FORM 51-102F3
MATERIAL CHANGE REPORT

Item 1 Name and Address of Company

Ivanhoe Mines Ltd. (the "**Company**", "**Ivanhoe**" or "**Ivanhoe Mines**") Suite 606, 999 Canada Place Vancouver, British Columbia Canada, V6C 3E1

Item 2 Date of Material Change

February 28, 2022

Item 3 News Release

A news release with respect to the material change referred to in this report was disseminated through the facilities of a recognized newswire service on February 28, 2022 and subsequently filed under the Company's profile on the System for Electronic Document Analysis and Retrieval (SEDAR). The statements in the February 28, 2022 news release under the heading "Cautionary statement on forward-looking information" are incorporated into this material change report.

Item 4 Summary of Material Change

On February 28, 2022, Ivanhoe announced the findings of an independent Platreef 2022 Feasibility Study (the "**Platreef 2022 Feasibility Study**") for the tier-one Platreef palladium, rhodium, nickel, platinum, copper and gold project in South Africa.

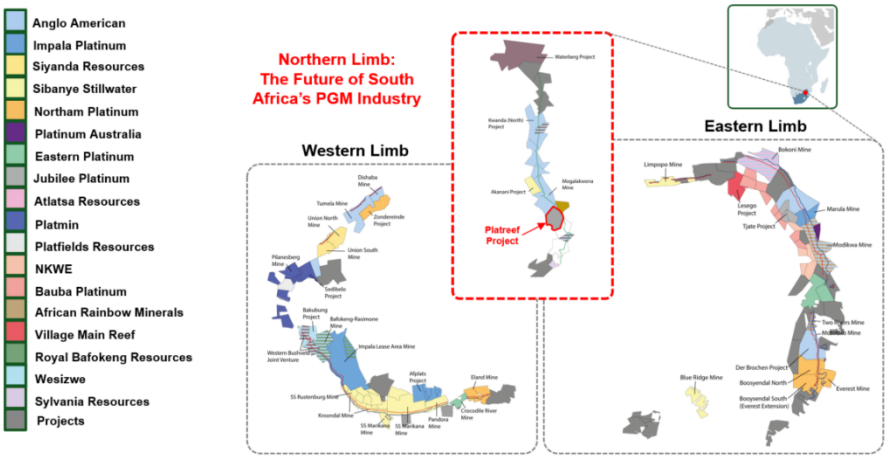
Item 5 Full Description of Material Change

On February 28, 2022, Ivanhoe announced the findings of an independent Platreef 2022 Feasibility Study for the tier-one Platreef palladium, rhodium, nickel, platinum, copper and gold project in South Africa.

Platreef Project

The Platreef Project, which includes an underground deposit of thick, high-grade PGE-nickel-copper-gold mineralization discovered by Ivanhoe's geologists, is in the northern limb of the Bushveld Complex approximately 11 kilometres from Mokopane, and 280 kilometres northeast of Johannesburg.

Figure: Map of South Africa's Bushveld Igneous Complex.



Source: SFA (Oxford).

PGE-nickel-copper-gold mineralization in the northern limb is primarily hosted within the Platreef, a mineralized sequence which is traced more than 30 kilometres along strike. The Platreef Project is situated in the southern sector of the Platreef on two contiguous properties, Turfspruit and Macalacaskop, which comprise, in aggregate, approximately 7,842 hectares. The northernmost property, Turfspruit, is contiguous with and along strike from Anglo Platinum Limited's Mogalakwena group of properties and mining operations.

The Flatreef Deposit lies entirely on the Turfspruit and Macalacaskop properties that form part of Ivanhoe's mining right. The thickness of the mineralized reef (T1 & T2 mineralized zones) intersected in Shaft 1 is 29 metres. This thickness is exceptional when compared to the typical, approximately one-metre-thick reefs being mined elsewhere on South Africa's Bushveld Complex.

In June 2020, Ivanplats completed the sinking of Platreef's initial shaft, Shaft 1, to its final depth of 996 metres below surface. Shaft 1 is located approximately 450 metres away from a high-grade area of the Flatreef orebody, which will provide initial mining areas for Phase 1 production in 2024.

The thick Flatreef orebody also is flat-lying, which is ideal for safe, bulk-scale, mechanized mining and processes optimized for maximum ore extraction. Flatreef is characterized by its high-grade mineralization and a palladium-to-platinum ratio of approximately 1:1, which is considerably higher than other PGMs discoveries on the Northern Limb of the Bushveld.

The Platreef 2022 Feasibility Study provides the blueprint for the ongoing development of Platreef and builds on the results of the preliminary economic assessment ("**PEA**") for a phased-development scenario to expedite production, announced in November 2020, alongside the 2020 Feasibility Study. The Platreef 2022 Feasibility Study is based on a steady state production rate of 5.2 million tonnes per annum ("**Mtpa**"), as well as an accelerated ramp up to steady state through the earlier development of Shaft 2. The Platreef 2022 Feasibility Study is based on the detailed design and engineering scenario first presented in the 2020 PEA, confirming the viability of a new phased development pathway to fast-track Platreef into production by Q3 2024.

The Platreef 2022 Feasibility Study first phase of production includes an initial 700,000 tonnes per annum (700 ktpa) underground mine and 770-ktpa-capacity concentrator, targeting high-grade mining areas close to the project's recently completed Shaft 1. Platreef's Phase 2, 5.2-Mtpa steady state production rate would

rank it as the world's fifth largest primary platinum-group metals ("**PGM**") mine on a palladium equivalent basis, with annual forecast production of more than 590,000 ounces of palladium, platinum, rhodium and gold, plus more than 40 million pounds of nickel and copper. The Platreef 2022 Feasibility Study reflects the initial two phases of development for the Platreef Mine. Previous studies have demonstrated the resource base for future expansions up to 12 Mtpa, which would position Platreef among the very largest PGM producing mines in the world.

Summary of the Platreef 2022 Feasibility Study

- The Platreef 2022 Feasibility Study evaluates the phased development of Platreef, with an initial 700-ktpa underground mine and a 770-ktpa capacity concentrator, targeting high-grade mining areas close to Shaft 1, with an initial capital cost of US$488 million.
- First concentrate production for Phase 1 is planned for Q3 2024, with the Phase 2 expansion based on the commissioning of Shaft 2 in 2027, followed by the commissioning of two 2.2-Mtpa concentrators in 2028 and 2029. This would increase the steady-state production to 5.2 Mtpa by using Shaft 2 as the primary production shaft.
- Expansion capital cost for Phase 2 is estimated at US$1.5 billion, which may be partially funded by cash flows from Phase 1 and a project financing package.
- Ivanplats' dedicated engineering teams and leading consultants are evaluating optimizations to the sinking methodology for Shaft 2 to further accelerate the availability of the shaft for hoisting, which may accelerate the overall development timeline.
- Phase 1 average annual production of 113,000 ounces (oz.) of platinum, palladium, rhodium and gold (3PE+Au), plus 5 million pounds of nickel and 3 million pounds of copper.
- Phase 2 average annual production of 591,000 oz. of 3PE+Au, plus 26 million pounds of nickel and 16 million pounds of copper, which would rank Platreef as the fifth largest primary PGM producer on a palladium equivalent basis
- Life-of-mine cash cost of US$514 per ounce of 3PE+Au, net of by-products, and including sustaining capital costs would rank Platreef as the lowest cost primary PGM producer
- After-tax net present value at an 8% discount rate ($NPV_{8\%}$) of US$1.7 billion and an internal rate of return (IRR) of 18.5%, based on long-term consensus prices.
- At spot prices as at February 23, 2022, the after-tax $NPV_{8\%}$ increases to US$4.1 billion and the IRR increases to 29.3%.
- Shaft 1 equipping and changeover to hoisting is nearing completion, expected by end of March 2022, together with the arrival of initial battery electric underground mining fleet.
- In parallel with the changeover of Shaft 1 for permanent hoisting, detailed engineering and certain optimization initiatives are underway on the mine design, 770-ktpa concentrator and associated infrastructure design, which also will include the dry stack tailings storage facility. In addition, amendments to the water use licence, waste licence and environmental impact assessment required for the phased development plan have been lodged.
- Following the completion of the changeover of Shaft 1, off-shaft development will start in April 2022 with the initial aim of enabling construction of the first ventilation raise.
- With the focus shifting to execution, appointment and onboarding of earthworks contractors is the next short-term milestone for surface work, while detailed design across the project ramps up.

