

# Mineral Industry Surveys

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## PLATINUM-GROUP METALS IN JUNE 2009

According to Platts Metals Week (2009a-e), the average June prices of platinum, palladium, and rhodium increased by 8%, 7%, and 3%, respectively, compared with the average prices in May. The average prices of iridium and ruthenium were unchanged during the same time period. Prices remained relatively stable, despite General Motors Corp., one of the principal users of platinum-group metals (PGMs), filing for Chapter 11 bankruptcy.

North American Palladium (NAP, Toronto, Ontario, Canada) discovered a new high-grade ore zone at the Lac des Iles Mine, Ontario, which had the potential to extend the mine life significantly. NAP planned to complete a mineral resource estimate for the newly found zone, named the Cowboy Zone, in the fourth quarter (Hill, 2009). FNX Mining Co. Inc. (Toronto), which produces PGMs as byproducts of its nickel mining operations, decided to continue with its mining operations in Sudbury, Ontario, even though third-party processing facilities of Xstrata plc (Zug, Switzerland) and Vale Inco Ltd. (Toronto) were shut down for 8 weeks. FNX planned to stockpile ore for processing at a later date (FNX Mining Co. Inc., 2009).

Xstrata plc proposed a "merger of equals" with Anglo Platinum Ltd. (Johannesburg, South Africa), but was turned down by Anglo, the leading PGM producer in the world (Johnson Matthey Plc, 2009). Lonmin plc (Johannesburg, South Africa) shut down its No. 1 furnace because of a production incident and started up three Pyromet furnaces that were expected to remain in operation until September 2009. Repairs to the No. 1 furnace were expected to take about 30 days, and its shutdown was expected to cause an increase in metal in process

of up to 622 kilograms of platinum (Lonmin plc, 2009). Platmin Ltd. (Centurion, South Africa) announced that Eskom Holdings Ltd., the South African power company, successfully connected the second phase of the power allocation to Platmin's Pilanesburg Mine in South Africa. Platmin had previously been processing ore from the UG-2 zone of the Bushveld Complex, and the new power connection was expected to allow the start of metallurgical processing of ore from the Bushveld's Merensky Reef (Platmin Ltd., 2009).

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

(Dollars per troy ounce)

	Platinum	Palladium	Rhodium	Iridium	Ruthenium
<b>2008:</b>					
Low/date	760.00 Oct. 27	167.00 Dec. 5	1,000.00 Nov. <sup>2</sup>	400.00 Dec. <sup>2</sup>	120.00 Dec. <sup>2</sup>
High/date	2,275.00 Mar. 4	585.00 Mar. 4	10,100.00 Jun. 18	460.00 Aug. <sup>2</sup>	440.00 Feb. and Mar. <sup>2</sup>
Average	1,578.26	355.12	6,533.57	448.34	324.60
<b>2009:</b>					
<b>May:</b>					
Low/date	1,080.00/1	213.00/1	1,325.00/1 and 4	420.00 <sup>2</sup>	95.00 <sup>2</sup>
High/date	1,177.00/29	243.00/8	1,525.00/8 and 11	420.00 <sup>2</sup>	95.00 <sup>2</sup>
Average	1,134.45	230.45	1,419.75	420.00	95.00
<b>June:</b>					
Low/date	1,158.00/23	236.00/23	1,375.00/23 and 24	420.00 <sup>2</sup>	95.00 <sup>2</sup>
High/date	1,275.00/5	263.00/10	1,520.00/15 and 16	420.00 <sup>2</sup>	95.00 <sup>2</sup>
Average	1,220.41	247.18	1,467.50	420.00	95.00
<b>Year-to-date:</b>					
Low/date	920.00 Jan. 15	182.00 Jan. <sup>2</sup>	1,050.00 Jan. <sup>2</sup>	420.00 Jan.—Jun. <sup>2</sup>	75.00 Feb. <sup>2</sup>
High/date	1,275.00 Jun. 5	263.00 Jun. 10	1,650.00 Apr. 20 and 21	430.00 Jan. <sup>2</sup>	100.00 Jan. 2
Average	1,099.59	217.89	1,289.17	420.79	87.24

