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7 December 2023

Mineral Resource Update: UG2 Indicated Mineral Resource doubles to 6.52 Moz (7E) with an increase in grade

Highlights:

- **The UG2 Indicated Mineral Resource for the Bengwenyama project has doubled to 5.40 Moz (4E) or 6.52 Moz (7E) at a grade of 8.08 g/t and 9.75 g/t respectively. Total UG2 Mineral Resource ounces (Indicated and Inferred) are now 12.99 Moz (4E) and 15.72 Moz(7E).**
- **Total UG2 and Merensky Reef (MR) Mineral Resource ounces (Indicated and Inferred) are now 26.22 Moz.**
- **The total UG2 4E resource grade is now 7.95g/t, 5.9% higher than the earlier resource. The total UG2 7E grade is 5.6% higher at 9.63g/t.**
- **New drilling focus is to convert more inferred Mineral Resources to Indicated Mineral Resources in the North Horst Block.**
- **The Resource Upgrade will contribute to an updated Scoping Study, which is now well 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 a second Mineral Resource update for the UG2 Reef for 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: *"The planned conversion of the shallow eastern portion of the Eerstegeluk UG2 Reef has now been successfully completed, resulting in the upgrade of Indicated Mineral Resources. The Indicated Mineral Resource has doubled to 6.52 Moz at a 7E grade of 9.75g/t, contributing to a total Mineral Resource (Indicated and Inferred) of 26.22 Moz. The Indicated resource now represents 41.6% of the 13Moz total UG2 mineral resource estimate. Pleasingly, the results not only doubled the Indicated resource, they were also accompanied by a 5-6% increase in grade.*

Combined with the strong metallurgical test results released earlier this week, the resource upgrade further confirms Bengwenyama's standing as a significant PGM development project. These results will allow the publication of production forecasts and economic parameters from the forthcoming Scoping Study, due for release early next year.

The drilling focus has now shifted to the North Horst Block to convert the Inferred Mineral Resource and Exploration Target into Indicated Mineral Resources for the upcoming Pre-Feasibility Study (PFS). The Northern Horst Block will potentially convert both the Merensky Reef (MR) as well as the UG2 Reef as this area falls west of the MR sub-crop."

UG2 Mineral Resource Upgrade

The planned conversion of the shallow eastern portion of the Eerstegeluk UG2 Reef to an Indicated Mineral Resource has resulted in a second Mineral Resource update for the UG2 Reef. The UG2 Indicated Mineral Resource has increased by 104% to 5.40 Moz at a 3PGE + Au (4E) grade of 8.08 g/t and 6.52 Moz at a 6PGE + Au grade (7E) of 9.75 g/t.

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The latest drilling focused on the conversion of the UG2 Inferred Mineral Resources to Indicated Mineral Resources in the south-east portion of the Eerstegeluk farm (refer Figure 4). The total Mineral Resource (Indicated and Inferred) for the UG2 Reef has seen an increase of 7.9% from 12.04 Moz to 12.99 Moz (4E). Future drilling will likely result in additional Inferred Mineral Resources being added once the focus of the drilling programme moves away from infill drilling. The MR is largely unchanged.

Table 1 below shows the consolidated UG2 Mineral Resource as at 1 December 2023. Consistent with the previous Mineral Resource update (refer ASX Announcement 30 May 2023), geological losses have been applied and the resource is declared at a pay limit of 1.9 g/t using a 4E basket price of US$2,654/oz. Importantly, no Mineral Resource falls below the pay limit. It is envisaged that the resource mining cut will be around 1 metre based on the observation that chromitite stringers are commonly absent in the drilled area and by comparison with other mines in the area.

Table 1: UG2 Mineral Resource as at 1 December 2023

Resource Classification	Tonnes (Mt)	Reef width (cm)	Pt	Pd	Rh	Au	Ir	Os	Ru	4E	7E	Cu	Ni	Cr_2O_3	(4E)	(7E)
			(g/t)									(%)			Moz	
Indicated	**20.80**	**73**	3.60	3.61	0.75	0.12	0.25	0.17	1.24	**8.08**	**9.75**	0.03	0.16	30.19	**5.40**	**6.52**
Inferred	**29.99**	**74**	3.63	3.37	0.77	0.10	0.26	0.17	1.25	**7.87**	**9.54**	0.04	0.16	29.12	**7.58**	**9.20**

Note: All elements have been estimated individually and their combined grade will vary slightly from the estimated composite 4E and 7E modelled grades

The full mining width will be determined as part of future mining studies and will incorporate dilution by low or nil grade hanging wall and footwall dilution, as is seen in most operations within the Bushveld Complex.

The total combined Mineral Resource for the UG2 and MR as at 1 December 2023 is summarised in Table 2. The combined Indicated Mineral Resource for the project, on a 7E basis, is now 8.43 Moz ounces with a combined Inferred Mineral Resource of 17.80 Moz. The total Mineral Resource (Indicated and Inferred) is now 26.22 Moz. These Mineral Resources include 15.72Moz indicated and inferred for the UG2 reef.

Table 2: Combined UG2 and MR Mineral Resource as at 1 December 2023

Reef	Resource Category	Tonnes	Thickness	Pt	Pd	Rh	Au	Ir	Os	Ru	4E	7E	Cu	Ni	Moz (4E)	Moz (7E)
		Mt	(m)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(%)	(%)		
Merensky	Indicated	21.59	2.05	1.59	0.65	0.10	0.12	0.03	0.03	0.21	2.48	2.75	0.038	0.125	1.72	1.91
Merensky	Inferred	77.90	1.97	2.01	0.81	0.13	0.15	0.04	0.04	0.25	3.10	3.43	0.035	0.119	7.77	8.60
Total		**99.49**	**1.99**	**1.92**	**0.78**	**0.12**	**0.14**	**0.04**	**0.04**	**0.24**	**2.97**	**3.28**	**0.035**	**0.120**	**9.49**	**10.50**
UG2	Indicated	20.80	0.73	3.60	3.61	0.75	0.12	0.25	0.17	1.24	8.08	9.75	0.033	0.162	5.40	6.52
UG2	Inferred	29.99	0.74	3.63	3.37	0.77	0.10	0.26	0.17	1.25	7.87	9.54	0.038	0.165	7.58	9.20
Total		**50.79**	**0.73**	**3.62**	**3.47**	**0.76**	**0.11**	**0.26**	**0.17**	**1.25**	**7.95**	**9.63**	**0.036**	**0.164**	**12.99**	**15.72**
Total		**150.28**	**1.57**	**2.49**	**1.69**	**0.34**	**0.13**	**0.11**	**0.08**	**0.58**	**4.65**	**5.43**	**0.04**	**0.13**	**22.48**	**26.22**

Note: All elements have been estimated individually and their combined grade will vary slightly from the estimated composite 4E and 7E modelled grades.

The UG2 Exploration Target* as at 1 December 2023 is summarised in Table 3. The UG2 Exploration Target is based on the kriged estimation model beyond the inferred perimeter with a 20% range applied to the grade and tonnage.

