

Mineral Industry Surveys

For information, contact:

Patricia J. Loferski, PGM Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-7708, Fax: (703) 648-7757
E-mail: ploferski@usgs.gov

Pamela A. Wiser (Data)
Telephone: (703) 648-7956
Fax: (703) 648-7975
E-mail: pwiser@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

PLATINUM-GROUP METALS IN OCTOBER 2010

Engelhard's average October prices of platinum, palladium, and rhodium increased by 6%, 10%, and 4%, respectively. The average price of ruthenium decreased by 6%, and that of iridium remained unchanged during the same period. Daily prices of platinum were erratic throughout the month, whereas palladium prices increased from the beginning to the end of the month as a result of investor interest. The palladium price continued the steady upward climb that began in mid-May 2010 and reached its highest level since June 2001.

The Stillwater Mining Co. (Billings, MT) produced a total of 3,800 kilograms (kg) of platinum and palladium in the third quarter of 2010, which was 9% higher than production in the second quarter of 2010. Production included 218 kg of platinum and 809 kg of palladium from the East Boulder Mine, and 622 kg of platinum and 2,150 kg of palladium from the Stillwater Mine. The company expected to produce a total of 14,900 to 15,200 kg of platinum and palladium in 2010. Stillwater also processed 2,440 kg of platinum, palladium, and rhodium from the recycling of spent catalytic converters, which was a 21% decrease compared with recycling activity in the second quarter of 2010 and a 29% increase from that in the third quarter of 2009. The new crushing and sampling equipment at the recycling facility in Columbus was operational. The new automated x-ray assay system at the recycling facility was being installed and was expected to be operational near the end of 2010. Stillwater was exploring the possibility of expanding the East Boulder Mine further to the west as well as using existing infrastructure to extend the Stillwater Mine further to the east. Production from the new areas would require several years of development (Stillwater Mining Co., 2010).

OSJC MMC Norilsk Nickel (Moscow, Russia) produced 5,190 kg of platinum and 21,620 kg of palladium from its Kola and Polar divisions in Russia in the third quarter of 2010. These quantities represented decreases of 10% and 7% in the production of platinum and palladium, respectively, compared

with production in the second quarter of 2010. The decrease in production was a result of undisclosed technological issues in the precious metals production cycle (OSJC MMC Norilsk Nickel, 2010).

Two U.S. advocacy organizations for the fuel cell industry merged to create a new group to help boost commercialization of the technology. The U.S. Fuel Cell Council (Washington, DC) and the National Hydrogen Association (Washington, DC) joined forces to create the Fuel Cell and Hydrogen Association. The new association planned to support growth in early markets for fuel cells and was to be headquartered in Washington DC. Fuel cells use platinum as a catalyst, produce electricity through electrochemical reactions, and produce only carbon dioxide and water as emissions. Fuel cells can be used to power automobiles as well as stationary devices (Johnson Matthey plc, 2010).

The 2010 Nobel Prize in chemistry was awarded to three scientists who each independently discovered a new method of using palladium to build complex carbon molecules from simpler ones. The results were expected to lead to creation of new classes of pharmaceuticals and materials and new types of ultrathin computer screens (Spots, 2010).

References Cited

- Johnson Matthey plc, 2010, New U.S. body aiming to advance fuel cell commercialization: London, United Kingdom, Johnson Matthey plc news release, October 29, 1 p.
- OJSC MMC Norilsk Nickel, 2010, MMC Norilsk announces preliminary consolidated production results for 3rd quarter and 9 months 2010: Moscow, Russia, OJSC MMC Norilsk Nickel news release, October 29, 4 p.
- Spots, Pete, 2010, Nobel Prize in chemistry awarded for palladium work: The Christian Science Monitor press release, October 6, 2 p. (Accessed October 7, 2010, at <http://www.csmonitor.com/Science/2010/1006/Nobel-Prize-in-chemistry-awarded-for-palladium-work>.)
- Stillwater Mining Co., 2010, Stillwater Mining reports earnings for third quarter: Billings, MT, Stillwater Mining Co. news release, October 29, 15 p.

