



7 December 2023

## **Metallurgical test work from the UG2 Reef indicates potential 4E PGM recovery rates of 85%**

Further to the Company's announcement dated 6 December 2023 **Southern Palladium (ASX:SPD and JSE:SDL), 'Southern Palladium' or 'the Company'** is re-releasing the attached results of initial metallurgical test work results at the Bengwenyama Platinum Group Metal (PGM) project, located on the Eastern Limb of the world class Bushveld Complex, South Africa with the addition of JORC Table 1 Sections 1 & 2.

This announcement has been approved for released by the Board of Southern Palladium Limited.

**For further information, please contact:**

Johan Odendaal  
Managing Director  
Southern Palladium  
Phone: +27 82 557 6088  
Email: [johan.odendaal@southernpalladium.com](mailto:johan.odendaal@southernpalladium.com)

**Media & investor relations inquiries:** Sam Jacobs, Six Degrees Investor Relations: +61 423 755 909



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7 December 2023

## Metallurgical test work from the UG2 Reef indicates potential 4E PGM recovery rates of 85%

### Highlights:

- Preliminary, unoptimized testing indicates that the Bengwenyama UG2 Reef can be treated using conventional methods.
- This initial test work has shown that metallurgical recoveries of between 80 and 85% with concentrate grades of 130 to 250g/t (4E) can be obtained.
- Further test work to further enhance recoveries will be undertaken as part of the prefeasibility study.
- A new Mineral Resource update is due for release shortly.
- A scoping study for the Bengwenyama project is now underway and is scheduled for release in January 2024.

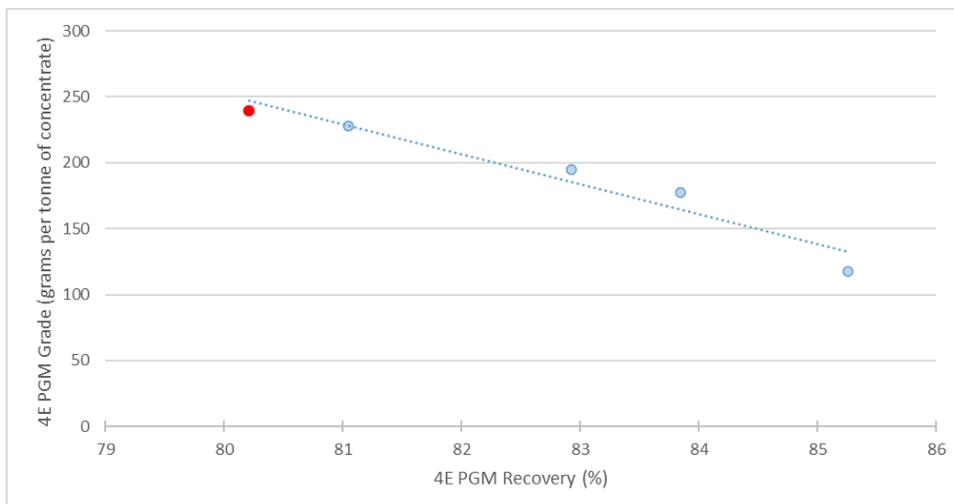
Southern Palladium (ASX:SPD and JSE:SDL), 'Southern Palladium' or 'the Company' is pleased to release the results of initial metallurgical test work results at the Bengwenyama Platinum Group Metal (PGM) project, located on the Eastern Limb of the world class Bushveld Complex, South Africa.

**Managing Director Johan Odendaal, said:** "Significant progress has been achieved in understanding the metallurgy of the UG2 orebody. Preliminary testing suggests that ore from the UG2 Reef can be effectively treated with recoveries ranging from 80% to 85% through conventional methods that are used across the Bushveld Complex, and therefore aligning with industry. Metallurgical recoveries from the UG2 Reef at operations on the Eastern Limb range between 81% and 88%. We believe there should be strong commercial interest in sourcing concentrate of this quality from PGM smelters in South Africa."

### Metallurgical testing

The sample for test work was composited from a total mass of approximately 32kg (4E head grade obtained ~7.95g/t 4E), from various boreholes that intersected the UG2 reef of the Bengwenyama project. This sample was tested by Suntech Geomet Laboratories, an ISO/IEC compliant facility based in Johannesburg.

Figure 1: Concentrate grade vs. recovery (4E)



Source: Suntech Geomatics Test Report

**Southern Palladium Limited**

ACN 646 391 899

Level 1, 283 George Street, Sydney NSW 2000 Australia

This test work has demonstrated that high PGM concentrate grades can be obtained at recoveries of over 80% (see Figure 1 – red dot indicates the test result, i.e., 80.5% recovery at a 4E concentrate grade of 238 g/t). The testwork was a locked cycle test over six cycles. The graphed data is the final concentrate (red dot) and the final residue PGM contained in each waste stream (other four data points).

