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IMPALA PLATINUM HOLDINGS LIMITED (IMPLATS) IS ONE OF THE WORLD'S FOREMOST PRODUCERS OF PLATINUM AND ASSOCIATED PLATINUM GROUP METALS (PGMs). IMPLATS IS CURRENTLY STRUCTURED AROUND FIVE MAIN OPERATIONS WITH A TOTAL OF 20 UNDERGROUND SHAFTS. OUR OPERATIONS ARE LOCATED WITHIN THE BUSHVELD COMPLEX IN SOUTH AFRICA AND THE GREAT DYKE IN ZIMBABWE, THE TWO MOST SIGNIFICANT PGM-BEARING ORE BODIES IN THE WORLD.

IMPLATS HAS ITS LISTING ON THE JSE LIMITED (JSE) IN SOUTH AFRICA, THE FRANKFURT STOCK EXCHANGE (2022 US\$ CONVERTIBLE BONDS) AND A LEVEL 1 AMERICAN DEPOSITARY RECEIPT PROGRAMME IN THE UNITED STATES OF AMERICA.

OUR HEADQUARTERS ARE LOCATED IN JOHANNESBURG AND THE FIVE MINING OPERATIONS ARE IMPALA, ZIMPLATS, MARULA, MIMOSA AND TWO RIVERS. THE STRUCTURE OF OUR OPERATING FRAMEWORK ALLOWS FOR EACH OF OUR OPERATIONS TO ESTABLISH AND MAINTAIN CLOSE RELATIONSHIPS WITH THEIR STAKEHOLDERS WHILE OPERATING WITHIN A GROUP-WIDE APPROACH TO MANAGING THE ECONOMIC, SOCIAL AND ENVIRONMENTAL ASPECTS OF SUSTAINABILITY.

Welcome to our 2018 Mineral Resource and Mineral Reserve report

Implats Mineral Resource and Mineral Reserve Statement 2018 | 1

THIS REPORT CONTAINS THE 2018 MINERAL RESOURCE AND MINERAL RESERVE STATEMENT OF IMPALA PLATINUM HOLDINGS LIMITED AS AT 30 JUNE 2018.

THE REPORT PROVIDES UPDATED ESTIMATES AND RECONCILIATION OF MINERAL RESOURCES AND MINERAL RESERVES AND CONFORMS TO THE SOUTH AFRICAN CODE FOR REPORTING OF EXPLORATION RESULTS, MINERAL RESOURCES AND MINERAL RESERVES (SAMREC 2016). THE REPORT ALSO CONFORMS TO SECTION 12.13 OF THE JSE LISTINGS REQUIREMENTS AND HAS BEEN SIGNED OFF BY THE COMPETENT PERSONS.

We welcome your feedback to make sure we are covering the things that matter to you.



Go to www.implats.co.za or email investor@implats.co.za for the feedback form, or scan the code above with your smart device.

FINANCIAL FOCUS

1.58 billion
gross profit

13.63 billion
impairment, impacts the group earnings



171 cents
per share in basic headline loss



3.7 billion
gross cash and unutilised facilities of R2.5 billion available

OPERATIONAL FOCUS

5.6%
increase in tonnes milled to 19.36 million



0.4%
increase in stock adjusted unit cost

4.0%
decrease in gross refined platinum production – impacted by smelter repairs and a fire at No 5 furnace

Additional information regarding Implats is provided in the following reports, all of which will be available at www.implats.co.za



Integrated Report

- > Information about our stakeholders, their material matters, risk, strategy and performance
- > Information about our operations, Mineral Reserves and Mineral Resources, business context, environment, business model, and intellectual capital contained in our risk and remuneration processes
- > Overall assurance provided
- > Publication release scheduled for the end of October



Annual Financial Statements

These annual financial statements were prepared according to International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB), the SAICA Financial Reporting Guides as issued by the Accounting Practices Committee and Financial Reporting Pronouncements as issued by the Financial Reporting Standards Council, the requirements of the South African Companies Act, Act 71 of 2008, the Listings Requirements of the JSE Limited and the recommendations of King IV™.



Sustainable Development Report

- > Detail on material economic, social and environmental performance
- > GRI G4 core compliance
- > Internal reporting guidelines in line with the UN Global Compacts
- > Independent assurance report



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The report

Implats Mineral Resource and Mineral Reserve Statement 2018 | 2

Forward looking statements

This report contains certain forward looking statements and forecasts, which involve risk and uncertainty because they relate to events and depend on circumstances that occur in the future. There are a number of factors that could cause actual results or developments to differ materially from those expressed or implied by these forward looking statements.