TABLE 1
PLATINUM-GROUP METALS PRICES ¹

(Dollars per troy ounce)

	Platinum	Palladium	Rhodium	Iridium	Ruthenium
2009:					
Low/date	920.00 Jan. 15	182.00 Jan. ²	1,050.00 Jan. ²	420.00 Jan.–Dec. ²	75.00 Feb. ²
High/date	1,510.00 Dec. 2	407.00 Dec. 31	2,790.00 Nov. 25	430.00 Jan. ²	160.00 Dec. ²
Average	1,207.55	265.65	1,591.32	420.40	97.28
2010:					
September:					
Low/date	1,538.00/1	521.00/10	2,125.00 ²	725.00 ²	180.00 ²
High/date	1,662.00/30	575.00/30	2,350.00/21 and 22	725.00 ²	195.00 ²
Average	1,598.57	543.24	2,206.67	725.00	188.57
October:					
Low/date	1,672.00/4	569.00/4	2,250.00/12 and 13	725.00 ²	175.00 ²
High/date	1,718.00/7	644.00/29	2,300.00 ²	745.00/29	180.00 ²
Average	1,692.29	596.33	2,284.52	727.62	177.62
Year-to-date:					
Low/date	1,482.00 Feb. 8	397.00 Feb. 5	2,120.00 Aug. ²	420.00 Jan. ²	170.00 Jan. ²
High/date	1,750.00 Apr. 26	644.00 Oct. 29	2,975.00 Apr. 15 and 16	745.00 Oct. 29	245.00 Apr.–Jun. ²
Average	1,596.91	491.92	2,480.56	618.08	202.67

¹Quotes from Engelhard.

²Occurred multiple days in month(s) listed.

Source: Platts Metals Week.

TABLE 2
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM METAL, BY COUNTRY¹

(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	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
		(thousands)		(thousands)		(thousands)		(thousands)		(thousands)		(thousands)
2009	16	\$474	37,100	\$1,420,000	3,770	\$129,000	5,910	\$174,000	136,000	\$334,000	512	\$20,500
2010:												
July	3	131	4,110	201,000	254	9,910	218	7,620	1,610	45,500	(2)	3
August	(2)	10	2,240	112,000	275	10,400	402	14,700	5,440	35,400	1	38
September:												
Argentina	--	--	--	--	--	--	--	--	67	4,330	--	--
Australia	--	--	--	--	--	--	--	--	6	195	(2)	49
Belgium	--	--	26	1,210	--	--	--	--	--	--	--	--
Bolivia	--	--	--	--	--	--	--	--	1,970	158	--	--
Brazil	--	--	--	--	--	--	(2)	5	63	1,930	--	--
Canada	1	41	--	--	--	--	28	1,470	99	3,810	1	50
China	--	--	--	--	--	--	--	--	118	2,040	--	--
Colombia	--	--	--	--	102	4,190	--	--	24	378	--	--
France	--	--	--	--	16	981	1	52	24	1,120	--	--
Germany	--	--	448	19,000	17	683	173	5,970	61	3,350	--	--
India	--	--	25	1,250	--	--	--	--	--	--	--	--
Italy	--	--	214	10,700	--	--	10	548	--	--	--	--
Japan	--	--	--	--	--	--	2	19	203	7,270	--	--
Korea, Republic of	--	--	--	--	--	--	--	--	74	3,230	--	--
Mexico	--	--	2	117	(2)	3	1	32	7	437	--	--
Norway	--	--	187	9,210	--	--	49	770	--	--	--	--
Russia	16	739	11	563	--	--	50	2,460	--	--	--	--
Saudi Arabia	--	--	--	--	--	--	--	--	717	35,000	--	--
South Africa	--	--	2,980	148,000	--	--	--	--	--	--	(2)	9
Switzerland	--	--	(2)	31	--	--	2	33	--	--	(2)	6
Taiwan	--	--	--	--	--	--	--	--	22	681	--	--
Thailand	--	--	--	--	--	--	--	--	2	1,190	--	--
United Kingdom	--	--	45	2,250	1	31	8	384	103	3,920	9	536
Other	--	--	--	--	(2)	9	9	55	22	234	(2)	7
Total	17	779	3,940	193,000	136	5,900	333	11,800	3,580	69,300	10	657
Year to date	548	12,100	24,100	1,190,000	2,940	119,000	3,950	155,000	73,500	408,000	36	1,960

-- Zero.

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

²Less than ½ unit.

Source: U.S. Census Bureau.

