

# Mineral Industry Surveys

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## PLATINUM-GROUP METALS IN FEBRUARY 2013

Engelhard's average February price for platinum increased slightly, and prices for palladium and rhodium increased by 5% and 9%, respectively, compared with average January prices. The average monthly prices for iridium and ruthenium decreased slightly during the same period. Platinum and palladium prices increased early in the month as a result of supply concerns related to continued unrest in the South African platinum-group metals (PGMs) mining industry. Platinum and palladium prices then decreased in response to liquidation in the gold market. In contrast, rhodium prices increased throughout the month in response to increased buying by Asia as well as investment interest in Europe. The platinum daily prices were above those for gold throughout the month.

Stillwater Mining Co. (Billings, MT) produced 4,100 kilograms (kg) of palladium and platinum during the fourth quarter of 2012 from its mines in Montana, 4% more than third quarter 2012 production and 16% more than fourth quarter 2011 production. In the fourth quarter 2012, the East Boulder Mine produced 843 and 246 kg of palladium and platinum, respectively, and the Stillwater Mine produced 2,300 and 694 kg of palladium and platinum, respectively. Palladium and platinum production for 2012 totaled nearly 16,000 kg, compared with the 2012 guidance of 15,600 kg of palladium and platinum. However, annual production was slightly lower in 2012 than that of 2011 owing to variability in mining conditions, as well as variability in the available mining stopes. During the fourth quarter 2012, about 3,700 kg of palladium, platinum, and rhodium was recovered from recycled catalytic converters, a 23% increase compared with the amount recovered in the third quarter of 2012. In 2012, 13,800 kg of palladium, platinum and rhodium was recovered from recycled catalytic converters, a 9% decrease compared with the amount recovered in 2011.

Progress continued on Stillwater's two development projects, the Blitz and Graham Creek projects, both of which are adjacent to the existing mines. A new tunnel-boring machine was in place at the Blitz project, on the east side of the Stillwater Mine, and 7,000 meters (m) of development was expected to be

completed during the next several years. At the Graham Creek project, west of the East Boulder Mine, tunnel boring had advanced 1,980 m by the end of 2012; completion of the full 2,500 m of development was expected during the first half of 2013. The two expansion projects were expected to increase annual production to about 18,799 kg of palladium and platinum during the next several years. A third potential expansion project at the Stillwater Mine, known as the Far West project, was identified. The Far West project contained higher grade ore than the rest of the Stillwater Mine, and was expected to accelerate the increase in annual mine production (Stillwater Mining Co., 2013).

The Zimbabwe Government seized nearly 28,000 hectares of land from Impala Platinum Holdings Ltd.'s (Johannesburg, South Africa) Zimplats Holdings unit, Zimbabwe's leading PGMs miner. The Government said the land would be sold to new investors. The Government also planned to require that a PGM refinery be built in Zimbabwe within the next 2 years so that PGMs mined in Zimbabwe would be refined locally in order to derive greater value. Currently, PGMs mined in Zimbabwe are refined in South Africa (Johnson Matthey plc, 2013a, b).

### References Cited

- Johnson Matthey plc, 2013a, Zimbabwe Government takes land from Impala Platinum unit: London, United Kingdom, Johnson Matthey plc news release, February 13. (Accessed February 20, 2013, at <http://www.platinum.matthey.com/news-and-events/news-articles/2013/february/13th/zimbabwe-government-takes-land-from-impala-platinum-unit>.)
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- Stillwater Mining Co., 2013, Stillwater Mining Company reports 2012 earnings: Billings, MT, Stillwater Mining Co. news release, February 27. (Accessed March 15, 2013, at <http://investorrelations.stillwatermining.com/phoenix.zhtml?c=99837&p=irol-newsArticle&ID=1789836&highlight=>.)

TABLE 1  
PLATINUM-GROUP METALS PRICES<sup>1</sup>

(Dollars per troy ounce)