These recoveries are in line with those reported by various UG2 operations on the Eastern Limb:

- Anglo American Platinum - Mototolo 84% and Modikwa 87%<sup>1</sup>; and
- Implats - Marula 86%-88% and Two Rivers 81%<sup>2</sup>.

In addition to strong PGM recoveries, a marketable chromite concentrate can also be obtained.

Initial mining at the Bengwenyama project will focus on the underground extraction of PGM's from the high grade UG2 Chromitite Reef. The current design for the planned process plant is based on a conventional MF2 flow sheet consisting of primary and secondary milling and flotation, with a processing route to obtain a flotation concentrate which contains a marketable content of 7E PGM.

The typical grind size for Bushveld operations is 106 microns for the primary processes and 75 microns for the secondary.

A chrome concentrate will be produced using conventional spirals and sold separately.

As more representative samples of the UG2 Reef become available, further test work will be undertaken to increase confidence in the process flowsheet and make improvements to both recovery and grade of the 7E PGM content from the UG2 reef.

### **Updated Resource and Scoping Study**

The updated Scoping Study for the Bengwenyama PGM project is now well underway and is scheduled for release in January 2024. This study is being conducted concurrently with the Prefeasibility study and will showcase the project's key metrics, including net present value (NPV), cost estimation, and annual production figures. A new Mineral Resource update is also close to completion and will be finalised for release to the market at the earliest opportunity.

### **About Southern Palladium:**

**Southern Palladium Limited (ASX:SPD, JSE:SDL) is a dual-listed platinum group metal (PGM) company developing the advanced Bengwenyama PGM project, particularly rich in palladium/rhodium, in South Africa. The project is located on the Eastern Limb of the Bushveld Complex, which contains more than 70% of the world's known Platinum Group Metal (PGM) Resources. The Company, holding a 70% stake in the project, will primarily concentrate on delivering a Pre-Feasibility study. Additionally, following the completion of a geophysical survey conducted in 2022 and the October 2023 approval of its Mining Right application, management will oversee the completion of the diamond drill programme initiated in August 2022, along with several other concurrent technical studies.**

**Bengwenyama presents a substantial opportunity in the global PGM market. Previous exploration efforts have already yielded a JORC 2012-compliant Inferred Mineral Resource of 25.12Moz<sup>1</sup> within two ore horizons—the UG2 chromitite and Merensky Reef, achieved in 2023. Moreover, an assessment conducted by mining industry consultants CSA Global in 2021, has identified a significant exploration target beyond the currently explored area. The Company is led by a seasoned on-ground management team, including some of South Africa's most distinguished mining industry executives.**

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<sup>1</sup> Anglo American Ore Reserves and Mineral Resources report 2022

<sup>2</sup> Implats Mineral Resource and Mineral Reserve Statement

## Competent Person Statement

**Daan van Heerden:** The scientific and technical information contained in this announcement has been reviewed, prepared, and approved by Mr Daan van Heerden (B Eng (Min.), MCom (Bus.Admin.), MMC, Pr.Eng. No. 20050318, AMMSA, FSAIMM). Mr van Heerden is a director of Minxcon (Pty) Ltd and a Registered Professional Engineer with the Engineering Council of South Africa, a Member of the Association of Mine Managers South African Council, as well as a Fellow Member of the South African Institute of Mining and Metallurgy. Mr. van Heerden has sufficient experience relevant to the styles of mineralisation and activities being undertaken to qualify as a Competent Person, as such term is defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr van Heerden has a beneficial interest in Southern Palladium through a shareholding in Nicolas Daniel Resources Proprietary Limited.

This announcement has been approved for released by the Board of Southern Palladium Limited.

### **For further information, please contact:**

Johan Odendaal  
Managing Director  
Southern Palladium  
Phone: +27 82 557 6088  
Email: [johan.odendaal@southernpalladium.com](mailto:johan.odendaal@southernpalladium.com)

**Media & investor relations inquiries:** Sam Jacobs, Six Degrees Investor Relations: +61 423 755 909



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## Appendix 1. JORC Checklist – Table 1 Assessment and Reporting Criteria

SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	Explanation	Detail
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.	20 cm samples are taken within the reef horizon unless there is a lithological reason to deviate from this. A single sample is also taken in the hanging wall and footwall to test for mineralisation in the direct waste rock. The samples are split with a core saw and one half is submitted to the laboratory and the other half keep in the core tray.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The core is orientated in such a way that the two halves are equal.
	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.	The sampling methodology is standard and as per industry practice in the Bushveld Complex (BC). The samples are 20 cm in length and are split into two equal halves with one half being submitted for analysis. The core size starts as HQ (10 m to 50 m) but is NQ by the time the reef is intersected.
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.).	The drillholes start with HQ (for approximately 10-50 m) in the weathered zone but are then drilled NQ once in the fresher material. The drill rigs being utilised have been the CS 1500, Delta 520 and a smaller Longyear 44.  The drill contractor is Geomech Africa.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Initially the core was scanned in with the software ScanIT which scans the core with high resolution photos and the geologists reconcile the depths and core losses per 3 m run. The Core recoveries and RQD are then calculated for the drillhole. ScanIT has however been discontinued and the core is now photographed and the core recovery and RQD is calculated manually by the geological assistants.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The geologist informs the drilling supervisor at what depth the reef is expected so that they can take extra precautions around the anticipated reef depth.  The core recoveries are measured per 3 m run and if there is excessive core loss in the reef horizon it is marked as a non-representative sample and will not be used in the resource estimation process.
	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.	Samples have been submitted to the ALS laboratory in Johannesburg, but there is only limited data available at this stage, so this has not been checked yet. The core recoveries for the intersections however all have good core recoveries besides the faulted intersections.
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.	The core was initially scanned into ScanIT software which produced high resolution images. This has however been discontinued. The logging is conducted on paper log sheets or tablets at the core with dropdown menus. Legends have been set up in excel that cover the necessary detailed required for Mineral Resource estimation. Alpha angles and structure detail is also observed and logged. The beta angle is not measured as the core is not orientated but the downhole televiwer survey supplies structural orientation information which is incorporated into the logs.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Core logging is qualitative and utilises excel spreadsheets on tablets.
	The total length and percentage of the relevant intersections logged.	The total drillhole is geologically logged and photographed and the televiwer survey is conducted from 100 m above the reef horizon for additional structural information.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	The core is cut in two equal halves for sampling and storage purposes.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	This project only makes use of core drilling.

SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	Explanation	Detail
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation code at ALS is PREP-31H which has the following procedure: -  Login of samples into the system, weighing, fine crushing of entire sample to 70% - 2 mm, split off 500 g and pulverize split to better than 85% passing 75 microns.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	The QAQC sequence is as follows: -  If the batch is less than 20 samples the batch starts and ends with a blank and a CRM and duplicate are inserted into the sample stream. If the batch is great than 20 samples then the batch starts and ends with a blank and every tenth sample is either a CRM, duplicate or blank. This equates to between 20% and 10% QAQC 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.	The sampling of the reef is reef material only except for the first and last sample of the reef as it will have 2 cm of hanging wall or footwall material to ensure the entire mineralisation is captured. This 2 cm dilution will be calculated into the reef width. The hanging wall and footwall are sampled separately to the reef. Hence the reef samples are representative of the <i>in-situ</i> reef horizon. Requested duplicates are pulp duplicates and the CRMs are material from the UG2 and MR from African Mineral Standards (AMIS).
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The reef horizon is sampled in 20 cm increments so that the grade distribution can be observed if a mining cut is required. The UG2 reef is approximately 70 cm wide and will have three to four samples which will be composited later. The MR is wider at around 200 cm and will have about ten individual samples to determine the grade distribution. These will also be composited later for Mineral Resource Estimation purposes. Hanging wall and footwall samples are also taken to check if there is any mineralisation in the direct surrounding waste rock.  This is industry best practice for the BC.
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.	The UG2 reef will be assayed for 4E and 7E as well as for Cu, Ni, Co, Cr and Fe. The MR will be assayed for the same except the Cr and Fe as it is not a chromitite seam but a pyroxenite layer.  The ALS methods are as follows: - PGM-ICP23 - Pt, Pd, Au package using lead fire assay with ICP-AES finish. 30 g nominal sample weight. Rh-ICP28 - Fire assay fusion using lead flux with Pd collector for Rh determination by ICPAES. 10 g nominal sample weight. PGM-MS25NS - The Platinum Group Metals are separated from the gangue material using the Nickel Sulphide Fire Assay procedure. After dissolution of the pulp with aqua regia, PGMs are determined by ICP-MS. ME-XRF26s - Analysis of Chromite ore samples by fused disc / XRF. This method is suitable for the determination of major and minor elements in ore samples which require a high dilution digest such as Chromite ores. Elements that will be analysed are Cr, Cu, Ni, Fe and Co.  The overall pass rate of the various QAQC samples is 90%.  All methodologies are 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.	All analytical work is undertaken by ALS Chemex South Africa (Pty) Ltd, located in Johannesburg, which is part of the ALS group. The South African laboratory is ISO 17025 accredited by SANAS (South African National Accreditation System).
	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.	QAQC procedure has been described above.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	An umpire laboratory will be utilised as an additional check at a later stage.
	Discuss any adjustment to assay data.	No adjustments have been made to the assayed results.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	The assay results are received from the laboratory in pdf format and excel format. The excel form is imported into the Minxcon excel database. These are checked by the senior geologist. The assay certificates are stored in the project folder.
	The use of twinned holes.	No twinning has been undertaken to date.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Drillhole collar positions are recorded by handheld Garmin GPS. The drillholes will be surveyed in at a later stage.

SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	Explanation	Detail
	Specification of the grid system used.	The coordinate system used is LO31.
	Quality and adequacy of topographic control.	Regional three-dimensional (3D) topography was constructed from regional surface contours and Shuttle Radar Topography Mission (SRTM) data. The surface was trimmed 300–500 m beyond the Project perimeter.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The final drillhole spacing will be approximately 350 m. The drilling completed to date or in progress has a wider spacing to get a better understanding of the larger structural domains of the project.
	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.	Geological continuity is based on the knowledge of the surrounding area and 3D model constructed from historical data. The 53 of the 59 completed drillholes to date have intersected the UG2 which is confirming the position of the UG2 reef. Of the 14 drillholes expected to intersect the MR 11 have intersected the reef and two have been faulted.
	Whether sample compositing has been applied.	The 20cm (or larger) samples are composited to obtain the weighted average of the entire intersection.
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.	The drillholes are vertical drillholes and intersect the reef close to right angles. The sample is therefore unbiased. If the reef is faulted it will be noted and if the reef intersection is not representative, it will not be used in Mineral Resource estimations.
	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.	No sampling bias will be introduced based on the drilling orientation as they are close to perpendicular.
Sample security	The measures taken to ensure sample security.	Samples are only handled by the drilling contractor and the Minxcon geological staff. There is a strict chain of custody that is followed from the time the core leaves the drill site to the time the sample is received by the laboratory.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits have been undertaken on the drilling to date.

SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	Explanation	Detail
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.	A Preferent Prospecting Right LP002PPR was granted to the Bengwenyama Tribe's investment vehicle, Miracle Upon Miracle Investments (Pty) Ltd in 2015 over the farms Eerstegeluk 327 KT and Nootverwacht 324 KT. This was renewed in early 2021 and is valid until February 2024. The Right covers all elements of potential economic interest.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The right is valid until February 2024.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Drilling was undertaken by Rustenburg Platinum Mines from 1966 to 1985. Trojan exploration completed drilling on Eerstegeluk between 1990 and 1993. Drilling prior to 1994 was not used as part of this Mineral Resource estimate (MRE) due to the incomplete nature or availability of the drillhole data. Nkwe completed drillholes in 2007–2008. This drilling supports the MRE. Reconnaissance mapping has been completed by previous operators.
Geology	Deposit type, geological setting and style of mineralisation.	The target UG2 and Merensky reefs occur within the Upper Critical Zone of the Rustenburg Layered Suite of the BC. These reefs are laterally continuous for tens to hundreds of kilometres. The UG2 comprises mineralised chromitite, whereas the Merensky Reef is defined as the mineralised pyroxenitic zone between upper and lower

**SECTION 2: REPORTING OF EXPLORATION RESULTS**

<b>Criteria</b>	<b>Explanation</b>	<b>Detail</b>
		chromitite stringers. The BC is the world's largest igneous intrusion and also the largest global repository of PGEs and chromitite. Both reefs are stratiform with relatively minor disruptive structural features and replacement deposits.

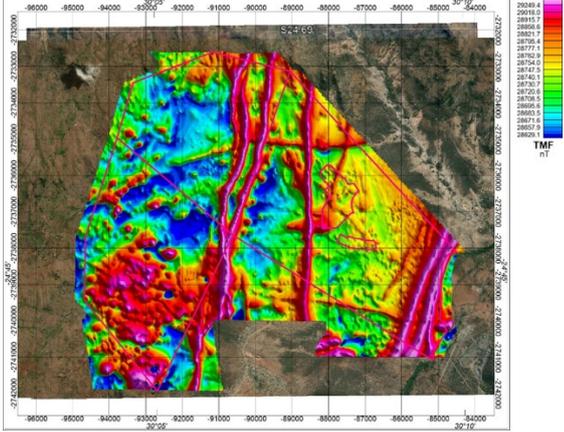
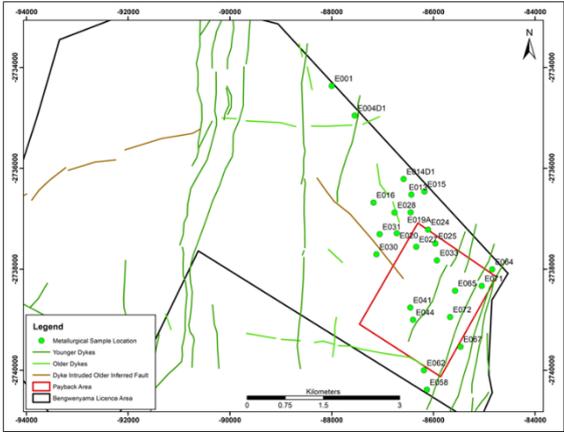
**SECTION 2: REPORTING OF EXPLORATION RESULTS**