Figure: Plan of the Platreef 2022 Feasibility Study mine design, highlighting areas that are mined during Phase 1 (700-ktpa) and Phase 2 (5.2 Mtpa).

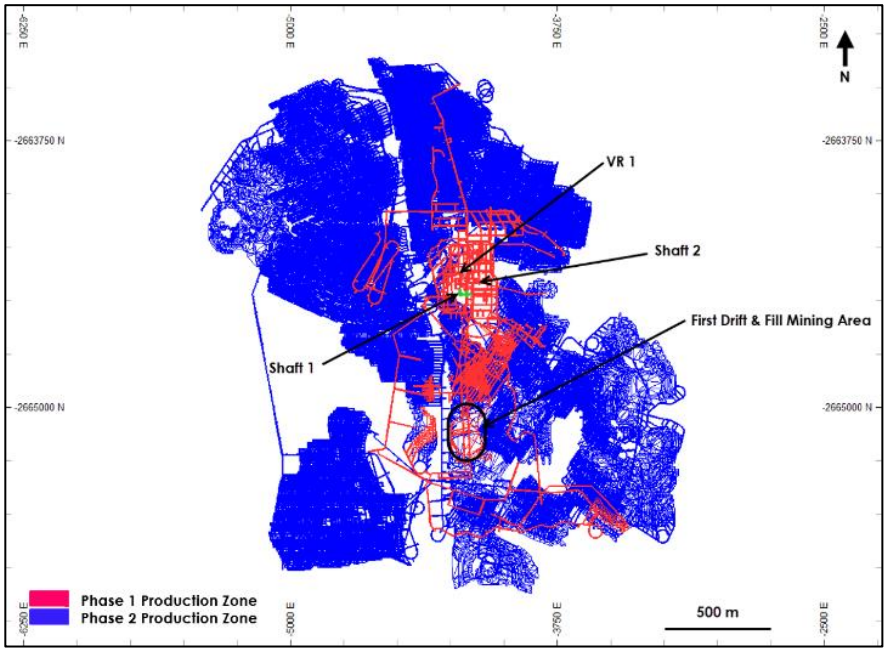


Figure by OreWin, 2022.

Table: Summary of key results of the Platreef 2022 Feasibility Study.

Item	Units	Total / Average Life of Mine
Mined and processed		
Material Milled	Million tonnes	**125**
Platinum	g/t	1.94
Palladium	g/t	1.99
Gold	g/t	0.30
Rhodium	g/t	0.13
3PE+Au	**g/t**	**4.37**
Copper	%	0.16
Nickel	%	0.34
Peak Production (Year 8)		
3PE+Au	koz	697
Nickel	kt	13
Copper	kt	8
Key financial results		
Life of mine	Years	28.3
Initial capital	US$ million	488
Expansion capital	US$ million	1,480
Peak capital	US$ million	1,364
Mine-site cash cost	US$ per ounce 3PE+Au	429
Total cash cost after credits	US$ per ounce 3PE+Au	452
All-in cash cost after credits	US$ per ounce 3PE+Au	514
Mine-site operating costs	US$ per tonne milled	52
After-tax $NPV_{8\%}$	US$ million	1,690
After-tax IRR	%	18.5
Project payback period	years	7.9

Notes:

1. 3PE+Au = platinum, palladium, rhodium and gold.
2. Long-term metal price assumptions for economic analysis are as follows: US$1,100/oz. platinum, US$1,450/oz. palladium, US$1,600/oz. gold, US$5,000/oz. rhodium, US$8.00/lb nickel and US$3.50/lb copper.
3. All-in cash costs include sustaining capital costs.

Table: Platreef 2022 Feasibility Study financial results at base case and spot prices.

	Discount Rate	**Base Case Prices (1)**	**Spot Prices (2)**
Net present value (NPV)	Undiscounted	8,543	17,130
(US$ million, after tax)	5.0%	3,098	6,815
	8.0%	**1,690**	**4,116**
	10.0%	1,104	2,979
	12.0%	692	2,169
Internal rate of return (IRR)		18.5%	29.3%
Project payback period	(Years)	7.9	6.4
Exchange rate	(ZAR: USD)	16:1	

1. Base case metal price assumptions are as follows: US$1,100/oz. platinum, US$1,450/oz. palladium, US$1,600/oz. gold, US$5,000/oz. rhodium, US$8.00/lb nickel and US$3.50/lb copper.
2. Spot metal prices as at February 23, 2022 are as follows: US$1,095/oz. platinum, US$2,480/oz. palladium, US$1,909/oz. gold, US$18,750 /oz. rhodium, US$11.31/lb nickel and US$4.48/lb copper.

Table: Platreef 2022 Feasibility Study average mine production and processing statistics.

Item	**Units**	**Phase 1 Average (1)**	**Phase 2 Average (2)**	**LOM Average**
Production	Mtpa	**0.7**	**4.9**	**4.4**
Platinum	g/t	2.53	1.93	1.94
Palladium	g/t	2.54	1.98	1.99
Gold	g/t	0.38	0.30	0.30
Rhodium	g/t	0.17	0.13	0.13
3PE+Au(2)	**g/t**	**5.63**	**4.34**	**4.37**
Copper	%	0.19	0.16	0.16
Nickel	%	0.40	0.34	0.34
Recoveries				
Platinum	%	90.4	87.2	87.2
Palladium	%	90.2	86.7	86.8
Gold	%	80.4	78.5	78.5
Rhodium	%	84.4	80.2	80.3
3PE+Au(2)	**%**	**89.4**	**86.0**	**86.2**
Copper	%	90.0	87.6	87.7
Nickel	%	77.5	71.4	71.6
Concentrate produced	kt/a (dry)	34.9	216.2	195.7
Platinum	g/t	38.1	38.2	38.2
Palladium	g/t	38.1	39.0	39.0
Gold	g/t	5.1	5.3	5.3
Rhodium	g/t	2.4	2.4	2.4
3PE + Au (3)	**g/t**	**83.8**	**85.0**	**85.0**
Copper	%	2.8	3.3	3.3
Nickel	%	5.1	5.4	5.4

Recovered metal				
Platinum	koz/a	51	266	240
Palladium	koz/a	51	271	245
Gold	koz/a	7	37	33
Rhodium	koz/a	3	17	15
3PE + Au[(2)]	**koz/a**	**113**	**591**	**535**
Copper	Mlb/a	3	16	14
Nickel	Mlb/a	5	26	23

1. Phase 1 production over 3.3 years from 2024 to 2027 at 0.7 Mtpa.
2. Phase 2 production over 25.0 years from 2028 to 2052 at 5.2 Mtpa.
3. 3PE+Au is the sum of the grades for and production of platinum, palladium, rhodium and gold.