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

(Kilograms metal content, unless otherwise specified)

Period and country	Unwrought palladium		Palladium, other		Iridium ²		Osmium ²		Ruthenium ²		Rhodium ²	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2009	62,300	\$568,000	7,350	\$62,300	1,520	\$20,800	68	\$551	21,200	\$55,700	11,200	\$530,000
2010:												
July	8,380	120,000	569	10,300	85	1,910	--	--	1,010	7,250	1,130	89,700
August	6,080	90,900	561	10,200	62	1,510	60	495	785	5,440	1,000	71,700
September:												
Belgium	46	800	--	--	--	--	--	--	--	--	21	1,450
Canada	--	--	136	3,180	--	--	--	--	--	--	--	--
China	--	--	--	--	--	--	8	61	--	--	--	--
Germany	106	1,500	6	94	16	163	--	--	1,080	2,160	104	6,700
Italy	25	450	6	74	--	--	--	--	--	--	9	660
Japan	175	953	4	102	1	18	--	--	105	566	--	--
Norway	436	6,920	--	--	--	--	--	--	--	--	25	1,700
Russia	1,900	31,700	311	5,520	--	--	--	--	--	--	163	11,000
South Africa	2,690	43,700	31	415	301	6,710	--	--	1,280	7,890	995	69,900
Switzerland	1	4	13	340	--	--	--	--	1	5	--	--
United Kingdom	240	4,110	169	2,360	22	494	--	--	282	1,520	7	450
Total	5,610	90,100	676	12,100	340	7,390	8	61	2,740	12,100	1,320	91,800
Year to date	50,100	709,000	3,690	63,000	2,430	44,400	76	612	11,700	68,800	10,100	720,000

-- Zero.

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

²Unwrought and other forms.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF PLATINUM-GROUP METALS, BY COUNTRY¹

(Kilograms of metal content, unless otherwise specified)

Period and country	Platinum ²		Platinum waste and scrap		Palladium ²		Iridium, osmium, and ruthenium ^{2, 3}		Rhodium ²	
	Value		Value		Value		Value		Value	
	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)
2009	15,600	\$522,000	31,600	\$523,000	30,300	\$229,000	4,020	\$34,400	1,220	\$48,400
2010:										
July	786	31,100	2,080	71,700	2,320	27,200	527	5,060	228	9,270
August	887	37,700	2,060	49,500	1,740	19,000	226	2,970	31	2,780
September:										
Australia	1	76	--	--	44	524	1	4	--	--
Austria	10	129	--	--	--	--	--	--	--	--
Belgium	2	48	193	1,280	2	21	--	--	(4)	4
Brazil	4	225	--	--	249	3,950	--	--	23	1,600
Canada	135	6,400	--	--	227	1,910	1	12	--	--
Chile	13	442	--	--	--	--	--	--	--	--
China	43	2,200	--	--	94	1,530	1	29	34	2,750
Colombia	--	--	--	--	7	126	--	--	--	--
Denmark	(4)	3	--	--	27	73	--	--	--	--
France	3	73	--	--	30	255	--	--	--	--
Germany	773	32,700	19	2,610	309	4,830	1	33	156	10,600
Hong Kong	15	506	--	--	95	1,320	--	--	50	3,860
India	(4)	22	--	--	5	58	--	--	1	88
Ireland	16	588	--	--	(4)	5	--	--	--	--
Israel	4	64	--	--	361	1,460	--	--	--	--
Italy	(4)	21	--	--	107	1,110	--	--	7	516
Japan	70	1,580	51	2,000	267	3,330	3	74	19	1,190
Korea, Republic of	3	106	--	--	124	721	--	--	--	--
Mexico	32	1,030	--	--	55	79	--	--	--	--
Netherlands	(4)	47	--	--	1	22	--	--	--	--
New Zealand	2	54	--	--	7	145	--	--	--	--
Philippines	4	144	--	--	(4)	7	--	--	--	--
Poland	1	17	--	--	2	30	--	--	--	--
Romania	1	11	--	--	1	4	--	--	--	--
Singapore	146	6,980	--	--	8	74	--	--	--	--
South Africa	--	--	401	1,650	--	--	--	--	--	--
Spain	(4)	4	--	--	24	101	--	--	--	--
Sweden	1	60	--	--	(4)	10	--	--	--	--
Switzerland	32	1,570	1,660	19,600	15	188	--	--	--	--
Taiwan	3	101	--	--	110	699	12	50	--	--
Thailand	(4)	8	--	--	4	37	--	--	--	--
United Kingdom	40	1,950	1,580	57,600	214	2,660	16	300	(4)	33
Other	6	120	--	--	37	209	1	3	--	--
Total	1,360	57,300	3,910	84,600	2,430	25,500	36	504	289	20,700
Year to date	13,000	589,000	26,100	698,000	29,000	321,000	3,380	33,300	1,770	99,000

-- Zero.

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

²Unwrought and other forms.

³Gross weight.

⁴Less than ½ unit.

Source: U.S. Census Bureau.