Impala Platinum Holdings Limited (Implats) is one of the world’s foremost producers of platinum and associated platinum group metals (PGMs). Implats is structured around five main operations with a total of 24 underground shafts. Our operations are located on 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, and a level 1 American Depositary Receipt programme in the United States of America. Our headquarters are in Johannesburg and the five main 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 2015 mineral resource and mineral reserve report

Feedback
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 on the right with your smartphone.

“The most significant PGM deposits in the world are the Bushveld Complex in South Africa and the Great Dyke in Zimbabwe. These PGM deposits contribute around three-quarters of global platinum output.

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

Integrated report
- Strategy, risks, resource allocation, business model and materiality
- Operational information
- Summarised reserves and resources

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

Annual financial statements
- Audited group and company annual financial statements

Online
- Direct access to all our reports
- Our website has detailed investor, sustainability and business information

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Our report

"The report provides transparent and compliant details relating to the mineral resources and mineral reserves"

Our vision
Our vision is to be the world’s best platinum-producing company, delivering superior returns to stakeholders relative to our peers.

Our mission
To safely mine, process, refine, recycle and market our products at the best possible cost ensuring sustainable value creation for all our stakeholders.

Our values
We respect
● all our stakeholders, including:
  − shareholders
  − employees and their representative bodies
  − communities within which we operate
  − regulatory bodies
  − suppliers and customers
  − directors and management
  − all other interested and affected parties
● the principles of the UN Global Compact
● the laws of the countries within which we operate
● the company policies and procedures
● our place and way of work
● open and honest communication
● diversity of all our stakeholders
● risk management, and continuous improvement philosophies

We care
● for the health and safety of all our stakeholders
● for the preservation of natural resources
● for the environment in which we operate
● for the socio-economic well-being of the communities within which we operate

We strive to deliver
● positive returns to our stakeholders through an operational excellence model
● a safe, productive and conducive working environment
● on our capital projects
● a fair working environment through equitable and competitive human capital practices
● on the development of our employees
● on our commitments to all stakeholders
● quality products that meet or exceed our customers’ expectations

The report
This report relates to the mineral resource and mineral reserve statement, compiled for Impala Platinum Holdings Limited (Implats) and its subsidiaries. The report provides the status as at 30 June 2015 and an abridged version is included in the Implats integrated annual report for 2015 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 reserves that are considered to be material to stakeholders.

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.

Structure
The Implats structure remained unchanged during the past year with operations at Impala in the Rustenburg area of the North West province, the Marula Mine in the Limpopo province, Zimplats and Mimosa mines operating in Zimbabwe, the Two Rivers Mine near Burgersfort in Limpopo and the Afplats project near Brits in the North West province.
Group structure

**IMPALA PLATINUM HOLDINGS LIMITED**

- **IMPALA**
  - 96%
  - Tubatse Platinum (Pty) Ltd
  - Mmakau Mining (Pty) Ltd
  - Marula Community Trust

- **ZIMPLATS**
  - 87%
  - Aquarius Platinum Ltd

- **MARULA**
  - 73%

- **MIMOSA**
  - 50%

- **AFPLATS**
  - 74%

- **TWO RIVERS**
  - 49%

- **IRS – Impala Refining Services**
  - 100%

- **AFPLATS**
  - 49%

- **TWO RIVERS**
  - 100%

**INTRODUCTION**
Implats’ mineral resource and mineral reserve key features

The main features relating to Implats’ mineral resources as at 30 June 2015 relative to 30 June 2014 are:

- Estimated total attributable mineral resources decreased by 7% (28Moz 4E) to 367Moz; the total attributable platinum ounces decreased by 8% (16Moz Pt) to 196Moz
- The year-on-year comparative decrease can mainly be ascribed to the transfer of the Tamboti mineral rights to Two Rivers. This resulted in a gain in the Two Rivers attributable mineral resources
- Effectively the 100% ownership of Tamboti converted to 49% attributable at the Two Rivers level
- The attributable platinum mineral resources remain dominated by Zimplats and Impala; the Zimplats mineral resources make up the bulk of these (48%)

The main features relating to Implats’ mineral reserves as at 30 June 2015 relative to 30 June 2014 are:

- Total attributable mineral reserves decreased by 8% (4Moz 4E) to 46Moz; the attributable platinum ounces decreased by 7% (2Moz) to 26Moz
- The main contributor to the decrease in mineral reserves is Zimplats due to the exclusion of Portal 5 (1.7 million ounces platinum) and the impact of the revised pillar design
- There are gains in mineral reserves at Two Rivers, Mimosa and Marula due to the inclusion of additional areas
- Some 73% of the total attributable mineral reserves are located at Impala

<table>
<thead>
<tr>
<th>Attributable mineral resources of 196Moz Pt (%)</th>
<th>Attributable mineral reserves of 26.4Moz Pt (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="chart1.png" alt="Attributable mineral resources chart" /></td>
<td><img src="chart2.png" alt="Attributable mineral reserves chart" /></td>
</tr>
</tbody>
</table>

Attributable mineral resources (Moz)

- **Pt**: 196 Moz
- **Pd**: 131 Moz
- **Rh**: 23 Moz
- **Au**: 17 Moz

Attributable mineral reserves (Moz)

- **Pt**: 26.4 Moz
- **Pd**: 15.0 Moz
- **Rh**: 3.4 Moz
- **Au**: 1.5 Moz
Implats’ mineral resource and mineral reserve key features

“We believe that metal prices could remain lower for longer”

2015 strategic review
During the past year Implats undertook a strategic review. We continue to be prudent in our strategic assumptions and believe that metal prices could remain lower for longer, but that we should retain flexibility to be in a position to take advantage of any sustainable improvement in demand and PGM prices in the long term. Within this context, the Group is positioning itself strategically to conserve cash, while at the same time restoring and optimising operational performances and profitability. The Group has implemented stringent capital allocation and cash preservation measures based on a lower-for-longer metal price risk mitigation strategy. In doing so, management has endeavoured to maintain strategic optionality to safeguard the long-term value potential of its assets in an environment where metal prices are expected to recover.

The overarching strategic outcome targets five key focus areas:
- Maintaining prudent investment through the cycle
- Maintaining strategic optionality and positioning the Group for the future
- Improving efficiencies/profitability through operational excellence and safe production
- Conserving cash, especially while metal prices remain depressed
- Maintaining our social licence to operate.

The market conditions continue to dominate the platinum industry climate and Implats will adapt the strategy as the need arises. Post year-end a further review was undertaken in response to the low metal prices, in particular to address cash preservation through cost cutting and capex deferral. This will again be adjusted should the outlook change.

Strategy to ensure shareholder value

<table>
<thead>
<tr>
<th>Investment through the cycle</th>
<th>Key decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain optionality and position for the future</td>
<td>Continue capital investment over the next five years</td>
</tr>
<tr>
<td>Improve efficiencies through operational excellence</td>
<td>Reduce capital spend in 2016</td>
</tr>
<tr>
<td>Cash conservation</td>
<td>Restore and maintain Impala at 830Koz Pt pa</td>
</tr>
<tr>
<td>Maintain our social licence to operate</td>
<td>– Deliver on new 16 and 20 shaft complexes</td>
</tr>
<tr>
<td></td>
<td>– Retaining 17 Shaft optionality</td>
</tr>
<tr>
<td></td>
<td>Rigorously pursue additional operating cost savings in 2016</td>
</tr>
<tr>
<td></td>
<td>Restore Zimplats to 260Koz Pt pa</td>
</tr>
<tr>
<td></td>
<td>– Open cast and redevelopment Bimha</td>
</tr>
<tr>
<td></td>
<td>Defers Afplats for four years</td>
</tr>
<tr>
<td></td>
<td>Maintain steady-state production at Mimosa</td>
</tr>
<tr>
<td></td>
<td>Extend Two Rivers life of mine</td>
</tr>
<tr>
<td></td>
<td>Build on successful IRS model</td>
</tr>
<tr>
<td></td>
<td>Maintain and position the Group balance sheet</td>
</tr>
</tbody>
</table>
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, mine survey, sampling, mine planning, ore accounting and reconciliation and the MRM information systems. The MRM function is the custodian of the mineral assets and specifically strives to grow these assets in terms of both resources and 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:
- Ensuring that safe production is the first principle underpinning all mineral reserve estimates
- Appropriate investigation, study and understanding of the orebodies
- Accurate and reconcilable mineral resource and mineral reserve estimates
- Integrated and credible short, medium and long-term plans
- Measured and managed outputs
- Technically appropriate and proven management information systems