IMPALA PLATINUM HOLDINGS LIMITED (IMPLATS) IS ONE OF THE WORLD'S FOREMOST PRODUCERS OF PLATINUM AND ASSOCIATED PLATINUM GROUP METALS (PGMs). IMPLATS IS CURRENTLY STRUCTURED AROUND FIVE MAIN OPERATIONS WITH A TOTAL OF 20 UNDERGROUND SHAFTS. OUR OPERATIONS ARE LOCATED WITHIN THE BUSHVELD COMPLEX IN SOUTH AFRICA AND THE GREAT DYKE IN ZIMBABWE, THE TWO MOST SIGNIFICANT PGM-BEARING ORE BODIES IN THE WORLD.

Implats has its listing on the JSE Limited (JSE) in South Africa, the Frankfurt Stock Exchange (2022 US\$ convertible bonds) and a level 1 American Depositary Receipt programme in the United States of America.

Our headquarters are in Johannesburg and the five primary operations are Impala, Zimplats, Marula, Mimosa and Two Rivers. The structure of our operating framework allows for each of our operations to establish and maintain close relationships with their stakeholders, while operating within a Group-wide approach to managing the economic, social and environmental aspects of sustainability.

The report relates to the Mineral Resource and Mineral Reserve Statement, compiled for Implats and its subsidiaries and provides the status as at 30 June 2018. An abridged version is included in the Implats integrated annual report for 2018, which is published annually and available at www.implats.co.za.

The report seeks to provide transparent and compliant details relating to the Mineral Resources and Mineral Reserves that are considered to be material to stakeholders.



Implats Mineral Resource and Mineral Reserve Statement 2018 at a glance

Perspective

The Mineral Resource and Mineral Reserve Statement as at 30 June 2018 is collated at a time when the platinum industry continues to face significant external challenges. The prevailing depressed metal prices are reflected in the fact that capital investment has virtually dried up throughout the industry. At Implats, greenfields exploration has been terminated and shaft sinking operations at Impala's 17 Shaft and Afplats' Leeuwkop Shafts remain suspended. Against this background material changes in the Mineral Resource and Mineral Reserve estimates are detailed in this report. **The material impact of the Impala strategic review is reflected in this Mineral Resource and Mineral Reserve Statement.** Despite the difficult circumstances some operations continue to deliver stellar production performances at Zimplats, Marula, Mimosa and Two Rivers.

Rustenburg review

The Impala Rustenburg operation underwent a detailed scrutiny during the past year in view of a loss-making outlook. The objective of the strategic review was to create a sustainable investment case for Impala Rustenburg that secures long-term profitability through optimisation and restructuring of the operations. Key consideration of the review was the financial robust business case within the context of social responsibility to secure long-term employment. The review process concluded on the most viable option to achieve a sustainable future operation at Impala. This restructuring process provided for a focused, agile and profitable future state that safeguards the future of some 27 000 employees.

To this effect the Implats Board has approved the strategy to cease operations at unprofitable shafts at Impala. The older shafts such as 1, 4 and 9 Shafts with limited remaining Mineral Reserves are targeted for harvesting. The higher cost, mature shafts such as 12 and 14 Shafts will be optimised and operated under strict performance conditions ahead of their planned cessation towards the end of FY2020. This restructuring of Impala Rustenburg will yield a change from 11 operational shafts ramping up to 750Koz platinum, to six operational shafts producing approximately 520Koz platinum per annum. **A direct outcome is a material reduction in the Impala Mineral Reserve estimate.**

Zimplats release of land

Zimplats announced on 6 June 2018 that the issue concerning the proposed compulsory acquisition of a portion of Zimplats' mining lease area, as well as the issue of security of Zimplats' mining tenure, has been resolved amicably between Zimplats and the Zimbabwean Government (GoZ) to the mutual benefit of the parties. Zimplats agreed to release to the GoZ land measuring 23 903 hectares within Zimplats' mining lease area in support of the government's efforts to enable participation by other investors in the platinum mining industry in Zimbabwe. Following this release of land, Zimplats now holds two separate and non-contiguous pieces of land and Zimplats was granted with effect from 31 May 2018, two separate mining leases over the two pieces of land measuring 6 605 hectares and 18 027 hectares respectively. These mining leases replaced the special mining lease, which was due for renewal in August 2019, thus securing the operating subsidiary's mining tenure. The release of land does not impact on the 30-year mine plan, but resulted in a material reduction in the Zimplats Mineral Resource estimate.

Group operations

The Implats structure remained largely unchanged during the past year with operations at Impala in the Rustenburg area of the North West province, the refinery at Springs in the Gauteng province, the Marula Mine in the Limpopo province, Zimplats and Mimosa Mines operating in Zimbabwe, the Two Rivers Mine near Burgersfort in the Limpopo province and the Afplats project near Brits in the North West province. During the past year Implats secured a minority 15% interest in the Waterberg Joint Venture project (Waterberg JV Resources (Pty) Ltd) in the Limpopo province with the option to increase the Implats stake to 50.01%. At year-end the Mineral Resource estimate for the Waterberg JV project was in progress and such attributable interest is not included in this report; the size of the attributable Mineral Resource is not material at the Implats Group level.

