Orion Minerals

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2025 Definitive Feasibility Study for Prieska Copper Zinc Mine Delivers Robust Financial & Technical Outcomes from De-Risked Two-Phase Development Strategy

DFS outlines a rapid pathway to production and cash flow via initial shallow underground mining, paving the way for longer-term development of the large-scale "Deeps" Resource

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HIGHLIGHTS

- **2025 Definitive Feasibility Study (DFS-25) for Orion's flagship project, the Prieska Copper Zinc Mine (PCZM), located in the Northern Cape Province of South Africa, delivers robust financial and technical results.**
- **The DFS-25 outlines an optimised two-phase development strategy aimed at de-risking the development pathway and fast-tracking value-creation from a safe, modern, long-life, mechanised, underground base metal mine:**
  - **Initial "Upper-Level Phase"** – based on mining near-surface supergene sulphide ore which is accessible from an existing decline, with first production expected 13 months after start of construction and continuing for 4.3 years. Capital expenditure to achieve first concentrate production is AUD49 million (ZAR560 million).
  - **The "Deeps Phase"** – to commence following completion of mine de-watering, refurbishment of the main shaft and construction of the mining infrastructure. Mining of the Deeps has a life of mine (**LoM**) (life of mine from first production) of 11 years and will overlap with the last 2.2 years of the Upper-Level mining. This gives a combined LoM of 13.2 years.
- **Key financial outcomes include:**
  - Net Present Value (NPV) (at an 8% discount rate) of:
    - Pre-tax: AUD797 million (ZAR9,966 million),
    - Post-tax: AUD568 million (ZAR7,105 million);
  - Internal Rate of Return (IRR) of 31% pre-tax (26% post-tax);
  - Payback period from start of construction of 5.8 years;
  - Undiscounted life-of-mine free cash flows of AUD1,782 million (ZAR22,277 million) (pre-tax);
  - Peak funding requirement of AUD578 million (ZAR7,230 million);
  - Total project capital expenditure (including contingency) of AUD607 million (ZAR7,592 million);
  - Capital intensity of USD9,174/t annual copper equivalent production, to achieve nameplate annual copper production of 22ktpa and zinc production of 65ktpa;
  - All-in-sustaining costs of USD4,550/t (USD2.06/lb) of copper equivalent metal sold;
  - All-in-sustaining cost net of by-product credits of USD2,359/t (USD1.08/lb) of payable copper sold;

- All-in-sustaining margin of 52%, based on average received copper price of USD9,480/t (USD4.30/lb); and
- Ore processing rate of 240ktpa for the Upper-Level Phase and 2.4Mtpa for the Deeps Phase.

- **Installed infrastructure improves overall capex and time to production** – The combination of historical infrastructure and recently installed facilities (during trial mining) enable the project to advance more rapidly to first production and reduces the overall capital expenditure.
- **Historical data supports DFS** - Extensive historical mining, production and geological data has helped inform a number of the assumptions in the DFS.
- **Mineral Resources at PCZM total 31.0Mt at an average grade of 1.2% copper and 3.6% zinc, resulting in 370kt of contained copper and 1,120kt of contained zinc.**
  - Indicated Mineral Resources of 20.0Mt @ 1.22% copper and 3.47% zinc for 240kt of contained copper and 690kt of contained zinc; and
  - Inferred Mineral Resources of 11Mt @ 1.2% copper and 3.9% zinc for 130kt of contained copper and 420kt of contained zinc.
- **Probable Ore Reserves at PCZM total 15.6Mt at an average grade of 1.1% copper and 3.1% zinc, resulting in 164kt of contained copper and 458kt of contained zinc.**
- **Externally reviewed**
  - The DFS has been externally reviewed by independent technical expert, Practara Metals and Mining Advisory (**Practara**).
- **The effective date of the DFS is 31 December 2024. The indicative timelines that have been provided in the report are for illustrative purposes and assumes that the project is fully funded at the report effective date.**
- **Next steps are to advance:**
  - Project financing;
  - Project implementation planning;
  - Concentrate offtake negotiations; and
  - Agreements with service providers for key early works activities and long lead items.

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Disclosure on Forward Looking Statements

Certain information set forth in this Feasibility Study Report contains "forward looking information", including "future oriented financial information" and "financial outlook", under applicable securities laws (collectively referred to herein as forward looking statements). Information contained herein constitutes forward looking statements.

Forward looking statements are provided to allow potential investors the opportunity to understand management's beliefs and opinions in respect of the future so that they may use such beliefs and opinions as one factor in evaluating an investment. These statements are not guarantees of future performance and undue reliance should not be placed on them. Such forward looking statements necessarily involve known and unknown risks and uncertainties, which may cause actual performance and financial results in future periods to differ materially from any projections of future performance or result expressed or implied by such forward looking statements.

Although forward looking statements contained in this Feasibility Study Report are based upon what management of the Company believes are reasonable assumptions, there can be no assurance that forward looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. The Company undertakes no obligation to update forward looking statements if circumstances or management's estimates or opinions should change except as required by applicable securities laws. The reader is cautioned not to place undue reliance on forward looking statements.

The Definitive Feasibility Study (**DFS**) reported in this Announcement determines the commercial viability of establishing mining and ore processing operations on the Prieska Copper Zinc Mine (PCZM). The DFS has been prepared with the objective that its findings are subject to an accuracy range of ±15%. The findings in the Study,

including the estimates of rates of return, costs, payback, NPV, milling rates, and production rates, should be viewed with this in mind and are subject to all necessary permits, regulatory requirements, financing, Board approval and further works as described throughout.

This Feasibility Study contains Production Targets and Forecast Financial information supported by a combination of approximately 65% Probable Ore Reserves, Indicated Mineral Resources and approximately 35% Inferred Mineral Resources, all classified and disclosed in compliance with ASX Listing Rules and JORC Code (2012) reporting standards. Orion is satisfied that the portions of Inferred Mineral Resources included in the Production Targets (never more than 35% of the mining plan) are not the determining factor in project viability and do not feature as a significant portion early in the mining plan.

Note that there is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the portion of the production target reliant on Inferred Mineral Resources will be realised.

The Ore Reserves and Mineral Resources underpinning the Production Target have been prepared by Competent Persons in accordance with the requirements in Appendix 5A JORC Code (2012) in accordance with the ASX Listing Rules.

All material assumptions for the DFS are outlined in this report. These include assumptions about the availability of funding. While Orion considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the DFS will be achieved. Peak funding in the order of ZAR7,230 million (AUD578 million) (which incorporates an 11% contingency allowance) will be required.

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

"The 2025 Definitive Feasibility Study for our flagship Prieska Copper Zinc Mine marks the culmination of a major strategic and technical re-think of the development strategy for this large-scale base metal mine undertaken over the past few years. The outstanding results outlined in the DFS-25 confirm the potential to develop a long-life, financially robust mining operation via a two-phase development plan which substantially de-risks the mine development pathway and fast-tracks initial cash flow.

"One of the biggest changes from the previous study we completed in 2020 has been the decision to undertake an initial phase of mining focused on the supergene sulphide ore in the upper levels of the orebody. This approach will enable us to deliver first production from the Upper-Level Phase within 13 months of the start of construction, with the cash generated during these early years helping to fund the ongoing de-watering and other early works required for the second-phase mining of the Deeps.

"The early mining of the Upper-Level will require additional capital for a dedicated, bespoke processing plant to handle the supergene sulphide ore and additional mining fleet with smaller units suited to the particular mining conditions in the Upper-Level. However, the additional capital brings the benefit of early production and derisking of the entire project by intensive training of an owners mining team who will be specifically trained and have a high productivity culture embedded prior to the start of Deeps Mining three years later and at ten times the scale.

"We are particularly pleased that even with the increased capital of two processing plants and with two mechanised mining fleets, the overall capital intensity to reach full nameplate production is below USD9,200 per annual copper equivalent tonne.

"Once we have steady-state production underway at the Deeps, we expect to mill 2.4mtpa and produce 22kt of copper and 65kt of zinc on an annual basis. With an all-in sustaining cost of around USD2/lb of copper equivalent metal sold. We believe PCZM will generate healthy cash flows throughout the copper price cycle."

"In addition to strong financial metrics, the DFS includes a range of Environmental, Social and Governance factors, including commitments to strive for class-leading performance relating to safety, local employment and procurement, tailings management, water stewardship and community engagement.

"Beyond the currently defined life of mine, we see additional upside by converting more Mineral Resources into Ore Reserves, as well as by defining additional mineralisation at depth, where drilling and downhole electromagnetics have indicated that the mineralisation persists beyond the limit of the Mineral Resource, both of which could provide additional mine life and potential for increased scale at PCZM.

"This positive study for PCZM, together with the study for the Flat Mines Project at our Okiep Copper Project that will be released shortly, puts Orion firmly on-track to become a near-term base metals producer, with total copper production of around 30ktpa once both projects are at steady state. This would enable Orion to make an important contribution to the economic development of the Northern Cape Province of South Africa.

"With these studies now complete, our focus turns to finalising our project financing strategy, which we expect will comprise a combination of debt, equity and offtake related funding.

"I would like to sincerely thank the team, led by our General Manager at PCZM, Andre Bergh, and DFS Project Director, Nick Fouche, for the hard work that has gone into delivering this favourable DFS. I would also like to acknowledge the ongoing support of our project partners and shareholders."

Industrial Development Corporation (IDC) Divisional Executive Industry Planning and Project Development, Rian Coetzee, commented:

"Orion's Prieska Project presents a unique value proposition with significant upside potential, perfectly aligning with the IDC's Critical Minerals Plan. By leveraging existing infrastructure, the project is set to commence mining operations ahead of the previous BFS schedule, accelerating value creation and delivering economic benefits. We remain committed to supporting this project and unlocking its full growth potential."

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Orion Minerals Limited (**ASX/JSE: ORN**) (**Orion** or the **Company**) is pleased to present the outcomes of the Definitive Feasibility Study for the Prieska Copper Zinc Mine, located in the Northern Cape Province of South Africa.

The DFS has delivered robust financial and technical results and outlines an optimised two-phase development strategy aimed at de-risking the development pathway and fast-tracking value-creation from a long-life, modern underground base metal mine, with outstanding exploration potential for growth and LoM extension.

EXECUTIVE SUMMARY

The Prieska Copper Zinc Mine (**PCZM**) is located in the Northern Cape Province of South Africa. The Mine was previously known as the Prieska Copper Mine which ceased operations in 1991. The DFS as summarised in this Executive Summary, was carried out to a cost estimation accuracy level of ± 15% and is supported by a Mineral Resource estimate reported in accordance with the JORC Code (2012) in December 2018[1] and an updated Mineral Resource released to the ASX/JSE on 28 March 2025. The DFS outlines an improvement of the business case detailed in a previous Feasibility Study released in 2020 for the establishment of new underground mining operations at the existing site. Two distinct sections will be mined, known as the Upper Levels, and the Deeps.

The planned operation starts with the Upper-Level Phase which runs for 4.3 years based on mining Supergene and Oxide ore close to surface which will be accessed from an existing decline. During the Upper-Level mining, pumping in the main shaft will take place to de-water the mine which is currently flooded to 265 metres below surface. Following the de-watering, refurbishment of the main shaft and construction of the mining infrastructure will take place. The Deeps underground mining will begin from the 28th month of project and production overlaps with the last 2.2 years of the Upper-Level mining. The combined operation is planned over 13.2 years of production at an ore processing rate of 240ktpa for the Upper levels and 2.4Mtpa for the Deeps. Inferred Resources are included in each of the two mining plans in what are called Life-of-Mine plans. An Ore Reserves only mining plan has also been prepared for both Upper and Deeps sections in-line with the JORC Code (2012) recommendations and guidelines in order to confirm the financial viability of mining without product yield from Inferred Resources. Detailed drilling plans have been compiled to facilitate the upgrading of the Inferred Mineral Resources areas of the plans to Indicated Mineral Resources following access to the relevant underground areas. Orion has achieved a very high upgrade of Inferred Resources to Indicated Resources with infill drilling at PCZM.

[1] Refer ASX/JSE Release 18 December 2018.

Ore from the Upper levels and Deeps mining will feed separate froth-flotation processing plants to produce a copper concentrate with important gold and silver byproduct credits from the Upper Levels and separate copper and zinc concentrates from the Deeps. Small amounts of gold and silver are recovered in the Deeps copper concentrate as by-product credits. The concentrates will be sold to an international metals trader and exported for toll smelting and refining which is costed as CIF-FO to China (cost, insurance & freight – free out, meaning that PCZM is responsible for the cost to the destination port and the trader pays for the unloading).

The report complies with Australian Securities Exchange (ASX) listing rules and The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 (JORC Code) reporting standards.

Financials

The post-tax Net Present Value (**NPV**) of the combined operation is ZAR7.1 billion (AUD568 million), using non-inflation-adjusted estimates and a discount rate of 8%, and achieves a post-tax Internal Rate of Return (**IRR**) of 26%. The NPV is based on long-term forecast weighted average metal prices of USD9,401/tonne for copper and USD2,665/tonne for zinc[2] and a ZAR-USD foreign currency exchange rate of 18:90:1. The Project has an undiscounted post-tax LoM cash flow of ZAR16.6 billion (AUD1.3 billion).

The total estimated capital cost for PCZM is ZAR7,592 million (AUD607 million). Peak funding requirements amount to ZAR7,230 million (AUD578 million) including an 11% contingency allowance. Payback is planned to occur 5.8 years from the start of construction and only 2.4 years after peak funding.

For the combined operation, all-in-sustaining unit costs (**AISC**) over the duration of the LoM will be approximately USD4,550/t or USD2.06/lb (AUD6,880/t) copper equivalent (CuEq[3]) metal sold. The operating break-even grade is estimated at 0.99% CuEq. This operating break-even grade is well below the average combined Uppers and Deeps Ore Reserve (see Table 15) grade of 1.6% CuEq[3], applied in the production schedule. 63% of the revenue is from copper and 37% from zinc.

Sensitivity analysis indicates that post-tax NPV for the combined operation is most sensitive to ZAR-USD exchange rate with a range of ZAR3.9 billion to ZAR10.7 billion as the exchange rate varies from +15% to -15% from the base rate of ZAR:USD 18.90:1 As the copper price is varied from -15% to +15% of the base assumption of USD9,401/tonne post-tax NPV ranges from ZAR3.5.1 billion to ZAR9.1 billion. As the zinc price is varied from -15% to +15% on the base assumption of USD2,665/tonne, post-tax NPV ranges from ZAR5.7 billion to ZAR8.6 billion.

Key assumptions and Project performance parameters of the DFS-25 are presented in Table 1 below.

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[2] Metal price assumptions based on consensus long-term forecasts (December 2024).

[3] Method used to determine Cu_Equivalent (CuEq) grades is consistent with the formula determined and applied in BFS-20 refer ASX/JSE release 26 May 2020, taking into account current market conditions and NSR currently offered by reputable trading entities.

$$1\%\ Zn = \frac{(Zn\ price \times Zn\ NSR) \times (Zn\ plant\ recovery)}{(Cu\ price \times Cu\ NSR) \times (Cu\ plant\ recovery)} = \frac{(2{,}450 \times 69.7\%) \times (82.1\%)}{(8{,}900 \times 101.3\%)\ (85.8\%)} = 0.185\%\ Cu$$

Cu_Equivalent grade = Cu grade + (0.185 x Zn grade).

Table 1: Key DFS Results (real terms) for the Prieska Copper Zinc Mine. Note that the DFS estimation accuracy level is ± 15%.

Executive Dashboard - Combined LoM Plan							
Production and Financial Summary							
eighted Average Price and FX Assumptio	**Unit**	**Value**	**Financial Performance**	**Unit**	**Value**	**Unit**	**Value**
Metal price - Cu	USD/t	9 401	Net Present Value (Pre Tax) @ 8% Discount Rate	ZAR millions	9 966	AUD millions	797
Metal price - Zn	USD/t	2 665	Net Present Value (Post Tax) @ 8% Discount Rate	ZAR millions	7 105	AUD millions	568
Metal price - Au	USD/oz	2 160	IRR (pre-tax)	%	31%	%	31%
Metal price - Ag	USD/oz	27	IRR (post-tax)	%	26%	%	26%
Exchange rate	ZAR:USD	18,90	Payback period (from start of concentrate production)	years	4,8	years	4,8
Exchange rate	ZAR:AUD	12,50	Undiscounted free cash flow (pre-tax)	ZAR millions	22 277	AUD millions	1 782
Exchange rate	AUD:USD	1,51	Undiscounted free cash flow (Post-tax)	ZAR millions	16 559	AUD millions	1 325
Production metrics	**Unit**	**Value**	Peak funding	ZAR millions	7 230	AUD millions	578
Life of Mine	Years	13,17	Capital Intensity (LOM Nameplate Capacity)	USD/Cu_{eq}(tpa)	9 174	AUD/Cu_{eq}(tpa)	13 871
Treatment plant capacity	ktpa	2 400	**Project Cost Metrics**	**Unit**	**Value**	**Unit**	**Value**
			Average cash operating unit cost (C1)	ZAR/t	1 176	AUD/t	94
ROM Plant Feed Grade - Cu	%	1,07%	All-in-sustaining cost per unit ROM t	ZAR/t	1 389	AUD/t	111
ROM Plant Feed Grade - Zn	%	3,21%	All-in-sustaining cost per unit Cu eq tonne sold	USD/t Cu	4 550	AUD/t Cu	6 880
Overall Plant Recovery - Cu	%	85,19%	All-in-sustaining cost per unit Cu eq lb sold	USD/lb Cu	2,06	AUD/lb Cu	3,12
Overall Plant Recovery - Zn	%	83,0%	All-in-sustaining cost per unit Zn eq tonne sold	USD/t Zn	1 292	AUD/t Zn	1 954
Concentrate tonnage - Cu	kt	1 066 152	All-in-sustaining cost per unit Zn eq lb sold	USD/lb Zn	0,59	AUD/lb Zn	0,89
Concentrate tonnage - Zn	kt	1 229 197	All-in-sustaining margin	%	52%	%	52%
Concentrate grade - Cu	%	19,9%	Operating breakeven grade (Cu eq)	%	1,00%	%	1,00%
Concentrate grade - Zn	%	49,7%	**Project Cashflows**	**Unit**	**Value**	**Unit**	**Value**
NSR as % of metal price - Cu	%	102,3%	LoM net revenue	ZAR millions	58 296	AUD millions	4 664
NSR as % of metal price - Zn	%	76,5%	LoM operating costs (includes Government Royalty)	ZAR millions	27 215	AUD millions	2 177
Metal produced (in concentrate) - Cu	tonnes	213 055	Project Start-up Capital Expenditure	ZAR millions	6 170	AUD millions	494
Metal produced (in concentrate) - Zn	tonnes	610 630	Sustaining Capital Expenditure	ZAR millions	1 211	AUD millions	97
Metal sold as copper equivalent	tonnes	376 922	Income Tax	ZAR millions	5 718	AUD millions	457
Metal sold as zinc equivalnet	tonnes	1 329 593	Cash Flow After Tax	ZAR millions	16 559	AUD millions	1 325
Level of Accuracy of Financial Model ± 15%, LoM = Life of Mine, NSR = Net Smelter Return, NPV = Net Present Value, IRR = Internal Rate of Return							
There is a low level of geological confidence associated with Inferred Mineral Resources and therefore there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target or financial forecast information referred to in this Study will be realised.							

The cash flow profile of the combined operation is shown below. Capital expenditure takes place over four years followed by 11 years of positive cash flow. Concentrate production from the Upper Levels will start in year two of the project with the Deeps starting in year four.

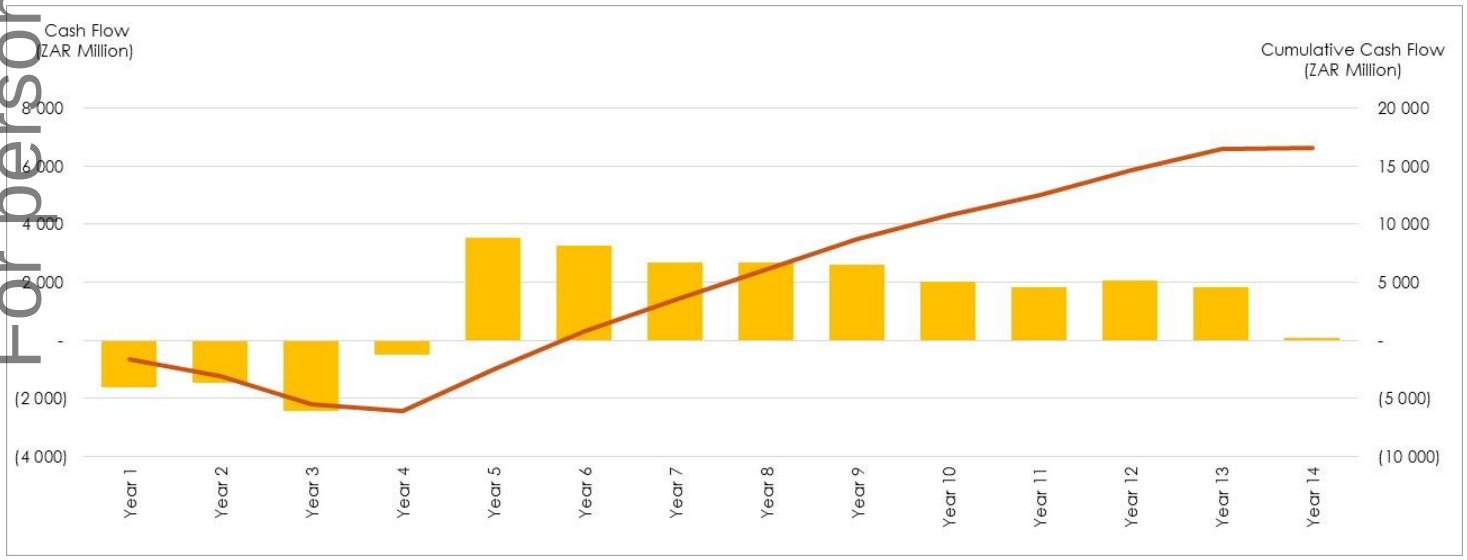

Figure 1: Estimated cash flow of 2025 DFS.

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The NPV sensitivity according to changes in the main financial and technical inputs is shown in the graph below.

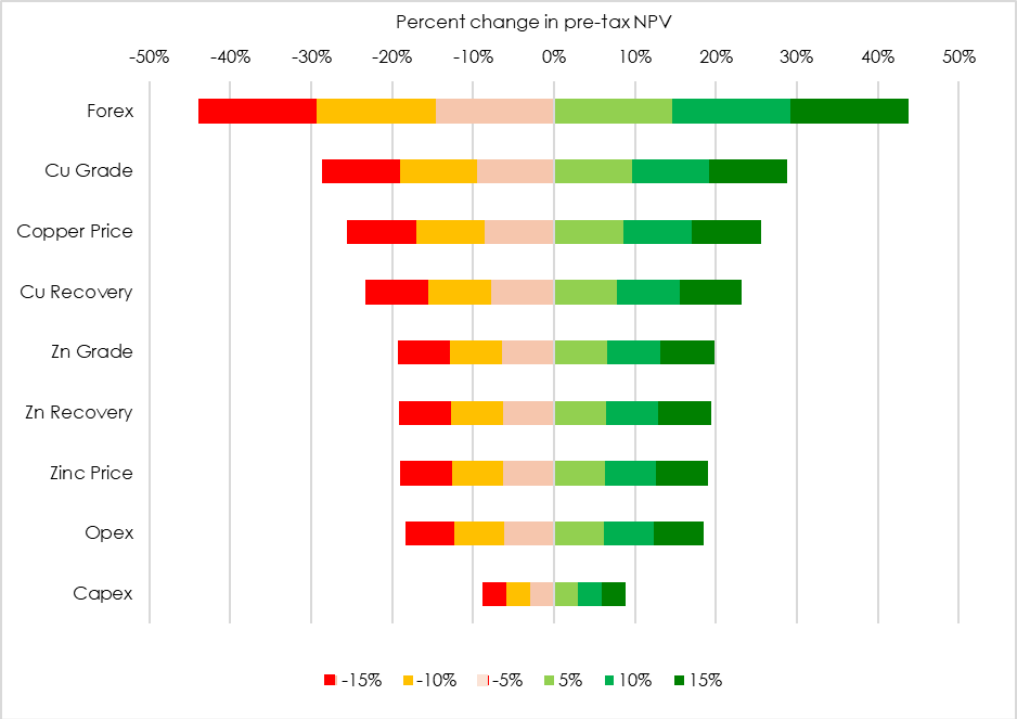

Figure 2: Sensitivity of the post-tax NPV to changes in key project parameters for the DFS-25.

A more detailed sensitivity of the post-tax NPV (ZAR millions) to changes in copper and zinc price is illustrated in the following tables.

NPV Post Tax Sensitivity (ZAR 'm)	% Change	-15%	-10%	-5%	0%	+5%	+10%	+15%	IRR
	Cu Price $/tonne	7991	8461	8931	9401	9871	10341	10811	
% Change	ZAR:USD								
-15%	16,07	1 980	2 551	3 122	3 693	4 263	4 834	5 405	18%
-10%	17,01	3 039	3 638	4 236	4 835	5 433	6 032	6 630	21%
-5%	17,96	4 084	4 712	5 341	5 969	6 597	7 226	7 854	24%
0	18,90	5 127	5 785	6 443	**7 105**	7 763	8 421	9 075	26%
+5%	19,85	6 159	6 848	7 537	8 231	8 920	9 609	10 293	29%
+10%	20,79	7 186	7 906	8 625	9 353	10 073	10 792	11 503	31%
+15%	21,74	8 213	8 964	9 715	10 472	11 223	11 974	12 719	34%

NPV Post Tax Sensitivity (ZAR 'm)	% Change	-15%	-10%	-5%	0%	+5%	+10%	+15%	IRR
	Zn Price $/tonne	2265	2399	2532	2665	2798	2932	3065	
% Change	ZAR:USD								
-15%	16,07	2 448	2 865	3 283	3 693	4 110	4 527	4 952	18%
-10%	17,01	3 523	3 963	4 402	4 835	5 274	5 714	6 160	21%
-5%	17,96	4 592	5 053	5 514	5 969	6 430	6 891	7 358	24%
0	18,90	5 655	6 139	6 622	**7 105**	7 589	8 072	8 556	26%
+5%	19,85	6 708	7 215	7 722	8 231	8 738	9 245	9 751	29%
+10%	20,79	7 760	8 290	8 820	9 353	9 883	10 413	10 940	31%
+15%	21,74	8 810	9 362	9 915	10 472	11 024	11 577	12 124	34%

Figure 3: The effect of fluctuations in metal prices and foreign currency exchange rates on the post-tax NPV and IRR for the DFS-25.

A flat corporate tax rate of 27%, the current applicable tax rate in South Africa has been applied for the duration of the Project. Capex is redeemed 100% against taxable income in the year that it was spent from the first year and unredeemed capital expenditure due to capex exceeding taxable income is carried forward into successive years for calculations of the tax deductions.

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The Government Royalty calculation is based on the production of unrefined metals where the revenue allows for Net Smelter Return (**NSR**) deductions but excludes an allowance for concentrate transport logistics costs. Over the LoM, the Royalty ranges from 0.5% (the minimum) to a maximum of 7.0% of net revenue, with the average royalty being 3.8%.

The PCZM Mining Right and the Vardocube Mining Right, are permitted for 24 and 12 years, respectively (renewable for periods of up to 30 years) allowing for possible extensions beyond the currently planned 13.2-year life. Beyond the planned LoM it is anticipated that mine-life extensions are possible from delineated Mineral Resources that are not yet incorporated into the mining plan as well as known deposit extensions and existing pillars which are anticipated to require low capital investment to extend the mine life. Significant potential for nearby satellite deposits has been identified.

COMPARISON OF DFS-25 TO BFS-20

Compared to the 2020 study, material technical and schedule changes made in the 2025 study are:

- Increasing the mine dewatering timeline from 10 months to 22 months and replacing water treatment with 100% forced evaporation for the disposal of underground water;
- Linked to the above, the schedule for shaft refurbishment increases to 25 months from 21 months;
- Mining the Upper Levels +105 Mineral Resource via underground methods early in the LoM as opposed to an open-pit method which was at the end of the Deeps section;
- Additional mining fleet was added to the capex for the Uppers mining section as previously the open-pit mining plan assumed a contractor owned fleet;
- The Upper Levels processing, will be operated via a BOOT (build, operate, own, transfer) as opposed to PCZM crews previously planned for the open-pit mining plant;
- The underground construction period has been increased from 8 months to 13 months;
- An interim rock handling system will be installed to allow for an earlier start to the Deeps mining;
- A more conservative ramp-up to full Deeps production of 27 months compared to 20 months in the 2020 study;
- First concentrate is produced in month 13 of the Project compared to month 33 in the 2020 study due to the Upper Levels starting early in the Project's life;
- The 2020 study planned for a specialist processing contracting company to operate the Deeps plant which will now be operated by PCZM crews;
- Rehabilitation of the decline from surface to the Deeps section has been increased from 25% of the decline length to 100% (7.1 km); and
- Areas of operational infrastructure being financed by third party financing has been replaced by traditional capital funding.

The key Project business case valuation numbers and economic assumptions used in the two studies are compared in Table 2 below.

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Table 2: Comparison of key business assumptions between DFS-25 and BFS-20.

Valuation Results	UoM	Business Case Comparison			
		DFS-25	BFS-20	Variance	
				Value	%Variance
NPV (pre-tax)	AUD (M)	797	779	18	2%
NPV (post-tax)	AUD (M)	568	552	16	3%
Undiscounted Free Cash Flow (pre-tax)	AUD (M)	1 782	1 608	174	11%
Undiscounted Free Cash Flow (post-tax)	AUD (M)	1 325	1 166	159	14%
IRR (pre-tax)	%	31%	39%	-8%	-21%
IRR (post- tax)	%	26%	33%	-7%	-21%
Undiscounted Payback (from first concentrate	years	3,8	2,4	1,4	56%
Peak Funding (Maximum Negative Cash Flow)	AUD (M)	578	413	165	40%
Time to Reach Peak Funding	months	42	33	9	27%
Project Capital (Including Contingency)	AUD (M)	607	373	234	63%
NPV/Maximum Exposure	ratio	1,0	1,3	-0,3	-24%
AiSC / Cu eq Tonne	USD/lb	2,06	1,60	0,46	29%
AiSC / Zinc eq Tonne	USD/lb	0,59	0,38	0,21	54%
Zinc revenue contribution	%	37%	41%	-4%	-10%
Sustaining Capital (LoM)	AUD (M)	97	137	-40	-29%
First Concentrate Produced (month)	months	12	33	-21	-64%
Life of Mine - years	years	13,2	11,5	1,7	14%
Metal Price - Cu	USD/t	9 401	6 680	2721	41%
Metal Price - Zn	USD/t	2 665	2 337	328	14%
Metal Price - Ag	USD/oz	27	17	10,9	66%
Metal Price - Au	USD/oz	2 160	1 350	809,7	60%
Discount Rate	%	8,00	8,00	0,0	0%
Forex rate	AUD:USD	1,51	1,64	-0,1	-8%
Forex Rate	ZAR:USD	18,90	18,00	0,9	5%
Forex Rate	ZAR:AUD	12,50	11,00	1,5	14%

The comparative capital estimate numbers comparing the 2025 and 2020 studies are shown in Table 3 below. Overall, there is a 49% increase including contingency.

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Table 3: Comparative capital estimate between DFS-25 and BFS-20.

Capital	DFS-25 ZAR million	BFS-20 ZAR million	Variance Value	%Variance
Accommodation camp	142	93	49	52%
Bulk Power Supply	377	58	319	550%
Bulk Water	30	27	3	11%
Cuprum 132kV Feeder Bay Upgrade (15MVA)	1	4	-3	-85%
Construction Power Cost	0	113	-113	n/a
Decline Rehab	406	0	406	n/a
Effluent Dam	0	82	-82	n/a
EPCM	280	276	4	2%
Evaporation Capital	43	34	9	27%
Evaporation Operational cost	0	25	-25	n/a
Install and commission Rock & Man winder	436	176	260	148%
Mining Fleet	1 015	552	462	84%
Owners Team	191	119	72	60%
Backfill/Paste plant	544	180	363	202%
Process Plant	1 833	1 002	830	83%
Project services	23	109	-86	-79%
Dewatering	133	217	-85	-39%
Shaft refurbishment	88	234	-146	-62%
Surface infrastructure	286	388	-102	-26%
Surface Ventilation	92	64	28	44%
Tailings Storage Facility	186	438	-252	-57%
UG mining construction	435	296	139	47%
Ventilation Raise bore holes	59	0	59	n/a
Laboratory	34	0	34	n/a
Exploration costs	130	0	130	n/a
Operational Readiness	15	0	15	n/a
Drilling Related Cost	2	0	2	n/a
RO Plant	0	115	-115	n/a
Irrigation system	0	28	-28	n/a
Contingency	814	463	351	76%
Total	**7 592**	**5 093**	**2 499**	**49%**

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In addition to escalation over the five years since the 2020 study, the technical and scope changes that have affected the capital estimates are described below.

- Mining fleet – additional units added for the Uppers mining not included in the previous study as the open-pit mining used a contractor owned fleet;
- A separate process plant was added for the Upper section mining which was not in the 2020 study;
- Paste-fill plant – a second stream was added. Underground piping and pumping have been re-allocated to this area that was previously costed in the shaft area. A tailings loading section has been added. Separate engineering, procurement and construction management (**EPCM**) & P&Gs costs also added there were not allowed for previously (the Paste plant has its own EPCM contractor);
- Bulk power supply – Construction power costs have been reallocated to this activity increased scope;
- Surface infrastructure costs have decreased as a number of facilities have already been built during the Trial Mining stage (which is explained later in the release);
- Owner's Team costs have increased due to the construction schedule increasing by 10 months;

- A new rock winder was included compared to a refurbished winder in the previous study;
- The TSF has been partially built during the Trial Mining phase and a new design has reduced costs;
- De-watering and shaft refurbishment costs have decreased as temporary winders have been removed and replaced with a smaller winch system and the use of the man winder earlier. This work is now being carried out by the Owner's Team;
- Project services have decreased as portions of this cost have been re-allocated to other areas of the estimate; and
- The following items were removed from the 2025 scope: effluent dam, RO water treatment plant and the irrigation system (part of the de-watering).

The LoM plan operating costs for the two studies are compared below. Escalation from 2020 to 2024 is the main driver of higher costs for the DFS-25 with opex increasing from ZAR971/tonne to ZAR1,353/tonne, a 39% increase.

Table 4: Operating costs estimate between DFS-25 and BFS-20.

Operating Costs	DFS-25	BFS-20	Variance	
	ZAR/RoM t	ZAR/RoM t	ZAR/RoM t	%
Mining	644	413	231	56%
Processing	246	163	83	51%
Surface & Indirects	112	62	50	81%
Concentrate Transport Charges	173	116	57	49%
Corporate Costs	17	13	4	30%
Off-mine Costs	27	17	10	59%
Royalties (Government)	81	74	7	10%
SIB Capex	52	60	-8	-13%
Operationalised Infrastructure	0	54	-54	-100%
Total	**1 353**	**971**	**381**	**39%**

The AISC per tonne of copper equivalent metal for the 2020 study was USD3,531/tonne (USD1.60/lb) which has increased to USD4,550/tonne (USD2.06/lb). The increase is driven by higher operating costs.

DETAILS OF THE DEFINITIVE FEASIBILITY STUDY

Project Location

The Project is located in the Northern Cape Province of South Africa. The following diagram outlines the location of the Company's exploration activities, with the PCZM site located at the southern extent, approximately 60km south-west of the town of Prieska. The Project site is at an elevation of 1,070m above mean sea level. The PCZM area is predominantly flat, undulating and sand covered, and the natural vegetation of the area is dominated by low shrubs and Silky Bushman Grass. The mean annual precipitation for the PCZM area is approximately 176mm per year, with 62% of this falling between January and April. The average maximum daily temperatures range from 32°C in January to 17°C in June with an average minimum daily temperature of 1°C in July.

