

Mineral Industry Surveys

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PRECIOUS METALS IN APRIL 2003

U.S. mines produced 19,500 kilograms (kg) of gold and 94,300 kg of silver in April 2003. Compared with March 2003, production of gold was down 14% in Nevada, and production of silver was down 17% in Nevada.

Gold

Domestic.—Placer Dome Inc. began to develop its Turquoise Ridge gold mine in Nevada. The mine, which is part of the Getchell property, is expected to produce about 2,800 kg (89,000 troy ounces) of gold in 2003 with a full production capacity of 9,300 kg (300,000 ounces) of gold annually. Currently, ore from Turquoise Ridge at the Getchell property is processed under an existing agreement with Newmont Mining Corp.'s Twin Creeks gold mine (American Metal Market, 2003b).

Barrick Gold Corp. reported a U.S. district court ruled against the Environmental Protection Agency (EPA) guidance that required Barrick to remove waste rock moved in mining. EPA wanted Barrick to report all land movement under the agency's Toxic Release Inventory Program. The District of Columbia judge, however, ruled that legislation had been wrongly interpreted, ruling that movement of rock was not a toxic release to the environment since trace minerals occur naturally and are not released when they are moved. EPA began its lawsuit in 1999 (Platts Metals Week, 2003b).

International.—Harmony Gold Mining Co. Ltd. launched a family of gold investment bars. The new offerings (99.9% purity) included a 120-gram gold bar valued at about \$121,000; a series of wrought 1-ounce, 0.5-ounce, and 0.25-ounce gold bars and medallions; and a 116.7-gram "ten-tola" bar that has been successfully marketed in India. Gold coin sales in South Africa had been dominated by Krugerrands made by the Rand Refinery. Harmony's new small gold bars and medallions are machined and hand buffed, which classifies them as wrought metal products that can be legally held by South African citizens. These new gold products are an alternative to the

Kruggerand, as well as the Gold Eagle (United States) investment coins (American Metal Market, 2003a).

Gold Fields Mineral Services reported global gold producers' hedge books declined by 423 kg (13,600 ounces) in 2002. This contraction is the third consecutive year of decrease, which was one of two main factors explaining the rising gold price; the other was an increase in gold investment demand. The scaleback was largely achieved because no fresh hedging was carried out last year (Platts Metals Week, 2003c).

Commercial production began at McWatters Mining Inc.'s Sigma-Lamaque open-pit gold mine in Val-d'Or, Quebec, on April 1, 2003. McWatters produced 500 kg (16,000 ounces) of gold during the first quarter of 2003 at a production cost of \$250 per ounce (Platts Metals Week, 2003e).

AngloGold Ltd. is meeting South African Government-mandated black ownership quotas required under new mineral licensing laws. Targets were set for mining companies requiring 15% black ownership within 5 years and 25% within 10 years. Companies must also have at least 40% blacks and women in management. In 2002, AngloGold South African assets were owned by about 24% blacks, largely due to the sale of many mineshafts to black-controlled African Rainbow Minerals. In addition, Anglo Gold's management is currently 25% black or female and that percentage is rising yearly. A final Government mandate is that 20% of procurements come from black-owned companies. Currently, 8% of AngloGold's purchases meet this requirement (Platts Metals Week, 2003a).

The London Bullion Market Association (LBMA) gold clearing statistics fell in March. Gold transfers decreased 1.6% in comparison with those of February, reaching 523,000 kg (16.8 million ounces). The number of gold transfers fell to March 2002, kilograms of gold transferred were 3.5% higher than in March 2003, while the number of transfers was much lower with a 21% loss (Platts Metals Week, 2003d).

Silver

In an effort to maintain the smooth development of the silver industry, the Chinese Central Government will begin managing foreign trade of silver products. The Government will supervise the export of such products as unwrought silver, silver metal powder, and semi-manufactured forms with customs codes 71061000, 71069100, 71069200, 71131100, 71141100, 71159010, and 71159090. Imports of silver metal powder (71061000), wrought silver (71069200), and silver semis (71069200), including gold-and-platinum-coated silver will also be under Government control (Antaike Precious & Minor Metals Monthly, 2003b).