Group structure



Implats Mineral Resource and Mineral Reserve Statement 2018 at a glance

Implats Mineral Resource and Mineral Reserve Statement 2018 | 4

Headline numbers
(for more details see pages 27 and 29)

Attributable estimates

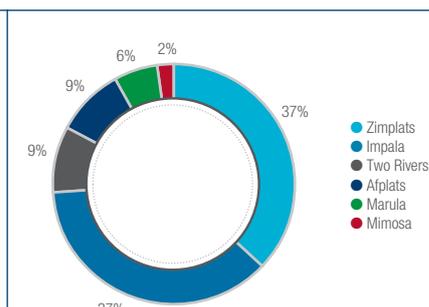
		2018	2017
Mineral Resources*	Moz Pt	133.8	191.6
	Moz 4E	243.9	360.4
	Mt	1 741	2 787
Mineral Reserves	Moz Pt	21.2	22.4
	Moz 4E	40.0	41.0
	Mt	365	358

* Mineral Resource estimate is inclusive of Mineral Reserves.

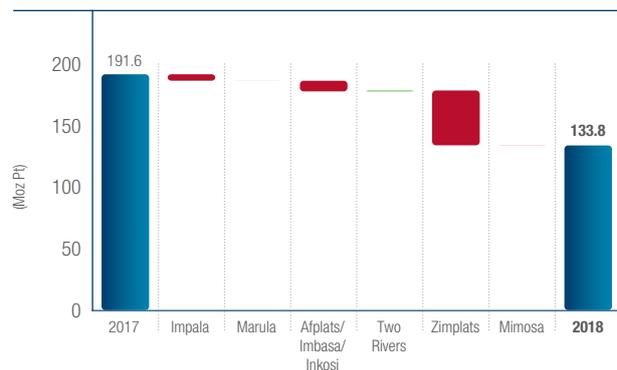
Summary Mineral Resources
(for more detail see page 27)

There has been material changes in the attributable Group Mineral Resource estimate which reduced by 57.8Moz Pt. The change is dominated by the release of land at Zimplats. The strategic decision to exit certain prospecting rights at Imbasa and Inkosi and also the Impala/Royal Bafokeng Resources Platinum (Pty) Ltd Unincorporated Joint Venture contributed notably to the reduction. The Impala strategic review to cease operations at certain shafts did not impact on the Mineral Resource estimate. The estimate as at 30 June 2018 is dominated by Zimplats and Impala, who together contribute some 74% of the total attributable Group Mineral Resources.

Attributable Mineral Resources of 133.8Moz Pt as at 30 June 2018



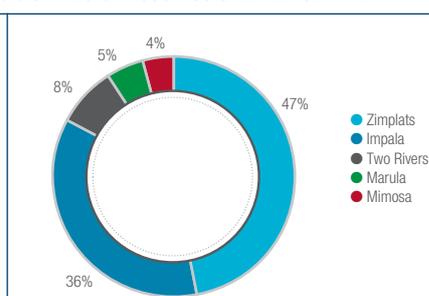
Attributable Mineral Resources as at 30 June 2018 (variance Moz Pt)



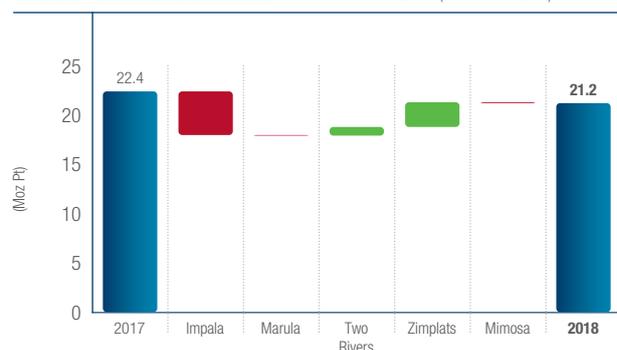
Summary Mineral Reserves
(for more detail see page 29)

Overall the attributable Group Mineral Reserve estimate did not change significantly and decreased by 1.2Moz Pt to 21.2Moz Pt. The resultant estimate as at 30 June 2018 is based on a **material reduction at Impala** following the detailed review and also a material increase at Zimplats due to the conversion of some Upper Ores to Mineral Reserves. Furthermore the addition of the RE portion of Kalkfontein at Two Rivers had a positive impact on the combined Group Mineral Reserves. Some 47% of the attributable Group Mineral Reserves (Pt) is located at Zimplats and a further 36% at Impala.