	Platinum	Palladium	Rhodium	Iridium	Ruthenium
2012:					
Low/date	1,393.00 Aug. 2 and 3	570.00 July 23 and 25	1,075.00 Sep. <sup>2</sup>	1,050.00 Aug.–Dec. <sup>2</sup>	90.00 Nov–Dec. <sup>2</sup>
High/date	1,731.00 Feb. 29	727.00 Feb. 29	1,540.00 Feb. 14 and 15	1,085.00 Jan.–Feb. <sup>2</sup>	130.00 Feb.–Mar. <sup>2</sup>
Average	1,555.39	649.27	1,274.98	1,066.23	112.26
2013:					
January:					
Low/date	1,554.00/7	677.00/8	1,080.00 <sup>2</sup>	1,025.00 <sup>2</sup>	85.00 <sup>2</sup>
High/date	1,701.00/23	760.00/29	1,175.00 <sup>2</sup>	1,050.00 <sup>2</sup>	90.00 <sup>2</sup>
Average	1,647.91	716.77	1,127.50	1,036.82	85.68
February:					
Low/date	1,601.00/28	725.00/21	1,175.00 <sup>2</sup>	1,025.00 <sup>2</sup>	85.00 <sup>2</sup>
High/date	1,740.00/7	778.00/13	1,275.00/19 and 20	1,025.00 <sup>2</sup>	85.00 <sup>2</sup>
Average	1,676.95	755.68	1,226.58	1,025.00	85.00
January–February:					
Low/date	1,554.00 Jan. 7	677.00 Jan. 8	1,080.00 Jan. <sup>2</sup>	1,025.00 Jan.–Feb. <sup>2</sup>	85.00 Jan.–Feb. <sup>2</sup>
High/date	1,740.00 Feb. 7	778.00 Feb. 13	1,275.00 Feb. 19 and 20	1,050.00 Jan. <sup>2</sup>	90.00 Jan. <sup>2</sup>
Average	1,662.43	736.23	1,177.04	1,030.91	85.34

<sup>1</sup>Quotes from Engelhard.

<sup>2</sup>Occurred multiple days in month(s) listed.

Source: Platts Metals Week.

TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM METAL, BY COUNTRY<sup>1</sup>

(Kilograms metal content, unless otherwise specified)

Period and country	Platinum grain and nuggets		Platinum sponge		Other unwrought platinum		Platinum, other		Platinum waste and scrap		Platinum coins	
	Value		Value		Value		Value		Value		Value	
	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)
2012:												
November	28	\$1,390	2,850	\$143,000	362	\$16,600	165	\$5,070	2,840	\$91,700	50	\$1,950
December	20	959	2,130	109,000	576	26,000	219	8,780	17,400	117,000	160	8,670
January–December	1,060	50,900	34,100	1,690,000	4,820	202,000	3,880	154,000	127,000	968,000	864	43,900
2013:												
January:												
Argentina	--	--	--	--	3	121	--	--	--	--	--	--
Australia	--	--	--	--	--	--	--	--	40	1,550	(2)	24
Belgium	--	--	280	14,000	--	--	--	--	--	--	--	--
Brazil	--	--	--	--	--	--	(2)	3	323	14,900	--	--
Canada	5	246	--	--	--	--	15	432	474	8,110	65	3,510
Chile	--	--	--	--	--	--	--	--	5	149	--	--
China	--	--	--	--	--	--	--	--	820	12,100	--	--
Colombia	--	--	--	--	77	3,270	--	--	10	151	--	--
Czech Republic	--	--	--	--	--	--	6	259	--	--	--	--
France	--	--	--	--	--	--	--	--	24	1,110	--	--
Germany	2	76	455	21,600	86	4,660	134	4,170	292	11,500	--	--
Israel	--	--	--	--	--	--	--	--	9	305	--	--
Italy	--	--	243	13,000	--	--	--	--	92	2,990	--	--
Japan	--	--	--	--	2	28	5	128	123	4,570	--	--
Korea, Republic of	--	--	185	9,750	--	--	--	--	--	--	--	--
Malaysia	--	--	--	--	--	--	--	--	93	3,390	--	--
Mexico	--	--	--	--	3	19	9	416	87	2,870	(2)	20
Norway	--	--	95	4,800	--	--	--	--	--	--	--	--
Peru	--	--	--	--	--	--	--	--	9	176	--	--
Philippines	--	--	--	--	--	--	--	--	17	539	--	--
Singapore	--	--	--	--	--	--	--	--	50	2,220	--	--
South Africa	--	--	2,330	117,000	45	2,310	--	--	--	--	--	--
Switzerland	--	--	1	40	31	1,580	(2)	15	--	--	--	--
United Kingdom	--	--	226	11,700	--	--	3	155	439	14,900	--	--
Other	--	--	--	--	(2)	2	1	28	7	128	--	--
Total	7	322	3,820	192,000	247	12,000	174	5,610	2,920	81,600	65	3,550

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM-GROUP METALS, BY COUNTRY<sup>1</sup>

(Kilograms metal content, unless otherwise specified)