**The potential quantity and grade of the Exploration Target is conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.*

Table 3: UG2 Exploration Target as at 1 December 2023

Category	Reef	Minimum tonnes (Mt)	Maximum tonnes (Mt)	Minimum grade (3PGE+Au g/t)	Maximum grade (3PGE+Au g/t)
Exploration Target	UG2	38	58	6.4	9.6

UG2 Mineral Resource Estimation

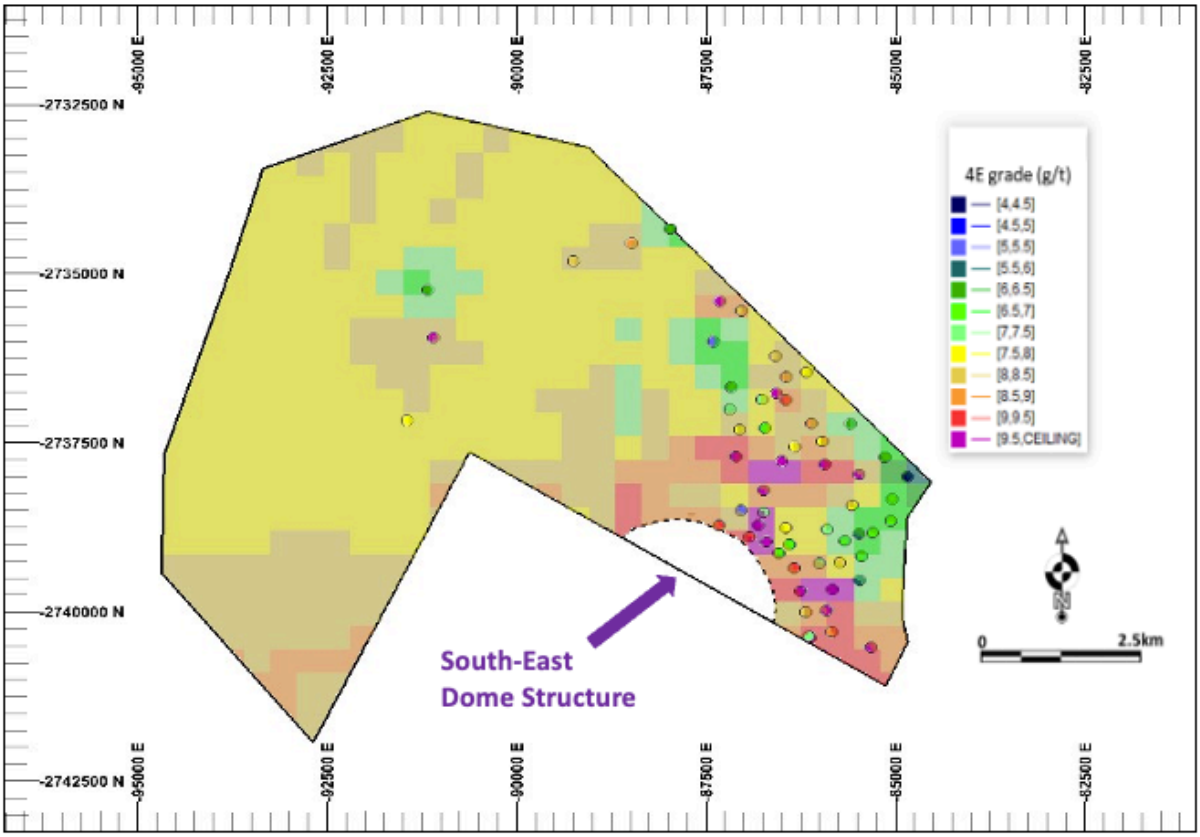
The UG2 geological and estimation models have been updated to include drilling and assaying data as at end of October 2023. The estimation model utilised 59 drillholes with complete UG2 intersections (Figure 1).

The Mineral Resource was estimated using Ordinary Kriging. Figure 1 shows the 4E g/t resultant model with the drillhole positions used in the estimation. No capping was applied to the estimation and the kriging neighbourhood analysis (KNA) recommended a block size of 350m with a minimum and maximum number of samples of 5 and 15 respectively for the first search volume. Three search volumes with decreasing samples were used for the estimation.

All elements (Pt, Pd, Rh, Au, Ir, Os, Ru, Cu, Ni, Cr and Fe) were estimated individually as well as a combined 4E (Pt, Pd, Rh & Au) and 7E (Pt, Pd, Rh, Ir, Os, Ru & Au). The average 4E prill splits for Pt:Pd:Rh:Au of 45.5% : 43.6% : 9.5% : 1.4% were determined using these estimates. The Cr:Fe ratio of the UG2 chromitite horizon, from modelled Cr and Fe analysis, is 1.21. A density of 3.93 t/m^3 was used in the tonnage estimate.

There has been an increase in the average grade of the project, due to the additional reef intersections obtained during the recent drilling. This resource estimate is based on 59 drillhole intersections compared to the 34 drillhole intersections in the previous estimate. The arithmetic mean of the 4E and 7E grades increased from 7.71 g/t to 8.20 g/t and from 9.35 g/t to 9.88 g/t respectively. This grade increase has translated into the resource model. The areas of higher grade can be seen in the area around the edge of the dome structure in the southeast (see Figure 1).

Figure 1: Modelled 3PGE+Au g/t Plot of the UG2 Reef



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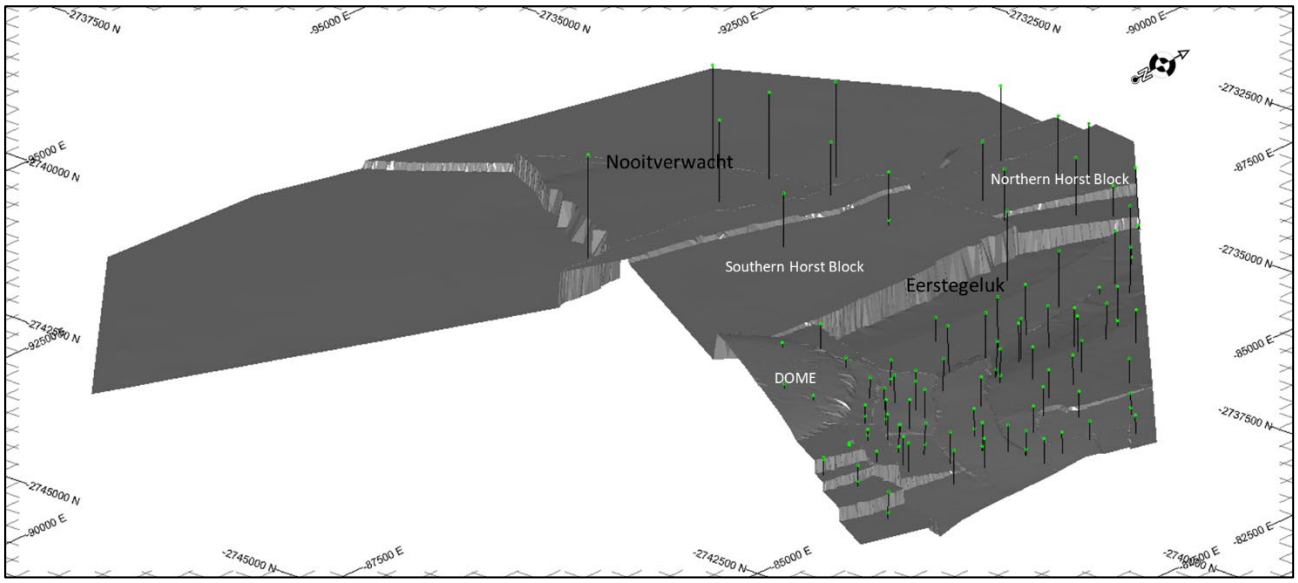
The UG2 structures are now also better understood with the updated 3D structural model for the UG2 (Figure 2) being utilised for the scoping study. The overall geological losses applied to the Indicated and Inferred Mineral Resources for the UG2 are now 21% and 24% respectively.

