Friday, 31 August 2018



# Witwatersrand Basin Project's Kimberley Reef East Upside Potential

### Highlights

- A recent Mineral Resource Estimate (MRE) of the Kimberley Reef added 428,000oz to the Global Resource<sup>^</sup>
- The recent MRE focused on a single conglomerate band K9B within the Kimberley East area reef complex which is estimated to hold 12.4Mt at 3.1g/t for 1.25M oz of gold at a 2.0g/t cut-off.
- Analysis of the MRE at a higher 3.5g/t cut-off results in the K9B band containing 2.7Mt @ 5.0g/t for 450,000 oz of Au
- Work is now planned for estimating a Mineral Resource for the K9A band, another gold bearing conglomerate reef in the Kimberley East area.
- > In the interim a new Exploration Target has been released for the K9A reef.

This announcement replaces the Company's announcement of 28 August 2018 (which should be disregarded). This announcement provides additional information regarding the Global Resource, the K9A Reef Exploration Target and the analysis of the potential effect of applying higher cut-off grades to the K9B Reef, and amends the competent person's statement to clarify that it applies to the MRE and Exploration Target as well as Exploration Results.

West Wits Mining Limited ("WWIs" or "the Company) announces a new exploration target for the K9A reef in the Kimberley East Project and examines the K9B component of the recently upgraded MRE at a range of cut-off grades to illustrate the robust nature of the resource in the context of underground operations.

**Michael Quinert, Chairman** commented: "The Kimberley East area offers West Wits a unique opportunity that arises from the differing mining history of the Kimberley Reef package across the area of the Mining Right Application. Essentially, the Kimberley reefs were extensively mined on the Western or DRD portion of our project however only limited mining of the same reefs occurred on the Eastern or Rand Lease's portion. The recent MRE highlighted the considerable potential for the K9B reef which will form the basis of our first underground operation, importantly the K9A band is also mineralised and we are planning to commence preparing a new resource estimate for this reef."

# **K9A Exploration Target**

The K9A reef sits 10m stratigraphically above the K9B reef and has been extensively mined on the historic DRD portion of the Witwatersrand Basin Project (Figures 1 and 2). A portion of the K9A reef is already included in the Global MRE however the new Exploration Target represents new areas not included in the current resource inventory (Figure 3).

<sup>^</sup> As set out in Table 1 of the Company's announcement "Global Resource Grows by 428,000oz Au to 3.67Moz at Witwatersrand Basin Project" released on 16 July 2018, the Global Resource comprises 1,420,000 ounces AU Measured Resources, 998,000 ounces AU Indicated Resources (a total of 2,418,000 ounces AU Measured and Indicated Resources) and 1,255,000 ounces AU Inferred Resources, being a total of 3,673,000 ounces Measured, Indicated and Inferred Resources (reported in accordance with the JORC Code 2012). The Company is not aware of any new information or data that materially affects the information in that announcement, and all material assumptions and technical parameters underpinning the estimates in that announcement continue to apply and have not material changed. For further information, please refer to the 16 July 2018 announcement, which is available from the Company's website www.westwitsmining.com or the ASX website www.asx.com.au under the code WWI.

A new Exploration Target for the K9A reef within the Kimberley East area is published below (Table 1). The Exploration Target is based on an assumed 2.0 g/t cut-off. The process used to determine the grade and tonnage ranges for the Exploration Target utilises previous mining data of the K9A reef to the west of the area under consideration. Volumes for the K9A band were based on analysis of a 2D sections and level plans and a 3D geological model which takes into account the thickness, grade and extent of the K9B band from the following sources; historical mining, previous exploration drilling conducted by West Wits in 2009 and mining of both the K9A and K9B bands in the currently operating Kimberley Central Open Pit. Further the Exploration Target takes into account two previous MREs on sub-sections of the K9A reef within the area of the Exploration Target (Figure 3). Densities used in the Exploration Target are 2.74 g/cm<sup>3</sup> (dry) which is the standard value applied to pyritic quartz pebble conglomerates of the Central Rand Goldfields. All information was combined with a spatial analysis of the unmined portions of the K9A reef and historical metallurgical recoveries to determine the Exploration Target in Table 1. The ranges of tonnes and grade relate to uncertainties around the presence of post-mineral mafic dykes, small scale faulting and an incomplete digital record of mined out areas that will be captured during the upcoming MRE for the K9A, the process for which is documented below.