Attributable Mineral Reserves of 21.2Moz Pt as at 30 June 2018



Attributable Mineral Reserves as at 30 June 2018 (variance Moz Pt)



Implats Mineral Resource and Mineral Reserve Statement 2018 at a glance

Implats Mineral Resource and Mineral Reserve Statement 2018 | 5

Compliance
(for more detail see page 8)

The Mineral Resource and Mineral Reserve Statement is compiled in accordance with guidelines and principles of the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (SAMREC Code), the South African Code for the Reporting of Mineral Asset Valuation (SAMVAL Code) and Section 12.13 of the JSE Listings Requirements as updated from time to time. Supporting documentation includes detailed internal reports, SAMREC Table 1 reports, and regular third-party reviews. A summary list of Competent Persons who compiled this report is included in this document on page 10. While Zimplats complies with guidelines and principles of the JORC Code, the definitions are either similar or do not vary materially from the SAMREC Code. The Zimplats estimates reflected in this report comply with the SAMREC Code and Section 12.13 of the JSE Listings Requirements.

Implats subscribes to the principles of transparency, materiality and competency as per the SAMREC Code.

Note that:

- > Mineral Resources are reported inclusive of Mineral Reserves unless otherwise stated
- > There are no Inferred Mineral Resources included in any of the Mineral Reserve estimates
- > The Mineral Resource Statements remain, in principle, imprecise and must not be seen as calculations
- > Rounding-off of figures may result in minor discrepancies
- > All mineral rights are in good standing without any known impediments

Long-term price assumptions
(for more detail see page 25)

Long-term price assumptions in today's money*

Platinum	US\$/oz	1 040
Palladium	US\$/oz	1 040
Rhodium	US\$/oz	2 300
Ruthenium	US\$/oz	215
Iridium	US\$/oz	1 020
Gold	US\$/oz	1 370
Nickel	US\$/t	13 750
Copper	US\$/t	7 000
Exchange rate	R/US\$	13.00
Basket	US\$/Pt oz	2 100
	R/Pt oz	27 300

* These are long-term assumptions; note that short-term assumptions approximate spot prices.

The updated allocation of Implats' Mineral Reserves per shaft infrastructure as at 30 June 2018 is depicted in the accompanying graphic illustration. The range below surface and quantum relating to the infrastructure is shown and depicts among others the advantage at Zimplats in this regard, both from a depth and a size perspective. This graph depicts the impact of the Rustenburg review where 1, 12 and 14 Shafts at Impala will cease mining in due course and also gives an indication of the potential impact of a possible further shaft closure in future should prices demand this.

Platinum Mineral Reserve and depth range for individual Implats shafts as at 30 June 2018



Integrated Mineral Resource management

for the year ended 30 June 2018

Implats Mineral Resource and Mineral Reserve Statement 2018 | 6

Implats embraces an integrated Mineral Resources management (MRM) function. To this end, systems, procedures and practices are aligned and are continuously being improved to achieve this objective. MRM includes exploration, geology, geostatistical modelling and evaluation, mine surveying, sampling, mine planning, ore accounting and reconciliation as well as the MRM information systems. The MRM function is the custodian of the mineral assets and specifically strives to optimise these assets – in terms of both Mineral Resources and Mineral Reserves – and to unlock value through a constant search for optimal extraction plans which yield returns in line with the corporate and business objectives.

The main objective of the MRM function is to support the strategic intent and add value to the organisation through:

- > Safe production is the first principle underpinning all Mineral Reserve estimates
- > Appropriate investigation, interpretation and understanding of the orebodies
- > Integrated short-, medium- and long-term plans
- > Technically appropriate and proven management information systems
- > Accurate and reconcilable Mineral Resource and Mineral Reserve estimates
- > Seek optimal solutions to ensure sustainable and profitable operations.

Continuous improvement has been embedded in the MRM function. Specific focus is given to new learnings, standardisation and protocols as well as collaboration with the industry.

Present focus areas include:

- > Improved Mineral Reserve flexibility, measured as mineable face length in conventional mining sections
- > Improvement in the quality of mining
- > Revisiting optionality of long-term planning in view of present cash constraints
- > Scenario planning for LoM II and III Mineral Resources to ensure a sustainable business model
- > Improving the MRM information systems to support mine planning
- > Work streams to ensure optionality to sustain operations.

GROUP STRATEGY



Mine planning

Implats Mineral Resource and Mineral Reserve Statement 2018 | 7

The embedded planning cycle gives due consideration to the sequence of planning, the duration of the business planning period and the embedding of long-term strategic planning.

The generalised planning cycle is shown below. It must be noted that rework or new activities are accommodated out of the normal cycle.



Implats has defined three levels of LoM planning, these being classified as Levels III, II and I. The three levels are linked to increasing levels of confidence and the conversion of Mineral Resources to Mineral Reserves.

