	
OCOR177	-68706.12	-3314187.46	1070.65	225.00	-55.00	54.00	
OCOR178	-68737.95	-3314169.86	1070.70	225.00	-60.00	46.00	
OCOR179	-68771.59	-3314187.94	1070.44	225.00	-60.00	24.00	
OCOR180	-68766.58	-3314121.69	1070.84	225.00	-75.00	65.00	
OCOR181	-68787.27	-3314140.40	1070.71	225.00	-60.00	41.00	
OCOR182	-68800.86	-3314155.50	1070.47	225.00	-60.00	24.00	
OCOR183	-68767.71	-3314080.69	1071.02	225.00	-59.00	74.00	
OCOR184	-68780.68	-3314092.34	1071.04	225.00	-55.00	64.00	
OCOR185	-68795.23	-3314105.78	1070.87	225.00	-55.00	58.00	
OCOR186	-68809.60	-3314120.99	1070.69	225.00	-55.00	42.00	
OCOR187	-68821.65	-3314133.14	1070.53	225.00	-55.00	21.00	
OCOR188	-68821.75	-3314091.59	1070.87	225.00	-63.00	50.00	
OCOR189	-68802.62	-3314072.98	1071.25	225.00	-73.00	60.00	
OCOR190	-68857.46	-3314089.27	1070.78	225.00	-57.00	34.00	
OCOR191	-68819.57	-3314048.17	1071.20	225.00	-55.00	65.00	
OCOR192	-68882.74	-3314059.30	1070.63	225.00	-60.00	29.00	
OCOR193	-68852.36	-3314011.90	1070.86	225.00	-56.00	71.00	
OCOR194	-68899.30	-3314024.09	1070.51	225.00	-56.00	59.00	
OCOR195	-68884.03	-3313992.82	1070.76	225.00	-56.00	76.00	
OCOR196	-68211.53	-3314611.75	1070.97	45.00	-67.00	23.00	
OCOR197	-68212.53	-3314612.82	1070.98	0.00	-90.00	11.00	
OCOR198	-68163.78	-3314627.67	1069.86	45.00	-70.00	47.00	
OCOR199	-68085.48	-3314672.43	1069.81	0.00	-90.00	39.00	
OCOR200	-68091.00	-3314677.96	1069.86	0.00	-90.00	21.00	
OCOR201	-68130.52	-3314631.95	1069.64	0.00	-90.00	41.00	
OCOR202	-68108.99	-3314654.63	1069.82	0.00	-90.00	35.00	

Table 5: Assay results for 2023 PCZM +105 Level Crown Pillar Oxide zone RC drilling.

Hole ID	From (m)	To (m)	% Cu	% Zn
OCOR174	19.00	20.00	0.0782	0.2610
OCOR174	22.00	23.00	0.7490	1.6450
OCOR174	21.00	22.00	0.1240	0.2290
OCOR174	17.00	18.00	0.0103	0.1590
OCOR174	20.00	21.00	0.1155	0.3440
OCOR174	16.00	17.00	0.0161	0.2350
OCOR174	28.00	29.00	0.1270	0.1440
OCOR174	18.00	19.00	0.0690	0.3900
OCOR174	25.00	26.00	1.3100	0.3980
OCOR174	29.00	30.00	0.3430	0.9250
OCOR174	27.00	28.00	0.4180	0.4160
OCOR174	23.00	24.00	0.8070	0.6620
OCOR174	26.00	27.00	0.4200	0.3050
OCOR174	24.00	25.00	0.9350	0.6360
OCOR174	35.00	36.00	0.1035	0.1460
OCOR174	30.00	31.00	0.1785	0.1560
OCOR174	32.00	33.00	0.1365	0.6490
OCOR174	31.00	32.00	0.0683	0.1080

Hole ID	From (m)	To (m)	% Cu	% Zn
OCOR174	34.00	35.00	0.0568	0.1640
OCOR174	33.00	34.00	0.0773	0.2680
OCOR175	4.00	6.00	0.1330	0.0850
OCOR175	12.00	14.00	0.1510	0.0790
OCOR175	6.00	8.00	0.0292	0.0320
OCOR175	8.00	10.00	0.1215	0.0660
OCOR175	10.00	12.00	0.3390	0.1100
OCOR176	20.00	21.00	0.1175	0.9910
OCOR176	24.00	25.00	0.5450	0.8120
OCOR176	21.00	22.00	0.0451	0.5190
OCOR176	36.00	39.00	0.0303	0.0640
OCOR176	19.00	20.00	0.0294	0.0760
OCOR176	23.00	24.00	0.5280	0.9390
OCOR176	22.00	23.00	0.1205	0.9950
OCOR176	25.00	26.00	0.6540	0.9960
OCOR176	27.00	28.00	0.3110	0.9290
OCOR176	30.00	33.00	0.1405	0.4590
OCOR176	28.00	29.00	0.1825	0.9790

Hole ID	From (m)	To (m)	% Cu	% Zn
OCOR176	33.00	36.00	0.0247	0.0550
OCOR176	26.00	27.00	0.4220	0.7340
OCOR176	29.00	30.00	0.1275	0.3330
OCOR176	39.00	42.00	0.0355	0.0590
OCOR177	20.00	22.00	0.0381	0.2740
OCOR177	26.00	27.00	0.0161	0.1140
OCOR177	28.00	29.00	0.1005	0.7210
OCOR177	31.00	32.00	0.1725	0.5970
OCOR177	18.00	20.00	0.2200	0.4230
OCOR177	24.00	26.00	0.0682	0.3560
OCOR177	27.00	28.00	0.0181	0.1810
OCOR177	22.00	24.00	0.1250	0.8180
OCOR177	37.00	38.00	0.3970	0.9060
OCOR177	33.00	34.00	0.1840	0.3400
OCOR177	35.00	36.00	0.2420	1.4000
OCOR177	30.00	31.00	0.0488	0.2780
OCOR177	29.00	30.00	0.0449	0.2820
OCOR177	32.00	33.00	0.1390	0.3520
OCOR177	34.00	35.00	0.1735	0.4500
OCOR177	40.00	42.00	0.0698	0.0980
OCOR177	36.00	37.00	0.2730	1.2500
OCOR177	38.00	40.00	0.0895	0.2780
OCOR178	6.00	7.00	0.0541	0.3040
OCOR178	10.00	13.00	0.0326	0.1010
OCOR178	8.00	9.00	0.1225	0.2810
OCOR178	4.00	5.00	0.1410	0.2180
OCOR178	5.00	6.00	0.0615	0.2570
OCOR178	9.00	10.00	0.0286	0.2410
OCOR178	7.00	8.00	0.0625	0.5920
OCOR178	2.00	4.00	0.0239	0.0930
OCOR178	17.00	18.00	0.1340	0.5830
OCOR178	30.00	35.00	0.0665	0.1280
OCOR178	19.00	20.00	0.0339	0.0970
OCOR178	22.00	23.00	0.0688	0.5560
OCOR178	16.00	17.00	0.0362	0.1590
OCOR178	20.00	21.00	0.0716	0.7640
OCOR178	18.00	19.00	0.1460	0.8610
OCOR178	13.00	16.00	0.0199	0.1000
OCOR178	23.00	24.00	0.0316	0.1580
OCOR178	28.00	30.00	0.0532	0.3050
OCOR178	25.00	28.00	0.0166	0.0780
OCOR178	21.00	22.00	0.0629	0.3360
OCOR178	24.00	25.00	0.0409	0.2390
OCOR178	35.00	40.00	0.0090	0.0140
OCOR179	4.00	5.00	0.6750	1.4500
OCOR179	1.00	2.00	0.3940	0.5330
OCOR179	6.00	7.00	0.5490	1.9400
OCOR179	10.00	11.00	0.4430	0.9540
OCOR179	3.00	4.00	0.7540	1.2200
OCOR179	0.00	1.00	0.1575	0.2830
OCOR179	5.00	6.00	0.5390	1.4600
OCOR179	2.00	3.00	0.6900	1.5900
OCOR179	11.00	12.00	0.5860	0.8410
OCOR179	8.00	9.00	1.2500	1.6850
OCOR179	13.00	14.00	0.1615	0.2130
OCOR179	16.00	17.00	0.1955	0.3180
OCOR179	17.00	18.00	0.2800	0.3140
OCOR179	7.00	8.00	0.7500	1.3050
OCOR179	12.00	13.00	0.4310	0.6070
OCOR179	9.00	10.00	0.1945	0.4420
OCOR179	14.00	15.00	0.1790	0.2040
OCOR179	15.00	16.00	0.2540	0.3630
OCOR180	26.00	27.00	0.0554	0.2200
OCOR180	29.00	30.00	0.1270	0.2860