| Exploration Target for K9A Reef -Kimberley East Project |            |          |           |
|---|------------|----------|-----------|
| Range   | Tonnes (M) | Au (g/t) | Au (Oz)   |
| Low   | 6.5        | 3.0      | 650,000   |
| High  | 8.0        | 4.0      | 1,000,000 |

Table 1: The consolidated Exploration Target is stated above as ranges of potential tonnes and grades. Number differences may occur due to rounding errors. The potential quantity and grade are conceptual in nature, there has been insufficient exploration and evaluation of historical resources to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource.

# Next Phase of work for the K9A Exploration Target

The next phase of work on the exploration target will be to estimate a new resource figure, which is expected to be completed within the current 2019 financial year:

- 1. Validation of historical data:
  - a. QAQC database involving comparisons between electronic data and hardcopy data;
  - b. QAQC of sampling data documenting laboratory methods and performance of standards and blanks;
  - c. Examination of mine to mill reconciliation factors;
- 2. Collection of new geological data:
  - a. Trenching across strike to accurately identify position of Kimberley reef at surface;
  - b. Trenching along the outcrop of Kimberley reef to collect samples for gold assay; and
- 3. Estimation of Resources in compliance with the JORC Code of 2012. At this stage there has been insufficient exploration and evaluation of historical data and estimates to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource.











#### Figure 3.

A plan projection of the K9A Reef highlighting two previous MRE's that cover portions of the K9A reef and have been used to help generate the new exploration target. The area under consideration is highlighted in light green. Previous resources currently included in the WBP Global MRE are also shown.

# Analysis of the K9B Reef at Various Cut-Off Grades

An analysis of the potential effect of applying differing cut-off grades for the K9B reef, as may be appropriate when mining underground, demonstrates the relative robust nature of the resource as illustrated by Table 2 below. Significantly, when the cut-off grade is increased to 3.5g/t (from 2.0g/t) the average grade increases to 5.0g/t for 450,000oz Au which demonstrates the potential of the K9B reef to support underground mining. The following is an analysis of the potential effect of or sensitivity to applying differing cut off grades, and not a separate or replacement mineral resource statement for the K9B Reef or the Global MRE (which remain as set out in the Company's announcement of 16 July 2018).

| 2.0 g/t COG (current | Tonnes     | Διι (Ωz)  | Λu (g/t) |
|----------------------|------------|-----------|----------|
| Massured             | 2 727 000  | 221 000   |          |
|                      | 2,727,000  | 321,000   | 3.00     |
| Indicated            | 1,922,000  | 213,000   | 3.45     |
| Inferred             | 7,770,000  | 711,000   | 2.9      |
| Total                | 12,420,000 | 1,245,000 | 3.12     |
| 2.5 g/t COG          | Tonnes     | Au (Oz)   | Au (g/t) |
| Measured             | 2,044,000  | 272,000   | 4.13     |
| Indicated            | 1,406,000  | 176,000   | 3.88     |
| Inferred             | 4,050,000  | 440,000   | 3.4      |
| Total                | 7,500,000  | 890,000   | 3.68     |
| 3.0 g/t COG          | Tonnes     | Au (Oz)   | Au (g/t) |
| Measured             | 1,510,000  | 224,000   | 4.62     |
| Indicated            | 916,000    | 132,000   | 4.47     |
| Inferred             | 1,940,000  | 260,000   | 4.1      |
| Total                | 4,360,000  | 610,000   | 4.36     |
| 3.5 g/t COG          | Tonnes     | Au (Oz)   | Au (g/t) |
| Measured             | 1,064,000  | 178,000   | 5.19     |
| Indicated            | 617,000    | 101,000   | 5.08     |
| Inferred             | 1,090,000  | 170,000   | 4.8      |
| Total                | 2,770,000  | 450,000   | 5.01     |
| 4.0 g/t COG          | Tonnes     | Au (Oz)   | Au (g/t) |
| Measured             | 761,000    | 142,000   | 5.78     |
| Indicated            | 459,000    | 82,000    | 5.55     |
| Inferred             | 720,000    | 120,000   | 5.4      |
| Total                | 1,940,000  | 350,000   | 5.57     |

