

# Mineral Industry Surveys

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#### PRECIOUS METALS IN JANUARY 2000

U.S. mines produced 27,300 kilograms (kg) of gold and 157,000 kg of silver in January 2000. Compared with December, production of gold was down 14% in California, and silver production was down by 23% in Nevada.

**Domestic.**— A significant drop in the ground-water level of northeastern Nevada has escalated a conflict between the State's mining industry and the region's farmers, ranchers, environmentalists, and Native Americans, who want to keep the region largely agricultural. Miners use a series of pumps and wells to lower the underground water table below their mining operations. Because most of Nevada is desert, underground aquifers are considered vital sources of year-round water for the environment and for irrigation. Both sides in the dispute agree that it is too soon to gauge the full impact of lower water tables. Nevertheless, as many as six springs have already dried up and dozens more are threatened. Moreover, seven new mines have been proposed for the region (Wall Street Journal, 2000).

International.—An exploration team from the Metal Mining Agency of Japan discovered, while conducting geological investigations in Papua New Guinea, promising gold veins about 140 kilometers west of Kainantu in the Highlands State. Veins were found grading as high as 35 grams of gold per metric ton. The confirmed veins were part of larger veins in the area and will be investigated further (American Metal Market, 2000a).

On January 30, an overflow containing toxic cyanide occurred along a 25-meter length of a 2,400-meter tailings dam at the Aurul gold tailings treatment plant at Baia Mare in Northwestern Romania. The incident, which contaminated rivers in Hungary and Yugoslavia, was due to exceptionally heavy rain and snow which caused a holding basin to overflow. Millions of fish were killed, water supplies had to be shut down, and a major international dispute about compensation was triggered. The plant had been expected to produce 1,500 kg of gold and 7,800 kg of silver per year (Washington Post, 2000).

*Update.*—Gold demand reached record levels in 1999 despite a sharp fall at the start of the fourth quarter because of a sudden volatility in gold prices. Demand during the year rose to 3.3 million kg, 21% above the total for 1998. Strong demand growth in India, Pakistan, and the United States helped gold consumption reach a new high. Increases in demand for jewelry and investment were the primary contributors to the record growth. Jewelry demand totaled 2.8 million kg, 23% over 1998, and investment demand totaled 479,000 kg, 8% over 1998 (World Gold Council, 2000).

Placer Dome Inc. suspended future hedging activities in expectation of an improving gold market in the near future. As a result, Placer's hedge book is expected to be reduced by at least 60,000 kg of gold by the end of 2000. During 1999, hedging allowed Placer to average \$480 per ounce on gold forward sales (American Metal Market, 2000b). Following Placer Dome's hedge cutback announcement, Barrick Gold Inc. reported that it had already reduced its hedging by 280,000 kg of gold and would suspend further hedging. Then, AngloGold, the world's leading gold producer, reported that it had reduced its hedge position by 10,000 kg of gold and that about 100,000 kg of gold, half its annual production, was unhedged (Platt's Metals Week, 2000b).

The plan to merge the various listed companies in the JCI Gold Ltd. group, prior to its move to Toronto, was formally cancelled. The decision follows the successful takeover of Randfontein Estates Ltd. by Harmony Gold Mining Co. Ltd. amidst controversial defensive tactics that involved a covert share purchasing scheme by the then chief executive of Western Areas.

Randfontein had been the target of two takeover bids; one was from Western Areas and one was from Harmony (Mining Journal, 2000).

#### Silver

Canmine Resource Corp., London, Ontario, has entered into an agreement with Agnico-Eagle Mines Ltd., to acquire a stockpile of cobalt-silver bearing material for processing at the recently acquired Canmine Refinery in Cobalt, Ontario. The cobalt-silver stockpile is estimated to contain about 16,700 kg of silver and between 227 metric tons (t) and 408 t of cobalt. At an estimated 13,140 t, this stockpile is capable of feeding the refinery for the next 2-3 years (Canmine Resources Corp., 2000)