Figure: Platreef 2022 Feasibility Study concentrator production (tonnes milled and grades for the life-of-mine). Figure by OreWin, 2022.

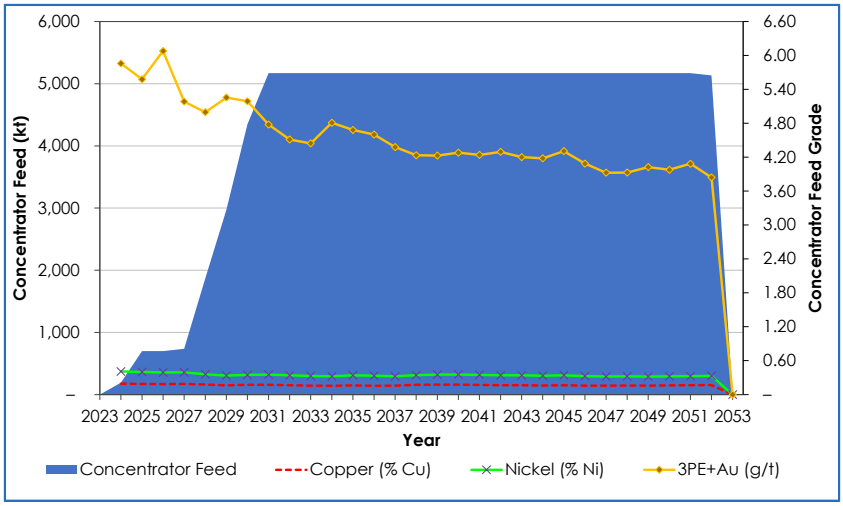


Figure: Platreef 2022 Feasibility Study estimated 3PE+Au recovered metal and nickel/copper recovered metal for the life-of-mine. Figure by OreWin, 2022.

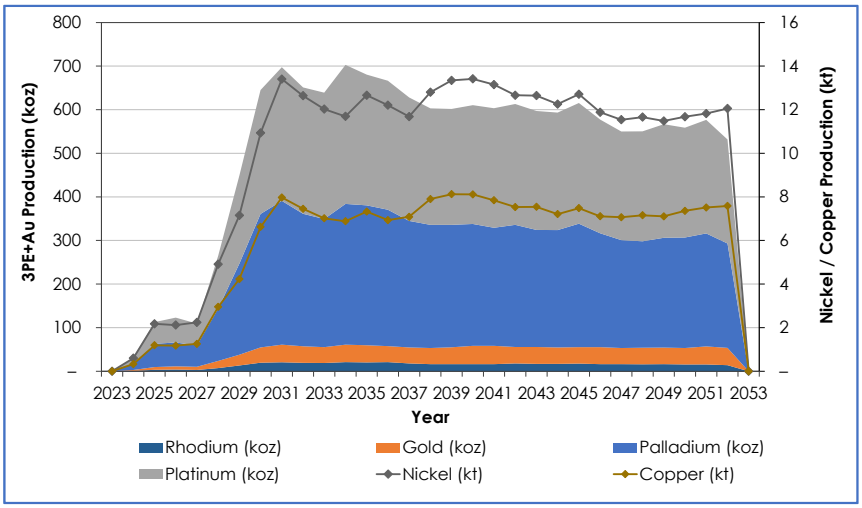


Table: Platreef 2022 Feasibility Study unit operating costs and cash costs after credits.

	US$ per ounce of 3PE+Au		
	Phase 1 Average (1)	**Phase 2 Average (2)**	**LOM Average**
Mine site	822	419	429
Transport	13	13	13
Treatment & Refining	369	366	366
Royalties	8	90	88
Total cash costs before credits	**1,212**	**887**	**895**
Nickel credits	334	351	351
Copper credits	84	92	92
Total cash costs after credits	**794**	**443**	**452**
Sustaining capital costs (3)	–	63	62
All-in cash costs after credits (4)	**794**	**506**	**514**

1. Phase 1 production over 3.3 years from 2024 to 2027 at 0.7 Mtpa.
2. Phase 2 production over 25.0 years from 2028 to 2052 at 5.2 Mtpa.
3. Phase 1 operating costs include allowance for sustaining capital costs.
4. All-in cash costs include sustaining capital costs.

Table: Platreef 2022 Feasibility Study capital investment summary.

Description	**Initial Capital**	**Expansion Capital**	**Sustaining Capital**	**Total**
	US$M	**US$M**	**US$M**	**US$M**
MINING				
Exploration and geology	9	31	32	72
Mining	187	697	861	1,744
Subtotal	**195**	**728**	**893**	**1,816**
CONCENTRATOR				
Concentrator	73	273	2	349
Subtotal	**73**	**273**	**2**	**349**
INFRASTRUCTURE				
Infrastructure	95	251	25	371
Subtotal	**95**	**251**	**25**	**371**
INDIRECTS				
Owners Cost	93	126	2	222
Closure	–	–	11	11
Subtotal	**93**	**126**	**13**	**233**
CAPITAL EXPENDITURE BEFORE CONTINGENCY	**456**	**1,378**	**933**	**2,768**
Contingency	32	101	1	134
CAPITAL EXPENDITURE AFTER CONTINGENCY	**488**	**1,480**	**934**	**2,902**

Note: Initial capital reflects the capital costs from January 1, 2022, to achieve initial production of 0.7 Mtpa, followed by expansion capital to reflect the capital costs to achieve full production of 5.2 Mtpa. Expansion capital includes US$50 million spent during the Phase 1 pre-production period to continue construction on Shaft 2.

Figure: Platreef 2022 Feasibility Study projected operating surplus, total capital costs and cumulative net cash flow after tax, at base case assumptions.

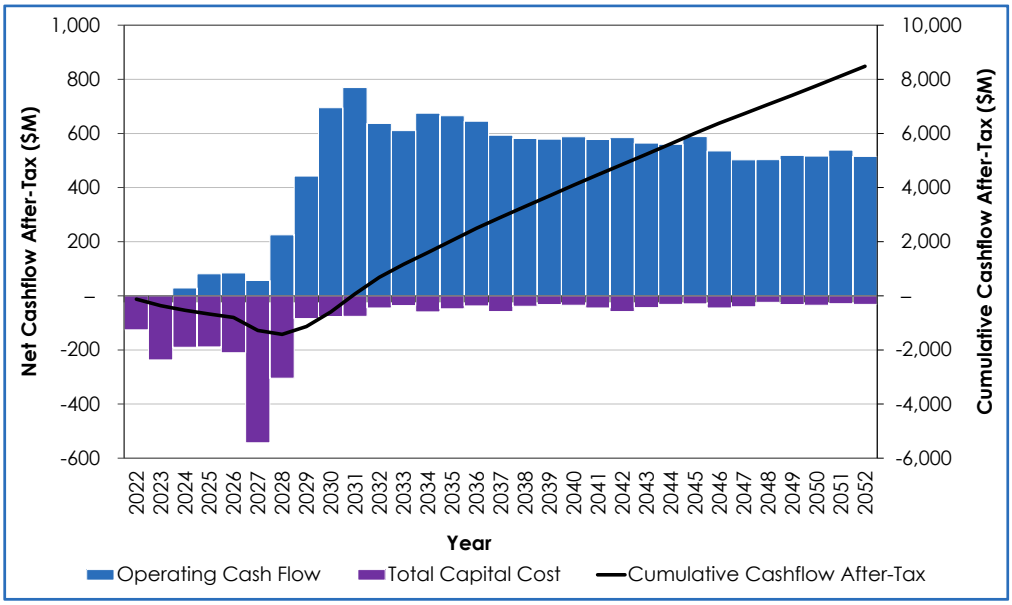


Figure by OreWin, 2022.