Table 2: The potential effect of applying various other cut-off grades up to 4.0 g/t Au. Reported in accordance with the JORC Code of 2012. Number differences may occur due to rounding errors.

Each of the above analyses is based on the same evidence, assumptions, interpretation, techniques, criteria, methods, parameters and other modifying factors, other than the cut-off grade, as were used in and applied to the Company's MRE for the K9B Reef, and are described in detail in the Company's announcement of 16 July 2018.

# Kimberley East Underground

The Company's highest priority underground target remains the Kimberley East area. The Company has elected to declare its Mineral Resources at a 2.0 g/t cut-off for consistency. However, the final underground cut off used in the 31-8-2018

mine plan will depend on a range of mining factors such as; gold price, mining method and costs, orebody geometry, underground access and metallurgical recoveries. The analysis of the effect on the K9B component of the MRE of a range of cut-off grades (see Table 2) highlights the robust nature of the orebody and that substantial high-grade ounces exist within the current MRE. High-grade domains, interpreted to be controlled by the initial sedimentary facies (see Figure 4), have been historically mined within the Kimberley Reefs and these domains will likely be the focus of mine planning on the Kimberley East Project as the Company moves towards a feasibility study on the proposed underground operation.



Figure 4: a long section view of the K9B showing geological domains considered for estimation. Domains are assigned by a combination of grade, channel width and geological criteria. Note: mined out areas are NOT removed from this figure

### WITWATERSRAND BASIN PROJECT BACKGROUND

WWI's WBP comprises of two historic mining centres: Durban Roodepoort Deep and Rand Leases within the Witwatersrand Basin, forming part of the world's largest goldfield. Mining has been taking place within these areas since the goldfields were discovered in 1886, during that time up to seven different gold bearing conglomerate horizons were mined from surface down to 3,100m. Total production for the combined DRD and Rand Lease areas was >40 Moz Au at grade exceeding 5 g/t Au (ASX: WWI prospectus 15 November 2007). Harmony Gold Mining (JSE: HAR) reported production of 86,000 oz of gold for FY2017 at its Doornkop Mine situated directly adjacent to WBP's western boundary (Figure 5).



Figure 5: WWI's Witwatersrand Basin Project - the blue box shows the location of the Kimberley East Project Source: 4.3Moz @ 7.0g/t AU Harmony Gold Mining 2017 Annual Report For and on behalf of the Board

Michael Quinert Chairman West Wits Mining Limited

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# **Competent Persons Statement**

The information in this announcement that relates to Mineral Resources Estimates, Exploration Targets and Exploration Results is based on information compiled by Hermanus Berhardus Swart, a Competent Person who is a Professional Natural Scientist registered with South African Council for Natural Scientific Professions accredited (No. 400101/00) and a Fellow of the Geological Society of South Africa, each of which is a "Recognised Professional Organisation" (RPO) that is included in a list that is posted on the ASX website from time to time. Hermanus Berhardus Swart is employed by Dunrose Trading 186 (PTY) Ltd trading as Shango Solutions, which provides services as geological consultants to the Company. Hermanus Berhardus Swart has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Hermanus Berhardus Swart consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

#### Dr Andrew J. Tunks MAIG

The peer review of the results was undertaken by Dr. Andrew Tunks and represents an accurate representation of the available data. Dr. Tunks (Member Australian Institute Geoscientists) is the Exploration Director for the Company and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Tunks consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.'

