Ivanhoe Mines Awarded 80 Square Kilometres of New Exploration Rights on South Africa's Bushveld Complex

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New exploration territory covers the largest known gravity anomaly on the Bushveld, to be known as the 'Mokopane Feeder'

Exploration rights are adjacent to the tier-one Platreef palladium, rhodium, nickel, platinum, copper and gold discovery

Ivanhoe to commence exploration activities on the highly-prospective area

Mokopane, October 27, 2022 - Ivanhoe Mines' (TSX: IVN) (OTCQX: IVPAF) Executive Co-Chair Robert Friedland and President Marna Cloete announce today that the company has been granted three new highly prospective exploration rights adjacent to the company's Platreef palladium, rhodium, nickel, platinum, copper, and gold development project in Limpopo Province, South Africa.

Ivanhoe Mines has received notification from the South Africa Department of Minerals and Energy (DMRE) that it has obtained three new significant exploration rights, covering a total surface area of 80 square kilometres. Ivanhoe Mines owns 100% of the exploration rights.

The exploration rights overlap a significant geophysical gravity anomaly, known as the "Mokopane Feeder", the centre of which is located approximately 10 kilometres from Platreef's Shaft 1 (see Figure 1).

The new rights form a continuous block situated on the southwest border of the existing Platreef Projects' mining rights, called Turfspruit and Macalacaskop that cover in total 78 square kilometres. The Platreef Project contains approximately 58.8 million ounces of precious metals (3PE+Au) as well as 6.2 billion pounds of copper and nickel in indicated resources, and 94.3 million ounces as well as 11.9 billion pounds of copper and nickel in inferred resources, at a cut-off grade of 1.0 g/t 3PE+Au.

Ivanhoe Mines' Executive Co-Chairman, Robert Friedland commented:

"The Bushveld Complex sits among the most unique and valuable mineral endowments on our planet. These exploration rights are postulated to be geologically significant by our leading geoscientists. The new exploration rights are located at the intersection of a highly significant gravity geophysical anomaly and major regional geological structures. Therefore, the 'Mokopane Feeder' may be related to the actual source of the giant mineralizing system feeding the entire Northern Limb of the Bushveld Complex.

Our team has worked tirelessly to secure this important area, which could be of vital significance to the world's future supply of nickel, copper and platinum-group metals. We see increasing prospects of supply disruption in these particular metals due to the potential international sanctions on Russia.

Ivanhoe Mines has been and always will be built upon world-scale discovery. We continue to actively assess opportunities to add exploration projects to our portfolio to leverage our industry leading geological team."

Figure 1. Location of newly acquired exploration permits adjacent to Ivanplat's existing permits and the Platreef palladium, rhodium, nickel, platinum, copper and gold project.

To view an enhanced version of this graphic, please visit:
https://images.newsfilecorp.com/files/3396/142110_db79ff90b4ef094c_002full.jpg

New exploration ground covers the "Mokopane Feeder", a regionally significant gravity anomaly on South Africa's Bushveld Complex

The Bushveld Complex is the largest-known, layered igneous complex in the world and is host to the largest known reserves of platinum-group metals, chromium and vanadium, as well as gold and base metals, including nickel and copper. In the opinion of the geological team at Ivanhoe Mines, the "Mokopane Feeder" anomaly is the most significant gravity feature in the entire Bushveld Complex (See Figure 2 and Figure 4).

The three new exploration rights (Blinkwater 244KR, Moordrift 289KR and Lisbon 288KR), together with the southern sections of Ivanplats' Turfspruit and Macalacaskop mining permits, cover this spectacular geophysical gravity anomaly that was previously identified from a widely spaced regional ground gravity survey.

Figure 2. Regional gravity survey showing the location of the "Mokopane Feeder" anomaly.

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https://images.newsfilecorp.com/files/3396/142110_db79ff90b4ef094c_003full.jpg

The mafic-ultramafic phase, called the Rustenburg Layered Suite, is a well-defined stratigraphy that extends across the entire Bushveld Complex. Within the Rustenburg Layered Suite, rock density typically increases towards the base of the stratigraphy. This is due to the increase in abundance of mafic minerals that contain higher iron and magnesium content. The Rustenburg Layered Suite can be vertically subdivided into an Upper Zone, a Main Zone, a Critical Zone and a Lower Zone. The upper portion of the Critical Zone hosts the majority of the economic mineralization, and hosts Ivanplats' world-scale Flatreef platinum-group metals deposit.

Figure 3. The location of the three new exploration rights overlaid with surface regional geology of the Upper Zone of the Rustenburg Layered Suite and the Lebowa Granites.

