

# Mineral Industry Surveys

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## PLATINUM-GROUP METALS IN FEBRUARY 2024

Imports for consumption of platinum-group metals (PGMs), including waste and scrap, were 16,800 kilograms in February 2024, an increase of 9% compared with imports in January 2024, and an increase of 14% compared with imports in February 2023 (table 1). The leading import sources for PGMs into the United States, including waste and scrap, in February 2024 were, in descending order of quantity, South Africa, Russia, and Germany (tables 3, 4).

In February 2024, exports of PGM scrap increased by 66% whereas exports of rhodium decreased by 59%, palladium by 54%, and platinum by 18% compared with those in January 2024. The leading destinations for PGM exports were, in descending order of quantity, Germany, Japan, and Italy (tables 1, 5).

The Engelhard average February 2024 price of rhodium was essentially unchanged compared with the average price in January 2024, and the prices of iridium and ruthenium were each unchanged. The average prices of palladium decreased by 5% and platinum by 4% compared with those in January 2024. Compared with average prices in February 2023, the February 2024 average prices for iridium increased by 9%, but decreased by 61% for rhodium, by 39% for palladium, by 7% for platinum, and by 3% for ruthenium (fig. 1; tables 1, 2).

### Industry News

BASF Environmental Catalyst and Metals Solutions (ECMS) [a global division of BASF SE (Germany)] acquired the assets of Arc Metal AB (Sweden), which added toll smelting and processing of spent automotive catalysts in Europe, Middle East and Africa to ECMS's existing operations in the United Kingdom and United States. Arc Metal AB planned to remain a company without operations (Arc Metal AB, 2024; BASF SE, 2024).

In February, Impala Platinum Holdings Ltd. (Implats) (South Africa) reported it completed infrastructure repairs to the Rustenburg 11 Shaft following an incident on November 27, 2023, that resulted in internal and regulatory investigations as well as a work stoppage under Section 54 of the South African Department of Mineral Source's Mine Health and Safety Act. The Department of Minerals and Energy lifted the Section 54

work stoppage notice upon completion of the repairs, and Implats anticipated full production would be reached in April 2024 (Impala Platinum Holdings Ltd., 2023, p. 3–4).

### References Cited

- Arc Metal AB, 2024, Arc Metal acquired by BASF: Hofors, Sweden, Arc Metal AB press release, February 2. (Accessed April 4, 2024, at <https://arcmetal.se/en/arc-metal-acquired-by-basf/>.)
- BASF SE, 2024, BASF Environmental Catalyst and Metal Solutions (ECMS) completes acquisition of Arc Metal AB in Sweden: Islein, NJ, BASF SE press release, February 1. (Accessed April 4, 2024, at <https://catalysts.basf.com/news/basf-environmental-catalyst-and-metal-solutions-ecms-completes-acquisition-of-arc-metal-ab-in-sweden>.)
- Impala Platinum Holdings Ltd., 2024, Implats delivers strong production and sales performance: Johannesburg, South Africa, Impala Platinum Holdings Ltd. press release, February 29, 9 p. (Accessed April 4, 2024, at <https://www.implats.co.za/pdf/press-releases/2024/H1-FY2024-results.pdf>.)