Criteria	Explanation	Detail																					
Drillhole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: * easting and northing of the drillhole collar * elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar * dip and azimuth of the hole * down hole length and interception depth * hole length.	<table border="1"> <thead> <tr> <th colspan="7" data-bbox="762 203 1294 224">Drilling</th> <th data-bbox="1294 203 1441 224">Comment</th> </tr> <tr> <th data-bbox="762 224 799 246">BHID</th> <th data-bbox="799 224 895 246">Date Started</th> <th data-bbox="895 224 991 246">Date Completed</th> <th data-bbox="991 224 1086 246">From (m)</th> <th data-bbox="1086 224 1182 246">To (m)</th> <th data-bbox="1182 224 1294 246">Drilled Metres</th> <th data-bbox="1294 224 1441 246"></th> </tr> </thead> </table>							Drilling							Comment	BHID	Date Started	Date Completed	From (m)	To (m)	Drilled Metres	
		Drilling							Comment														
		BHID	Date Started	Date Completed	From (m)	To (m)	Drilled Metres																
		E019	23-Aug-22	05-Sep-22	0.00	32.42	32.42	Abandoned, stuck drill tools															
		E019a	06-Sep-22	05-Oct-22	0.00	323.77	323.77	EGH, completed															
		E060	26-Aug-22	19-Oct-22	0.00	206.72	206.72	EGH, completed															
		E060D 1	23-Nov-22	28-Nov-22	139.00	185.53	46.53	EGH, completed															
		E062	26-Aug-22	02-Sep-22	0.00	120.34	120.34	EGH, completed															
		E062D1	07-Sep-22	08-Sep-22	18.30	34.92	16.62	Deflection completed, faulted UG2															
		E062D2	09-Sep-22	10-Sep-22	13.30	33.00	19.70	Deflection completed, faulted UG2															
		E058	12-Sep-22	05-Oct-22	0.00	158.25	158.25	EGH, completed															
		E033	07-Sep-22	15-Oct-22	0.00	261.58	261.58	EGH, completed															
		E028	07-Oct-22	24-Oct-22	0.00	383.75	383.75	EGH, completed															
		E004	14-Oct-22	15-Nov-22	0.00	524.50	524.50	EGH, completed															
		E004D 1	19-Nov-22	24-Nov-22	457.00	518.75	61.75	Deflection completed															
		E030	26-Oct-22	05-Dec-22	0.00	413.75	413.75	EGH, completed															
		E025	18-Oct-22	09-Nov-22	0.00	267.58	267.58	EGH, completed															
		E037	13-Oct-22	02-Nov-22	0.00	282.45	282.45	EGH, completed															
		E049	21-Oct-22	19-Nov-22	0.00	322.75	322.75	EGH, completed															
		E031	07-Nov-22	22-Nov-22	0.00	423.22	423.22	EGH, completed															
		E044	12-Nov-22	14-Dec-22	0.00	263.73	263.73	EGH, completed															
		E016	28-Nov-22	14-Dec-22	0.00	454.68	454.68	EGH, completed															
		E007	28-Nov-22	10-Dec-22	0.00	422.80	422.80	EGH, completed															
		E064	29-Nov-22	06-Dec-22	0.00	166.40	166.40	EGH, completed															
		E071	07-Dec-22	12-Dec-22	0.00	188.80	188.80	EGH, completed															
		E065	08-Dec-22	15-Dec-22	0.00	239.75	239.75	EGH, completed															
		E001	12-Jan-23	06-Feb-23	0.00	554.75	554.75	EGH, completed															
		E015	12-Jan-23	19-Jan-23	0.00	298.72	298.72	EGH, completed															
		E020	11-Jan-23	21-Jan-23	0.00	350.75	350.75	EGH, completed															
		E041	13-Jan-23	06-Feb-23	0.00	258.77	258.77	EGH, completed															
		E067	12-Jan-23	25-Jan-23	0.00	306.45	306.45	EGH, completed															
		E013	23-Jan-23	01-Feb-23	0.00	327.28	327.28	EGH, completed															
		E024	23-Jan-23	29-Jan-23	0.00	284.75	284.75	EGH, completed															
		E069	27-Jan-23	29-Mar-23	0.00	305.45	305.45	EGH, Completed															
		E027	01-Feb-23	21-Feb-23	0.00	290.75	290.75	EGH, completed															
		E014	07-Feb-23	10-Apr-23	0.00	354.10	354.10	EGH, completed															
		E069D 1	04-Apr-23	06-Apr-23	180.00	251.65	71.65	EGH, Completed															
		E001D 1	13-Apr-23	18-Apr-23	508.00	552.02	44.02	EGH, Completed															
		E014D 1	15-Apr-23	18-Apr-23	302.00	344.04	42.04	EGH, Completed															
		E014D 2	24-Apr-23	27-Apr-23	292.00	346.55	54.55	EGH, Completed															
		E032	12-Apr-23	04-May-23	0.00	467.75	467.75	EGH, Completed															
		**E057	08-Apr-23	22-Apr-23	0.00	299.68	299.68	EGH, Completed															

SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	Explanation	Detail
		The UG2 and MR geological and estimation models have been updated to include drilling and assaying data as at end of March 2023. The structural / geological model utilised 20 historical Nkwe drillholes and 59 SPD drillholes while the estimation model utilised 10 historical Nkwe drillholes and 24 SPD drillholes for the UG2 and 10 historical Nkwe drillholes and 8 SPD drillholes for the MR.
	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.	N/A
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.	With the Mineral Resource update the statistical analysis recommended no top cutting of the grade. In the case of the MR there was one sample that was capped. The Mineral Resource has been declared at a paylimit of 1.9 g/t for the UG2 and 1.6 g/t for the MR. The exploration target range is based on the kriged estimated value with a 20% range applied to it.
	Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	The individual 20cm samples are combined per drillhole per reef intersection for the composite grades used in the estimation process.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent has been reported but the various elements have been combined for 3PGE+Au grades (4E) and 6PGE+au grades (7E).
Relationship between mineralisation widths and intercept lengths	If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	The intersection lengths stated are the downhole lengths. The drillholes are drilled at -90 degrees and the reef dip is expected to be approximately 6 degrees. Therefore, the difference should be minimal.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	A map of the drillhole positions is included in this and the previous press release. A stratigraphic column has been completed for the project (in press releases). A section has been included in the press release.
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.	Reef intersection depths for all the drillholes have been reported in the table below.