### JORC TABLE 1 Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

| Criteria  | Practices at historical Durban Roodepoort Deep Gold Mine (DRD, <2000) unless where indicated  |  |
|---|---|--|
|   | in bold font  |  |
| Sampling Techniques                               | <ul> <li>Underground development was sampled at 3m intervals. Stoping was sampled at 6m intervals along strike, once a month (on average 10m advance per month). Sampling was conducted as face sampling, utilising hammer and chisel as is standard procedure in the Witwatersrand Goldfield. Diamond drilling was utilised both underground and on surface for exploration purposes. Drilling results were seldom used for resource estimates, except for West Wits MLI (Pty) Ltd's (West Wits) 2009 drilling results which were employed during the 2018 project. The core was split and the one half submitted for assays. The samples included 2cm waste on the footwall and hangingwall of the reef.</li> </ul>   |  |
|   | • Underground samples were sampled from bottom to top over the full exposure of the reef and included 2cm footwall and hangingwall waste so as to ensure that high grades typically associated with the bottom and top contacts were included in the sample. Internal waste was sampled separately but minimum sample length was 8cm with a maximum of 40cm. Stope sampling was validated against broken ore sampling (BOS) with the latter being sampled for each span of hoppers by means of catching a full sample in a dish placed on the grizzly of the ore pass. If discrepancies between chip and BOS samples were evident then the stopes were resampled to increase the frequency of sampling.   |  |
| Drilling Techniques                               | <ul> <li>Industry standard witwatersrand Goldfield underground face sampling was applied.</li> <li>Diamond drilling was conducted but is not applicable as samples were not utilised for resource.</li> </ul>   |  |
|   | estimates except for the West Wits 2009 drilling which was incorporated <b>during the 2018</b><br>study. Mainly underground face sampling was used for resource estimates.  |  |
| Drill Sample Recovery                             | <ul> <li>Not applicable for resource estimates but a minimum of 95% core recovery was required,<br/>otherwise holes were redrilled. Core was fitted and measured against drill meters provided by<br/>driller.</li> </ul>   |  |
| Logging   | <ul> <li>Diamond drilling was conducted but is not applicable as samples were not utilised for resource estimates except for the West Wits 2009 drilling which was incorporated during the 2018 study. However, samples were geologically and geotechnically logged to a detail that supported appropriate Mineral Resource estimations, mining studies and metallurgical studies.</li> <li>Core longing was not applicable for Mineral Resource estimations, but was qualitative in nature</li> </ul>  |  |
|   | <ul> <li>except for the West Wits 2009 drilling which was incorporated during the 2018 study.</li> <li>The total length of the relevant core intersections was 100% logged.</li> </ul>  |  |
| Sub-sampling Techniques<br>and Sample Preparation | <ul> <li>The entire underground sample (on average 1.5kg) was submitted for analysis. However, when maximum allowable weight of 1kg was exceeded, the sample was riffled down in size at the laboratory. Samples generally contained moisture because the face was washed before sampling to prevent contamination from dust as a result of blasting.</li> <li>The remaining sample was pulverised for analysis, which is standard practice for fire assays.</li> <li>Underground face samples were sampled from bottom to top over the full exposure of the reef and included 2cm footwall and hangingwall waste so as to ensure that high grades typically associated with the bottom and top contacts were included.</li> <li>If pronounced mineralisation (especially carbon) was noted, specifically along the bottom contact, a second sample was taken to account for the nugget effect. This also applied to other portions of reef depending on amount of mineralisation observed.</li> <li>If samples yielded anomalous results then the returned pulps were resubmitted under a new number and if analytical results were still unsatisfactory, the sample was resampled in the case of development sampling.</li> <li>Underground face sampling was standard practice in the Witwatersrand Goldfield and was deemed appropriate and representative for the grain size.</li> </ul> |  |
| Laboratory Tests                                  | <ul> <li>Onderground race samples were assayed by fire assay using 25g charges, applying discounts for silver by silver discount chart. The standard practice of fire assaying in the Witwatersrand Goldfield was deemed appropriate and representative for the samples.</li> <li>Industry standard fire assays were applied.</li> <li>10% of samples were reassayed. Returned pulps were on occasion resubmitted under a new number for validation. The laboratory participated in a round robin exercise with other mine laboratories in the DRD group (and Rand Mines Group prior to 1995) to determine precision and reproducibility.</li> <li>Best practice in the field of assaying was recorded in book form which set the standards for laboratories throughout the South African gold mining industry. The first of these books entitled "A Text Book of Rand Assay Practice" by J Moir and G H Stanley, was published in 1923. This was followed in 1955 by "Assay Practice on the Witwatersrand" by V S Dillon and others. The rapid growth of analytical methods led to the compilation and publication of a third</li> </ul>   |  |