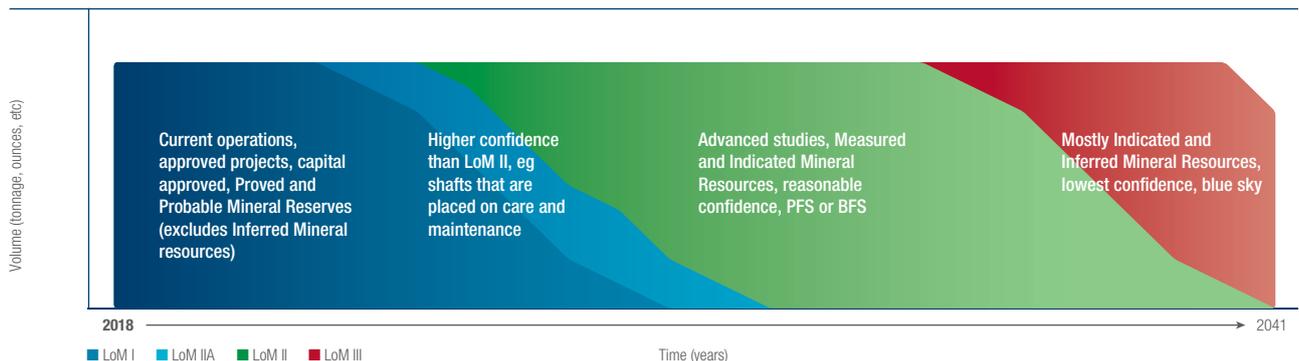
LoM Level III includes ‘Blue Sky’ and scoping studies and therefore focuses mainly on Inferred Resources and exploration results. It also includes contiguous areas and opportunities outside existing lease boundaries and ownership.

LoM Level II includes planned but as yet unapproved projects, which have a reasonable chance of future Board approval.

LoM Level IIA can be defined as those Mineral Reserves that fail the valuation test of LoM Level I. These uneconomic volumes are removed from LoM I, but are retained as Mineral Resources and not Mineral Reserves. Most of the Mineral Reserves removed through the tail-cutting process fall in the LoM Level IIA category. Likewise, operations that are deemed uneconomic under the current LoM considerations, also fall in this category.

LoM Level I includes operational shafts and approved capital projects where a portion of Mineral Resources is converted to Mineral Reserves and sufficient confidence exists for the declaration of Mineral Reserves in a public report. To this effect no Inferred Mineral Resources are included in LoM I.

LoM levels as at 30 June 2018



Compliance

The reporting of Mineral Resources and Mineral Reserves for Implats' South African operations is undertaken in accordance with the principles and guidelines of the SAMREC Code. SAMREC was established in 1998 and modelled its code on the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (JORC Code). The first version of the SAMREC Code was issued in March 2000 and adopted by the JSE in its Listings Requirements later in the same year; this was similarly the basis for the JSE Ongoing Reporting Requirements which were promulgated in 2005. The SAMREC Code has been under review since 2004 and was updated in the 2007 edition and amended in July 2009. The SAMREC Code has been updated in 2016 and this supersedes the previous editions of the code; this was launched on 19 May 2016 at the JSE. Section 12 of the JSE Listings Requirements has been updated and the revised SAMREC and SAMVAL Codes came into effect on 1 January 2017. Zimplats, as an Australian Securities Exchange (ASX) listed company, reports its Mineral Resources and Mineral Reserves in accordance with the 2012 JORC Code. The definitions contained in the SAMREC Code are either identical to or not materially different from the JORC Code. The Zimplats processes, procedures and estimates are reviewed by Implats to ensure that Mineral Resource and Mineral Reserve estimates are fully compliant with the SAMREC Code. Mimosa Investments Limited, a Mauritius-based company, does not fall under any regulatory reporting code, but has adopted the SAMREC Code for its reporting.

The latest edition of the SAMREC Code (the South African Code for the Reporting of Explorations Results, Mineral Resources and Mineral Reserves – the SAMREC Code – 2016 Edition) includes an updated Table 1 template, which provides an extended list of the main criteria that must be considered and reported when reporting on exploration results, Mineral Resources and Mineral Reserves. In the context of complying with the principles of the code, comments relating to the items in the relevant sections of Table 1 must be provided on an 'if not, why not' basis within the Competent Persons' report. The guidelines for the compilation of Table 1 is for (i) the first-time declaration of exploration results, a Mineral Resource or a Mineral Reserve, and (ii) in instances where these items have materially changed from when they were last publicly reported for significant projects. Reporting on an 'if not, why not' basis ensures that it is clear to an investor or other stakeholders whether items have been considered and deemed of low consequence or are not yet addressed or resolved. Implats has adopted the compilation and updating of Table 1 as a standard to complement internal reports.