Hole ID	From (m)	To (m)	% Cu	% Zn
OCOR180	34.00	35.00	0.3440	0.0960
OCOR180	31.00	32.00	0.2190	0.5330
OCOR180	32.00	33.00	0.4690	0.4300
OCOR180	28.00	29.00	0.0988	0.4200
OCOR180	27.00	28.00	0.1730	0.7100
OCOR180	30.00	31.00	0.2050	0.3350
OCOR180	42.00	45.00	0.0268	0.0040
OCOR180	48.00	49.00	1.2650	0.0070
OCOR180	46.00	47.00	0.0166	0.0010
OCOR180	37.00	38.00	0.0560	0.0170
OCOR180	38.00	42.00	0.0258	0.0120
OCOR180	35.00	36.00	0.2870	0.0130
OCOR180	33.00	34.00	0.7550	0.3710
OCOR180	36.00	37.00	0.0941	0.0140
OCOR180	51.00	52.00	0.6900	0.0100
OCOR180	55.00	56.00	0.6000	0.0430
OCOR180	53.00	54.00	0.6770	0.0120
OCOR180	57.00	58.00	0.0609	0.5380
OCOR180	50.00	51.00	0.4860	0.0090
OCOR180	47.00	48.00	0.9570	0.0050
OCOR180	45.00	46.00	0.0170	0.0020
OCOR180	49.00	50.00	0.6820	0.0060
OCOR180	52.00	53.00	0.8150	0.0060
OCOR180	54.00	55.00	0.6760	0.0230
OCOR180	56.00	57.00	0.0117	0.5390
OCOR181	4.00	5.00	0.0821	0.2930
OCOR181	8.00	9.00	0.5940	1.3650
OCOR181	6.00	7.00	0.2570	1.2850
OCOR181	9.00	10.00	0.3090	0.6160
OCOR181	3.00	4.00	0.0469	0.1710
OCOR181	7.00	8.00	0.6300	1.4900
OCOR181	5.00	6.00	0.0490	0.2380
OCOR181	18.00	20.00	0.0580	0.1060
OCOR181	12.00	14.00	0.2090	0.4090
OCOR181	16.00	18.00	0.0671	0.1120
OCOR181	10.00	12.00	0.3120	0.7680
OCOR181	14.00	16.00	0.0901	0.2030
OCOR182	1.00	2.00	0.2690	0.3720
OCOR182	3.00	4.00	0.2380	0.2280
OCOR182	6.00	7.00	0.0659	0.2450
OCOR182	4.00	5.00	0.2040	0.4250
OCOR182	7.00	9.00	0.0883	0.3060
OCOR182	2.00	3.00	0.6340	0.5420
OCOR182	5.00	6.00	0.0807	0.2830
OCOR182	15.00	18.00	0.0577	0.1270
OCOR182	9.00	12.00	0.0540	0.2440
OCOR182	12.00	15.00	0.0519	0.1410
OCOR183	48.00	49.00	0.0413	0.0270
OCOR183	46.00	47.00	0.0087	0.0110
OCOR183	56.00	57.00	0.0620	0.0270
OCOR183	44.00	45.00	0.0163	0.0210
OCOR183	47.00	48.00	0.0540	0.0890
OCOR183	45.00	46.00	0.0089	0.0130
OCOR183	49.00	50.00	0.1170	0.1340
OCOR183	50.00	51.00	0.4720	0.1970
OCOR183	55.00	56.00	0.0703	0.0120
OCOR183	53.00	54.00	0.2150	0.4420
OCOR183	63.00	64.00	8.8300	1.0050
OCOR183	51.00	52.00	0.7200	0.4980
OCOR183	54.00	55.00	0.0673	0.1360
OCOR183	52.00	53.00	0.3300	0.2080
OCOR183	57.00	58.00	0.0371	0.0140
OCOR183	65.00	66.00	4.9600	0.2260
OCOR183	62.00	63.00	7.9900	0.0960

Hole ID	From (m)	To (m)	% Cu	% Zn
OCOR183	60.00	61.00	0.6470	0.1250
OCOR183	71.00	73.00	0.0302	0.2980
OCOR183	58.00	59.00	0.0492	0.0680
OCOR183	61.00	62.00	0.8780	0.1340
OCOR183	59.00	60.00	0.2470	0.1700
OCOR183	64.00	65.00	4.6600	0.8000
OCOR183	66.00	67.00	1.5900	0.0780
OCOR183	69.00	71.00	0.1535	0.3800
OCOR183	67.00	68.00	0.4710	0.3870
OCOR183	68.00	69.00	0.3310	0.4950
OCOR184	54.00	56.00	0.4610	0.0330
OCOR184	60.00	61.00	0.7070	0.1930
OCOR184	63.00	64.00	0.0674	0.6800
OCOR184	59.00	60.00	2.1100	0.3180
OCOR184	56.00	57.00	2.3300	0.0410
OCOR184	38.00	41.00	0.1510	0.0420
OCOR184	32.00	34.00	0.1270	0.4410
OCOR184	58.00	59.00	0.9580	0.2000
OCOR184	62.00	63.00	0.1180	0.9660
OCOR184	61.00	62.00	0.1540	0.4800
OCOR184	30.00	32.00	0.0236	0.0840
OCOR184	34.00	38.00	0.0533	0.0620
OCOR184	57.00	58.00	1.9600	0.0770
OCOR185	14.00	15.00	0.1415	0.8470
OCOR185	16.00	17.00	0.1105	0.4280
OCOR185	13.00	14.00	0.2080	0.8670
OCOR185	10.00	12.00	0.1270	0.3270
OCOR185	15.00	16.00	0.1170	0.9200
OCOR185	17.00	18.00	0.1650	0.6500
OCOR185	12.00	13.00	0.0834	0.2530
OCOR185	18.00	19.00	0.2180	0.8440
OCOR185	23.00	26.00	0.1020	0.0900
OCOR185	20.00	23.00	0.1510	0.2180
OCOR185	26.00	29.00	0.1055	0.1180
OCOR185	19.00	20.00	0.0448	0.0730
OCOR186	1.00	2.00	0.0350	0.1090
OCOR186	6.00	7.00	0.4200	0.6910
OCOR186	2.00	3.00	0.1120	0.4370
OCOR186	5.00	6.00	0.1875	0.3240
OCOR186	8.00	9.00	1.2300	0.5510
OCOR186	21.00	25.00	0.0417	0.0580
OCOR186	3.00	4.00	0.1705	0.6810
OCOR186	4.00	5.00	0.2720	0.8810
OCOR186	7.00	8.00	0.9740	1.0200
OCOR186	12.00	13.00	0.3450	0.1530
OCOR186	9.00	10.00	2.2500	0.4190
OCOR186	11.00	12.00	1.1350	0.2370
OCOR186	14.00	15.00	0.1620	0.1600
OCOR186	19.00	21.00	0.0600	0.0850
OCOR186	16.00	17.00	0.0440	0.0850
OCOR186	10.00	11.00	9.1900	0.3360
OCOR186	13.00	14.00	0.3520	0.1970
OCOR186	17.00	19.00	0.0637	0.1230
OCOR186	15.00	16.00	0.1005	0.1420
OCOR187	10.00	14.00	0.0290	0.0770
OCOR187	3.00	4.00	0.1920	0.4280
OCOR187	6.00	7.00	0.3340	0.2620
OCOR187	5.00	6.00	0.5550	0.4320
OCOR187	7.00	10.00	0.1190	0.1520
OCOR187	2.00	3.00	0.1495	0.2080
OCOR187	4.00	5.00	0.4230	0.5000
OCOR187	18.00	21.00	0.0768	0.1750
OCOR187	14.00	18.00	0.0463	0.0960
OCOR188	13.00	14.00	0.0968	0.4920