| Verification of Sampling and | <ul> <li>volume in 1986 entitled "Assay and Analytical Practice in the South African Mining Industry" by W C Lenahan and R Murray-Smith, published by the Chamber of Mines. This book describes best practices as applied in laboratories associated with the Chamber of Mines. Analytical quality was assured by the regular use of internal controls and by periodic "round-robin" exchanges of samples between laboratories, either within individual mining houses or sometimes between mining houses. Assay laboratories at mines affiliated to the Chamber of Mines operated under the umbrella of the Chamber of Mines and the South African Association of Assayers, both of which engendered an ethos of high quality workmanship and continuous improvement.</li> <li>If pronounced mineralisation (especially carbon) was noted, specifically along the bottom</li> </ul>   |
|------------------------------|--|
| Assaying                     | <ul> <li>contact, a second sample was taken to account for the nugget effect. This was also practised to other portions of the reef depending on the amount of mineralisation observed.</li> <li>If samples yielded anomalous results then the returned pulps were resubmitted under a new number and if analytical results were still unsatisfactory, the sample was resampled in the case of development sampling.</li> </ul>  |
|                              | <ul> <li>The averages of repeat and original samples were utilised.</li> </ul>   |
| Location of Data Points      | <ul> <li>Location of underground face sampling was measured with a tape from a surveyed peg. The wooden peg was inserted in a hole drilled into the hangingwall of the development or stope with unique numbers imprinted on copper plates and fixed to the exposed part of the wooden peg.</li> <li>DRD originally had local mine coordinates with zero longitude and latitude through the centre of the DRD mine lease. Coordinates west of the zero longitude and north of the zero latitude, increased positively. Coordinates east of the zero longitude and south of the zero latitude, increased positively. DRD subsequently (approximately 1995) converted to LO27 a South African grid system.</li> <li>During the 2018 project the coordinates as detailed in the previous point were converted to WG27 (World Geographic Datum). Subsequently, the plans were georeferenced in this coordinate system. The underground face, stretch and development sampling points were consequently shifted to their correct position employing a conversion factor as determined and validated by an experienced surveyor.</li> <li>Topographic control was achieved from surveying from official surface beacons and was deemed accurate and adequate for the purpose.</li> <li>The following data was captured during the course of the 2018 project: Face, stretch and development sampling, West Wits' 2009 drillhole information (channel with and cmg/t), pegs, structures that were encountered during historic mining, underground unmined areas and historical domaining such as payshoots. The LO27 coordinates were converted into the WG27 or cordinates the second during the course of the 2018 project: Face, stretch and historical domaining such as payshoots. The LO27 coordinates were converted into the WG27 or structures that were encountered during historic mining, underground unmined areas and historical domaining such as payshoots. The LO27 coordinates were converted into the WG27 or structures that were the previous during the course of the 2018 project: Face, s</li></ul> |
| Data Spacing and             | <ul> <li>Exploration results were not reported during the 2018 project.</li> </ul>   |
| Distribution                 | <ul> <li>Data density differs across the project from 3m underground channel sampling to 100m drillhole spacing. Amount of samples present in the areas influenced the estimation parameters. Kriging efficiency was calculated during the estimation process which is an indication of the estimates ability to represent the data which was considered for resource categories.</li> <li>Each sample section was composited to represent the total reef intersection.</li> </ul>   |
| Orientation of Data in       | • Structures have no known influence on the mineralisation of the Witwatersrand placer type  |
| Relation to Geological       | reets, other than displacements.   |
| Structure                    | <ul> <li>building the zoto project, a so model was established in teaping Geo which also incorporates<br/>structures, predominantly faults and dykes. These structures are defined at high confidence<br/>levels due to their locations being precisely defined by historic mining.</li> </ul>   |
| Sample Security              | <ul> <li>Samples were delivered directly by the sampler after each shift to the laboratory sample</li> </ul>   |
| Audits or Reviews            | <ul> <li>In the 2018 project, stringent internal audit and QA/QC procedures were applied. This especially considered the validation of the databases that served as input for geological modelling and resource estimation.</li> <li>During data capturing in the 2018 project, channel widths and stretch and panel lengths were also captured and utilised to verify and validate the cmg/t values that featured on the historic plans. Ongoing QA/QC procedures were applied while capturing the data such as capturers verifying other capturers' databases in the afternoon of each capturing day.</li> </ul>   |