#### **Platinum-Group Metals**

Platinum and palladium prices continued to rise during January. In the absence of Russian material to satisfy strong industrial demand, the price of palladium rose to an all time high of \$486.00 per troy ounce (oz). Following the lead of palladium, platinum prices increased but not as sharply as palladium. The higher prices for PGM reflects a shortage of supply in the face of strong demand by the auto industry and increased demand for platinum jewelry in Japan and China. Prices experienced wide swings in the first week of January after the acting Russian President signed the necessary PGM export quotas for 2000. Prices fell sharply before rebounding somewhat by January 7. The nearby April platinum contract on NYMEX fell \$8.50 on January 4, plunged \$11.80 January 5, was down another \$7.90 January 6, then gained \$2.00 to close at \$396 oz on January 7. March palladium contracts fell \$7.30 January 4, declined \$3.80 January 5, dropped \$2.80 January 6, then rose to close at \$443.90 oz on January 7 (Platt's Metal Week, 2000a). Nevertheless, after the first week of price instability, the market returned to its usual skepticism regarding Russian shipments of PGM, and prices of palladium increased throughout the remaining weeks of January. Platinum prices

reacted differently by posting a modest increase in the first week and traded in the narrow range of \$420 to \$427 per ounce the remainder of the month.

*Update.*—On April 4, 2000, the Defense National Stockpile Center, Fort Belvoir, VA, announced the continuing availability of approximately 102.642 kilograms of platinum. The Defense Logistics Agency issued Amendment no. 3 under Basic Ordering Agreement DLA-PGM-001 on March 23, 2000. This amendment describes the material available for sale. Quoters are invited to access the PGM website at www.dnsc.dla.mil for notification of daily sales. All of the material being offered conforms to the specifications for "London Good Delivery." The material is 99.95% pure and is stamped with the Engelhard mark. For additional information or other inquiries, call Cheryl Deister at (703) 767-5475 (Defense National Stockpile Center, 2000).

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

### (Kilograms)

		·		Other	
Gold	Alaska	California	Nevada	States 2/	Total
1999:					
January	1,310	1,340	21,400	4,020	28,100
February	1,210	1,170	20,700	3,690	26,800
March	1,310	1,440	20,900	4,270	27,900
April	1,380	1,440	21,400	4,350	28,600
May	1,340	1,460	21,700	4,180	28,600
June	1,310	1,520	22,600	4,270	29,700
July	1,390	1,420	20,200	4,400	27,400
August	1,390	1,350	21,100	4,350	28,200
September	1,360	1,370	21,300	4,300	28,300
October	1,260	1,540	21,400	4,390	28,600
November	1,180	1,640	21,800	4,410	29,100
December	1,260	1,810	21,400	4,580	29,100
January-December	15,700	17,500	256,000	51,200	340,000
2000:	_				
January	W	1,550	21,400	4,300	27,300
•				Other	
Silver	Arizona	Idaho	Nevada	States 3/	Total
1999:					
January	15,400	34,600	48,100	63,900	162,000
February	14,700	31,200	49,000	56,900	152,000
March	17,600	34,600	67,100	60,800	180,000
April	16,500	34,500	46,000	71,000	168,000
May	17,200	35,700	42,400	67,200	162,000
June	16,200	34,500	48,100	69,000	168,000
July	16,600	35,700	36,900	67,800	157,000
August	14,600	35,700	37,100	63,900	151,000
September	13,900	34,900	45,100	62,500	156,000
October	13,500	35,700	46,100	63,000	158,000
November	12,100	34,900	39,000	61,000	147,000
December	14,700	34,900	72,400	61,900	184,000
January-December	183,000	417,000	577,000	769,000	1,950,000
2000:	_ , , , ,	, ,		*	, , , , , , , , , , , , , , , , , , , ,
January		34,900	56,100	65,900	157,000
		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	•	

W Withheld to avoid disclosing company propriety data.

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.

<sup>2/</sup> Includes Arizona, Colorado, Idaho, Montana, New Mexico, South Carolina, South Dakota, Utah, and Washington.

<sup>3/</sup> Includes Alaska, California, Colorado, Missouri, Montana, New Mexico, New York, South Carolina, South Dakota, Tennessee, Utah, and Washington.