Continuous improvement has been embedded in the MRM function. Specific focus is given to standardisation, development, review and improvement of protocols to govern MRM. Implats accordingly remains committed to the following:
- Continuously improving the management of mineral resources and related processes, while addressing skills development and retention
- Optimal exploitation of current assets, together with growth of the mineral resource base by leveraging and optimising existing Implats properties, exploration and acquisitions, including alliances and equity interests with third parties
- The legislative regime that governs mineral rights ownership
- The transparent, responsible and compliant disclosure of mineral resources and mineral reserves in line with the relevant prescribed codes, SAMREC and JORC, giving due cognisance to materiality and competency

Present focus areas include:
- Improving the MRM information systems in cooperation with third-party vendors
- Improved ore reserve flexibility
- Improvement in the quality of mining

To this end Impala has completed the first year of a four-year project to migrate to a fully geospatial systems environment, namely MineRP Enterprise, in conjunction with our mining technical systems partner MineRP. This geospatial environment allows for integration with multiple systems, including 3D geological modelling and other technical services software. Since all the data will be stored as attributed points, lines and polygons, inside SpatialDB, the core component of MineRP Enterprise, it will be possible to query, review and visualise information spatially, across all levels of the organisation from a single source system. MineRP-CAD, the CAD tool in the enterprise system, has already been deployed to replace older CAD technology.

Group strategy: positive long-term fundamentals, expect lower-for-longer prices

<table>
<thead>
<tr>
<th>Investment through the cycle</th>
<th>Maintain optionality and position for the future</th>
<th>Operational excellence</th>
<th>Cash conservation</th>
<th>Maintain licence to operate</th>
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<td>Quality mining</td>
<td>Ore reserve flexibility</td>
<td>Systems</td>
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<td>Timeous brownfields</td>
<td>Grade meetings</td>
<td>Detailed development</td>
<td>MineRP-Cad</td>
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<td>Cost effective infill</td>
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<td>management</td>
<td>modelling tool</td>
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<td>Observation tools</td>
<td>Improved ore accounting</td>
<td>Face length management</td>
<td>SpatialDash</td>
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<tr>
<td>Cash conservation</td>
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<tr>
<td>Maintain licence to operate</td>
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INTRODUCTION
Mine planning

The main objectives of the Implats integrated planning cycle have remained as follows:

- To utilise the full available time per year for quality planning
- To allow integration of the different levels of planning
- To ensure the planning levels are done in the correct sequence
- To populate the cycle with appropriate review processes
- To link the planning cycle to business reporting periods
- To provide continuity of plans and cycles
- To place emphasis on risk and value
- To identify departmental inputs and ensure full participation
- To ensure changes in the business environment are continuously incorporated
- To ensure top-down goals flow through to operational planning and vice versa
- To ensure optimisation of plans
- To enhance compliance with standards, consolidation and delivery of results

The new planning cycle is now embedded to give due consideration to the sequence of planning, the duration of the business planning period and the embedding of long-term strategic planning. In particular the approach to commence the planning cycle with the updating of the life-of-mine (LoM) planning process and followed by a detailed five-year development and two-year stoping scheduling phase has been adopted. The main benefits of this approach is conducting the detailed planning phase as late as possible in the cycle to ensure proper alignment with the delivery phase of the plan and also allocating more time to the LoM planning phase.

Implats has defined three levels of LoM planning, these being classified as Levels III, II and I, shown adjacent, which also illustrates a broad alignment with resource and reserve categories. 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. Valuation of these resources can only be done internally, for the purpose of justifying expenditure for the upgrading of the inferred resources.

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

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.