The Platreef 2022 Feasibility Study considers Phase 1 and Phase 2 development, including only one third of Platreef's Indicated Resources above an US$80/tonne Net Smelter Return (NSR) cut-off.

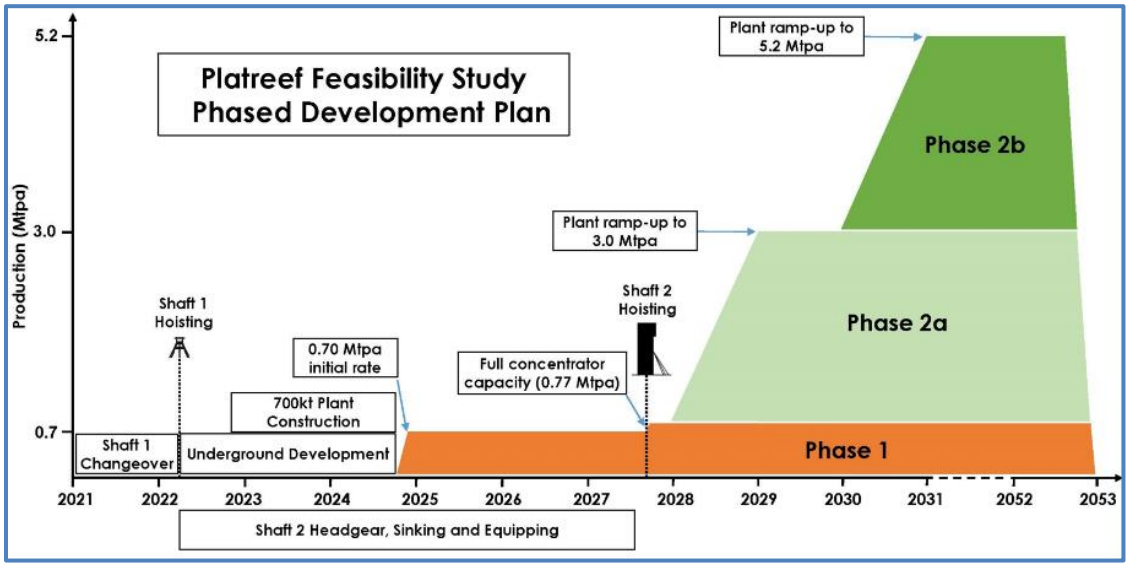
Phase 1 construction underway, with first production expected in Q3 2024

Detailed engineering studies are underway on the initial 770-ktpa mine and concentrator, in parallel with the changeover of Shaft 1 into a production shaft, with expected completion in March 2022. First delivery of the initial battery-electric underground fleet is expected imminently, and the first blast on the 950-metre level is anticipated in April 2022. The initial underground development focus from Shaft 1 will be the on the first ventilation raise and ore passes connecting the 750-metre level to the 950-metre level.

Earthworks for the first concentrator are planned to begin in Q2 2022, followed by civil works and the ordering of long-lead-time items in H2 2022. First ore feed to the concentrator is planned for Q3 2024.

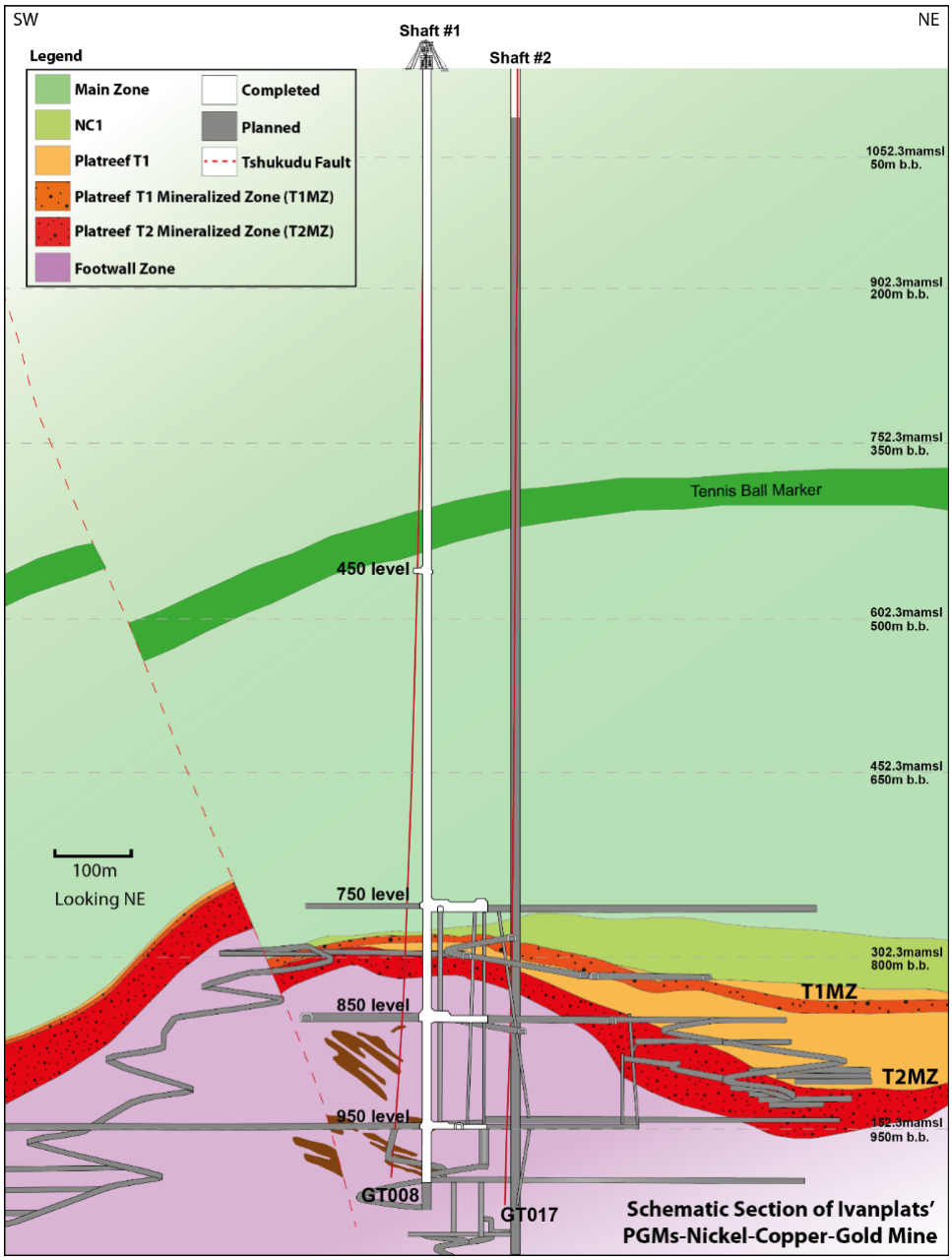
Phase 1 average annual production is estimated at 113,000 ounces (oz.) of platinum, palladium, rhodium and gold (3PE+Au), plus 5 million pounds of nickel and 3 million pounds of copper.