Hole ID	From (m)	To (m)	% Cu	% Zn
OCOR188	23.00	25.00	0.2060	0.0960
OCOR188	16.00	17.00	0.1785	0.3850
OCOR188	11.00	12.00	0.1420	1.1050
OCOR188	14.00	15.00	0.2360	0.6880
OCOR188	12.00	13.00	0.1195	0.6360
OCOR188	15.00	16.00	0.8180	0.9140
OCOR188	9.00	11.00	0.0204	0.0870
OCOR188	25.00	26.00	0.1985	0.4830
OCOR188	20.00	23.00	0.2030	0.0850
OCOR188	28.00	29.00	0.0500	0.3030
OCOR188	30.00	33.00	0.1590	0.0910
OCOR188	26.00	27.00	0.0914	0.3530
OCOR188	33.00	36.00	0.1890	0.0380
OCOR188	27.00	28.00	0.0927	0.2900
OCOR188	17.00	20.00	0.3190	0.2920
OCOR188	36.00	39.00	0.0953	0.0190
OCOR188	29.00	30.00	0.0678	0.4870
OCOR188	39.00	42.00	0.0503	0.0130
OCOR189	33.00	35.00	0.1150	0.0670
OCOR189	25.00	27.00	0.1990	0.7780
OCOR189	29.00	31.00	0.2800	0.4680
OCOR189	35.00	37.00	0.0941	0.0220
OCOR189	31.00	33.00	0.0197	0.0340
OCOR189	24.00	25.00	0.1210	0.5350
OCOR189	27.00	29.00	0.2960	0.5050
OCOR189	50.00	51.00	0.1035	0.3590
OCOR189	47.00	49.00	0.0275	0.1820
OCOR189	39.00	41.00	0.4670	0.0340
OCOR189	43.00	45.00	0.0492	0.0690
OCOR189	49.00	50.00	0.0176	0.1410
OCOR189	45.00	47.00	0.0334	0.1850
OCOR189	37.00	39.00	0.0583	0.1830
OCOR189	41.00	43.00	0.0821	0.0640
OCOR189	56.00	57.00	0.0221	1.2200
OCOR189	54.00	55.00	0.0291	0.3330
OCOR189	58.00	59.00	0.2670	0.8230
OCOR189	52.00	53.00	1.0600	4.2900
OCOR189	55.00	56.00	0.0206	0.3840
OCOR189	53.00	54.00	0.0304	1.6850
OCOR189	51.00	52.00	0.1140	3.7700
OCOR189	59.00	60.00	0.2990	1.8200
OCOR189	57.00	58.00	0.0795	1.1100
OCOR190	14.00	16.00	0.1570	0.2550
OCOR190	8.00	9.00	0.3090	0.9610
OCOR190	11.00	12.00	0.1175	0.2540
OCOR190	18.00	20.00	0.0645	0.1460
OCOR190	6.00	7.00	0.2300	0.7920
OCOR190	7.00	8.00	0.2830	0.5970
OCOR190	10.00	11.00	0.2950	1.0400
OCOR190	9.00	10.00	0.3850	1.2000
OCOR190	27.00	28.00	0.1480	0.3040
OCOR190	29.00	30.00	0.0430	0.0760
OCOR190	23.00	26.00	0.0900	0.3090
OCOR190	17.00	18.00	0.4680	1.1500
OCOR190	12.00	14.00	0.1565	0.2680
OCOR190	16.00	17.00	0.1540	0.3690
OCOR190	20.00	23.00	0.0616	0.1860
OCOR190	30.00	31.00	0.0300	0.0430
OCOR190	26.00	27.00	0.1485	0.3100
OCOR190	28.00	29.00	0.0576	0.0740
OCOR190	4.00	6.00	0.1950	0.4220
OCOR190	2.00	4.00	0.0345	0.1980
OCOR191	56.00	57.00	0.0095	0.8950
OCOR191	26.00	27.00	0.2820	0.4260

Hole ID	From (m)	To (m)	% Cu	% Zn
OCOR191	28.00	29.00	0.2300	1.0950
OCOR191	51.00	52.00	0.0261	1.2700
OCOR191	55.00	56.00	0.0238	1.6100
OCOR191	25.00	26.00	0.0905	0.1930
OCOR191	27.00	28.00	0.3150	1.0550
OCOR191	50.00	51.00	0.1945	2.1300
OCOR191	63.00	64.00	0.0699	0.4440
OCOR191	33.00	34.00	0.1680	0.3610
OCOR191	35.00	36.00	0.2750	0.3520
OCOR191	58.00	59.00	0.1055	2.9100
OCOR191	62.00	63.00	0.1170	0.5310
OCOR191	32.00	33.00	0.1510	0.3860
OCOR191	34.00	35.00	0.1735	0.2280
OCOR191	57.00	58.00	0.0146	1.5800
OCOR191	37.00	38.00	0.3170	0.3760
OCOR191	40.00	44.00	0.0748	0.0670
OCOR191	47.00	48.00	0.0250	0.0440
OCOR191	24.00	25.00	0.0183	0.1330
OCOR191	29.00	30.00	0.2440	0.6570
OCOR191	39.00	40.00	0.1015	0.3360
OCOR191	44.00	47.00	0.0248	0.0640
OCOR191	64.00	65.00	0.0030	0.2290
OCOR191	49.00	50.00	3.5200	1.4650
OCOR191	60.00	61.00	0.1205	0.7470
OCOR191	54.00	55.00	0.0882	1.9400
OCOR191	31.00	32.00	0.1040	0.2580
OCOR191	36.00	37.00	0.3520	0.4440
OCOR191	52.00	53.00	0.0077	1.4650
OCOR191	53.00	54.00	0.1870	3.2300
OCOR191	23.00	24.00	0.0245	0.2080
OCOR191	48.00	49.00	0.1685	0.1710
OCOR191	59.00	60.00	0.0131	2.1900
OCOR191	61.00	62.00	0.0792	0.8550
OCOR191	30.00	31.00	0.0559	0.1400
OCOR191	38.00	39.00	0.0518	0.2350
OCOR192	16.00	17.00	0.0230	0.0860
OCOR192	5.00	6.00	0.0151	0.1810
OCOR192	7.00	8.00	0.0469	0.3780
OCOR192	10.00	11.00	0.2320	1.5050
OCOR192	8.00	9.00	0.1540	1.0800
OCOR192	4.00	5.00	0.0166	0.1560
OCOR192	6.00	7.00	0.0205	0.2470
OCOR192	9.00	10.00	0.3360	2.1200
OCOR192	23.00	24.00	0.1235	0.1500
OCOR192	12.00	13.00	0.2770	0.9020
OCOR192	14.00	15.00	0.3010	0.7690
OCOR192	17.00	18.00	0.0532	0.1190
OCOR192	15.00	16.00	0.0571	0.1600
OCOR192	11.00	12.00	0.2890	0.9300
OCOR192	13.00	14.00	0.3780	0.7150
OCOR192	19.00	20.00	0.3130	1.0300
OCOR192	22.00	23.00	0.2130	0.2790
OCOR192	18.00	19.00	0.2190	0.9390
OCOR192	21.00	22.00	0.2370	0.3200
OCOR192	20.00	21.00	0.2680	0.4080
OCOR193	18.00	19.00	0.0166	0.1570
OCOR193	34.00	35.00	0.0799	0.4560
OCOR193	20.00	21.00	0.1225	1.1450
OCOR193	22.00	24.00	0.0130	0.1500
OCOR193	15.00	18.00	0.0215	0.1750
OCOR193	12.00	15.00	0.0482	0.2860
OCOR193	19.00	20.00	0.0408	1.1700
OCOR193	21.00	22.00	0.0654	0.4460
OCOR193	35.00	38.00	0.0409	0.1280