Estimation of grade block models is facilitated by geostatistical packages such as Isatis™ and Datamine™ and is based on a fit-for-purpose principle. Mine design and scheduling utilise 3D planning tools; the output of which supports the mineral reserve estimates. Grade and tonnage modifying factors are stored in electronic databases. The planning process involves the conversion of resources to reserves through the allocation of modifying factors to the in situ resource through detail design and scheduling. Factors used include densities per rock type and dimensions appropriate to the mining method deployed. In some cases the mineralised channel is narrower than the minimum safe mining width and so additional waste material has to be included in the mining cut. Historical dilution factors are incorporated into the plan taking into account anticipated future conditions and improvements where possible. Dilution factors used include overbreaks, underbreaks and off-reef mining. Cognisance is taken of the practicalities of hard rock mining and the limitations of the tools used. At Impala and Marula this is allocated on a half level basis which allows the varying conditions across the lease area to be recognised and integrated into the LoM plan. Where there is no history, factors from similar operations are used as a guideline. Planning parameters are informed in part by historic and anticipated future constraints, orebody permitting.

At Impala, the mine managers and general managers oversee the compilation and approve their respective shafts’ production profiles. These profiles are further endorsed by the executive: mining and the Group planning manager. In addition, graphical plans depicting the planned layouts, design and sequence of mining are interrogated and approved by the mine manager, mine planner, geologist, surveyor, rock engineer and ventilation officer of each shaft. Minor variations of this approval protocol are used at other Group operations but work is in progress to standardise the procedure across the Group.

High-level classification of life-of-mine plans

![Diagram of life-of-mine plans showing levels III, II, and I with increasing level of knowledge and confidence from III to I.](image-url)
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 South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (SAMREC Code). SAMREC was established in 1998 and modelled its code on the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). The first version of the SAMREC Code was issued in March 2000 and adopted by the JSE Limited (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 again amended in July 2009; the JSE subsequently incorporated this new version into its Listings and Reporting Requirements. Zimplats, as an Australian Securities Exchange (ASX) listed company, reports its mineral resources and ore reserves in accordance with the 2012 JORC 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 definitions contained in the SAMREC Code are either identical to, or not materially different from, international definitions. International definitions for mineral resources and the inferred, indicated and measured mineral resource sub-categories, and the definitions for mineral reserves and the probable and proved mineral reserve sub-categories, are the same as those found in the SAMREC and JORC codes. The relationships between mineral resources and mineral reserves are depicted below in the standard SAMREC classification diagram.

The Implats Group’s attributable platinum ounces are reflected in the illustration. Various Competent Persons, 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, shafts and projects. Gerhard Potgieter, Group executive: growth projects, and consulting mining engineer, 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 30 years’ relevant mining experience. The Group executive: mineral resource management, 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 29 years’ experience in the exploitation of PGM-bearing deposits.

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

<table>
<thead>
<tr>
<th>Competent Person’s (CP) name</th>
<th>Appointment</th>
<th>Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bennie Cilliers</td>
<td>Lead CP exploration</td>
<td>SACNASP, GSSA</td>
</tr>
<tr>
<td>Louise Fouche</td>
<td>Lead CP geostatistics and databases</td>
<td>SACNASP, SAIMM, GSSA</td>
</tr>
<tr>
<td>Johannes du Plessis</td>
<td>Lead CP audits, reconciliation</td>
<td>SACNASP, GSSA</td>
</tr>
<tr>
<td>Emmanuel Acheampong</td>
<td>Lead CP mine planning</td>
<td>ECSA, SAIMM</td>
</tr>
<tr>
<td>Coenie Pretorius</td>
<td>Lead CP survey and ore accounting</td>
<td>PLATO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit/Project</th>
<th>CP mineral resources</th>
<th>Registration</th>
<th>CP ore reserves</th>
<th>Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afplats/Imbasa/Inkosi</td>
<td>Jacolene de Klerk</td>
<td>SACNASP</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Marula</td>
<td>Sifiso Mthethwa</td>
<td>SACNASP</td>
<td>Gerrie le Roux</td>
<td>PLATO</td>
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<tr>
<td>Zimplats</td>
<td>Steven Durna</td>
<td>SACNASP</td>
<td>Caston Muthevhe</td>
<td>ECSA</td>
</tr>
<tr>
<td>Impala Operations</td>
<td>David Sharpe</td>
<td>SACNASP</td>
<td>Emmanuel Acheampong</td>
<td>ECSA</td>
</tr>
<tr>
<td>Impala Exploration</td>
<td>Bennie Cilliers</td>
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<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Two Rivers</td>
<td>Shepherd Kadzviti</td>
<td>SACNASP</td>
<td>Mike Cowell</td>
<td>SACNASP</td>
</tr>
<tr>
<td>Mimosa</td>
<td>Dumisayi Mapundu</td>
<td>SACNASP</td>
<td>Dumisayi Mapundu</td>
<td>SACNASP</td>
</tr>
</tbody>
</table>

Two Rivers, Mimosa and Zimplats CPs are appointed by their respective CEOs.