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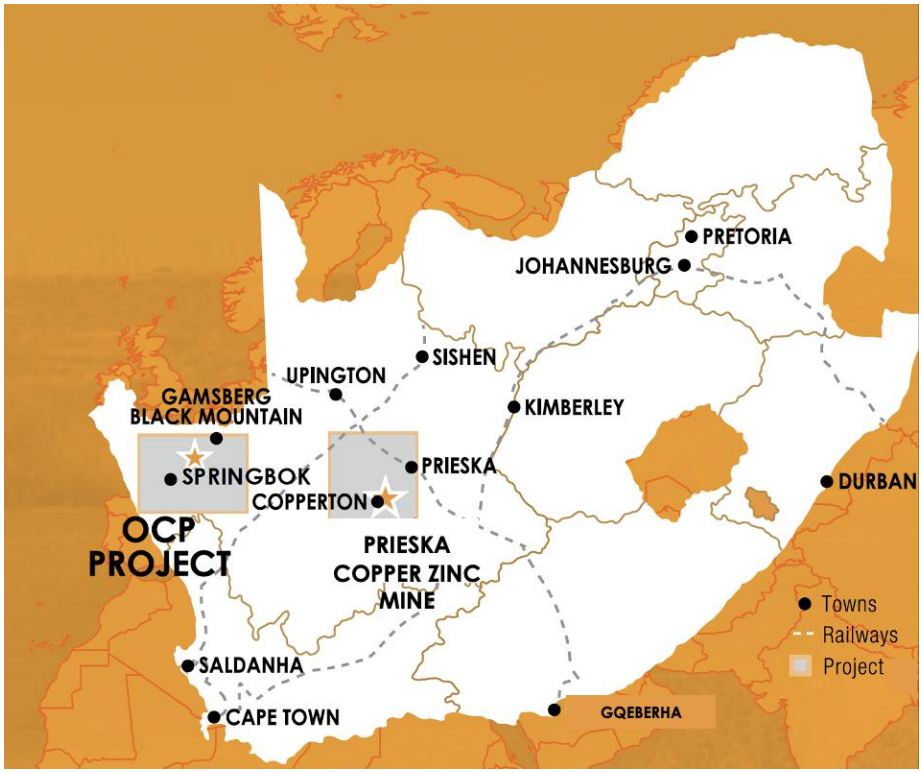

Figure 4: Project Location.

Project Ownership and Licencing

Orion Minerals Ltd (Orion) completed the acquisition of Agama Exploration and Mining (Pty) Ltd (Agama) in March 2017 which had a prospecting right over the historical Prieska Copper Mines Ltd (PCML) assets. Orion's ownership of the asset has progressed and now incorporates Black Economic Empowerment (BEE) ownership via three entities which together have a 30% shareholding of PCZM. A Community Trust and an Employee Trust hold 5% equity interest respectively with a BEE entrepreneurial entity, Prieska Resources (Pty) Ltd, holding 20%. Orion at the Holding Company level controls the remaining 70%. The entities holding the two Mining Rights are Prieska Copper Zinc Mine (Pty) Ltd (formerly Repli Trading No. 27 (Pty) Ltd) and Vardocube (Pty) Ltd. An organogram of the ownership structure is shown below:

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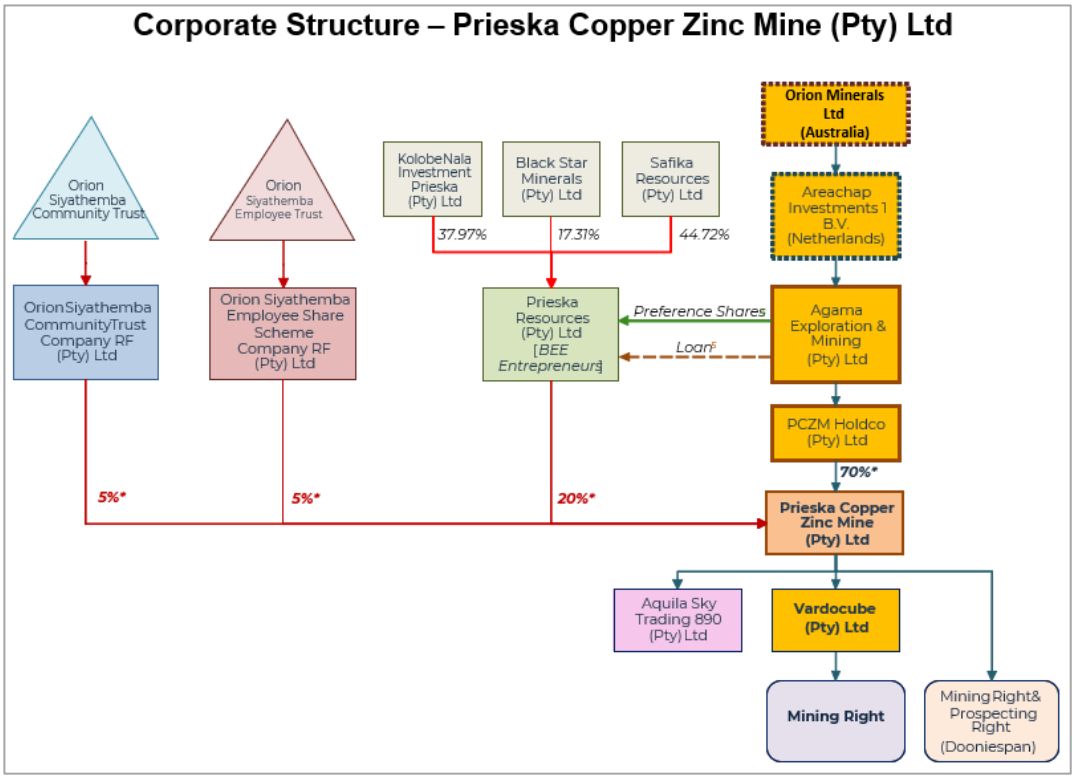

Figure 5: Project Corporate Structure.

The BEE ownership in PCZM (and, indirectly in its subsidiary, Vardocube), meets the current ownership guidelines of the South African Mining Charter 2018 which requires that new mining rights must include ownership by entities that have a minimum of 30% Historically Disadvantaged South Africans shareholding. The Charter recommends this 30% ownership be distributed as follows:

- 5% non-transferable carried interest to employees;
- 5% non-transferable carried interest to host communities; and
- 20% ownership by BEE entrepreneurs, with a preference for women.

The Industrial Development Corporation (**IDC**) advanced a R250 million loan to the project in order to undertake the trial mining during 2024. The IDC has a right to convert this loan into a ~15.8% stake in the project. The IDC will have 90 days from the date that Orion provides notice of the positive outcome of the DFS to exercise its conversion option. A summary of the material terms of the IDC Convertible Loan definitive agreement is provided in Appendix 1 of the 8 February 2023 ASX/JSE release.

Aquila Sky Trading 890 (Pty) Ltd (formerly Prieska Copper Mines Ltd), is a wholly owned subsidiary that retained rights (surface, servitudes and other) within the PCZM Mining Right area. Key surface rights agreements to provide access to land on the PCZM site are in place. The PCZM area consists of two mineral tenements, the PCZM Mining Right and the contiguous Vardocube Mining Right (see below). Together, these tenements cover a combined 6,766 hectares in area. It is planned that the two mining rights and the linked obligations will be amalgamated under the PCZM Mining Right.

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Table 5: Mining Rights held by PCZM.

Mining Right	Right Holder	Registered Description	Area (Ha)	Mineral List	Status	Validity
PCZM NC10138MR	Repli Trading No. 27 (Pty) Ltd now known as PCZM	Portions RE25 and 26 of Vogelstruis Bult 104 and the farm Slimes Dam 154, Prieska District, Northern Cape Province	723	Cu, Zn, Pb, Ag, Au, S, Co, Ba, Limestone, Stone aggregate, Gravel, Sulphur in Pyrite, Pyrite, Mo, W, Sand (gen), Fe-ore	Granted 4 December 2019 Executed 11 December 2019	Expiring 3 December 2043 Renewable for periods up to 30 years
Vardocube NC10146MR	Vardocube (Pty) Ltd	Portion RE1 of Vogelstruis Bult 104, Prieska District, Northern Cape Province	6,043	Cu-ore, Zn-ore, Pb, Au, Ag, Co, S, Sulphur in pyrite, Ba, Limestone, Pyrite, W, Mo, Fe-ore	Granted 14 August 2020 Executed 20 October 2020	Expiring 13 August 2032 Renewable for periods up to 30 years

Surrounding the PCZM area, Orion also holds additional granted prospecting rights under subsidiary entities. These tenement holdings enable exploration for down-dip and westerly extensions of the Prieska Deposit to be undertaken as well as the search for possible cluster deposits in the vicinity. A map showing the boundaries of the mineral tenements granted to various Orion subsidiaries, in the vicinity of the planned mining area, is shown below:

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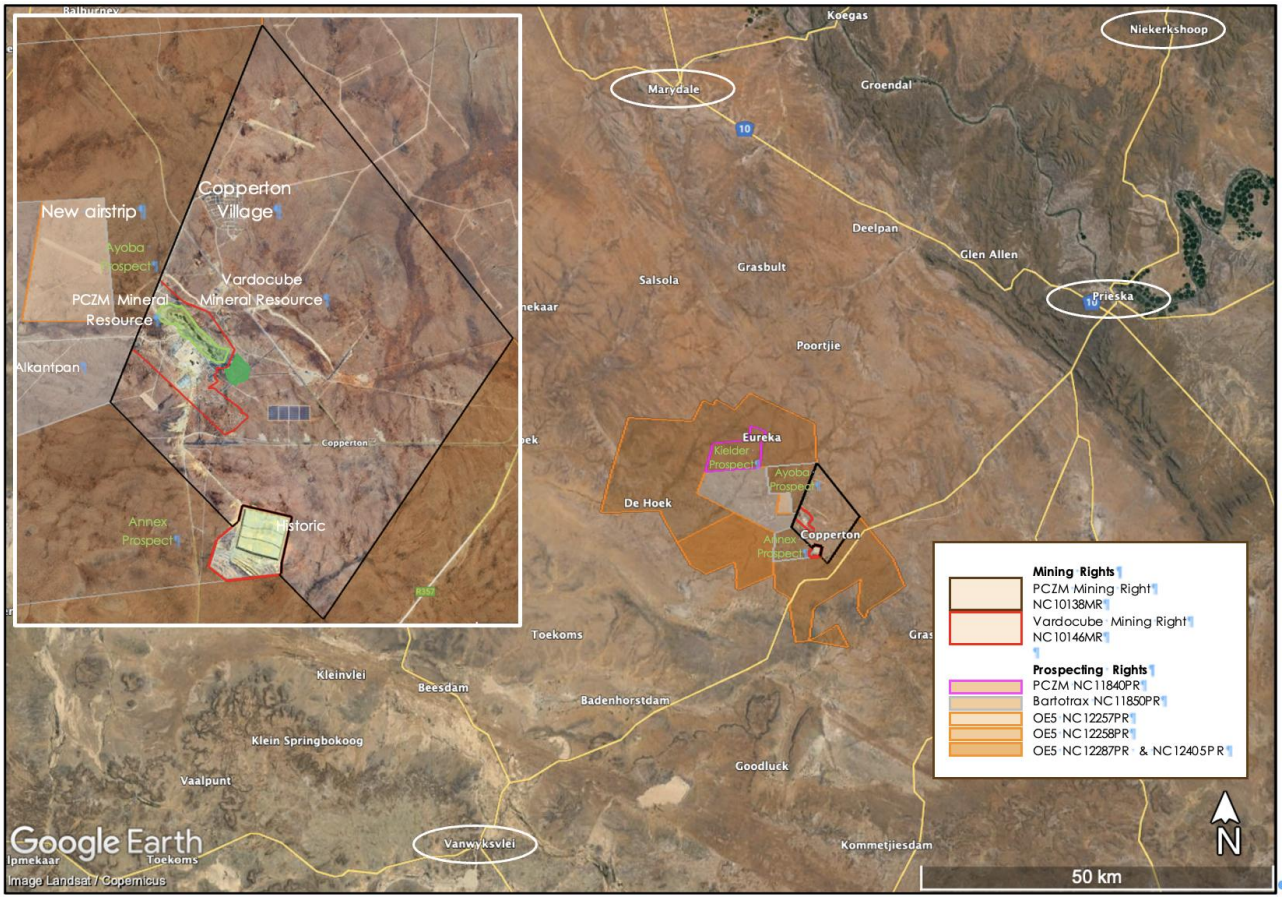

Figure 6: Granted mineral tenements to Orion entities.

Satellite deposit potential has been demonstrated by Orion with intersections of sulphide mineralisation at Ayoba, 5km from the mine site. Further afield, available historical data and exploration work by Orion has confirmed the existence of numerous follow-up massive sulphide Cu-Zn-rich targets within Orion's tenements[4].

Project History

The mine was previously owned and operated by Prieska Copper Mine Limited, a subsidiary of Anglo-Transvaal Consolidated Investment Company Limited (Anglovaal).

Anglovaal successfully operated the mine as a semi-mechanised underground operation between 1971 until 1991. During that time the mine processed 46Mt of run-of-mine (RoM) material and produced 430Kt of Cu and 1.01Mt of Zn[5], at average processing plant metal recoveries of 84.9% for Cu and 84.3% for Zn. Reported grades at the time of mine commissioning were 1.7% Cu and 3.8% Zn with gold and silver byproduct in concentrate[6]. Pyrite was also intermittently produced as a by-product. The concentrates were either smelted domestically at O'kiep and Zincor or exported via Saldanha Bay.

The decision to close the mine was influenced by a combination of the uncertain economic and political environment in South Africa in the late1980s and the technical considerations that arose as the mine got deeper and the spatial orientation of the mineralisation changed. The technical considerations relating to the mining of the flattened deposit no longer presents a major challenge as modern mechanised mining methods, employed globally, present a solution to the historical challenges.

Existing Infrastructure

Despite the Project site being in a remote part of South Africa, with no nearby large human settlements, it is well-serviced by infrastructure that was established for the previous mining operation. Existing infrastructure includes a water pipeline from the Orange River at the town of Prieska, tarred roads, national grid power supply (which will be upgraded for the planned operation) and a 1.7km-long air strip. The village of Copperton, which is located 4km by road from the main rock hoisting shaft was the principal residence for the mine community. The town is still in use, though only 40 of the original 300 houses remain. The farming service town of Prieska, with a population of 16,000[7], lies 60km north-east of the Project site. The operating rail siding of Groveput, located 50km from the Project site, on-route to the town of Prieska, can potentially provide rail access to the main Kimberley – De Aar railway line and from there to various ports. This siding is currently not operating on a regular basis however talks are planned to be held with Transnet (the South Africa government rail authority) about a future rail option for the concentrate transport.

The main hoisting shaft, which is 1,024m deep, 8.8m in diameter and concrete-lined, with a concrete headgear, remains intact although refurbishment is required to bring the shaft back into operation. The mine is currently filled with water to a depth of 265m below surface. During a Trail Mining phase which was carried out during 2023 to early 2024, various surface facilities were built, including offices, a change house, electrical and water reticulation and a dewatering dam. These facilities will be expanded for use in the Deeps mining phase.

Mineral Resources and Exploration

The Prieska Copper- Zinc Deposit (Prieska Deposit) is a volcanogenic massive sulphide (VMS) style deposit, with mineralisation proved along 2.4km of a northwest-southeast trending strike extent and down to a depth of 1.25km. Mineralisation of Cu, Zn, silver (Ag) and gold (Au) is contained in massive sulphides distributed as a persistent lens within gneiss rock assemblages contained within an overturned synform. The diagram below shows the general structure of the deposit in relation to the main Hutchings shaft and the Beecroft ventilation shaft.

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[4] Refer to ASX/JSE Releases 16 January 2019 for Ayoba satellite exploration target and 25 February 2019 for Prieska deposit extensional potential.

[5] Refer ASX/JSE Release 15 November 2017

[7] Based on census numbers escalated as reported in the Baseline Health Status Report, Infotox, January 2020.

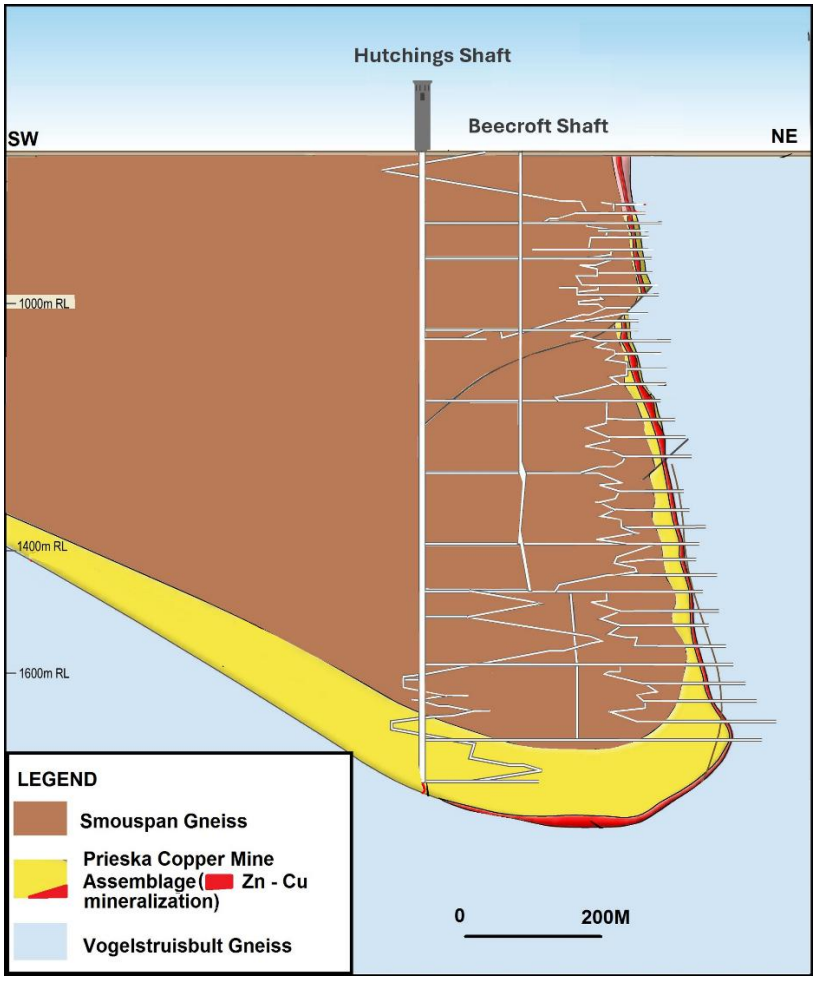

Figure 7: Structure of the deposit.

By the time the mine closed, the deposit had been exploited to a depth of 900m below surface. Strike and dip extensions had been identified, mineral resource estimates prepared, and access development partially established into parts of the deposit extensions. Orion used the extensive catalogue of historical drill hole and geological data to guide its verification and infill drilling campaigns on both the supergene sulphide +105 Level ("Uppers") Deposit and the hypogene Deep Sulphide ("Deeps") Deposit.

In addition to 23 historical holes, Orion drilled 79 diamond drill holes and reverse circulation holes into the supergene sulphide deposit including geotechnical and metallurgical test-work holes. 42 of these holes were in the mineralised zone. In the Deeps deposit, 41 diamond drill holes plus 61 deflections were drilled including geotechnical and metallurgical test-work holes. The core logging, sampling procedures and QA/QC were carried out according to Orion's PCZM Standard Operating Procedures by qualified geologists. Further QA/QC on sample assays was carried out by an independent company, BS Geo Consulting Services (South African). The Orion samples were all prepared and analysed by ALS Chemex (Pty) Ltd in Johannesburg South Africa.

These programs culminated in the declaration of Mineral Resources estimated by Z Star Mineral Resource Consultants (Pty) Ltd (South African) and classified in accordance with the JORC Code (2012), as presented in the three tables that follow, for the Uppers, Deeps and Combined (Table 6, Table 7 and Table 8, respectively). These Mineral Resources, excluding the Uppers Oxide Zone Mineral Resource, form the basis for the DFS-25 and the Ore Reserves reported herein.

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Table 6: Declared Mineral Resources, reported in accordance with the JORC Code (2012) – individual areas & combined.

+105 Updated Mineral Resource for the PCZM Tenement (Effective Date: 28 March 2025)[8]						
Classification	**Mineralised Zone**	**Tonnes**	**Contained Cu (metal tonnes)**	**Cu (%)**	**Contained Zn (metal tonnes)**	**Zn (%)**
Indicated	Oxide	700,000	5,000	0.73	5,000	0.77
	Supergene Sulphide + Hypogene	800,000	23,000	2.84	21,000	2.67
	Total	**1,500,000**	**28,000**	**1.86**	**27,000**	**1.79**
Inferred	Oxide	300,000	3,000	1.0	2,000	0.8
	Supergene Sulphide + Hypogene	300,000	8,000	2.6	3,000	0.9
	Total	**600,000**	**10,000**	**1.8**	**5,000**	**0.9**
Total	**+105 Mineral Resource**	**2,100,000**	**38,000**	**1.8**	**32,000**	**1.5**

+105m Level Oxide Mineral Resource mineralisation interpretation wireframe cut-off = 0.3% Cu Mineral Resources stated at 0.3 % Cu cut-off.
+105m Level Supergene Sulphide + Hypogene Mineral Resource mineralisation interpretation wireframe cut-off = 0.8% Cu. Mineral Resources stated at 0.7% Cu cut-off.
Numbers may not add up due to rounding in accordance with the JORC Code (2012).
The Mineral Resources are inclusive of Ore Reserves

Deep Sulphide Mineral Resource for PCZM + Vardocube Tenements (Effective Date: 15 December 2018)[9]						
Tenement	**Classification**	**Tonnes**	**Cu (metal tonnes)**	**Cu (%)**	**Zn (metal tonnes)**	**Zn (%)**
Deep Sulphide Total	Indicated	19,000,000	220,000	1.17	670,000	3.60
	Inferred	10,00,000	120,000	1.1	420,000	4.1
	Total	**29,000,000**	**330,000**	**1.2**	**1,080,000**	**3.8**

Deep Sulphide Resource mineralisation interpretation wireframe cut-off = 3% Equivalent Zn (Zn Eq = Zn% + (Cu%x2)).
Mineral Resources stated at zero % cut-off.
Numbers may not add up due to rounding in accordance with the JORC Code (2012)
The Mineral Resources are inclusive of Ore Reserves.

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[8] Mineral Resource reported in ASX/JSE Release of 28 March 2025 available to the public on http://www.orionminerals.com.au/investors/asx-jse-announcements/. 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 in the original market announcement. The Company confirms that all material assumptions and technical parameters underpinning the Mineral Resource estimates in the ASX/JSE Release of 28 March 2025 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.

[9] Mineral Resource reported in ASX/JSE Release of 18 December 2018: "Landmark Resource Upgrade Sets Strong Foundation" available to the public on http://www.orionminerals.com.au/investors/asx-jse-announcements/. 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 in the original market announcement. The Company confirms that all material assumptions and technical parameters underpinning the Mineral Resource estimates 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.

Combined Mineral Resource for PCZM + Vardocube Tenements (Effective Date: 28 March 2025)[8]						
Mineral Resource	**Classification**	**Tonnes**	**Contained Cu (metal tonnes)**	**Cu (%)**	**Contained Zn (metal 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 Resource	Indicated	1,500,000	28,000	1.86	27,000	1.7
	Inferred	600,000	10,000	1.8	5,000	0.9
Total	Indicated	20,000,000	240,000	1.22	690,000	3.47
	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**

Deep Sulphide Resource mineralisation interpretation wireframe cut-off = 3% Equivalent Zn (Zn Eq = Zn% + (Cu%x2)). Mineral Resources stated at zero % cut-off.
+105m Level Mineral Oxide Resource mineralisation interpretation wireframe cut-off = 0.3% Cu. Mineral Resources stated at 0.3 % cut-off.
+105m Level Mineral Supergene Sulphide + Hypogene Resource mineralisation interpretation envelope (wireframe) cut-off = 0.8% Cu. Mineral Resources stated at 0.7 % Cu cut-off.
Numbers may not add up due to rounding in accordance with the JORC Code (2012).
The Mineral Resources are inclusive of Ore Reserves.

Mineral Resource Classification Criteria and Confidence for the Deep Sulphide (underpinning the Deep Sulphide Ore Reserve)
Refer to ASX release 18 December 2018.

Mineral Resource Classification Criteria and Confidence for the +105 Level Supergene Sulphide and Hypogene Zone (underpinning the +105 Ore Reserve)
Refer to ASX release 28 March 2025.

There are areas of potential mineralisation upside to the PCZM Resource. There are possible strike extensions in the N-W and S-E sections of the Deeps orebody, and pillars areas (should they be intact) in the historical workings above the Deeps Resource. These areas are currently unquantified and there are no estimates that are consistent with the term 'Exploration Target' as defined by JORC Code (2012).

Mining Method, Assumptions, Plans & Ore Reserves

The Upper Levels
Orion has delineated a Supergene Mineral Resource located at the lower part of the crown pillar of the historical mine, above Level 105, which, based on this study, is estimated to contain approximately 1 million tonnes of mineable Cu and Zn ore. A decline from surface and tunnel development remaining from the historical mining allows for early access to this area and therefore mining can begin relatively quickly. Mineral Resource modelling delineated a weak meta-argillite schist zone approximately 10m wide in the footwall side of the deposit. In addition to this, difficulties with underground core drilling during the resource definition phase in the meta-argillite zone suggested that challenging mining conditions may be expected.

The targeted Upper Levels mining areas are near surface, located close to sinkholes that formed early in the mine's history. Previously mined stopes are present on the down-dip side, requiring the design of a sill pillar to separate historic workings from planned mining operations. Natural weathering extends to approximately 90m below surface, reducing rock mass quality. Based on the knowledge of the meta-argillite zone and the expected generally weaker rock conditions and since access was available to this upper-level area, a trial mining exercise was set up to test the ability of mining teams to safely develop through the rock conditions. This is explained below.

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Trial Mining

A development mining team made up of a contractor's crew was assembled and managed by PCZM staff. Mining took place over seven months. The team also tested mining efficiency in these conditions and prepared for future longer-term mining operation in the upper levels. The trial mining was also aimed at confirming geological contacts, distribution of mineralisation across the mineralised units and to confirm forecast Cu and Zn grades.

Once underway, the team was able to intersect the meta-argillite zone safely without any incidents. Mining also took place in massive supergene sulphides and in a transition zone between the hypogene and supergene sulphides with intermingling of both types of material. With the correct support patterns, the crews were able to mine through all the various zones without major setbacks. The trial mining also measured the performance of the crews in terms of advance rates per month. Over the seven months the crew peaked at 141 metres in a month and including in excess of 60 metres per development end per month. A relatively high amount of machine down-time hindered better performance which will be rectified when new equipment is purchased for the Upper Levels mining.

Overall, as reported in ASX release 28 March 2025, the trial mining exercise improved the resource definition regarding the ore-waste contacts and provided more information on the transition zones and general rock conditions. It was proven that difficult mining areas could be negotiated safely with the appropriate rock support. These results improved the mine planning that was carried out for the Upper Levels area.

Upper Levels LoM Plan

Development mining will start in month two of the construction schedule followed by production mining in month four. Once the processing plant is commissioned, copper concentrate will be produced from month 13. Production mining will build up to steady state production of 20,000 tonnes per month over 15 months and mine 731,000 tonnes over a five-year period. Zinc in the Upper levels will be recovered within the bulk copper concentrate but will not be at payable levels. A break-even grade of 1.87% Cu is calculated with detailed mine planning.

The ore-body thickness ranges from 3.5 metres to 20 metres and where the thickness is greater than 12 metres, two adjacent stopes will be planned. Mechanised Long-hole Open Stoping with cemented aggregate back-fill will be used throughout the Uppers sections. Level spacing will be 12 metres. Back-fill strengths have been designed at 140-200 kPa depending on the area with an accelerated curing time of 7 days. Geological losses were included in the Resource model. The modifying factors used in the stoping design are shown below.

Table 7: Modifying Factors - Dilution.

Factor	Units	LHOS
Planned dilution – area dependent	%	17% – 25%
Mining extraction – area dependent	%	85% – 90%

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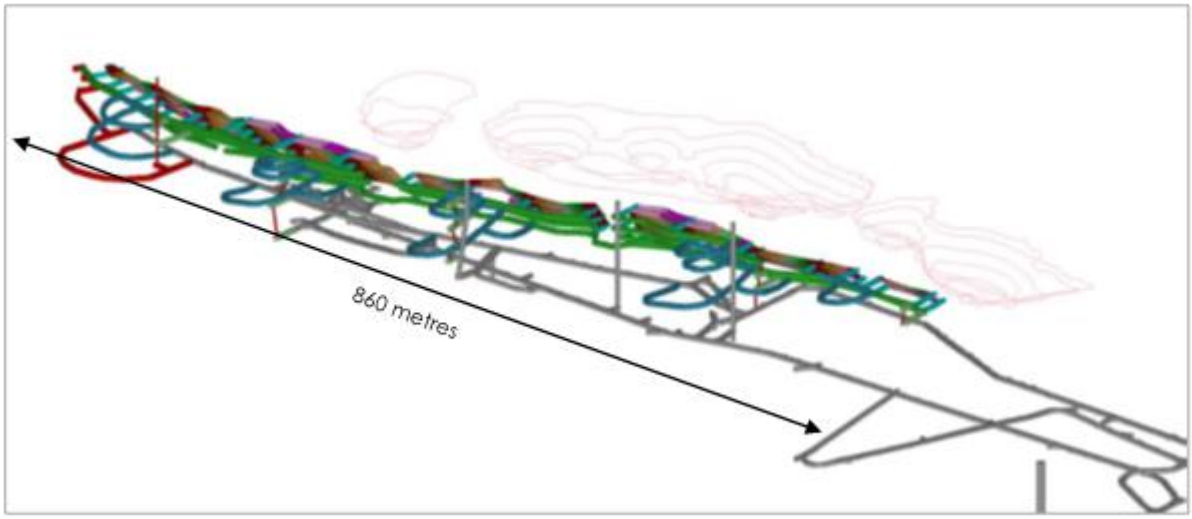

Figure 8: A 3-D view of the Upper-Level mining area is shown below indicating the proximity to the exiting sinkholes.

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The development and production fleet will be sourced from Epiroc and Siton (Chinese) with the secondary fleet sourced from Fermel, a South African company. 7 tonne LHDs will be used for loading and 30 tonne trucks will transport the waste and ore to surface. Maintenance on the mining fleet will be carried out at a surface workshop. All mining activities will be carried out by PCZM crews on 2 x 10 hr shifts, over 23 days a month with two blasting times per day. The PCZM crews will be supported by Australian mining specialists who will provide focussed operational and maintenance training to achieve world class mining performance. The Upper Levels mining crews will ultimately provide part of the initial Deeps mining complement to drive high levels of efficiency during the ramp-up and into steady state production.

Grade control geologists will be present on all shifts to maximise ore recovery and minimise waste dilution. Maximum waste development advance rates of 238m per crew per month have been planned with 176m per month in ore drives. Development waste will be crushed on surface for use in the cemented back-fill and shotcrete which will be delivered underground via three boreholes from surface for distribution by LHDs into the mining areas.

The weathered mineralisation has an unconfined compressive strength (UCS) of 3 MPa, whereas fresh ore reaches 111 MPa. The host rock is less affected by weathering, remaining fresh and competent around the ore zone. The UCS values for the footwall gneiss and hanging wall amphibolite are 198 MPa and 307 MPa, respectively. To mitigate risks associated with weaker rock zones, long-term access and service excavations are positioned within fresh host rock, approximately 20m to 30m from the ore body. Five tunnel support types have been designed based on the rock zones and the depth of mining, starting with split-set bolts and including welded mesh, shotcrete and cable anchors in the weathered and phlogopite zones. In addition, all tunnel intersections will be reinforced with 4.5 metres cable anchors. The five support types with the corresponding rock zones are shown below.

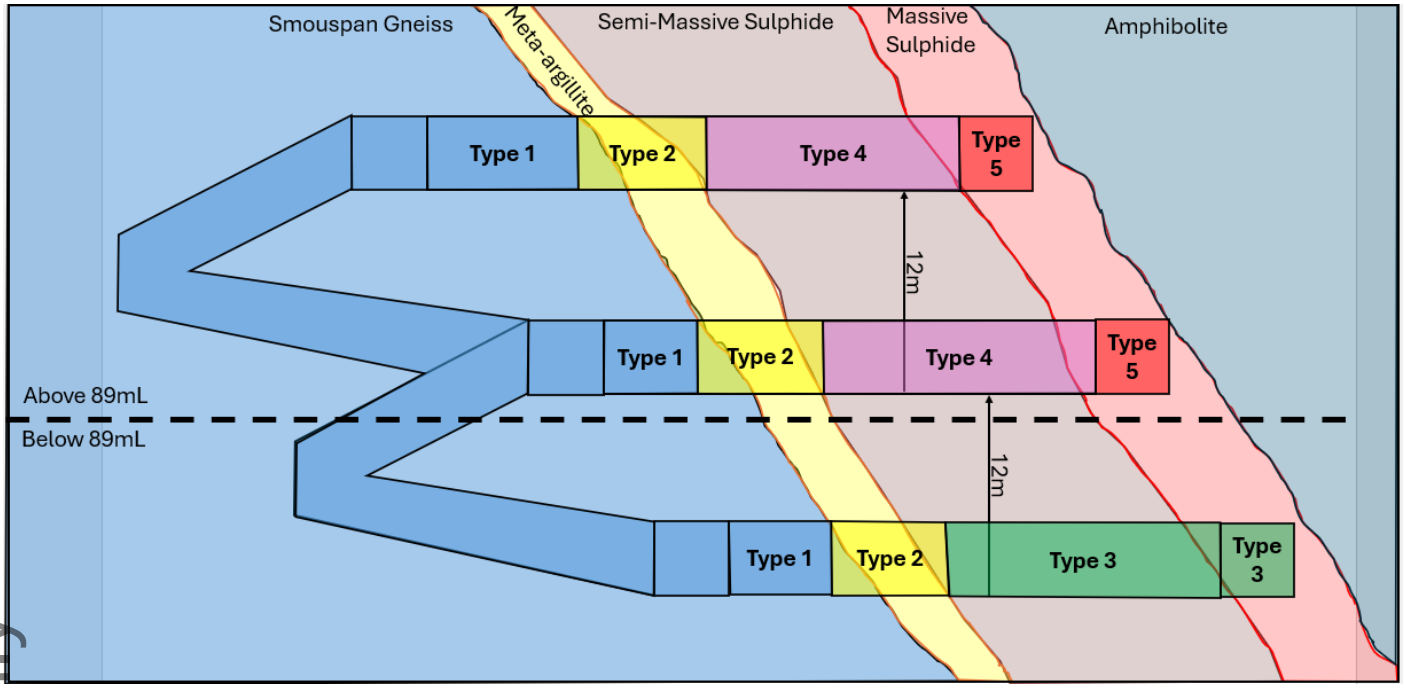

Figure 9: Five support types and corresponding rock zones.

Fresh air for the Upper-Levels will be supplied by the existing decline from surface and two existing shafts, the main Hutchings shaft and the Beecroft shaft, plus two smaller vent shafts, the Marias, and Boehmke shafts. Return air will be via the existing B500 shaft which will be equipped with four 75kW fans and a new raise-bored upcast shaft also with four 75kW fans.

The Upper Levels LoM plan contains 731,000 tonnes of ore with an average mined grade of 2.3% Cu with 16,400 tonnes of contained copper.

Table 8: Upper Levels LoM key numbers.

PCZM Upper Levels LoM Estimate (Effective Date: 31 December 2024)			
Upper Level Plan - Resource Class	**Tonnes (kt)**	**Cu%**	**Cu Tonnes (kt)**
Indicated	629	2,3	14,5
Inferred	102	1,8	1,8
TOTAL	**731**	**2,3**	**16,4**

There is a low level of geological confidence associated with Inferred Mineral Resources and therefore there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target or financial forecast information referred to in this Study will be realised.

Indicated Resources make up 86% of the Upper Level LoM plan while Inferred Mineral Resources make up the remaining 14%. Having considered geological continuity and the nature of the deposit's mineralisation, Orion is optimistic that the Inferred Mineral Resources included in the mining plan have good prospects of being upgraded to Indicated Mineral Resources and that the mining plan is realistic and achievable. In support of this, sufficient in-fill drilling is planned to upgrade the Inferred Resource to Indicated Resources ahead of mining.