Platinum-Group Metals

During the week of April 13, the price of palladium fell to \$145.50 per ounce, its lowest level since May 1977. It was in 1977 when the price of palladium began to climb sharply, primarily due to delayed shipments of the metal from Russia. Continuing delays in shipments and panic buying by automobile manufacturers, who are the major consumers of palladium, culminated in the price of palladium reaching \$1,100 per ounce in the first quarter of 2001. The high price prompted the main consumers of palladium to reduce their demand for the metal by thrifting and substituting the lower priced platinum and base metals; prices have been in decline ever since. Most analysts expect that the palladium price will continue to fall. Meanwhile, the price of platinum increased during March and April reaching \$605 per ounce on April 30, 2003. Market analysts expect that platinum will likely be in deficit throughout much of 2003 which points to the platinum price remaining strong (Mining Journal, 2003; Platts Metals Week, 2003f).

China has reportedly become the world's leading platinum metal consumer. In 2002, Chinese consumption of the metal, mostly in jewelry, increased by 13% to about 43,600 kg. In addition to jewelry, consumption of platinum by the automobile sector in catalytic converters increased as the Chinese Government tightened automobile emission requirements (Antaike Precious & Minor Metals Monthly, 2003a).

Update: On June 16, 2003, shareholders in Stillwater Mining Company, the only primary producer of platinum-group (PGM) metals in the United States, approved the proposed transaction with MMC Norilsk Nickel that would give Norilsk a controlling 51% shareholding in the company. Additionally, the Federal Trade Commission informed Stillwater and Norilsk that it had granted early termination of the Hart-Scott-Rodino Act waiting period for the transaction. The Act requires that company

mergers observe this waiting period while potential anticompetition issues are evaluated. On June 23, 2003, Stillwater and Norilsk closed the stock purchasing agreement, completing the largest transaction ever by a Russian company with an American corporation. In connection with the transaction, Stillwater issued 45,463,222 new shares of its common stock to Norimet Limited, a wholly owned subsidiary of Norilsk Nickel, representing approximately 51% of Stillwater shares. In consideration for the shares, Norimet paid Stillwater \$100,000,540 in cash and approximately 27,300 kg of palladium metal. Based on the current price of palladium, the total consideration is valued at approximately \$257 million.

Norimet must commence a cash tender offer within 30 days to acquire up to 4,350,000 shares in Stillwater at \$7.50 per share if the average closing price of Stillwater's shares is below that price during the 15 trading days after the June 23 closing. This additional share purchase could increase Norilsk Nickel's ownership in Stillwater to approximately 56%. Stillwater is the largest primary producer of PGM outside of South Africa (Stillwater Mining Company, 2003).

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TABLE 1 MINE PRODUCTION OF RECOVERABLE GOLD AND SILVER IN THE UNITED STATES, BY STATE $^{\rm 1}$

(Kilograms)

				Other	
Gold	Alaska	California	Nevada	States ²	Total
2002:					
April	W	893	20,800	4,150	25,900
May	W	788	18,600	3,680	23,000
June	W	907	20,100	3,510	24,600
July	W	770	19,200	3,640	23,700
August	W	740	17,600	3,190	21,500
September	W	701	21,200	3,840	25,800
October	W	569	20,000	3,780	24,400
November	W	512	19,200	3,460	23,200
December	W	534	22,600	3,370	26,400
January-December ^p	W	9,160	231,000	45,300	286,000
2003:					
January	W	507 ^r	18,700 ^r	3,620	22,900 r
February	W	476 ^r	16,600 ^r	3,210	20,300 r
March	W	445 ^r	18,100 ^r	4,120	22,600 r
April	W	462	15,500	3,600	19,500
January-April	W	1,890	68,900	14,500	85,300
				Other	
Silver	Arizona	Idaho	Nevada	States ³	Total
2002:					
April	W	W	30,800	83,700	115,000
May	W	W	36,900	88,600	126,000
June	W	\mathbf{W}	30,800	84,700	115,000
July	W	W	35,100	78,300	113,000
August	W	W	28,400	79,700	108,000
September	W	W	30,200	78,700	109,000
October	W	W	38,100	86,100	124,000
November	W	W	24,200	81,000	105,000
December	W	W	32,600	81,400	114,000
January-December ^p	W	W	424,000	996,000	1,420,000
2003:					
January	W	W	24,700 ^r	81,400 ^r	106,000 r
February	W	W	19,600 ^r	75,300 ^r	94,800 ^r
March	W	W	25,800 r	83,500 ^r	109,000 ^r
April	W	W	21,500	72,800	94,300

^pPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data; included with "Other States."

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

²Includes Arizona, Colorado, Idaho, Montana, New Mexico, South Carolina, South Dakota, Utah, Washington, and State indicated by symbol W.