In addition to the CPs listed above, the mineral reserve statements are fully supported by an experienced team of general managers, who sign off their respective business plans and take full responsibility for their mineral reserve statements. The general managers are:

<table>
<thead>
<tr>
<th>Name</th>
<th>Area of responsibility</th>
<th>Years’ relevant experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonginkosi Ngqulunga</td>
<td>General manager Impala 1 Shaft</td>
<td>18</td>
</tr>
<tr>
<td>André Fryer</td>
<td>General manager Impala 9 and 10 Shafts</td>
<td>16</td>
</tr>
<tr>
<td>Riaan Swanepoel</td>
<td>General manager Impala EF, 4 and 11 Shafts</td>
<td>25</td>
</tr>
<tr>
<td>Zirk Fourie</td>
<td>General manager Impala 7, 8, 12 and 20 Shafts</td>
<td>28</td>
</tr>
<tr>
<td>Schalk Engelbrecht</td>
<td>General manager Impala 6, 7A and 14 Shafts</td>
<td>23</td>
</tr>
<tr>
<td>Jacey Kruger</td>
<td>General manager Impala Brownfields and Projects</td>
<td>25</td>
</tr>
<tr>
<td>Hans Fourie</td>
<td>General manager Impala 16 and 17 Shafts</td>
<td>27</td>
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<tr>
<td>Terence Cowley</td>
<td>Mining manager Marula Mine</td>
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</tr>
<tr>
<td>Alex Mushonhiwa</td>
<td>General manager Mimosa Mine</td>
<td>22</td>
</tr>
<tr>
<td>Simbarashe Goto</td>
<td>General manager Ngezi Mine</td>
<td>17</td>
</tr>
<tr>
<td>JJ Joubert</td>
<td>General manager Two Rivers Mine</td>
<td>24</td>
</tr>
</tbody>
</table>

In accordance with the Implats standard a signature page by the two Lead Competent Persons is not included in this report stating the written confirmation that the information disclosed in terms of these paragraphs is compliant with the SAMREC Code and where applicable, the relevant section 12 and Table 1 requirements, and that it may be published in the form and context in which it was intended. In accordance with the Implats standard such signed statements are available from the Implats Company Secretary and is forwarded separately to the JSE when the integrated annual report is submitted.
Mineral rights status

The Mineral and Petroleum Resources Development Act, No 28 of 2002 (MPRDA), governing mineral legislation in South Africa, came into effect on 1 May 2004. The MPRDA, with its associated broad-based socio-economic empowerment charter for the mining industry and its attendant scorecard, as revised and amended from time to time, has played a significant role in the transformation of the South African mining industry. The Act effectively transferred ownership of privately held mineral rights to the State to enable any third party to apply to the Department of Mineral Resources (DMR) for new-order prospecting rights or mining rights over these previously privately held mineral rights. Implats continues to embrace the principles of transformation as a moral and strategic imperative to reinforce its position as a leading southern African mining company, making the best possible use of available mineral resources.

Regular compliance audits are conducted by the DMR in respect of the Implats Group’s mining and prospecting rights and findings are resolved through dedicated action plans in cooperation with the Regulator. In March 2015 the DMR commenced with a Mining Charter review by all holders of mining rights. The review relates to Mining Charter data for calendar years 2012, 2013 and 2014, which data has been submitted to DMR by the relevant Implats Group entities. It is not known when the review process will be finalised. According to our submissions all three South African mining operations within the Implats Group comply or exceed the 26% BEE ownership requirement.

The DMR’s online application and reporting system, SAMRAD, continues to face system functionality challenges. However, DMR accepts manual applications where SAMRAD fails to accept online applications due to system failures. To mitigate the risk of third-party applications being accepted by the DMR regional offices, Implats continues to monitor the various regional DMR notice boards for possible acceptance of third-party applications that are in conflict with Implats’ rights or pending applications. If conflicting applications are identified, Implats lodges the required appeals in terms of the MPRDA against these applications to prevent third-party conflicting rights being granted.