#### Section 2 Reporting of Exploration Results Note that DRD did not report Exploration Results (Criteria listed in the preceding section also apply to this section)

| Criteria                                       | Practices at historical Durban Roodepoort Deep Gold Mine (DRD, <2000) unless where indicated   |
|--|--|
|  | in bold font   |
| Mineral tenement and land tenure status        | The Prospecting Right GP 30/5/1/1/2/183 (10035) PR was originally held by Durban Roodepoort Deep (Pty) Ltd. In 2012 West Wits signed a contractual agreement with the Prospecting Right holder allowing the prospecting of underground resources. On the 1 <sup>st</sup> of February 2018 the application for consent in terms of Section 11 (1) of the Mineral and Petroleum Resources Development Act, Act 28 of 2002 to cede the renewed Prospecting Right GP 30/5/1/1/2/183 (10035) PR to West Wits MLI (Pty) Ltd was accepted. West Wits holds 66.6% in the company with the remaining 33.6% being held by Lalitha (Pty) Ltd a black empowered ("BEE") entity ensuring compliance with South African laws. The Prospecting Right was renewed for 3 years in April 2016. A Mining Right Application was submitted in April 2018.   |
| Exploration done by other                      | <ul> <li>No other parties have performed exploration in the 2018 Kimberley East project area.</li> </ul>   |
| parties  |  |
| Geology  | The DRD deposit forms part of the Central Rand Goldfield hosted by the Witwatersrand Supergroup strata. The Central Rand Goldfield is situated immediately to the south of Johannesburg and has been host to one of the most extensive gold reserves in the world. The reefs have been mined continuously on strike for approximately 55km in an east/west direction, boarded by DRD in the west, and down-dip, to the south, for about 6km from its outcrop position, to depths of approximately 3km. Between 1897 and 1984, approximately 247 million ounces of gold were extracted from the Central Rand Goldfield. The reef horizons are channelised conglomerates. The major orebodies mined in the Central Rand Goldfield are the Main Reef, Main Reef Leader, South Reef, Bird reefs and Kimberley reefs. The 2018 Kimberley East project area targeted the K9B Kimberley Reef.   |
| Drill hole Information                         | <ul> <li>The information is not Material because exploration results were not reported by DRD.</li> </ul>  |
| Data aggregation methods                       | <ul> <li>However, the information is supplied for completeness:</li> <li>DRD originally had local mine coordinates with zero longitude and latitude through the centre of the DRD mine lease. Coordinates west of the zero longitude and north of the zero latitude, increased positively. Coordinates east of the zero longitude and south of the zero latitude, increased negatively. DRD subsequently (approximately 1995) converted to LO27, a South African coordinate system.</li> <li>Elevations were defined as below datum numbers with datum representing 6,000 feet (1,828.8m) above mean sea level.</li> <li>The data detailed in the local LO27 (Cape Datum) coordinate system was converted into the international WG27 (Geographic Datum).</li> <li>The data on the plans that were detailed in feet/meters beneath datum were converted into meters above mean sea level (mamsl).</li> <li>Surface drillholes were drilled vertically down, but underground holes were drilled in various directions due to requirements for relevant structural information. Azimuth was measured clockwise with north as zero.</li> <li>Downhole length and interception depth of reefs were measured with the collar of the hole as zero.</li> <li>Drillhole length was determined by downhole surveys for surface and long underground holes. Short underground holes (less than 100m) were generally not surveyed and length was measured by the drill operator.</li> </ul> |
| Data aggregation methods                       | <ul> <li>Exploration results were not reported. However, compositing was conducted against relative sample lengths due to no differences in waste and ore bulk densities. Minimum grades were dependent on laboratory detection limits, which improved as technology advanced. However, cutting of low and high-grade samples was not standard practice.</li> <li>No allowance was made to differentiate between short lengths of high grade results and longer lengths of low grade results. However, minimum sample lengths were not less than 8cm.</li> <li>Metal equivalent values were not applicable.</li> </ul>   |
| Relationship between                           | • All downhole lengths were converted to true widths by correcting for the dip of the strata.  |
| mineralisation widths and<br>intercept lengths |  |
| Diagrams                                       | Exploration Results were not reported.   |
| Balanced reporting                             | Exploration Results were not reported.   |
| Other substantive                              | • Exploration results were not reported. However, the information is supplied for  |
| exploration data                               | <ul> <li>completeness:</li> <li>Geology of reef intercepts were noted in detail on standardised logging sheets.</li> <li>Geophysical and geochemical survey results were conducted as required.</li> </ul>   |