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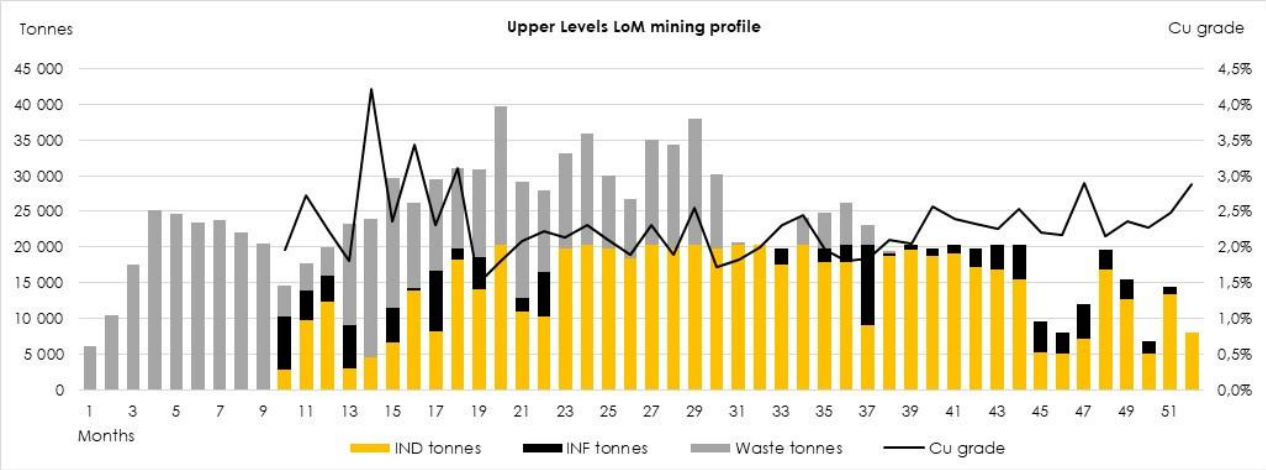
The Upper Levels LoM mining profile is shown in the chart below.



There will be a 273 strong labour force on site at the Upper Levels steady state operation.

Over the last 26 months of the Upper Levels operation, the Deeps mining section will begin production and start ramping up to steady state levels.

Upper Levels Reserves Only Plan

An alternative mine plan ('Reserves only plan'), based solely on Indicated Mineral Resources, was prepared for the Uppers Levels and used to support the estimation and reporting of an updated Probable Ore Reserve for the Uppers Level of 629 kt grading 2.3% Cu for 14.5 Kt of contained Cu (refer Table 9).

Table 9: Ore Reserve Estimate – Uppers Level

PCZM Upper Levels Reserve Estimate (Effective Date: 31 December 2024)			
Uppers Reserve Class	**Tonnes (kt)**	**Cu%**	**Cu Tonnes (kt)**
Probable	629	2,3	14,5
Proven	-	-	-
TOTAL	**629**	**2,3**	**14,5**

Project Ore Reserves estimated using financial assumptions and modifying factors stated in the FS-25. Tonnes are rounded, which may result in rounding errors. The corresponding Indicated Mineral Resources, disclosed are inclusive of these Ore Reserves.

The Reserves only plan is economically viable with a standalone NPV of ZAR36 million and an IRR of 11.6% and confirms that the Inferred Mineral Resources included in the LoM plan are not the determining factor in project viability. The Reserves only plan maintains a 20,000tpm steady state ore production. The Upper Levels mining profile of the Reserves only plan is shown below.

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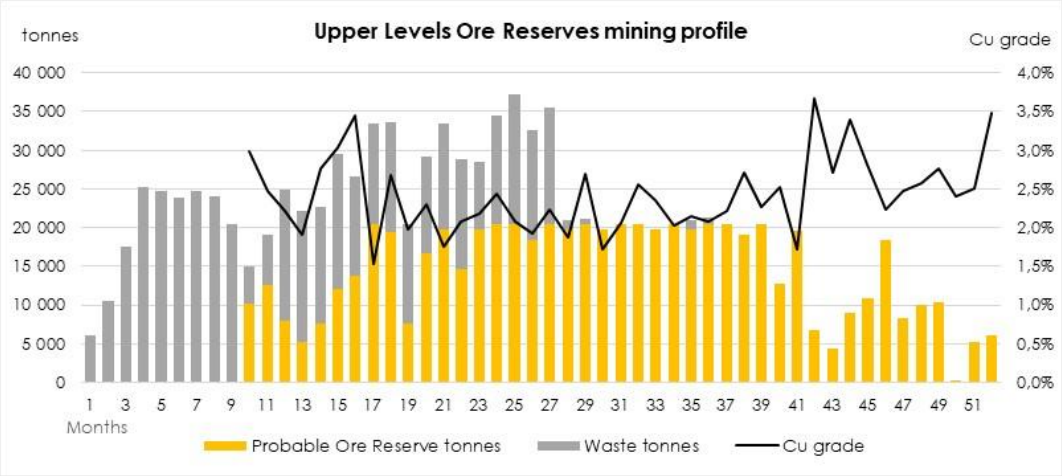

The capex estimate for the Reserves only plan remains the same as for the LoM plan.

Upper Level Breakeven Grade

The breakeven grade is based on several mineable shape optimiser (**MSO**) scenarios using Cu cut-off grades between 0.5% and 1.9%, while maintaining a 20kt per month production schedule. The MSO results were analysed considering a practical mining approach and critical mass for the project of approximately 730kt over LoM. A cut-off grade of 0.7% Cu gave the most effective balance between value and mineable volume.

Upper Level Modifying Factors - Ore Reserve

The Uppers Ore Reserve estimate was updated as part of this Study using updated modifying factors and economic assumptions summarised below and in Table 7.

Upper Level Mining Methods

The selected mining method for the Upper Levels is LHOS with CAF. The selection is based on orebody geometry and geotechnical characteristics, with smaller strike lengths and reduced spans in weaker sections to mitigate potential instability. Detailed planning accounts for backfill strengths, with Uniaxial Compressive Strength (UCS) ranging from 100kPa to 200kPa, ensuring adequate ground support and stability.

Economic Viability of the Upper Level Ore Reserve

Economic viability of ore reserve only mining is positive with a NPV of ZAR36 million.

Upper Level Infrastructure and Logistics

Existing infrastructure from Trial Mining has established foundational readiness (power upgrades, dewatering systems, and surface facilities), significantly reducing the implementation risk. Upper Levels concentrate logistics are optimized for economic transport and sale, reducing exposure to variability in shipping logistics and charges.

Upper Level Risks and Uncertainties

Identified risks mainly involve potential geological variability, cost escalation, and technical execution. Risks associated with ground conditions and stability have been addressed through Trial Mining and detailed geotechnical analysis and mine design.

Continued exploration drilling is planned to upgrade remaining Inferred Mineral Resources and further reduce geological risk.

Upper Level Statement on Global vs Local Estimates

The Ore Reserve and Mineral Resource statements predominantly apply at a global project scale, although local estimates for specific mining areas (e.g., Trial Mining) were validated through detailed, targeted assessments, providing a strong foundation for technical and economic evaluation at a local scale.

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Upper Level Comparison with Historical Production Data
Where historical data exists (notably in metallurgical recoveries and orebody delineation), results from recent activities are consistent with historical operations, providing additional confidence in the estimation and recovery assumptions made for current Ore Reserves.

Upper Level Conclusion
The Ore Reserve estimate for the Upper Levels (+105) at PCZM demonstrates a high level of relative accuracy and confidence. This confidence is underpinned by robust geological and geotechnical validation through trial mining, detailed planning and consideration of modifying factors, economically viable operational planning, and effective integration of existing infrastructure with clear strategies for mitigating remaining risks and uncertainties. The key outstanding uncertainty pertains to the geological upgrading of Inferred Mineral Resources, which is already planned and budgeted for through additional infill drilling. The approach taken aligns well with best practices and relevant industry standards, including the JORC Code (2012).

The Deeps Mining Plan

The Deeps area of the mine is currently under water to 265 metres below surface and mine dewatering, shaft refurbishment and underground construction is required before production can start. The timeline for these activities to be completed is expected to be 27 months from Project commencement. Development and production mining will start in month 28 and build up over a further 27 months to a steady-state rate of 200ktpm or 2.4Mtpa.

Breakeven grades were calculated based on the different mining methods using their respective costs and modifying factors which range from 0.99% Cu equivalent for transverse LHOS to 1.13% for Drift & Fill (D&F) which is the highest cost mining method.

For production mining, mechanised Long-hole Open Stoping (LHOS) with Paste-Fill will be used in the steeper sections using either Longitudinal (LLHOS) or Transverse (TLHOS) methods depending on the width of the orebody. Level spacing in these areas will be 20 metres or 30 metres depending on local conditions. D&F will be used in the flatter sections with panel dimensions of 5 x 5 metres or 6 x 6 metres depending on the orebody thickness. The mining mix will be 74% from LHOS and 26% from D&F. Paste-fill strengths have been designed at 500 kPa for the D&F sections and up to 2,000 kPa for the LHOS sections. Curing times of 28 days has been designed for both LHOS and D&F applications.

Geological losses have already been applied to the Mineral Resource block model and have therefore not been applied as a mining modifying factor. The applicable stoping modifying factors are shown below.

Table 10: Stoping modification factors.

Deeps Modifying Factors - Stoping				
Factor	Units	LLHOS (%)	TLHOS (%)	D&F (%)
Hanging wall Overbreak	cm	50	50	0
Footwall Overbreak	cm	50	50	0
Unplanned Dilution	%	3	3	3
Unplanned dilution grade	% CuEq	0.0	0.0	0.0
Mining Recovery	%	95	95	97

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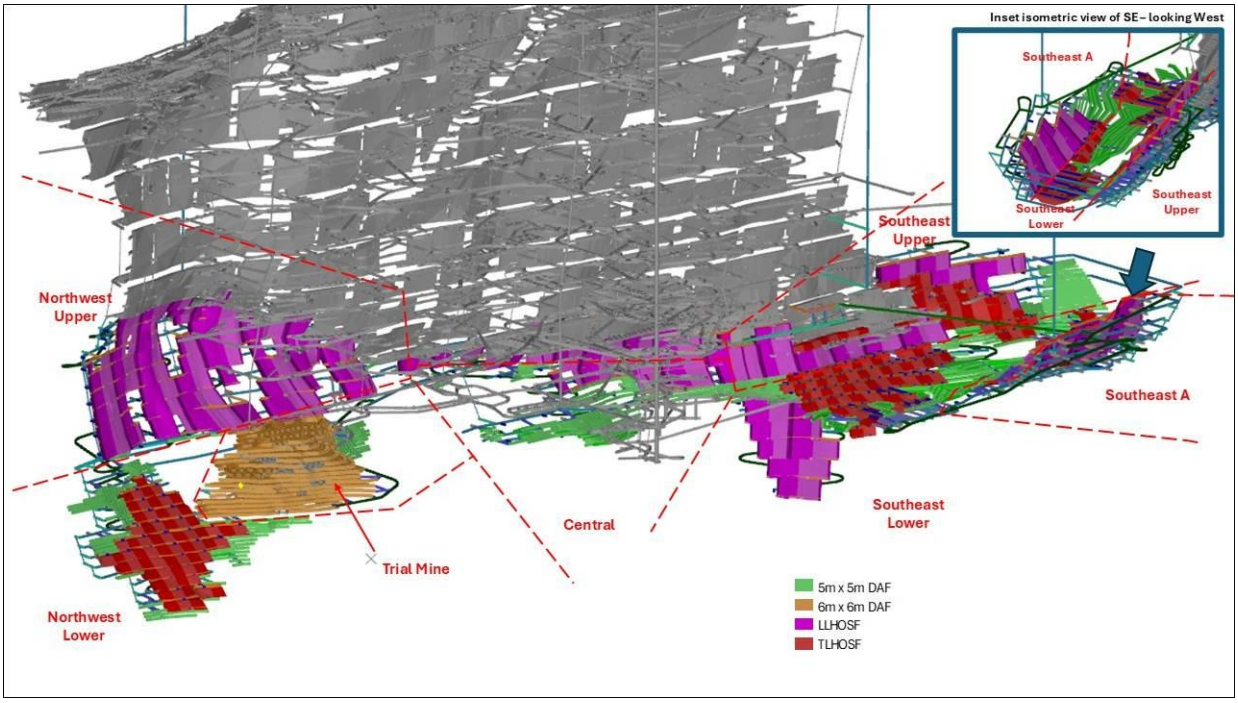

Figure 10: Deep Sulphide deposit planned mining areas.

All mining activities will be carried out by PCZM crews on 2 x 12 hr shifts, 7 days a week with two blasting times per day. The mining fleet will consist of Epiroc machinery for development and long-hole drill rigs. 40 tonne trucks and 14 tonne LHDs will be supplied by Siton (Chinese). Fermel (South African) will supply explosive vehicles and utility vehicles. The locos for rail transport will be supplied by Goodman (American). For development and production taking place above 957 level, which is the main transport level, a rail system will be used to transport rock to the shaft. Rock mined from D&F and the two LHOS South-East zones will be trucked back up to 926-Level into rock passes feeding 957-Level.

There is an existing workshop on 957-Level which will be refurbished for regular vehicle services and two satellite workshops will be built at the N-W and S-E sections of the mine for minor services. An existing workshop on 836-Level will also be refurbished, for major component change-outs to lessen congestion on the 957-Level workshop. Major engine or frame re-builds will be carried out off-site by either the Original Equipment Manufacturer or a certified machine fabricator.

Ventilation of the Deeps is via down-cast air through the existing Hutchings shaft and the existing surface decline. During the de-watering and shaft refurbishment phase the existing Beecroft shaft will be used as the upcast shaft. Once the underground production levels are established, a new return ventilation shaft system will be raise-bored to connect the 957-Level to surface in addition to the Beecroft return airway shaft. The total volume of fresh air for the underground mining is 750m^3/s and will be achieved through combining the Deeps and Upper Levels ventilation sections.

The rock mass quality in the Deeps is generally good, with hanging-wall and footwall-wall gneiss having average UCS values of 310 MPa with average RMR values of 88 and 79 respectively. The mineralised zone has an average rock strength of 197 MPa and a RMR of 78. Rock support will take the form of split-sets in ore tunnels. In waste development, resin grouted roof-bolts will be used with shotcrete to provide additional areal coverage in selected excavations. Grouted cable anchors will be used at all permanent breakaways and intersections. To cater for stress changes as mining progresses, footwall tunnels will be set back a minimum of 25 metres from the orebody and declines will be 40 metres from the orebody.

The contacts between the mineralisation and the footwall and hanging-wall rocks are sharp and clearly visible in drill core produced from the exploration phase. The mining cut-off therefore corresponds closely to the contact of the mineralised zones and the gneiss which will allows for good grade control. Diamond drilling has been planned ahead of all stoping operations to determine the orebody contacts and grades for stope design and production planning.

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In the first stage of mining, an interim rock handling system will be constructed that will be in use for six months while the permanent system is being installed. The interim system will make use of temporary grizzly - rock breaker arrangements where rock will be trucked and discharged into two existing silos and onto conveyors transporting rock to the skip loading station at the shaft. The permanent system will involve re-fitting the existing crusher chamber and the installation of a conveyor system to the top of the silos mentioned above. A 3-D view of the permanent system is shown below highlighting rail tipping, crushing and the five conveyors A to F, taking rock to the shaft loading silos. The total conveyor length is 700m.

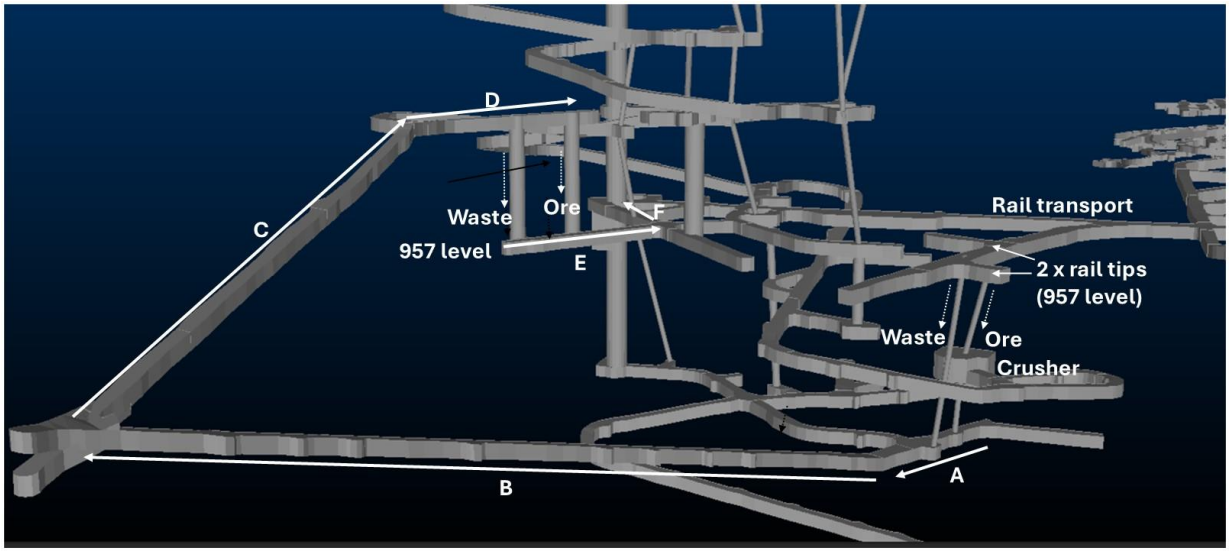

Figure 11: A 3-D view of the permanent system.

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Deeps LoM Plan

The Deeps LoM plan contains 22.6Mt of material with an underground average mined grade of 1.0% Cu and 3.3% Zn, giving a Cu equivalent (CuEq) grade of 1.6% Cu. The CuEq (%) values presented for the Deeps LoM Plan (Table 11) and Deeps Probable Ore Reserve estimate (Table 12) were determined based on the following:

- Orion considers that both Cu and Zn have a reasonable potential to be recovered and sold.
- Assumed commodity prices of USD8,900/t Cu and USD2,450/t Zn based on analysts' consensus as at May 2024.
- Net smelter returns (NSRs) of 101.3% and 69.7% for Cu and Zn, respectively based on offtake proposals from concentrate traders and metallurgical details as detailed in JORC Table 1.
- The following calculation formula which is consistent with BFS-20 refer ASX release 26 May 2020:
    - CuEq (%) = Cu (%) + 0.185 x Zn (%)

      Based on 1% Zn $= \frac{(\text{Zn price x Zn NSR}) \text{ x } (\text{Zn plant recovery})}{(\text{Cu price x Cu NSR}) \text{ x } (\text{Cu plant recovery})} = \frac{(2{,}450 \text{ x } 69.7\%) \text{ x } (82.1\%)}{(8{,}900 \text{ x } 101.3\%)\ (85.8\%)} = 0.185\%$ Cu

This plan contains 233kt of Cu and 736kt of Zn over the LoM. The following table highlights the key numbers.

Table 11: PCZM life of mine estimate – Deeps Section.

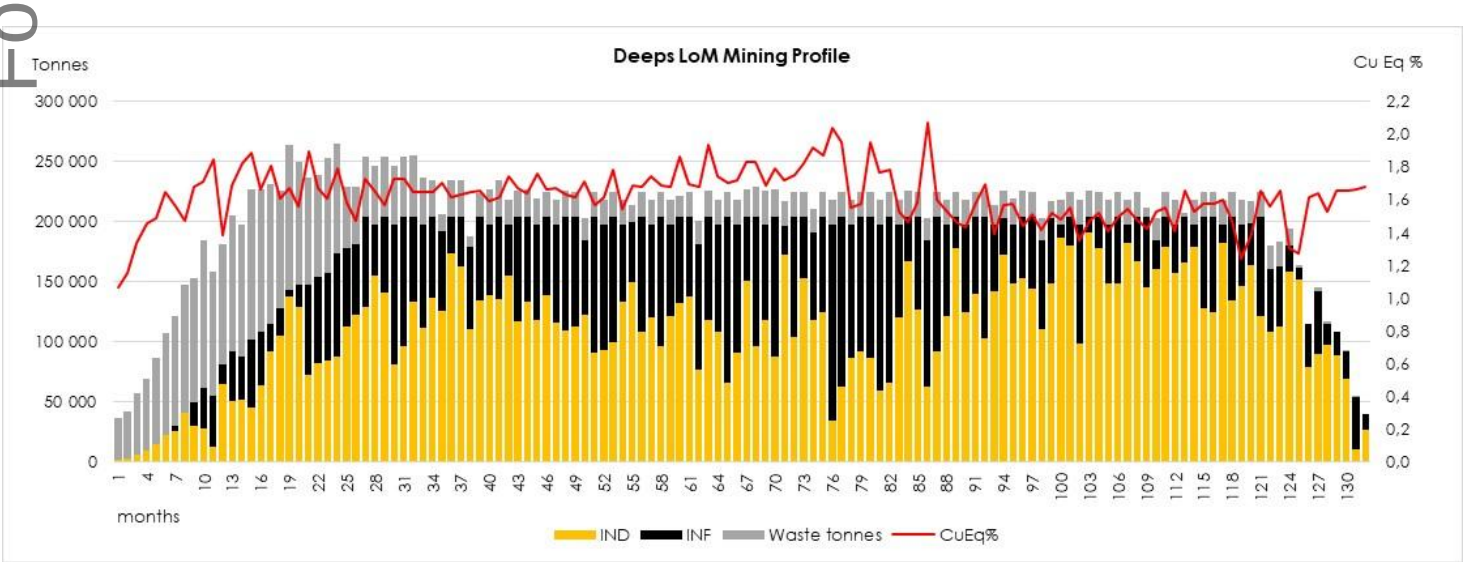
PCZM Deeps LoM Estimate (Effective Date: 31 December 2024)							
Deeps LoM Plan - Resource Class	Tonnes (Mt)	Cu%	Zn%	Cu Tonnes (kt)	Zn Tonnes (kt)	CuEq Metal Tonnes (kt)	CuEq Grade (%)
Indicated	14,7	1,0	3,2	153	468	239	1,6
Inferred	8	1,0	3,4	81	270	131	1,7
TOTAL	**22,7**	**1,0**	**3,3**	**234**	**736**	**371**	**1,6**

There is a low level of geological confidence associated with Inferred Mineral Resources and therefore there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target or financial forecast information referred to in this Study will be realised. Tonnes are rounded, which may result in total rounding errors

Indicated Resources make up 65% of the Deeps LoM plan with Inferred Mineral Resources making up the remaining 35%, this compares favourably with proportions of Indicated (67%) and Inferred Resource (33%) included in the BFS-20 LoM Plan (refer ASX release 26 May 2020). Having considered very strong geological continuity and the nature of the deposit's mineralisation, Orion is optimistic that the Inferred Mineral Resources included in the LoM plan have good prospects of being upgraded to Indicated Mineral Resources and that the mining plan is realistic and achievable. Infill drilling conducted in 2017-2018 achieved almost complete upgrade of Inferred resources to Indicated category (refer ASX/JSE release 18 December 2018). The Trial Mining exercises provided additional confidence in geological continuity and potential for achieving increased confidence in Inferred Resources with infill drilling to improve sampling density (refer ASX release 28 March 2025). A detailed in-fill drill program has been planned, consisting of 22,400 metres of drilling to upgrade the Inferred Resources to Indicated Resources with infill drilling to achieve similar sampling density as per the Indicated Resource drill sampling density. The drilling will start once the underground areas are opened up to provide drilling access from underground.

Waste development and production mining both start in month 28 of the PCZM LoM schedule followed by a 27-month build-up to full production of 200,000tpm. A sufficient volume of ore needs to be available before the plant can begin operating continuously, therefore a surface stockpile will be built to store the required volume for plant production. By month 15 of the ore mining ramp-up, 550,000 tonnes will be on the stockpile allowing the plant to start wet commissioning followed by a seven-month ramp-up to reach steady-state of 200,000 tonnes processed per month, as shown in the profile below. Steady state plant production is then reached 21 months after mining starts or 48 months (4 years) from Project start.

The Deeps LoM plan runs for 11 years as shown below. Inferred Resources do not feature as a significant proportion early in the mine plan.



There will be a staff complement of 975 people on site for the Deeps operation.

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Deeps Reserves only plan

An alternative mine plan ('Reserve only plan') was prepared as part of this study, relying solely on Indicated Mineral Resources (except where Inferred Mineral Resources were included as dilution) and used to support the estimation and reporting of an updated Probable Ore Reserve for the Deeps Level of 14.9Mt grading 1.0% Cu and 3.1% Zn, containing 150kt copper metal and 458kt zinc metal, (CuEq grade of 1.6% for 234kt CuEq metal). This alternative plan will produce 200,000tpm but will have a shorter life compared to the LoM plan. The key numbers are shown in the table below.

Table 12: Ore Reserve Estimate – Deeps Level

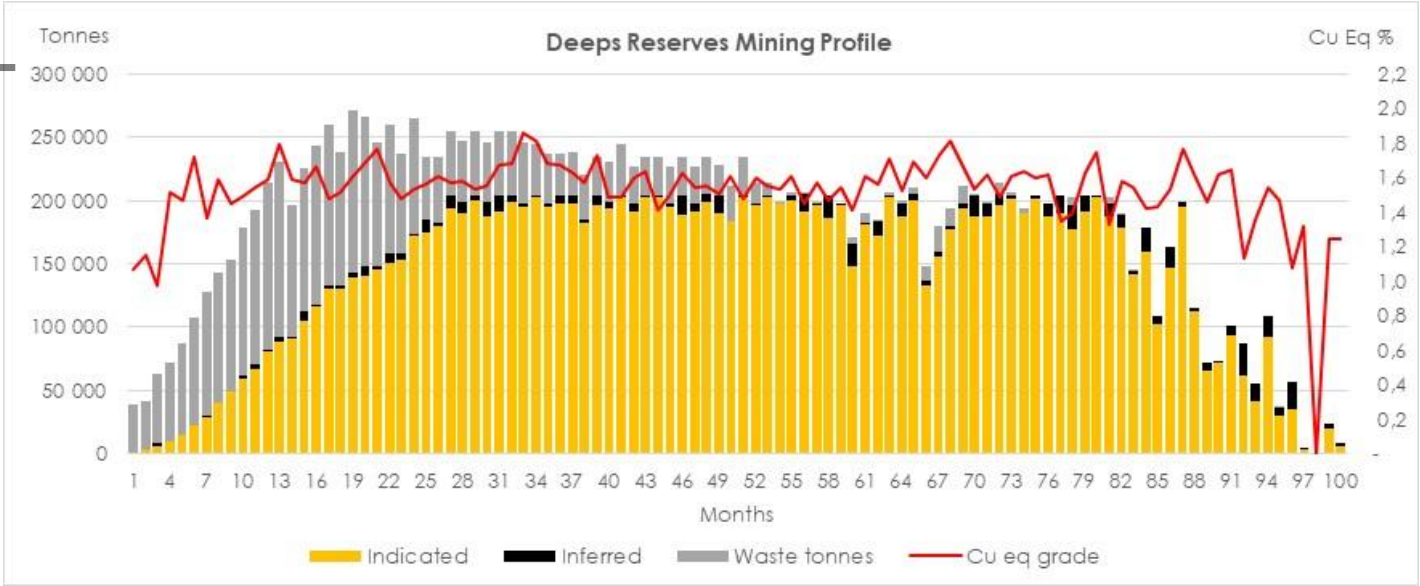
PCZM Deeps Reserve Estimate (Effective Date: 31 December 2024)							
Deeps Reserve Class	Tonnes (Mt)	Cu%	Cu Tonnes (kt)	Zn%	Zn Tonnes (kt)	CuEq Metal Tonnes (kt)	CuEq Grade (%)
Probable	14,9	1,0	150	3,1	458	234	1,6
Proven	0,0	0,0	0	0,0	0	0	0,0
TOTAL	**14,9**	**1,0**	**150**	**3,1**	**458**	**234**	**1,6**

Project Ore Reserves estimated using financialassumptions and modifying factors stated in the FS-25. Tonnes are rounded, which may result in rounding errors. The corresponding Indicated Mineral Resources, disclosed are inclusive of these Ore Reserves.

The updated Ore Reserve is reported in accordance with the JORC Code (2012) and is inclusive of minor scattered areas of approximately 0.5Mt of Inferred Mineral Resources as dilution within the fringes of practical mine stope shapes. No grade and revenue have been assigned to these Inferred Resources within the economic models or in the declared Probable Ore Reserve as these tonnes report to the processing plant effectively as another form of dilution. The Inferred tonnes represent approximately 4% of the Ore Reserve.

The Reserves only plan is economically viable with a post-tax NPV of ZAR2.7 billion and an IRR of 18.2% over an 8.3-year life. The plan confirms that the Inferred Mineral Resources included in the LoM plan are not the determining factor in project viability. The capital estimate and operating costs for the Reserves only plan remains the same as for the LoM plan.

The mining profile of the Deeps Reserves only mine plan is shown below.



The mining ramp-up for the Reserves only plan follows the same profile as for the LoM plan.

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Deeps Section Breakeven Grade
For the Deeps, breakeven grades were calculated based on the different mining methods using their respective costs and modifying factors which range from 0.99% CuEq for transverse LHOS to 1.13% CuEq for Drift & Fill (**D&F**) which is the highest cost mining method.

Deeps Section Modifying Factors – Deep Sulphide Ore Reserve
The Deeps Ore Reserve estimate was updated as part of this Study using updated modifying factors and economic assumptions summarised below and in Table 10 above.

Deeps Section Geological Confidence
The underlying Mineral Resource for the LoM plan consists of 64% Indicated and 36% Inferred Resources. The Ore Reserve has been derived solely from Indicated Resources, with Inferred Resources excluded from the Ore Reserve estimation, except where included as dilution within the fringes of practical mine stope shapes (approximately 4% of the tonnes). The Ore Reserve model has incorporated geostatistical methods for orebody interpolation, constrained by drill hole data spacing.

Deeps Section Geotechnical and Mining Confidence
Geotechnical assessments have determined appropriate stope dimensions and mining methods, ensuring practical extractability. The mining method selection (LHOS and D&F) was informed by ground conditions and benchmarking against similar operations. Planned dilution (16%) and unplanned dilution (3%) have been incorporated into the Ore Reserve model. Mining recovery factors (95% for LHOS, 97% for D&F) have been optimised, considering improved stope stability and controlled blasting methodologies.

Deeps Section Economic and Processing Considerations
Modifying factors such as commodity price assumptions, metallurgical recoveries, and operational costs have been rigorously assessed. The expected overbreak of 0.5m on hanging wall and footwall was derived from benchmarking and geotechnical analysis The impact of dilution on grade has been modelled, with unplanned dilution applied at zero grade, ensuring conservative estimates.

Deeps Section Global vs. Local Estimates
The Ore Reserve estimate is considered a global estimate, covering the entire Deeps mining area. However, for technical and economic evaluation, the mine plan relies on local estimates, particularly in targeted production zones. Local estimates focus on stope-level reconciliation of grade, tonnage, and modifying factors, ensuring alignment with operational constraints.

Deeps Section Dilution and Overbreak
Planned dilution assumptions (16%) and unplanned dilution (3%) have been benchmarked against similar LHOS operations, improving confidence in Ore Reserve estimates. Development ends assume a 5% overbreak, but ore drives are not assigned additional overbreak due to their containment within planned stope shapes.

Deeps Section Mining Recovery:
A conservative mining recovery of 95% for LHOS and 97% for D&F was assumed, supported by operational experience in similar mining conditions. Stopes will be extracted until backfill dilution exceeds 50%, ensuring minimal ore loss.

Deeps Section Dewatering and Infrastructure Risks:
The dewatering schedule remains on the critical path. Shaft rehabilitation, underground infrastructure upgrades and ventilation improvements are key items on the critical path to be monitored.

Deeps Section Comparison with Production Data
While full-scale production from the Deeps is not yet available, Trial Mining results have validated key assumptions. Orebody continuity has been confirmed at the expected locations. Ground conditions have been stable, allowing for larger-than-expected excavations without excessive support. Mining rates and development performance align with industry benchmarks, supporting the assumed modifying factors.

Deeps Section Conclusion
The Ore Reserve estimate for the Deeps carries a high degree of confidence for Indicated Resources but remains contingent on infill drilling for Inferred material conversion. The modifying factors have been rigorously assessed,

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but risks remain in dewatering schedules, dilution control, and paste fill implementation. Further reconciliation with operational data will refine these estimates over time.

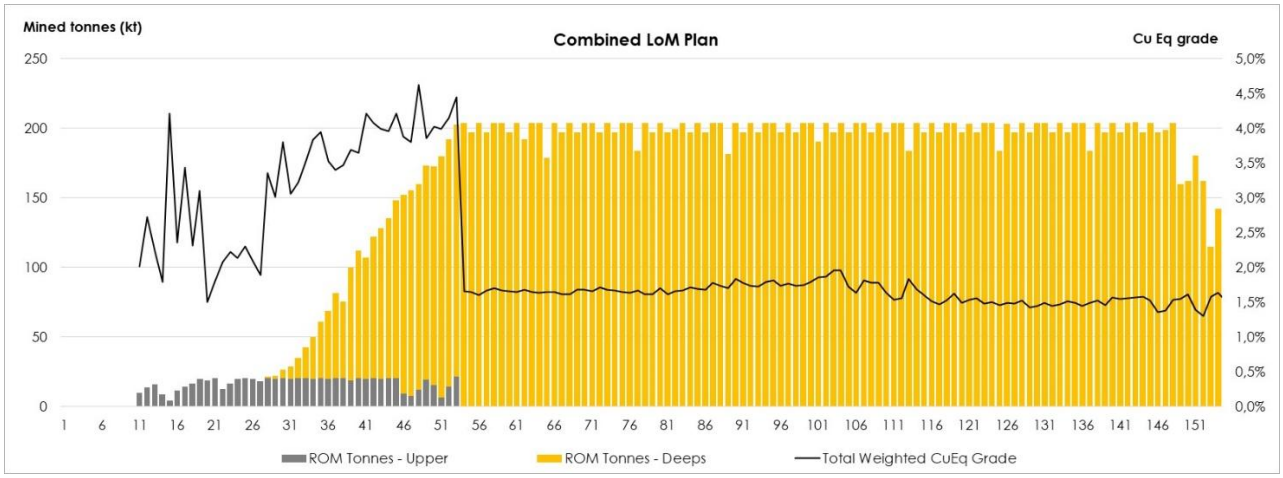
Estimation Methodologies for the Ore Reserves

FS-25 used Datamine™ and a mineable shape optimiser (**MSO**). Deductions were made for material excluded by the MSO, geological and pillars losses and a mining extraction factor. Dilution is included during the MSO process. The modifying factors, preliminary designs and schedules were done using the Mineral Resources classified and released in December 2018 for the Hypogene Deep Sulphides (refer ASX release 18 December 2018) and in March 2025 for the +105 in the Upper Levels (refer ASX/JSE release 28 March 2025).

Material assumptions regarding timeframe for development and production assumed that the FS-25 is financially positive, the necessary licences and permits are granted by the authorities and funding is procured.

Combined LoM Plan

The combined LoM mining profile (including the Inferred Mineral Resources) for the Upper Levels and Deeps section is shown below.



The Upper Levels mining has higher Cu grades than the Deeps section due to the enriched Supergene ore. The metal production profile is shown in the following table.

Table 13: Metal production profile for the combined Life of Mine.

Metal in concentrate - 000 t	Totals	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14
Total copper	182,1	0,0	1,4	4,6	4,1	19,9	21,9	21,2	22,0	22,8	23,1	21,3	19,9	18,8	12,2
Total zinc	510,6	0,0	0,0	0,0	0,0	57,2	68,3	68,3	65,9	72,5	70,3	56,1	52,0	62,7	37,4
Total metal produced	**692,7**	**0,0**	**1,4**	**4,6**	**4,1**	**77,1**	**90,2**	**89,5**	**87,9**	**95,3**	**93,4**	**77,4**	**71,8**	**81,5**	**49,5**

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Table 14: Combined Life of Mine plan - metrics.