Continued delays are still being experienced with the approval and execution of prospecting right renewal applications which have been lodged by entities within the Implats Group over the last few years. All of the renewals have been recommended for approval. During the 2015 financial year, one of Inkosi Platinum (Pty) Ltd’s (portions of Hartbeestpoort B 410 JQ) prospecting rights was renewed on 12 February 2015. Notwithstanding the delays in the finalisation of prospecting right renewal applications, exploration activities continue as the renewal applications were submitted within the required legislative timeframe. The processing of a new prospecting right application in the Mpumalanga province that was accepted by DMR during 2012 is still pending. Also of note is that closure applications of prospecting rights that have been submitted to DMR over the last few years are also not being processed to finalisation by the DMR. During June 2013 Implats submitted several section 11 transfer and section 102 extension of existing mining right applications, relating to existing prospecting rights adjacent to the Impala Rustenburg operation, the Afplats Leeuwkop operation and the Two Rivers operation. Furthermore, Marula also submitted a section 102 application to include the mining of the UG2 Reef into the existing Marula converted mining right in respect of a small part of Driekop, which is currently limited to the mining of the Merensky Reef only. The said section 11 and section 102 applications relating to the Two Rivers operation and to the Marula operation have respectively been executed on 6 February 2015 and 16 July 2014. However, the section 11 transfer and section 102 applications in relation to the Impala Rustenburg operation and the Afplats Leeuwkop operation are still pending.

Following discussions with DMR, Afplats is currently preparing a section 102 amendment application of its mine work programme, as well as a section 52 notice in terms of the MPRDA in respect of the deferment of the Afplats Leeuwkop mining project for four years.

In 2011, Impala reached agreement with the Royal Bafokeng Platinum (RBPlat) to access certain of its mining areas at Bafokeng Rasimone Platinum Mine (BRPM) from 6, 8 and 20 shafts. This is essentially a royalty agreement which will provide mining flexibility to these shafts. The mineral resources and reserves involved are not reflected in this report as the ownership has not been transferred.

Fully permitted mining tenements are not specified by SAMREC as a prerequisite for the conversion of mineral resources to mineral reserves. However, Implats is cognisant that a reasonable expectation must exist that such mining rights will be obtained. Implats remains committed to South African legislative requirements to convert applicable prospecting rights to mining rights.
Mineral rights status

There are still certain sections of the MPRDA Amendment Act, No 49 of 2008 (that was enacted into law on 7 June 2013) that has not come into effect due to critical concerns raised by the mining industry in respect thereof. One concern was the amendment of section 102 that did not allow for the extension of existing mining or prospecting right areas. However, as this amendment did not come into effect, the mentioned section 102 applications may continue to be processed. These sections are being revisited by the MPRDA Amendment Act, 2014 (formerly the MPRDA Amendment Bill B15-2013). However, media reports confirmed early in 2015, that President Zuma has sent the proposed MPRDA Amendment Act, 2014 back to the National Assembly to be reworked as the President is concerned that some of the new provisions (ie “beneficiation”, “consent of land holders to access land”) “would not pass constitutional muster” in its current form. Mineral resources minister, Ngoako Ramatlhodi, is also advocating a separate legal framework for oil and gas companies (currently regulated in the MPRDA) to assist with new investment into oil and gas ventures.

In Zimbabwe, the previously submitted indigenisation plans for both Zimplats and Mimosa were rejected by the government. Implats continues to engage with the Government of Zimbabwe on an indigenisation implementation plan. As at 30 June 2015 no indigenisation transaction has been concluded and the mineral resources and ore reserves continue to be reported as per the existing ownership. During 2013, the Zimbabwean Government gazetted its intention to compulsorily acquire a large tract of ground in the northern portion of the Zimplats mineral lease containing 54.6Moz Pt; Zimplats subsequently submitted an objection to this notice and lodged a claim for compensation under Zimbabwean law. The map in the Zimplats section shows the ground previously gazetted for acquisition.