Period and country	Unwrought palladium		Palladium, other		Iridium <sup>2</sup>		Osmium <sup>2</sup>		Ruthenium <sup>2</sup>		Rhodium <sup>2</sup>	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2012:												
November	5,880	\$117,000	1,030	\$22,400	132	\$4,560	75	\$434	438	\$1,510	1,060	\$38,700
December	5,020	106,000	1,790	41,000	67	2,240	--	--	1,040	2,930	901	32,400
January–December	67,300	1,380,000	12,700	275,000	1,230	40,500	130	737	10,200	35,100	12,800	529,000
2013:												
January:												
Belgium	307	6,880	--	--	--	--	--	--	--	--	17	592
Brazil	90	1,990	--	--	--	--	--	--	--	--	--	--
Canada	(3)	5	266	7,720	--	--	--	--	--	--	--	--
Germany	246	5,710	29	642	72	403	--	--	136	476	63	2,300
Italy	316	7,410	12	226	--	--	--	--	--	--	21	808
Japan	110	761	25	150	6	204	--	--	--	--	11	368
Korea, Republic of	143	3,250	--	--	--	--	--	--	--	--	18	625
Norway	268	5,960	--	--	--	--	--	--	--	--	3	105
Russia	3	73	371	8,640	--	--	--	--	--	--	48	1,600
South Africa	1,870	53,700	47	1,070	22	748	--	--	362	988	426	14,700
Switzerland	(3)	9	8	280	--	--	--	--	--	--	--	--
United Kingdom	1,400	31,600	238	5,580	15	503	--	--	61	167	59	2,020
Other	--	--	1	14	--	--	--	--	--	--	--	--
Total	4,750	117,000	996	24,300	116	1,860	--	--	559	1,630	666	23,100

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Unwrought and other forms.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4  
U.S. EXPORTS OF PLATINUM-GROUP METALS, BY COUNTRY<sup>1</sup>

(Kilograms metal content, unless otherwise specified)

Period and country	Platinum <sup>2</sup>		Platinum waste and scrap		Palladium <sup>2</sup>		Iridium, osmium, and ruthenium <sup>2,3</sup>		Rhodium <sup>2</sup>	
	Value		Value		Value		Value		Value	
	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)
2012:										
November	407	\$16,200	8,760	\$69,200	2,460	\$38,900	59	\$971	86	\$3,200
December	533	21,200	13,200	84,200	1,400	19,400	39	1,240	32	1,270
January–December	8,630	374,000	84,800	837,000	32,200	467,000	1,640	17,100	1,040	43,600
2013:										
January:										
Australia	2	74	--	--	21	367	--	--	--	--
Austria	1	20	--	--	4	50	--	--	--	--
Belgium	(4)	6	--	--	3	33	--	--	--	--
Canada	13	510	4	123	535	11,300	1	21	--	--
China	3	74	16	811	87	1,690	6	95	6	424
Colombia	--	--	--	--	5	108	--	--	--	--
Costa Rica	5	98	--	--	3	21	--	--	--	--
Denmark	(4)	11	--	--	19	191	--	--	--	--
France	8	253	--	--	32	315	1	6	--	--
Germany	332	14,900	1,110	10,200	91	708	--	--	1	18
Hong Kong	1	50	--	--	55	804	--	--	--	--
India	27	1,380	5	258	7	62	2	47	--	--
Ireland	32	1,140	--	--	23	233	1	4	--	--
Israel	1	65	--	--	229	1,020	--	--	--	--
Italy	2	136	50	1,360	67	706	--	--	4	224
Japan	536	25,800	13,800	13,100	10	115	4	97	--	--
Korea, Republic of	1	31	--	--	362	7,900	101	741	--	--
Laos	4	211	--	--	--	--	--	--	--	--
Liechtenstein	(4)	4	--	--	(4)	6	--	--	--	--
Malaysia	(4)	12	--	--	1	15	--	--	--	--
Mexico	24	940	--	--	18	263	2	43	--	--
Netherlands	(4)	8	--	--	2	20	--	--	--	--
New Zealand	(4)	6	--	--	4	94	--	--	--	--
Philippines	(4)	19	--	--	(4)	4	--	--	--	--
Singapore	1	50	--	--	2	65	--	--	--	--
Switzerland	--	--	393	11,100	7	209	86	997	--	--
Taiwan	--	--	--	--	114	771	1	17	--	--
Thailand	4	149	--	--	6	71	--	--	(4)	7
United Arab Emirates	(4)	4	3	150	(4)	15	--	--	--	--
United Kingdom	22	1,130	1,770	60,000	105	2,290	4	123	--	--
Other	1	52	--	--	41	223	--	--	--	--
Total	1,020	47,200	17,100	97,200	1,860	29,700	208	2,190	11	673

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Unwrought and other forms.

<sup>3</sup>Gross weight.

<sup>4</sup>Less than ½ unit.