Hole ID	From (m)	To (m)	% Cu	% Zn
OCOR193	47.00	50.00	0.0827	0.3170
OCOR193	41.00	42.00	0.0574	0.3390
OCOR193	43.00	44.00	0.2430	1.3400
OCOR193	50.00	52.00	0.0596	0.2680
OCOR193	33.00	34.00	0.0545	0.5080
OCOR193	38.00	41.00	0.0717	0.2160
OCOR193	42.00	43.00	0.1125	0.5040
OCOR193	53.00	54.00	0.0121	0.0870
OCOR193	59.00	60.00	0.0011	1.0700
OCOR193	52.00	53.00	0.0896	0.3270
OCOR193	57.00	58.00	0.0114	0.1000
OCOR193	61.00	62.00	0.0356	0.4830
OCOR193	44.00	47.00	0.1770	0.6880
OCOR193	60.00	61.00	0.0179	1.7500
OCOR193	54.00	57.00	0.0098	0.0660
OCOR193	67.00	69.00	0.0003	0.6510
OCOR193	65.00	66.00	0.0003	0.4360
OCOR193	58.00	59.00	0.0296	0.1800
OCOR193	62.00	65.00	0.0057	0.1870
OCOR193	66.00	67.00	0.0351	1.6550
OCOR194	8.00	9.00	0.0381	0.3180
OCOR194	10.00	11.00	0.1815	0.9820
OCOR194	22.00	24.00	0.1280	0.3590
OCOR194	38.00	40.00	0.1265	0.3910
OCOR194	7.00	8.00	0.0458	0.3970
OCOR194	34.00	36.00	0.4730	0.6500
OCOR194	9.00	10.00	0.1295	1.4550
OCOR194	11.00	12.00	0.1890	0.8010
OCOR194	16.00	18.00	0.0238	0.1170
OCOR194	24.00	25.00	0.1040	0.1860
OCOR194	20.00	22.00	0.0748	0.2320
OCOR194	6.00	7.00	0.0308	0.2760
OCOR194	14.00	16.00	0.0616	0.6440
OCOR194	36.00	38.00	0.1670	0.4120
OCOR194	32.00	34.00	0.1965	0.2060
OCOR194	25.00	26.00	0.2330	0.4820
OCOR194	28.00	30.00	0.1670	0.2440
OCOR194	12.00	14.00	0.0655	0.3540
OCOR194	27.00	28.00	0.3360	0.7710
OCOR194	26.00	27.00	0.4380	1.0450
OCOR195	27.00	28.00	0.0178	0.4280
OCOR195	28.00	29.00	0.0602	1.2850
OCOR195	24.00	26.00	0.0287	0.6820
OCOR195	30.00	34.00	0.0519	0.1960
OCOR195	26.00	27.00	0.0148	0.4290
OCOR195	29.00	30.00	0.1475	1.3250
OCOR195	20.00	24.00	0.0215	0.2120
OCOR195	48.00	49.00	0.0940	0.5740
OCOR195	46.00	47.00	0.1470	0.3530
OCOR195	47.00	48.00	0.0547	0.1950
OCOR195	38.00	42.00	0.0525	0.2420
OCOR195	70.00	72.00	0.0376	0.4050
OCOR195	42.00	46.00	0.0524	0.3020
OCOR195	34.00	38.00	0.0299	0.1440
OCOR195	68.00	70.00	0.0590	0.3440
OCOR195	64.00	66.00	0.0256	0.3180
OCOR195	66.00	68.00	0.0313	0.5540
OCOR195	49.00	50.00	0.1590	0.8830
OCOR196	8.00	9.00	1.2450	0.1240
OCOR196	12.00	13.00	0.5710	0.0850
OCOR196	6.00	7.00	0.4490	0.1220
OCOR196	3.00	4.00	0.1085	0.0400
OCOR196	7.00	8.00	0.7590	0.1550
OCOR196	4.00	5.00	0.2610	0.0980

Hole ID	From (m)	To (m)	% Cu	% Zn
OCOR196	5.00	6.00	0.5250	0.1470
OCOR196	2.00	3.00	0.1410	0.4000
OCOR196	15.00	16.00	0.4910	0.0730
OCOR196	19.00	20.00	0.3060	0.0550
OCOR196	21.00	22.00	0.2060	0.0290
OCOR196	10.00	11.00	0.5190	0.1220
OCOR196	14.00	15.00	0.3350	0.0940
OCOR196	11.00	12.00	0.4130	0.0730
OCOR196	13.00	14.00	0.3170	0.1020
OCOR196	9.00	10.00	0.6970	0.1190
OCOR196	22.00	23.00	0.2350	0.0410
OCOR196	18.00	19.00	0.4370	0.1150
OCOR196	20.00	21.00	0.3230	0.0410
OCOR196	17.00	18.00	0.4530	0.0600
OCOR196	16.00	17.00	0.5770	0.0690
OCOR198	8.00	9.00	0.2070	0.0900
OCOR198	4.00	6.00	0.2650	0.1450
OCOR198	7.00	8.00	0.1310	0.0630
OCOR198	10.00	11.00	5.9900	0.1680
OCOR198	6.00	7.00	0.3460	0.2230
OCOR198	2.00	4.00	0.2190	0.0990
OCOR198	12.00	14.00	0.3230	0.0520
OCOR198	9.00	10.00	1.0400	0.0890
OCOR198	11.00	12.00	0.2160	0.0280
OCOR199	4.00	5.00	0.4410	0.2820
OCOR199	7.00	10.00	0.1685	0.1280
OCOR199	2.00	4.00	0.3030	0.1670
OCOR199	10.00	13.00	0.2210	0.0550
OCOR199	5.00	7.00	0.1895	0.1480
OCOR200	0.00	1.00	0.0316	0.0170
OCOR200	3.00	4.00	0.1485	0.1370
OCOR200	10.00	11.00	0.1295	0.0450
OCOR200	5.00	6.00	0.0979	0.0930
OCOR200	1.00	2.00	0.0646	0.0370
OCOR200	4.00	5.00	0.0776	0.0790
OCOR200	2.00	3.00	0.1290	0.0900
OCOR200	6.00	7.00	0.0881	0.0850
OCOR200	7.00	8.00	0.1475	0.0760
OCOR200	11.00	12.00	0.1030	0.0440
OCOR200	16.00	17.00	0.1270	0.0650
OCOR200	12.00	13.00	0.0894	0.0350
OCOR200	8.00	9.00	0.2170	0.0910
OCOR200	17.00	18.00	0.0400	0.0120
OCOR200	9.00	10.00	0.2800	0.0550
OCOR200	13.00	14.00	0.1725	0.0590
OCOR200	14.00	15.00	0.1395	0.0690
OCOR200	15.00	16.00	0.1785	0.1140
OCOR201	0.00	1.00	0.0430	0.0660
OCOR201	3.00	4.00	0.5960	0.0530
OCOR201	1.00	2.00	0.0749	0.0130
OCOR201	5.00	6.00	0.4010	0.0750
OCOR201	6.00	7.00	0.4440	0.0880
OCOR201	2.00	3.00	0.2940	0.0240
OCOR201	8.00	9.00	0.4800	0.1160
OCOR201	4.00	5.00	0.4880	0.0690
OCOR201	7.00	8.00	0.5160	0.1020
OCOR201	17.00	18.00	0.2790	0.0670
OCOR201	14.00	15.00	0.3240	0.1780
OCOR201	11.00	12.00	0.4150	0.1030
OCOR201	12.00	13.00	0.4080	0.1380
OCOR201	9.00	10.00	0.3240	0.0860
OCOR201	15.00	16.00	0.0953	0.0570
OCOR201	10.00	11.00	0.3010	0.0800
OCOR201	13.00	14.00	0.4870	0.1520

Hole ID	From (m)	To (m)	% Cu	% Zn
OCOR201	24.00	25.00	0.0628	0.0300
OCOR201	21.00	22.00	0.0785	0.0340
OCOR201	26.00	29.00	0.0186	0.0080
OCOR201	19.00	20.00	0.2060	0.0840
OCOR201	16.00	17.00	0.0961	0.0440
OCOR201	22.00	23.00	0.0831	0.0280
OCOR201	18.00	19.00	0.3640	0.1000
OCOR201	20.00	21.00	0.1020	0.0400
OCOR201	23.00	24.00	0.1595	0.0610
OCOR201	31.00	35.00	0.0543	0.0110
OCOR201	25.00	26.00	0.0640	0.0190
OCOR201	29.00	31.00	0.0507	0.0120
OCOR201	37.00	39.00	0.0530	0.0080
OCOR201	35.00	37.00	0.0921	0.0110
OCOR202	2.00	3.00	0.2320	0.0470
OCOR202	4.00	5.00	0.2930	0.1100
OCOR202	0.00	1.00	0.0526	0.0110
OCOR202	5.00	6.00	0.4140	0.2030
OCOR202	1.00	2.00	0.2030	0.0350
OCOR202	3.00	4.00	0.3260	0.0720
OCOR202	6.00	7.00	0.3470	0.1580
OCOR202	12.00	13.00	0.1460	0.0430
OCOR202	15.00	16.00	0.1050	0.0380
OCOR202	10.00	11.00	0.3720	0.1180
OCOR202	7.00	8.00	0.2730	0.1670
OCOR202	11.00	12.00	0.1455	0.0490
OCOR202	8.00	9.00	0.5680	0.2910
OCOR202	9.00	10.00	0.7630	0.3150
OCOR202	13.00	14.00	0.1470	0.0370
OCOR202	16.00	17.00	0.0899	0.0240
OCOR202	14.00	15.00	0.1445	0.0420

Table 6: Summary table of results for 2023 PCZM +105 Level Crown Pillar Oxide zone RC drilling (minimum cut-off of 0.3% Cu). The data was not capped. Note: widths are downhole drill widths.