³Includes Alaska, California, Colorado, Missouri, Montana, New Mexico, New York, South Carolina, South Dakota, Tennessee, Utah, Washington, and States indicated by symbol W.

TABLE 2 SELECTED PRECIOUS METAL PRICES

(Dollars per troy ounce)

	Gold	Silver	Platinum	Palladium	
Engelhard Industries:					
2002:					
Low/date	278.62 January 29	4.26 January 31	454.00 February 1	225.00 December 23	
High/date	350.54 December 27	5.15 June 4 and July 15	610.00 December 17	439.00 January 3	
Average	311.33	4.62	542.56	339.68	
2003:					
February:					
Low/date	345.33/18	4.53/12	669.00/21	245.00/27	
High/date	383.40/5	4.92/4	701.00/3 and 4	269.00/4	
Average	360.86	4.68	684.47	255.68	
March:					
Low/date	330.66/24	4.39/24	632.00/28	183.00/31	
High/date	355.95/6	4.71/10	709.00/10	244.00/10 and 11	
Average	341.78	4.55	677.05	226.38	
April:					
Low/date	321.09/7	4.42/2	605.00/30	151.00/16	
High/date	337.97/30	4.67/24	644.00/22	182.00/1	
Average	329.51	4.54	627.19	164.76	
Year to date:					
Low/date	321.09 April 7	4.39 March 24	605.00 April 30	151.00 April 16	
High/date	383.40 February 5	4.94 January 6 and 24	709.00 March 10	273.00 January 23	
Average	347.57	4.66	655.45	226.31	
Handy and Harman:					
2002, Average	310.13	4.62	XX	XX	
2003:					
February	359.60	4.68	XX	XX	
March	340.55	4.55	XX	XX	
April	328.25	4.54	XX	XX	
Average year to date	346.33	4.66	XX	XX	
London Final: ¹					
2002, Average	309.97	4.60	XX	XX	
2003:					
February	358.97	4.65	XX	XX	
March	340.55	4.53	XX	XX	
April	328.18	4.49	XX	XX	
Average year to date	346.14	4.62	XX	XX	
XX Not applicable					

XX Not applicable.

¹Silver price reported as "London Spot/US Equiv."

Source: Platts Metals Week.

$\label{eq:table 3} \textbf{U.S. IMPORTS AND EXPORTS OF GOLD}^1$

(Kilograms of gold content, unless otherwise specified)

Period and country	Ores and concentrates ²	Doré and precipitates	Refined bullion ³	Ash and residues	Total ⁴	Waste and scrap (gross weight)	Metal powder (gross weight)	Gold compounds (gross weight)
Imports for consumption:	concentrates	ргенримев	bullion	Testades	Total	(gross weight)	(gross weight)	(gross weight)
2002	2,720	42,200	172,000		217,000	11,900	10,700	18,100
2003:	2,720	.2,200	1,2,000		217,000	11,500	10,700	10,100
January	2	5,970	11,500		17,400	1,010	478	5,690
February	117	7,160	12,300		19,600	1,120	479	1,680
March:		., .,	,		.,	, -		,
Brazil			225		225			
Canada	29	2	7,610		7,640	116	3	1,540 5
Chile			450		450			
Colombia		4,020	534		4,560	88	2	
Dominican Republic		,	8		8	493	1 5	
Germany			3		3			1,590 5
Honduras		359			359		216	,
Japan								5,010 5
Mexico		177	38		215	137		
Nicaragua		198			198			
Peru		1,660	10		1,670			
Switzerland		,	143		143		1	
Other	. 1	8	144 5		153	121	21	
Total	30	6,430	9,160		15,600	955	243	8,140
Year to date	149	19,600	33,000		52,700	3,080	1,200	15,500
Exports:	•							
2002	556	71,700	185,000		257,000	85,800	10,900	417,000
2003:	•							
January	107	9,830	15,700		25,700	16,800	49	26,000
February	48	7,580	13,600		21,200	13,000	88	55,400
March:								
Armenia			35		35		25	
Belgium	5				5	34		
Canada			20		20	3,950		27,700 5
Dominican Republic	75				75			
Guatemala						255		
Hong Kong			10		10	1	4	
Israel								7,000 5
Italy							22	245 5
Japan						7	1	
Mexico			209		209			330 5
Netherlands	1				1			6,390 5
Peru			136		136			
Switzerland		3,230	5,370		8,600	4	4	
Taiwan							1	
United Kingdom	(6)		9,200		9,200	13,600	12	6,700 5
Other			150		150	93		
Total	81	3,230	15,100		18,400	17,900	68	48,400
Year to date	236	20,600	44,500		65,300	47,700	205	130,000

⁻⁻ Zero.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²Includes gold content of base metal ores, concentrates, and matte imported for refining.