PCZM Combined LOM Estimate Dated: 31 December 2024								
Deeps LoM Plan	Resource Class	Tonnes (Mt)	Cu%	Zn%	Cu Tonnes (kt)	Zn Tonnes (kt)	CuEq (kt)	CuEq Grade (%)
Uppers	Indicated	0,6	2,3	-	15	-	15	2,3
	Inferred	0,1	1,8	-	2	-	2	1,8
	Total Uppers	**0,7**	**2,3**	**-**	**16**	**-**	**16**	**2,3**
Deeps	Indicated	14,7	1,0	3,2	153	468	239	1,6
	Inferred	7,9	1,0	3,4	80	270	130	1,7
	Total Deeps	**22,6**	**1,0**	**3,3**	**233**	**736**	**369**	**1,6**
Total	Indicated	15,4	1,1	3,2	167	468	253	1,6
	Inferred	8,0	1,0	3,4	82	270	132	1,6
	TOTAL	**23,4**	**1,1**	**3,3**	**249**	**736**	**385**	**1,6**

There is a low level of geological confidence associated with Inferred Mineral Resources and therefore there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target or financial forecast information referred to in this Study will be realised.

There will be a period of 26 months where both the Uppers and Deeps sections will be concurrently operating. As the Upper Levels section winds down, mining and engineering labour will transition to the Deeps to supplement its new employees and to bring practical experience to the Deeps section.

Combined Reserve plan

The combined Uppers and Deeps Levels Ore Reserves estimate is presented in the table below. A combined CuEq grade and CuEq metal is presented; however, the CuEq value presented for the Uppers deposit is equal to the Cu contribution as the zinc currently does not have reasonable potential to be recovered and sold from the Upper Levels. Orion confirms that all elements included in the metal equivalent calculations (Cu and Zn for Deeps and Cu only for Uppers) have a reasonable potential to be recovered and sold.

Table 15 Combined Uppers and Deeps Ore Reserve estimates, reported in accordance with the JORC Code (2012).

PCZM Combined Reserve Estimate Dated: 31 December 2024							
Combined Reserves Class	Tonnes (Mt)	Cu%	Zn%	Cu Tonnes (kt)	Zn Tonnes (kt)	CuEq Tonnes (kt)	CuEq Grade (%)
Probable Uppers	0,6	2,3	-	15	-	15	2,3
Probable Deeps	14,9	1,0	3,1	150	458	234	1,6
TOTAL PROBABLE	**15,6**	**1,1**	**3,1**	**164**	**458**	**249**	**1,6**

Project Ore Reserves estimated using financial assumptions and modifying factors stated in the FS-25. Tonnes are rounded, which may result in rounding errors. The corresponding Indicated Mineral Resources, disclosed are inclusive of these Ore Reserves.

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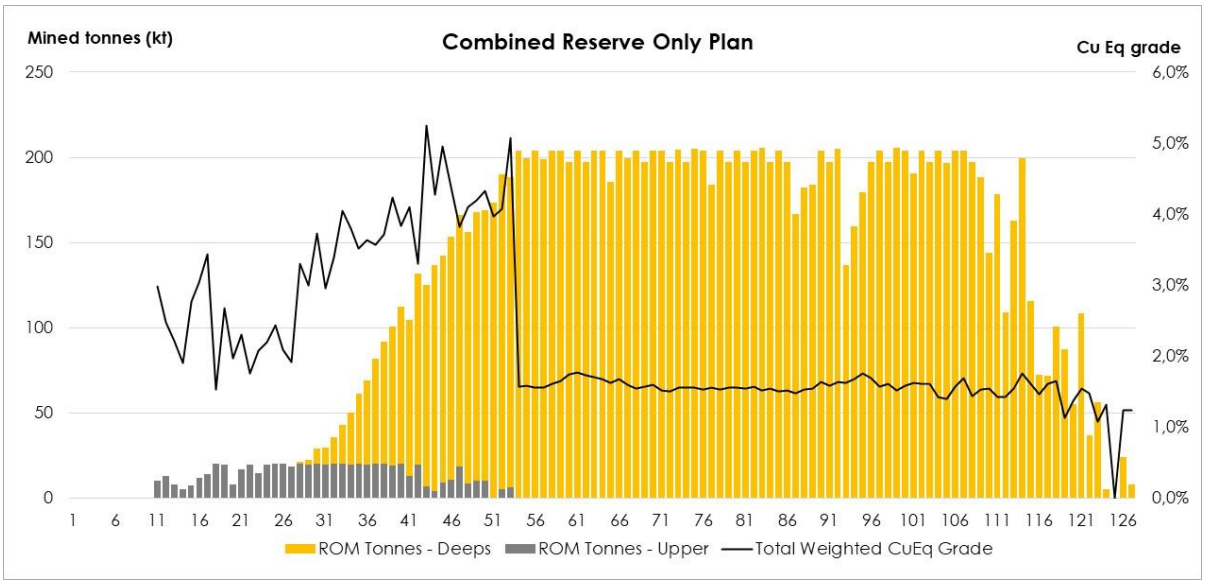
The combined Uppers and Deeps Reserve only production profile is shown below. Peak production levels remain the same as for the LoM plan.



The metal production profile is shown in the table below.

Table 16: Metal production profile.

Metal in concentrate - 000 t	Totals	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12
Total copper	140,5	-	1,5	4,2	4,6	18,6	22,6	21,2	20,3	20,5	18,2	8,6	0,1
Total zinc	374,4	-	0,0	0,0	0,0	46,7	58,4	55,9	57,0	66,6	61,0	28,1	0,7
Total metal produced	**514,8**	**-**	**1,5**	**4,2**	**4,6**	**65,3**	**81,1**	**77,1**	**77,3**	**87,1**	**79,3**	**36,7**	**0,8**

Dewatering & Shaft Refurbishment

The Hutchings Shaft and underground workings are currently filled with water to a depth of 265m below surface and contain a volume of 8.2 million m^3 of water. Dewatering of the underground will be carried out with pumping systems installed successively at four levels in the Hutchings Shaft as described below. Natural ingress of water into the mine based on historic data and Orion's measurement and estimation over a 7-year period is only a small volume of 18m^3/hr. The contained water in the workings after 23 years without pumping is 8.2 million m^3.

Phase 1: Pumping will be done with one submersible pump, which is currently operating in the shaft at 100m^3/h, pumping up to the 178-Level pump station which is fitted with multi-stage pumps, and then to a surface concrete holding dam and onto the existing evaporation dam. Forced evaporators will then dispose of the water into the atmosphere. This is described in more detail later in this section. As more evaporators are installed, an upgrade of the submersible pumps will increase capacity to 250m^3/h then a second submersible pump will be installed increasing capacity to 500m^3/h. Pumping will continue to the 418 Level and permanent settlers and pump systems will be installed on 310 Level once this level has been de-watered. The pump station on 310 Level will then enable pumping capacity to increase to 1,000m^3/h which will start from the next phase.

Phase 2: At this point the submersible pumps will be replaced by two multi-stage pumps fitted to a floating pontoon in the shaft which will pump up to 310 Level at 1,000m^3/h. Pumping will continue to just below the 758 Level which will also be equipped with permanent settlers and a pump station.

Phase 3: Pumping from 758 Level will then take place to shaft bottom (1,025 metres) at 1,000m^3/h with the floating pontoon. Once 957 Level is dewatered the third permanent pump station will be installed which will have two multi-stage pump and piping systems of 500m^3/h each.

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Phase 4: Once the 957 Level pump station is operating, two permanent submersible pumps will be installed at shaft bottom along with one submersible pump in each of the N-W and S-E decline sections of the mine as the last stage of the Life of Mine pumping system.

The de-watering phase is expected to take 22 months including time allowed for the pump station installations as described above.

A number of solutions were investigated for the disposal of the water once pumped to surface. Mechanical forced evaporation was chosen as the most cost-effective method and is widely used in the mining industry for water disposal. Shaft dewatering was carried out during the Trial Mining exercise with three forced evaporators and the concept was proven and it was confirmed that the designed evaporation rates are achievable. The evaporators atomise water, which is blown into the air at high velocity where evaporation takes place as shown in the following picture from the Trial phase.

Photo 1: Water evaporation on site at PCZM.

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Each evaporator will eject water at an estimated rate of approximately 100m^3/h at an anticipated evaporation efficiency of 35% to 60% depending on the season and time of day. The seasonal spread of evaporation efficiencies has been used in the overall dewatering calculations based on higher and lower ambient temperatures. The evaporation units are spaced at 35m to 50m intervals along the evaporation dam wall depending on prevailing wind directions relative to the layout of the dam. The evaporators are fitted with weather sensors and programmable logic controllers (**PLC**s) to regulate pumping rates to maximise the evaporation efficiency dependant on temperature, wind direction and humidity at the time. The evaporation design also allows for excess drift whereby if water fallout is expected to reach beyond the perimeter of the evaporation dam, various evaporators will be shut down by the PLC system.

Based on planned manufacturing schedules from the evaporator vendors, delivery of the units will take place over a period of eight months (in-line with the increased shaft pumping rates mentioned above) and once the planned pumping rate of 1,000 m^3/h has been reached, 30 forced evaporators will be in place to dispose of the water into the air.

The effluent remaining in the evaporation dam will be further exposed to natural evaporation. The effluent is concentrated brine containing an estimated 100,000 tonnes of dry precipitated solids remaining from the evaporation process. This precipitate will be combined with tailings and if required can be returned to underground workings as a component of the paste-fill.

Shaft refurbishment

After the mine was closed in 1991, natural ground water was left to fill up the underground workings. This was expected to have some impact on the integrity of the shaft steel work. Examinations and testing of the shaft steelwork from surface to 30m below the water level, along with the use of a video camera inspection to 780m below shaft collar, as well as shaft probing and water quality testing to within 100m of the shaft bottom assisted to determine that the majority of the shaft is in good order. A thorough analysis was carried out by Dr. Geoff Krige, a South African structural steel expert with 40 years industry experience who made recommendations on the level of refurbishment required. Certain areas of the shaft will have 100% replacement such as the shaft skip loading level, pump and water columns, power cables, communication and signalling cables. The four levels that will be used as permanent pump stations will have 100% of the steelwork replaced. Buntons and guides will be replaced on an inspection and assessment basis. It is estimated that 33% of all shaft steel work will be replaced. The shaft refurbishment will be carried out concurrently with the dewatering process to reduce construction time.

A new tower mounted Koepe rock winder and a refurbished ground mounted double-drum men and material winder, have been selected for installation. Winder Controls, a local subsidiary of the international Siemag-Tecberg Group will be responsible for the supply, refurbishment, installation and commissioning of the winders. Roping up of the winders will be by the PCZM shaft crew. Once the shaft has been dewatered to 957 Level, construction of the underground infrastructure will begin. By this stage the man and material winder will have been commissioned enabling the transport of men and equipment into the work areas.

Ore Processing

The Upper Levels Process Plant

The Upper Levels process plant will treat the supergene sulphide ore at 20,000 tonnes per month and will operate over a five-year period producing a copper concentrate containing zinc which will be penalised at certain grade thresholds (this is explained further in the Sales and Marketing section). The flotation test-work was carried out by Brisbane Metallurgical Laboratories with the plant design by ENPROTEC, a South African engineering and process equipment manufacturing company. A South African engineering company will construct and operate the plant under a five-year Build-Own-Operate-Transfer (BOOT) contract.

Test-work was carried out from 2017 to 2024 using drill core samples and reverse circulation drilling samples. After a number of attempts at producing separate Cu and Zn concentrates, this was shown to be not a viable option, mainly as sphalerite depression was ineffective, as due to the presence of chalcocite and covellite, zinc co-floated with copper minerals. Discussions had been held with various metals traders and there appeared to be an appetite for a bulk Cu-Zn concentrate. Later test-work then focussed on producing a bulk Cu concentrate and maximising its yield and quality which now underpins the chosen flowsheet.

Blasted ore from the Upper Levels mining will be stockpiled on surface and direct loaded with a FEL into a primary crusher. The following processes will be secondary cone crushing, ball milling and froth flotation. Mass pull will be between 12% to 15%. A plate and frame filter will de-water the final bulk copper concentrate with a grade range between 18% to 23%. The variable concentrate grade is due to the underground head grades ranging from 1.5% to 4.2% copper. The recovery is anticipated to be on average of 85.81% Cu over the LoM. The tonnage ramp-up will start at 10,000tpm increasing to the steady state capacity of 20,000tpm over three months. An on-site geological laboratory was constructed during the Trial Mining phase which will be expanded to cater for sample analysis and assays from the plant. The plant will operate 24/7, 365 days a year with an overall availability of 90%. The flow-sheet for the plant is shown below.

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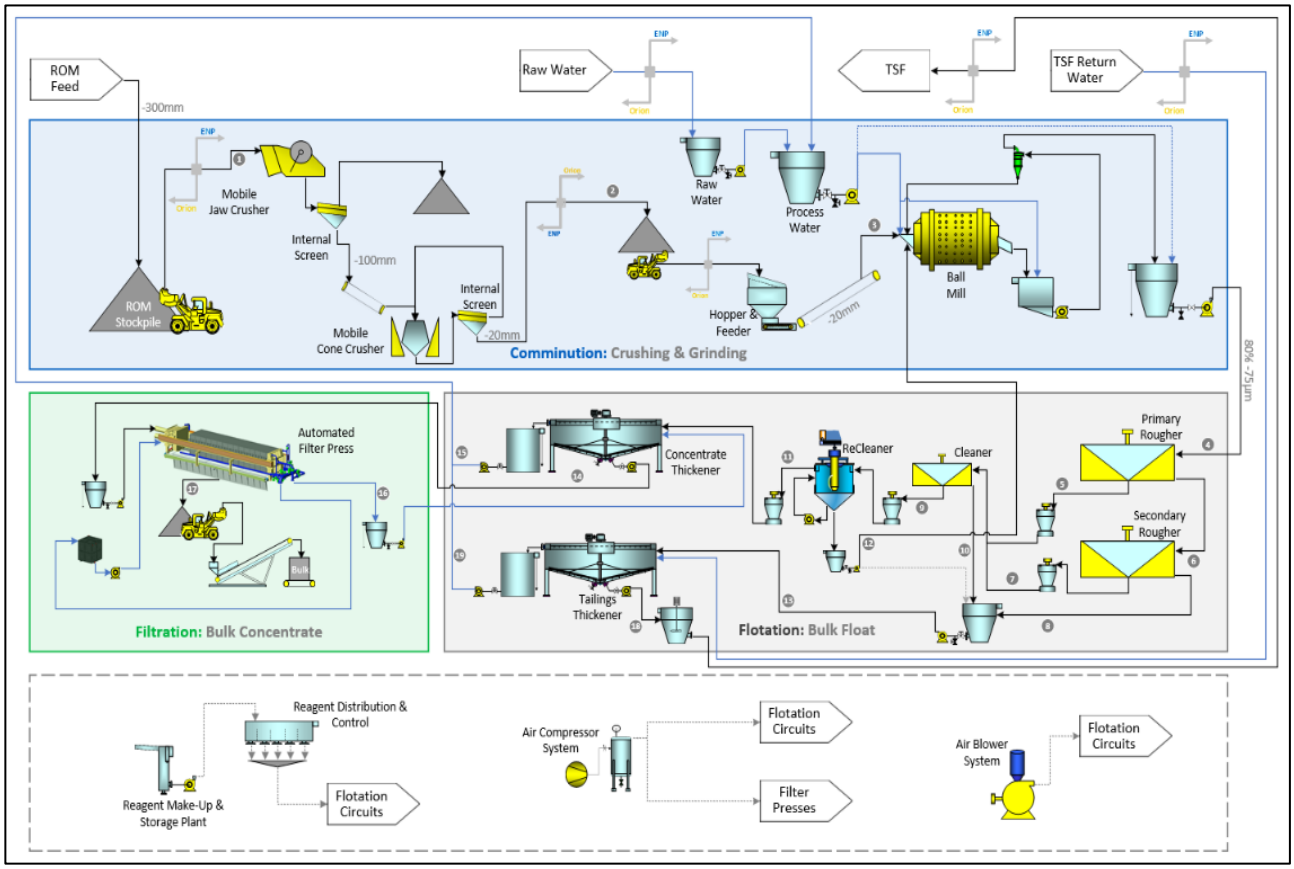

Figure 12: Upper Level Plant flow chart.

A 13ha tailings storage facility (**TSF**) was built during Trial Mining for the underground water forced evaporation proof-of-concept. A new paddock will be added to the TSF to store the Upper-Levels Plant tailings and water recycling. The Upper-Level Plant will get process water from the Prieska Water Works via an existing pumping and pipeline system that will be refurbished by the PCZM team. Power for the plant will be supplied from the Eskom 15MVA upgrade that was previously installed during the Trial Mining phase.

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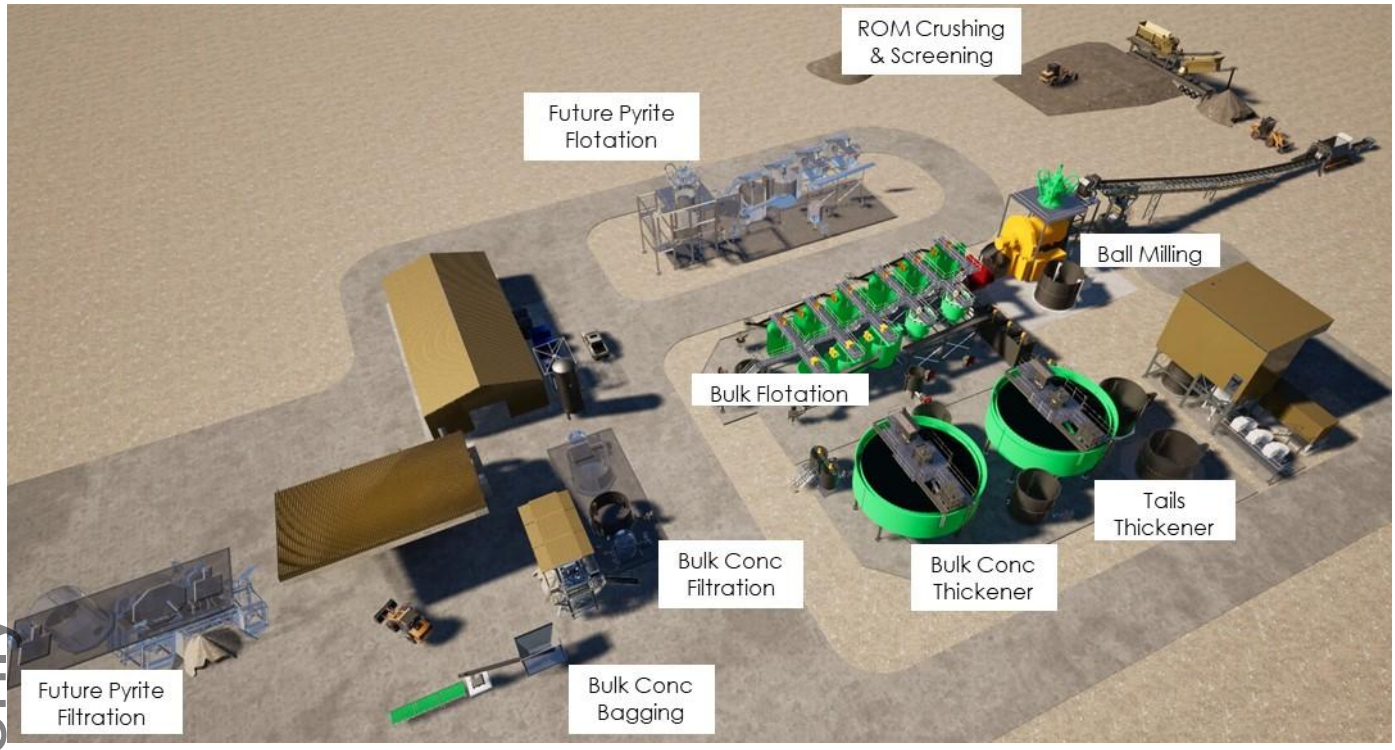

Figure 13: Upper-Level Plant layout.

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The Deeps Process Plant

The Deeps process plant will treat the Hypogene ore at a steady state rate of 200,000 tonnes per month over the planned 12-year life. The plant was designed by METC, a South African process engineering company. Ore processing will involve secondary crushing (following primary crushing underground), SAG milling with a secondary ball mill and conventional differential froth flotation to produce separate copper and zinc concentrates at target concentrate grades of at least 20% Cu and 50% Zn. The flowsheet for processing the Deeps material is similar to that used during the historical mining operations with the addition of fine grinding circuits for both copper and zinc and splitting zinc flotation into fast and slow-floating circuits. Copper is extracted first followed by zinc and the zinc tailings will either go to the paste-fill plant or to the tailings storage facility. TSF return water will be recycled to the plant, where possible. Design make-up water of 0.56 m^3/tonne will be required from the Prieska Water Works. Water from the paste-fill plant will be returned to the tailings thickener as process water for the plant. The overall utilisation of the plant is planned at 91%. The plant is designed to run with a medium level of automation and will be primarily operated from a SCADA system in a central control room with staff in the field at the appropriate functional areas. An on-site laboratory will provide sample analysis for the plant to supplement the on-line analysis at various points in the process. The plant will be operated by PCZM staff on a 24/7, 365 days basis. Staffing will leverage off the Upper-Level mining plant as a training facility to develop skills for the Deeps plant operations. The flowsheet for the Deeps plant is shown below.

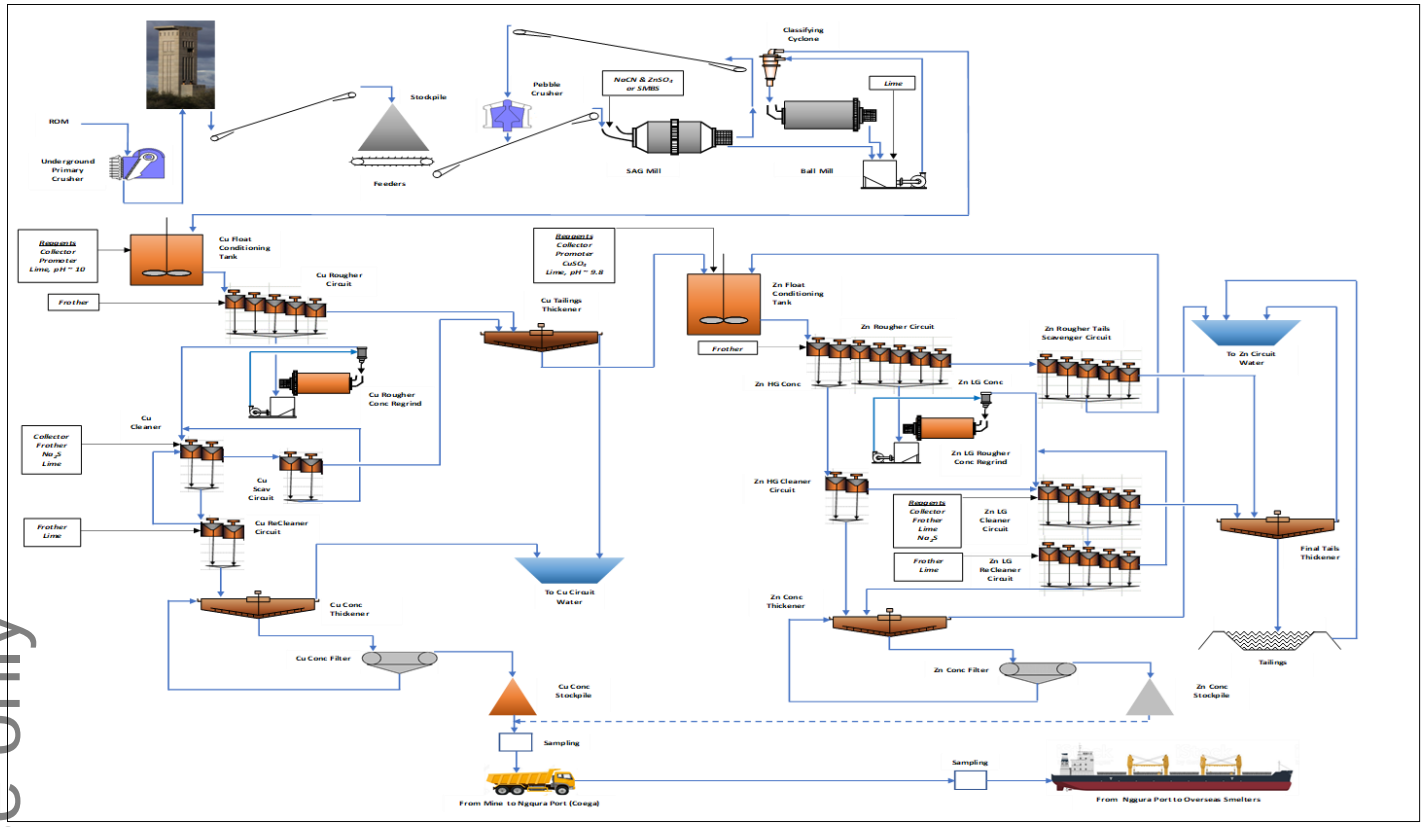

Figure 14: PCZM Deeps Plant flow chart.

LoM metal recoveries into concentrates are anticipated to be on average 85.17% for Cu and 83.96% for Zn. This compares to the historical average numbers of 84.9% and 84.3% respectively. During the ramp up phase of the Deep processing plant, recoveries are planned to start at 65.2% for copper and 65.8% for zinc, building up to the steady state numbers over a seven-month period. The tonnage ramp-up will start at 104,000tpm (based on assumed availability and utilisations) also building to the steady state capacity of 200,000tpm over seven months.

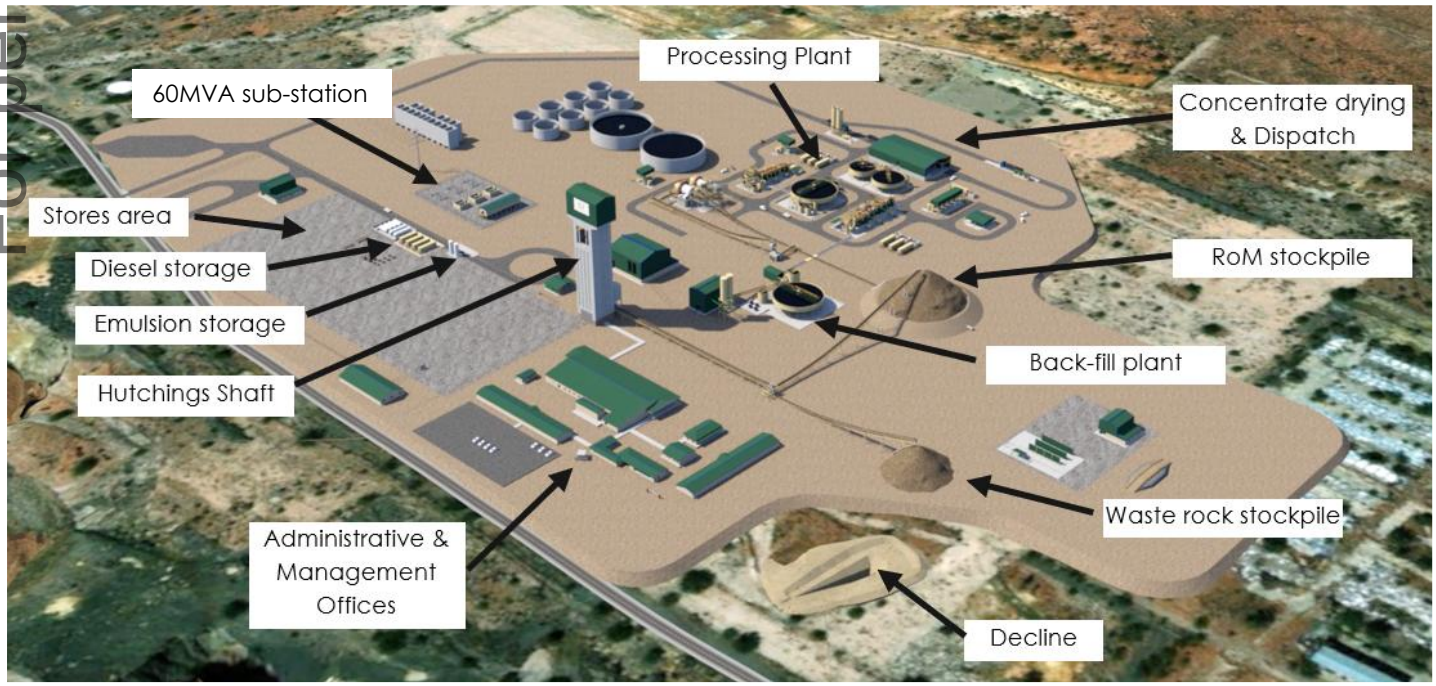

Figure 15: Deeps processing plant and general surface infrastructure.

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Tailings Storage Facility

A Tailings Storage Facility (**TSF**) will be constructed to contain the tailings from the Upper Levels and Deeps processing plants. All tailings from the Upper-Level plant will be sent to the TSF while approximately 52% of the Deeps tailings stream will be contained in the TSF with the remainder used in the underground paste-fill. Tailings will be delivered to the TSF via a single pipeline with an operating and standby pumping system.

The TSF will be developed as an upstream constructed, ring dyke design with a maximum vertical height of 24 metres, a final footprint of 65Ha and a design life of 18.6 years. Over its life, the TSF will be constructed in three lifts. A penstock system will decant surface water off the TSF into a return water dam located at the toe of the TSF from where the water will be pumped to TSF Paddock 1 for forced evaporation or recycled back into the process plant.

The TSF liner system is designed as a Class C barrier according to the South African Government guidelines. This has a compacted in-situ soil foundation layer with a minimum thickness of 200mm, a single 1.5 mm HDPE liner sitting below leakage detection drains consisting of perforated HDPE pipes with a 100mm sand layer cover. The TSF will be built in stages as the construction and operations of the mine take place. The first section will be the evaporation pond for use during the forced evaporation from the shaft de-watering, after which, TSF "Paddock 2" will be built to accommodate the tailings from the Upper Levels process plant and finally the remainder of the TSF will be completed for the Deeps mining operations.

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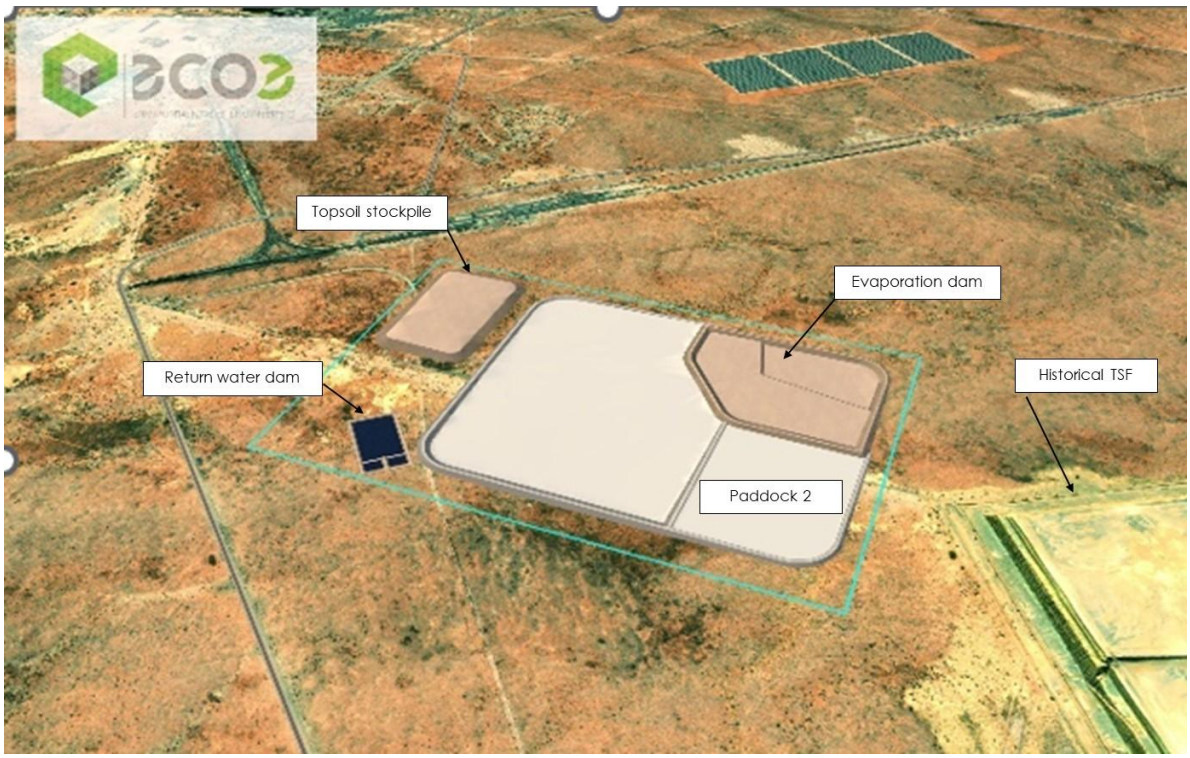

Figure 16: plan view of the final TSF footprint.

Top-soil removed during the construction of the TSF will be stockpiles for later rehabilitation.

Following a slope failure analysis, the proposed design of the TSF has sufficient resistance to slope failure for the loading conditions prescribed by South African National Standard (SANS) 10286 and the Global Industry Standard on Tailings Management (GISTM) (2020). The SANS 10286 standard specifies a Safety Classification rating to be determined for the TSF design based on four parameters that for PCZM have been rated at zero or low. This gives an overall risk rating of Low for the TSF. One of the main factors determining the risk rating is damage and loss within the zone of influence from a potential dam failure. As can be seen from the diagram below, there is no habitation or infrastructure within the planned TSF zone of Influence.

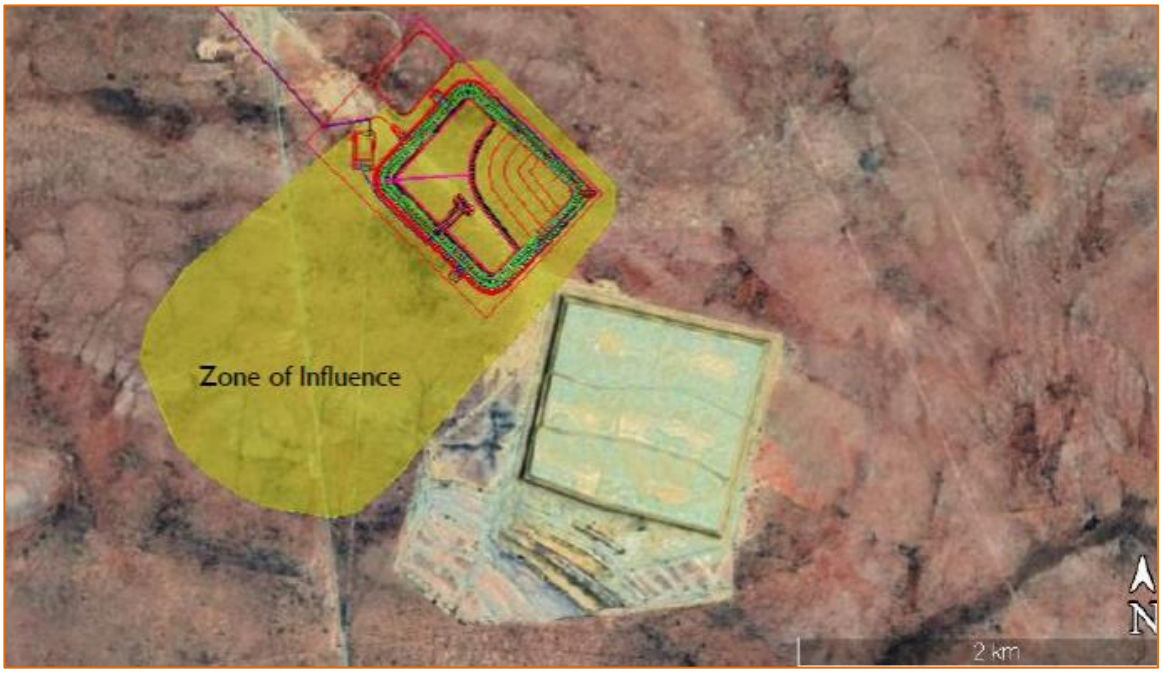

Figure 17: TSF planned zone of influence.

Concurrent rehabilitation and closure of the TSF at the end of the mine's life is included in the operating budget which also allows for maintenance of the site for up to five years after completion of the closure works.