Hole ID	Mineralisation					
	Notes	From (m)	To (m)	Interval (m)	% Cu	% Zn
OCOR174		22.00	30.00	8.00	0.64	0.64
OCOR176		20.00	29.00	9.00	0.33	0.88
OCOR177		31.00	38.00	7.00	0.23	0.76
	Including	35.00	38.00	3.00	0.30	1.19
OCOR178		17.00	23.00	6.00	0.09	0.53
OCOR179		1.00	13.00	12.00	0.60	1.17
OCOR180		32.00	35.00	3.00	0.52	0.30
		47.00	56.00	9.00	0.76	0.01
OCOR181		6.00	12.00	6.00	0.40	1.05
OCOR183		60.00	69.00	9.00	3.37	0.37
OCOR184		54.00	61.00	7.00	1.28	0.13
OCOR185		12.00	18.00	6.00	0.16	0.76
OCOR186		4.00	10.00	6.00	0.40	0.72
		6.00	14.00	8.00	1.78	0.42
OCOR187		4.00	7.00	3.00	0.44	0.40
OCOR189		51.00	60.00	9.00	0.21	1.72
OCOR190		6.00	11.00	5.00	0.30	0.92
		17.00	18.00	1.00	0.47	1.15
OCOR191		49.00	62.00	13.00	0.34	1.71
OCOR192		8.00	15.00	7.00	0.28	1.15
		18.00	20.00	2.00	0.27	0.98
OCOR193		19.00	21.00	2.00	0.08	1.16
		43.00	47.00	4.00	0.19	0.85
		59.00	61.00	2.00	0.01	1.34
		66.00	69.00	3.00	0.01	0.99
OCOR194		9.00	16.00	7.00	0.11	0.75
		26.00	28.00	2.00	0.39	0.91
OCOR195		24.00	30.00	6.00	0.05	0.81
OCOR196		5.00	21.00	16.00	0.53	0.10
OCOR198		9.00	11.00	2.00	3.52	0.13
OCOR201		3.00	15.00	12.00	0.43	0.10
OCOR202		3.00	11.00	8.00	0.42	0.18

Appendix 3: The following tables are provided in accordance with the JORC Code (2012) requirements for the reporting of Exploration Results and Mineral Resources for the Prieska Copper Zinc Mine +105 Level Resource.

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.	Drilling and sampling was undertaken during several distinct periods since the discovery of mineralisation. These are pre-mine exploration (1968-1971) surface diamond drill holes by Anglovaal Ltd (also known as the Anglovaal Group), (**Anglovaal**), surface diamond drilling by Repli in 2012 (Prieska Copper Zinc Mine (Pty) Ltd (PCZM) (formerly Repli Trading No. 27 (Pty) Ltd (**Repli**))), and surface and underground diamond drilling and reverse circulation (RC) drilling by Orion Minerals Ltd (**Orion**) (2017 to 2023). A total of 131 holes were drilled comprising 10,390m. • 12 surface diamond "V" holes totalling 1,812m were drilled by Anglovaal between 1968 and 1971. • 11 surface diamond holes totalling 785m were drilled by Repli in 2012. • 27 surface diamond holes totalling 3,173m were drilled by Orion in 2017. • 20 RC holes totalling 1,297m were drilled by Orion in 2017. • 13 underground diamond holes totalling 889m were drilled by Orion in 2017. • 19 underground diamond holes totalling 1,147m were drilled by Orion in 2022. • 29 RC holes totalling 1,286m were drilled by Orion in 2023. Orion acquired Repli in March 2017 and with the similar methodology utilised in the drilling and sampling processes by both companies, Repli and Orion commentary has in the most part been combined. **Orion and Repli:** • Diamond core was cut at the core yard and half core was taken as the sample. • In friable ore where core splitting was not possible half of the broken friable material was sampled using a spoon and scraper. • Diamond core is sampled on 1m intervals where possible, sample lengths are adjusted to ensure samples do not cross geological boundaries or other features. • RC samples were collected at 1m intervals via a cyclone and collected in polyweave bags. Each sample was split via a 3-tier splitter, followed by a single splitter to produce two samples of approximately 2.5kg each (an "original" and a "duplicate"). 2m compositing of zones outside the main

Criteria	JORC Code explanation	Commentary
		identified mineralised zone was carried out in the 2023 oxide drilling program. • Sampling was undertaken under the supervision of a qualified geologist and intervals were selected on the basis of mineralogy, textures and concentrations of specific minor minerals. A handheld Niton XRF instrument was used as a guide during sampling. Quality control samples were inserted under the direct supervision of a geologist at pre-determined points within the sampling stream. • Samples were submitted for analysis to Genalysis South Africa (Pty) Ltd (Genalysis) (Repli) and ALS Chemex Pty Ltd (ALS) (Orion). Samples were pulverised in their entirety and split to obtain a 30g sample for digestion and analysis.
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.).*	**Anglovaal:** • All mineralised intersections were by core drilling. • BQ is recorded as the core size for V surface diamond drill holes. • No record is available on core orientation. It is assumed the core was not oriented. **Orion and Repli:** • In the near surface weathered zone HQ core was drilled. • Core was not oriented. • RC holes were drilled using a 140mm diameter RC hammer bit. • Pre 2022 underground diamond drilling in the mineralised zone was drilled using a TBW coring bit and a double tube core barrel and BX size reverse flush in the country rock. • 2022 underground diamond drilling was NQ size using a triple tube core barrel to ensure good core recovery in soft formations.
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.*	**Anglovaal:** • All mineralised intersections were done with diamond core drilling. • Core recoveries were measured for each drill "run" and recorded on assay sheets. • In most holes, intersections were in hard rock and recoveries were generally good through the mineralisation. **Orion and Repli:** • Mineralised intersections were done with diamond core drilling and reverse circulation (RC). • Core stick-ups reflecting the depth of the drill hole were recorded at the

Criteria	JORC Code explanation	Commentary
		rig at the end of each core run. • A block with the depth of the hole written on it was placed in the core box at the end of each run. • At the core yard, the length of core in the core box was measured for each run. The measured length of core was subtracted from the length of the run as recorded from the stick-up measured at the rig to determine the core lost. • During surface drilling a triple tube core barrel was used to minimise the core loss in soft formations. • In pre 2022 underground holes a TBW bit was used to optimise core recovery when drilling in the mineralised zone as opposed to reverse flush drilling in the footwall rocks. • 2022 underground diamond drilling was NQ size using a triple tube core barrel to ensure optimal core recovery in soft formations. • Core loss was significant in some instances in the soft weathered formations (oxides, supergene sulphide ore and clay leach zones). • Analysis of data shows that there is no relationship between core loss and grade. • During RC drilling each metre is monitored on the drill string, with drilling stopped after every 1m advance to allow for full retrieval of sample and cleaning of return pipes, cyclone and splitter. Each sample retrieved per metre was weighed and recorded. Analysis of data shows there is no relationship between sample weight 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.*	**Anglovaal:** • All relevant intersections have been logged and all of this information is available. **Orion and Repli:** • RC drill chips were logged and recorded on standardised log sheets by a qualified geologist on 1m intervals using visual inspection of washed drill chips. • Core of the entire hole length was geologically logged and recorded on standardised log sheets by a qualified geologist. • Qualitative logging of colour, grain size, weathering, structural fabric, lithology, alteration type and sulphide mineralogy was carried out. • Quantitative estimate of sulphide mineralogy was carried out. • Samples have been logged to a level of detailed appropriate to support Mineral Resource estimation, mining studies and metallurgical studies. • Logs were recorded at the core yard and entered into digital templates at the project office.

Criteria	JORC Code explanation	Commentary
		• The Orion and Repli drill core were all (entire drill hole) photographed and saved in a dedicated folder. • The Orion and Repli RC chips were all photographed as combined runs of 10m chip trays per photo.
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.*	**Anglovaal:** • Details of sub-sampling techniques are not available. The Competent Person is satisfied with the quality of the historical data, and the associated sample and sample preparation techniques, based on the results of a comparative analysis between historical Anglovaal and recent Orion drilling and sampling data. There is a reasonable compatibility between the histograms for the two sets of data. **Orion:** • BQ and NQ core was cut at the core yard and half core was taken as a sample with a maximum of 1m sample length. • With core samples, the entire sample length was cut and sampled. In runs where a geologist had assigned a duplicate sample (2% insertion rate), half core was quartered and sampled. Friable core inhibited a high percentage of quartering of core and duplicates were more from the pulp repeats. • RC chip samples were split via a 3-tier splitter, followed by a single splitter to produce two samples of approximately 2.5kg each (an "original" and a "duplicate"). Riffle splitting of RC bulk samples was via an automatic rig mounted splitter or manually by experienced technicians supervised by site geologist. • When wet, the chip samples were allowed to dry before it was split and sampled. • Sample preparation was undertaken at ALS, an ISO accredited laboratory. ALS utilises industry best practise for sample preparation for analysis, involving drying of samples, crushing to <5mm if required and then pulverising so that +85% of the sample passes 75 microns. • Field duplicate samples showed acceptable precision with no obvious bias.
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*	**Anglovaal:** • Surface drill exploration samples were all sent to Anglovaal Research Laboratory at Rand Leases Mine. • Atomic Absorption method was used with a Nitric-bromide digest. • Although no formal QC samples were inserted with the drill samples, the Anglovaal Research Laboratory developed their own standards, certified