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Academic studies[1] based on historical data hypothesize that the anomaly represents a primary feeder zone to the Rustenburg Layered Suite of the Northern Limb of the Bushveld Complex. A significant thickening of the Rustenburg Layered Suite, in particular of the more-dense Lower Zone units, is necessary to explain the anomaly.

Feeder zones, or conduits, are generally considered more prospective in ultramafic magmatic systems, due to the increased volume of magma flow through the conduit. These zones typically allow increased interaction between the magma and host rock, which can contribute additional sulphur and base metals into the melt. Although the inferred "Mokopane Feeder" zone itself is modelled to be deep, the proximity of the new permits to the feeder provide significant potential for mineralization higher up in the Rustenburg Layered Suite above the feeder zone.

The proximity of the proposed feeder to the regional-scale crustal faults (the Ysterberg-Planknek and the Zebediela faults, as shown in Figure 3), as well as the anomalously thick zones of platinum-group metals mineralization at the Flatreef Deposit, leads Ivanhoe to believe there is significant potential for mineralization to be associated with this feature.

Geophysics and exploration program to commence

To better understand the conceptual "Mokopane Feeder" target, Ivanhoe Mines will commence a detailed high-resolution, airborne-magnetic and gradiometer-gravity survey over the project area. The surveys will be

conducted by Xcalibur Airborne Geophysics (PTY) Ltd. of Pretoria, South Africa, and are expected to be completed in early 2023. Modelling of this new geophysical data is intended to determine the potential thicknesses of the Rustenburg Layered Suite units and generate follow-up targets for drilling later in the year.

Ivanplats first conducted a gradiometer gravity survey over a portion of the Turfspruit license in 2012. Gradiometer surveys produce much higher resolution data than conventional gravity surveys. Three-dimensional constrained inversion modelling of this data proved to be invaluable in understanding the geometry of the primary host units within the Platreef Project area, and aided in the construction of a detailed structural and stratigraphic model of the area that contributed to the initial discovery of the Flatreef deposit.

The data will be combined with historical geophysical data to accurately model the gravity anomaly in terms of size and depth below surface. Surface mapping and modelling of previous geophysical data suggests the top of the Rustenburg Layered Suite on the exploration rights could be approximately 900 metres below surface.

1. (Cole, Webb, & Finn, Gravity models of the Bushveld Complex - Have we come full circle?, 2014), (Cole, Three dimensional geometry of the Bushveld Complex derived from potential field modelling, 2018) & (Finn., Bedrosian, Cole, Khoza, & Webb, 2015)

Figure 4. Regional geophysical gravity survey, showing the signatures of the Western Limb, Eastern Limb and the southern section of the Northern Limb of the Bushveld Complex.

Image sourced from thesis titled 'Three-dimensional geometry of the Bushveld Complex derived from potential field odelling', submitted by Janine Cole in 2018 to the Faculty of Science at University of the Witwatersrand, Johannesburg.

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About Platreef

The Platreef Project is owned by Ivanplats (Pty) Ltd (Ivanplats), which is 64%-owned by Ivanhoe Mines. A 26% interest is held by Ivanplats' historically-disadvantaged, broad-based, black economic empowerment (B-BBEE) partners, which include 20 local host communities with approximately 150,000 people, project employees and local entrepreneurs. A Japanese consortium of ITOCHU Corporation, Japan Oil, Gas and Metals National Corporation, and Japan Gas Corporation, owns a 10% interest in Ivanplats, which it acquired in two tranches for a total investment of $290 million.

Aerial view of the Platreef project showcasing latest construction activities, with Shaft 1 on the right and Shaft 2 hitch-to-collar construction in the center.

To view an enhanced version of this graphic, please visit:
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The Platreef Project hosts a thick, underground deposit, known as the Flatreef Deposit, that consists of platinum-group metals, nickel, copper and gold mineralization. It is located on the Northern Limb of the Bushveld Igneous Complex in Limpopo Province - approximately 280 kilometres northeast of Johannesburg and eight kilometres from the town of Mokopane.

On the Northern Limb, platinum-group metals mineralization is primarily hosted within the Platreef, a mineralized sequence that is traced more than 30 kilometres along strike. Ivanhoe's Platreef Project, within the Platreef's southern sector, is comprised of two contiguous properties: Turfspruit and Macalacaskop. Turfspruit, the northernmost property, is contiguous with, and along strike from, Anglo Platinum's Mogalakwena group of mining operations and properties. The Flatreef Deposit, which is amenable to highly-mechanized, underground mining methods, lies entirely on the Turfspruit and Macalacaskop properties that form part of the company's mining right.