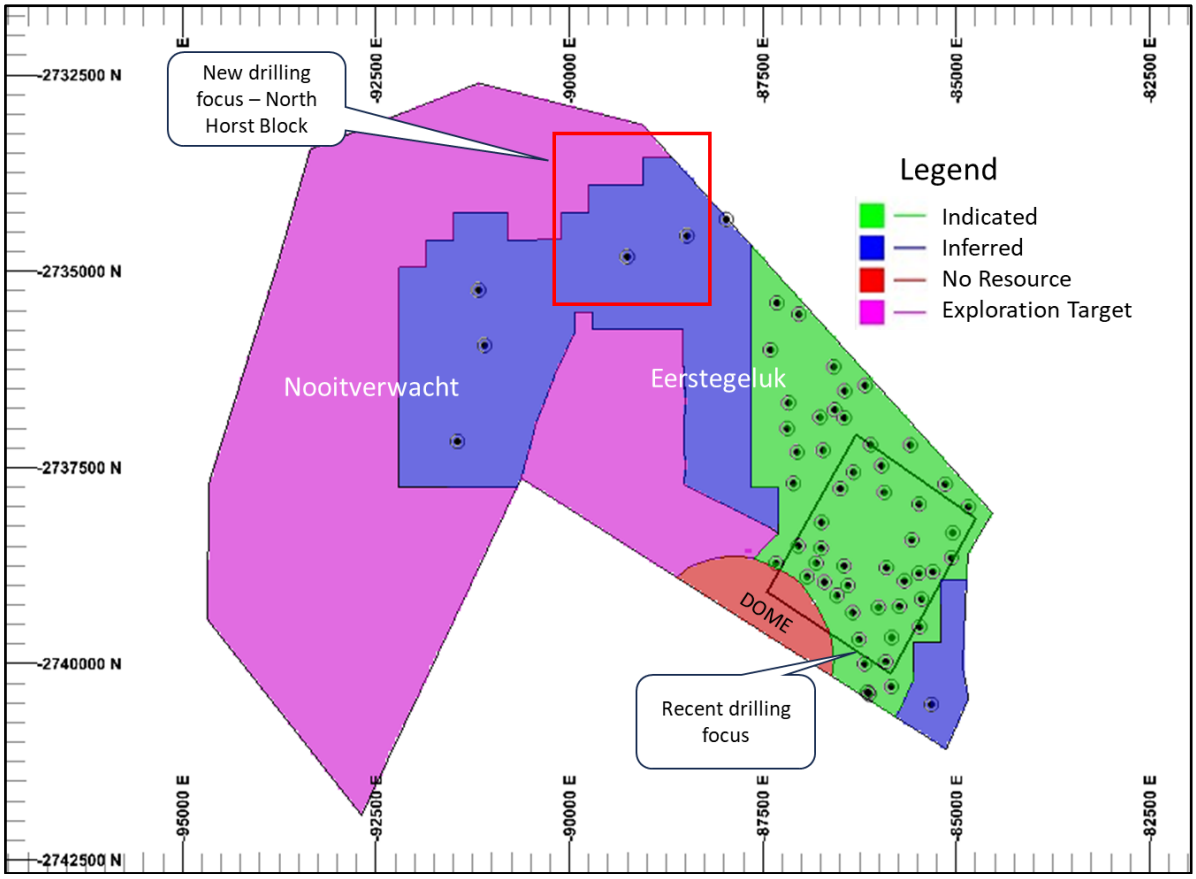
Figure 2: Oblique View of the 3D Structural Model of the UG2 Reef



Mineral Resource Categories

The Mineral Resource categories (Figure 3) were determined based on the QAQC, slope of regression (SOR), kriging efficiency (KE) and continuity of the UG2 Reef horizon. These are measures in the confidence of the kriged estimation. The Exploration Target Range is extrapolated from the boundary of the inferred Mineral Resource to the project perimeter.

Figure 3: UG2 Mineral Resource Categories



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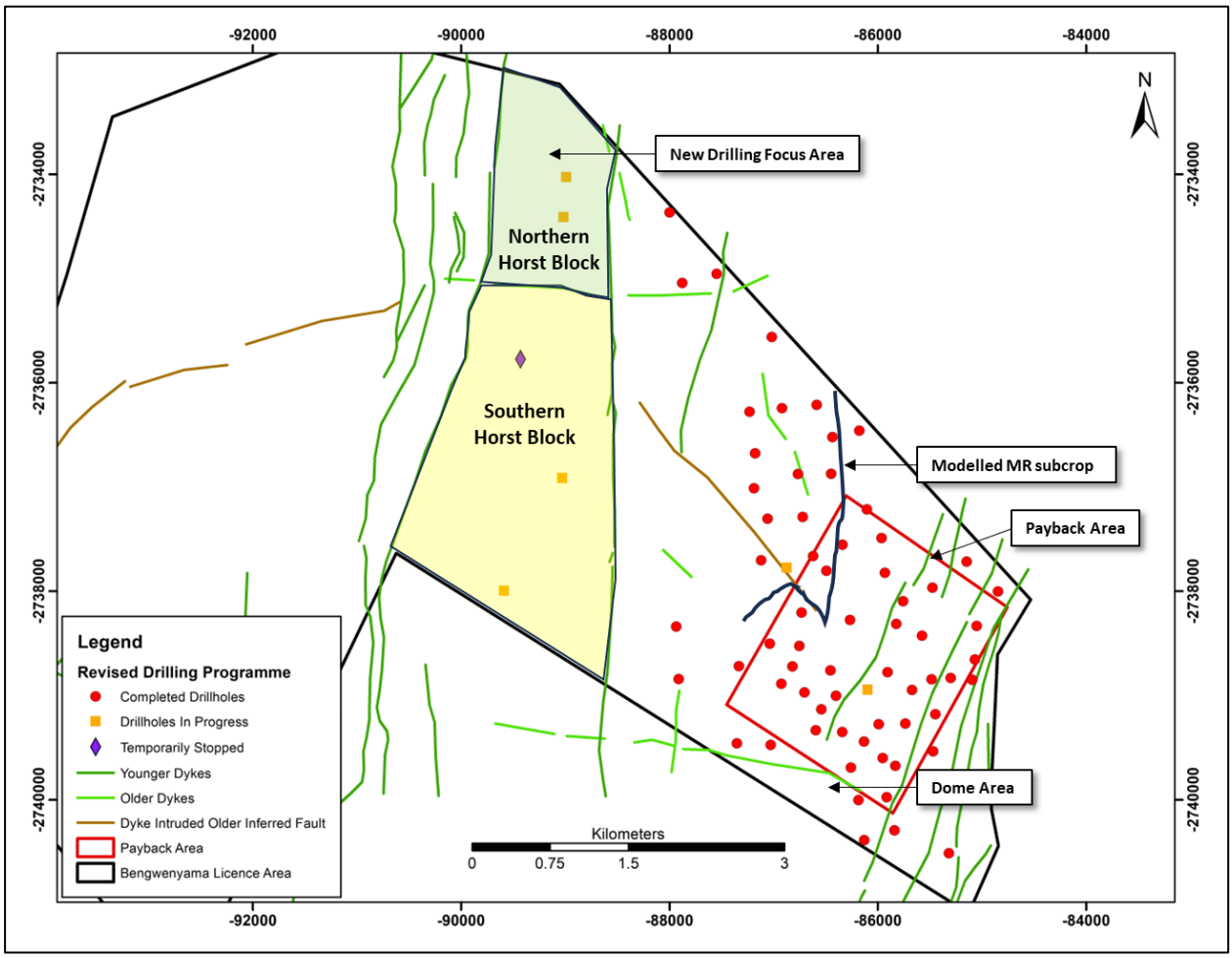
Ongoing drill programme