#### TABLE 2 SELECTED PRECIOUS METAL PRICES

### (Dollars per troy ounce)

	Gold Silver Platinum		Platinum	Palladium
Engelhard Industries:				
1999:				
Low/date	253.88 (July 20)	4.91 (January 4, April 14,		
		May 28, and June 4)	344.00 (January 28)	293.00 (May 4)
High/date	326.70 (October 5)	5.75 (September 28)	457.00 (November 16)	456.00 (December 29)
Average	279.91	5.25	378.94	363.20
2000:				
January:				
Low/date	280.52/6	5.13/18	416.00/6	437.00/6
High/date	289.24/20	5.39/27	497.00/28 and 31	490.0/31
Average	285.45	5.23	443.30	457.65
February:				
Low/date	284.13/1	5.08/28	475.00/25	491.00/1
High/date	313.88/7	5.53/7	573.00/17	815.00/22
Average	300.75	5.29	519.95	637.40
Year to date				
Low/date	280.52 (January 6)	5.08 (February 28)	4.16.00 (January 6)	437.00 (January 6)
High/date	313.88 (February 7)	5.39 (January 27)	573.00 (February 17)	815.00 (February 22)
Average	293.10	5.26	481.63	547.53
Handy and Harman:				
1999:				
Average	278.81	5.25	XX	XX
2000:				
January	284.26	5.23	XX	XX
February	299.60	5.30	XX	XX
Average year to date	291.93	5.27	XX	XX
London Final: 1/				
1999:				
Average	278.77	5.22	XX	XX
2000:				
January	284.32	5.19	XX	XX
February	299.86	5.25	XX	XX
Average year to date	292.09	5.22	XX	XX
VV Not applicable				

XX Not applicable.

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

Source: Platt's Metals Week.

## $\begin{tabular}{ll} TABLE & 3 \\ U.S. & IMPORTS & AND & EXPORTS & OF GOLD & 1/2 \\ \end{tabular}$

(Kilograms of gold content, unless otherwise specified)

	Ores and	Doré and	Refined	Ash and		Waste and scrap	Metal powder	Gold compounds
Period and country	concentrates 2/	precipitates	bullion 3/	residues	Total 4/	(gross weight)	(gross weight)	(gross weight)
Imports for consumption:								
1998	2,540	14,100	257,000	4,670	278,000	16,700	12,800	9,820
1999:								
October	1	1,620	11,700	2	13,300	2,760	291	1,090
November	8	3,570	21,400	29	25,000	3,190	457	1,330
December:								
Argentina		128			128			
Brazil			3,640		3,640	1		
Canada		7	3,790		3,800	391	188	
Chile		231	610		840			
Colombia		24	828		851	1		923
Costa Rica		18	1		19	388		
Dominican Republic			5		5	4,170		
Ecuador			136		136	11		
Honduras		47	115		163			
Japan							1	304
Mexico		466	187	1	655	689		
Nicaragua		53	222		275			
Peru		476	1,190		1,660	1		
United Kingdom		1,490	584		2,080			
Other	3	5	141		149	103	1	
Total	3	2,950	11,400	1	14,400	5,760	190	1,230
Year to date	117	24,300	196,000	133	220,000	30,500	5,500	9,400
Exports:								
1998	401	91,600	430,000		522,000	58,900	196	781,000
1999:								
October	1	9,200	26,000		35,200	5,070	7	9,710
November	9	7,910	97,100		105,000	4,310	24	28,600
December:	:							
Belgium						178		
Canada		410	51		461	2,540	17	5,610
France						·	1	47
Ireland	1				1		9	
Israel							1	18,400
Japan		3	6		9	1	1	1
Korea, Republic of			16		16		3	
Mexico		223	1,460		1,680			113
Papua New Guinea							1	
Peru			465		465			
Saudi Arabia			407		407			
Singapore		5			5		1	
Sweden						80	3	
Switzerland		9,230	59,800		69,000		4	104
United Kingdom			5,420		5,420	4,260	3	60
Other		1	118		119	63		65
Total	1	9,870	67,800		77,600	7,120	43	24,400
Year to date	117	87,300	435,000		523,000	40,000	270	561,000

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.

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

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

<sup>4/</sup> "Waste and scrap," "Metal powder," and "Gold compounds" not included in "Total."