Drilling	Merensky Reef				UG2 Reef			
	From (m)	To (m)	Intersection Width (m)	Comment	From (m)	To (m)	Intersection Width (m)	Comment
E019	20.25	22.45	2.20	Highly weathered & friable, inconclusive	-	-	-	Hole stopped short
E019a	19.55	22.35	2.80	Highly weathered & friable, inconclusive	315.85	316.61	0.76	Complete intersection
E060	-	-	-	No MR expected - East of MR subcrop	-	-	-	Reef Missing
E060D1	-	-	-	No MR expected - East of MR subcrop	178.78	179.29	0.51	Complete intersection
E062	-	-	-	No MR expected - East of MR subcrop	31.27	32.30	1.03	Complete intersection, moderately weathered
E062D1	-	-	-	No MR expected - East of MR subcrop	31.45	32.27	0.82	Moderately weathered & faulted, Incomplete intersection, Core loss
E062D2	-	-	-	No MR expected - East of MR subcrop	31.16	31.56	0.40	Moderately weathered & faulted, Incomplete intersection, Core loss
E058	-	-	-	No MR expected - East of MR subcrop	140.88	141.29	0.41	Complete intersection
E033	-	-	-	No MR expected - East of MR subcrop	253.62	254.25	0.63	Complete intersection
E028	66.70	68.66	1.96	Complete intersection	373.26	373.79	0.53	Complete intersection
E004	210.77	212.90	2.13	Complete intersection	517.33	517.57	0.24	Pothole
E004D1	-	-	-	Deflection below MR	515.83	516.52	0.69	Pothole
E030	143.00	144.68	1.68	Complete intersection	409.55	410.07	0.52	Complete intersection
E025	-	-	-	No MR expected - East of MR subcrop	260.42	261.32	0.90	Complete intersection
E037	-	-	-	No MR expected - East of MR subcrop	-	-	-	Pothole
E049	-	-	-	No MR expected - East of MR subcrop	-	-	-	Faulted
E031	122.40	124.29	1.89	Complete intersection	416.57	417.19	0.62	Complete intersection
E044	-	-	-	No MR expected - East of MR subcrop	258.75	259.42	0.67	Complete intersection
E016	-	-	-	Faulted	449.24	450.01	0.77	Complete intersection
E007	100.38	102.54	2.16	Complete intersection	417.42	418.54	1.12	Complete intersection
E064	-	-	-	No MR expected - East of MR subcrop	156.19	157.05	0.86	Complete intersection
E071	-	-	-	No MR expected - East of MR subcrop	180.04	180.73	0.69	Complete intersection
E065	-	-	-	No MR expected - East of MR subcrop	231.61	232.50	0.89	Complete intersection
E001	259.82	261.64	1.82	Complete intersection	548.07	549.21	1.14	Complete intersection
E015	-	-	-	No MR expected - East of MR subcrop	291.89	292.63	0.74	Complete intersection
E020	54.20	55.39	1.19	Faulted	342.90	343.56	0.66	Complete intersection
E041	-	-	-	No MR expected - East of MR subcrop	250.95	251.60	0.65	Complete intersection
E067	-	-	-	No MR expected - East of MR subcrop	299.70	300.20	0.50	Complete intersection
E013	12.43	14.53	2.10	Highly weathered & friable, inconclusive (core loss)	321.26	321.76	0.50	Complete intersection
E024	-	-	-	No MR expected - East of MR subcrop	278.77	279.26	0.49	Complete intersection
E069	-	-	-	No MR expected - East of MR subcrop	240.98	241.39	0.41	Incomplete intersection
E027	-	-	-	No MR expected - East of MR subcrop	284.47	285.04	0.57	Complete intersection
E014	37.28	39.68	2.40	Complete intersection	342.62	343.68	1.06	Complete intersection
E089D1	-	-	-	No MR expected - East of MR subcrop	241.33	241.63	0.30	Complete intersection
E001D1	-	-	-	Deflection below MR	547.78	548.26	0.48	Complete intersection
E014D1	-	-	-	Deflection below MR	343.29	343.74	0.45	Incomplete intersection, core loss & grinding
E014D2	-	-	-	Deflection below MR	342.19	343.06	0.88	Complete intersection
E032	171.69	173.78	2.09	Complete intersection	462.66	463.98	1.32	Complete intersection
**E057	-	-	-	-	29.96	30.44	0.48	Highly weathered & friable, inconclusive
	-	-	-	No MR expected - East of MR subcrop	237.73	238.06	0.33	LG5A reef
	-	-	-	-	238.3	238.63	0.33	LG6 reef
	-	-	-	-	238.66	239.65	1.19	LG6 reef
E045	-	-	-	No MR expected - East of MR subcrop	202.205	202.82	0.615	Complete intersection
**E058	-	-	-	-	324.59	325.02	0.43	LG5A reef
	-	-	-	No MR expected - East of MR subcrop	325.29	325.56	0.27	LG6 reef
	-	-	-	-	325.82	326.54	0.72	LG6 reef
E052	-	-	-	No MR expected - East of MR subcrop	246.01	247.04	1.03	Complete intersection
E072	-	-	-	No MR expected - East of MR subcrop	248.48	249.07	0.59	Incomplete intersection, core loss & grinding
E072D1	-	-	-	No MR expected - East of MR subcrop	248.71	249.44	0.73	Complete intersection
E072D2	-	-	-	No MR expected - East of MR subcrop	248.64	249.28	0.64	Complete intersection
E029	40.02	42.62	2.60	core loss, too stringer only, inconclusive	314.68	314.88	0.20	Pothole
E050D1	-	-	-	No MR expected - East of MR subcrop	276.37	276.90	0.53	Complete intersection
E076	-	-	-	No MR expected - East of MR subcrop	233.22	233.77	0.55	Complete intersection
E029D1	-	-	-	No MR expected - East of MR subcrop	315.08	315.10	0.02	Pothole
E066	-	-	-	No MR expected - East of MR subcrop	221.30	221.64	0.34	Incomplete Intersection Faulted
E086D1	-	-	-	No MR expected - East of MR subcrop	221.19	221.63	0.44	Complete intersection
E046	-	-	-	No MR expected - East of MR subcrop	238.66	239.22	0.56	Complete intersection
E048	-	-	-	No MR expected - East of MR subcrop	229.77	230.57	0.80	Complete intersection
E054	-	-	-	No MR expected - East of MR subcrop	280.52	280.94	0.42	Complete intersection
E059	-	-	-	No MR expected - East of MR subcrop	95.17	95.70	0.53	Complete intersection
E039	-	-	-	No MR expected - East of MR subcrop	226.54	226.89	0.35	Incomplete intersection, core loss & faulted
E039D1	-	-	-	No MR expected - East of MR subcrop	226.85	227.56	0.71	Complete intersection
E120	-	-	-	No MR expected - East of MR subcrop	155.65	155.74	0.09	Pothole
E082	-	-	-	No MR expected - East of MR subcrop	243.15	243.47	0.32	Incomplete intersection, faulted
E034	25.67	30.15	4.48	Highly weathered & friable, inconclusive	292.00	292.94	0.94	Incomplete intersection, faulted
E082D1	-	-	-	No MR expected - East of MR subcrop	243.25	243.67	0.42	Complete intersection
E086A	-	-	-	No MR expected - East of MR subcrop	255.62	255.78	0.16	Incomplete intersection, faulted
E086AD1	-	-	-	No MR expected - East of MR subcrop	256.01	256.34	0.33	Incomplete intersection, faulted
E087	23.68	28.17	4.49	Highly weathered & friable, inconclusive	287.97	288.61	0.64	Complete intersection
E086AD2	-	-	-	No MR expected - East of MR subcrop	255.46	255.71	0.25	Complete intersection
E120D1	-	-	-	No MR expected - East of MR subcrop	-	-	-	Pothole
E034D1	-	-	-	No MR expected - East of MR subcrop	292.38	292.97	0.59	Incomplete intersection, faulted
E070	-	-	-	No MR expected - East of MR subcrop	185.15	185.72	0.57	Incomplete intersection, friable & faulted
E070D1	-	-	-	No MR expected - East of MR subcrop	185.29	186.08	0.79	Incomplete intersection, faulted
E114	-	-	-	No MR expected - East of MR subcrop	-	-	-	Faulted
E034D2	-	-	-	No MR expected - East of MR subcrop	292.74	293.27	0.53	Incomplete intersection, faulted
E051	-	-	-	No MR expected - East of MR subcrop	95.33	95.80	0.47	Incomplete intersection, Grinding
E080	-	-	-	No MR expected - East of MR subcrop	188.64	189.12	0.48	Incomplete intersection, faulted
E085	-	-	-	No MR expected - East of MR subcrop	247.34	247.91	0.57	Complete intersection
E079	-	-	-	No MR expected - East of MR subcrop	263.00	263.39	0.39	Incomplete intersection, faulted
E113	-	-	-	No MR expected - East of MR subcrop	289.62	289.69	0.07	Pothole
E051D1	-	-	-	No MR expected - East of MR subcrop	95.33	96.45	1.13	Complete intersection
E115	-	-	-	No MR expected - East of MR subcrop	87.75	88.55	0.80	Complete intersection
E118	-	-	-	No MR expected - East of MR subcrop	288.56	289.45	0.89	Complete intersection
E122	-	-	-	No MR expected - East of MR subcrop	179.19	179.75	0.56	Complete intersection
E125	-	-	-	No MR expected - East of MR subcrop	228.25	229.70	0.45	Incomplete intersection, faulted
E125D1	-	-	-	No MR expected - East of MR subcrop	228.44	228.83	0.39	Incomplete intersection, faulted