Concurrent with the evolution of the SAMREC Code, the Committee for Mineral Reserves International Reporting Standards (CRIRSCO) has, since 1994, been working to create a set of standard definitions for the reporting of Mineral Resources and Mineral Reserves. The definitions in the 2016 edition of the SAMREC Code are either identical to, or not materially different from, those existing standard definitions published in the CRIRSCO Reporting Template 2013.

Various Competent Persons (CPs), as defined by the SAMREC and JORC Codes, have contributed to the estimation and summary of the Mineral Resource and Mineral Reserve figures quoted in this report. As such, these statements reflect the estimates as compiled by teams of professional practitioners from the various operations and shafts.

Gerhard Potgieter, Chief Operating Officer, PrEng, ECSA Registration No 20030236, a full-time employee of Implats, takes full responsibility for the Mineral Reserve estimates for the Group. The Competent Person has 33 years' relevant mining experience.

The Group Executive: MRM, Seef Vermaak, PrSciNat, SACNASP Registration No 400015/88, a full-time employee of Implats, assumes responsibility for the Mineral Resource estimates for the Implats Group. He also assumes responsibility for the collation of the combined Mineral Resource and Mineral Reserve Statement for the Group. The Competent Person has 32 years' experience in the exploitation of PGM-bearing deposits.

Implats has written confirmation from the Lead Competent Persons that the information disclosed in terms of this document are compliant with the SAMREC Code and, where applicable, the relevant JSE Section 12 and SAMREC Table 1 requirements, and that it may be published in the form, format and context in which it was intended.

The address for ECSA is:
Engineering Council of South Africa (ECSA),
Private Bag X691, Bruma, 2026, Gauteng province,
South Africa.

The address for SACNASP is:
South African Council for Natural Scientific Professions,
(SACNASP), Private Bag X540, Silverton, 0127,
Gauteng province, South Africa.

Compliance

The contact details of the Lead Competent Persons are as follows:

Gerhard Potgieter

ECSA 20030236, SAIMM
 Lead Competent Person
 Chief Operating Officer
 Impala Platinum Limited
 2 Fricker Road
 Illovo, 2196
 Private Bag X18
 Northlands, 2116



13 September 2018

Seef Vermaak

SACNASP 400015/88 GSSA
 Lead Competent Person
 Group Executive, Mineral Resource Management
 Impala Platinum Limited
 2 Fricker Road
 Illovo, 2196
 Private Bag X18
 Northlands, 2116



13 September 2018

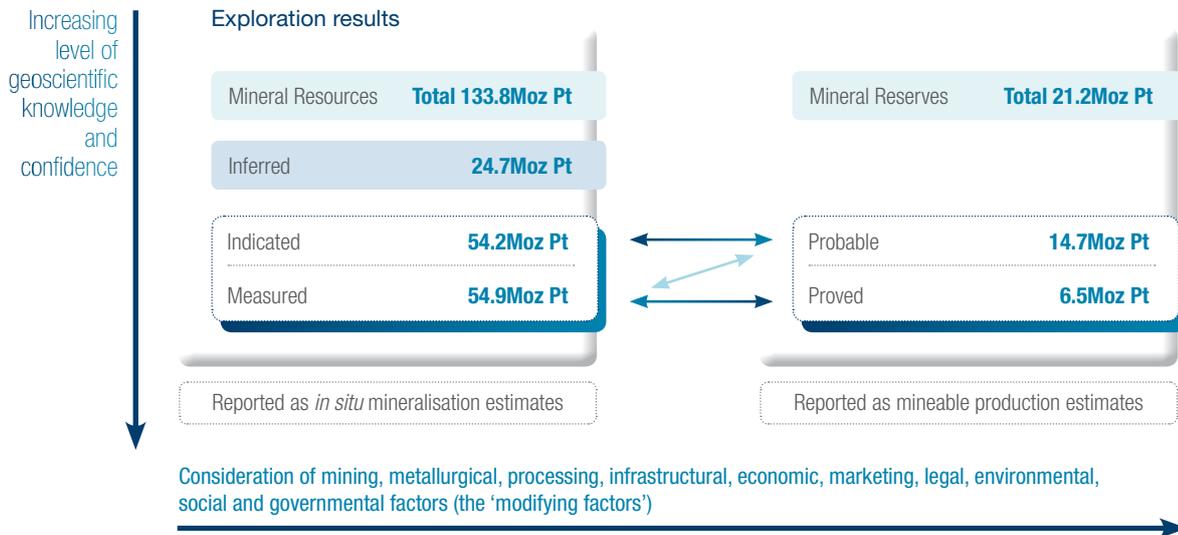
A Competent Valuator (CV) is a person who is registered with ECSA, SACNASP, or SAGC, or is a Member or Fellow of the SAIMM, the GSSA, SAICA, or a Recognised Professional Organisation (RPO) or other organisations recognised by the SSC on behalf of the JSE. A Competent Valuator is a person who possesses the necessary qualifications, ability and relevant experience in valuing mineral assets. A person called upon to act as a

Competent Valuator shall be clearly satisfied in their own mind that they are able to face their peers and demonstrate competence in the valuation undertaken.