<table>
<thead>
<tr>
<th>South Africa</th>
<th>Mining right (ha)</th>
<th>Prospecting right (ha)</th>
<th>Implats' interest (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impala</td>
<td>29 773</td>
<td></td>
<td>96</td>
</tr>
<tr>
<td>Impala RBR JV*</td>
<td>3 789</td>
<td></td>
<td>49</td>
</tr>
<tr>
<td>Afplats</td>
<td>4 602</td>
<td>1 065</td>
<td>74</td>
</tr>
<tr>
<td>Imbasa</td>
<td>1 673</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>Inkosi</td>
<td>2 584</td>
<td></td>
<td>49</td>
</tr>
<tr>
<td>Marula</td>
<td>5 494</td>
<td>223</td>
<td>73</td>
</tr>
<tr>
<td>Two Rivers</td>
<td>10 675</td>
<td></td>
<td>49</td>
</tr>
</tbody>
</table>

* Prospecting joint venture with Royal Bafokeng Resources.

<table>
<thead>
<tr>
<th>Zimbabwe</th>
<th>Mining leases (ha)</th>
<th>Implats' interest (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zimplats</td>
<td>48 535</td>
<td>87</td>
</tr>
<tr>
<td>Mimosa</td>
<td>6 591</td>
<td>50</td>
</tr>
</tbody>
</table>
Regional geological settings
Implats exploits platiniferous horizons within the Bushveld Complex in South Africa and the Great Dyke in Zimbabwe. These two layered intrusions are unique in terms of size and geological continuity. Mining mostly takes place as underground operations focusing on relatively narrow mineralised horizons with specific mining methods adapted to suit the local geology and morphology of the mineralised horizons.

The Bushveld Complex

The Bushveld Complex is an extremely large (66,000km²), two billion year-old layered igneous intrusion occurring in the northern part of South Africa. Rock types range in composition from ultramafic to felsic. The complex is not only unique in size, but also in the range and economic significance of its contained mineral wealth. In addition to the platinum group metals (PGMs) and associated base metals, vast quantities of chromium, vanadium and dimension stone are also produced.

The schematic diagram below shows the extent of the Bushveld Complex. The layered sequence, the Rustenburg Layered Suite, comprises five major subdivisions, i.e., these are, from the bottom upwards, the Marginal, Lower, Critical, Main, and Upper zones. Two horizons within the Critical Zone, namely the Merensky Reef and the Upper Group 2 (UG2) Reef, host economically exploitable quantities of PGMs. These two horizons, along with other layers which can be traced for hundreds of kilometres around the complex, are the focus of Implats’ operations. The PGMs – platinum, palladium, rhodium, ruthenium and iridium – as well as the associated gold, copper, nickel, cobalt, chromium and other minor metals and compounds, are mined concurrently, but recovered by different processes.

Chromitite layers present below the UG2 contain little to no PGM mineralisation and are mined by other operators for their chromium content only. Implats’ operations on the Bushveld Complex comprise Impala Mine north of Rustenburg, Marula Mine north-west of Burgersfort and the Two Rivers Mine, a joint venture between Implats and African Rainbow Minerals Limited (ARM) situated south-west of Steelpoort.
### GENERALISED STRATIGRAPHIC COLUMN OF THE BUSHVELD COMPLEX

<table>
<thead>
<tr>
<th>Sub-division</th>
<th>Main rock type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UPPER ZONE</strong></td>
<td>Magnetite layers</td>
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<tr>
<td></td>
<td>Anorthosite</td>
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<tr>
<td><strong>MAIN ZONE</strong></td>
<td>Pyroxenite marker</td>
</tr>
<tr>
<td></td>
<td>Anorthosite</td>
</tr>
<tr>
<td><strong>UPPER CRITICAL ZONE</strong></td>
<td>Merensky Reef</td>
</tr>
<tr>
<td></td>
<td>Merensky Reef</td>
</tr>
<tr>
<td></td>
<td>Middle group chromitites</td>
</tr>
<tr>
<td><strong>LOWER CRITICAL ZONE</strong></td>
<td>Lower group chromitites</td>
</tr>
<tr>
<td><strong>LOWER ZONE</strong></td>
<td>Pyroxenite Chromitites Harzburgite Dunite</td>
</tr>
<tr>
<td><strong>MARGINAL ZONE</strong></td>
<td>Norite</td>
</tr>
</tbody>
</table>

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Legend

- Anorthosite/norite
- Pyroxenite
- Chromitite

**Regional geological settings**

- Pegmatoid
- Anorthosite/norite
- Chromitite

**Graphs**

- IMPALA – MERENSKY
  - Pyroxenite reef
  - Pegmatoid reef
- MARULA – MERENSKY
  - Pyroxenite Chromitites Harzburgite Dunite
- TWO RIVERS – MERENSKY
  - Norite
Regional geological settings

A detailed geological description of the various reef types is provided in the relevant operational sections. Examples of different Merensky Reef vertical grade profiles are shown on the previous page. It is clear that the grade distribution varies materially from area to area.