³Bullion also moves in both directions between U.S. markets and foreign stocks on deposit in the Federal Reserve Bank. Monetary gold excluded.

⁴"Waste and scrap," "Metal powder," and "Gold compounds" not included in "Total."

 $^{^5\}mbox{All}$ or part of these data have been referred to the U.S. Census Bureau for verification.

⁶Less than 1/2 unit.

 $\label{eq:table 4} \textbf{U.S. IMPORTS} \ \ \textbf{FOR CONSUMPTION OF SILVER}^1$

(Kilograms of silver content, unless otherwise specified)

						Other			Semimanu-	
			Ores			unwrought	Metal	Silver	factured	Waste
			and	Ash and		silver	powder	nitrate	form ³	and scrap
Period and country	Bullion	Doré	concentrates ²	residues	Total	(gross weight)	(gross weight)	(gross weight)	(gross weight)	(gross weight)
2002	4,020,000	16,600	61,000	63,500	4,160,000	263,000	12,100	572	289,000	816,000
2003:										
January	377,000	11,200		2,300	390,000	12,200	647		32,700	31,500
February	331,000	13,700		5,270	350,000	28,800	2,200	14	30,800	89,400
March:										
Australia				537	537					1
Brazil									11,200	1
Canada	75,300		350	4,080	79,700	1,350			618 4	8,690
Chile	6,000				6,000					
Costa Rica										967
Dominican Republic				1	1					477
France						523			309 4	
Germany							22		2,030 4	18,300
India									814	
Italy						(5) 4			255 4	26
Japan				(5) 4	(5)		475 4		613 4	661
Korea, Republic of									376	
Malaysia							151			
Mexico	100,000	18,800 4		834	120,000	17,800			(5) 4	2,180
Morocco										10,700
Peru	29,700				29,700					
Poland									1,900	
Saudi Arabia										577
United Kingdom				1,370 4	1,370				101 4	1,520
Other	10 4			8	18				27 4	18
Total	211,000	18,800	350	6,830	237,000	19,600	647		18,300	44,200
Year to date	920,000	43,700	350	14,400	978,000	60,600	3,490	14	81,800	165,000

⁻⁻ Zero.

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

²Includes silver content of base metal ores and concentrates.

³Containing 99.5% or more by weight of silver.

⁴All or part of these data have been referred to the U.S. Census Bureau for verification.

⁵Less than 1/2 unit.

TABLE 5
U.S. EXPORTS OF SILVER¹

(Kilograms of silver content, unless otherwise specified)

					Other			Semimanu-	
			Ores		unwrought	Metal	Silver	factured	Waste
			and		silver	powder	nitrate	form ³	and scrap
Period and country	Bullion	Doré	concentrates ²	Total	(gross weight)	(gross weight)	(gross weight)	(gross weight)	(gross weight)
2002	624,000	22,700	230,000	877,000	32,700	360,000	81,200	290,000	2,380,000
2003:									
January	27,600	2,520	39,900	69,900	1,210	31,900	5,390	21,300	171,000
February	15,200	2,480	8	17,700	2,870	37,600	3,800	28,100	156,000
March:									
Australia							3,430 4		
Belgium						83		471	20,000
Bermuda					102				
Brazil								8,170	
Canada	3,460			3,460	484	712	3,800	5,400	50,200
China									29,100
Dominican Republic					300				
France						1,100		3,000 4	
Germany					13	4,720	4 4	732 4	23,700
Hong Kong					47	3,820	51	580	
India								21	4,660
Italy						26		113	25,200
Japan					13 4	3,690		2,890	38,800
Korea, Republic of						1,330	4 4	4,970	193
Mexico	68			68		855	367	1,090	2
Netherlands						177		742	
Poland								164	
Saudi Arabia							50		5,420
Spain					28			2,310	
Sweden								49	25,200
Switzerland		1,150		1,150		75			
Taiwan						4,770	187	515 4	3
Thailand								2,550	
United Kingdom	18,800			18,800		6,800		3,510 4	1,920
Venezuela							999 4		
Other	66		35 4	101	65 4	105		88	60
Total	22,400	1,150	35	23,600	1,050	28,300	8,890	37,400	224,000
Year to date	65,200	6,150	39,900	111,000	5,130	97,700	18,100	86,800	551,000

Revised. -- Zero.