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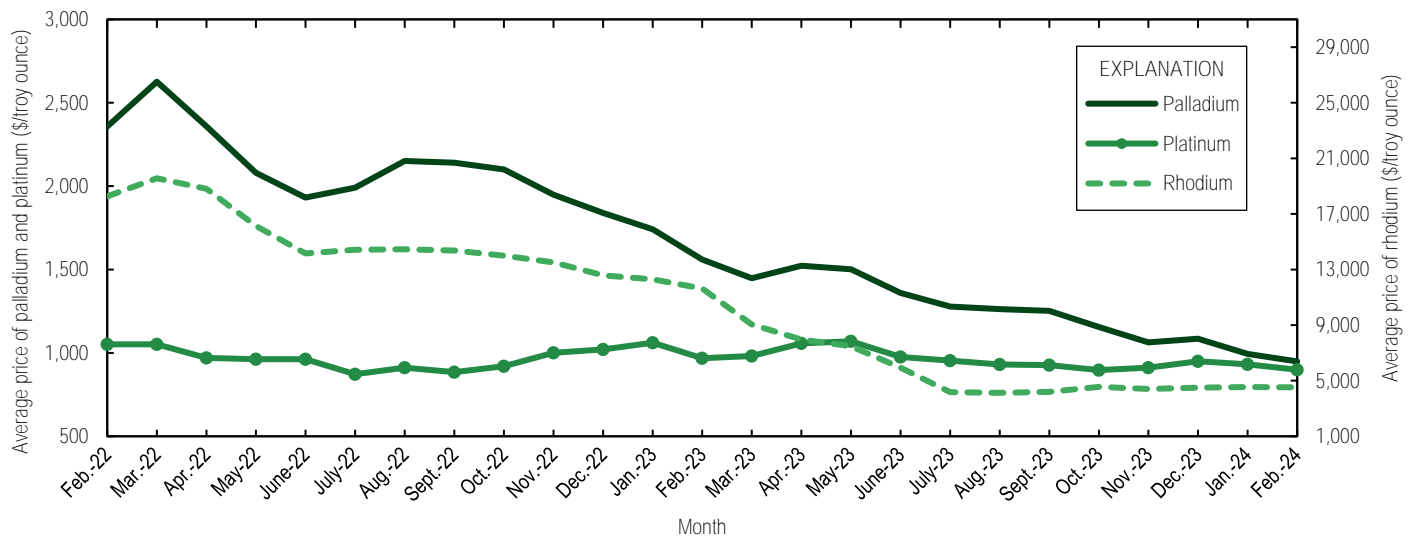


Figure 1. Engelhard unfabricated average monthly prices for palladium, platinum, and rhodium in dollars per troy ounce from February 2022 through February 2024. Source: S&P Global Platts Metals Week.

**TABLE 1.** U.S. salient platinum-group metals statistics.

[Data are rounded to no more than three significant digits, except prices; may not add to totals shown. Data are in kilograms metal content, unless otherwise specified.]

Platinum-group metals statistics	2023		2024		
	December	January–December	January	February	January–February
<b>Mine production<sup>1</sup></b>					
Palladium	933	10,300	933	933	1,870
Platinum	272	3,040	272	272	544
<b>Total</b>	1,200	13,300	1,200	1,200	2,410
<b>Imports for consumption<sup>2</sup></b>					
Palladium	4,280	67,200	4,470	7,060	11,500
Platinum	5,970	67,100	6,240	5,990	12,200
Iridium	138	2,040	75	88	164
Osmium	0	0	0	0	0
Rhodium	809	12,100	1,430	1,180	2,610
Ruthenium	513	10,900	725	780	1,510
Waste and scrap <sup>3</sup>	2,450	32,000	2,500	1,750	4,260
<b>Total</b>	14,200	191,000	15,500	16,800	32,300
<b>Exports<sup>2</sup></b>					
Palladium	2,010	33,600	5,030	2,330	7,350
Platinum	915	11,700	823	677	1,500
Iridium, osmium, ruthenium	63	845	92	94	186
Rhodium	79	446	104	42	146
Waste and scrap <sup>3</sup>	1,990	13,900	895	1,490	2,380
<b>Total</b>	5,060	60,500	6,940	4,630	11,600
<b>Price, average (dollars per troy ounce)<sup>4</sup></b>					
Palladium	1,084.95	1,351.66	993.95	949.00	972.02
Platinum	949.95	973.00	931.57	898.70	915.54
Iridium	5,000.00	4,672.78	5,000.00	5,000.00	5,000.00
Rhodium	4,500.00	6,660.58	4,547.62	4,521.25	4,534.76
Ruthenium	463.42	466.49	450.00	450.00	450.00

<sup>1</sup> Annual data are based on publicly available annual reports. Monthly and year-to-date data are estimated based on publicly reported quarterly data.