Nico Strydom, CA(SA), ACMA, Group strategy and new business development manager, a full-time employee of Implats, takes full responsibility for the valuation of the Mineral Resources and Mineral Reserves for the Group.

The Implats Group's attributable platinum ounces are reflected in the illustration below.

Relationship between exploration results, Mineral Resources and Mineral Reserves showing Implats' attributable Mineral Resources and Mineral Reserves as at 30 June 2018 (Moz Pt)



Compliance

Implats Mineral Resource and Mineral Reserve Statement 2018 | 10

Competent Person (CP) structure 2018

> Lead CP Mineral Resources: Seef Vermaak, Group Executive MRM, (SACNASP 400015/88), GSSA

> Lead CP Mineral Reserves: Gerhard Potgieter, Chief Operating Officer (ECSA 20030236), SAIMM

Competent Person's (CP) name	Appointment	Registration
Philip Fouché	Lead CP exploration	SACNASP, GSSA
Louise Fouché	Lead CP geostatistics and databases	SACNASP, SAIMM, GSSA
Johannes du Plessis	Lead CP audits, reconciliation	SACNASP, GSSA
David Sharpe	Lead CP mine planning, survey and ore accounting	SACNASP, GSSA
Stanley Claassen	Lead CP standards and processes of mine planning	SACNASP
Nico Strydom	Lead CV	SAICA, CIMA

Unit/Project	CP Mineral Resources	Registration	CP Mineral Reserves	Registration
Afplats	Jacolene de Klerk	SACNASP, GSSA	n/a	
Marula	Sifiso Mthethwa	SACNASP, GSSA	Sifiso Mthethwa	SACNASP, GSSA
Zimplats	Steven Duma	AusIMM, SACNASP	Caston Mutevhe	ECSA, SAIMM
Impala	Johannes du Plessis	SACNASP, GSSA	David Sharpe	SACNASP, GSSA
Impala Exploration/ Projects	Philip Fouché	SACNASP, GSSA	n/a	
Two Rivers	Shepherd Kadzviti	SACNASP, GSSA	Mike Cowell	SACNASP, GSSA
Mimosa	Dumisayi Mapundu	SACNASP	Alex Mushonhiwa	SAIMM

In addition to the CPs listed above, the Mineral Reserve Statements are fully supported by an experienced team of general managers, who approve their respective business plans and take full responsibility for their Mineral Reserve Statements. The general managers are:

Name	Area of responsibility	Years' relevant experience
Terence Cowley	General manager Impala 1 Shaft	35
Tshediso Mohase	General manager Impala 9 and 10 Shafts	32
Riaan Swanepoel	General manager Impala 11 Shaft	28
Jacey Kruger	General manager Impala 20 Shaft	28
Joseph Tsiloane	General manager Impala EF, 6 and 12 Shafts	18
André Fryer	General manager Impala 14 Shaft	19
Hans Fourie	General manager Impala 16 Shaft	30
Mogale Mashilane	General manager Marula Mine	26
Alex Mushonhiwa	General manager Mimosa Mine	28
Simbarashe Goto	General manager Ngezi Mine	21
JJ Joubert	General manager Two Rivers Mine	27

Auditing and risk

Implats Mineral Resource and Mineral Reserve Statement 2018 | 11

Implats is committed to independent third-party reviews to provide assurance regarding the Mineral Resource and Mineral Reserve estimates. Furthermore, these reviews assist with the principle of continuous improvement on the set internal processes. The Mineral Corporation was contracted to review and audit the Group's Mineral Resources and Mineral Reserves for three consecutive years. Audits were undertaken in 2016 and 2017 respectively. The main focus areas of the audits was to conduct spot checks of estimates and to link this through to the Mineral Resources and Mineral Reserves, the LoM profiles and the financial valuation of LoM models. They were also tasked to provide guidance in terms of the 2016 SAMREC edition, Table 1 and improvements to the Mineral Resources and Reserves public statement.