First concentrate production from Phase 1 is planned for Q3 2024, with the Phase 2 expansion expected following the commissioning of Shaft 2 in 2027. Phase 1 average annual production is expected to be 113,000 ounces (oz.) of palladium, rhodium, platinum, and gold (3PE+Au), plus 5 million pounds of nickel and 3 million pounds of copper. The average annual production of the Phase 2 expansion is expected to increase to 591,000 oz. of 3PE+Au, plus 26 million pounds of nickel and 16 million pounds of copper. The Platreef Project is projected to become one of the world's largest and lowest-cost producers of palladium, platinum, rhodium, nickel, copper and gold.

Figure 5. World's largest precious metal deposits under development ranked by contained metal in Measured and Indicated Resources.

Source: company filings, S&P Global Market Intelligence. Notes: Chart ranks the largest undeveloped primary palladium, platinum, gold, silver and rhodium projects from the S&P Global Market Intelligence database based on measured and indicated palladium equivalent resource. Palladium equivalent calculation includes palladium, platinum, gold, silver and rhodium ounces and has been calculated using spot price metal price assumptions (February 23, 2022) of US$1,095/oz. platinum, US$2,480/oz. palladium, US$18,750/oz. rhodium, US$1,909/oz. gold and US$24.55/oz. silver. Measured and Indicated resources for Platreef correspond to palladium, platinum, gold and rhodium ounces at a 1 g/t cut-off grade.

To view an enhanced version of this graphic, please visit:
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The Mineral Resources were estimated and finalized April 22, 2016. On 28 January 2022, updated criteria for assessing reasonable prospects of eventual extraction were reviewed to ensure the estimate remained current. The updated effective date is 28 January 2022. The Qualified Person for the estimate is Mr. Timothy Kuhl, RM SME.

Qualified persons

In March 2022, Ivanhoe Mines filed a new National Instrument 43-101 (NI 43-101) technical report covering the Platreef 2022 Feasibility Study. The updated NI 43-101 technical report includes an independent feasibility study for the initial two phases of development for the Platreef Mine to a steady state production rate of 5.2 million tonnes of ore per annum.

The Platreef 2022 Feasibility Study Technical Report was independently prepared by OreWin Pty Ltd. of Adelaide, Australia; Mine Technical Services of Reno, USA; SRK Consulting Inc. of Johannesburg, South Africa; DRA Global of Johannesburg, South Africa; and Golder Associates Africa of Midrand, South Africa.

The technical report titled "Platreef 2022 Feasibility Study" has been filed on the SEDAR website at www.sedar.com and on the Ivanhoe Mines website at www.ivanhoemines.com.

Other scientific and technical information in this news release has been reviewed and approved by Stephen Torr, P.Geo., Ivanhoe Mines' Vice President, Project Geology and Evaluation, a Qualified Person under the terms of NI 43-101. Mr. Torr is not considered independent under NI 43-101 as he is the Vice President, Project Geology and Evaluation of Ivanhoe Mines. Mr. Torr has verified the technical data disclosed in this news release.

About Ivanhoe Mines

Ivanhoe Mines is a Canadian mining company focused on advancing its three principal projects in Southern Africa: the major new, mechanized, underground mines at the Kamoa-Kakula Mining Complex in the Democratic Republic of Congo, the development of the Platreef palladium-rhodium-platinum-nickel-copper-gold discovery in South Africa; and the restart of the historic Kipushi zinc-copper-germanium-silver mine, also in the Democratic Republic of Congo.

Kamoa-Kakula Mining Complex is one of the highest-grade and fastest growing major copper mining operations in the world. Copper concentrates were first produced in May 2021 and, through on-going phased

expansions, it is positioned to become one of the world's largest copper producing operations. Kamoa-Kakula's 2022 production guidance is between 310,000 to 340,000 tonnes of copper in concentrate

Ivanhoe Mines is also exploring for new copper discoveries across its circa 2,400km^2 of wholly-owned exploration licences in the Western Foreland, which are located adjacent to the Kamoa-Kakula Mining Complex in the Democratic Republic of Congo.

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Forward-looking statements

Certain statements in this news release constitute "forward-looking statements" or "forward-looking information" within the meaning of applicable securities laws. Such statements involve known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements of the company, the Platreef Project, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Such statements can be identified by the use of words such as "may", "would", "could", "will", "intend", "expect", "believe", "plan", "anticipate", "estimate", "scheduled", "forecast", "predict" and other similar terminology, or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. These statements reflect the company's current expectations regarding future events, performance and results, and speak only as of the date of this news release.