The UG2 Reef morphology and associated vertical grade distribution also differs significantly between regions (see below), specifically in terms of the width of the main platinum bearing chromitite layer and in the number of layers. In general the grade increases if the chromitite layer width becomes thinner.
The Great Dyke
The Great Dyke is a 2.5 billion year-old layered mafic-ultramafic body intruded into Archaean granites and greenstone belts. It is highly elongated, slightly sinuous, 550km long, north-northeast trending with a maximum width of 12km and bisects Zimbabwe in a north-northeasterly trend and is divided vertically into a lower ultramafic sequence, comprising cyclic repetitions of pyroxenite, harzburgite, dunite and chromitite, and an upper mafic sequence consisting mainly of norite, gabbronorite and olivine gabbro. A diagrammatic section is shown opposite. It is U-shaped in section with layers dipping and flattening towards the axis of the intrusion. Much of the mafic sequence has been removed by erosion and at the present plane of erosion the Dyke is exposed as a series of narrow, contiguous layered complexes or chambers. These are, from north to south, Musengezi, Hartley (comprising the Darwendele and Sebakwe sub-chambers) and a southern chamber comprising the Selukwe and Wedza sub-chambers.

The Main Sulphide Zone (MSZ), host to economically exploitable PGMs and associated base metal mineralisation, is located 10m to 50m below the ultramafic/mafic contact in the P1 pyroxenite. The PGMs, along with gold, copper and nickel, occur in the MSZ. A detailed description of the MSZ and the value distributions is provided in the relevant operations sections. The examples below comparing different areas indicate that the grade profiles vary between areas and that the platinum and palladium peaks are somewhat offset. Typically, the MSZ consists of a 2m to 10m-thick zone containing 2% to 8% of iron-nickel-copper sulphides disseminated in pyroxenite. The base of this nickel-copper-rich layer is straddled by a 1m to 5m-thick zone of elevated precious metals (Pt, Pd, Rh and Au). The base metal zone contains up to 5% sulphides, while the sulphide content of the PGM zone is less than 0.5%. This change in sulphide content is related to the metal distribution in a consistent manner and is used as a mining marker. It can normally be located visually in borehole core and with careful observation it can also be located underground, therefore careful monitoring supported by channel sampling is required to guide mining.

Chromitite layers present below the MSZ contain little to no PGM mineralisation and are mined by other operators for their chromium content only. Implats’ operations on the Great Dyke comprise Zimplats’ Ngezi Mine south-west of Harare and the Mimosa Mine, a joint venture between Implats and Aquarius Platinum Limited (Aquarius) situated east of Bulawayo.
Regional geological settings

The Great Dyke (simplified)

**GENERALISED STRATIGRAPHIC COLUMN OF THE GREAT DYKE**

**Sub-division**

**Main rock type**

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**MAFIC SEQUENCE**

- Upper Mafic
- Middle Mafic
- Lower Mafic

- Norite
- Gabbro
- Olivine Gabbro

---

**ULTRAMAFIC SEQUENCE**

- Pyroxenite succession
- Dunite succession

- Multiple cycles: Pyroxenite, Harzburgite, Dunite, Chromite

---

**Border Group**

**Inset**

Great Dyke – Mafic, gabbro-norites with local dolerite sills and xenoliths

Great Dyke – Ultramafic, cyclic pyroxenite, harzburgite, dunite with chrome seams

Greenstone rocks

Granite

Main Sulphide Zone

---

**Legend**

- Great Dyke – Mafic, gabbro-norites with local dolerite sills and xenoliths
- Great Dyke – Ultramafic, cyclic pyroxenite, harzburgite, dunite with chrome seams
- Greenstone rocks
- Granite
- Main Sulphide Zone

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**INTRODUCTION**