Criteria	JORC Code explanation	Commentary
	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.*	by other commercial laboratories, and those were used internally in the laboratory. Duplicate samples were also inserted to check for repeatability. No results are available for these QC samples. • The Competent Person is satisfied with the quality of the historical data, and the associated analytical techniques, based on the results of a comparative analysis between historical Anglovaal and recent Orion drilling and sampling data. There is a reasonable compatibility between the histograms. **Orion and Repli:** • Two primary laboratories were used to analyse samples. Repli used Genalysis and Orion used ALS. Both laboratories have SANAS accreditation. However, Genalysis only has accreditation for Au and Pb. SGS Laboratory was used as the referee laboratory. • Analyses were done using acid digestion and the inductively coupled plasma and optical emission spectroscopy ("ICP-OES") methodology. • Initially, ALS used a three-acid digest but changed to an aqua-regia digest in November 2017. Genalysis used a four-acid digest. SGS used an aqua-regia digest. • Approximately 25% of the analysis of the samples was done using the three-acid digest out of 96 batches. • For base metal analysis, a 3-acid digest (using HNO3, HCl, and HF) aims for near-total digestion, while aqua regia (a mixture of HCl and HNO3) is a partial digestion method, primarily used for extracting metals from sulphide, carbonate, and some oxide minerals, but not as effective for silicate-bound metals. • There was also a need to get the accurate content of Hg (mercury) as concentrates with Hg have a penalty liable and this is best done via Aqua Regia method. It was also to extract only sulphide bound minerals and not the silicate bound minerals. • Quality control samples were inserted under the direct supervision of a geologist at pre-determined points within the sampling stream. Sample results of the duplicates and CRMs were examined on a regular basis by the responsible geologist and any discrepancy was taken up with the laboratories. • CRM samples showed excellent accuracy and precision, and duplicate samples showed acceptable precision with no obvious bias. Blank samples indicated no contamination, within the pre-determined thresholds, during the sample preparation process. • External laboratory checks between ALS and SGS were done by submission of duplicate samples. These showed excellent accuracy and

Criteria	JORC Code explanation	Commentary
		precision, except for the Au as can be expected with the very low levels.
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.*	**Anglovaal:** • No records are available on the verification of significant intersections. • No adjustments have been made to the assay data. **Orion and Repli:** • The drilling and sampling of each drilling campaign was supervised by experienced geologists. • Core recovery, density data, sampling data and geological logs were documented in the core yard onto standard paper templates provided by the Company. • Data entry from the primary hard copies was done on excel spreadsheets by the geologists logging the core and RC chips. The data was then imported into an Excel and Access database by the geologist responsible for the database. Validation of the data was done during the import process into the Access database by running queries, and also when the resource geologist imports the data into to the modelling software. • All data has been migrated into a cloud based Datashed™ database. • No twinning of holes has been done. • No adjustments have been made to the assay data.
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.*	**Anglovaal:** • All surface hole collars were surveyed by qualified surveyors using a theodolite. • The historical mine survey data is in the old national Lo 23 Clarke 1880 coordinate system. • Downhole surveys were carried out for most of the V surface holes. Methodology of the downhole surveys is not recorded on the available hardcopy information but plans and sections are meticulously plotted and signed off by a certified surveyor. • Both Eastman and Sperry Sun instruments were used in the downhole surveys. • Significant deflections in the dips of the holes have been noted, especially for the deeper holes. V holes with no downhole surveys are shallower holes drilled earlier on in the initial exploration phase. These holes intersected areas where the mineralisation is now largely mined out. • All hole positions have been converted to Lo23 WGS84 coordinates. **Orion and Repli:** • Drill hole collar positions were laid out using a handheld GPS.

Criteria	JORC Code explanation	Commentary
		• After completion of the Orion drilling, all collars were surveyed by a qualified surveyor using a Trimble R8 differential GPS. • Downhole surveys for Orion were completed in all drill holes using a digital North-Seeking Gyro instrument. Repli diamond drill holes were surveyed downhole using a Reflex EZ Track multi-shot survey instrument. • All survey data is in the WGS84 ellipsoid in the WG23 Zone with the Hartebeeshoek 1994 Datum. The coordinates are also supplied in Clarke 1880 and in UTM WGS84 Zone 34 (Southern Hemisphere).
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.*	**Anglovaal:** • Original exploration V holes were drilled on a 200 - 250 m spacing. **Orion and Repli:** • Drilling was carried out on approximately 25-30m spaced lines along strike and at approximately 50m intervals. There were, however, a few holes drilled in between these lines. Underground holes, where possible, were spaced on 50m spaced lines. • Variography studies were carried out on the historical data set to determine the drill spacing for Mineral Resource estimates. The combined Orion, Repli and Anglovaal data spacing and distribution is considered sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • No sample compositing has been applied before assaying on the core whilst some 2m composting was carried out in the RC program of 2023 by Orion, mostly in the fringes of the identified main mineralised zone.
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.*	• Most of the historical drilling and all current drilling was oriented perpendicular, or at a maximum achievable angle to, the attitude of the mineralisation. • As a result, most holes intersect the mineralisation at an acceptable angle. • For the southeast portion of the +105 resource, the presence of sinkholes on surface negates drilling from surface from the hangingwall. • In this southeast area, several shallow angle surface drill holes were completed from the footwall of the mineralised zone. This resulted in sub-optimal angles of intersection for some holes. The orientations of these holes are however, not considered of significance to the Mineral Resource estimation by the Competent Person. • The southeast area was subsequently covered by underground 'up holes' from the footwall of the mineralised zone with intersections close to perpendicular to the mineralisation.

Criteria	JORC Code explanation	Commentary
		• No sampling bias is anticipated as a result of hole orientations. • EM surveys by Orion were completed in an orientation perpendicular to the interpreted or intersected mineralisation.
Sample security	• *The measures taken to ensure sample security.*	**Anglovaal:** • No details of sample security are available. However, during the mining operations the site was fenced and gated with security personnel employed as part of the staff. **Orion and Repli:** • Access to drill sites are limited to responsible persons with close supervision of the unloading of the core tube and transportation of core to the core yards (Repli's in Kimberley and Orion's on site). Both core yards are enclosed by a security fence, the access gate of which was locked at all times when personnel were not on the premises. • Sample shipments were controlled by the geologists and / or technicians. In the case of the Repli samples, geologists and technicians were responsible for the transportation of samples to the Genalysis laboratory in Johannesburg. Orion samples were sent with a courier service to the ALS laboratory in Johannesburg. Sample shipments were accompanied with appropriate sign off documentation to ensure all samples were received in good order. • The chain of custody was managed by the individual Companies. Samples were stored on site in a secure locked building and then freighted directly to the laboratory. • All coarse and pulp rejects returned from the laboratory are stored within secured locked buildings.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	**Anglovaal:** • No records of audits or reviews are available. **Orion:** • Steffen, Robertson and Kirsten (South Africa) (Pty) Limited (**SRK**) reviewed the sampling techniques being practiced. One concern was regarding the suitability of spray lacquer used to seal porous samples for the determination of the relative density of oxide and supergene sulphide samples. This was addressed with the replacement of the spray lacquer with wax. • A total of 33% of the samples lying within the wireframe used for the estimation of the supergene sulphide mineralisation were re-done for relative density using the wax relative density method. These results show

Criteria	JORC Code explanation	Commentary
		excellent precision and no obvious bias when comparing with the original relative densities that were carried out using the spray lacquer method. • RC chips and core from the +105 Block at the storage facilities has been visually examined by the Competent Person. Discussions have taken place with Repli on the conduct of the drilling programme, sampling techniques and handling of data and the Competent Person is satisfied that work was carried out to appropriate standards to classify and report the Mineral Resource in accordance with the JORC Code (2012).