|              | <ul> <li>Bulk samples were taken when required by compositing the pulps of all reef intercepts.</li> </ul> |
|--------------|--|
|              | <ul> <li>Bulk density was never measured and always taken as 2.73 based on industry standard.</li> </ul>   |
|              | o It was standard practice for drill operators to test groundwater intersections and flow rate             |
|              | was measured in litres per hour.   |
|              | $\circ$ Geotechnical and rock characteristics were always noted, albeit typical geological                 |
|              | structures and not according to modern geotechnical parameters such as Rock Quality                        |
|              | Determination (RQD) and Rock Mass Rating (RMR), etc.   |
|              | $\circ$ Deleterious or contaminating substances such as methane were tested for by drill                   |
|              | operators utilising test meters.   |
| Further work | See body of report   |

#### Section 3 Estimation and Reporting of Mineral Resources

| (Cr                               | iteria listed in section 1, and where relevant in section 2, also apply to this section)   |
|-----------------------------------|--|
| Criteria                          | Practices at historical Durban Roodepoort Deep Gold Mine (DRD, <2000) unless where indicated in  |
|                                   | bold font  |
| Database Integrity<br>Site Visits | <ul> <li>Sample values received from the laboratory were composited by the sampler on the sample sheets, with QA/QC performed by the Chief Sampler. The composited values were plotted on 1:200 assay tracings by the Chief Sampler, with QA/QC performed by the Chief Surveyor. The geologist digitised the composite values from the assay tracings into the master database for each particular reef; with QA/QC performed by the Mineral Resource Manager (MRM, Hermanus Berhardus Swart) who also represented the competent person in the 2018 project.</li> <li>Captured reef values were validated with mine plans to ensure spatial correctness and were also scrutinised for anomalous values. This was applied to the 2018 project as well.</li> <li>The Mineral Resources were reported by the competent person, the former MRM of DRD and who has relevant experience and qualifies as a competent person in South Africa and internationally according to the requirements as stipulated by JORC.</li> <li>Not applicable as explained above.</li> </ul>  |
| Geological Interpretation         | During the 2018 project:   |
|                                   | <ul> <li>Stretch length and point data was captured digitally from georeferenced block plans in Arc GIS. Mining depletions were digitised from both horizontal and vertical projections. Resource blocks were generated in Datamine Studio 3, which were used to evaluate the remaining resource above 40 level.</li> <li>No alternative interpretation was performed.</li> <li>Wireframing was undertaken in Leapfrog utilising on-reef peg data captured from historical survey peg books. Dykes and faults were digitised from block plans and refined using mapping data from recent trenching, drilling and peg database from both Rand Leases and DRD.</li> <li>Analysis of grade continuity was undertaken for the captured data, from which homoscedastic geodomains were derived exhibiting stationarity with respect to gold accumulation and channel width.</li> </ul>  |
| Dimensions                        | • The reefs are part of the world-famous Witwatersrand Basin, and are renowned for their regional lateral (hundreds of kilometres) and down dip (tens of kilometres) continuity.   |
|                                   | • In the 2018 project, the K9B reef was reported down to 2km below surface. Strike length totalled 5.5km.  |