Figure: Production and timeline schematic of Platreef 2022 Feasibility Study. Shaft 2 commissioning accelerated to 2027, expediting Phase 2 expansion



While the 700-ktpa initial mine is operating using Shaft 1, the sinking of the project's second, larger shaft ("**Shaft 2**"), that drives the Phase 2 expansion to 5.2 Mtpa, will progress at the same time. The Platreef 2022 Feasibility Study envisions Shaft 2 equipped for hoisting in 2027, an accelerated schedule by approximately 18 months compared to the 2020 PEA, coming online just over three years from first production of Phase 1.

Figure: Schematic section of the Platreef Mine, showing Flatreef's thick, high-grade T1 and T2 mineralized zones (dark orange and red), underground development work completed to date in shafts 1 and 2 (white) and planned development work (grey).



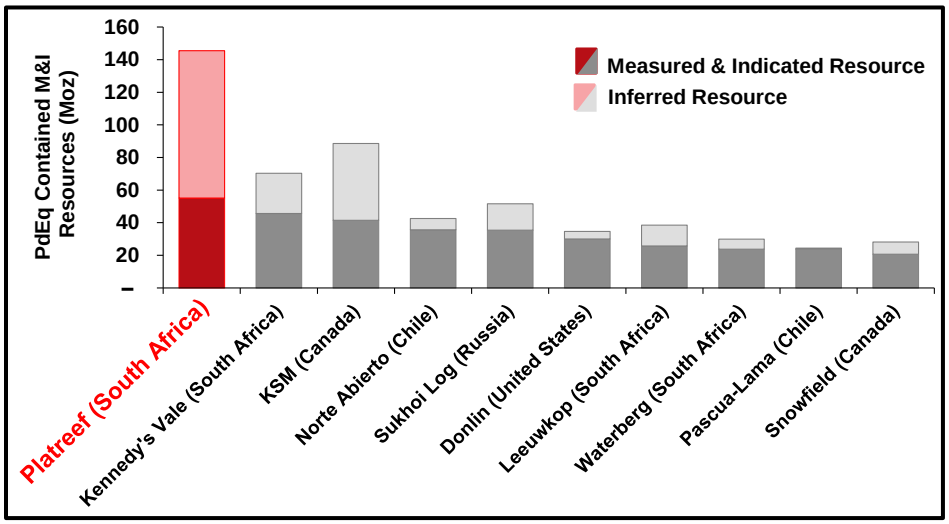
Once Shaft 2 is complete, two 2.2-Mtpa concentrator modules will be commissioned, and the initial concentrator will be ramped up to its full capacity of 770-ktpa; increasing the steady-state production to 5.2 Mtpa.

The Phase 2 expansion would result in Platreef becoming the world's fifth largest primary platinum-group metals (PGM) mine on a palladium equivalent basis, with annual forecast production of more than 590,000 ounces of palladium, rhodium, platinum, and gold, plus more than 40 million pounds of nickel and copper.

The Platreef 2022 Feasibility Study considers Platreef's Phase 1 and Phase 2 development, including only one third of the Indicated Resources above an US$80/tonne Net Smelter Return ("**NSR**") cut-off. If the remainder of the Indicated Resources were to be converted to reserves, it would provide an opportunity to massively expand production.

As development of the project progresses, additional drilling from underground will be undertaken with the goal of increasing the confidence of the current mineral resources, as well as to expand the resource base. Additional studies will follow up on the previous work that envisaged further phased expansions based on updated reserves.

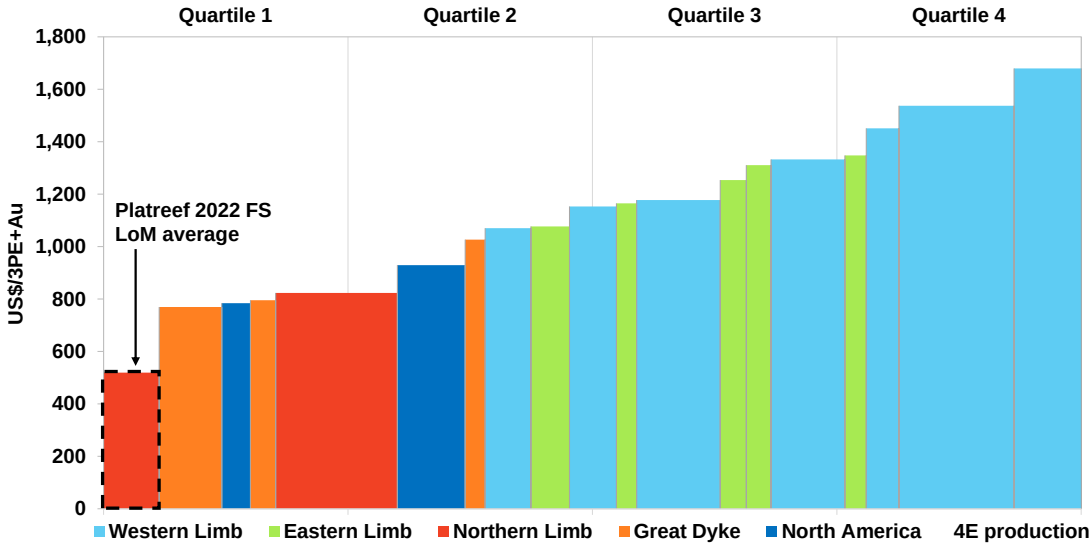
Figure: World's largest precious metal deposits under development ranked by contained metal in Measured & Indicated Resources.



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.