<sup>2</sup> Source: U.S. Census Bureau.

<sup>3</sup> Includes waste and scrap for all platinum-group elements. Previously included within platinum.

<sup>4</sup> Source: S&P Global Platts Metals Week.

**TABLE 2.** Platinum-group metals prices.

[Quotes from Engelhard. Dollars per troy ounce. Source: S&P Global Platts Metals Week.]

<b>Platinum-group metals prices</b>	<b>Palladium</b>	<b>Platinum</b>	<b>Iridium</b>	<b>Rhodium</b>	<b>Ruthenium</b>
<b>2023</b>					
Low price	965.00	856.00	4,500.00	4,000.00	450.00
Low date	Dec. 6	Nov. 13	Aug.–Sep. <sup>1</sup>	Jul. <sup>1</sup>	Dec. 28 and 29
High price	1,820.00	1,135.00	5,000.00	12,400.00	485.00
High date	Jan. 10	Apr. 21	Dec. <sup>1</sup>	Jan. <sup>1</sup>	Jan. <sup>1</sup> and Feb. 2
Price, average	1,351.66	973.00	4,672.78	6,660.58	466.49
<b>2024</b>					
<b>January</b>					
Low price	935.00	900.00	5,000.00	4,500.00	450.00
Low date	Jan. 22	Jan. 18	Jan. <sup>1</sup>	Jan. <sup>1</sup>	Jan. <sup>1</sup>
High price	1,110.00	993.00	5,000.00	4,600.00	450.00
High date	Jan. 2	Jan. 2	Jan. <sup>1</sup>	Jan. <sup>1</sup>	Jan. <sup>1</sup>
Price, average	993.95	931.57	5,000.00	4,547.62	450.00
<b>February</b>					
Low price	885.00	884.00	5,000.00	4,500.00	450.00
Low date	Feb. 13	Feb. 8	Feb. <sup>1</sup>	Feb. <sup>1</sup>	Feb. <sup>1</sup>
High price	995.00	915.00	5,000.00	4,650.00	450.00
High date	Feb. 20	Feb. 20	Feb. <sup>1</sup>	Feb. 20 and 21	Feb. <sup>1</sup>
Price, average	949.00	898.70	5,000.00	4,521.25	450.00
<b>January–February</b>					
Low price	885.00	884.00	5,000.00	4,500.00	450.00
Low date	Feb. 13	Feb. 8	Jan.–Feb. <sup>1</sup>	Jan.–Feb. <sup>1</sup>	Jan.–Feb. <sup>1</sup>
High price	1,110.00	993.00	5,000.00	4,650.00	450.00
High date	Jan. 2	Jan. 2	Jan.–Feb. <sup>1</sup>	Feb. 20 and 21	Jan.–Feb. <sup>1</sup>
Price, average	972.02	915.54	5,000.00	4,534.76	450.00

<sup>1</sup>Occurred multiple days in month(s) listed.

**TABLE 3.** U.S. imports for consumption of platinum metal, by country or locality.

[Data are rounded to no more than three significant digits; may not add to totals shown. Data are in kilograms metal content, unless otherwise specified. Source: U.S. Census Bureau.]