**SECTION 2: REPORTING OF EXPLORATION RESULTS**

Criteria	Explanation	Detail
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.	<p>A high-definition helicopter borne Total Magnetic Field (TMF) gradient and gamma-ray spectrometry survey was completed by New Resolution Geophysics (Pty) Ltd (NRG) in January of 2022 which highlighted the major structural features that could be expected.</p> <p>The total line kilometres flown was 1,425 lkm over the farms Eerstegeluk 327 KT and Nooitverwacht 324 KT with the survey being flown at a height between 25 m and 80 m due to the topography and residential areas with an average height of approximately 35 m to 40 m and a line spacing of 50 m.</p>  <p>The representative material used for metallurgical testing, consisted of a total of 32 kg, which was composited from drill cores which originated from various locations across the orebody as illustrated below.</p>  <p>The metallurgical test results support 4E recovery of 80.5 % at a concentrate grade of 239 g/tonne up to a recovery of 85 % at a reduced concentrate grade of about 140 g/tonne.</p>
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).	Phase 1a has been completed which was approximately 10,000m of drilling. This phase tested the wider area for the grade distribution and bigger picture structural understanding. Phase 1b will now focus on the PFS payback area to convert the inferred resource in this area to indicated resources. Deflections are also being drilled for metallurgical and geotechnical studies. The drilling programme is still for approximately 25,000m in total.

**SECTION 2: REPORTING OF EXPLORATION RESULTS**

Criteria	Explanation	Detail
	<p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	<p>Above are the structural blocks modelled from the drillhole database (UG2 on top and MR the second). The entire area is either in Mineral Resource (indicated or inferred) or Exploration Target so there is limited upside potential within the project boundaries.</p>