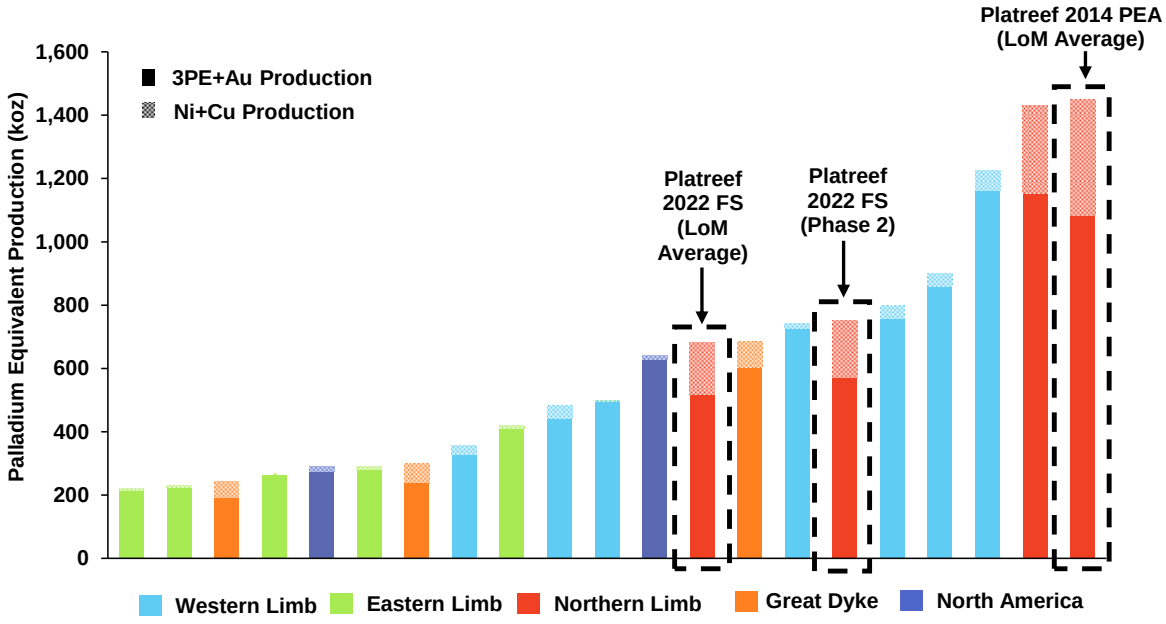
Platreef's thick mineralization, which will be mined with highly-productive mechanized methods, combined with higher nickel and copper grades, contribute to lower cash costs compared to other primary platinum-group-metal producers. Among global primary platinum-group-metals producers, Platreef's estimated net total cash cost of US$514 per 3PE+Au ounce, net of copper and nickel by-product credits and including sustaining capital costs, ranks at the bottom of the cash-cost curve.

Figure: Global primary producers' net total cash cost + sustaining capital (2021E), US$/3PE+Au oz.



Source: SFA (Oxford), Ivanplats. Notes: Cost and production data for the Platreef project is based on the Platreef Feasibility Study parameters, applying payabilities and smelting and refining charges as agreed with purchase of concentrate partners for Platreef concentrate (this is not representative of SFA's standard methodology). SFA's peer group cost and production data follows a methodology to provide a level playing field for smelting and refining costs on a pro-rata basis from the producer processing entity. Net total cash costs have been calculated using Ivanplats' long term price assumptions of 16:1 ZAR:USD, US$1,100/oz platinum, US$1,450/oz palladium, US$5,000/oz rhodium, US$1,600/oz gold, US$8.00/lb nickel and US$3.50/lb copper.

Figure: Ranking of selected global primary PGM producers, based on 2021E palladium equivalent production



Source: SFA (Oxford), Ivanplats. Notes: Chart excludes by-product PGM producers. Nornickel (by-product PGM producer) is the largest producer on a palladium equivalent basis. Cost and production data for the Platreef project is based on the Platreef 2022 Feasibility Study and 2014 PEA parameters. Production data for the peer group is provided by SFA (Oxford). Equivalent palladium production has been calculated using Ivanplats' long term price assumptions of 16:1 ZAR:USD, US$1,100/oz platinum, US$1,450/oz palladium, US$5,000/oz rhodium, US$1,600/oz gold, US$8.00/lb nickel and US$3.50/lb copper.

Platreef Mineral Resources

The mineral resources used in the Feasibility Study were those amenable to underground selective mining.

Table: Mineral Resources amenable to underground selective mining methods (base case is highlighted).

Indicated Mineral Resources Tonnage and Grades								
Cut-off 3PE+Au	**Mt**	**Pt (g/t)**	**Pd (g/t)**	**Au (g/t)**	**Rh (g/t)**	**3PE+Au (g/t)**	**Cu (%)**	**Ni (%)**
3 g/t	204	2.11	2.11	0.34	0.14	4.70	0.18	0.35
2 g/t	**346**	**1.68**	**1.70**	**0.28**	**0.11**	**3.77**	**0.16**	**0.32**
1 g/t	716	1.11	1.16	0.19	0.08	2.55	0.13	0.26
Indicated Mineral Resources Contained Metal								
Cut-off 3PE+Au		**Pt (Moz)**	**Pd Moz)**	**Au (Moz)**	**Rh (Moz)**	**3PE+Au (Moz)**	**Cu (Mlb)**	**Ni (Mlb)**
3 g/t		13.9	13.9	2.2	0.9	30.9	800	1,597
2 g/t		**18.7**	**18.9**	**3.1**	**1.2**	**41.9**	**1,226**	**2,438**
1 g/t		25.6	26.8	4.5	1.8	58.8	2,076	4,108
Inferred Mineral Resources Tonnage and Grades								
Cut-off 3PE+Au	**Mt**	**Pt (g/t)**	**Pd (g/t)**	**Au (g/t)**	**Rh (g/t)**	**3PE+Au (g/t)**	**Cu (%)**	**Ni (%)**
3 g/t	225	1.91	1.93	0.32	0.13	4.29	0.17	0.35
2 g/t	**506**	**1.42**	**1.46**	**0.26**	**0.10**	**3.24**	**0.16**	**0.31**
1 g/t	1,431	0.88	0.94	0.17	0.07	2.05	0.13	0.25
Inferred Mineral Resources Contained Metal								
Cut-off 3PE+Au		**Pt (Moz)**	**Pd Moz)**	**Au (Moz)**	**Rh (Moz)**	**3PE+Au (Moz)**	**Cu (Mlb)**	**Ni (Mlb)**
3 g/t		13.8	14.0	2.3	1.0	31.0	865	1,736
2 g/t		**23.2**	**23.8**	**4.3**	**1.6**	**52.8**	**1,775**	**3,440**
1 g/t		40.4	43.0	7.8	3.1	94.3	4,129	7,759

1. 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.
2. Mineral Resources are reported inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. The 2 g/t 3PE+Au cut-off is considered the base-case estimate and is highlighted. The rows are not additive.
4. Mineral Resources are reported on a 100% basis. Mineral Resources are stated from approximately -200 m to 650 m elevation (from 500 m to 1,350 m depth). Indicated Mineral Resources are drilled on approximately 100 x 100 m spacing; Inferred Mineral Resources are drilled on 400 x 400 m (locally to 400 x 200 m and 200 x 200 m) spacing.
5. Reasonable prospects for eventual economic extraction were determined using the following assumptions. Assumed commodity prices are US$1,600/oz. platinum, US$815/oz. palladium, US$1,300/oz. gold, US$1,500/oz. rhodium, US$3.00/lb copper, and US$8.90/lb nickel. It has been assumed that payable metals would be 82% from smelter/refinery and that mining costs (average US$34.27/t) and process, general and administrative costs, and concentrate transport costs (average US$15.83/t of mill feed for a four-Mtpa operation) would be covered. The processing recoveries vary with block grade but typically would be 80%-90% for platinum, palladium and rhodium; 70-90% for gold; 60-90% for copper; and 65-75% for nickel.
6. 3PE+Au = platinum, palladium, rhodium and gold.
7. Totals may not sum due to rounding.

Platreef 2020 Feasibility Study Mineral Reserve

The mineral resources used as the basis of the Feasibility Study were those amenable to underground selective mining.

Table: Probable Mineral Reserves – tonnage and grades as at January 26, 2022.