The forward-looking statements and forward-looking information in this news release include without limitation, statements that (i) the Platreef Phase 1 mine is advancing towards first production in Q3 2024; (ii) Platreef Shaft 2 commissioning is planned in 2027; (iii) Platreef Phase 1 annual forecast production is 113,000 ounces (oz.) of palladium, rhodium, platinum, and gold (3PE+Au), plus 5 million pounds of nickel and 3 million pounds of copper; (iv) Platreef Phase 2 annual forecast production is 591,000 ounces of palladium, platinum, rhodium and gold, plus more than 40 million pounds of nickel and copper; (v) Flatreef Deposit is amenable to highly-mechanized, underground mining methods; (vi) Platreef is projected to become one of the world's largest and lowest-cost producers of palladium, platinum, rhodium, nickel, copper and gold; (vii) the Mokopane Feeder may be related to the actual source of the giant mineralizing system feeding the entire Northern Limb of the Bushveld Complex; (viii) the Mokopane Feeder anomaly is the most significant gravity feature in the entire Bushveld Complex; (ix) the proximity of the new permits to the feeder provide significant potential for mineralization higher up in the Rustenburg Layered Suite above the feeder zone; (x) There is significant potential for mineralization to be associated with the Mokopane Feeder; (xi) high-resolution, airborne-magnetic and gradiometer-gravity survey over the project area are expected to be completed in early 2023; (xii) the Rustenburg Layered Suite on the exploration rights could be approximately 900 metres below surface.

In addition, all of the results of the Platreef 2022 Feasibility Study constitute forward-looking statements and forward-looking information. The forward-looking statements include metal price assumptions, cash flow forecasts, projected capital and operating costs, metal recoveries, mine life and production rates, and the financial results of the Platreef 2022 Feasibility Study. These include estimates of internal rates of return after-tax of 18.5% at long term consensus metal prices and 29.3% at spot metal prices with payback periods

of 7.9 years and 6.6 years respectively; net present values at an 8% discount rate of US$1.7 billion at long term consensus metal prices and US$4.1 billion at spot metal prices; future production forecasts and projects, including average annual production of 590koz 3PE+Au; estimates of net total cash cost, net of copper and nickel by-product credits and including sustaining capital costs of US$514/oz; mine life estimates, including a 28.3 year mine life; initial capital costs of US$448 million and US$1.5 billion for expansion capital costs; Phase 1 average annual production of 113,000 ounces of 3PE + Au; cash flow forecasts; estimates of 3PE+Au recoveries of 86%. Readers are cautioned that actual results may vary from those presented.

All such forward-looking information and statements are based on certain assumptions and analyses made by Ivanhoe Mines' management in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believe are appropriate in the circumstances. These statements, however, are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information or statements including, but not limited to, unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities; the failure of parties to contracts to perform as agreed; social or labour unrest; changes in commodity prices; unexpected failure or inadequacy of infrastructure, industrial accidents or machinery failure (including of shaft sinking equipment), or delays in the development of infrastructure, and the failure of exploration programs or other studies to deliver anticipated results or results that would justify and support continued studies, development or operations. Other important factors that could cause actual results to differ from these forward-looking statements also include those described under the heading "Risk Factors" in the company's most recently filed MD&A as well as in the most recent Annual Information Form filed by Ivanhoe Mines. Readers are cautioned not to place undue reliance on forward-looking information or statements. Certain of the factors and assumptions used to develop the forward-looking information and statements, and certain of the risks that could cause the actual results to differ materially are presented in technical reports available on SEDAR at www.sedar.com and on the Ivanhoe Mines website at www.ivanhoemines.com.

This news release also contains references to estimates of Mineral Resources and Mineral Reserves. The estimation of Mineral Resources and Mineral Reserves is inherently uncertain and involves subjective judgments about many relevant factors. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The accuracy of any such estimates is a function of the quantity and quality of available data, and of the assumptions made and judgments used in engineering and geological interpretation, which may prove to be unreliable and depend, to a certain extent, upon the analysis of drilling results and statistical inferences that may ultimately prove to be inaccurate. Mineral Resource or Mineral Reserve estimates may have to be re-estimated based on, among other things: (i) fluctuations in platinum, palladium, gold, rhodium, copper, nickel or other mineral prices; (ii) results of drilling; (iii) results of metallurgical testing and other studies; (iv) changes to proposed mining operations, including dilution; (v) the evaluation of mine plans subsequent to the date of any estimates; and (vi) the possible failure to receive required permits, approvals and licences.

Although the forward-looking statements contained in this news release are based upon what management of the company believes are reasonable assumptions, the company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this news release and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this news release.

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