Capex

The capital cost (**Capex**) including contingency to construct the Upper Levels mine is estimated to be ZAR611 million and the Deeps mine capex is estimated to be ZAR6,981 million giving a total of ZAR7,592 million. Contingency for the Uppers and Deeps total is 11%. The following table summarises the capital estimates.

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Table 17: Capex estimates.

Capital - ZAR Million (LoM Plans)	Upper Levels	Deeps	Total
Accommodation camp construction		63	63
Accommodation camp operating cost		79	79
Bulk Power Supply		377	377
Bulk Water		30	30
EPCM		280	280
Cuprum 132kV Feeder Bay Upgrade (15MVA)		1	1
Decline Rehab		406	406
Evaporation Capital		43	43
Install and commission Man winder		218	218
Install and commission Rock winder		219	219
Mining Fleet	246	768	1015
Owners Team		191	191
Backfill/Paste plant	13	531	544
Process Plant	226	1 607	1 833
Project services		23	23
Dewatering		133	133
Shaft refurbishment		88	88
Surface infrastructure	40	245	286
Surface Ventilation		92	92
Tailings Storage Facility		186	186
UG mining construction		435	435
Ventilation Raise bore holes		59	59
Laboratory	5	29	34
Drilling Related Cost	2		2
Operational Readiness	15		15
Exploration Costs	30	100	130
Contingency	34	780	814
Total	**611**	**6 981**	**7 592**

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Opex

Operating costs (**Opex**) for all disciplines have been built up from first principles using up to date consumable prices or where applicable from contractor's tendered prices. Labour costs are included within each discipline which is from detailed labour profiles for each of the operating areas including management and is based on 2024 South African industry benchmarked wage costs including all benefits giving a total cost to company.

The opex costs for the Upper Level and Deeps mining sections are shown in the table below.

Table 18: Opex costs for the Upper Level and Deeps mining sections.

	Upper Levels	Deep Levels
Summary Opex	**ZAR/RoM t**	**ZAR/RoM t**
Mining	1 169	596
Ore Processing	477	239
Shaft and Winders	0	37
Surface & Indirects	551	106
Concentrate Transport Charges	184	173
Corporate Costs	147	16
Off-mine Costs	32	28
Royalties (Government)	36	80
Sustaining Capex	52	57
Total	**2 648**	**1 331**

Generally, the unit costs for the Upper-Level section are higher due to much lower production volumes compared to the Deeps section.

Product Sales & Transport Logistics.

PCZM received a proposal from an international metals trader (the Trader) for off-take agreements for the Uppers and Deeps concentrates. There are distinct payment terms and discounts for the different concentrates which underpin the respective NSR calculations which are explained further in the sections below. Transport of the concentrates will be by road to port for export shipping assuming a Chinese port destination.

Upper Levels Product Sales

The Uppers will produce a copper concentrate containing zinc which is not payable due its grade being below payable levels. If the copper concentrate grade is below 20%, with a minimum of 12%, there will be no credit or penalty for the zinc and also no other penalty elements will apply. Payability is actual Cu concentrate grade – 1%. The TC/RCs will be on a sliding scale based on the Cu grade starting at USD50/tonne of concentrate and 5 cents/lb then increasing in a linear manner up to USD85/tonne and 8 cents/lb. The minimum Upper Levels concentrate grade is expected to be 14% and using a Cu price of USD10,004/t which is estimated when production begins, this gives an NSR ranging from 87.6% to 88.6% as shown in the table below.

Table 19: Upper Levels NSR calculation for concentrate grade below 20%.

Parameter / Cu conc grade range >	12% - 13%	13% - 14%	14% - 15%	15% - 16%	16% - 17%	17% - 18%	18% - 19%	19% - 20%
Cu price (USD/t)	10 004	10 004	10 004	10 004	10 004	10 004	10 004	10 004
Supergene conc Cu grade	**12,50%**	**13,50%**	**14,50%**	**15,50%**	**16,50%**	**17,50%**	**18,50%**	**19,50%**
Cu value per t of conc (USD/t)	1 251	1 351	1 451	1 551	1 651	1 751	1 851	1 951
Cu grade - 1%	11,5%	12,5%	13,5%	14,5%	15,5%	16,5%	17,5%	18,5%
Payable Cu value (USD/t of conc)	1 150	1 251	1 351	1 451	1 551	1 651	1 751	1 851
Treatment cost (USD/t of conc)	**50,00**	**55,00**	**60,00**	**65,00**	**70,00**	**75,00**	**80,00**	**85,00**
Refining cost (USD/lb of Cu)	**0,050**	**0,055**	**0,060**	**0,065**	**0,070**	**0,075**	**0,080**	**0,085**
Refining cost (USD/t of conc)	13,78	16,36	19,17	22,21	25,46	28,93	32,62	36,53
Cu value per t of conc	1 087	1 179	1 271	1 363	1 455	1 547	1 638	1 729
Supergene Cu NSR	**86,9%**	**87,3%**	**87,6%**	**87,9%**	**88,2%**	**88,3%**	**88,5%**	**88,6%**

Where the Uppers concentrate Cu grade is above 20%, the payment mechanism will be for a normal copper concentrate including minor credits for gold and silver by-products, as considered by Traders when proposing payment terms for Cu in concentrate. Penalties for the relevant impurity elements, will also be included, which in the case of the Uppers will be zinc only. Copper payability will be actual concentrate grade minus 1%. In this case, the TC/RCs will be based on annual industry benchmarks minus the Trader's discount of 20%. The PCZM Study is using the expected 2025 benchmark terms of USD35/tonne and 3.5 cents/lb giving USD28/tonne and 2.8 cents/lb

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after the discount. The table below summarises the calculations giving an NSR of 108.5% as derived from offtake proposals received from reputable traders.

Table 20: Upper Levels NSR calculation for concentrate grade above 20%.

Parameter	Metric	Upper Levels
		Copper
Gross Cu metal price	USD/t Metal	10 004
Concentrate grade	%	24,02%
Cu value contained in conc	USD/t concentrate	2 403
Payability minimum grade deduction	%	1,0%
Payable Cu metal value	USD/t concentrate	2 303
Payability deduction	USD/t concentrate	-100
Gold price	USD/oz	2 437
Silver price	USD/oz	30,40
By-product credits (Au & Ag)	USD/t concentrate	406
TCs & RCs	USD/t concentrate	-61
Penalties (Zn only)	USD/t concentrate	-40
Net Smelter Return (NSR)	USD/t concentrate	2 608
NSR Percentage	**%**	**108,5%**

Deeps Product Sales

The Deeps will produce separate copper and zinc concentrates. Payability will be actual Cu concentrate grade of 20% minus 1% and Zn actual concentrate grade of 50% minus 8%. The Cu concentrate will contain payable quantities of gold and silver and has Zn and Cl penalties. There are no credits or penalties for the Zn concentrate based on assay results being below threshold levels. For the first year of Deeps production planned in 2028, benchmark TC/RCs for Cu are estimated at USD53/tonne and 5.3 cents/lb giving USD42/tonne and 4.2 cents/lb after the Trader's 20% discount. The Zn benchmark RCs are estimated at USD37.50/t, being USD30/t after the discount. This gives a Cu NSR of 102.4%. Similarly to the Upper Levels, gold and silver credits lift the NSR above 100%. For Zn, payability is actual concentrate grade of 50% minus 8% giving a NSR of 81.7%. The Zn NSR is lower than Cu due to the lower payability and no gold or silver credits offered by the Trader. Using estimated metal prices for 2028, the summarised calculations are shown below.

Table 21: Deeps sales estimate variables.

Parameter	Metric	Hypogene	Hypogene
		Copper	Zinc
Gross metal price	USD/t Metal	9 369	2 665
Concentrate grade	%	20%	50%
Gross metal value	USD/t concentrate	1 827	1 333
Payability minimum grade deduction	%	1%	8%
Payable metal value	USD/t concentrate	1 733	1 119
Payability deduction	USD/t concentrate	-94	-213
By-product credits - Au + Ag	USD/t concentrate	220,81	0,00
TCs & RCs	USD/t concentrate	-62,95	-30,00
Penalties (Zn, Cl)	USD/t concentrate	-19,96	0,00
Net Smelter Return (NSR)	USD/t concentrate	1 871	1 089
NSR Percentage	**%**	**102,4%**	**81,7%**

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Concentrate Transport logistics

The Port of Ngqura 25km, northeast of the city of Gqeberha (formerly Port Elizabeth), is the preferred export port for the PCZM concentrates. The port has road and rail infrastructure that can handle both bulk and containerised cargoes. It is the newest port in South Africa. The concentrates will be road trucked from the mine site to the port. Due to the relatively low concentrate volumes of around 1,600 tonnes per month produced during the Upper Levels mining, export via containers is the most effective shipping method. This allows smaller loads to be shipped more regularly and as required, compared to bulk shipping which requires ship holds to be fully loaded. During the Deeps mining phase, at steady state, average production levels will be 10,500 tonnes per month of zinc concentrate and 9,200 tonnes of copper concentrate – a total of 19,700 tonnes. Bulk shipping will be used in this case and also as these volumes are too high for containers.

A proposal from a logistics vendor has provided the trucking and port costs with sampling and assay costs included based on market rates compiled by the PCZM team. Shipping costs have been provided by brokers through a logistic consultant acting for Orion. These costs are outlined in the following sections.

Upper Levels logistics

The table below shows the estimated transport logistics cost for the Upper Levels Supergene concentrate based on the average steady state production levels. The container shipping rate to China has been estimated at USD42.50/t. The total logistics cost is USD9.54 per tonne treated (ZAR180/t).

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Table 22: Transport logistics costs – Upper-Level Supergene concentrates.

Upper Levels - Supergene	Units	Supergene
Site loading + road transport to port		Cu
Road from site to Ngqura Port (bulk)	ZAR/t	635
Port & ship loading costs - containers for Supergene	ZAR/t	395
General charges and agency fees	ZAR/t	10
Subtotal - transport to port	**ZAR/t**	**1040**
Concentrate testing		
Sampling, moisture and assay/tonne of concentrate	ZAR/t	64
Subtotal ZAR costs per tonne of concentrate	**ZAR/t**	**1 104**
FX	ZAR:USD	18,90
Subtotal USD per tonne of concentrate	**USD/t**	**58,39**
Shipping		
Containers for Supergene	USD/t	42,50
Total USD per tonne of concentrate	**USD/t**	**100,89**
Concentrate produced – steady state		
Average dry tonnes of concentrate produced	tpm	1 720
Moisture Content	%	10%
Concentrate tonnes transported - wet	tpm	1 892
Total concentrate transport cost	USD/month	190 890
Total transport cost per tonne of wet concentrate	**USD/t**	**100,89**
Tonnes treated	tpm	20 000
Concentrate transport cost per tonne treated - USD	USD/t	9,54
Concentrate transport cost per tonne treated - ZAR	ZAR/t	180
Source: Prieska - Conc transport costs (Jan 2025) V8		

Deeps logistics

The Deeps Hypogene production will start ramping up while the Upper Levels is still in production so the two plants will be operating simultaneously for 16months, and the transport vendor will be loading three separate concentrates. Bulk cargo from Ngqura is in the region of USD26/tonne for based on current rates. When the Deeps production starts in 2028, rates have been estimated at USD30/t of concentrate and to account for possible increases into the future, USD35/t is estimated from 2032 onwards – in real terms.

The table below shows the estimated transport and logistics cost for the Deeps concentrates based on the average monthly steady state production. The overall logistics costs for the two shipping rates are USD8.57 and USD9.11 per tonne treated respectively (ZAR162/t and ZAR172/t) as shown in the table below.

Table 23: Transport logistics costs – Deeps concentrates.

Deeps - Hypogene	Units	USD30/t	USD35/t
Site loading + road transport to port		Cu & Zn	Cu & Zn
Road from site to Ngqura Port - bulk	ZAR/t	635	635
Port & ship loading costs - bulk	ZAR/t	235	235
General charges and agency fees	ZAR/t	10	10
Subtotal - transport to port	**ZAR/t**	**880**	**880**
Concentrate testing			
Sampling, moisture and assay/tonne of concentrate	ZAR/t	50	50
TML tests (2 x pa)/tonne of concentrate [1]	ZAR/t	0,04	0,04
Subtotal ZAR costs per tonne of concentrate	**ZAR/t**	**930**	**930**
FX	ZAR:USD	18,90	18,90
Subtotal USD per tonne of concentrate	**USD/t**	**49,21**	**49,21**
Shipping			
Bulk for Hypergene	USD/t	30	35
Total USD per tonne of concentrate	**USD/t**	**79,21**	**84,21**
Concentrate produced – monthly steady state			
Dry tonnes of concentrate produced	tpm	19 678	19 678
Moisture Content	%	10%	10%
Concentrate tonnes transported - wet	tpm	21 645	21 645
Total concentrate transport cost	USD/month	1 714 498	1 822 724
Total transport cost per tonne of wet concentrate	**USD/t**	**79,21**	**84,21**
Steady state tonnes treated	tpm	200 000	200 000
Concentrate transport cost per tonne treated - USD	USD/t	8,57	9,11
Concentrate transport cost per tonne treated - ZAR	ZAR/t	162	172
Source: Prieska - Conc transport costs (Jan 2025) V7			

[1] TML = Transportable Moisture Limit, the test to determine that concentrate moisture meets shipping specifications.

Dedicated staff in the PCZM team will provide the overall management of the sales process in conjunction with the transport logistics vendor.

Environment, Social and Governance

Orion has established a Sustainability Framework based on continual improvement and has laid the foundation of its sustainability journey through the identification of its priority United Nations Sustainable Development Goals (UN SDGs) which align with a future-proofing approach to protecting the environment, investment in host communities and commitments to economic development through maximising local employment and procurement.

All required environmental studies have been completed for PCZM and statutory environmental licensing has been concluded as shown below.

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Table 24: Environmental permitting – PCZM.

Environmental Permit	PCZM Mining Right	Vardocube Mining Right
Environmental Authorisation	Granted 3 July 2019 (correction issued 4 August 2020)	Granted 3 March 2020
Environmental Authorisation Amendment	Not Applicable	Granted 13 October 2021
Waste Management Licence	Granted 3 July 2019	Not Applicable
Integrated Water Use Licence Integrated Water Use Licence Amendment	3 August 2020 19 December 2023	Not Applicable
Land Rezoning to 'Extractive Industry'	Approved October 2020	Approved October 2020
SARAO Square Kilometre Array (SKA) Permitting	Compliant	Not Applicable

The SKA permit is related to Government satellite equipment (installed and to be installed) in the Northern Cape which is part of the international SKA project. The PCZM site is located close to the boundary of the zone of inclusion of the SKA designated area and therefore requires some of the mine's existing and planned electrical infrastructure to be permitted with SARAO, the applicable Government body.

Key amendments to the Water Use Licence have been approved, the remainder will be managed and reported on annually, including that for the Integrated Water and Waste Management Plan (IWWMP). Environmental Management Programs (EMPr) and financial provisions are in place for each mining right which form part of the approved Environmental Authorisations (EA) and ensure compliance with all in-country legal requirements including the National Environmental Management Act,1998 (NEMA) as well as the Equator Principles and International Finance Corporation Performance Standards. PCZM is to be developed targeting eventual achievement of a carbon neutral footprint for all metal produced.

Environmental site monitoring and external, legislated reporting systems are in place. This includes groundwater monitoring of boreholes drilled within the PCZM site and systematic alien vegetation management, mitigation or removal. Annual environmental audits and financial provision audits have been done by independent, external Environmental assessment Practitioners (EAP) and submitted to the authorities. Based on the PCZM Environmental Impact Assessment study, no animal, mammal, reptile or bird species are at significant risk within the PCZM licence area.

The historical TSF is subject to the closure certificate issued by the Department of Minerals and Energy Affairs for PCML in 1995. PCZM has measured elevated concentrations of sulphate adjacent to the historical TSF and will continue to report on the inherited contaminated groundwater quality in the annual update of the IWWMP, according to the monitoring requirements of the WUL.

Including the town of Prieska, there are four communities associated with PCZM with a total population of approximately 19,000 people. Community engagement has been underway since 2018 including the establishment of an active Stakeholder Engagement Forum to share information and discuss relevant strategies on PCZM with all local stakeholders. A Stakeholder workshop resulted in a commitment by all the participants to work towards aspirational targets of 50% host community employment, 30% host community procurement and 40% contracting opportunities at PCZM. A Task Team was set-up and made responsible for developing an implementation and monitoring plan to achieve the aspirational targets.

Following on from the original Social and Labour Plan (SLP) lodged with the Mining Right applications in 2018, a new detailed 'second cycle' SLP for the period 2025 – 2029 was developed following extensive consultation with host community stakeholders and was submitted for approval to the DMPR in November 2024. In total a budget of ZAR440 million has been allocated over the life of the mine for SLP expenditure.

Orion has won a number of awards in recognition of its ESG approach in the emerging and junior mining ESG categories at the Australian Down Under conference in Perth (2020, 2023, 2024) and the African Mining Indaba in Cape Town (2022).

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Health, Safety and Security

Provisions have been made for resources and budgets to comply with the regulatory requirements of the South African Mine Health and Safety (**MHS**) Act, 1996 and the Mineral and Petroleum Resources Development Act, 2002. A PCZM Mine Health and Safety Management System will be developed and implemented prior to the commencement of the Project. This will include regulatory medical surveillance which has been underway for a number of years at the site since various work activities started.

In terms of the MHS Act Chapter 2, the employer must prepare and implement a Code of Practice (CoP) on any matter affecting the health and safety of employees and other persons who may be directly affected by activities at the mine, which must comply with guidelines issued by the Chief Inspector of Mines. Since work has been taking place in the Upper Levels of the mine seventeen COP's have already been compiled and implemented by PCZM. Additional CoPs will be developed prior to the start of construction dealing with the relevant new activities and for the planned mining operations.

A Major Incident Recovery Plan has been developed to provide a clear and effective communications plan for the internal management of crisis situations. This will be reviewed and updated prior to the commencement of the construction phase.

Security systems will be provided at PCZM to ensure a safe and secure operating environment for the staff, contractors and visitors. The selected systems will protect the premises, physical assets and property as well as Orion's reputation. An Orion Group Security Adviser has been employed who continuously assesses and updates the security risk environment at the site an in the local community. Four layers to the security strategy have been laid out, being:

1. Prevention - physical barriers including, electrified fences, gates, signs, locks and turnstiles;
2. Detection – a central control room will provide monitoring and surveillance based on CCTV systems, drones, optical beams and alarm systems;
3. Control - guard patrols, emergency response, investigations, and operational management from the control room, and security advisory services; and
4. Mitigation - security risk and threats assessments will be conducted regularly to identify all potential risks and or sub-standard security related acts or conditions. These assessments will be conducted in consultation with all relevant parties and stakeholders and will be documented and communicated with the relevant role players.

During the construction phase the perimeter of the mining site will be fenced off. There will be a security checkpoint and entrance to the site for day to day personal and visitors. A second security checkpoint and entrance will be installed for vehicle access for materials and goods delivered to site and for the movement of concentrate off-site.

Risk Assessment

A risk workshop was held during the 2020 BFS where 103 risk items were tabled. The list has been reviewed and updated a number of times, more recently in September 2024 and February 2025. Following the latest review and after allowing for mitigating actions, the risks with a residual rating of Significant or higher have been highlighted as the top risk events to be managed and monitored as shown below. The remaining risks will undergo regular reviews and monitoring.

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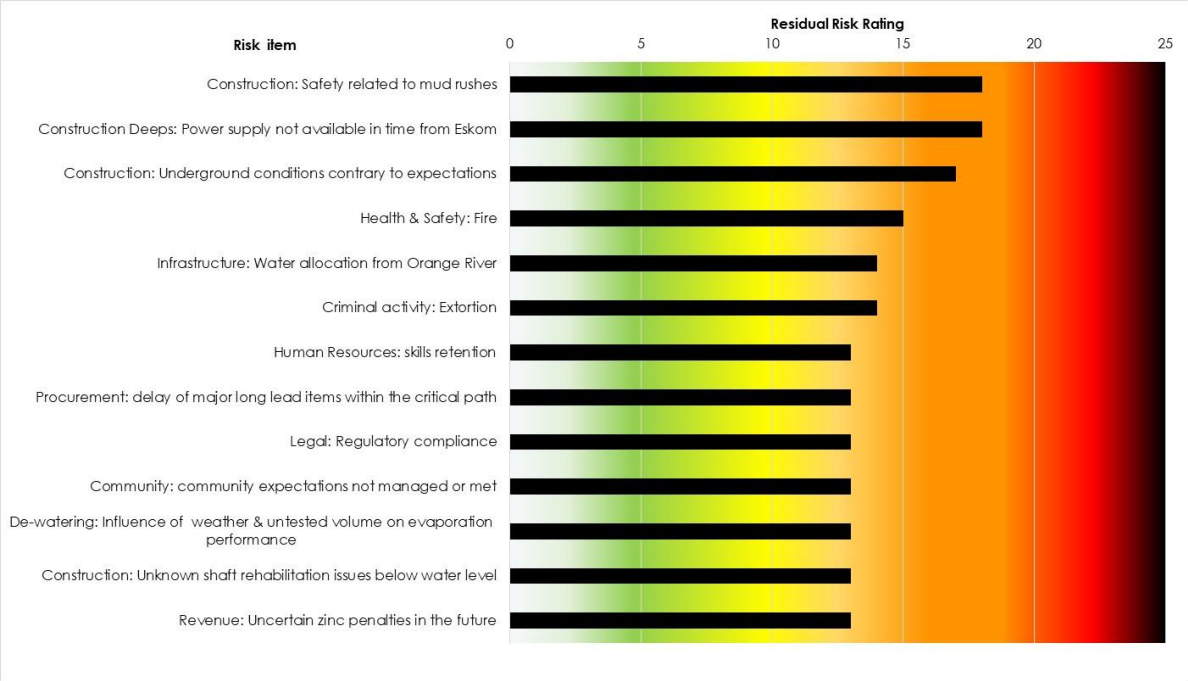

Figure 18: Risk assessment indicators.

The risks associated with structural failure and zone of influence of the TSF were assessed and allowing for mitigation, a risk rating of 12 (Medium) was assigned to the TSF. Increased geopolitical risk, with relation to the USA, has emerged as a potential risk, that needs to be considered in more detail. It is provisionally given a risk rating of 15 (Significant).

Execution & Operational Readiness

Execution strategy

The execution of the construction phase of the project is planned to be implemented by a combination of EPCM, EPC and Owner's Team led work packages. The following packages have been selected for EPCM contracts:

1. Deeps process plant;
2. Deeps paste-fill plant;
3. Site-wide electrical reticulation;
4. Shaft winders installation;
5. Deeps surface fans; and
6. Deeps Sewage plant.

One area of the project will be constructed under EPC (fixed price) contract arrangements:

1. The Upper Levels process plant using a BOOT methodology (build, operate, own and transfer).

Process guarantees will be included in both process plant construction contracts.

The remaining areas of the project will be managed by PCZM Owner's Teams using a combination of PCZM employees and specialised contractors with detailed design carried out by external consulting engineers, procurement by PCZM and QA/QC by external parties.

1. All general surface construction, e.g. offices, workshops, roads;
2. Shaft de-watering;
3. Shaft rehabilitation & equipping;
4. Bulk water – Prieska water works upgrade and pipeline;

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5. Surface water handling, the forced evaporators and related piping and pumping;
6. Underground construction;
7. TSF and related piping and pumping; and
8. Expansion of the existing on-site accommodation camp.

By increasing construction activities managed by the Owner's Team and reducing the reliance on EPCM contractors, this will decrease P&Gs costs and potential standing time claims as well as eliminating the EPCM contractor's profit margin in these selected areas.

The PCZM Project will be executed with the appropriate governance structures in place. In addition to the Project Execution Team shown in the organogram above, there will be a Steering Committee sponsored and chaired by the Orion Chief Operating Officer with executive and technical team representation. There will be a Steering Committee charter and terms of reference in place to ensure clear roles and responsibilities as well as delegation of authority specifically developed to suit the smooth running of a major capital project. The Steering Committee serves as an assurance function for the Project Execution Team who will regularly present the following:

1. Adherence to the execution strategy;
2. Safety, schedule, cost and quality metrics;
3. Risk updates;
4. Environmental compliance and community relations; and
5. Change management issues.

It is incumbent upon the Steering Committee to advise the Project Execution Team on potential external risks, required actions and preferential decisions if necessary. It is not the role of the Steering Committee to run the project.

A summary of the key schedule activities from project start-up to production from the Deeps processing plant is shown below.

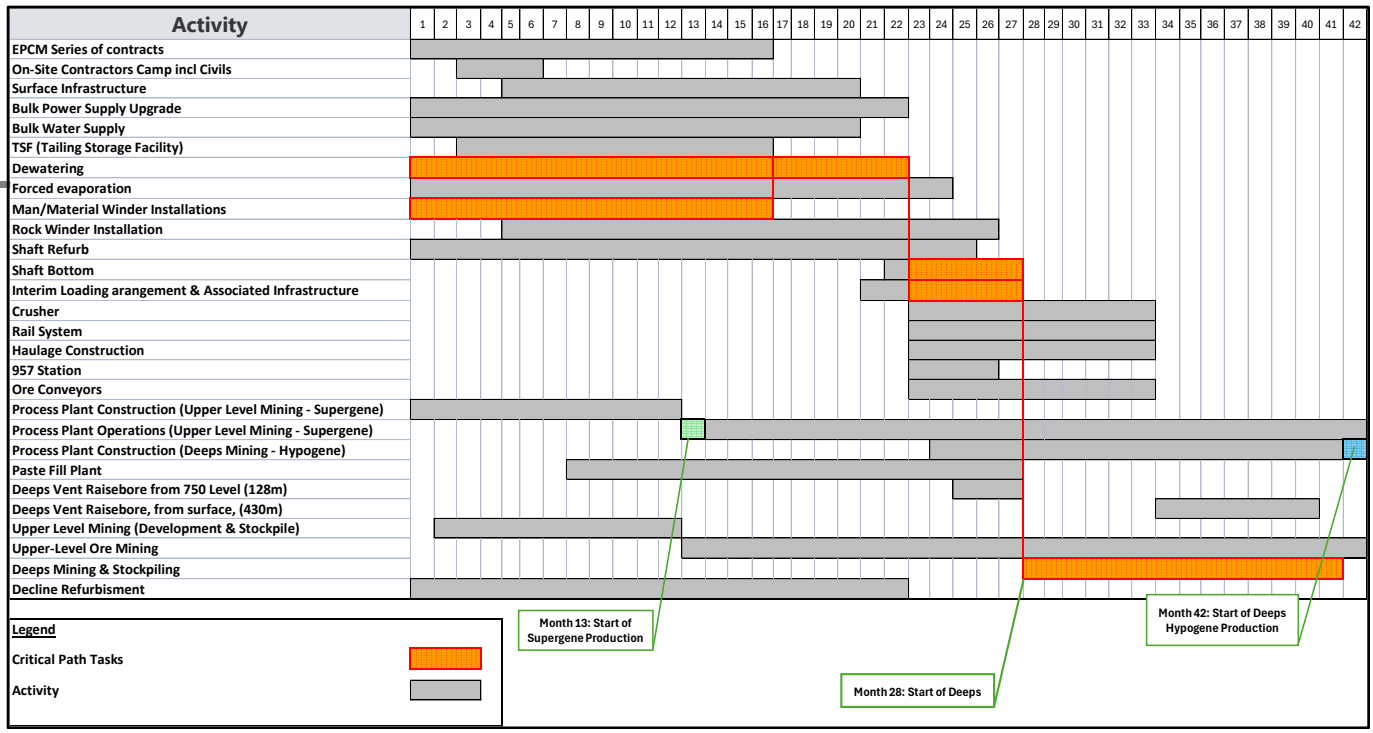

Figure 19: Project key activities – from start up to production.

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Following the release of the DFS, Front End Engineering Design (**FEED**) will take place in preparation for the anticipated construction phase. The main activities of the FEED phase are outlined below:

1. Design drawings will be advanced;
2. Capex estimates will be updated where necessary;
3. Update and refine the construction schedule;
4. Procurement packages will be defined with a procurement operating plan and planning for local procurement. Including a focus on long-lead items;
5. Additional owner's team members will be recruited;
6. Contracts prepared for EPC/EPCM contractors and external detailed design and QA/QC work;
7. Project management systems will be implemented;
8. Update the Risk Register;
9. Confirm concentrate transport and sales contracts; and
10. Start Operational Readiness planning.

The FEED phase will take place over a 6-month period while the funding is being finalised and will be managed by the existing Owner's Team.

The Operational Readiness plan is a key step in the preparation of moving from the construction phase to the operations phase. The following main items will be addressed during this phase:

1. The hiring and employing of labour and the various contractors required for the production phase, including planning for entry medical examinations, safety inductions, training and accommodation;
2. Ensure that the required statutory positions are recruited;
3. Ensure that all safety related and operating procedures are in place including mandatory Codes of Practice as stipulated in the Regulations of the Mine Health and Safety Act (1996);
4. Planning for the installation and implementation of the required management and accounting systems and IT, computer hardware and software packages;
5. Ensure that all relevant chemical and explosives data sheets are in place and the proper procedures for transport, storage and handling of these have been prepared;
6. Put operating strategies and procedures in place;
7. Ordering and procuring the relevant production equipment. Cognisance needs to be taken of long lead items so that these are delivered to site as per the planned schedule, underground mining fleet being a key example;
8. Ordering and procuring first fills, operational consumables and critical spares required for the production process and infrastructure;
9. Ensuring that process guarantees, and equipment warranty documentation is available and filed;
10. Ensure that all required security measures are in place, both from a personal perspective and for asset and product protection; and
11. Ensure that all required insurance policies are in place.

The construction Owner's Team structure is shown below outlining the four teams that will manage the EPCM/EPC contracts and the Owner lead work packages. This team will be supported by service departments including, HR, finance, environmental, ESG, legal and security.

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Orion COO					
PCZM Project Director & General Manager					
PCZM Engineering Manager					
Mining Engineer	Electrical engineer	Project controls manager	Safety Manager	Procurement manager	Contracts manager

Shaft Owners Team		Services Construction Owners Team		Process Plant Owners Team		UG Construction Owners Team	
Shaft engineer		Services Construction Engineer		Process Plant engineer		Underground engineer	
Safety Officer		Safety Officer		Safety Officer		Safety Officer	
Shaft project planner		Services project planner		EPCM/EPC plant planners		Underground project planner	
Mechanical foreman + artisans		Mechanical foreman + artisans		Mechanical foreman + artisans		Mechanical foreman + artisans	
EPCM	Owners Team	EPCM	Owners Team	EPCM	Owners Team	EPCM	Owners Team
Shaft man and rock winders installation	Shaft de-watering,	Upper Levels surface fans	Surface construction (roads, offices, change-house workshops, camp)	Deep plant	Surface water handling, forced evaporators + piping and pumping	- - - - - - -	Upper Levels mining
	Shaft rehabilitation & equipping	Deeps surface vent fans	Bulk water - Water works and pipeline upgrade	Deeps paste plant	TSF and related piping and pumping		Upper Levels back-fill plant
	Shaft pump stations	Sewage plant	Upper level suface vent fans		Engineering design + QA/QC		Deeps u/g construction (crusher, conveyors, rail, workshops)
	Winders rope installations		Engineering design + QA/QC	EPC	Procurement services		Deeps paste plant horizontal piping
	Paste plant shaft piping		Procurement services	Upper plant			Engineering design + QA/QC
	Engineering design + QA/QC						Mine planning
	Procurement services						Mining fleet commissioning
							Procurement services
Electrical foreman + artisans		Electrical foreman + artisans		Electrical foreman + artisans		Electrical foreman + artisans	
EPCM	Owners Team	EPCM	Owners Team	EPCM	Owners Team	EPCM	Owners Team
Shaft man and rock winders installation	Shaft de-watering	Bulk Power & Site-wide electrical reticulation	Surface construction	Deep plant	Surface water handling, evaporators + piping and pumping	- - - - - - -	Upper Levels mining
Deeps surface fans	Shaft rehabilitation & equipping	Deeps surface fans	Bulk water	Deeps paste plant	TSF and related piping and pumping		Upper Levels back-fill plant
C & I Shaft man and rock winders installation	Engineering design + QA/QC	Ventilation shaft raise-boring	Bulk water - Water works upgrade	EPC	Engineering design + QA/QC		Underground construction (crusher, conveyors, rail, workshops, electrical installations)
		Sewage plant	Engineering design + QA/QC	Upper plant			Engineering design + QA/QC
				C & I Foreman + tecnicians		C & I Foreman + tecnicians	
				EPCM	Owners Team	EPCM	Owners Team
				Deep plant	Surface water handling, evaporators + piping and pumping	- - - - - - -	Underground construction (crusher, conveyors, rail, workshops, electrical installations)
				Deeps paste plant	TSF and related piping and pumping		Engineering design + QA/QC
				EPC	Engineering design + QA/QC		
				Upper plant			

Figure 20: Organogram of the Owners Construction Team.

Currently, there are a number of legal appointments in place relevant to the level of work on-site. During the construction and operational phases, the further legal appointments will be put in place.

Project Funding

Orion is listed on the Australian Securities Exchange (ASX: ORN) and has a secondary listing on the Main Board of the Johannesburg Stock Exchange (JSE: ORN). Orion currently intends to fund the development of the Project by means of a combination of debt and equity.

Triple Flag Funding Arrangements

In December 2022, Orion signed definitive agreements with Triple Flag Precious Metals Corp. (TSX/NYSE: TFPM) (with its subsidiaries, **Triple Flag**) for a USD87 million (~AUD127 million) secured funding package for PCZM made up of a precious metals stream (Precious Metal Stream) and an additional early funding arrangement (**Funding Arrangement**) (refer ASX release13 December 2022). The Precious Metal Stream, which comprises USD80 million (~AUD117 million) of funding to be drawn down in tranches, alongside other bank and/or third-party funding during mine development, is conditional on the mine development being fully funded, finalisation of an executable mine plan to Triple Flag's satisfaction, South African regulatory approvals, and fulfilment of drawdown conditions standard for such arrangements. Triple Flag has also provided an additional AUD10 million (~USD7 million) Funding Arrangement, to complete the Early Mining Works FS and Dewatering Project which has been fully drawn down. Under each of the Precious Metal Stream and the Funding Arrangement, PCZM and other obligors has agreed to grant a first ranking security in favour of Triple Flag and the IDC over certain assets and claims related directly and indirectly to PCZM; after which the security in respect of the Precious Metal Stream will be subordinated to PCZM financiers on terms to be agreed in an intercreditor arrangement that is consistent with the principles set out in the Precious Metal Stream agreement.

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Opportunities

Key Project opportunities for future consideration include:

Mineral Resources Extension Potential

- Conversion of delineated Inferred Mineral Resources into Indicated Mineral Resource to upgrade the mining plan;
- Extensional exploration and 'out of resource' mineralisation that can possibly be converted in reported Mineral Resources;
- Near-mine and satellite exploration potential; and
- Remnant pillar extraction.

Mining Operations Opportunities

- Fleet Automation and Diesel versus Electric underground vehicles;
- Trade-off study between the planned rail transfer methodology and other appropriate alternatives; and
- Mine to Market Optimisation studies.

Ore Processing and By-products Opportunities

- Achieve or exceed historic plant performance increasing both metal recovery and concentrate grades;
- Cyanide Substitution potential;
- Advance studies to maximise water recovery from the TSF;
- Barite by-product recovery potential from run of mine (**RoM**) and tailings retreatment;
- Pyrite by product recovery from RoM and tailings retreatment; and
- Sorting of crushed ore to pre-concentrate mine head feed and reduce tonnes treated.

Mine Services and Infrastructure Opportunities

- Renewable energy power supply options.

For and on behalf of the Board.

Errol Smart
Managing Director & CEO

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Competent Person's Statements

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.