The initial payback area (Figure 4) in the shallow portion of Eerstegeluk has now successfully been converted to Indicated Mineral Resources. The drilling focus now turns to the North Horst Block (Figure 3) to convert the Inferred Mineral Resource and Exploration Target to Indicated Mineral Resources for the forthcoming PFS. Drilling will still continue in the southern horst block to better understand the geology of this area. Infill drilling will continue in the eastern portion of Eerstegeluk to continually filling gaps.

To date 23,347m have been completed, which is comprised of 67 completed drillholes and 29 deflections (Figure 4).

Figure 4: Completed and Current Drillholes



Updated Scoping Study

The updated Scoping Study 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. The Scoping Study will include results from recent metallurgical test work, which showed potential 4E PGM recovery rates from the UG2 reef of between 80 and 85% with concentrate grades of 130 to 250g/t (4E) (*refer ASX Announcement 6 December 2023*).

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

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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 September 2023 submission of the Mining Right application, they 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 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.

Competent Person Statement

1. **Uwe Engelmann:** The scientific and technical information contained in this announcement has been reviewed, prepared and approved by Mr Uwe Engelmann (BSc (Zoo. & Bot.), BSc Hons (Geol.), Pr.Sci.Nat. No. 400058/08, FGSSA). Mr Engelmann is a director of Minxcon (Pty) Ltd and a member of the South African Council for Natural Scientific Professions, and has sufficient experience relevant to the styles of mineralisation and activities 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 Engelmann has a beneficial interest in Southern Palladium through a shareholding in Nicolas Daniel Resources Proprietary Limited.

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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.	The core recoveries for the intersections submitted to the laboratory are all above 98%. If the core loss is excessive the sample is not submitted to the laboratory for Mineral Resource estimation purposes. Therefore, there will not be any sample bias due to poor recoveries.
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 yard 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 televiewer 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 televiewer 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.

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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 *in-situ* 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. In addition to the QAQC samples the analytical methodologies are also correlated with each other i.e. PGM-ICP23 and RH-ICP28 is compared to PGM-MS25NS. There is a good correlation and on average are within 1% of each other over the 4E grade.
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 initially recorded by handheld Garmin GPS. Drillhole collar survey was conducted by Aero Geomatics (Pty) Ltd. All completed drillholes were surveyed by post-processing Kinematic methodology. ("PPK"). The accuracy of PPK is 5 mm + 0.5 ppm horizontally and 10 mm + 1 ppm vertically. The survey was based on the World Geodetic System 1984 ellipsoid, commonly known as WGS84.

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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. There are areas that have closer spacing (down to 175m) to better understand the structural blocks
	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. 67 drillholes and 29 deflections have been completed 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 Nooitverwacht 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

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SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	**Explanation**	**Detail**
		defined as the mineralised pyroxenitic zone between upper and lower 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.
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.	