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.*	**Tenement Status:** • Mineral tenure in South Africa is regulated by the MPRDA, 2002, with the environmental aspects regulated by NEMA, 1998, both managed under the authority of the DMRE. The Project mineral tenure or tenement holding comprises a set of contiguous granted mining and prospecting rights surrounding the old PCM area: the Repli (PCZM) Mining Right, the Vardocube Mining Right, the Bartotrax Prospecting Right, the Repli-Doonies Pan Prospecting Right and four Orion Exploration No. 5 (Pty) Ltd granted prospecting rights. The primary tenement licenses are detailed below: **PCZM (Repli) Mining Right:** • Mining Right: NC30/5/1/2/2/10138MR. The Repli Mining Right was granted on 23 August 2019 and executed on 11 December 2019, in terms of Section 23 of the MPRDA, 2002, over the previous Repli Prospecting Right area for copper, zinc, lead, silver, gold, sulphur, cobalt, barytes, limestone, stone aggregate, gravel, sulphur in pyrite, pyrite, molybdenum ore, tungsten ore, sand (general) and iron ore in respect of the farm Vogelstruis Bult No 104, portion RE25 and portion 26 and the farm Slimes Dam 154, in the Prieska District, Northern Cape Province for an initial period of 24 years which may be renewed for up to 30 years at a time. The Mining Right was awarded together with the pre-requisite EA and WML (granted 3 July 2019) and includes the approved Mining Works Program and the SLP.

Criteria	JORC Code explanation	Commentary
		• Orion effectively holds a 70% interest in the Project, with the remaining 30% as 20% BEE ownership, 5% community trust and 5% employee trust in compliance with Mining Charter 2018 guidelines and existing legislation. **Vardocube Mining Right Application:** • Mining Right: NC30/5/1/2/2/10146MR. The Vardocube Mining Right, in terms of Section 22 of the MPRDA, 2002, for the Vardocube Prospecting Right area for copper, zinc, lead, silver, gold, sulphur, cobalt, barytes, limestone, sulphur in pyrite, pyrite, molybdenum ore, tungsten ore, and iron ore was granted 14 August 2020 and executed 20 October 2020, together with the pre-requisite granted EA, approved, proposed Mine Works Program and the approved SLP which is entering its second 5-year cycle. The EA was granted on 3 March 2020. • Vardocube is 100% held by PCZM and the Vardocube Mining Right is therefore held at the same 70:20:5:5 ratio as the PCZM Mining Right. • The Mining Right covers the complete known strike of the +105 Level Resource. • +105 Level Resource is located on Portion 26 of the farm Vogelstruis-Bult 104.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The Anglovaal exploration resulted in the delineation and development of a large mine. • The Repli exploration resulted in the first post Anglovaal delineation of the +105 Block resource
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Copperton deposit is a Volcanogenic Massive Sulphide (**VMS**) deposit which is situated in the southernmost exposures of the north-northwest trending Kakamas Terrain, which forms part of the Mid-Proterozoic Namaqualand Metamorphic Complex. • The deposit is hosted by the Copperton Formation of the Areachap Group. The Areachap Group, also hosts several other but smaller VMS deposits such as the Areachap, Boks Puts, Kantien Pan, Kielder, and Annex Vogelstruisbult deposits. • The structural sequence at the mine consists of a footwall Smouspan Gneiss Member, Prieska Copper Mines Assemblage (PCMA), which hosts the sulphide mineralisation, and the hangingwall Vogelstruisbult Gneiss Member. • The historically mined section of the deposit is confined to a tabular, stratabound horizon in the northern limb of a refolded recumbent synform, the axis of which plunges at approximately 5° to the south-east. • The mineralised zone outcrop has a strike of 2,400m, is oxidised and / or

Criteria	JORC Code explanation	Commentary
		affected by leaching and supergene enrichment to a depth of approximately 100m. • The mineralised zone crops out as a well-developed gossan. It has a dip of between 55° and 80° to the northeast at surface and a strike of 130° to the north. • The supergene sulphide zone of the +105 Block is the northernmost 1,000m portion of the total strike of the PCZM orebody. It is located from approximately 50m to 90m below surface between 1,020m and 980m AMSL. • Trial mining on 99 Level has shown that the massive sulphide zone is composed of approximately 60% competent, albeit softer, altered equivalent of the hypogene sulphides. The remaining 40% is made up of friable soft granular supergene sulphide and clayey material. According to drilling and exposure in raise development, the proportion of supergene sulphide material increases rapidly above 99 Level. • The supergene sulphide zone in the trial mining area dips to the NE, at 40 to 55 degrees, and strike NW-SE. The mineralised zone varies in width from 1m to 8m.

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.*
		Anglovaal:
		• Historical drilling results used in the +105 Block Mineral Resource estimation were reported in the ASX releases of 16 July 2018 and 18 November 2015.
		Orion and Repli:
		• Drill hole intersections used in the +105 Mineral Resource estimation have been reported in the ASX release of 11 July 2022.
		• Drill holes reported in this ASX release include 1,277m of RC drilling in 29 holes completed in 2023. An additional four holes comprising 345m were drilled for metallurgical samples and no assays are available.
		• Collar and intersection information for these holes are included as Tables 4, 5 and 6 in Appendix 2.
		• Other relevant diagrams have been included in the abovementioned ASX release relating to the drilling results at the Prieska Project.
		• All drilling information is available and has been compiled digitally.
		• A summary of the drill hole collar information related to the +105 Level Mineral Resource reporting has been provided in the above mentioned ASX release.

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.*	**Anglovaal:** • Individual intersections were weighted by sample width. • No truncations have been applied.

Criteria	JORC Code explanation	Commentary
	• *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 grade and density information are incorporated in the Orion database, and due to the large number of intersections made it is in the Competent Person view that it should not be included in this reporting. **Orion:** • Significant intersections for the +105 Level Supergene Sulphide Target previously reported to the ASX were calculated by average of assays result > 0.3% copper or 0.5% zinc and weighted by the sample width and specific gravity of each sample. • No truncations have been applied. • No metal equivalent values were considered. Metal equivalent values were only used in the defining of the mineralisation wireframe interpretation as described in Section 3.
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 drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• All intersection widths previously reported are down hole widths. • Most holes intersected the mineralisation perpendicular or at high angle to the attitude of the mineralisation.
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.*	• Historical drilling results were reported in the ASX releases of 16 July 2018 and 18 November 2015. Other relevant diagrams have been included in previous ASX releases relating to the drilling results at the Prieska Project. • All prior drill hole intersections used in the +105 Supergene Sulphide Mineral Resource estimation have been reported in the ASX release of 11 July 2022.
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.*	• All drilling information was initially digitally available in a secure Geobank™ database and has now been migrated into a secure cloud based DataShed™ database. • The Company has presented all available information in this report in a balanced manner and has provided appropriate context for the exploration results to allow a considered and balanced judgement of their significance.
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.*	• Hardcopy plans are available for a range of other exploration data. This includes mine survey plans, geological maps, airborne magnetic, ground magnetic, electromagnetic, gravity and induced polarisation information. All available exploration data has been viewed by the Competent Person. • The Prieska Mine operated from 1972 to 1991 and is reported to have milled a total of 45.68 Mt of ore at a grade of 1.11% copper and 2.62%

Criteria	JORC Code explanation	Commentary
		zinc, recovering 0.43 Mt of copper and 1.01 Mt of zinc. Detailed production and metallurgical results are available for the life of the mine. • In addition, 1.76 Mt of pyrite concentrates and 8,403 t of lead concentrates as well as amounts of silver and gold were recovered. • Copper and zinc recoveries averaged 84.9% and 84.3% respectively during the life of the mine. • Comprehensive geotechnical work as part of the Definitive Feasibility Study (**DFS**) has been completed on the +105 Target area. • Comprehensive metallurgical test work as part of the DFS has been completed on the +105 Target area. • Relevant diagrams have been included in previous ASX releases relating to drilling at the Prieska Project.
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.*	• Infill drilling is required to upgrade the Inferred Mineral Resource in the southeast to Indicated.

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.*
		• All drill hole and sample data are stored by Orion in a robust DataShed™ database.
		• Validation includes the following:
		  ○ Ensuring that all drill holes have appropriate XYZ coordinates.
		  ○ Comparing the maximum depth of the hole against the final depth indicated in the collar file.
		  ○ Comparing the final depth in the survey file against final depth in the collar file.
		  ○ Comparing the final depths of all geology, assay, core recovery against the final depth in the collar file.
		  ○ Checking for duplicate drill holes.
		  ○ Checking that each depth interval has a main lithology.
		  ○ Checking that all fields that were set up as mandatory fields contain entries.
		  ○ The core recoveries were checked for unrealistic percentages.
		  ○ Density results are checked for unrealistic values.
		• Further checks were performed when the drill hole data was imported into

Criteria	JORC Code explanation	Commentary
		the 3D modelling software. The data was validated for duplicates, gaps, overlaps, impossible intervals in down-hole sequence for assay, collar coordinates, geology data and survey data. The drill holes were also visually checked in plan and section.
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.*	• Z* Star Mineral Resource Consultants (Pty) Ltd (**Z***) visited the Prieska Project from 17 to 19 October 2017. • Z* Star subsequently updated the Mineral Resources for the +105 Target in 2019, 2023 and 2025.