Country or locality	Platinum grain and nuggets		Platinum sponge		Other unwrought platinum		Platinum, other		Platinum coins	
	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)
<b>2023</b>										
December	20	621	5,150	152,000	168	5,500	600	19,800	34	1,270
January–December	616	19,800	53,100	1,660,000	2,500	93,600	10,100	377,000	774	25,200
<b>2024</b>										
January	91	2,820	5,140	158,000	366	12,000	565	18,900	83	2,650
<b>February</b>										
Australia	0	0	0	0	0	0	1	19	4	80
Austria	0	0	0	0	0	0	( <sup>1</sup> )	16	1	22
Belgium	0	0	684	21,100	0	0	0	0	0	0
Canada	9	280	0	0	0	0	15	480	125	3,790
Colombia	5	129	0	0	15	450	0	0	0	0
Costa Rica	0	0	0	0	0	0	256	6,430	0	0
Czechia	0	0	0	0	0	0	3	133	0	0
France	0	0	0	0	0	0	4	97	0	0
Germany	0	0	0	0	75	2,850	576	22,400	2	58
Ireland	0	0	0	0	( <sup>1</sup> )	23	0	0	0	0
Italy	0	0	158	4,580	3	79	1	28	0	0
Japan	0	0	0	0	0	0	26	600	0	0
Korea, Republic of	0	0	156	4,490	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	( <sup>1</sup> )	4	0	0
Singapore	0	0	0	0	137	6,420	3	156	0	0
South Africa	0	0	3,470	102,000	53	2,160	1	30	0	0
Switzerland	20	451	54	1,600	( <sup>1</sup> )	16	45	1,380	12	425
Taiwan	0	0	0	0	0	0	13	117	0	0
United Kingdom	0	0	0	0	1	58	54	1,600	1	47
<b>Total</b>	34	859	4,520	133,000	285	12,100	997	33,500	145	4,420
<b>January–February</b>	125	3,680	9,660	291,000	651	24,000	1,560	52,400	228	7,080

<sup>1</sup>Less than ½ unit.

**TABLE 4.** U.S. imports for consumption of platinum-group metals, by country or locality.

[Data are rounded to no more than three significant digits; may not add to totals shown. Data are in kilograms metal content, unless otherwise specified. Source: U.S. Census Bureau.]

Country or locality	Palladium <sup>1</sup>		Iridium <sup>1</sup>		Osmium <sup>1</sup>		Rhodium <sup>1</sup>		Ruthenium <sup>1</sup>		Waste and scrap <sup>2</sup>	
	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)
<b>2023</b>												
December	4,280	147,000	138	20,000	0	0	809	129,000	513	6,980	2,450	59,800
January–December	67,200	2,980,000	2,040	263,000	0	0	12,100	3,030,000	10,900	150,000	32,000	937,000
<b>2024</b>												
January	4,470	148,000	75	11,300	0	0	1,430	211,000	725	10,200	2,500	52,600
<b>February<sup>3</sup></b>												
Belgium	226	7,370	0	0	0	0	114	15,900	0	0	0	0
Bolivia	0	0	0	0	0	0	0	0	0	0	7	235
Canada	517	19,800	0	0	0	0	0	0	0	0	104	5,110
China	0	0	0	0	0	0	0	0	0	0	9	235
Colombia	0	0	0	0	0	0	0	0	0	0	18	303
France	0	0	0	0	0	0	0	0	0	0	60	1,870
Germany	353	11,400	6	980	0	0	183	28,500	285	3,890	341	10,900
Honduras	0	0	0	0	0	0	0	0	0	0	4	123
Italy	216	6,430	2	249	0	0	41	5,830	0	0	153	5,070
Japan	197	6,100	10	1,580	0	0	2	206	25	294	2	221
Korea, Republic of	249	7,490	0	0	0	0	31	4,300	0	0	9	293
Mexico	4	75	0	0	0	0	0	0	0	0	444	13,100
Poland	0	0	0	0	0	0	0	0	0	0	128	3,930
Russia	2,900	88,700	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	0	0	0	0	0	0	0	0	0	0	22	639
Singapore	0	0	0	0	0	0	0	0	0	0	25	866
South Africa	2,370	75,700	56	9,330	0	0	810	124,000	470	5,820	34	1,310
Sweden	0	0	0	0	0	0	0	0	0	0	172	7,120
Switzerland	17	686	0	0	0	0	0	0	0	0	0	0
United Kingdom	8	369	14	2,500	0	0	( <sup>4</sup> )	181	0	0	201	6,520
Other	3	47	0	0	0	0	0	0	0	0	17	869
<b>Total</b>	7,060	224,000	88	14,700	0	0	1,180	179,000	780	10,000	1,750	58,700
<b>January–February</b>	11,500	372,000	164	26,000	0	0	2,610	390,000	1,510	20,200	4,260	111,000

<sup>1</sup>Unwrought and other forms.