The information in this report that relates to Ore Reserves is based on information compiled under the supervision of Mr Ettienne Oosthuizen, a Competent Person who is a Member of the South African Institute of Mining and Metallurgy (SAIMM) and a Member of the Institute of Materials, Minerals and Mining (IMMM), an RPO. Mr Oosthuizen is an employee of A & B Global Mining (Pty) Ltd which consults to Orion. Mr Oosthuizen has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Oosthuizen consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Ore Reserves is based on information compiled with the support of Ms Vannessa Clark, a Competent Person who is a Member of the South African Council for Natural Scientific Professionals, Membership Number 400161/07, and a Fellow of the Geological Society of South Africa, Membership Number #FME965001, an RPO. Ms Clark is an employee of Practara (Pty) Ltd which consults to Orion. Ms Clark has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ms Clark consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the metallurgy and processing plant is based on information compiled under the supervision of Mr John Edwards, a Competent Person who is a Fellow of the South African Institute of Mining and Metallurgy (SAIMM), an RPO. Mr Edwards is an employee of METC Engineering Ltd, which provides consulting services to Orion. Mr Edwards has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Edwards consents to the inclusion in the report 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 (Supergene and Hypogene Sulphide) was reported in ASX/JSE Release of 28 March 2025 "Prieska Crown Pillar +105 Level Mineral Resource Update" 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 Supergene and Hypogene Sulphide Mineral Resources included in the original market announcement. Orion confirms that all material assumptions and technical parameters underpinning the Supergene and Hypogene Sulphide Mineral Resources in the ASX/JSE Release of 28 March 2025 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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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.

Disclaimer

This release may include forward-looking statements. Such forward-looking statements may include, among other things, statements regarding targets, estimates and assumptions in respect of metal production and prices, operating costs and results, capital expenditures, mineral reserves and mineral resources and anticipated grades and recovery rates, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. These forward-looking statements are based on management's expectations and beliefs concerning future events. Forward-looking statements inherently involve subjective judgement and analysis and are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Orion. Actual results and developments may vary materially from those expressed in this release. Given these uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. Orion makes no undertaking to subsequently update or revise the forward-looking statements made in this release to reflect events or circumstances after the date of this release. All information in respect of Exploration Results and other technical information should be read in conjunction with Competent Person Statements in this release (where applicable). To the maximum extent permitted by law, Orion and any of its related bodies corporate and affiliates and their officers, employees, agents, associates and advisers:

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- do not make any representation or warranty, express or implied, as to the accuracy, reliability or completeness of the information in this release, or likelihood of fulfilment of any forward-looking statement or any event or results expressed or implied in any forward-looking statement; and
- disclaim all responsibility and liability for these forward-looking statements (including, without limitation, liability for negligence).

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Appendix 1: The following JORC Table 1, sections 1–4 are provided in accordance with the JORC Code (2012) requirements for the reporting of Exploration Results, Mineral Resources and Ore Reserves for the Prieska Copper Zinc Mine Deep Sulphide Resource and the +105 Level Resource.

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code (2012) 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.	**Deep Sulphide:** Drilling and sampling has been undertaken during several distinct periods since the discovery of mineralisation. Drilling and sampling by Anglovaal Ltd (also known as the Anglovaal Group), (**Anglovaal**) was undertaken during two distinct periods since the discovery of mineralisation. These are pre-mine exploration (1968-1971) and during mine operations (1972-1984). Diamond drill holes by Anglovaal included "V", "D", "F", and "R" prefixed holes. R holes were grade control "ring" drill holes and records are only available for a limited area. • A total of 48 "V" surface exploration diamond holes were drilled comprising 31,589m between 1968 and 1982. • Data has been compiled for a total of 53 "D" underground diamond holes comprising 19,046m drilled between 1972 and 1984. • Data has been compiled for a total of 375 "F" underground diamond exploration and grade control holes comprising 45,446m drilled between 1972 and 1984. • Data has been compiled for a total of 195 "R" grade control holes comprising 2,418m drilled between 1972 and 1984. In 2017 diamond drilling and sampling was done on a Mining Right held by Prieska Copper Zinc Mine (Pty) Ltd (PCZM) (formerly Repli Trading No. 27 (Pty) Ltd), a subsidiary company of Orion Minerals Ltd (**Orion**). • A total of 41 diamond 'mother' diamond holes were drilled by Orion in 2017. • 30 of these holes were pre-collared with percussion drilling totalling 9,462m. • A total of 87 intersections were drilled. Diamond drilling for mother holes and deflections totalled 85,424m. **+105 Level:** 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, surface diamond drilling by Repli in 2012, and surface and underground diamond drilling and reverse circulation (RC) drilling by Orion (2017 to 2023). A total of 131 holes were drilled comprising 10,390m. • 12 surface diamond holes totalling 1,812m were drilled by Anglovaal

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Criteria	JORC Code (2012) Code explanation	Commentary
		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. **Anglovaal: Deep Sulphide:** • No records are available on the sampling methodology. • For diamond drilling between 1968 and 1984, exploration and resource management were carried out under the supervision of Anglovaal. It is considered by the Competent Person that there would be procedures in place to the industry best practice standard at that time. This is based on the Competent Person's knowledge of exploration carried out by Anglovaal and discussions with personnel employed by Anglovaal. • The Mineral Resource management was under the professional supervision of Dr Danie Krige an internationally recognised expert 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, and underground drill samples to the mine laboratory for analyses. **Orion: Deep Sulphide:** • Diamond drill core was geologically logged, and zones of mineralisation were identified and marked on the core. The core was marked for cutting using the "low point" of the stratigraphy, marking the downhole direction on each core piece to ensure that the cut core was returned to the tray correctly. Half core was sampled. Following cutting, the core was returned to the core tray. The sampling process was undertaken by a qualified geologist, who checked that all core was returned in the correct order by turning the core to face upward, fitting the core together and marking the metre intervals on the cut face. • The core sample intervals were marked with due consideration of the percentage of sulphide mineralisation, lithological contacts, and minimum and maximum sample intervals (nominally 50cm to 1.0m). The sampling details were captured onto a paper log sheet that records

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		sample depths, sample number (derived from a standardised sample register) recoveries, mineralisation percentage, sulphide minerals and mineralisation style. A comments field is used to capture ancillary observations or associations. • Percussion / reverse circulation pre-collars (where used) were sampled on a composite basis. • Sampling was carried out under supervision of a qualified geologist using procedures outlined below including industry standard QA/QC. • Samples were submitted for analysis to ALS Chemex (Pty) Ltd (**ALS**). Samples were pulverised in their entirety at ALS and split to obtain a 30g sample for digestion and analysis. • Downhole electromagnetic (**EM**) survey was carried out in selected drill holes using standard techniques. **Orion and Repli: +105 Level:** • 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 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: Deep Sulphide and +105 Level:** • All mineralised intersections were by core drilling. • BQ is recorded as the core size for V surface diamond drill holes. BX is recorded as the core size for underground D and F diamond drill holes. EX is recorded as the core size for underground R diamond drill holes.

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		• No record is available on core orientation. It is assumed the core was not oriented. **Orion: Deep Sulphide:** • Diamond core drilling was done using single tube NQ and BQ sized core. BQ core was only drilled where problems were encountered in the original NQ drilled drill hole and the drilling could not continue with NQ size. • In the near surface weathered zone HQ core was drilled. • Pre-collars were drilled using percussion drilling on certain holes (above mineralisation). • Core was oriented in holes selected for geotechnical studies. **Orion and Repli: +105 Level Resource:** • 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: Deep Sulphide and +105 Level Resource:** • All mineralised intersections were done with diamond core drilling. • Core recoveries were measured for each drill "run" and recorded on assay sheets. • In most V holes and all D and F holes, intersections were in hard rock and recoveries were generally good through the mineralisation. **Orion and Repli: Deeps Sulphide Resource:** • All mineralised intersections were done with core drilling. • Core stick-ups reflecting the depth of the drill hole were recorded at the 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. • Core recovery in all the mineralised intersections was good. • No grade variation with recovery was noted. **Orion and Repli: +105 Level Resource:** • Mineralised intersections were done with diamond core drilling and reverse circulation (RC).

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		• Core stick-ups reflecting the depth of the drill hole were recorded at the 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 for V surface holes have been logged and all of this information is available. It is understood from historical reports that all intersections for D and F holes were logged but not all of this information is currently available. It is the opinion of the competent person that while not all logging information is available for D and F holes, the historical logging information that is available, together with the information from the Orion drill holes provides a good understanding of the geology in order to make a robust interpretation. • Downhole geotechnical information is available for some of the D and F holes only. Downhole mineralogical logs are available for some D and F holes. • For D and F drill holes, downhole logs are available for 388 holes comprising 60,744m out of 428 holes comprising 64,492m, or 94%. **Orion and Repli:** • Pre-collar percussion holes were logged on 1m intervals using visual inspection of washed drill chips. A handheld XRF instrument was used to determine the presence of any metals. • RC drill chips were logged on 1m intervals using visual inspection of

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		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 detail 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. • 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. • While no planned twin holes were drilled, some Orion holes intersected mineralisation in close proximity to historical holes. The widths of the mineralisation and the grade distribution showed a reasonable correlation. **Orion:** • Samples from percussion pre-collars were collected by spear sampling. • Sampling on site were aimed to generate a < 2kg sub sample to enable the entire sample to be pulverised without further splitting. • Water was used in the dust depression process during percussion drilling, resulting in some wet chip samples. • 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. For the +105 Block, 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

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		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 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.*	**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. • Underground drill hole samples were sent to the mine laboratory, where the same analytical method was used. • 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. 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: Deep Sulphide Resource:** • Samples were submitted to ALS and analysed for base metals, Au and Ag. Analysis was by the Inductively Coupled Plasma and Optical Emission Spectroscopy ("ICP-OES") methodology. Initially a three-acid digest was used but since November 2018 an Aqua-regia digest was used. • Certified Reference Material (CRM), blanks and duplicates were inserted and analysed with each batch. Blanks were inserted at the beginning and end of each batch as well as within the mineralised zone of each drill hole. CRM was inserted to correspond more or less with low, medium or high-grade mineralised zones. Insertion rates for the current reporting was: CRM = 10%, blanks = 5%, and pulp repeat duplicates = 3.9%. • ALS has their own internal QA/QC protocols which includes CRM's (5%), blanks (2.5%) and pulp duplicates (2.5%). • CRM samples showed high accuracy and tight precision with no consistent bias. • Blank samples indicated no contamination within the pre-determined thresholds, during the sample preparation process. • Laboratory pulp sample duplicates showed excellent accuracy and precision. • External laboratory checks by Genalyses showed excellent repeatability

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		with the primary laboratory. • Down hole EM surveys were carried out in selected holes, using a 3 component Digi-Atlantis probe and ultra-high power transmitter. • A loop size of 1800m x 600m was used with continuous measurements taken as the probe travels into the hole and out again. • Surface TDEM surveys were carried out using a Supracon Jesse Beep squid sensor and ultra-high-power transmitter with a Smartem 24 receiver. **Orion and Repli: +105 Level Resource:** • 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 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*	**Anglovaal:** • No records are available on the verification of significant intersections. • Orion drilled twin holes to verify historical drill intersections from Anglovaal.

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	verification, data storage (physical and electronic) protocols. • *Discuss any adjustment to assay data.*	The Competent Person is satisfied with the quality of the historical drilling data, based on the results of a comparative analysis between historical Anglovaal and recent Orion drilling and sampling data. There is reasonable compatibility between the histograms. • Examples of twin holes are detailed in ASX/JSE release on 17 July 2017. For example, OCOD048 successfully twinned F2007 (historical underground hole) with intersections approximately 8m apart. Comparable widths and grades were reported for both holes. • No adjustments have been made to the assay data. **Orion: Deep Sulphide Resource:** • Orion's Executive (Exploration) personally supervised the drilling and sampling along with a team of experienced geologists. • The Executive (Exploration) reviewed the raw laboratory data and confirmed the estimation of the significant intersections. • Data entry from the primary hard copies was done on Excel spreadsheets by the geologists logging the core. The data was then imported into an 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 imported the data into the modelling software. • All drilling data was transferred to a secure Geobank™ database. Data was subsequently migrated into DataShed™ in 2024. • For the EM survey, data was collected on site and validated by a geophysical technician daily. Data (raw and processed) was sent to a consultant geophysicist for review, quality control and processing. • No adjustments have been made to the assay data. **Orion and Repli: +105 Level Resource:** • 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.

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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 and underground 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 holes and all of the D and F 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. • Underground D and F holes are recorded in local "V" line and "O" distance coordinates with local mine datum elevations. Level plans have both the local V/O grid and Lo23 Clark 1880 grids plotted and this has been used to define transformation parameters from local grid to geographical coordinates. All hole positions have been converted to WG23 WGS84 coordinates (South African Grid or Hartebeesthoek 94). **Orion and Repli:** • Drill hole collar positions were laid out using a handheld GPS. • 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 holes (V) were drilled on a 200 - 250 m spacing. • Underground drilled holes (D, F and R) were not drilled on a regular spaced grid. **Orion: Deep Sulphide Resource & Reserve:** • At the Deep Sulphide Target drill holes were initially aimed to intersect mineralisation on approximately 100m x 100m spacing with infill drilling to be carried out in areas of interest as determined by results. In specific areas the drill density was increased to improve the level of confidence of

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		the Mineral Resource. • Variography studies were carried out to guide the drill spacing for Mineral Resource estimates. The combined Orion 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. **Orion and Repli: +105 Level Resource & Reserve:** • 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. • 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.

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		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 excellent precision and no obvious bias when comparing with the original relative densities that were carried out using the spray lacquer method. • Core from the Deep Sulphide Target and 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).

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Section 2 Reporting of Exploration Results

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

Criteria	JORC Code (2012) 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 (PCZM) Mining Right was granted on 23 August 2019 (re-granted on 4 December 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 which is entering its second 5-year cycle. • 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 Mining 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. • Vardocube is 100% held by PCZM and the Vardocube Mining Right is

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		therefore held at the same 70:20:5:5 ratio as the PCZM Mining Right. • The combined right areas covers a strike length of 2,460m for the Deep Sulphide mineralisation. • All of the required shaft infrastructure and lateral access underground development is available within the area of the two rights. • The mining rights covers the complete known strike of the Deep Sulphide Resource. • The PCZM 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 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. • Current drilling indicates that the Deep Sulphide Target has a strike length of at least 2,460m at depth. • The thickness of the mineralised zone exceeds 30m in places but averages between 7m and 9m. The mineralised zone persists to a depth of 1,100m (as deep as 1,228m in one section) after which it is upturned due to folding. • The Deep Sulphide Target area is located below the historically mined area. It comprises the steep down dip continuity ("steep limb and hinge zone") from where it upturns to its subsequent synformal structure ("trough

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		zone"). • The morphology of the mineralised horizon in the eastern limb is well mapped out by drilling and historical mining while the western limb up dip extent is poorly tested and mapped. • 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. From 0 to 50m is the oxide resource portion of the +105 Block and the leach zone below this. • 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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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 Deep Sulphide and +105 Block Mineral Resource estimation were reported in the ASX releases of 16 July 2018 and 18 November 2015. **Orion and Repli:** • All drill hole intersections used in the Deep Sulphide Mineral Resource estimation have been reported in the ASX releases of 5 November 2018, 15 October 2018, 18 September 2018, 16 July 2018, 19 February 2018, 1 February 2018, 12 December 2017, 8 November 2017, 9 October 2017, 5 October 2017, 17 September 2017, 6 September 2017, 27 July 2017, 17 July 2017. • All drill hole intersections used in the +105 Mineral Resource estimation have been reported in the ASX/JSE releases of 11 July 2022 and 28 March 2025. • Other relevant diagrams have been included in the abovementioned ASX releases relating to the drilling results at PCZM. • All drilling information is available and has been compiled digitally. • A summary of the drill hole collar information related to the Deep Sulphide and +105 Level Mineral Resource reporting has been provided in the above mentioned ASX releases.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade*	**No new Exploration Results are reported in this report.** **Anglovaal:** • Individual intersections were weighted by sample width.

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	results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*
		• No truncations have been applied.
		• 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 Deep 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.
		• 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.
		• Significant intersections for the +105 Level Oxide 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 of each sample.
		• No truncations have been applied.
		• Metal equivalents have been reported for the Deeps LoM plan and Ore Reserves reported in this release. The CuEq (%) was determined based on the following:
		  ○ Orion considers that both Cu and Zn have a reasonable potential to be recovered and sold from the Deeps deposit.
		  ○ Individual Cu and Zn grades as presented in the relevant tables with the CuEq values
		  ○ Assumed commodity prices of USD8,900/t Cu and USD2,450/t Zn based on consensus pricing.
		  ○ Net smelter returns (**NSRs**) of 101.3% and 69.7% for Cu and Zn, respectively.
		  ○ The following calculation formula:
		  ○ CuEq (%) = Cu (%) + (0.185 x Zn (%))
		Based on 1% Zn $= \frac{(\text{Zn price x Zn NSR}) \text{ x } (\text{Zn plant recovery})}{(\text{Cu price x Cu NSR}) \text{ x } (\text{Cu plant recovery})}$
		$= \frac{(2{,}450 \text{ x } 69.7\%) \text{ x } (82.1\%)}{(8{,}900 \text{ x } 101.3\%)\ (85.8\%)} = 0.185\%$ Cu

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').*	**No new Exploration Results are reported in this report.** • 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. • The geometry of the Deep Sulphide mineralisation is complex, and true widths can be obtained from the three-dimensional wireframe created 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*	• All drill hole intersections used in the Deep Sulphide Mineral Resource estimation have been reported in the ASX releases of 5 November 2018, 15 October 2018, 18 September 2018, 16 July 2018, 19 February 2018, 1

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	hole collar locations and appropriate sectional views.	February 2018, 12 December 2017, 8 November 2017, 9 October 2017, 5 October 2017, 17 September 2017, 6 September 2017, 27 July 2017, 17 July 2017. 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 PCZM. • All drill hole intersections used in the +105 Supergene Sulphide and Oxide Mineral Resource estimation have been reported in the ASX release of 11 July 2022 and 28 March 2025.
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.*	**No new Exploration Results are reported in this report.** • 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 relevant available information in this report in a balanced manner and has provided appropriate context to allow a considered and balanced judgement.
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% 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 Deep Sulphide and +105 Target areas and the data is available. This is described further in Section 4. • Comprehensive metallurgical test work as part of the DFS has been completed on the Deep Sulphide and +105 Target areas and the data is available. This is described further in Sections 3 and 4. • Relevant diagrams have been included in previous ASX releases relating to drilling at PCZM.
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.*	• Drilling of defined potential extensions to the Deeps Sulphide Mineral Resource has been planned from underground cubbies as soon as the mine is dewatered and requisite services are provided. • 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 (2012) 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.*
		The reported Mineral Resources comprise three phases of work:
		• The Deep Sulphide Mineral Resource was updated and included in an ASX release on 18 December 2018.
		• The +105 Mineral Resource comprising the Oxide, Leach, Supergene Sulphide and remnant Hypogene zones was updated and included in an ASX release on 25 July 2023.
		• The Supergene Sulphide and Remnant Hypogene areas of the +105 Mineral Resource was reinterpreted and the Mineral Resource updated and included in an ASX release on 28 March 2025.
		• 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 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***) were requested by Orion to estimate and classify a Mineral Resource for the Deep Sulphide deposit. Z* visited the PCZM from 17 to 19 October 2017. • The visit included a review of the drilling and sampling operations, discussion on the geology and associated mineralisation, review of the planned drill holes and examination of the assay data and a high level spatial analysis. • Z* Star subsequently updated the Mineral Resources for the +105 Target in 2019, 2023 and 2025.

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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.*
		Deep Sulphide Resource:
		• The Deep Sulphide mineralisation is the depth extension of the strata-bound, stratiform VMS Prieska Cu-Zn deposit and is hosted by the 3km thick Copperton Formation of the Areachap Group. The massive sulphide mineralisation is characterised by abundant rounded fragments of gangue material of various sizes contained in a matrix of sulphide minerals. The gangue includes fragments of both hangingwall and footwall material.
		• No clear metal zonation is evident from the modelling. High Cu areas are generally not in the same place as the high Zn (with a few exceptions).
		• Geological data and conclusions reached were based on observations made in drill core from the Orion 2017 drilling and sampling program.
		• Like many other VMS deposits, domaining for estimation is not possible using solely the geology, and the best method is therefore to utilise the assay data.
		• There is a sharp decrease in the Zn and Cu grades on the boundary of the massive sulphide unit. For the construction of the wireframes, a Zn equivalent cut-off of 3.0% (Zn Eq = Zn% + (Cu%*2) for the mineralised zones was used. The Zn_Eq cut-off was used a guide for modelling rather than a strict threshold.
		
		+105 Level Resource:
		• The +105m Level resource 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 second (clay/leach zone), are considered as being suitable for inclusion as part of the Mineral Resource. The Oxide and HW Oxide are referred to as the Oxide Zone. The Supergene Sulphide, Mixed and Hypogene zones are collectively referred to as the Supergene Sulphide & Hypogene Zone.

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		• 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 remodelled in 2025 for a Mineral Resource update (announced on 28 March 2025). This remodelling separated 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. • In the NW part of the deposit, mineralisation occurs in two lenses, the main crown pillar mineralisation and a HW zone. It is unclear whether this HW zone is stacked mineralisation formed during deposition or a structural duplication due to thrusting or isoclinal folding and will be investigated with detailed grade control drilling in the operational phase. The upper lens does not appear to have depth extent and is part of the oxide zone. It merges with the main crown pillar mineralisation towards the southeast. • Surfaces representing the bottoms of the Oxide Zone, the Leach Zone and the Supergene Sulphide Zone were interpreted and modelled from drill hole data. A bottom of overburden was created 3m below the topographic surface. 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 Oxide and Supergene Sulphide & Hypogene zones 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.*	**Deep Sulphide Resource:** • Within the Mining Right areas, the strike length of the mineralisation is 2,460m, its horizontal width varies from 410m to 870m and the down dip extent is 1,228m below shaft collar. The true thickness of the orebody varies between <1m to 30m with an average of 7m. **+105 Level 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 3m and to the lower limits from 100m to 120m below surface. • The thickness of the mineralised zone varies from 1.5m to 23m.

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Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters, and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*
	• *The assumptions made regarding recovery of by-products.*
	• *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).*
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*
	• *Any assumptions behind modelling of selective mining units.*
	• *Any assumptions about correlation between variables.*
	• *Description of how the geological interpretation was used to control the resource estimates.*
	• *Discussion of basis for using or not using grade cutting or capping.*
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*
		Deep Sulphide Resource:
		• The estimation of the Deep Sulphides included the following steps:
		  ○ The creation of a wireframe model for the Deep Sulphide target using a 3.0% Zn equivalent cut-off as a guide. In addition, the lithology was utilised;
		  ○ Data validation and selection of samples within the Deep Sulphide target and analysis of the variables to be estimated, i.e. Cu%, Zn%, and SG;
		  ○ Exploratory Data Analysis (EDA) that included:
		  ○ Compositing the data to 1m;
		  ○ Capping four Cu% outliers and no capping of Zn% values; an
		  ○ Exclusion of two samples with extreme lengths.
		  ○ Creation of a suitable block model with estimation blocks (30m x 30m x 5m) and with sub-cells of 0.5m x 0.5m x 0.5m;
		  ○ A spatial analysis of estimation variables followed by a neighbourhood analysis taking cognisance of the folding;
		  ○ Estimation using an appropriate method and modelled parameters, i.e. Ordinary kriging for local block estimation supplemented by zonal estimation;
		  ○ Validation of block estimates including statistical and visual methods as well as comparison with the results of a second method (moving average); and
		  ○ The software used for estimation was Isatis™.
		• Orion declared a Mineral Resource for the Deep Sulphide target on the Repli and Vardocube Prospecting Rights on 8 February 2018 and 9 April 2018, respectively.
		• There are no previous mine production plans for the Deep Sulphide target.
		• The deposit was mined between 1972 and 1991 by Anglovaal and is reported to have milled a total of 45.68 Mt of ore at a grade of 1.11% Cu and 2.62% zinc, recovering 0.43 Mt of copper and 1.01 Mt of Zn. The current Deep Sulphide Mineral Resource grade is 1.2% Cu and 3.8% Zn.
		• No assumptions have been made regarding the recovery of by-products.
		• No deleterious elements or non-grade variables were estimated.
		
		+105 Level Resource: Oxide and Leach Zones:
		
		• Density weighting is standard practice for VMS deposits. However, in the Oxide zone 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.
		• Five Cu and two Zn assays were capped in the Oxide Zone.
		• Datamine™ was utilised to create a block model and measure individual

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		block volumes within each zone and these data were imported into IsatisTM for further analysis. • The Oxide and Leach 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. • No deleterious elements or non-grade variables were estimated. • A block model was created to allow estimation into 40m x 40m x 5m blocks with sub-cells of 1m x 1m x 1m. • Ordinary kriging (**OK**) was undertaken on all variables on a 40m x 40m x 5m 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 Oxide 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 IsatisTM using a moving average interpolator. • For the Oxide domain, neighbourhood analysis resulted in an optimum search neighbourhood of 100m x 4m 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. 51% 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 Oxide Zones is reported independently in the Mineral Resource statement. **+105 Level Resource: Supergene Sulphide and Hypogene Zones:** • 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

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		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. • 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 Zones, 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 IsatisTM 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

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		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.*	**Deep Sulphide Resource:** • The Deep Sulphide Mineral Resource is declared at a zero cut-off but using a wireframe that mostly excludes sample values below a 3% Zn equivalent. • The cut-off was on the recommendation of Orion's Chief previous Operating Officer. Walter Shamu, which is based on historical data from the Prieska Mine and a dataset of parameters from similar operations in the region. **+105 Level Resource: Oxide and Leach Zones:** • The Mineral Resource is reported above a cut-off of 0.3% Cu which corresponds with the wireframe modelling. • The cut-off is based on historical data from the Prieska Mine and a dataset of parameters from similar operations in the region. **+105 Level Resource: Supergene Sulphide and Hypogene Zones:** • 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.
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.*	**Deep Sulphide Resource:** • The minimum thickness is based on long hole open stope and drift and fill mining methods. **+105 Level Resource:** • A mine design for the supergene sulphide and hypogene zones incorporating long hole open stoping forms the basis of the DFS. Further details can be found in Section 4.
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*	**Deep Sulphide Resource:** • The 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% 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

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	with an explanation of the basis of the metallurgical assumptions made.	concentrates as well as amounts of silver and gold were recovered. • The production process utilised differential flotation to produce both copper and zinc concentrates. During its 20 years of operation, the average performance was as follows: o Flotation Feed Grind ~ 70% passing 75 microns; o RoM grades ~ 1.11% Cu and 2.62% Zn; o Copper concentrate grade ~28.6% Cu; o Copper recovery to copper concentrate ~84.9%; o Zinc concentrate grade ~ 52,7% Zn; o Zinc recovery to zinc concentrate ~84.3%; o Pyrite concentrate ~ >50% S (was only produced on demand); o Gold in copper concentrate ~ 2.8 g/t; o Silver in copper concentrate ~ 57 g/t. • Orion's metallurgical test work on the Deep Sulphide mineralisation has revealed good concentrate recoveries, similar to those reported for the historical Anglovaal operation. • Metallurgical test work for the 2020 BFS study was completed at Mintek, South Africa, between 2017 and 2019. Mineralogical studies have shown that the mineral composition closely resembles that of historical operations. The historical flowsheet was maintained during the test work. The testwork performance was as follows: o Flotation Feed Grind ~ 70% passing 75 microns; o Copper concentrate grade ~ 20% to 26 % Cu; o Copper recovery to copper concentrate ~ 82% to 90%; o Zinc concentrate grade ~ 48% to 52% Zn; o Zinc recovery to zinc concentrate ~ 84% to 90%. • The 2020 BFS study test work parameters guided the 2025 plant design, utilising proven technologies alongside advancements in equipment that improved the traditional flowsheet. • Additional metallurgical test work was carried out as part of the DFS-25 and is described further in Section 4. **+105 Level Resource:** • Metallurgical test work indicated that a separate copper and zinc concentrate of the supergene sulphide mineralisation is achievable. • Mixed oxide, supergene and hypogene sulphide ore (including from the +105 mineralised zone), was successfully treated by Prieska Copper Mine during the 1980s, using froth flotation to produce separate copper and zinc concentrates. Metallurgical tests on supergene sulphide mineralisation at the Brisbane Metallurgical Laboratory indicated the potential for producing a bulk concentrate. A simpler non-cyanide bulk concentrate flow sheet was proposed. o Feed grind ~ 80% passing 75 microns; o Concentrate Grade >20.5% Cu; o Copper recovery >85%;

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		○ Mass pull to concentrate ~ 10 – 12.5 % m/m; ○ Feed Cu : Zn ratio be controlled above 1. • The above parameters guided the 2025 plant design, utilising established technology. • 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. • Test work of the oxide mineralisation however was limited but unsuccessful. The oxide mineralisation has a reasonable prospect for eventual economic extraction (RPEEE) as it occurs close to the surface and treatment of this type of ore by means of leaching is well known in the industry.
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.*	**Deep Sulphide Resource:** • The Deep Sulphide Resource is on the environmental footprint of the historical Prieska Copper Mine site. **+105 Level Resource:** • 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.*	**Deep Sulphide Resource:** • Bulk densities (**BD** t/m^3) were determined using the water displacement method. The entire sample (normally 1m length) was measured. Cognisance of the change in lithology was taken in the selection of samples for bulk density measurements. • No moisture content was determined. • Local block estimates of BD t/m^3 were produced using Ordinary kriging within the mineralised wireframe. A second pass with longer search radii was utilised to populate the remaining blocks. The tonnage per block was determined using the volume (as per the wireframe model) and the BD on a block by block basis. **+105 Level Resource: Oxide and Leach Zones:** • Due to the poor core recoveries, the density data in the Oxide Zone is sparse with only 48 samples available. • 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. • No moisture content was determined. • Core is mostly weathered in the Oxide Zone with obvious core loss. The representative samples selected for density measurement were sprayed with a clear lacquer spray and allowed to dry prior to being weighed.

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		• Comparisons were done for using the wax relative density method versus the lacquer spray. The results showed excellent precision and no obvious bias when comparing with the original relative densities. The Competent Person is satisfied that the bulk density measurements are representative. • The bulk density in the Oxide Zone was estimated using OK. **+105 Level Resource: Supergene Sulphide and Hypogene Zones:** • 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 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.*	**Deep Sulphide Resource:** • The classification of the Deep Sulphide Mineral Resource takes cognisance of the uncertainty associated with the geology with the focus being on the definition of the mineralised domain and therefore the volume estimate. The classification also takes cognisance of the fact that there is more than one drilling and sampling program, and the historical Anglovaal data has a lack of available supporting documentation. • A further important consideration is the methodology used to estimate Cu%, Zn%, and BD t/m^3 and an assessment of the results (refer to discussion of relative accuracy and confidence below). In particular the Slope of Regression (SOR), the Kriging Efficiency (KE) and the drilling density were utilised to identify blocks of lower levels of uncertainty. • The Deep Sulphide Resource is classified at an Indicated and an Inferred level of confidence. • The results conform to the view of the Competent Persons. **+105 Level Resource: Oxide and Leach Zones:** • 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 Resource - the geological model is defined to a reasonable level and there is sufficiently accurate data to produce

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		local block estimates using OK, albeit there is a limited number of samples in some areas, especially in the southeast where surface drilling access was restricted by the presence of sinkholes. • There is a high level of uncertainty associated with the zonal estimation of density due to a low number of samples (and a possible bias in the methodology) as well as possible inaccuracies associated with core loss. Two collapse zones (related to collapse in the sinkhole) have been interpreted up-dip based on drilling information from the Supergene Sulphide zone. • The results conform to the view of the Competent Person. **+105 Level Resource: Supergene Sulphide and Hypogene Zones:** • 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 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.*	**Deep Sulphide Resource:** • SRK carried out a review on the Deep Sulphide Mineral Resource Estimate. According to the Competent Person all queries were adequately addressed and none were considered to be of material significance to the Mineral Resource estimate. **+105 Level Resource: Oxide and Leach Zones:** • 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. **+105 Level Resource: Supergene Sulphide and Hypogene Zones:** • To date the Mineral Resource estimate has only been reviewed internally

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Criteria	JORC Code (2012) Code explanation	Commentary
		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.*	**Deep Sulphide Resource:** • The Deep Sulphide target was originally modelled on the historical Anglovaal drilling only. It is important to recognise that the Orion holes that targeted this Deep Sulphide deposit intersected the mineralised zone at the expected depths. The Orion holes have not altered the shape of the original Deep Sulphide deposit significantly. The compatibility of the two drilling campaigns thus adds considerable support in terms of including the Anglovaal drilling. • The results of a comparative analysis between historical Anglovaal and recent Orion drilling and sampling data do not justify the exclusion of the historical data. There is a reasonable compatibility between the histograms (despite a significant difference in the number of assays). • In general, the variogram models for Cu% and Zn% for both Anglovaal and Orion data compare very favourably. • Final estimates for all variables 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 is available. **+105 Level Resource: Oxide and Leach Zones:** • Final estimates for all variables 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. **+105 Level Resource: Supergene Sulphide and Hypogene Zones:** • Final estimates for all variables in both zones were validated by comparing

Criteria	JORC Code (2012) Code explanation	Commentary
		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.

Section 4 Estimation and Reporting of Ore Reserves – Upper Levels

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code (2012) explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The Upper Levels Ore Reserve estimate is based on the +105 Level Mineral Resource estimates for the Supergene Sulphide + Hypogene zones (Table 6), classified and reported in accordance with the JORC Code (2012) in ASX/JSE release 28 March 2025. • At a 0.3% Cu cut-off, the total Supergene and Hypogene Resource stands at 1.21 million tonnes (Mt), grading 2.55% Cu and 2.09% Zn, equating to 30,800 tonnes of contained copper and 25,300 tonnes of contained zinc. The Mineral Resources are reported inclusive of the Ore Reserves **Tonnes are rounded to second significant figure, which may result in rounding errors.** **+105 Level Resource: Supergene Sulphide and Hypogene Zones:** • 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. • The Ore Reserve estimate is based solely on Indicated Mineral Resources. Inferred Resources have been considered in the LoM plan but are excluded from the Ore Reserve estimation.
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.*	• The site visit to the Prieska Copper Zinc Mine (PCZM) was conducted from Sunday, 16 February to Tuesday, 18 February 2025, with the primary objective of performing a Competent Person (CP) confirmatory assessment. Mrs Vannessa Clark (*Pr. Sci. Nat. No. 400161/07*) and Mr Ivan Lister, independent consultants form Practara (Pty) Ltd, conducted the visit with the focus to validate key technical aspects related to Reserve conversion, ensuring that all critical elements influencing the mine's development, geotechnical stability, and operational feasibility are well

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Criteria	JORC Code (2012) explanation	Commentary
		understood and accounted for. o Geology & Exploration: Drilling aligns with best practices, with robust geological data supporting confident reserve conversion. o Geotechnical Stability: Rock mass conditions are stable, with potential for mine design optimisation. Sinkholes are well-managed, and excavations remain secure over time. o Mining & Infrastructure: Underground conditions are competent, dewatering is well-managed, and the main shaft is structurally sound for refurbishment, enabling a rapid transition to execution. o Surface Infrastructure: Existing facilities are in good condition, with ample space and logical reuse of infrastructure optimising capital efficiency and project timelines. o Dewatering & Critical Path: Dewatering is the primary critical factor, with planned capacity increases ensuring operational flexibility and long-term sustainability. o Environmental & Social: No major environmental concerns exist, but proactive community engagement will be key to leveraging economic benefits for the region. o Execution Readiness: The project is well-positioned for fast-track development, benefiting from established infrastructure, a capable site team, and reduced lead times compared to a greenfield project. The focus remains on optimising mine design, maintaining dewatering progress, and strengthening community partnerships. • The findings confirmed that execution on this project is viable, and that the existing infrastructure provides a substantial advantage over a typical greenfield development.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• The Upper Levels Upper Levels Ore Reserve has been reported based on the Uppers level study completed for the 2025 PCZM Feasibility Study, building upon the PCZM BFS-20. • Updates include geotechnical assessments, a revised mine plan, and updated processing design. • Trial mining results confirmed stable conditions, allowing for finalisation of the mine design. • Execution has shifted from EPCM-only to a hybrid Owner-led and EPCM approach. • The 2025 Feasibility Study has considered all material Modifying Factors and has determined a mine plan that is technically achievable and economically viable.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• The Ore Reserves uses a 0.7% cut-off as explained in the Breakeven grade section in the Uppers chapter. • The NSR values are determined based on copper and zinc grades, with higher-grade concentrates treated under different economic models

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Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).*
	• *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.*
	• *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.*
	• *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).*
	• *The mining dilution factors used.*
	• *The mining recovery factors used.*
	• *Any minimum mining widths used.*
	• *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.*
	• *The infrastructure requirements of the selected mining methods.*
		Method and Assumptions for Converting Mineral Resource to Ore Reserve
		• The Mineral Resource at the Prieska Copper Zinc Mine (PCZM) has been converted to Ore Reserves through a detailed DFS approach. This involved the application of modifying factors identified via extensive geotechnical, mining, metallurgical, environmental, hydrological, and socio-economic studies. Long Hole Open Stoping (LHOS), with paste fill and drift-and-fill mining methodologies, has been optimised specifically to ensure technical feasibility and economic viability of extraction for the supergene and hypogene zones.
		