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.*
		• The +105m Level Block model comprises six defined geological zones. These are:
		  ○ Haematite-goethite-quartz oxide zone (gossan) from surface to approximately 33m;
		  ○ Clay (kaolinite)/leach zone developed in places below 33m;
		  ○ Chalcocite dominant supergene sulphide zone between approximately 42m and 70m;
		  ○ Mixed supergene sulphide zone between approximately 70m and approximately 100m below surface. This has a relatively sharp contact with the fresh underlying massive sulphides;
		  ○ Hypogene zone is the fresh underlying massive sulphides. This is limited to areas where the hypogene zone has not been mined up to the 105m Level; and
		  ○ A separate zone of elevated Cu and Zn values in the oxides (where there is adequate drilling information) in the hangingwall (**HW**) to the main +105m Level crown pillar is present in the northwest of the deposit or approximately 300m strike where the zone converges with the main zone towards the southeast.
		• All of the above six zones apart from the first (oxide) and second (clay/leach zone), are included in the Mineral Resource update. The Supergene Sulphide, Mixed and Hypogene zones are collectively referred to as the Supergene Sulphide & Hypogene Zone.
		• The boundaries of the mineralisation are relatively sharp irrespective of the geology. A wireframe of the combined +105 Level crown pillar mineralisation was created by interpretation of the Cu and Zn values along 47 sections across the deposit. The wireframe was constructed utilising Cu values greater than or equal to 0.3% and Zn values greater than or equal to 0.6%. Where possible, both values were utilised during modelling, but greater emphasis was placed on the copper values as the zinc is leached out towards surface. In places, this resulted in the inclusion of mineralised areas based only on high Cu values.
		• The supergene sulphide and hypogene zones were subsequently

Criteria	JORC Code explanation	Commentary
		remodelled separating the footwall disseminated sulphides from the massive sulphides up to the HW. A 0.8% Cu cut off was used to separate the disseminated sulphides from the massive sulphides. • Surfaces representing the top of the Supergene Zone and bottom of the Supergene Sulphide Zone were interpreted and modelled from drill hole data. A surface was created to represent the upper limit of underground stoping. • Geological data and conclusions reached are based on observations in drill core. • The disseminated sulphides and massive sulphides of the Supergene Sulphide & Hypogene Zone are treated separately in the resource estimation.
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 strike length of the +105 Level Crown Pillar mineralisation is approximately 1,000m from the northwest to where the zone intersects the sinkholes in the southeast. The depths below surface to the upper limits are approximately 50m and to the lower limits from 100m to 120m below surface. • The thickness of the mineralised zone varies from 1.5m to 23m.
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. sulfur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of*	• Density weighting is standard practice for VMS deposits. However, in the Supergene Sulphide & Hypogene zones the density measurements do not correlate well with the assay values and density weighting was therefore not included. The poor correlation is probably due to the friable nature of the core. • The distribution of composites for each of the variables (Cu, Zn, and density) were assessed and a decision was taken to utilise the Parker methodology for capping outliers. The process involved capping the relevant outliers for each variable to a chosen threshold. • Capping was applied to seven Cu assays and four Zn assays in the Supergene Sulphide & Hypogene Zone. • Datamine™ was utilised to create a block model and measure individual block volumes within each zone and these data were imported into Isatis™ for further analysis. • The Supergene Sulphide & Hypogene zones were analysed independently to ensure that the plane for estimation had an optimal orientation. • Variograms for all variables were created from the laboratory assay capped composites only and modelled in two directions, downhole (along the drill hole) and omni-directionally on the plane of the mineralisation. Assessment of the variogram models was preferentially focused on the Cu and Zn spatial structure. • No mining production took place above the 105 level of the mine. • No assumptions have been made regarding the recovery of by-products.

Criteria	JORC Code explanation	Commentary
	reconciliation data if available.	• No deleterious elements or non-grade variables were estimated. • A block model was created to allow estimation into 25m x 25m x 2m blocks with sub-cells of 1m x 1m x 1m. • OK was undertaken on all variables on a 25m x 25m x 2m block scale, utilising the capped composite input datasets and the modelled variograms. Estimation runs on two different neighbourhoods were utilised for all variables and the first estimation run in each case has smaller searches (equivalent to the variogram ranges), particularly in the Z direction. This ensures that the variography and therefore the nature of the mineralisation is honoured and ensures that negative weights are minimised. The neighbourhood of the second kriging run was expanded to allow population of most of the remaining blocks. The 2nd pass kriging run failed to populate all the blocks in the Supergene Sulphide & Hypogene Zone, particularly in areas where the peripheral dip of the deposit was different to the best fit plane. A decision was taken to utilise the "grid filling" option in Isatis™ using a moving average interpolator. • For the Supergene Sulphide & Hypogene domain, neighbourhood analysis resulted in an optimum search neighbourhood of 100m x 4.5m for local block estimation by OK, corresponding to the variogram range. The second and third pass estimates were calculated from the pass 1 OK estimates using a moving average technique with the search radii increased to 200m / 7m and 400m / 20m respectively. 80% of blocks were estimated by the first pass. • The kriging performance parameters, e.g. slope of regression, together with an assessment of the areas of blocks that were populated by 1st pass kriging, were utilised to make a distinction between the Indicated and Inferred classifications. • No assumptions were made regarding selective mining methods. • The Supergene Sulphide & Hypogene zones are reported independently in the Mineral Resource statement.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• No moisture content was calculated, and the core was naturally dried when logged and sampled. The estimated tonnages are therefore based on a natural basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The Mineral Resource is reported above a cut-off of 0.7% Cu which corresponds with the economic cut off generated from the Mine Plan as part of the DFS.

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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.*	• A mine design for the supergene sulphide and hypogene zones incorporating long hole open stoping forms the basis of the DFS. 12m x 12m x 12m stopes are planned with levels at 12m intervals.
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.*	• Metallurgical test work indicated that a separate copper and zinc concentrate of the supergene sulphide mineralisation is achievable. • Ore extracted from the +105 mineralised zone was previously treated using froth flotation metallurgical process by Prieska Copper Mine. Mixed oxide, supergene and hypogene sulphide ore was successfully treated by froth flotation to produce separate copper and zinc concentrates during the 1980's. • Metallurgical testwork has been completed as part of the upcoming DFS and will be reported accordingly.
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.*	• The +105 Level Resource is on the environmental footprint of the historical Prieska Copper Mine site.
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.*	• There are 203 density measurements in the Supergene Sulphide & Hypogene Zone. • Bulk densities were determined using the water displacement method. A representative sample of full core at 15cm length was collected per metre length, taking cognisance of the change in lithology. • A total of 33% of the samples lying within the wireframe used for the estimation of the Supergene Sulphide mineralisation were re-done for relative density using the wax relative density method. These results showed excellent precision and no obvious bias when comparing with the original relative densities. • No moisture content was determined. • The density in the Supergene Sulphide & Hypogene Zone was estimated

Criteria	JORC Code explanation	Commentary
		using OK.
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 geology of the zones making up the +105m Level Mineral Resource is relatively uncomplicated, and the key issues relate to the delineation of the estimation domain boundaries (not geology). The assay data used for estimation is reliable and has been acquired with good governance associated with all processes. The variables were estimated using independent variogram models and OK. • Inferred and Indicated Mineral Resources - the geological model is defined to a reasonable level and there is sufficiently accurate data coverage to produce local block estimates using OK. In parts of the Supergene Sulphide & Hypogene Zone there are sufficient data for reasonably accurate local block estimates of grade (~80% of volume populated by 1st Pass kriging). • The low number of density samples is a concern but local block estimation with reasonable accuracy was possible. The kriging performance parameters, e.g. slope of regression, together with an assessment of the areas of blocks that were populated by 1st pass kriging, were utilised to make a distinction between the Indicated and Inferred levels of confidence. • The results conform to the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• To date the Mineral Resource estimate has only been reviewed internally by Orion. The review showed comparable results in terms of tonnage and grade distribution to an internal check estimate.
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.*	• Final estimates for all variables in both zones were validated by comparing the mean composite grades to the mean estimate grades. The data for Cu and Zn with the 1st Pass and final estimates are within 5% of the composites mean. • Composite and estimated final grade and density distributions were compared to ensure that the block estimates represent the original data distribution. These were found to be reasonably compatible. • Swathe Trend plots were created in the Y, X and Z directions and all the estimates followed the trend of the composite data. • All estimates were studied graphically and compared to the composite data in three-dimensional space and they compared reasonably well, given the high variability of the sample data. • No production data is available.