TABLE 4 U.S. IMPORTS AND EXPORTS OF SILVER, REFINED AND AS  $\,$  NITRATE 1/

### (Kilograms)

	Bullion	Doré	Total	Other unwrought silver	Metal powder	Silver nitrate
Period and country	(silver content)	(silver content)	(silver content)	(gross weight)	(gross weight)	(gross weight)
Imports for consumption:	-					
1998	_ 2,800,000	340,000	3,140,000	102,000	129,000	8,030
1999:	_					
October	_ 210,000	18,500	229,000	3,290	7,970	42
November	214,000	17,700	232,000	24,500	10,200	
December:	_					
Belgium						1,080 2
Canada	91,200		91,200	3,170 2/	878	
Chile	2,250	2,100 2/	4,350			
Colombia		505	505			
Germany					803	
Japan					12,100	
Mexico	101,000	6,430	107,000	185	(2/)	
Nicaragua	87	´ <u></u>	87			
Peru	10,000	1,920 2/	11,900			
South Africa	4,610		4,610			
Other					1	
Total	209,000	10,900	220,000	3,360	13,800 2/	1,080
Year to date	2,660,000	404,000	3,060,000	126,000	120,000	4,450
	_ 2,000,000	404,000	3,000,000	120,000	120,000	4,430
Exports: 1998	2 250 000	241,000	2 400 000	20,000	200,000	164,000
-	_ 2,250,000	241,000	2,490,000	39,900	299,000	164,000
1999:	- 1.200	1 400	2.550	7.060	20.700	1.200
October	1,280	1,490	2,770	7,060	20,700	1,390
November	15,900	2,420	18,400	4,900	25,300	22,400
December:	_					
Belgium				59		20
Canada	_ 108		108	471	1,650	734
China					1,420	
Colombia	212		212			
Denmark				140	26	
Dominican Republic				653		
France	51		51			
Germany				2,540	4,080	
Hong Kong	- 			317	3,450	
India	- 				92	
Japan	- 				14,800	
Korea, Republic of	- 			232	1,050	
Mexico	- 662	3,690	4,350		204	8,490
Netherlands		5,070	1,550	474	1,040	0,170
Oman				183	1,040	
Singapore	1,140	<del></del>	1,140	103	33	
	- 1,140	<del></del>	1,140	<del></del>		
Sweden		1 290	1 200		1,590	
Switzerland		1,380	1,380	1.020	25	
Taiwan	_ 834		834	1,030	1,860	
Thailand	- -			400		
United Kingdom	_ 54		54	257	765	
Other				9		
Total	3,070	5,070	8,130	6,770	32,100	9,240
Year to date	481,000	64,400	545,000	75,100	318,000	62,500

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.
2/ All or part of these data have been reffered to the Bureau of Census for verification.

<sup>3/</sup> Less than 1/2 unit.

 ${\bf TABLE~5} \\ {\bf U.S.~IMPORTS~AND~EXPORTS~OF~SILVER,~RAW,~SEMIMANUFACTURED,~AND~WASTE~AND~SCRAP~} 1/$ 

(Kilograms of silver content, unless otherwise specified)

Period and country	Silver ores and concentrates	Base metal ores and concentrates	Ash and residues	Total	Semimanu- factured form 2/3/ (gross weight)	Waste and scrap (gross weight)
Imports for consumption:	=					
1998	181,000	14,200	47,200	243,000	181,000	1,800,000
1999:	-		4.650	4.710	25.000	100.000
October	_ 63		4,650	4,710	25,900	100,000
November	80		9,790	9,870	30,100	63,500
December:	_		125	125		20
Australia			125	125	1,430	20
Brazil Canada	 81		1,410	1,490	2,760	12,100
China			1,410	1,490	2,700	364
Dominican Republic	- <del></del>					502
Germany					937	181
Israel	-				1	1,140
Italy	- 				123	
Malaysia	- 					7,360
Mexico	- 				2,590	35
Panama	- 				2,370	184
Peru	- 					506
Poland	- 				320	
Singapore	- 					86
South Africa	- 					615
United Kingdom	- 		3,200	3,200	300	519
Other	- 		4	4	124	108
Total	81		4,740	4,820	8,580	23,700
Year to date	10,800	2,750	101,000	115,000	139,000	1,640,000
Exports:	-					
1998 1999:	6,540			6,540	154,000	1,060,000
October	16,400			16,400	10,900	110,000
November	44			44	7,690	98,300
December:						_
Argentina	<del></del>				61	
Belgium					438	7,270
Canada	<del></del>				1,700	46,700
China					95	8,560
France					217	37
Germany					108	4,320
Hong Kong					312	225
Israel					99	
Italy					851	
Japan					453	22,200
Korea, Republic of					52	
Mexico					603	
New Zealand					79	
Poland						479
Singapore					368	
South Africa						4,520
Spain	<del></del>				1,420	
Sweden						4,240
Taiwan	<del></del>				1,500	
United Kingdom					509	373
Vietnam						66
Other	- <del>-</del>			-	171	
Total	- 70.000			70.000	9,040	99,000
Year to date	70,800			70,800	122,000	1,310,000

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.