		Mining Methodology
		• Geotechnical conditions encountered during trial mining have demonstrated that previous concerns regarding weak ground conditions, particularly within the supergene zones, were overstated.
		• Trial mining confirmed stable conditions and competent rock masses, with ground support designed based on a pattern of 1.5m x 1.5m using 1.8m resin-grouted split sets complemented by welded mesh and shotcrete for immediate reinforcement.
		• Historical laboratory tests revealed uniaxial compressive strengths ranging from 80.05MPa to 154.53MPa, averaging 110.98MPa, reflecting stable ground conditions. The vertical virgin stress at approximately 99m below surface was calculated at 2.574 MPa, indicating a relatively low-stress environment.
		• The ground support system involving resin bolts, welded mesh, and gunnite (shotcrete) has proven effective during trial mining operations.
		
		Major Assumptions and Mineral Resource Model for Optimisation
		• The optimisation and mining plans are based on updated geological models and block models with an average rock density of 2.99 t/m³, adjusted to a loose density of 2.14 t/m³ after accounting for a swell factor of approximately 40%
		• Long hole stopes are planned using short 12-metre strike lengths in poorer ground conditions, with strategic bench extraction to minimise risks associated with mining in weaker rock zones
		
		Dilution and Recovery Factors
		• Planned dilution: 0.5m overbreak in the hanging wall and footwall.
		• Unplanned dilution:
		  ○ Bad Ground – 25% which will include any backfill dilution;
		  ○ Good (Better) Ground - 17% which will include any backfill dilution;
		  ○ Mining recovery: Bad Ground – 15%;
		  ○ Good (Better) Ground - 10%.
		
		Minimum Mining Widths
		• Minimum mining widths have been defined according to ground

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conditions and equipment requirements. Drifts will maintain a minimum width of 4.5 metres in fresh footwall host rock to accommodate equipment safely. In weaker ore sections, stope spans will be limited to 6 metres to mitigate the risk of instability, ensuring safe mining conditions and adequate productivity.

Updated Mineral Resource Classification

Resource	Classification	Tonnes	Density	Cu %	Cu t	Zn %	Zn t
+105m Level Oxides	Indicated	700 000	2.50	0.73	5 000	0.77	5 000
	Inferred	300 000	2.40	1.00	3 000	0.80	2 000
		1 000 000	**2.47**	**0.81**	**8 000**	**0.78**	**7 000**
+105m Level Supergene Sulphide + Hypogene	Indicated	800 000	3.00	2.84	23 000	2.67	21 000
	Inferred	300 000	3.00	2.60	8 000	0.90	3 000
		1 100 000	**3.00**	**2.77**	**31 000**	**2.19**	**24 000**
Total	**Indicated**	**1 500 000**	**2.77**	**1.86**	**28 000**	**1.78**	**26 000**
Total	**Inferred**	**600 000**	**2.70**	**1.80**	**11 000**	**0.85**	**5 000**
	Grand Total	**2 100 000**	**2.75**	**1.84**	**39 000**	**1.52**	**31 000**

- The Indicated portion now comprises the majority of the massive sulphide zone, while the disseminated sulphide zone remains.

Utilisation of Inferred Mineral Resources

- The LoM plan for the Upper Levels comprises 83% Indicated Mineral Resources and 17% Inferred Mineral Resources. Due to the lower geological confidence associated with Inferred Resources, these have been treated cautiously, with planned infill drilling of approximately 22,400m from 120 underground drill holes budgeted to upgrade Inferred Resources to Indicated Resources. Sensitivity analysis indicates minimal economic risk from their inclusion. An alternative mine plan based solely on Indicated Mineral Resources was prepared and demonstrates that the Inferred Mineral Resources included in the LoM plan are not the determining factor in project viability.
- The Ore Reserve estimate is classified and reported as Probable Ore Reserves; this includes no Inferred Mineral Resources for the purposes of determining Ore Reserves. Inferred Mineral Resources were only considered for the mining plan.

Infrastructure Requirements for Selected Mining Methods

- The infrastructure requirements are extensive and encompass both existing and planned installations. Underground development includes ramps from 105 Level to access stoping blocks. A dedicated processing plant with a capacity of 30ktpm will handle upper-level supergene ore separately from the larger 200ktpm sequential copper/zinc flotation plant for deeper ores. Critical infrastructure upgrades include bulk power enhancement to 15MVA, substantial dewatering capacity of up to 1000m³/hr, and a 4km dewatering pipeline to a newly designed Tailings Storage Facility (TSF). Surface infrastructure includes concentrate

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		bagging and weighing facilities, a Cemented Aggregate Fill (CAF) batching plant, fibrecrete batching plant, comprehensive tailings storage, and associated surface facilities such as change houses, maintenance workshops, and accommodation units.
		
		Infrastructure and Mining Equipment
		• Key mining infrastructure and primary equipment include:
		  o Ramps developed from 105 Level to facilitate access.
		  o Processing plant (BOOT arrangement).
		  o Backfill CAF and Fibrecrete Batching Plants.
		  o Concentrate bagging facility with weighbridge.
		  o Underground and surface infrastructure designed specifically for this project.
		• Primary mobile mining equipment chosen includes 20t haul trucks, 10t LHD loaders, double-boom development jumbos, and long-hole production drill rigs, supported by auxiliary equipment required for ground support and development operation

Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• Comprehensive information is available as part of the feasibility study, demonstrating that all necessary metallurgical considerations have been incorporated. This includes an appropriate processing flowsheet, equipment selection, control strategies, and operational philosophy design criteria, which have been thoroughly evaluated and adopted by Orion. • The mineralisation of the "Upper" ore body is defined by the supergene horizon, encompassing both the oxide and supergene sulphide zones intended for value extraction. • The LoM estimated grades of 2.16% zinc and 1.84% copper can be effectively processed and extracted using the selected processing route and equipment. • Recent confirmatory test work conducted on the Upper Plant Supergene ores, under the supervision of Orion and Enprotec, and executed by Brisbane Met Labs (BML) and Maelgwyn South Africa (Pty) Ltd, concluded that copper and zinc are optimally floated together as a bulk concentrate. Differential flotation was not viable, and accordingly, the processing flowsheet was designed and costed to accommodate bulk concentrate production. • A systematic approach has been taken to obtain representative samples for mineralogical process extraction amenability, demonstrating robust metallurgical process development. The methodology for sample collection and analysis aligns with "Sampling Techniques and Subsequent Analytics" as detailed in Prieska_BFS_2019 JORC Table 1. The involvement of ALS Laboratories, accredited by the National Association of Testing Authorities (NATA) in Australia and compliant with international standards such as ISO/IEC 17025, provides substantial confidence in the quality and

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		reliability of test work outcomes, which underpin the subsequent process design.
		• Key test work campaigns include:
		  o Mintek South Africa (2017 – 2019);
		  o Maelgwyn (2023 – 2024);
		  o Brisbane Metallurgical Laboratory (BML) (2024) These studies confirmed the unsuitability of sequential flotation, supporting the selection of bulk concentrate production as the most appropriate processing route.
		• The flexibility of the bespoke modular/mobile Enprotec milling and flotation plant has been assessed against the test work results and recommended design criteria. The integration of a Build-Own-Operate/Transfer (BOO/T) model, represented by such a milling and flotation arrangement, has been identified as the most suitable solution, considering the ore characteristics and the relatively short LoM of the Oxide/Supergene ore body.
		• The selected approach for the Upper Plant (Supergene) is to produce a combined copper-zinc concentrate, whereas the Deeps Plant (Hypogene) will generate separate copper and zinc concentrates.
		• A detailed assessment confirmed that deleterious elements such as arsenic, bismuth, cadmium, cobalt, tellurium, thorium, and uranium are present at negligible to manageable levels. Consequently, these elements do not pose a challenge beyond the containment capabilities of the existing Tailings Storage Facility (TSF) design or within the penalty criteria set by copper smelters.
		• The processing of Upper Plant ores is expected to yield by-product credits for gold (Au) and silver (Ag). Zinc (Zn) penalties in the sale of Upper-Level copper concentrates are anticipated only when copper grades exceed 20%. At copper grades below this threshold, zinc penalties remain neutral in payment terms, and no further by-product or penalty elements are expected.
		• The financial modelling for the Upper Plant is based on maintaining a copper content below 20% to ensure that the zinc content remains under 50% in the bulk copper concentrate. The minimum saleable copper grade is set at 12%, while the maximum expected copper grade is 28%, though this is subject to zinc penalty thresholds. The overall combined copper and zinc recovery targets exceed 91%, with sustainable mass pull considerations at lower grades.
		• Orion is actively exploring additional opportunities to enhance processing efficiency and environmental sustainability, including:
		  o Cyanide substitution potential, replacing it as an initial depressant for sphalerite (zinc sulphide) flotation inhibition.
		  o Barite by-product recovery potential.
		  o Pyrite recovery from tailings retreatment, reducing the TSF footprint

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		and improving water recovery and re-use, thereby minimising the need for potable process makeup water. • The historical processing performance at Prieska, which successfully processed 46 Mt of ore over 20 years, has been reassessed. The results reinforce the validity of recent test work findings and justify Orion's selected design and cost approach. • Calculation of NSR is shown below:

Production and Financial Summary	Unit		Copper
Metal price	USD/t		9885
ROM Plant Feed Grade	%		2.29%
Overall Plant Recovery	%		86%
Concentrate grade	%		20.01%
Payability	%		95.00%
Payability deduction	USD/t concentrate	-	98.85
TC's & RC's	USD/t concentrate	-	58.80
By-product credits	USD/t concentrate		386.77
Total Penalties	USD/t concentrate	-	36.11
Net Smelter Return (NSR)	USD/t concentrate		2 170.58
NSR as % of metal price	%		109.76%

Criteria	JORC Code (2012) explanation	Commentary
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• Environmental studies have been conducted in compliance with South African regulations (NEMA, 1998), including waste rock characterisation and tailings management. • PCZM has an Integrated Water Use License (IWUL), with water treatment strategies aligned to mine dewatering requirements. • The project has received environmental approvals for open-pit and underground mining, subject to final compliance conditions. **Summary of Approvals**

ENVIRONMENTAL PERMIT	PCZM MINING RIGHT	VARDOCUBE MINING RIGHT
Environmental Authorisation	Granted 3 July 2019 (correction issued 4 August 2020)	Granted 3 March 2020
Environmental Authorisation Amendment	Not Applicable	Granted 13 October 2021
Waste Management Licence	Granted 3 July 2019	Not Applicable
Integrated Water Use Licence	3 August 2020	Not Applicable
Integrated Water Use Licence	19 December 2023	Not Applicable

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Criteria	JORC Code (2012) explanation	Commentary
		Amendment SPLUMA Rezoning to 'Extractive Industry' — Approved October 2020 — Approved October 2020 SARAO Square Kilometre Array (SKA) Permitting — Compliant — Not Applicable • The following Financial Provisions have been provided to the Authorities. These are in the form of financial guarantees underwritten by Centriq. The estimate agreed with the Department of Minerals and Energy (DMRE) for the Financial Provision is ZAR13.1 million based on annual rehabilitation, closure costs and residual impacts of the proposed mine of which ZAR64,851,205 was required to be provided to the authorities. **Financial Provisions Provided to the Authorities as Centriq Guarantees** Guarantee Description — Amount (ZAR) PCZM Mining Right — 58,176,869 Vardocube Mining Right — 6,674,336 **Subtotal — 64,851,205** PCZM Provision for historical TSF liability — 15,425,939 **Total — 80,277,144** • The DMPR further accepted that the post closure liability associated with the historical Prieska Copper Mines TSF be transferred to PCZM, and the balance of funds in the Prieska Copper Mines Nature Conservation Trust was used to provide the financial provision for the historical TSF. • Financial provisions, in the form of financial guarantees, lodged with the DMPR for the Bartotrax and PCZM (Doonies Pan) prospecting rights in the amounts of ZAR106,002 and ZAR112,755 respectively. And for the four OE5 prospecting rights in the amounts of ZAR110,000, ZAR98,615, ZAR45,000 and ZAR60,000. • It is noted that as a condition of the EA granted in support of the Vardocube MR, a guarantee for a further ZAR6.4 million is required to be lodged with the DMPR within four years of the commencement of operations (2026). • The financial provisions are audited annually by an independent Environmental Assessment Practitioner in accordance with legislation.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.*	• The project benefits from existing infrastructure, including shaft access, underground workings, and proximity to rail and power lines. • A new paste-fill plant will be constructed, ensuring improved ore recovery and stope stability. • Underground workshops, ventilation systems, and power supply upgrades are planned to support full-scale mining. • The combined area for the Repli Mining Right and Vardocube Mining Right upon which the mine and mine infrastructure is planned, is

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		approximately 6,766 hectares in extent. • Surface Rights: Aquila Sky Trading 890 (Pty) Ltd, an indirect subsidiary of Orion, controls the surface use for the farm Vogelstruis Bult 104 and Slimes Dam 154 (Prieska District, Northern Cape Province) primarily in the form of direct surface right ownership (97.5% shareholding in PCML (Prieska Copper Mining Limited); servitude rights written into the property deed for land owned by the Request Trust as well as a long-term Surface Use Agreement signed in November 2018 with the Request Trust in which users rights for prospecting and mining operations are guaranteed and the land-owner compensated. In addition, the holder of a prospecting and mining right is entitled to carry out the relevant operations for the winning of minerals in terms of Section 54 of the MPRDAct, 2002. To date, Orion is aware of no Land Claims that have been registered for the properties. The Company has used reasonable endeavours to confirm that land is therefore available for the building of new or use of any existing infrastructure. • The combined area for the PCZM (Repli) and Vardocube Mining Rights upon which the mine and mine infrastructure is planned, is approximately 6,766 hectares in extent. • Bulk Electricity supply and infrastructure available from national grid. 60MVa requested connection has adequate spare capacity and new reticulation infrastructure will be constructed. • Currently a 15MVa electrical reticulation network is installed for Mine dewatering and construction power for the site. • Bulk Water supply and infrastructure available from municipal water network. 7ML per day of available water supply from the municipal water network is almost double the complete Mine water requirement. The water network will be upgraded to provide reliable water to the mine. • A new Dewatering system will be installed to dewater the mine to start with mining infrastructure installation and removing water during mining activities. • A new mining conveyance infrastructure will be installed for material and labour into the mine and ore extraction from the mine. • A new power and water reticulation system will be installed for the mining activities. • A new processing plant for the Upper Level will be constructed to extract the value of the Uppers mining reserve. • A new tailings facility is being constructed to comply to the environmental regulatory requirements and the Processing Plant discard material demands. • Surface workshops, offices, roads, sewer, effluent and contractors' accommodation infrastructure is being built to support the mining and processing needs for the construction and operational phases.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.*	• Base Date of Valuation: The base date of valuation is set as of 1 March 2025.

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Criteria	JORC Code (2012) explanation	Commentary
	• *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	• Currency and Cash Flow Terms: The principal modelling currency is in South African Rand (ZAR). Additional reporting currencies are in United States Dollars (USD) and Australian Dollars (AUD). • Cash flow terms are based in real money terms. • Source of Exchange rates Used in the Study: S&P Global Capital IQ Pro has been utilised to access exchange rate information. The exchange rate applicable is the prevailing spot rate as of 31 December 2024. • Government Royalties: Per the Mineral and Petroleum Resources Royalty Act 28 of 2008, both the zinc and copper concentrate being produced are regarded as 'unrefined products'. Zinc royalties are chargeable for mineral royalties up to the threshold of 27% zinc in concentrate. The royalty liability is determined by multiplying gross sales of that mineral resource transferred by the following formula: 0.5 * EBIT / (9 * Gross sales in respect of that unrefined mineral resource) * 100. **Operating Costs** • Operating costs rates have been built up from first principals within the techno-financial model. Mining and development cost rates have been assimilated and allocated by the Mine Planning Engineer, aided by CCS Candy Software System. Various vendors have submitted cost packages and cash flows have been scheduled by Fraser McGill in accordance with the mines production schedule. Labour costs are accumulated from manpower schedules for each operating area. Electricity charges are estimated based on all effective KWh power draw from each operating area to which Eskom's Megaflex tariff charges are applied. Fuel consumption is estimated for all major mechanised equipment and the tank price less a discount for fuel levy rebates for non-road utilisation have been applied. All other costs of consumables and services are based on budgetary quotes. Social and Labour expenditure has been estimated in accordance with the MPRDA and closure and reclamation provisions are catered for in terms of an environmental fund maintained by Centriq. Please refer to the below table for further details. **Operating Cost - Uppers** | **ZAR/t ROM mined (real, 1 March 2025)** | **USD/t ROM mined (real, 1 March 2025)** | **AUD/t ROM mined (real, 1 March 2025)** Development, Production, Services | - 1 280.29 | - 67.74 | - 102.42 Ore Processing | - 504.95 | - 26.72 | - 40.40 Shaft and Winders | - | - | - Surface & Indirects | - 633.12 | - 33.50 | - 50.65 Conc Transport Charges | - 191.35 | - 10.12 | - 15.31 Corporate Costs | - 168.10 | - 8.89 | - 13.45 Off-mine Costs | - 37.21 | - 1.97 | - 2.98 Royalties (Government) | - 94.95 | - 5.02 | - 7.60 **Project Capital** • Project Capital has been estimated from a costing sheet assimilated and allocated by Professional Cost Consultants (PCC) and is organised in

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		terms of a WBS Level 3. Various vendors have submitted cost packages and cash flows have been scheduled by Fraser McGill in accordance with the mines' Integrated Master Schedule. The overall level of engineering maturity is appropriate for a Class 3 estimate in terms of the American Association of Cost Engineers (AACE International). A provision for contingencies comprising 9.4% of the total estimate has been allowed for in the estimate. Please refer to the below table for further details.

Capital Expenditure - Uppers	ZAR millions (real, 1 March 2025)	USD millions (real, 1 March 2025)	AUD millions (real, 1 March 2025)
Mining Fleet (Calculated on Separate Sheet)	246.46	13.04	19.72
Backfill/Paste plant	12.93	0.68	1.03
Process Plant	14.43	0.76	1.15
Surface infrastructure	40.45	2.14	3.24
Tailings Storage Facility	14.06	0.74	1.12
Laboratory	4.56	0.24	0.36
Drilling Related Cost	1.56	0.08	0.12
Operational Readiness	15.00	0.79	1.20
Exploration Costs	30.00	1.59	2.40
Contingency	35.83	1.90	2.87
Total Capex	**415.26**	**21.97**	**33.22**

Sustaining Capital

- Sustaining Capital has been built bottom-up from replacement schedules for mining equipment, rock and man winders, UG shaft and equipment maintenance. An additional 3% of onsite charges has also been added as a provision for various other sustaining charges. LOM sustaining capital is 2.3% of LoM onsite operating costs.

Transportation Charges

- Offtake INCOTERMS are based in CIF FO (Main Chinese port or parity). Transportation charges are premised off budgetary quotations and include loading at mine site trucking from the mine to Port Ngqura at Gqeberha, South Africa, storage, handling and loadout at port, customs clearing and maritime freight to destination port. Please refer to the table for further details.
- Treatment Charges and Refining Charges (TCs and RCs), Penalties and By-Product Credits
- For the Uppers, non-binding offtake agreements consider copper in bulk concentrate (supergene) as payable up to 96.65%, subject to a minimum 1% grade in concentrate deduction.
- By-product credits for gold are payable up to 90%, subject to a minimum 1 g/t grade in concentrate deduction, and for silver, are payable up to 90%, subject to a minimum 30 g/t grade in concentrate deduction. Penalty elements include zinc in concentrate above 3% Zn. Although other penalty elements are considered, these are considered to be not

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		of sufficient concentrations to have financial impact.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• Commodity Price Assumptions: Forecasted commodity prices have been premised on analysts' consensus forecast as of 2 December 2024. Please refer to the below table for further details. • Foreign Exchange Rate Assumptions: S&P Global Capital IQ Pro has been utilised to access exchange rate information. The exchange rate applicable is the prevailing spot rate as of 31 December 2024. Please refer to the below table for further details. • Consumer Price Indices and Purchasing Power Parity: S&P Global Capital IQ Pro has been utilised to access macroeconomic information. The CPI applicable is the forecast rate as of 31 December 2024. Please refer to the below table for further details.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	**Copper** • Copper ("Cu") is an essential commodity with everyday applications driving its demand, including its use in building construction, infrastructure and transmission and equipment manufacturing. Given its key role and importance in the current green evolution, it is projected to grow at an estimated 3.3% from 2023 to 2028 to reach annual consumption of 30.6 million tonnes of copper globally. (S&P Global, 2024). As the global economy continues its post COVID-19 pandemic recovery, global mine output is estimated to rise by 1.4% in 2024 according to S&P (S&P Global, 2024). Copper's historical price cyclicality indicates a fundamentally new price level driven by factors including the green energy transition and the need for energy and commodity supply chain security. Prices reached lows of USD4,300/t in 2016 and USD4,600/t on the onset of COVID-19 in

		2025	2026	2027	2028	2029
Copper	USD/t (real, March 2025)	9763	10197	10234	9369	9369
Zinc	USD/t (real, March 2025)	2776	2725	2770	2665	2665
Gold	USD/oz (real, March 2025)	2576	2484	2437	2148	2148
Silver	USD/oz (real, March 2025)	32	32	32	29	30

		2025	2026	2027	2028	2029
USD:ZAR	ZAR/USD (real, March 2025)	18.90	18.90	18.90	18.90	18.90
AUD:ZAR	ZAR/USD (real, March 2025)	12.50	12.50	12.50	12.50	12.50

		2025	2026	2027	2028	2029
SA CPI	%YoY	4.5%	4.6%	4.6%	4.8%	4.7%
USA CPI	%YoY	2.3%	2.4%	2.5%	2.3%	2.2%
EUR CPI	%YoY	3.1%	2.8%	2.6%	2.6%	2.5%

Criteria	JORC Code (2012) explanation	Commentary
		2020. Since 2021, copper prices have steadily inclined and have peaked at USD10,700/t as normal economic activity resumed. As of June 2024, copper market prices have been weighed down by high stocks and soft demand in China according to S&P Global (S&P Global, 2024). However, a shortage in long-term copper supply could sustain higher prices from short-term price drops. On the positive side, prices are anticipated to rise in Q3 and Q4 of 2024 as copper demand in China could be boosted by funds from special bonds and treasury bonds and a cut to the United States of America (USA) interest rate. According to S&P Global's consensus forecast, the copper price of USD9,370/t in 2024 is expected to grow in line with US CPI over the next 5 years. **Zinc** • Zinc ("Zn") the 4th most common metal in use after iron, aluminium, and copper. Zinc's historical 10-year average consumption threshold of approximately 13Mtpa is anticipated to increase in demand to 15Mtpa over the next 5 years. The main uses of zinc driving its demand are steel corrosion protection, alloying, chemicals for use in the agricultural sector and health and wellness. Zinc has many accessible substitutes for many of its applications, which places downward pressure on market prices. The market for Zinc has historically been tight, and slight deficits between 2016 and 2022 were offset by economic downturn and surpluses as a result of COVID-19 in 2020. Prices received a correction in 2023, coming down from a 2022 peak of USD3,440/t to $2,641/t in 2023. Although market surpluses are expected to steadily reduce over the period between 2024 - 2028, S&P Global consensus forecasts a stable price environment with marginal nominal growth of 0.8% over that same period.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• Latest business plan shows positive economics with the following metrics for the Uppers.

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Criteria	JORC Code (2012) explanation	Commentary
		Valuation Results NPV (Pre Tax) — ZAR Million — 27 NPV (Post Tax) — ZAR Million — 1 IRR (Pre-Tax) — % — 28.1% IRR (Post Tax) — % — 18.1% Peak Funding — ZAR Million — 579 Time to Reach Peak Funding — Years — 1.08 Project Capital — ZAR Million — 641 Sustaining Capital — ZAR Million — 36 NPV/Max Exposure — Ratio — 0.00 Payback (from Start of Project) — Years — 4.4 Payback (from First Concentrate) — Years — 3.4 Capital Intensity — ZAR / Cueq (tpa) — 211 444 Zinc Revenue Contribution — % — 0% First Concentrate Production — Date — **Oct-28** Life of Mine — Years — 4.92 Copper Cut off grade — % — 1.86%
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• Orion has established community agreements and a Social and Labour Plan (SLP) in compliance with Mining Charter III. • The project supports Local economic development, local employment, training initiatives, and supplier development as well as downscaling and a decline in employment
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	**Material Naturally Occurring Risks** • Geotechnical Risks and Ground Stability • Historical Stopes: The Upper Levels orebody lies up-dip of previously mined stopes and extends beyond historical workings, requiring careful stope positioning to avoid collapse risksPCZM_250121_v1-14_PCZM. • Sinkhole Formation: The weathered crown pillar has led to sinkholes forming above historical stopes, particularly in weaker zones where sloughing is expectedPCZM_250121_v1-14_PCZM. • Ground Conditions: Laboratory tests confirm that host rock is highly weathered to 30m depth, and deep weathering occurs along the ore zone, necessitating a stronger ground support systemPCZM_250121_v1-14_PCZM. **Mitigation Measures:** • Stope spans reduced to 12m in standard zones and 6m in weaker zones. • Drifts positioned in competent footwall rock to avoid weak ground. • Longhole stoping (LHOS) supported with cemented aggregate fill (CAF) to reinforce voids. • 11m vertical separation maintained between new and old workings to prevent instability. • Map the pillar below proposed mining and monitor to ensure that mining is conforming to the minimum pillar width.

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		Dewatering and Hydrological Challenges
		• The Upper Levels require an efficient dewatering system, with 500m³/hr pumps installed to manage water inflows.
		• The dewatering plan integrates with the TSF development, ensuring safe water management and storage.
		Metallurgical and Processing Risks
		• Supergene ore has different metallurgical characteristics compared to deeper ore, requiring dedicated processing infrastructure.
		• A zinc penalty applies to copper concentrate due to mineralogical composition, impacting NSR calculations.
		Macroeconomic Sensitivity
		• The project remains highly sensitive to copper and zinc price fluctuations, and any adverse commodity price movements could impact reserve estimationPCZM_250121_v1-14_PCZM.
		• Exchange rate volatility is a key factor in economic projections.
		Legal Agreements and Marketing Arrangements
		• Offtake Agreements and Sales Contracts
		  ○ An Expression of Interest (EOI) from a global metals trader confirms demand for Prieska concentrates
		  ○ Proposed sales model is CIF FO (Cost, Insurance, and Freight, Free Out), meaning:
		  ▪ PCZM covers all transport costs to the South African export port.
		  ▪ The trader determines final smelter destinations (China-based pricing assumed).
		  ▪ Blending with third-party concentrates if required is expected to meet smelter specifications
		• Payment Terms:
		  ○ 95% of the payable metal value upon shipment arrival at port.
		  ○ Remaining 5% settled 60 days post-bill of lading date.
		• Infrastructure and Processing Agreements
		  ○ BOOT (Build, Own, Operate, Transfer) contracts are under discussion for processing plant development, allowing for external capital investment.
		  ○ Finalisation of processing infrastructure agreements remains a key dependency for execution.
		• Governmental Agreements and Statutory Approvals
		  ○ Mineral Tenure and Permitting

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Criteria	JORC Code (2012) explanation	Commentary
		○ The Upper Levels project operates under a valid mineral tenement, with no known risks to its status. ○ JORC Code (2012) compliance is upheld, ensuring regulatory alignment with Ore Reserve reporting and classification standards. Environmental and Infrastructure Approvals • Tailings Storage Facility (TSF) Construction: ○ A 65Ha TSF is being developed in phases, integrated with mine dewatering operations. • Power and Processing Infrastructure: ○ Bulk power upgraded to 15MVA to support underground mining and processing. ○ Dedicated 30ktpm processing plant for Upper Levels ore, separate from the 200ktpm plant for Deeps mining. **Third-Party Dependencies** • Finalisation of BOOT agreements for processing plant construction is required to ensure sufficient processing capacity. • Timely regulatory approvals for expanded TSF and underground development are critical to maintain feasibility study schedules. • No major unresolved third-party approvals have been flagged, but continuous engagement with regulatory authorities is necessary.
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• The Ore Reserves are classified entirely as Probable, reflecting the underlying confidence in the geological modelling, resource estimation, and the application of modifying factors in alignment with industry standards and the JORC Code (2012). The classification of Ore Reserves as Probable indicates a reasonable level of confidence regarding the technical and economic parameters underpinning the mine design, mining schedule, and modifying factors used in the feasibility study. • The classification into Probable category is based on the absence of Measured Mineral Resources, as indicated clearly in the provided Ore Reserve statement. • Comprehensive reviews, including mining design criteria (MDC), mine design and scheduling, and modifying factors, have been conducted to validate the economic viability and technical feasibility of extracting these reserves. This classification appropriately reflects the Competent Person's view of the deposit's current data quality and reliability, technical parameters, and economic assumptions. • It is noted explicitly that there are currently no Proven Ore Reserves or Measured Resources contributing to the Reserve statement. Therefore, 0% of Probable Ore Reserves have been derived from Measured Mineral Resources.

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Criteria	JORC Code (2012) explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• No audits have yet been done on the Ore Reserves.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which 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.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The level of accuracy of the DFS-25 is ±15%. The modifying factors and assumptions applied to convert the Resources to Reserves are deemed appropriate for a Feasibility level study and were described above in the relevant sections. Discussions of factors that could affect the relative accuracy and confidence of the Ore Reserve estimate are provided below. **1. Confidence Level of Mineral Resource:** • The Mineral Resource underpinning the Ore Reserve estimate is classified in the Indicated category. Inferred Mineral Resources were only considered for the mining plan. • The Mineral Resource underpinning the Upper Levels LoM consists of: • 86% Indicated Mineral Resources and 14% Inferred Mineral Resources by tonnage. • There is inherently lower geological confidence associated with the Inferred Resources used in the LoM plan, hence there remains uncertainty that further exploration will convert these Resources to Indicated status or confirm the forecasted production and financial estimates. • The geostatistical accuracy of the Indicated Resources underpinning the Reserves are explained above in Section 3 of JORC Table 1 – Estimation and Reporting of Resources. **2. Trial Mining Outcomes:** • Trial mining successfully validated orebody position, geology, and geotechnical assumptions: • Ore positions matched predictions based on 2018 drilling data. • Geotechnical conditions encountered were better than anticipated, with stable ground conditions and manageable rock mass characteristics (average Uniaxial Compressive Strength of ~111 MPa). • Planned development dimensions (4.5m x 4.5m) were executed safely without any ground complications. **3. Geotechnical Considerations:** • Geotechnical conditions assessed through trial mining and further supported by laboratory tests inform the planning assumptions: • Rock mass quality ratings and testing indicate variability from weathered material near surface to fresh, competent rock at depth. • Excavations are supported with resin bolts, mesh, and gunnite, demonstrating the effective management of geotechnical risks in actual mining conditions. **4. Modifying Factors and Mining Methods:** • The selected mining method for the Upper Levels is Longhole Open

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		Stoping (LHOS)) with cemented aggregate fill (CAF). • The selection is based on orebody geometry and geotechnical characteristics, with smaller strike lengths and reduced spans in weaker sections to mitigate potential instability. • Detailed planning accounts for backfill strengths, with Uniaxial Compressive Strength (UCS) ranging from 100kPa to 200kPa, ensuring adequate ground support and stability. **5. Economic Viability:** • Economic viability is positive, with a post-tax NPV of ZAR 36 million (AUD 3 million), a peak funding requirement of ZAR 565million, and a payback period of 3.3 years. • Cost estimates include ±15% repricing and escalation adjustments, and a 10% contingency on capital expenditure, indicating prudent financial planning. **6. Infrastructure and Logistics:** • Existing infrastructure from trial mining has established foundational readiness (power upgrades, dewatering systems, and surface facilities), significantly reducing the implementation risk. • Supergene ore concentrate logistics are optimized for economic transport and sale, reducing exposure to variability in shipping logistics and charges. **7. Risks and Uncertainties:** • Identified risks mainly involve potential geological variability, cost escalation, and technical execution. Risks associated with ground conditions and stability have been addressed through trial mining and detailed geotechnical analysis. • Continued exploration drilling is recommended to upgrade remaining Inferred Resources and further reduce geological risk. **8. Statement on Global vs Local Estimates:** • The reserve and resource statements predominantly apply at a global project scale, although local estimates for specific mining areas (e.g., trial mining) were validated through detailed, targeted assessments, providing a strong foundation for technical and economic evaluation at a local scale. **9. Comparison with Historical Production Data:** • Where historical data exists (notably in metallurgical recoveries and orebody delineation), results from recent activities are consistent with historical operations, providing additional confidence in the estimation and recovery assumptions made for current reserves.

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Criteria	JORC Code (2012) explanation	Commentary
		Conclusion: • The Ore Reserve estimate for the Upper Levels (+105) at PCZM demonstrates a high level of relative accuracy and confidence. This confidence is underpinned by robust geological and geotechnical validation through trial mining, detailed planning and consideration of modifying factors, economically viable operational planning, and effective integration of existing infrastructure with clear strategies for mitigating remaining risks and uncertainties. The key outstanding uncertainty pertains to the geological upgrading of Inferred Resources, which is already planned and budgeted for through additional infill drilling. The approach taken aligns well with best practices and relevant industry standards (JORC Code (2012)).

Section 4 Estimation and Reporting of Ore Reserves – Deeps Section

Criteria	JORC Code (2012) Code explanation	*Commentary*
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The Ore Reserve estimate is based on the Deep Sulphide Mineral Resource reported in accordance with JORC Code (2012). The Mineral Resource used as the basis for the LoM plan, to support estimating Ore Reserves, totals 28.73Mt at 1.16% Cu and 3.77% Zn, comprising 64% Indicated Resources and 36% Inferred Resources. • The Mineral Resource estimate is reported inclusive of the Ore Reserves. • The Ore Reserve estimate includes only Indicated Mineral Resources, except where Inferred Mineral Resources have been included as dilution within the Ore Reserve.