| Estimation and Modelling          | In the 2018 project:   |
| Techniques                        | <ul> <li>Sample grades were capped per estimation domain.</li> <li>The capped estimation dataset consisted of underground chip samples and stretch composite samples with various lengths. Nugget variance was calculated per composite length with chip samples assigned a zero length.</li> <li>Samples and estimation domains were unfolded to a planar surface.</li> <li>Ordinary Macro Kriging was performed within 50m parent cells per estimation domain considering the nugget variance calculated for sample length. Search configurations were optimised employing a combined Kriging Neighbourhood Analysis and cross validation approach.</li> <li>Historically no by-products were recovered, hence no quantification or estimation.</li> <li>Although the presence of pyrite resulted in severe acid mine water, sulphide was not quantified and estimated.</li> <li>Selective mining units were considered to be the estimation parent cells of 50x50m, which is slightly larger than the area of the general mining panel length of 30m multiplied by half of the inter-raise distance of 120m.</li> </ul> |
| Moisture                          | Tonnages were estimated on a dry basis.  |
| Cut-off Parameters                | • The cut-off <b>during the 2018 project</b> was based on similar practises to those applied at other Witwatersrand Gold mines.  |

| Mining Factors or<br>Assumptions              | <ul> <li>Mining methods were based on traditional Witwatersrand conventional hand-held drilling and scraper cleaning operations, except for the steep Kimberley reefs where overhand shrinkage methods were employed. Mining dilution in the 2018 project was based on reef width with a minimum thickness of 100cm.</li> <li>Plans that featured steeply dipping reef were vertically exaggerated. The exact position of the steeply dipping unmined areas was consequently determined in 2018 in Leapfrog Geo.</li> </ul> |
|---|---|
| Metallurgical Factors Applied                 | Gold extraction was based on traditional Carbon In Leach methods (CIL).   |
| Environmental Factors or<br>Assumptions       | Residues would be deposited on environmentally approved tailings dams. No detailed environmental or logistical designs were considered.   |
| Bulk Density                                  | <ul> <li>Bulk density was accepted as the standard industry norm for pyritic conglomerate i.e. 2.73 and was on a dry basis.</li> <li>Bulk density was not measured as historic sampling data was utilised.</li> <li>The same bulk density was multiplied with the respective volumes for all reefs in order to obtain tonnages.</li> </ul>  |
| Classification                                | <ul> <li>During 2018:</li> <li>The classification for Measured, Indicated and Inferred blocks were estimated using Ordinary Kriging into 50x50m parent cells considering mixed support data with sample support affecting nugget variance.</li> <li>Appropriate account was taken of all relevant factors.</li> <li>The results were classified considering the calculated Kriging Efficiency into Measured, Indicated and Inferred categories.</li> </ul>  |
| Audits or Reviews                             | No audits were performed in the 2018 project.   |
| Discussion of Relative<br>Accuracy/Confidence | • Estimate to model reconciliation in the 2018 project was performed for blocks containing samples which provided a model to regularised data correlation coefficient of 0.7. This is appropriate for a gold estimate within a Witwatersrand style deposit.   |

#### References:

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