		Drilling				
BHID	**Date Started**	**Date Completed**	**From (m)**	**To (m)**	**Drilled Metres**	**Comment**
E019	23-Aug-22	08-Sep-22	0.00	32.42	32.42	Abandoned, stuck drill rods
E019A	09-Sep-22	05-Oct-22	0.00	323.77	323.77	EOH, completed
E060	26-Aug-22	19-Oct-22	0.00	206.72	206.72	EOH, completed
E060D1	23-Nov-22	28-Nov-22	139.00	185.53	46.53	EOH, completed
E062	26-Aug-22	02-Sep-22	0.00	120.34	120.34	EOH, completed, intersects UG1 for stratigraphy
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
E059	12-Sep-22	05-Oct-22	0.00	159.25	159.25	EOH, completed
E033	07-Sep-22	16-Oct-22	0.00	261.58	261.58	EOH, completed
E028	07-Oct-22	24-Oct-22	0.00	383.75	383.75	EOH, completed
E004	14-Oct-22	15-Nov-22	0.00	524.50	524.50	EOH, completed
E004D1	19-Nov-22	24-Nov-22	457.00	519.75	61.75	EOH, completed
E030	26-Oct-22	05-Dec-22	0.00	413.75	413.75	EOH, completed
E025	18-Oct-22	09-Nov-22	0.00	267.58	267.58	EOH, completed
E037	13-Oct-22	02-Nov-22	0.00	282.45	282.45	EOH, completed
E049	21-Oct-22	19-Nov-22	0.00	322.75	322.75	EOH, completed, intersects UG1 for stratigraphy
E031	07-Nov-22	22-Nov-22	0.00	423.22	423.22	EOH, completed
E044	12-Nov-22	14-Dec-22	0.00	263.73	263.73	EOH, completed
E015	29-Nov-22	14-Dec-22	0.00	454.69	454.69	EOH, completed
E007	29-Nov-22	10-Dec-22	0.00	422.00	422.00	EOH, completed
E064	29-Nov-22	06-Dec-22	0.00	166.40	166.40	EOH, completed
E071	07-Dec-22	12-Dec-22	0.00	169.00	169.00	EOH, completed
E065	08-Dec-22	15-Dec-22	0.00	239.75	239.75	EOH, completed
E001	12-Jan-23	06-Feb-23	0.00	554.75	554.75	EOH, completed
E018	12-Jan-23	19-Jan-23	0.00	298.72	298.72	EOH, completed
E020	11-Jan-23	21-Jan-23	0.00	350.76	350.76	EOH, completed
E041	13-Jan-23	06-Feb-23	0.00	259.77	259.77	EOH, completed
E067	12-Jan-23	25-Jan-23	0.00	306.45	306.45	EOH, completed
E013	23-Jan-23	01-Feb-23	0.00	327.29	327.29	EOH, completed
E024	23-Jan-23	29-Jan-23	0.00	284.75	284.75	EOH, completed
E069	27-Jan-23	29-Mar-23	0.00	305.45	305.45	EOH, Completed
E027	01-Feb-23	21-Feb-23	0.00	290.76	290.76	EOH, completed
E014	07-Feb-23	10-Apr-23	0.00	354.10	354.10	EOH, completed
E089D1	04-Apr-23	08-Apr-23	180.00	251.88	71.88	EOH, Completed
E001D1	13-Apr-23	18-Apr-23	508.00	552.02	44.02	EOH, Completed
E014D1	15-Apr-23	19-Apr-23	302.00	344.04	42.04	EOH, Completed
E014D2	24-Apr-23	27-Apr-23	292.00	346.88	54.88	EOH, Completed
E032	12-Apr-23	04-May-23	0.00	467.75	467.75	EOH, Completed
**E057	08-Apr-23	22-Apr-23	0.00	299.68	299.68	EOH, Completed
E045	01-May-23	10-May-23	0.00	206.89	206.89	EOH, Completed
**E056	26-Apr-23	12-May-23	0.00	335.70	335.70	EOH, Completed
E052	21-Feb-23	31-May-23	0.00	252.55	255.55	EOH, Completed
E072	10-May-23	17-May-23	0.00	254.75	254.75	EOH, Completed
E072D1	18-May-23	22-May-23	208.00	251.75	43.75	EOH, Completed
E072D2	23-May-23	24-May-23	203.00	251.75	48.75	EOH, Completed
E029	15-May-23	01-Jun-23	0.00	320.79	320.79	EOH, Completed
E050D1	31-May-23	07-Jun-23	185.00	279.98	94.98	EOH, Completed
E076	31-May-23	08-Jun-23	0.00	239.75	239.75	EOH, Completed
E029D1	03-Jun-23	09-Jun-23	248.00	320.78	72.78	EOH, Completed
E066	19-May-23	09-Jun-23	0.00	225.32	225.32	EOH, Completed
E066D1	12-Jun-23	15-Jun-23	161.00	225.62	64.62	EOH, Completed
E046	10-Jun-23	21-Jun-23	0.00	245.68	245.68	EOH, Completed
E048	09-Jun-23	19-Jun-23	0.00	236.70	236.70	EOH, Completed
E054	10-Jun-23	19-Jun-23	0.00	287.57	287.57	EOH, Completed
E059	02-Jun-23	24-Jun-23	0.00	99.55	99.55	EOH, Completed
E039	19-Jun-23	26-Jun-23	0.00	249.30	249.30	EOH, Completed
E039D1	28-Jun-23	08-Jul-23	166.00	229.42	63.42	EOH, Completed
E120	23-Jun-23	08-Jul-23	0.00	218.68	218.68	EOH, Completed
E092	21-Jun-23	10-Jul-23	0.00	248.90	248.90	EOH, Completed
E034	12-Jul-23	20-Jul-23	0.00	298.38	298.38	EOH, Completed
E082D1	17-Jul-23	19-Jul-23	177.00	245.90	68.90	EOH, Completed
E086A	28-Jun-23	17-Jul-23	0.00	260.75	260.75	EOH, Completed
E086AD1	19-Jul-23	21-Jul-23	195.00	259.75	64.75	EOH, Completed
E087	26-Jun-23	26-Jul-23	0.00	294.37	294.37	EOH, Completed
E086AD2	24-Jul-23	25-Jul-23	190.00	257.76	67.76	EOH, Completed
E120D1	25-Jul-23	03-Aug-23	96.00	182.68	87.68	EOH, Completed
E034D1	25-Jul-23	02-Aug-23	232.00	296.88	64.88	EOH, Completed
E070	21-Jul-23	02-Aug-23	0.00	191.90	191.90	EOH, Completed
E070D1	04-Aug-23	08-Aug-23	125.00	191.90	66.90	EOH, Completed
E114	04-Aug-23	08-Aug-23	0.00	101.68	101.68	EOH, Completed
E034D2	05-Aug-23	08-Aug-23	227.00	296.51	69.51	EOH, Completed
E051	10-Aug-23	15-Aug-23	0.00	105.56	105.56	EOH, Completed
E080	03-Aug-23	14-Aug-23	0.00	195.17	195.17	EOH, Completed
E085	09-Aug-23	23-Aug-23	0.00	251.90	251.90	EOH, Completed
E079	17-Aug-23	25-Aug-23	0.00	270.13	270.13	EOH, Completed
E113	10-Aug-23	11-Sep-23	0.00	497.60	497.60	EOH, Completed
E051D1	11-Sep-23	13-Sep-23	50.00	99.36	49.36	EOH, Completed
E116	16-Sep-23	20-Sep-23	0.00	93.30	93.30	EOH, Completed
E118	29-Aug-23	18-Sep-23	0.00	294.18	294.18	EOH, Completed
E122	14-Sep-23	20-Sep-23	0.00	185.70	185.70	EOH, Completed
E125	13-Sep-23	20-Sep-23	0.00	233.75	233.75	EOH, Completed
E125D1	21-Sep-23	22-Sep-23	168.00	233.76	65.76	EOH, Completed
E035	22-Sep-23	08-Oct-23	0.00	280.62	280.62	EOH, Completed
E035D1	07-Oct-23	10-Oct-23	213.00	257.62	44.62	EOH, Completed
E117	21-Sep-23	06-Oct-23	0.00	225.00	225.00	EOH, Completed
E077	22-Sep-23	18-Oct-23	0.00	264.22	264.22	EOH, Completed
E011	25-Sep-23	18-Oct-23	0.00	407.75	407.75	EOH, Completed
E011D1	20-Oct-23	21-Oct-23	74.00	100.00	26.00	EOH, Completed
E043	10-Oct-23	24-Oct-23	0.00	266.14	266.14	EOH, Completed
E017	11-Oct-23	06-Nov-23	0.00	461.65	461.65	EOH, Completed
E077D1	20-Oct-23		291.00		.291.00	
E011D2	23-Oct-23	24-Oct-23	68.00	98.75	30.75	EOH, Completed
E043D1	06-Nov-23	09-Nov-23	193.00	263.00	70.00	EOH, Completed
E100	07-Oct-23	20-Nov-23	0.00	503.35	503.35	EOH, Completed
E124	09-Nov-23	21-Nov-23	0.00	356.65	356.65	EOH, Completed
E003	02-Nov-23	23-Nov-23	0.00	563.75	563.75	EOH, Completed

All drillholes were drilled -90 degrees.

The UG2 and MR geological and estimation models have been updated to include drilling and assaying data as at end of November 2023. The structural / geological model utilised 20 historical Nkwe drillholes and 67 SPD drillholes while the estimation model utilised 10

SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	**Explanation**	**Detail**
		historical Nkwe drillholes and 48 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.