<sup>2</sup>Includes waste and scrap for all platinum-group elements.

<sup>3</sup>The 20 countries and (or) localities with the greatest total platinum-group metal imports are listed. All others are included in the “Other” category.

<sup>4</sup>Less than ½ unit.

**TABLE 5.** U.S. exports of platinum-group metals, by country or locality.

[Data are rounded to no more than three significant digits; may not add to totals shown. Data are in kilograms metal content, unless otherwise specified. Source: U.S. Census Bureau.]

Country or locality	Palladium <sup>1</sup>		Platinum <sup>1</sup>		Iridium, osmium, and ruthenium <sup>1,2</sup>		Rhodium <sup>1</sup>		Waste and scrap <sup>3</sup>	
	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)
<b>2023</b>										
December	2,010	82,000	915	30,700	63	8,740	79	11,800	1,990	82,400
January–December	33,600	1,360,000	11,700	574,000	845	110,000	446	95,600	13,900	971,000
<b>2024</b>										
January	5,030	154,000	823	28,800	92	14,500	104	13,600	895	55,600
<b>February<sup>4</sup></b>										
Australia	3	124	9	742	6	557	0	0	0	0
Belgium	39	1,190	18	530	0	0	5	684	27	2,150
Brazil	98	4,030	4	118	0	0	( <sup>5</sup> )	9	0	0
Canada	244	7,040	7	236	0	0	0	0	77	2,630
China	10	378	16	773	( <sup>5</sup> )	14	0	0	0	0
Costa Rica	1	32	62	6,070	0	0	0	0	0	0
France	13	521	1	59	0	0	0	0	0	0
Germany	813	27,500	135	7,150	12	944	0	0	213	10,000
Hong Kong	6	264	100	24,700	0	0	37	4,530	34	1,700
India	7	296	91	3,060	0	0	0	0	0	0
Ireland	2	95	45	1,520	0	0	0	0	0	0
Israel	11	438	1	21	0	0	0	0	0	0
Italy	284	9,030	( <sup>5</sup> )	15	0	0	0	0	348	11,800
Japan	361	12,100	20	4,510	( <sup>5</sup> )	29	0	0	459	14,900
Korea, Republic of	8	315	3	125	0	0	0	0	0	0
Mexico	5	165	30	1,150	1	140	0	0	0	0
Netherlands	3	141	9	284	0	0	0	0	0	0
Switzerland	398	16,300	11	383	( <sup>5</sup> )	11	0	0	1	80
Taiwan	5	196	8	308	0	0	0	0	0	0
United Kingdom	1	42	93	5,100	75	11,700	0	0	317	10,700
Other	13	540	11	512	( <sup>5</sup> )	30	0	0	10	412
<b>Total</b>	2,330	80,700	677	57,400	94	13,400	42	5,230	1,490	54,500
<b>January–February</b>	7,350	235,000	1,500	86,200	186	27,900	146	18,900	2,380	110,000

<sup>1</sup>Unwrought and other forms.

<sup>2</sup>Gross weight.

<sup>3</sup>Includes waste and scrap for all platinum-group elements. Previously categorized as “Platinum waste and scrap.”

<sup>4</sup>The 20 countries and (or) localities with the greatest total platinum-group metal exports are listed. All others are included in the “Other” category.

<sup>5</sup>Less than ½ unit.