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

<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	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2008	212	\$7,210	45,700	\$2,330,000	4,040	\$177,000	7,180	\$282,000	92,200	\$593,000	734	\$22,400
2009:												
March	(2)	6	1,140	39,000	324	9,690	554	14,200	5,940	14,400	2	51
April	1	20	3,090	116,000	231	7,180	418	11,900	7,700	17,400	1	64
May:												
Belgium	--	--	242	8,460	--	--	--	--	--	--	--	--
Bolivia	--	--	--	--	--	--	--	--	2,210 <sup>3</sup>	72	--	--
Brazil	--	--	--	--	--	--	--	--	31	510	--	--
Canada	2 <sup>3</sup>	35	--	--	--	--	5	176	35	1,620	3	97
Colombia	--	--	10	304	107	2,920	--	--	30 <sup>3</sup>	376	--	--
Czech Republic	--	--	--	--	--	--	--	--	32 <sup>3</sup>	195	--	--
France	--	--	--	--	--	--	--	--	23	736	--	--
Germany	--	--	23	869	43	1,630	275	5,630	191 <sup>3</sup>	5,320	--	--
India	--	--	22	781	--	--	10	374	--	--	--	--
Israel	--	--	--	--	15	392	--	--	5	90	--	--
Italy	--	--	81	2,820	--	--	73	2,750	--	--	--	--
Japan	--	--	--	--	6	177	(2)	10	223 <sup>3</sup>	9,240	--	--
Korea, Republic of	--	--	--	--	--	--	--	--	29	700	--	--
Mexico	--	--	19	688	5	161	2	70	39	117	--	--
Norway	--	--	126	4,510	--	--	--	--	--	--	--	--
Philippines	--	--	--	--	--	--	--	--	8	180	--	--
Russia	--	--	85	3,110	--	--	--	--	--	--	--	--
South Africa	--	--	2,530	93,300	--	--	14	482	--	--	--	--
Switzerland	--	--	207	6,540	78	2,840	119	4,320	--	--	--	--
Taiwan	--	--	--	--	--	--	--	--	145	1,060	--	--
United Kingdom	--	--	287	10,100	8 <sup>3</sup>	28	14	499	31 <sup>3</sup>	361	6	227
Other	--	--	--	--	2	19	1	51	11 <sup>3</sup>	158	(2)	1
Total	2	35	3,630	132,000	263	8,160	513	14,400	3,040	20,700	10	327
Year to date	6	123	12,300	421,000	1,290	38,400	2,600	68,400	25,600	121,000	34	1,040

-- 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.

<sup>3</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

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)
2008	114,000	\$1,270,000	6,810	\$85,500	2,550	\$36,600	11	\$101	49,800	\$426,000	12,600	\$2,470,000
2009:												
March	3,710	24,900	1,180	8,480	103	1,260	--	--	2,490	5,470	670	23,700
April	4,560	32,300	232	1,660	162	2,770	8	56	1,820	4,530	923	31,700
May:												
Belgium	--	--	--	--	--	--	--	--	--	--	84	3,210
Canada	116	1,280	2	17	--	--	--	--	--	--	--	--
Germany	4	17	9	69	10	67	--	--	1,200	1,890	70	2,980
Israel	--	--	2	10	--	--	--	--	--	--	--	--
Italy	146	1,110	(3)	10	--	--	--	--	--	--	6	294
Japan	--	--	1	15	--	--	--	--	53	112	--	--
Norway	284	2,030	--	--	--	--	--	--	--	--	11	497
Russia	871	6,460	--	--	--	--	--	--	--	--	95	4,190
South Africa	1,540	11,500	16	110	94	1,230	--	--	775	2,000	635	25,500
Switzerland	--	--	388	2,980	--	--	--	--	--	--	--	--
United Kingdom	11	82	3	64	--	--	--	--	42	145	40	1,780
Total	2,970	22,400	421	3,280	104	1,300	--	--	2,070	4,140	940	38,400
Year to date	18,100	121,000	3,720	26,000	547	7,590	8	56	9,370	21,700	4,360	157,000

-- 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 of 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>	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
	2008	15,600	\$570,000	54,700	\$1,190,000	26,400	\$197,000	6,450	\$80,600	1,980
2009:										
March	1,640	53,100	2,610	41,300	2,260	16,200	161	2,940	70	2,800
April	1,880	61,500	2,740	35,500	1,860	15,400 <sup>r</sup>	150	2,370	90	3,510
May:										
Australia	1	69	--	--	42	483	--	--	--	--
Austria	3	60	--	--	1	6	19	377	--	--
Brazil	--	--	--	--	145	1,060	--	--	--	--
Canada	20	707	56	1,730	308	2,100	--	--	(4)	32
China	142	3,540	--	--	140	1,030	1	20	117	4,060
Costa Rica	1	20	--	--	--	--	--	--	--	--
France	4	107	--	--	17	88	--	--	--	--
Germany	328	11,000	356	2,090	147	1,060	22	90	3	140
Hong Kong	5	211	--	--	86	769	--	--	2	92
India	13	501	1	4	28	167	--	--	7	473
Ireland	5	134	--	--	10	35	1	6	--	--
Israel	3	64	--	--	182 <sup>5</sup>	402	--	--	--	--
Italy	(4)	59	--	--	650	5,530	--	--	6	296
Japan	155	5,470	60	1,590	401	2,790	--	--	20	796
Korea, Republic of	5	119	--	--	76	542	--	--	--	--
Mexico	5	184	--	--	55	107	9	257	(4)	7
Norway	(4)	5	--	--	6	105	--	--	--	--
Singapore	(4)	4	--	--	3	61	47	1,130	--	--
Switzerland	259	8,920	--	--	75	2,090	--	--	(4)	12
Taiwan	6	179	--	--	71	408	(4)	10	--	--
Thailand	7	187	--	--	3	43	--	--	--	--
United Kingdom	103	3,220	1,820	35,400	110	945	3	22	--	--
Other	5	170	14	76	189	475	(4)	7	--	--
Total	1,070	34,900	2,300	40,900	2,750	20,300	103	1,920	156	5,910
Year to date	8,410	262,000	12,600	195,000	13,000	91,400	697	11,100	382	15,200

<sup>r</sup>Revised. -- 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.

<sup>5</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.