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SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	**Explanation**	**Detail**
		[illegible]
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.	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. 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.

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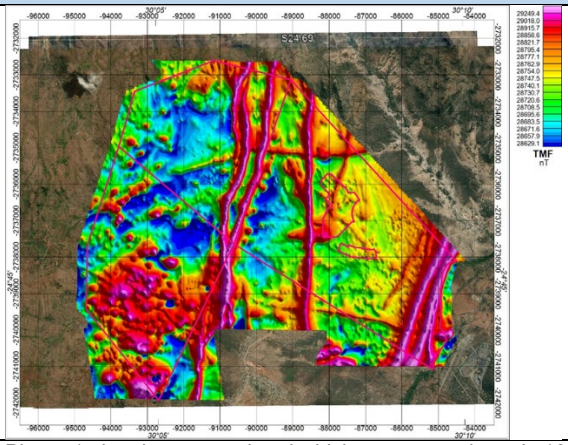
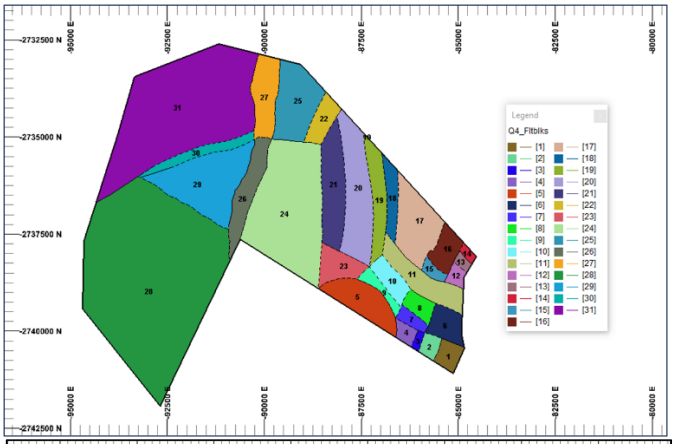
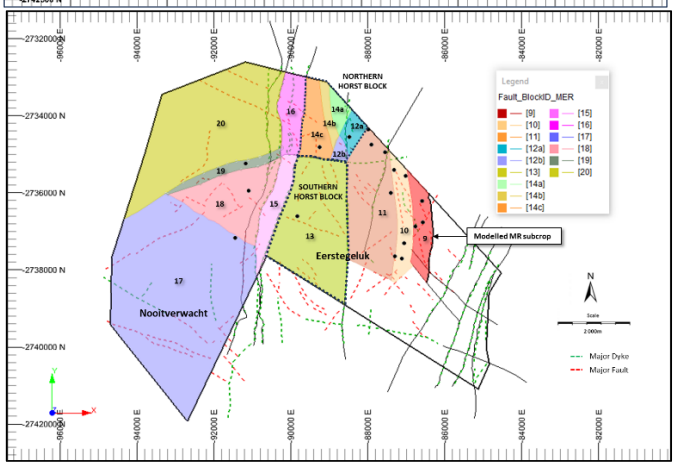
SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	**Explanation**	**Detail**
		
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Phase 1a has been completed which was approximately 10,000m of drilling. 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 will now be drilled for short range variability work. To date 23,347m have been completed but it is envisaged approximately 14 000 more meters will be drilled.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	  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.

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**
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	Geological data in the form of drillhole collar surveys, downhole surveys and geological logs captured on paper records was compared to data captured and saved in soft copy Excel spreadsheets that form the geological repository which informs the modelling database. Any errors, omissions, and invalid transcriptions identified were returned to the exploration team for rectification before the data

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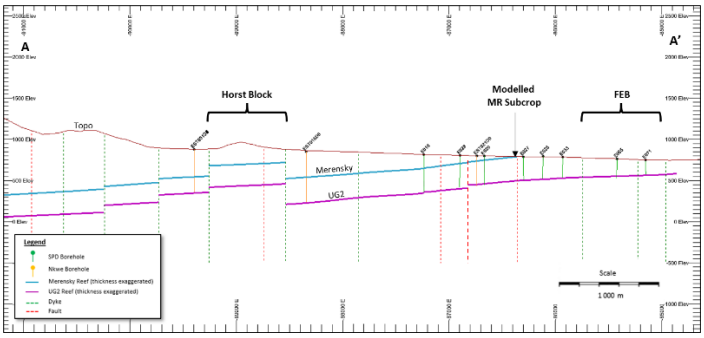
SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**
	Mineral Resource estimation purposes.	was processed any further for use in 3D-structural modelling and grade estimation processes.
	Data validation procedures used.	Base geological data informing the estimate was validated using in-built functionality in Datamine StudioRM software. Validation routine involved checking spatial location of drillholes collars and intersections, validity of stratigraphic logging, checking for repetition of logged intersections, reasons for the absence of analytical data, negative thicknesses and an assessment of the correlation of all aspects of the new drilling data to the historic drilling data from the Nkwe drillhole database. The Nkwe database was inspected for erroneous / non representative datapoints and removed based on the knowledge gained from the recent SPD drilling.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	The Competent Person regularly visits the project site with the latest visit having been carried out on 16 November 2023.
	If no site visits have been undertaken indicate why this is the case.	Refer to above.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	The Bengwenyama project is bounded to the northern extremity by a mine that is in current operation and economically exploiting the same UG2 reef. Several SPD drillholes are sited in areas in which similar drilling was completed by Nkwe Platinum during the early 2000s. Geological interpretation as informed from the current SPD holes, correlates reasonably well with interpretation from the historic Nkwe drill data.
	Nature of the data used and of any assumptions made.	The consolidated SPD database informing this estimate incorporates data from historic Nkwe drilling. This data was compiled by transcribing information from documents available in the public domain. Analytical data in the Nkwe drillholes is presented as 4E only. Individual PGEs were not reported. Results from QQ plots (R^2=0.93 for the UG2 and R^2=0.81 for the MR) suggest that SPD data is highly comparable to the Nkwe data. Accordingly, the data has been consolidated into a single geological database.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	Literature from the public domain suggests absence of UG2 reef in the Eerstegeluk Dome area. In contrast, recent SPD drilling (drillhole E057) located within the area, intersected the UG2 reef at a depth of approximately 30m below surface. This implies the SPD drilling in the area is presenting an opportunity to validate the theory or potentially offer an alternative interpretation of this structurally complex area of the project. However, at this stage the dome area has been excluded from the Mineral Resource.
	The use of geology in guiding and controlling Mineral Resource estimation.	Contouring of the elevation of the UG2 reef and MR top contact as interpreted from geological logging, knowledge of the regional structural geology, incorporation of mapped faults, dykes, sills, and the use of data from the TMF gradient and gamma-ray spectrometry survey completed by New Resolution Geophysics (Pty) Ltd (NRG) in January of 2022, highlighting the major structural features, guided delineation of 30 fault blocks and culminated in the generation of the associated UG2 3D wireframe model.
	The factors affecting continuity both of grade and geology.	The project area is bisected by faults and several dyke swarms with throws in excess of 200m. Current structural interpretation postulates the Eerstegeluk Dome area comprises a stack of several upthrow faults culminating in an overall upthrow of the UG2 reef to a location as shallow as 30m below surface. Other than potholing observed in the areas limited to the northern periphery, the PGE grades appear unaffected.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The Bengwenyama project covers an area of approximately 52.9km$^{2.}$ with a strike of approximately 4km. Data from the drillholes suggests a down-dip continuity of UG2 and MR reef over approximately 11km at an average true dip of approximately 6-7˚, north-west.  Location of the UG2 reef is shallowest in the south-east corner of the project area at approximately 30m below surface and deepest in the north-west corner where it is in excess of 1,000m below surface. The MR is approximately 260m above the UG2 reef and subcrops in the central portion of the farm Eerstegeluk.
	The nature and appropriateness of the	The statistical analysis on the base geological data informing the estimate suggests that no capping or treatment of extreme values is necessary. Owing to