In 2018 the scope of the review was to produce a JSE compliant Table 1 report for all Implats' operations. The 2018 review concluded that there are no apparent fatal flaws or material issues identified in the Mineral Resource and Reserve estimation processes and technical modifying factors for the PGM mining operations audited. The review indicated that Mineral Resource and Reserve Statements for Implats' operations as at 30 June 2018 have been compiled and reported following the guidelines of the 2016 editions of the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (the SAMREC Code) and the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Overall, the processes followed in compiling the estimates and the sign-off procedures fulfil the requirements of Implats' Code of Practice for the Estimation, Classification and Reporting of Mineral Resources and Reserves. The audit noted that the economic viability testing of the LoM plans completed was based on reasonably assumed forward-looking metal price, exchange rate and discount rate assumptions, and realistic production schedules. A statement from The Mineral Corporation is included on page 13. 

The Group's reported Mineral Resources and Mineral Reserves represent its estimate of quantities of PGMs that have the potential to be economically mined and refined under anticipated geological and economic conditions. There are numerous uncertainties inherent in estimating quantities of Mineral Resources and Mineral Reserves as well as in projecting potential future rates of metal production, coupled with many factors beyond the Group's control. The accuracy of any Mineral Resources and Mineral Reserves estimate is a function of a number of factors, including the quality of the methodologies employed, the quality and quantity of available data, geological interpretation and judgement. It is also dependent on economic conditions that are in line with

estimates. Further, estimates of different geologists and mining engineers may vary and the results of the Group's mining and production – subsequent to the date of an estimate – may lead to a revision of estimates. This can be due to fluctuations in the market price of ores and metals, reduced recovery rates or increased production costs due to inflation or other factors, which may render Mineral Resources and Mineral Reserves containing lower grades of mineralisation uneconomic to exploit and may ultimately result in a restatement of Mineral Resources and/or Mineral Reserves, which could then adversely impact future cash flows. Mineral estimates are based on limited sampling and, consequently, are uncertain as the samples may not be representative of the entire orebody and Mineral Resource. As the understanding of the orebody improves, the estimates may also change. In addition, the Mineral Reserves the Group ultimately exploits may not conform to geological, metallurgical or other expectations and the volume and grade of ore recovered may differ from the estimated levels. It is important to note that Mineral Resources and Mineral Reserves data is not indicative of future production.

Substantial capital expenditure is required to identify and delineate Mineral Resources and Mineral Reserves through geological mapping and drilling, to identify geological features that may prevent or restrict the extraction of ore, to determine the metallurgical processes to extract the metals from the ore and, in the case of new properties, to construct mining and processing facilities.

The MRM department subscribes to a formal risk management process, which endeavours to systematically treat all risks relevant to the Mineral Resources and Mineral Reserves in line with the Implats risk appetite and tolerance framework that is reviewed and signed off by the Board on an annual basis. Currently all of the risks that could affect the Mineral Resources and Mineral Reserves are within accepted risk tolerance levels. Implats recognises that Mineral Resource and Mineral Reserve estimations are based on projections, which may vary as new information becomes available or specifically, if assumptions, modifying factors and market conditions change materially. This approach is consistent with our Group definitions of risk that have been revised in line with the updates published in terms of the International Risk Management Standard, ISO 31000:2018, that being the risk is "the effect of uncertainty on objectives". The assumptions, modifying factors and market conditions therefore represent areas of potential risk. In addition, security of Mineral Right tenure or corporate activity could have a material impact on the future mineral asset inventory, as reflected in the Group and operating entities' top risks' dashboard and disclosures.

Auditing and risk

The Group risk management process is described in detail in the 2018 Implats integrated report.

The key steps in risk management are:

- > Identifying of objectives (linked to strategy)
- > Establishing the context
- > Identifying the risk
- > Analysing the risk
- > Evaluating the risk
- > Treating the risk
- > Monitoring and reviewing of the risk
- > Reporting of the risk.

During the year under review, we updated our risk assessment process to the latest requirements of ISO 31000:2018.

Arising from this process we identify a set of objective-based risk assessments that cover the key aspects of the Implats business. Each identified risk, as well as its associated controls, has a clearly defined line management owner. This process culminates in the identification of the prioritised strategic risks. The top

Group strategic risks are listed below as these directly impact the Mineral Resources and Mineral Reserves (summarised from the 2018 Implats integrated report):

- > Sustained depressed PGM basket prices
- > Ability and capacity to implement outcomes of the Rustenburg strategic review and return Impala to cash neutral/positive position by FY2019
- > Weak balance sheet
- > Sustained depressed PGM basket prices
- > Non-delivery of production and productivity target at Impala Rustenburg
- > Employee relations climate
- > A significant deterioration in safety performance at Impala
- > Reduced production flexibility in smelting operations
- > Inability to sustain SIB and risk mitigation projects due to capital constraints
- > Long-term economic viability of Marula operations
- > Challenged capacity and efficiencies of management layers at SA operations.

Similarly, operationally specific risks are listed in each of the sections per individual operation, later in this report.



Surveyor capturing measurements on MineRP Cad at 20 Shaft