<sup>2/</sup> Containing 99.5% or more by weight of silver. Imports only.

<sup>3/</sup> Semimanufactured (including silver plated with gold or platinum) forms of silver.

TABLE 6
U.S. IMPORTS OF PLATINUM-GROUP METALS 1/

(Kilograms of metal content, unless otherwise specified)

	Platinum grain and	Platinum	Other unwrought	Platinum,	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/
Imports for consumption:		- 1 - 2 ·	<b>,</b>									
1998	2,670	72,700	10,200	11,200	3,580	451	160,000	16,300	1,950	71	8,880	13,400
1999:												
October	155	9,940	170	566	91	28	12,900	1,510	75		778	617
November	2,190	5,510	251	705	16,000	7	14,200	566	78		1,440	539
December:												
Australia				155	3	(4/)						
Belgium	40	282 5/	68				439					(4/)
Brazil				95								
Canada	2			23	26	(4/)	413	103				
Chile			9									(4/)
China							50					
Colombia			51									
Costa Rica					19							
Dominican Republic					2 5	/						
Germany		184	42	63	10		324	151	12		85	16
Hong Kong					20							
Ireland	31											3
Israel			33									
Italy		41					130	1				
Japan				364			680	2				
Korea, Republic of					18							
Malaysia					2							
Mexico	8				15 5	/						
Mongolia						2						
Netherlands				3								
Norway		16					109					
Russia			2,010				12,600	2,280			153	
Saudi Arabia					6 5	/						
Singapore				33								
South Africa	62	3,750		1			2,210	46	156		963	482
Spain				20			,					
Switzerland			1	115 5	/		40	49 5/				
Taiwan		245	1									
United Kingdom		498	1	53 5	22		220	283	13 5	5/	12	62 5
Total	143	5,010	2,220	926	142	2	17,200	2,920	181		1,210	564
Year to date	6,100	78,300	7,820	16,500	19,700	169	165,000	24,100	2,270	23	11,400	10,500

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.

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

<sup>3/</sup> Unwrought and other forms of rhodium.

<sup>4/</sup> Less than 1/2 unit.

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

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

(Kilograms of metal content, unless otherwise specified)

Period and country	Palladium 2/	Platinum 2/	Platinum waste and scrap	Iridium, osmium and ruthenium 2/3/	Rhodium 2/
Exports:	Fanaulum 2/	Flatiliulli 2/	scrap	Tuttlettiutti 2/ 3/	Kiloululli 2/
1998	36,700	14,300	6,570	905	811
1999:	30,700	14,500	0,570	903	011
October	6,180	1,140	1,250	121	19
November	5,760	1,450	692	130	8
December:	3,700	1,430	0)2	130	
Australia	13	8			
Belgium	256	16	3		6
Canada	104	49	27	2	
China	416	7)	21	2	
Denmark	1		<del></del>	<del></del>	
Finland	1	2			
	17	5			
France	422		124	1.4	
Germany		528	124	14	9
Hong Kong	1	2		(4/)	
Iceland	1	1		<del></del>	
India		4	3		
Ireland		146		5	
Israel	447	3		<del></del>	
Italy	23	21		4	
Japan	201	856	12	4	
Korea, Republic of	215				
Kuwait		2		2	
Luxembourg	1				
Malaysia	3				
Mexico	5	9	(4/)	1	
Netherlands	76	14			
New Zealand	5				
Norway	8				
Romania		1			
Saudi Arabia		8			
Seychelles		9			
Singapore	2	1			
South Africa				1	
Spain	14	2			
Sweden	22	2	(4/)		
Switzerland	4	533			
Taiwan	987	142			
Thailand	2	2		<u></u>	
United Arab Emirates	(4/)			<del></del>	
United Kingdom	115	78	120	8	
Total	3,360	2,440	289	41	15
Year to date	44,000	19,400	7,660	851	114

<sup>1/</sup> Data are rounded to 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 1/2 unit.