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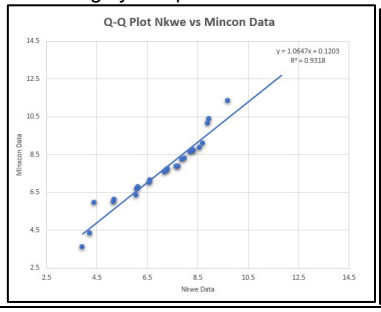
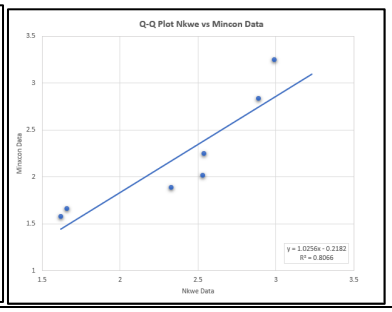
SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**
Estimation and modelling techniques	estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	the low density of drilling data available to date geological domains, possible facies and anisotropy has not been identified. However, for the MR one sample was capped back to 4.68 g/t for the 4E grade (see below). Zone / Element / Capping Value 1 / Pt / 3.028 1 / Pd / 1.24 1 / Rh / 0.192 1 / Au / 0.22 1 / 4E / 4.68 Ordinary Kriging, an industry best choice for evaluation of PGEs, has been successfully applied for all grade interpolation with all 3D wireframe modelling and grade estimation processes completed in Datamine StudioRM Version 1.11.65.0 geological modelling software. Kriging neighbourhood analysis (KNA) recommended a parent block size of 350m (in X and Y directions) with a minimum and maximum number of samples of 5 and 15 respectively for the first search volume which is matched to the range of the 4E modelled variogram (approximately 2,000m). Three search volumes with decreasing samples were used for the estimation. All PGE elements, Pt, Pd, Rh, Au, Ir, Os and Ru as well as base metals Cu, Ni, Cr and Fe were individually estimated in addition to estimation of combined 4E (Pt, Pd, Rh & Au) and 7E (Pt, Pd, Rh, Ir, Os, Ru & Au) grades. Extrapolation has been carried out to half the average drillhole spacing and where applicable terminated on the major geological structures.
	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 Bengwenyama Project is a green field project with no mining activity ever recorded. As such no depletion of Mineral Resources is applicable. The previous estimate for the Bengwenyama Project was declared on 01 July 2021 and presented 33.87Mt at 7.7g/t 4E and 8.38Moz in Inferred Resources. Taking into account the impact of the additional SPD drilling completed to date, the previous estimate correlates reasonably well with the first update updated estimate of 49.85Mt at 7.51g/t 4E and 12.040Moz of Indicated and Inferred Resources for the UG2 with the MR also having very similar results. The second update grades are also very similar.
	The assumptions made regarding recovery of by-products.	Metallurgical testwork is currently underway to establish the viability of recovery of any by-products, in particular chromite. There is no record of previous similar testwork completed in the Bengwenyama project area. However, the UG2 on the eastern limb of the BC is well known and understood and the average recoveries have been assumed for now.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Other than the base metals Cu, Ni and Fe, no deleterious elements have been identified. The base metals have all been estimated on elemental basis with the Cr:Fe ratio of the UG2 chromitite horizon, from modelled Cr and Fe analysis, observed to be around 1.21.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	Drillhole spacing is not on a defined grid owing to challenges drilling in populated space. The well drilled areas are typically informed by an average drillhole spacing of approximately 350m with areas even closer at approximately 175m spacing with poorly informed areas informed by drilling spacing in excess of 1,000m. Kriging neighbourhood analysis (QKNA) recommended a parent block size of 350m (in X and Y directions) with a minimum and maximum number of samples of 5 and 15 respectively for the first search volume which is matched to the range of the 4E modelled variogram (approximately 2,000m). Three search volumes with decreasing samples were used for grade estimation.
	Any assumptions behind modelling of selective mining units.	A study to test the viability of several possible options and in some cases combinations of mining methods is currently underway. The current modelling does not incorporate guidance from knowledge of any possible proposed mining method or selective mining approach.
Estimation and modelling techniques (continued)	Any assumptions about correlation between variables.	The QQ plot results (R^2=0.93 for the UG2 and R^2=0.81 for the MR) suggest SPD data is highly comparable to the Nkwe historic drill data.  

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SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**
		Accordingly, the data was consolidated into a single database. The consolidation enabled expansion of the database to incorporate back-calculated individual Pt, Pd, Rh and Au grades from the single analytical 4E grade in the Nkwe drillholes basing on prill splits as established from the complete empirical SPD analytical dataset. The grades for Os, Ir and Ru were then determined from regression relationships enabling the estimation and eventual reporting to 7E grade and including base metals.
	Description of how the geological interpretation was used to control the resource estimates.	Major structural discontinuities were identified from interpretation of the TMF gradient and gamma-ray spectrometry survey, field mapping and contouring of elevation of the UG2 reef top contact. Knowledge of regional structural geology and regional geological losses guided delineation of fault blocks and the generation of the resultant UG2 and MR 3D wireframe model. Application of results such as the modelled variogram ranges, spatial continuity of kriging efficiencies and the slope of regression results, the sample search volume used and the number of samples informing a grade estimate constrained grade extrapolations beyond known drill data.
	Discussion of basis for using or not using grade cutting or capping.	Statistical analysis on the raw data informing the estimate suggests that no capping or treatment of extreme values is necessary, other than one sample for the MR, and does show reasonable support for geological domaining or any possible anisotropy.
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	Integrity of grade estimation was validated through swath plots in the X and Y directions, sample-to-model box-whisker plots on global means for all estimated grades and the visual analysis of grade plans for the 4E and 7E grades as well as plans showing the spatial distribution of the UG2 reef thickness, Slope of Regression, Kriging Efficiencies, Search Volume and the number of samples used to inform grades estimates.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All tonnages are reported on a dry basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Zone specific geological losses have been applied and the Mineral Resources are declared at a paylimit of 1.9 g/t and 1.6 g/t 4E using a basket price of USD 2,654/oz and USD 1,888/oz for the UG2 Reef and MR respectively. No mining cut has been applied at this stage as the supporting geotechnical work is still in progress. Below are the parameters used for the basket price and pay limit calculation.