Method	Mt	NSR ($/t)	Pt (g/t)	Pd (g/t)	Au (g/t)	Rh (g/t)	3PE+Au (g/t)	Cu (%)	Ni (%)
Ore development	11.0	142	1.79	1.85	0.27	0.12	4.03	0.15	0.31
Long-hole	93.9	152	1.88	1.95	0.29	0.13	4.25	0.16	0.33
Drift-and-fill	20.3	184	2.30	2.25	0.37	0.15	5.07	0.18	0.37
Total	125.2	156	1.94	1.99	0.30	0.13	4.37	0.16	0.34

Method	Mt	Pt (Moz)	Pd (Moz)	Au (Moz)	Rh (Moz)	3PE+Au (Moz)	Cu (Mlb)	Ni (Mlb)
Ore development	11.0	0.6	0.7	0.1	0.04	1.42	37	76
Long-hole	93.9	5.7	5.9	0.9	0.40	12.84	336	687
Drift-and-fill	20.3	1.5	1.5	0.2	0.10	3.31	83	166
Total	125.2	7.8	8.0	1.2	0.54	17.57	455	929

1. Mineral Reserves have an effective date of January 26, 2022. The Qualified Person for the estimate is Curtis Smith (OreWin), MAusIMM (CP).
2. A declining NSR cut-off of US$155/t to US$80/t was used for the Mineral Reserve estimates.
3. The NSR cut-off is an elevated cut-off above the marginal economic cut-off.
4. Metal prices used in the Mineral Reserve estimate are as follows: US$1,600/oz. platinum, US$815/oz. palladium, US$1,300/oz. gold, US$1,500/oz. rhodium, US$8.90/lb nickel and US$3.00/lb copper.
5. Metal-price assumptions used for the Feasibility Study economic analysis are as follows: US$1,100/oz. platinum, US$1,450/oz. palladium, US$1,600/oz. gold, US$5,000/oz. rhodium, US$8.00/lb nickel and US$3.50/lb copper.
6. Tonnage and grade estimates include dilution and mining recovery allowances.
7. Total may not add due to rounding.
8. 3PE+Au = platinum, palladium, rhodium and gold.

Platreef to be mined primarily using highly productive mechanized methods

Mining zones in the current Platreef mine plan occur at depths ranging from approximately 700 metres to 1,200 metres below surface. Mining will be performed using highly productive mechanized methods, including long-hole stoping and drift-and-fill. Each method will utilize cemented backfill for maximum ore extraction.

The below figure shows the proposed shaft and ventilation raise locations, and the main access levels in an elevated view (looking north-east). Mining access ramps will connect the haulage levels with the mining sublevels and other infrastructure. The mining sublevels will be developed from the ramps at regular vertical intervals in the production areas. Drilling and extraction levels for stopes will be driven from the sublevels.

Figure: Platreef underground mine access layout.

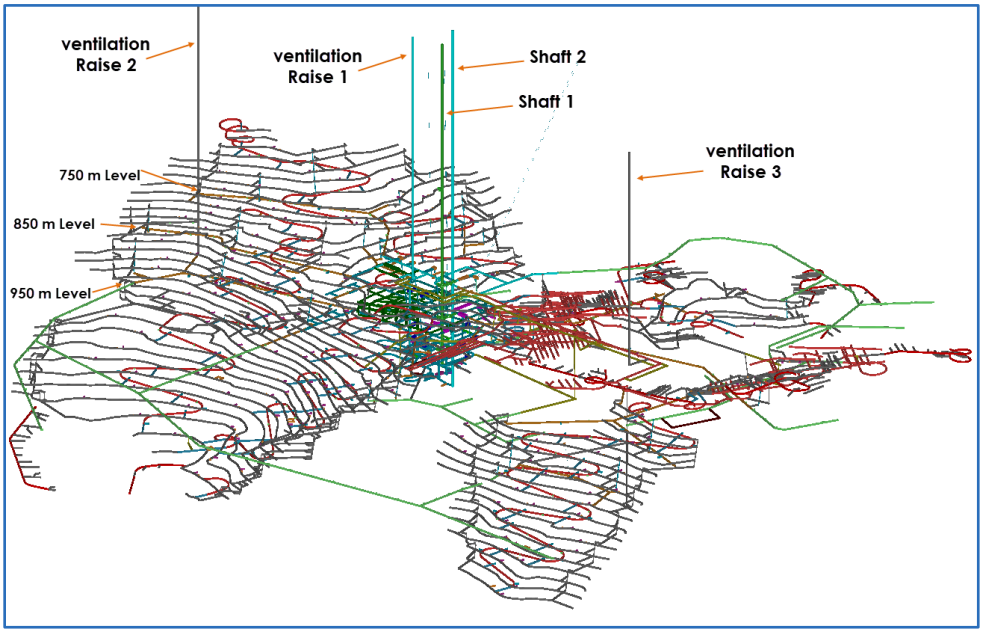


Figure by OreWin, 2022.

Following the completion of the changeover of Shaft 1, off-shaft development would start in April 2022 with the initial aim of enabling construction of the critical ventilation shaft 1. This ventilation shaft not only enables future development of underground infrastructure but is planned to be the secondary means of egress from the mine until Shaft 2 is complete. Once Phase 1 ore production commences in Q3 2024, mining will focus on the higher-grade area approximately 450 metres from Shaft 1, requiring less underground infrastructure to access.

Figure: Underground mine layout of initial development.

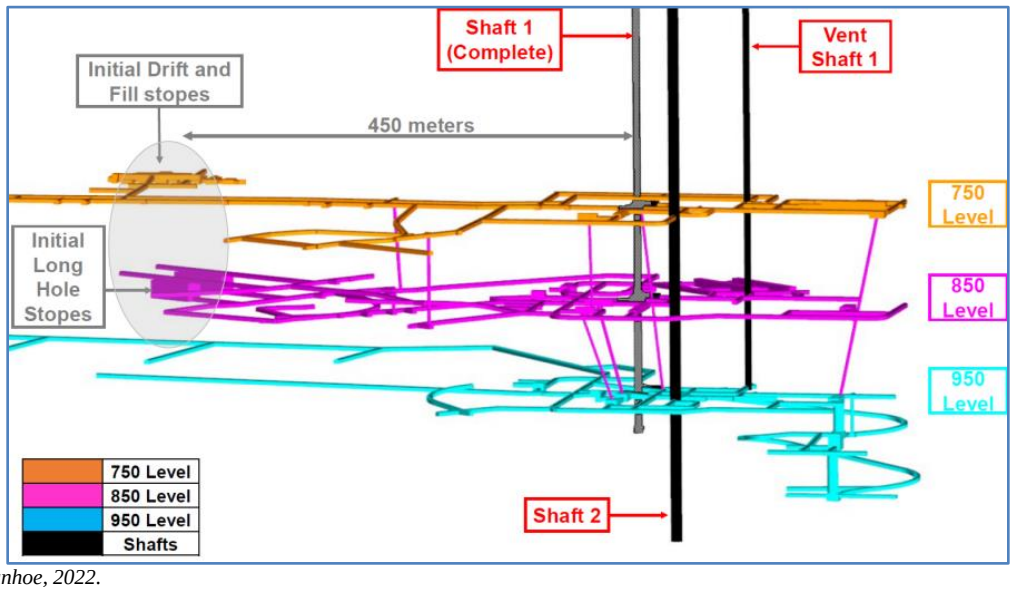


Figure by Ivanhoe, 2022.