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.*
		• The site visit to the Prieska Copper Zinc Mine (PCZM) was conducted from Sunday, 16 February to Tuesday, 18 February 2025, with the primary objective of performing a Competent Person (CP) confirmatory assessment. Mrs Vannessa Clark (Pr. Sci. Nat. No. 400161/07) and Mr Ivan Lister, independent consultants form Practara (Pty) Ltd, conducted the visit with the focus to validate key technical aspects related to Reserve conversion, ensuring that all critical elements influencing the mine's development, geotechnical stability, and operational feasibility are well understood and accounted for.
		  ○ Geology & Exploration: Drilling aligns with best practices, with robust geological data supporting confident reserve conversion.
		  ○ Geotechnical Stability: Rock mass conditions are stable, with potential for mine design optimisation. Sinkholes are well-managed, and excavations remain secure over time.
		  ○ Mining & Infrastructure: Underground conditions are competent, dewatering is well-managed, and the main shaft is structurally sound

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		for refurbishment, enabling a rapid transition to execution. o Surface Infrastructure: Existing facilities are in good condition, with ample space and logical reuse of infrastructure optimising capital efficiency and project timelines. o Dewatering & Critical Path: Dewatering is the primary critical factor, with planned capacity increases ensuring operational flexibility and long-term sustainability. o Environmental & Social: No major environmental concerns exist, but proactive community engagement will be key to leveraging economic benefits for the region. o Execution Readiness: The project is well-positioned for fast-track development, benefiting from established infrastructure, a capable site team, and reduced lead times compared to a greenfield project. The focus remains on optimising mine design, maintaining dewatering progress, and strengthening community partnerships. • The findings confirmed that execution on this project is viable, and that the existing infrastructure provides a substantial advantage over a typical greenfield development.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• The Ore Reserve estimate is supported by the 2025 Feasibility Study (FS-25), which incorporates detailed mine planning, geotechnical investigations, and economic analysis. The study confirms that the mining operation is technically and economically viable, with all material Modifying Factors (geotechnical, metallurgical, and environmental) considered. The study aligns with JORC Code (2012) requirements for Feasibility-level studies. • The DFS has been prepared to an accuracy level of ± 15% using Indicated and Inferred Mineral Resources; appropriate mine planning and modifying factors were applied commensurate to a DFS level of accuracy and are deemed to have reasonable prospects of being technically achievable and economically viable.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• The economic cut-off grade (COG) was determined using a Cu-Equivalent (CuEq) estimation based on metal prices, processing recoveries, and NSR. The break-even CuEq grade is 1.2%, considering operating costs, royalties, and processing costs. Sensitivity analysis confirmed that the mine plan is robust under varying pricing scenarios. • Mining methods planned for PCZM, namely LHOS, TLHOS and D&F. The D&F break-even calculations were derived for three mining method variations: o 6m D&F for the Trial mining (TM) area; o 5m D&F; o 2.5m Low Profile (LP) D&F. • To estimate the net metal revenue, a long-term Cu price of USD3.95/lb

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(USD8,700/tonne) was used. The cut-off grade assumptions were used in conjunction with the Mining Shape Optimiser (MSO) process to determine the mineable economic inventory. The unplanned dilution assumptions for the different mining methods were based on benchmarking against mines using similar mining methods. The break-even grades using Cu-equivalent ranged from 0.99% for TLHOSF to 1.32% for D&F (Low Profile). At the time when these calculations were performed (April 2024) an exchange rate of 18.9:1 for the ZAR:USD was used. The new estimates for the three mining methods give a mine break-even average grade of 1.2% CuEquivalent, based on an assumed mix at the time between three mining methods of 65%, 20% and 15% for the LHOS with and without trucking and D&F respectively as shown below:

Cost and Revenue Parameters	Units	LHOS	TLHOS	D&F (6m)	D&F (5m)	D&F (LP)
On-mine Opex	ZAR/t	1,064	1,012	1,005	1,186	1,348
Royalty (average)	ZAR/t	83	83	83	83	83
SIB Capex	ZAR/t	53	50	50	57	64
Off mine overheads and marketing costs	ZAR/t	45	45	45	45	45
Concentrate transport costs	ZAR/t	157	157	157	157	157
Total cash Opex per tonne treated	**ZAR/t**	**1,401**	**1,347**	**1,339**	**1,528**	**1,696**
FX (ZAR conversion to USD)		18.90	18.90	18.90	18.90	18.90
Total cash operating cost per tonne treated	**USD/t**	**74.15**	**71.25**	**70.85**	**80.82**	**89.74**
Cu price	USD/t	8,700	8,700	8,700	8,700	8,700
Cu NSR		101.3%	101.3%	101.3%	101.3%	101.3%
Net Cu price received	USD/t	8,815	8,815	8,815	8,815	8,815
Unplanned Mining dilution		10.0%	5.0%	5.0%	5.0%	5.0%
Cu plant recovery factor		85.8%	85.8%	85.8%	85.8%	85.8%
Break-even in-situ CuEq grade		**1.09%**	**0.99%**	**0.99%**	**1.13%**	**1.32%**

- To convert Zn grades into Cu-Equivalent grades the following metrics were used.

Metrics used for conversion of Zn into CuEq	Metric
Cu metal price (USD/lb)	3.95[1]
Cu metal price (USD/tonne)	8,900[3]
Cu plant recovery factor	85.8%[4]
Cu NSR	101.3%[5]
Zn metal price (USD/lb)	1.11[2]
Zn metal price (USD/tonne)	2,450[3]
Zn plant recovery factor	82.1%[4]
Zn NSR	69.7%[5]

- The calculation for the conversion of Zn to CuEq grade is as follows:

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		$1\%\ Zn = \frac{(Zn\ price \times Zn\ NSR)}{(Cu\ price \times Cu\ NSR)} \times \frac{(Zn\ PRF)}{(Cu\ PRF)} = \frac{(2{,}450 \times 69.7\%^{5})}{(8{,}900 \times 101.3\%)} \times \frac{82.1\%}{85.8\%} = 0.185\%\ Cu$ Therefore, the Cu-Equivalent grade = [Cu grade + (0.185 x Zn grade)] • The NSR estimates stated in the above estimates assume recovery of silver (Ag) and gold (Au) from the Cu concentrate specifications were derived from testwork undertaken at Mintek under the supervision of DRA.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	• Mining Method: The Deep Sulphide orebody will be extracted using a combination of Longitudinal and Transverse Long Hole Open Stoping (LHOS) and Drift & Fill (D&F) methods, based on orebody geometry and geotechnical conditions. • Geotechnical Considerations: Pillar design, stope dimensions, and backfill requirements were determined through geotechnical modelling and rock mass classification studies. • Pillar Losses: Rib pillars have not been planned between mining zones or areas as all stopes are to be cemented paste-filled installed according to a monitored sequence ensuring that any new mining block will not be extracted until the adjacent mining block has been backfilled. Stopes have been designed and planned to extract portions of the crown pillars towards the end of the of the life of mine as set by geotechnical constraints. • Dilution and Recovery: A planned dilution of 3% has been applied for LHOS, with mining recovery set at 95% for LHOS and 97% for D&F. A 1m sloughing width was included in dilution estimations. • Infrastructure Requirements: The operation requires refurbishment of existing underground infrastructure, shaft rehabilitation, and new ventilation raises, all factored into the mine schedule. • The following modifying factors were applied to Development and Stoping. **Modifying Factors - Development** Factor / Units / Decline (%) / Waste Development (%) / Ore Development (%) Overbreak / % / 3 / 3 / 0 Overbreak grade / % CuEq / 0.0 / 0.0 / 0.0 Mining Recovery / % / 100% / 100% / 100% *Source: Prieska Planning Assumptions*

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Criteria	JORC Code (2012) Code explanation	Commentary

Modifying Factors - Stoping

Factor	Units	LLHOS (%)	TLHOS (%)	D&F (%)
Hanging wall Overbreak	cm	50	50	0
Footwall Overbreak	cm	50	50	0
Unplanned Dilution	%	3	3	3
Unplanned dilution grade	% CuEq	0.0	0.0	0.0
Mining Recovery	%	95	95	97

Source: Prieska Planning Assumptions

Material assumptions regarding timeframe for development and production:

- It is assumed that the that the necessary licences and permits are granted by the authorities and that funding is procured.
- The mine model scenario for the BFS can be summarised as the establishment of underground operations to extract the extensions of the Indicated Mineral Resource from the hypogene Deep Sulphides (the Deeps) at > 600m accessed via existing underground mine infrastructure which would require dewatering and some refurbishment.
- Main shaft Infrastructure is in fair condition considering the years of flooding.
- It is estimated that approximately 30% of the main steelwork will need to be replaced, and all light steelwork such as gates, guards and rails at station areas will be replaced.
- Dewatering is in progress with the current pumping arrangement positioned at Level 178. Current water level is measured at approximately 270m below collar level.
- A drill hole from surface is in place, supporting 500 m^3/hr pumping capacity, with alternative arrangements planned via the main shaft.
- A backup generator will be installed to ensure uninterrupted pumping operations.
- The pumping system will be upgraded to handle 1000 m^3/hr.
- Gas hazards, equipment, backfill design, crushing and hoisting, mine ventilation and underground rehabilitation of existing structures also formed part of the mining studies.
- Mining Method: Historically, between 1971 and 1991, a tabular body of mineralisation was almost continuously economically mined over a strike length of 2,400m from levels at -100m to approximately -850m using the longhole open stoping (LHOS) mining method. Assuming successful dewatering, refurbishment and new mine infrastructure are realised, mining scenarios propose Long-hole-open-stoping-with-fill (LHSF), either Longitudinal LHSF or Transverse LHSF (an estimated 63% of production) for the steeper sections. D&F (an estimated 37% of production) for the flatter dipping sections - based on the shape and layout of the Mineral Resource. Blasted rock from both operations is loaded either into trucks

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Criteria	JORC Code (2012) Code explanation	Commentary

or tipped directly into ore passes by LHD trucks. The trucked blasted rock is hauled to rock pass systems on 926 level for loading into rail transport system on 957 level. Loaded trains transport rock to the respective ore and waste pass systems at the shaft.

- Geotechnical: Observations from the existing tunnels in the upper levels of the historical mine indicate competent rock with very little tunnel-support. Localised roof bolting was carried out in fractured sections. Geotechnical studies were carried out by the Middindi Consulting (Pty) Ltd. A total of 30 compressive and tensile strength tests were carried out on the hangingwall, mineralised zone and footwall rocks from 8 drill holes to estimate rock mass ratings at depth. The results indicate competent rock for all three rock-types.
- Primary and Secondary Support recommendations:

	Excavation	Primary support - tendons				Secondary support			
		Type	Specifications	Spacing	Application	Type	Specifications	Spacing	Application
Development excavations	Decline	Rebar	2.4m length 20mm diameter 160kN tensile strength Full column resin	1.5m x 1.5m	HW	N/A			
	Gathering haulage	Rebar	1.5m length 18mm diameter 120kN tensile strength Full column resin	1.5m x 1.5m	HW				
	Level access crosscut	Rebar	1.5m length 18mm diameter 120kN tensile strength Full column resin	1.5m x 1.5m	HW	N/A			
	All intersections	Rebar	As per individual excavations Full column resin	1.5m x 1.5m	HW	Cable anchor	4.5m length 38t tensile strength 15mm - 16mm diameter Full column grout	2.5m x 2.5m	HW
	Ore drive,drill drive,transport drift, stope / loading cross cut	Split set	1.8m length 46mm diameter 39-45mm hole diameter Galvanised, ungrouted	2.0m x 2.0m	HW	Shotcrete	Unreinforced Minimum 25mm thick	N/A	HW + 1.5m overlap to SW. From ore intersection back 15m towards haulage

- Minimum Mining Widths:
  - The planned mining dimensions are as below:

Excavation	Profile	Method	W (m)	H (m)	Diameter (m)
Declines and Ramps	Square	Drill & Blast	5.0	4.5	
FW waste development	Square	Drill & Blast	4.5	4.5	
Ore development	Square	Drill & Blast	4.5	4.0	
6m D&F development	Square	Drill & Blast	6.0	6.0	
5m D&F development	Square	Drill & Blast	5.0	5.0	
Low profile access	Square	Drill & Blast	4.0	2.5	
Ore pass	Circle	Raise-bore	-	-	4.5
Vent shaft	Circle	Raise-bore	-	-	5.1
Vent raise	Circle	Raise-bore	-	-	2.4 or 3.0

- Infrastructure Requirements for the chosen mining methods:
  - Existing Infrastructure (remaining from previous mine operation): The

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		Project area is well serviced by infrastructure that was originally established for the historical mine; this includes the old mine roads on the site itself, some accommodation, telecommunications, water and electricity provision which are in use. On surface there remains the Hutchings Shaft, the main portal and decline which is operational. Underground, the mine tunnels and stopes are mainly accessible to 294 Level. It is assumed that the old mine infrastructure below water level at 310m such as the existing underground workshop at 957 Level, the crushing and shaft loading arrangement below 957 Level and the pre-existing mine ventilation facilities (Boehmka and Beecroft Shafts). Note the surface structure and fans have been removed and the shaft collars made safe) would be refurbished or rebuilt. Existing bulk electricity is supplied by Eskom and is planned to be upgraded to provide more than the required 32MW power. Bulk water supply from the Orange River via the existing Prieska Water Works (originally constructed at Prieska town for PCM use) is planned to be refurbished and has the capacity to supply the 3.7ML estimated to be required for mining operations. Mining studies on these aspects have been included in the DFS process to inform the DFS. ○ Additional Infrastructural Requirements for the chosen mining methods: the following were considered as part of the DFS. The refurbishment and rebuilding of existing mine infrastructure including winders for rock hoisting and men and material hoisting for the Hutchings Shaft, a new processing plant, additional bulk water and electrical supply from existing infrastructure; installation of new ventilation fans; water dams (including effluent dams), a RO (reverse osmosis) water treatment plant and irrigation, sewerage treatment plant, a new tailings storage facility (TSF) doubling as an evaporation facility, process water and storm water management are planned. New buildings and facilities including a management and office block, change-house, mine rescue room, training centre, central control room for the mine and processing plant, engineering workshop, a bunded diesel storage area and plant security and access control for mine safety. • Explosives Magazine: Existing magazines remain from the historical mine and are in excellent condition. These will be used for storage of cartridges, boosters and detonators. Bulk emulsion which is planned for the underground mine will be stored near the Hutchings Shaft in dedicated silos.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.*	• The design of the processing plant allows for treatment of the hypogene (underground) feed and the optional, later stage, supergene (open-pit) feed with modifications. Unit processing costs and plant design and equipment assumes underground feed only in the initial phase of the

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	• *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	Project. • Metallurgical Process: conventional, crushing, grinding and differential froth flotation processing is proposed for the hypogene material which is designed to produce saleable concentrates of Zn and Cu with the potential for Ag and Au as by-products. • Appropriateness: appropriate for the type of material anticipated from the mining operation. • Tested Technology: The processing technology used for this Project is commonly used in industry and was successfully used during the previous operation of PCM. Over the 20-year mine life, metal recoveries averaged 85% for both zinc and copper into concentrate grades ranging between 28% to 30% for copper (in the copper concentrates) and 51% to 53% for zinc (in the zinc concentrates) (refer ASX release 15 November 2017). • Metallurgical Test Work: Specialists, Mintek under the guidance of the DRA Metallurgical team undertook the metallurgical testing. Open and closed circuit testwork was done for the copper-circuit and zinc-circuit. Process flow tests determined the optimal recovery processes based on the metallurgical characteristics of the material. 800kg of test sample was used from 7 drill holes ensuring representivity from various zones of the deposit (the NW and SE zones). These hypogene zones contain, in decreasing order of abundance, the minerals pyrite, sphalerite, chalcopyrite, pyrrhotite, barite and minor amounts of galena. Accessory minerals include magnetite, molybdenite, marcasite, arsenopyrite, minor gold and silver. Test work on underground samples with an average iron grade aligned to the expected mined grade (c.15% Fe) achieved similar recoveries to that achieved for historical operations. Flow-sheet development was carried out on blended samples and a comprehensive variability program focused on testing a range of feed blends aligned to the mine plan. • With respect to minerals that are defined by a specification and used in the Production Target estimate, the metallurgical testwork was done to produce saleable concentrate products. • Metallurgical testing is completed, and results were reported in the BFS to 22 October 2018. Metallurgical results were released to the ASX on 15 November 2017, 8 February 2018, 1 March 2018, 12 June 2018 and 22 October 2018. Further testing on SAG milling was carried out under the guidance of METC during the latter half of 2019 and reported to the ASX on 31 October 2019. • The inputs into the NSR calculation are shown in the following table.

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Production and Financial Summary	Unit	Copper	Zinc
Metal price	USD/t	9369	2665
ROM Plant Feed Grade	%	1.01%	3.07%
Overall Plant Recovery	%	85%	82%
Concentrate grade	%	19.85%	49.54%
Payability	%	94.96%	83.85%
Payability deduction	USD/t concentrate	- 93.69	- 213.20
TC's & RC's	USD/t concentrate	- 68.45	- 76.16
By-product credits	USD/t concentrate	218.86	0
Total Penalties	USD/t concentrate	- 19.97	0
Net Smelter Return (NSR)	USD/t concentrate	1 896.59	1 030.79
NSR as % of metal price	%	101.98%	78.08%

Environmental

- *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*

- Environmental studies have been conducted in compliance with South African regulations (NEMA, 1998), including waste rock characterisation and tailings management.
- PCZM has an Integrated Water Use License (IWUL), with water treatment strategies aligned to mine dewatering requirements.
- The project has received environmental approvals for open-pit and underground mining, subject to final compliance conditions

Summary of Approvals

ENVIRONMENTAL PERMIT	PCZM MINING RIGHT	VARDOCUBE MINING RIGHT
Environmental Authorisation	*Granted 3 July 2019 (correction issued 4 August 2020)*	*Granted 3 March 2020*
Environmental Authorisation Amendment	*Not Applicable*	*Granted 13 October 2021*
Waste Management Licence	*Granted 3 July 2019*	*Not Applicable*
Integrated Water Use Licence	*3 August 2020*	*Not Applicable*
Integrated Water Use Licence Amendment	*19 December 2023*	*Not Applicable*
SPLUMA Rezoning to 'Extractive Industry'	*Approved October 2020*	*Approved October 2020*
SARAO Square Kilometre Array (SKA) Permitting	*Compliant*	*Not Applicable*

- The following Financial Provisions have been provided to the Authorities. These are in the form of financial guarantees underwritten by Centriq. The estimate agreed with the Department of Minerals and Energy (DMRE) for the Financial Provision is ZAR13.1 million based on annual rehabilitation, closure costs and residual impacts of the proposed mine of which ZAR64,851,205 was required to be provided to the authorities.

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Financial Provisions Provided to the Authorities as Centriq Guarantees

Guarantee Description	Amount (ZAR)
PCZM Mining Right	58,176,869
Vardocube Mining Right	6,674,336
Subtotal	**64,851,205**
PCZM Provision for historical TSF liability	15,425,939
Total	**80,277,144**

The DMPR further accepted that the post closure liability associated with the historical Prieska Copper Mines TSF be transferred to PCZM, and the balance of funds in the Prieska Copper Mines Nature Conservation Trust was used to provide the financial provision for the historical TSF.
Financial provisions, in the form of financial guarantees, lodged with the DMPR for the Bartotrax and PCZM (Doonies Pan) prospecting rights in the amounts of ZAR106,002 and ZAR112,755 respectively. And for the four OE5 prospecting rights in the amounts of ZAR110,000, ZAR98,615, ZAR45,000 and ZAR60,000.
It is noted that as a condition of the EA granted in support of the Vardocube MR, a guarantee for a further ZAR6.4 million is required to be lodged with the DMPR within four years of the commencement of operations (2026).
The financial provisions are audited annually by an independent Environmental Assessment Practitioner in accordance with legislation.

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<tr><td>Infrastructure</td><td>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.</td><td>
The project benefits from existing infrastructure, including shaft access, underground workings, and proximity to rail and power lines.
A new paste-fill plant will be constructed, ensuring improved ore recovery and stope stability.
Underground workshops, ventilation systems, and power supply upgrades are planned to support full-scale mining.
The combined area for the PCZM Mining Right and Vardocube Mining Right upon which the mine and mine infrastructure is planned, is approximately 6,766 hectares in extent.
Surface Rights, Aquila Sky Trading (Pty) Ltd an indirect subsidiary of Orion, controls the surface use for the farm Vogelstruis Bult 104 and Slimes Dam 154 (Prieska District, Northern Cape Province) primarily in the form of direct surface right ownership (97.5% shareholding in PCML (Prieska Copper Mining Limited); servitude rights written into the property deed for land owned by the Request Trust as well as a long-term Surface Use Agreement signed in November 2018 with the Request Trust in which users rights for prospecting and mining operations are guaranteed and the land-owner compensated. In addition, the holder of a prospecting and
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Criteria	JORC Code (2012) Code explanation	Commentary
		mining right is entitled to carry out the relevant operations for the winning of minerals in terms of Section 54 of the MPRD Act, 2002. To date, Orion is aware of no Land Claims that have been registered for the properties. The Company has used reasonable endeavours to confirm that land is therefore available for the building of new or use of any existing infrastructure. • The combined area for the PCZM Mining Right and Vardocube Mining Right upon which the mine and mine infrastructure is planned, is approximately 6,766 hectares in extent. • Bulk Electricity supply and infrastructure available from national grid. 60MVA requested connection has adequate spare capacity and new reticulation infrastructure will be constructed. • Currently a 15MVA electrical reticulation network is installed for Mine dewatering and construction power for the site. • Bulk Water supply and infrastructure available from municipal water network. 7ML per day of available water supply from the municipal water network is almost double the complete Mine water requirement. The water network will be upgraded to provide reliable water to the mine. • A new Dewatering system will be installed to dewater the mine to start with mining infrastructure installation and removing water during mining activities. • A new Minning conveyance infrastructure will be installed for material and labour into the mine and ore extraction from the mine. • A new power and water reticulation system will be installed for the mining activities. • A new Processing plant for the Deeps will be constructed to extract the value of the Uppers mining reserve. • A new Tailings facility will be constructed to comply to the environmental regulatory requirements and the Processing Plant discard material demands. • Surface workshops, offices, roads, sewer, effluent and contractors' accommodation infrastructure will be built to support the mining and processing needs for the construction and operational phases.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	• Base Date of Valuation: The base date of valuation is set as of 1 March 2025. • Currency and Cash Flow Terms: The principal modelling currency is in South African Rand (ZAR). Additional reporting currencies are in United States Dollars (USD) and Australian Dollars (AUD). • Cash flow terms are based in real money terms. • Source of Exchange rates Used in the Study: S&P Global Capital IQ Pro has been utilised to access exchange rate information. The exchange rate applicable is the prevailing spot rate as of 31 December 2024. • Government Royalties: Per the Mineral and Petroleum Resources Royalty Act 28 of 2008, both the zinc and copper concentrate being produced are regarded as 'unrefined products'. Zinc royalties are chargeable for

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		mineral royalties up to the threshold of 27% zinc in concentrate. The royalty liability is determined by multiplying gross sales of that mineral resource transferred by the following formula: 0.5 * EBIT / (9 * Gross sales in respect of that unrefined mineral resource) * 100. ***Operating Costs*** • Operating costs rates have been built up from first principals within the techno-financial model. Mining and development cost rates have been assimilated and allocated by the Mine Planning Engineer, aided by CCS Candy Software System. Various vendors have submitted cost packages and cash flows have been scheduled by FraserMcGill in accordance with the mines's production schedule. Labour costs are accumulated from manpower schedules for each operating area. Electricity charges are estimated based on all effective kWh power draw from each operating area to which Eskom's Megaflex tariff charges are applied. Fuel consumption is estimated for all major mechanised equipment and the tank price less a discount for fuel levy rebates for non-road utilisation have been applied. All other costs of consumables and services are based on budgetary quotes. Social and Labour expenditure has been estimated in accordance with the MPRDA and closure and reclamation provisions are catered for in terms of a environmental fund maintained by Centriq. Please refer to the below table for further details.

Operating Cost - Deeps	ZAR/t ROM mined (real, 1 March 2025)	USD/t ROM mined	AUD/t ROM mined
Development,	- 619.77	- 32.79	- 49.58
Ore Processing	- 243.36	- 12.88	- 19.47
Shaft and	- 41.44	- 2.19	- 3.32
Surface &	- 126.03	- 6.67	- 10.08
Conc Transport	- 162.42	- 8.59	- 12.99
Corporate	- 17.28	- 0.91	- 1.38
Off-mine Costs	- 35.93	- 7.01	- 7.83
Royalties	- 51.40	- 2.37	- 3.78

Project Capital

• Project Capital has been estimated from a costing sheet assimilated and allocated by Professional Cost Consultants (PCC) and is organised in terms of a WBS Level 3. Various vendors have submitted cost packages and cash flows have been scheduled by Fraser McGill in accordance with the mines's Integrated Master Schedule. The overall level of engineering maturity is appropriate for a Class 3 estimate in terms of the American Association of Cost Engineers (AACE International). A provision for contingencies comprising 11% of the total estimate has been allowed for in the estimate. Please refer to the below table for further details.

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Criteria	JORC Code (2012) Code explanation	Commentary

Capital Expenditure - Deeps	ZAR millions (real, 1 March 2025)	USD millions (real, 1 March 2025)	AUD millions (real, 1 March 2025)
Accommodation camp construction (Speed Space)	62.64	3.31	5.01
Accommodation camp operating cost (Speed Space)	79.29	4.20	6.34
Bulk Power Supply	414.16	21.91	33.13
Bulk Water	30.72	1.63	2.46
Cuprum 132kV Feeder Bay Upgrade (15MVA)	0.55	0.03	0.04
Construction Power Cost	0.00	0.00	0.00
Decline Rehab	406.20	21.49	32.50
Effluent Dam	0.00	0.00	0.00
EPCM	0.00	0.00	0.00
Evaporation Capital	43.88	2.32	3.51
Evaporation Operational cost	0.00	0.00	0.00
Install and commission Man	217.64	11.52	17.41
Install and commission Rock	218.71	11.57	17.50
Mining Fleet (Calculated on Separate Sheet)	840.15	44.45	67.21
Owners Team	220.64	11.67	17.65
Backfill/Paste plant	702.86	37.19	56.23
Process Plant	1606.95	85.02	128.56
Project team	0.00	0.00	0.00
Project services	22.77	1.20	1.82
Dewatering	136.49	7.22	10.92
Shaft refurbishment	94.90	5.02	7.59
Surface infrastructure	245.23	12.97	19.62
Surface Ventilation	104.00	5.50	8.32
Tailings Storage Facility	202.93	10.74	16.23
UG mining construction	434.81	23.01	34.78
Ventilation Raise bore holes	58.72	3.11	4.70
Laboratory	29.00	1.53	2.32
Drilling Related Cost	0.00	0.00	0.00
Operational Readiness	0.00	0.00	0.00
Exploration Costs	100.00	5.29	8.00
Contingency @ 10%	784.65	41.52	62.77
Total Capex	**7057.89**	**373.43**	**564.63**

Sustaining Capital

- Sustaining Capital has been built bottom-up from replacement schedules for mining equipment, rock and man winders, UG shaft and equipment maintenance. An additional 3% of onsite charges has also been added as a provision for various other sustaining charges. LoM sustaining capital is 6.2% of LoM onsite operating costs.

Transportation Charges

- Offtake INCOTERMS for both copper and zinc concentrates are based in CIF FO (Main Chinese port or parity). Transportation charges are premised off budgetary quotations and include loading at minesite trucking from the mine to Port Ngqura at Gqeberha, South Africa, storage, handling and loadout at port, customs clearing and maritime freight to destination port. Please refer to the table for further details.
- Treatment Charges and Refining Charges (TCs and RCs), Penalties and

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Criteria	JORC Code (2012) Code explanation	Commentary
		By-Product Credits • For the Deeps, non-binding offtake agreements consider copper in concentrate (hypogene) as payable up to 96.65%, subject to a minimum 1% grade in concentrate deduction. • By product credits for gold are payable up to 90%, subject to a minimum 1 g/t grade in concentrate deduction, and for silver, are payable up to 90%, subject to a minimum 30 g/t grade in concentrate deduction. • Penalty elements include chlorine in concentrate above 0.1% Cl and zinc in concentrate above 3% Zn. Although other penalty elements are considered, these are considered to be not of sufficient concentrations to have financial impact. • Please refer to the below table for further details. • TCs and RCs are chargeable at 20% discount to the Annual Asian Benchmark rates. Forecast charges have been obtained from S&P Global Commodity Briefing Service as of December 2024. • Zinc in concentrate (hypogene) is payable up to 85%, subject to a minimum 8% grade in concentrate deduction. • No by-product credits as associated with the zinc concentrate. • Penalty elements are considered to be not of sufficient concentrations to have financial impact.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• Commodity Price Assumptions: Forecasted commodity prices have been premised on analyst's consensus forecast as of 2 December 2024. Please refer to the below table for further details. • Foreign Exchange Rate Assumptions: S&P Global Capital IQ Pro has been utilised to access exchange rate information. The exchange rate applicable is the prevailing spot rate as of 31 December 2024. Please refer to the below table for further details. • Consumer Price Indices and Purchasing Power Parity: S&P Global Capital IQ Pro has been utilised to access macroeconomic information. The CPI applicable is the forecast rate as of 31 December 2024. Please refer to

		2025	2026	2027	2028	2029
Copper	USD/t (real, March 2025)	9763	10197	10234	9369	9369
Zinc	USD/t (real, March 2025)	2776	2725	2770	2665	2665
Gold	USD/oz (real, March 2025)	2576	2484	2437	2148	2148
Silver	USD/oz (real, March 2025)	32	32	32	29	30

		2025	2026	2027	2028	2029
USD:ZAR	ZAR/USD (real, March 2025)	18.90	18.90	18.90	18.90	18.90
AUD:ZAR	ZAR/USD (real, March 2025)	12.50	12.50	12.50	12.50	12.50

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Criteria	JORC Code (2012) Code explanation	Commentary
		the below table for further details. |		2025	2026	2027	2028	2029
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SA CPI	%YoY	4.5%	4.6%	4.6%	4.8%	4.7%
USA CPI	%YoY	2.3%	2.4%	2.5%	2.3%	2.2%
EUR CPI	%YoY	3.1%	2.8%	2.6%	2.6%	2.5%	 **Copper** • Copper ("Cu") is an essential commodity with everyday applications driving its demand, including its use in building construction, infrastructure and transmission and equipment manufacturing. Given its key role and importance in the current green evolution, it is projected to grow at an estimated 3.3% from 2023 to 2028 to reach annual consumption of 30.6 million tonnes of copper globally. (S&P Global, 2024). As the global economy continues its post COVID-19 pandemic recovery, global mine output is estimated to rise by 1.4% in 2024 according to S&P (S&P Global, 2024). Copper's historical price cyclicality indicates a fundamentally new price level driven by factors including the green energy transition and the need for energy and commodity supply chain security. Prices reached lows of USD4,300/t in 2016 and USD4,600/t on the onset of COVID-19 in 2020. Since 2021, copper prices have steadily inclined and have peaked at USD10,700/t as normal economic activity resumed. As of June 2024, copper market prices have been weighed down by high stocks and soft demand in China according to S&P Global (S&P Global, 2024). However, a shortage in long-term copper supply could sustain higher prices from short-term price drops. On the positive side, prices are anticipated to rise in Q3 and Q4 of 2024 as copper demand in China could be boosted by funds from special bonds and treasury bonds and a cut to the United States of America (USA) interest rate. According to S&P Global's consensus forecast, the copper price of USD9,370/t in 2024 is expected to grow in line with US CPI over the next 5 years. **Zinc** • Zinc ("Zn") the 4th most common metal in use after iron, aluminium, and copper. Zinc's historical 10-year average consumption threshold of approximately 13Mtpa is anticipated to increase in demand to 15Mtpa over the next 5 years. The main uses of zinc driving its demand are steel corrosion protection, alloying, chemicals for use in the agricultural sector and health and wellness. Zinc has many accessible substitutes for many of its applications, which places downward pressure on market prices. The market for Zinc has historically been tight, and slight deficits between 2016 and 2022 were offset by economic downturn and surpluses as a result of COVID-19 in 2020. Prices received a correction in 2023, coming down from a 2022 peak of USD3,440/t to $2,641/t in 2023. Although market surpluses are expected to steadily reduce over the period between 2024
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	

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		- 2028, S&P Global consensus forecasts a stable price environment with marginal nominal growth of 0.8% over that same period.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• The business plan shows positive economics. **Valuation Results** NPV (Pre Tax) ZAR Million 4 251 NPV (Post Tax) ZAR Million 2 868 IRR (Pre-Tax) % 23.3% IRR (Post Tax) % 18.7% Peak Funding ZAR Million 7 617 Time to Reach Peak Funding Years 3.58 Project Capital ZAR Million 7 058 Sustaining Capital ZAR Million 952 NPV/Max Exposure Ratio 0.38 Payback (from Start of Project) Years 6.8 Payback (from First Concentrate) Years 3.3 Capital Intensity ZAR / Cueq (tpa) 279 169 Zinc Revenue Contribution % 38% First Concentrate Production Date **Aug-28** Life of Mine Years 8.92 Copper Cut off grade % 1.00%
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• Orion has established community agreements and a Social and Labour Plan (SLP) in compliance with Mining Charter III. • The project supports Local economic development, local employment, training initiatives, and supplier development as well as downscaling and a decline in employment.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	• All mining rights, surface access agreements, and statutory approvals are in place. • There are no identified legal or material risks that would impact Ore Reserve classification.
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• The Ore Reserve is classified as Probable, derived exclusively from Indicated Resources, except where Inferred Mineral Resources are included as dilution In minor scattered areas. Approximately 0.5Mt of Inferred Mineral Resources is included as dilution within the fringes of practical mine stope shapes. No grade and revenue have been assigned to these Inferred Resources within the economic models or in the declared Probable Ore Reserve as these tonnes report to the processing

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		plant effectively as another form of dilution. The Inferred tonnes represent approximately 4% of the Ore Reserve tonnage. • No Measured Resources exist; therefore, no Proved Reserves have been declared. • The estimate reflects the Competent Person's confidence in the deposit and its economic extraction. • The deeps operation has Probable Reserves of 14.9million tonnes RoM ore at an average grade of 1.0% and 3.1% for copper and zinc, respectively.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• The Ore Reserve estimate has undergone internal and external peer reviews. The external Peer review was completed by Practara (Pty) Ltd during the Period January 2025 – March 2025. • No material discrepancies were identified during the review process.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which 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.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The Ore Reserve estimate is based on DFS study with a +/-15% level of accuracy, with modifying factors derived from these detailed engineering studies. • Sensitivity analysis confirms that the Ore Reserve remains viable under varying cost and price assumptions. • The estimate applies to the global resource model, ensuring reliability for production planning. • Relative Accuracy and Confidence Level in the Ore Reserve Estimate • The Ore Reserve estimate for the Deeps at PCZM has been classified in accordance with the JORC Code (2012) standards. The Competent Person (CP) has applied statistical and geostatistical procedures, supplemented by modifying factor assessments, to determine the relative accuracy and confidence of the estimate. **Geological Confidence:** • The Mineral Resource underlying the DFS and LoM plan consists of 64% Indicated and 36% Inferred Resources. • The Ore Reserve has been derived only from Indicated Resources, with inferred material excluded from the Ore Reserve Estimation, except where included as dilution. • The Reserve model has incorporated geostatistical methods for orebody interpolation, constrained by drill hole data spacing. **Geotechnical and Mining Confidence:** • Geotechnical assessments have determined appropriate stope dimensions and mining methods, ensuring practical extractability. • The mining method selection (Longitudinal Long Hole Open Stoping and Drift & Fill) was informed by ground conditions and benchmarking against similar operations. • Planned dilution (16%) and unplanned dilution (3%) have been incorporated into the reserve model. • Mining recovery factors (95% for LHOS, 97% for D&F) have been

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		optimised, considering improved stope stability and controlled blasting methodologies. **Economic and Processing Considerations:** • Modifying factors such as commodity price assumptions, metallurgical recoveries, and operational costs have been rigorously assessed. • The expected overbreak of 0.5m on hanging wall and footwall was derived from benchmarking and geotechnical analysis. • The impact of dilution on grade has been modelled, with unplanned dilution applied at zero grade, ensuring conservative estimates. **Global vs. Local Estimates:** • The Ore Reserve estimate is considered a global estimate, covering the entire Deeps mining area. • However, for technical and economic evaluation, the mine plan relies on local estimates, particularly in targeted production zones. • Local estimates focus on stope-level reconciliation of grade, tonnage, and modifying factors, ensuring alignment with operational constraints. • Accuracy and Confidence in Modifying Factors. **Dilution and Overbreak**: • Planned dilution assumptions (16%) and unplanned dilution (3%) have been benchmarked against similar LHOS operations, improving confidence in reserve estimates. • Development ends assume a 5% overbreak, but ore drives are not assigned additional overbreak due to their containment within planned stope shapes. **Mining Recovery:** • A conservative mining recovery of 95% for LHOS and 97% for D&F was assumed, supported by operational experience in similar mining conditions. Stopes will be extracted until backfill dilution exceeds 50%, ensuring minimal ore loss. **Dewatering and Infrastructure Risks:** • The dewatering schedule remains the critical path. • Shaft rehabilitation, underground infrastructure upgrades, and ventilation improvements are key risks to be monitored. **Comparison with Production Data:** • While full-scale production from the Deeps is not yet available, trial mining results have validated key assumptions: o Orebody continuity has been confirmed at the expected locations.

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		○ Ground conditions have been stable, allowing for larger-than-expected excavations without excessive support. ○ Mining rates and development performance align with industry benchmarks, supporting the assumed modifying factors. **Conclusion:** • The Ore Reserve estimate for the Deeps carries a high degree of confidence for Indicated Resources. The LoM plan remains contingent on infill drilling for inferred material conversion. The modifying factors have been rigorously assessed, but risks remain in dewatering schedules, dilution control, and paste fill implementation. Further reconciliation with operational data will refine these estimates over time.

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