Element	Resource price (USD/oz)	4E prill split	7E prill split	Recovery	Payability
Platinum	1,025	45.3%	37.5%	85%	86%
Palladium	2,200	43.5%	36.0%	85%	86%
Rhodium	12,400	9.7%	8.0%	85%	86%
Gold	2,000	1.5%	1.2%	85%	86%
Ruthenium	465	0.0%	13.0%	71%	55%
Iridium	4,600	0.0%	2.6%	75%	45%
Osmium	400	0.0%	1.7%	75%	45%

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.	It is envisaged that the Mineral Resource mining cut will be approximately 1m for the UG2 due to the absence of stringers in footprint of the currently drilled area. The hanging wall contact is a distinct Leuconorite plane referred to as the Leuconorite Parting Plane (LPP) and forms a distinct sharp hanging wall contact with no chromitite stringers above it. For the MR the mining cut will probably be the reef width, which is approximately 2,00m plus 10cm hanging wall and 10cm footwall dilution. Mining studies on the possible practical mining methods or a combination thereof are currently being concluded. The current geological modelling does not incorporate any assumptions or provide any form of guidance for a chosen specific mining method.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part	Samples for metallurgical testwork for the UG2 have been collected from site and submitted to the SGS and Suntech Geomet laboratories to establish the most optimal recovery method or a combination thereof.

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SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**
	of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	The current geological modelling supporting this estimate does not incorporate any assumptions or provide guidance for a specific recovery method.
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.	A series of specialised environmental studies are in the process of being commissioned to establish a balance between compliance of the eventual chosen mining method to environmental regulations against optimal and practical extraction that will achieve the least environmental impact. The current geological modelling supporting this estimate does not incorporate any assumptions or provide guidance to achieve the least environmental impact.
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.	A density of 3.93 t/m^3 for the UG2 and 3.28 t/m^3 for the MR was used in the tonnage estimation. The density was determined empirically using the Archimedes method on UG2 reef and MR intersection samples from a population from 45 and 81 diamond drill core samples respectively from 14 SPD drillholes. The determination of density is an ongoing exercise conducted by the field exploration team to expand the database for use to support tonnage estimates.
	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.	The density was determined empirically using the Archimedes method on UG2 reef and MR intersection samples.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Not applicable
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	The Mineral Resource categories were determined based on the QAQC, slope of regression (SOR), kriging efficiency (KE) and knowledge of the continuity of the UG2 reef horizon.

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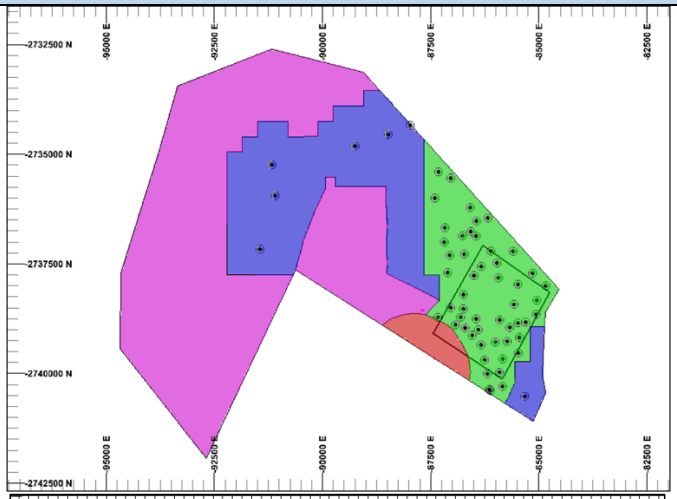
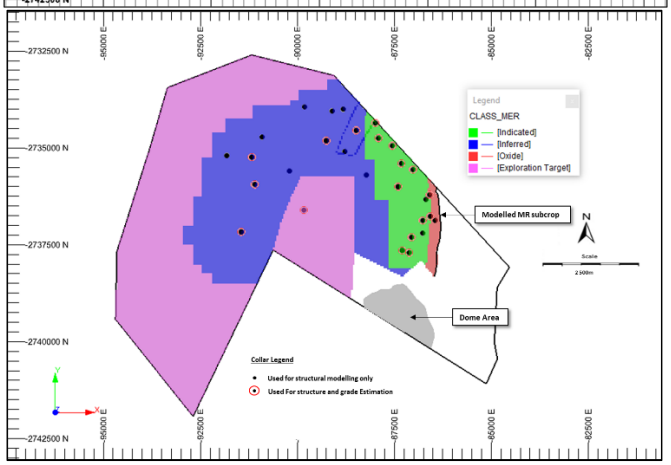
Criteria	**Explanation**	**Detail**
		  The Indicated Mineral Resources are based on a SOR greater than 0.6, a KE greater than 0.3, a search volume less than 2.5 as well as application of local knowledge of areas with high confidence in UG2 reef continuity. The Inferred Mineral Resources are based on a SOR of greater than 0.3, extrapolation based on half the distance of the range of the 4E grade variogram with termination onto the major structural discontinuities. The footprint of the Exploration Target Range is extrapolated from the boundary of Inferred Mineral Resources to the project perimeter fence.
	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).	Geological losses have been applied to the resource to account for the effects of faults, dykes, and potholes. This was estimated by considering the successful drillhole intersections, identified major faults and dykes from the TMF geophysics and additional minor losses. The project area was divided into larger blocks representing various degrees of geological losses. The geological losses for the UG2 range from 21% to 40% for the Exploration Target area with the Eerstegeluk Dome area completely excluded at this stage of reporting. For the MR the geological losses range from 18% to 40% for the Exploration Target area and the top 40m (vertically) at the subcrop for the MR is also excluded due to weathering and oxidation.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The CP is of the opinion that the Mineral Resource classification criteria and associated results are a true reflection of the Bengwenyama orebody and demonstrate the current levels of confidence as informed by drill data.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	The Mineral Resources estimate, as well as processes associated with estimation work as contained in this press release has been reviewed by an independent third party, Mr. Garth Mitchell, of ExplorMine Consultants (Pty) Ltd. Mr. Mitchell confirms validity and reasonableness of estimate and confirms that due care and diligence was applied in the compilation.
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	The QQ plot results (R^2=0.93 for the UG2 and R^2=0.81 for the MR) suggest the SPD data is highly comparable to the Nkwe historic drill data and that the two datasets can be consolidated into a single database without any issues. The consolidation enabled back-calculation of individual Pt, Pd, Rh and Au grades from the single analytical 4E grade in the Nkwe drillholes basing on prill splits established from the complete empirical SPD analytical dataset as well at determining individual grades for Os, Ir and Ru from regression relationships. This has enabled reporting to 7E grade.

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Criteria	**Explanation**	**Detail**
	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 UG2 Exploration Target is based on the estimated kriged value of the drillhole database with a 20% range applied to it.
	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.	The CP is of the opinion that geological modelling underlying the estimate contained in this press release is a true reflection of the Bengwenyama orebody and considers the grade and tonnage estimates robust.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	Not applicable

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