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

²Includes silver content of base metal ores and concentrates.

³Semimanufactured (including silver plated with gold or platinum) forms of silver.

⁴All or part of these data have been referred to the U.S. Census Bureau for verification.

 $\label{eq:table 6} \text{U.S. IMPORTS FOR CONSUMPTION OF PLATINUM-GROUP METALS}^1$

(Kilograms of metal content)

	Platinum		Other		Platinum							
	grain and	Platinum	unwrought	Platinum,	waste and	Platinum	Unwrought	Palladium,		Unwrought	Unwrought	
Period and country	nuggets	sponge	platinum	other	scrap	coins	palladium	other	Iridium ²	osmium	ruthenium	Rhodium ³
2002	1,910	72,600	3,490	4,950	77,500	20	94,600	22,000	2,100	36	9,890	8,630
2003:	=											
January	126	7,320	226	408	6,100		3,660	2,050	94	1	599	846
February	125	6,020	627	746	101		3,970	1,760	191		1,240	315
March:												
Argentina					110							
Belgium		184		(4)			292	70				13
Canada	1		(4)	30 5	24		106					
Chile					60							
China				3			20					
Colombia			25									
France				11				2 5				
Germany		421	39	159	33		55	384	69	5 5	106	28
India				(4)								
Israel			41									
Italy		29		92				77				(4)
Japan			467		2,840		90 5	51 ⁵				74
Korea, Republic of					601							
Lebanon					7							
Mexico												
Netherlands					6				1			
Norway		134					583	23				
Philippines				1								
Russia		248	199				1,580	749			50	39
South Africa	128	3,160		10			1,310	313	79		1,320	414
Sweden					(4)							
Switzerland	12	63	1	7 5			190	116				
United Kingdom		435	1	54 ⁵	67		700	144	67 ⁵			3
Total	142	4,670	773	366	3,750		4,930	1,930	217	5	1,480	571
Year to date	393	18,000	1,630	1,520	9,950		12,600	5,740	502	6	3,310	1,730

⁻⁻ Zero

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

²Unwrought and other forms of iridium.

³Unwrought and other forms of rhodium.

⁴Less than 1/2 unit.

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

$\label{eq:table 7} \text{U.S. EXPORTS OF PLATINUM-GROUP METALS}^1$

(Kilograms of metal content, unless otherwise specified)

			Platinum waste and	Iridium, osmium and	
Period and country	Palladium ²	Platinum ²	scrap	ruthenium ^{2, 3}	Rhodium ²
2002	42,700	27,800	17,700	1,990	349
2003:					
January	1,830	1,500	2,110	58	95
February	1,360	1,330	1,740	83	7
March:					
Australia	18	629		3	(4) 5
Austria		1			
Belarus	3 5				
Belgium	18	3	6		
Canada	328	166	168	1	
China	52	34			
Colombia	2				
Denmark		(4)			
Finland	2	(4)			(4) 5
France	58 ⁵	5			
Germany	601 5	339		23	(4) 5
Hong Kong	12	15			1 5
Iceland	(4)				
India					(4) 5
Ireland		64			
Israel	9 5				
Italy	12	1			
Japan	140	361	15		
Korea, Republic of	2 5	2		1	
Liechtenstein	2			1	
Macao	2	1			
Malaysia		6			
Mexico	14 5	10 ⁵		(4) ⁵	(4) 5
Netherlands	42	7		(4)	(4)
New Zealand	6 5	, 			
		4			
Norway	4 2 ⁵				
Philippines		1			
Romania		(4)			
Saint Lucia	(4)				
Saudi Arabia		2			
Singapore	6	1		7	
Slovenia	7 5				
South Africa		3			
Spain	16 5	1			
Sweden		5			
Switzerland	184	58	6		
Taiwan	146 5	7			
Thailand	12 5	3		1	(4) 5
United Arab Emirates	1				
United Kingdom	233 5	176	2,260	85	4 5
Total	1,930	1,910	2,450	121	6
Year to date	5,120	4,740	6,300	262	108

⁻⁻ Zero.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

 $^{^2\}mbox{Unwrought}$ and other forms.

³Gross weight.

⁴Less than 1/2 unit.

 $^{^5}$ All or part of these data have been referred to the U.S. Census Bureau for verification.