During Phase 2, primary access to the mine will be by way of a 1,104-metre-deep, 10-metre-diameter production shaft (Shaft 2). Secondary access to the mine will be via the 996-metre-deep, 7.25-metre-diameter ventilation shaft (Shaft 1). During mine production, both shafts also will serve as ventilation intakes. During Phase 2, ore will be hauled from the stopes to a series of internal ore passes and fed to the bottom of Shaft 2, where it will be crushed and hoisted to surface.

Conventional metallurgical flowsheet for Phase 1 and 2

Metallurgical testwork has focused on maximizing recovery of platinum-group elements (PGE) and base metals (mainly nickel) while producing an acceptably high-grade concentrate suitable for further processing and/or sale to a third party. The three main geo-metallurgical units and composites tested produced smelter-grade final concentrates averaging 85 g/t PGE+Au, at acceptable PGE recoveries. Testwork also has shown that the material is amenable to treatment by conventional flotation without the need for mainstream or concentrate re-grinding. Extensive bench-scale testwork comprising of open-circuit and locked-cycled flotation testing, comminution testing, mineralogical characterization, tailings dewatering, and rheological characterization was performed at Mintek of South Africa, an internationally accredited metallurgical testing facility and laboratory.

Comminution and flotation testwork have indicated that the optimum grind for beneficiation is 80% passing 75 micrometres. Platreef ore is classified as being "hard" to "very hard", and thus not suitable for semi-autogenous grinding; a multi-stage crushing and ball-milling circuit has been selected as the preferred size reduction method.

Improved flotation performance has been achieved using high-chrome grinding media, as opposed to carbon steel media. The inclusion of a split-cleaner flotation circuit configuration, in which the fast-floating fraction is treated in a cleaner circuit separate from the medium- and slow-floating fractions, resulted in improved PGE, copper and nickel recoveries and concentrate grades.

A phased development approach was adopted for the flow-sheet design in the Platreef 2022 Feasibility Study. Phase 1 comprises a stand-alone concentrator with a design capacity of 770 ktpa. Phase 2 comprises an additional two 2.2-Mtpa modules, which will be constructed sequentially to meet the mine ramp-up schedule.

Both Phase 1 and Phase 2 flowsheets incorporate a three-stage crushing circuit, feeding crushed material to the milling and flotation modules. Flotation is followed by concentrate thickening, concentrate filtration, tailings handling and tailings disposal facility. It is expected that plant performance over life-of-mine will achieve 3PGE+Au recovery of 86% at a concentrate grade averaging 85 g/t 3PGE+Au.

Sustainable, dry stacking tailings storage methodology

The tailings storage facility ("**TSF**") design in the Platreef 2022 Feasibility Study is based on the dry stack methodology. Previously, a hybrid paddock deposition methodology was considered; however, Ivanplats opted to change the TSF deposition methodology from conventional upstream design to dry stacking, which has numerous benefits.

Dry stacking facilities are deemed to be inherently safer, as there is no hydraulic deposition; hence, in the unlikely event of a catastrophic failure, the risk of flooding the surrounding areas with tailings will be minimal. Stacked tailing storage facilities also are more water efficient in that most of the water in the tailings is captured in the dewatering plant, pumped directly back to the concentrator and re-used within the process.

During the Platreef 2022 Feasibility Study mine life, approximately 53 million tonnes of tailings will be stored in the dry stack TSF, with the remainder of the tailings (approximately 60% overall) to be used as backfill in the underground mine, further reducing the project footprint.

The TSF design also caters for a potential future expansion to 8-Mtpa production capacity, to be explored in future studies.

It is envisaged to use the approved rock-dump footprint within the immediate Platreef mine and concentrator areas as a dry stacking tailings facility during Phase 1. Golder Associates currently is performing the design work to apply for the relevant licences and/or amendments to the existing authorizations.

Ivanplats has reached an agreement with Eskom for the supply of a total of 100 MVA of power, which represents Platreef's electrical power requirement for the full Phase 2 mine, concentrator and associated infrastructure. As part of the Platreef 2022 Feasibility Study, Ivanhoe negotiated the load build-up with Eskom to cater for Phase 1's construction requirement of up to 8 MVA, Phase 1's production requirement of 25 MVA and later ramping up to 100 MVA for Phase 2.

Future expansion options

The Platreef 2022 Feasibility Study considers Platreef's Phase 1 and Phase 2 development, including only one third of the Indicated Resources above an US$80/t NSR cut-off. If the remainder of the Indicated Resources were to be converted to Mineral Reserves, it would provide an opportunity to significantly expand production.

The full indicated and inferred resource base at Platreef may support additional expansions and larger production capacity. As development and stoping continues, an infill drilling program from underground is recommended to increase confidence and potentially expand the resource base, which would underpin future studies on further mine expansions.

Qualified persons

The Platreef 2022 Feasibility Study and Technical Report has been prepared by:

- OreWin of Adelaide, Australia – Overall report preparation and economic analysis, Mineral Reserve estimation and mine plan.
- Mine Technical Services of Nevada, USA – Mineral Resource estimation.
- SRK Consulting of Johannesburg, South Africa – Mine geotechnical recommendations.
- DRA Global of Johannesburg, South Africa – Process and infrastructure.
- Golder Associates Africa of Midrand, South Africa – Water and tailings management.

The independent qualified persons responsible for preparing the Platreef 2022 Feasibility Study, on which the technical report will be based, are Bernard Peters (OreWin); Curtis Smith (OreWin); Timothy Kuhl (Mine Technical Services); William Joughin (SRK); Val Coetzee (DRA Global); and Riaan Thysse (Golder Associates). Each qualified person has reviewed and approved the information in this material change report relevant to the portion of the Platreef 2022 Feasibility Study for which they are responsible.

Other scientific and technical information in this material change report 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 material change report.

Sample preparation, analyzes, and security

During Ivanhoe's work programs, sample preparation and analyses were performed by accredited independent laboratories. Sample preparation is accomplished by Set Point laboratories in Mokopane. Sample analyses have been accomplished by Set Point Laboratories in Johannesburg, Lakefield Laboratory (now part of the SGS Group) in Johannesburg, Ultra Trace Laboratory in Perth, Genalysis Laboratories in Perth and Johannesburg, SGS Metallurgical Services in South Africa, Acme in Vancouver, and ALS Chemex in Vancouver. Bureau Veritas Minerals Pty Ltd assumed control of Ultra Trace during June 2007 and is responsible for assay results after that date.

Sample preparation and analytical procedures for samples that support Mineral Resource estimation have followed similar protocols since 2001. The preparation and analytical procedures are in line with industry-standard methods for platinum, palladium, gold, copper and nickel deposits. Drill programmes included insertion of blank, duplicate, standard reference material (SRM), and certified reference material (CRM) samples. The quality assurance and quality control (QA/QC) program results do not indicate any problems with the analytical protocols that would preclude use of the data in Mineral Resource estimation.

Sample security has been demonstrated by the fact that the samples were always attended or locked in the on-site core facility in Mokopane.

Information on sample preparation, analyses and security will be contained in the Technical Report to be filed on SEDAR at www.sedar.com within 45 days of the news release dated February 28, 2022, and which will be made available on the Ivanhoe Mines website at www.ivanhoemines.com.

Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

Not applicable.

Item 7 Omitted Information

No confidential information has been omitted from this material change report.

Item 8 Executive Officer

For further information, please contact Mary Vincelli, Vice President, Compliance and Corporate Secretary of the Company, at +1 604 331 9882.

Item 9 Date of Report

March 10, 2022